

GIBSON DUNN

Federal Circuit Year in Review 2018/2019

Intellectual Property and Appellate Practice Groups



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TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
ACKNOWLEDGEMENT	2
GIBSON DUNN’S FEDERAL CIRCUIT CLERKS	3
STATISTICAL ANALYSIS	5
INDEX BY ISSUE	26
CASE SUMMARIES	41
ALPHABETICAL INDEX OF ALL CASES.....	142

INTRODUCTION

The Federal Circuit's 2018–2019 term saw a number of important developments in patent law. The court issued published opinions in a total of 115 cases, including two en banc decisions. This term included significant panel decisions in patent law jurisprudence with regard to subject matter eligibility (*e.g.*, *Athena Diagnostics, Inc. v. Mayo Collaborative Services, LLC*, 915 F.3d 743 (Fed. Cir. 2019), and *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306 (Fed. Cir. 2019)), venue for patent cases (*e.g.*, *In re Google*, 914 F.3d 1377 (Fed. Cir. 2019)), and the application of IPR proceedings to pre-AIA patents (*Celgene Corp. v. Peter*, 931 F.3d 1342 (Fed. Cir. 2019)). Each of these decisions, as well as all other precedential decisions issued by the Federal Circuit in the 2018–2019 term, is summarized in the pages that follow.

There are several notable trends borne out by the statistics this year. For example, the percentage of appeals from the PTO compared to those from district courts has leveled out at around 40%. Just three years ago, the percentage of appeals from the PTO was closer to 30%, with the percentage peaking last year at 42%. The time from oral argument to written decision continued to decline, down to 135 days on average from 157 last term and 182 days the prior term. This term also saw the number of appeals from the District of Delaware continue to increase, with nearly double the number of appeals from the District of Delaware compared to appeals from the Eastern District of Texas and the Northern District of California combined.

There are more analytics in the pages that follow, as well as summaries of the precedential decisions from the Federal Circuit this term. We hope this information serves you well this coming year. As always, if we can answer any questions, please do not hesitate to contact us.



Mark A. Perry
Partner | Washington, D.C.
202.887.3667
mperry@gibsondunn.com

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Project Managers

Omar Amin
Nathan Curtis

Office Coordinators

Jordan Bekier
Jaysen Chung
Kate Dominguez
Jessica Hudak
Ryan Iwahashi
Christine Ranney
Andrew Robb
Florina Yezril

Reviewers

Brian Andrea
Wendy Cai
Amanda First
Oliver Fong
David Glandorf
Taylor King

Paul Kremer
Sung Bin Lee
Rustin Mangum
Shaun Mathur
Casey McCracken
Ashbey Morgan
Emil Nachman

Shyam Shanker
Philip Spear
Eric Syu
Dillon Westfall
Andrew Wilhelm
Shuo Josh Zhang

GIBSON DUNN'S FEDERAL CIRCUIT CLERKS

Gibson Dunn is proud to have as key members of its Appellate and Intellectual Property practices 13 former clerks from the U.S. Court of Appeals for the Federal Circuit:



William C. Rooklidge (Former Chief Judge Nies, 1985–1987), a partner in the Orange County office of Gibson Dunn, joined the firm in 2015. A member of the firm's Litigation Department and Intellectual Property Practice Group, he has extensive experience in patent and trademark infringement litigation in the federal district courts and before the United States Court of Appeals for the Federal Circuit, as well as arbitration of patent disputes.



Brian Buroker (Judge Bryson, 1996–1997) is a partner in Gibson Dunn's Washington, D.C. office and is a member of the firm's Intellectual Property Practice. He is a member of the firm's Intellectual Property Practice, focusing on patent litigation, appeals and complex patent issues, having tried patent cases, litigated many patent cases to resolution, argued cases at the Federal Circuit and handled complex patent reexaminations, covered business method review and *inter partes* review proceedings at the U.S. Patent Office.



Stuart M. Rosenberg (Former Chief Judge Michel, 2007–2008) is a partner in the Palo Alto office of Gibson Dunn, where his practice focuses on intellectual property litigation. He has represented clients in a variety of industries and technologies, including software, consumer electronics, medical devices, sporting goods, and automotive design.



Kate Dominguez (Judge Taranto, 2013–2014) is a partner in the New York office of Gibson Dunn and is a member of Gibson Dunn's Intellectual Property Practice Group. Ms. Dominguez has litigated patent cases across a broad spectrum of technologies, including global positioning systems, interactive television, intrusion detection, mobile communications, and wireless networking.



Nathan R. Curtis (Judge Dyk, 2011–2012) is an associate in the Dallas office of Gibson Dunn, where his practice focuses on intellectual property litigation before district courts, the Patent Trial and Appeal Board, and the U.S. International Trade Commission. Mr. Curtis litigates intellectual property cases in a wide range of technological fields, including telecommunications, computer architecture, medical devices, semiconductors, and manufacturing.



Christine Ranney (Judge Newman, 2013–2015) is an associate in the Denver Office of Gibson Dunn and is a member of the firm's Litigation department, where she focuses on patent litigation. Before her clerkship, Ms. Ranney was an analyst in a leadership development program at Merck & Co.



Jaysen Chung (Former Chief Judge Rader, 2014) is an associate in the San Francisco office of Gibson Dunn and is a member of the firm's Litigation department. He focuses on patent and appellate litigation, and has experience in a range of arts and practices, including pharmaceuticals, DNA sequencing applications, RF switch circuits, and semiconductor products and processes.



Omar Amin (Judge Reyna, 2014–2015) is an associate in the Washington, D.C. office of Gibson, Dunn & Crutcher and is a member of the firm's Litigation department. His practice focuses on patent litigation, and he has experience in a range of technologies, including consumer electronics, analog and digital circuits, software, medical devices, and telecommunication networks.



Ryan Iwahashi (Judge O'Malley, 2014–2015) is an associate in the Palo Alto office of Gibson, Dunn & Crutcher and is a member of the firm's Litigation department. His practice focuses on intellectual property litigation and he has experience in a range of technologies, including software, consumer electronics, and medical devices.



Andrew Robb (Judge Dyk, 2014–2015) is an associate in the Palo Alto office of Gibson Dunn. He is a member of the firm's Litigation department, with a focus on intellectual property and other technology-based litigation. He has litigated cases across a broad range of industries and technologies, including wireless telecommunications, consumer fitness devices, mobile gaming network architecture, and mechanical sleep aids.



Taylor King (Judge O'Malley, 2016–2017) is an associate in the Orange County office of Gibson Dunn. Taylor is a member of the firm's Litigation department and his practice focuses on intellectual property litigation and appeals. He has represented clients in a variety of industries and technologies, including electronics, medical devices, vehicle emissions, sporting goods, e-commerce, and pharmaceuticals.



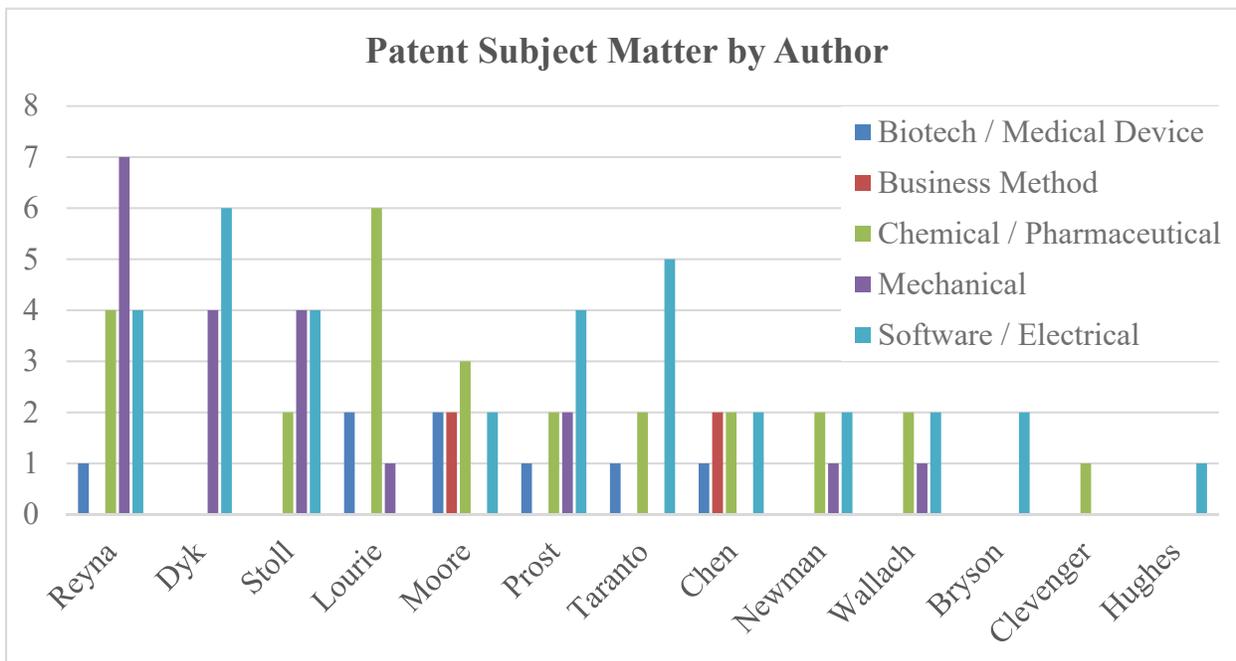
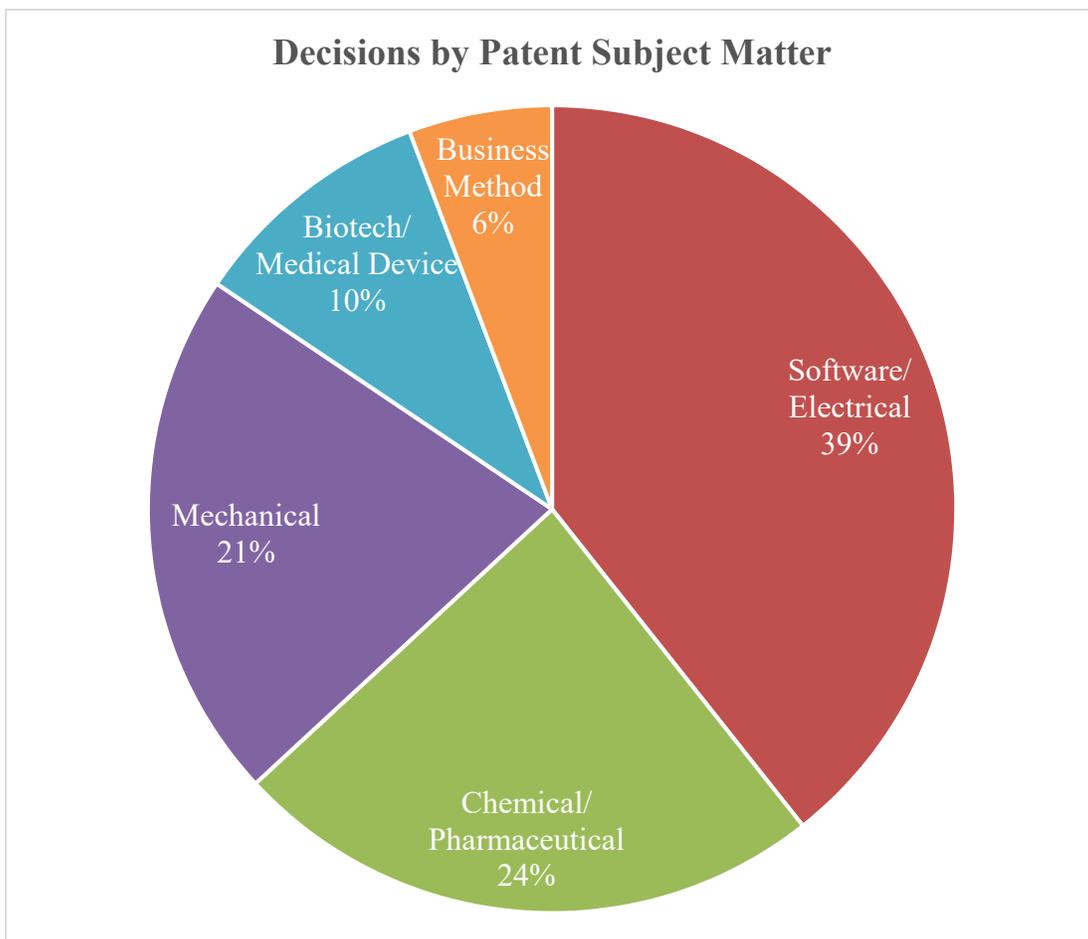
Andrew Wilhelm (Judge Reyna, 2016–2017) is an associate in the Washington, D.C. office of Gibson Dunn. Andrew is a member of the firm's Litigation department. His work focuses on appellate litigation and dispositive trial briefing. He is active in several federal courts of appeals, including the Federal Circuit and United States Supreme Court.



Jessica Hudak (Chief Judge Prost, 2016–2018) is an associate in the Orange County office of Gibson Dunn. Jessica is a member of the firm's Litigation Department and her practice focuses on intellectual property litigation at both the trial and appellate levels. Jessica has experience in a range of technologies, including medical devices, pharmaceuticals, and consumer electronics. Jessica brings with her to Gibson Dunn over a decade of patent prosecution experience.

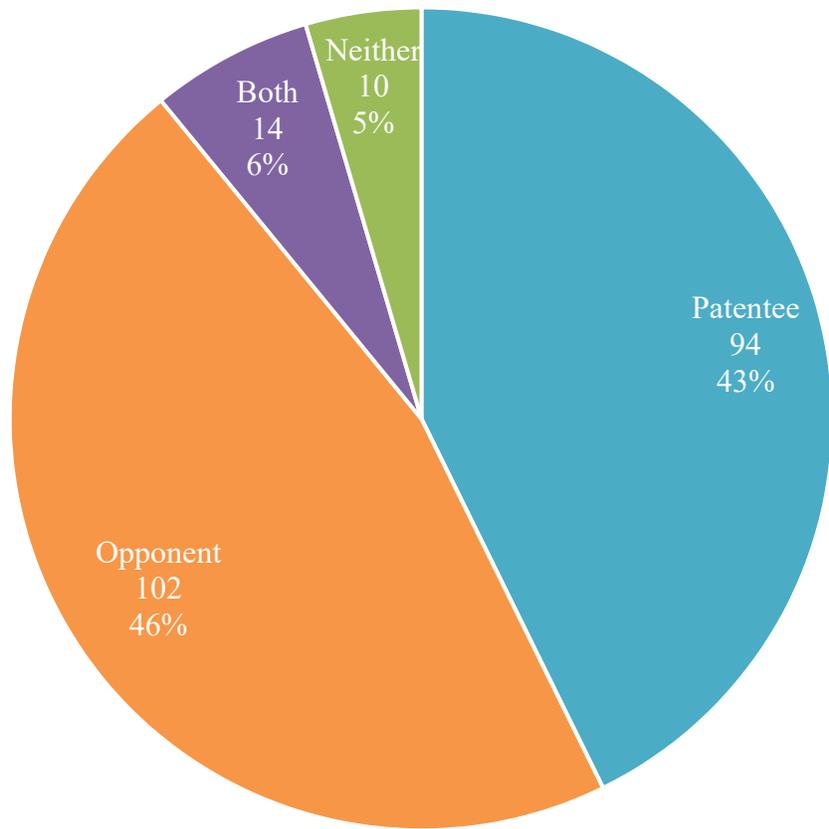
STATISTICAL ANALYSIS
(August 1, 2018 – July 31, 2019)

Number of Precedential Patent Cases Decided:	115
Average Time:	
Lower Tribunal Decision to Federal Circuit Oral Argument	468 Days
Lower Tribunal Decision to Federal Circuit Decision	586 Days
Docketing to Federal Circuit Oral Argument	407 Days
Docketing to Federal Circuit Decision	536 Days
Oral Argument to Federal Circuit Decision	135 Days
Number of <i>En Banc</i> Cases Decided	2
Judge Authoring the Most Opinions	Reyna (19)
Judge Authoring the Most Majority Opinions	Reyna (16)
Judges Authoring the Fewest Majority Opinions	Tie: Mayer (0), Plager (0), Schall (0)
Judges Authoring the Most Concurring Opinions	Tie: Hughes (1), Mayer (1), Newman (1), O'Malley (1), Reyna (1), Taranto (1)
Judge Authoring the Most Dissenting Opinions	Newman (4)
Judge Authoring the Fewest Dissenting Opinions	Tie: Bryson (0), Chen (0), Clevenger (0), Hughes (0), Linn (0), Moore (0), Plager (0), Schall (0), Taranto (0)
Active Judges Who Authored the Most Unanimous Decisions	Reyna (13)
Top 5 District Courts in Number of Appeals	District of Delaware (45), Northern District of California (25), Eastern District of Texas (10), District of New Jersey (7), Southern District of California (5)
Number of Cases With Amicus Briefs	14
Final Decisions on Validity of the Patent	Valid 22 / Invalid 32 / Both 6





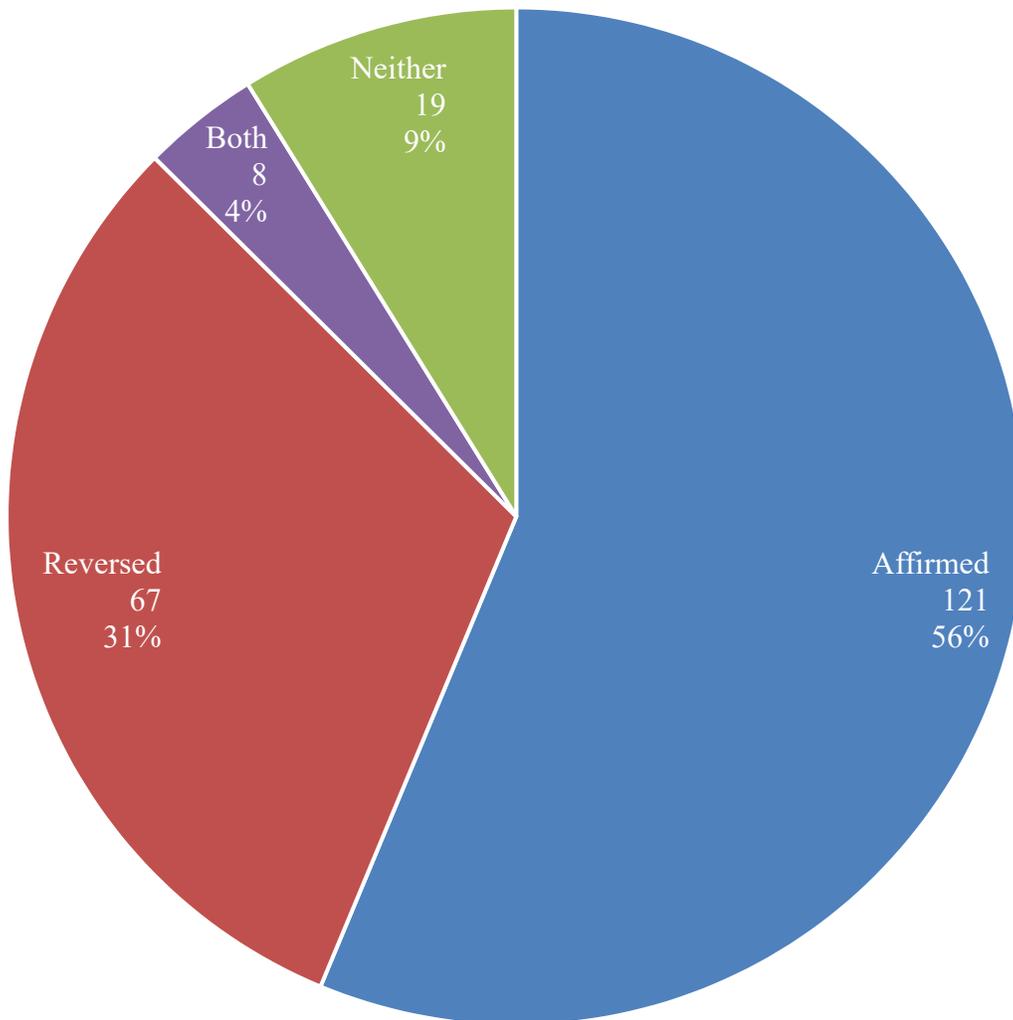
Overall Outcomes: Party Win Rate



■ Patentee ■ Opponent ■ Both ■ Neither

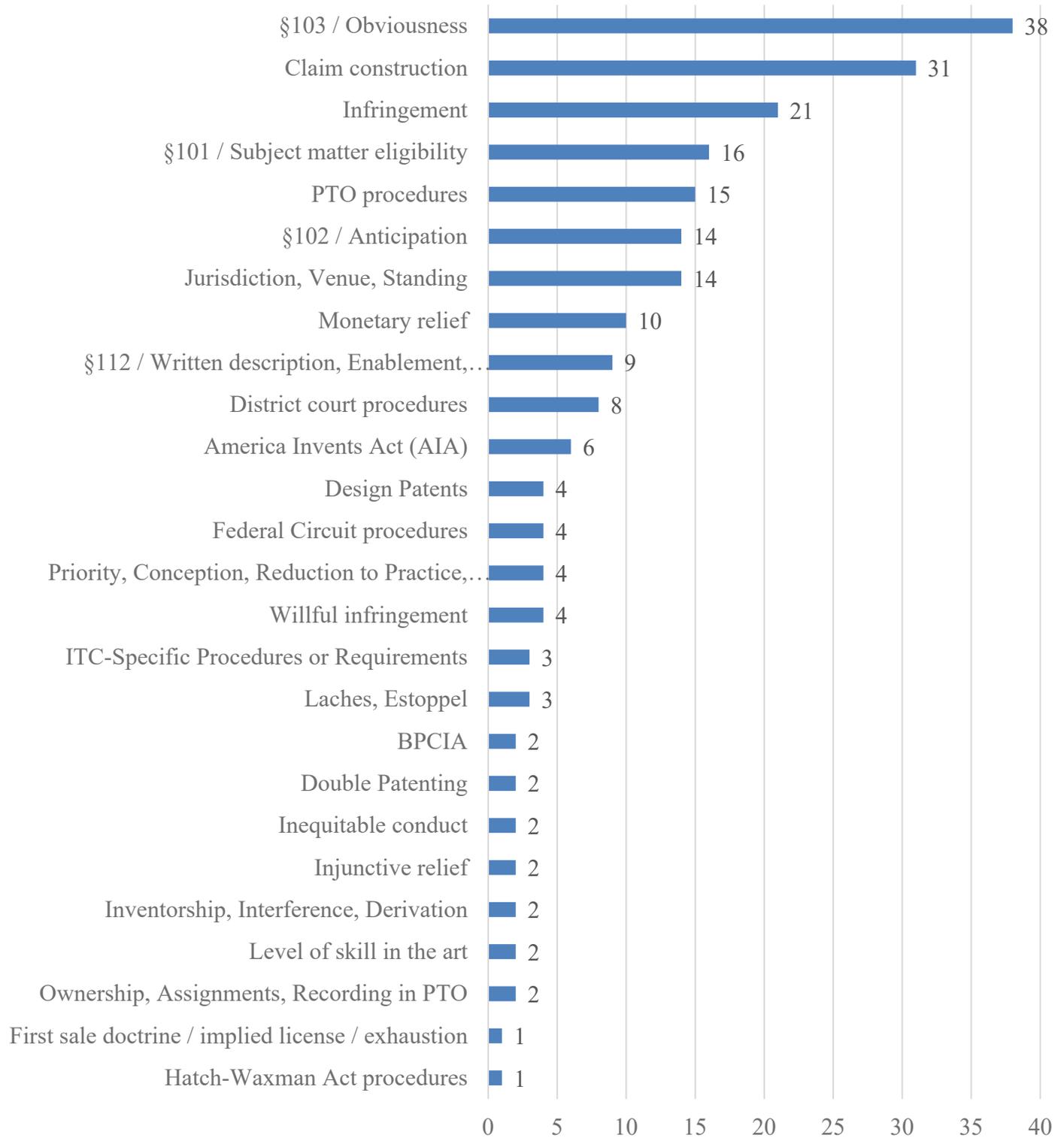


Overall Outcomes: Affirmance/Reversal

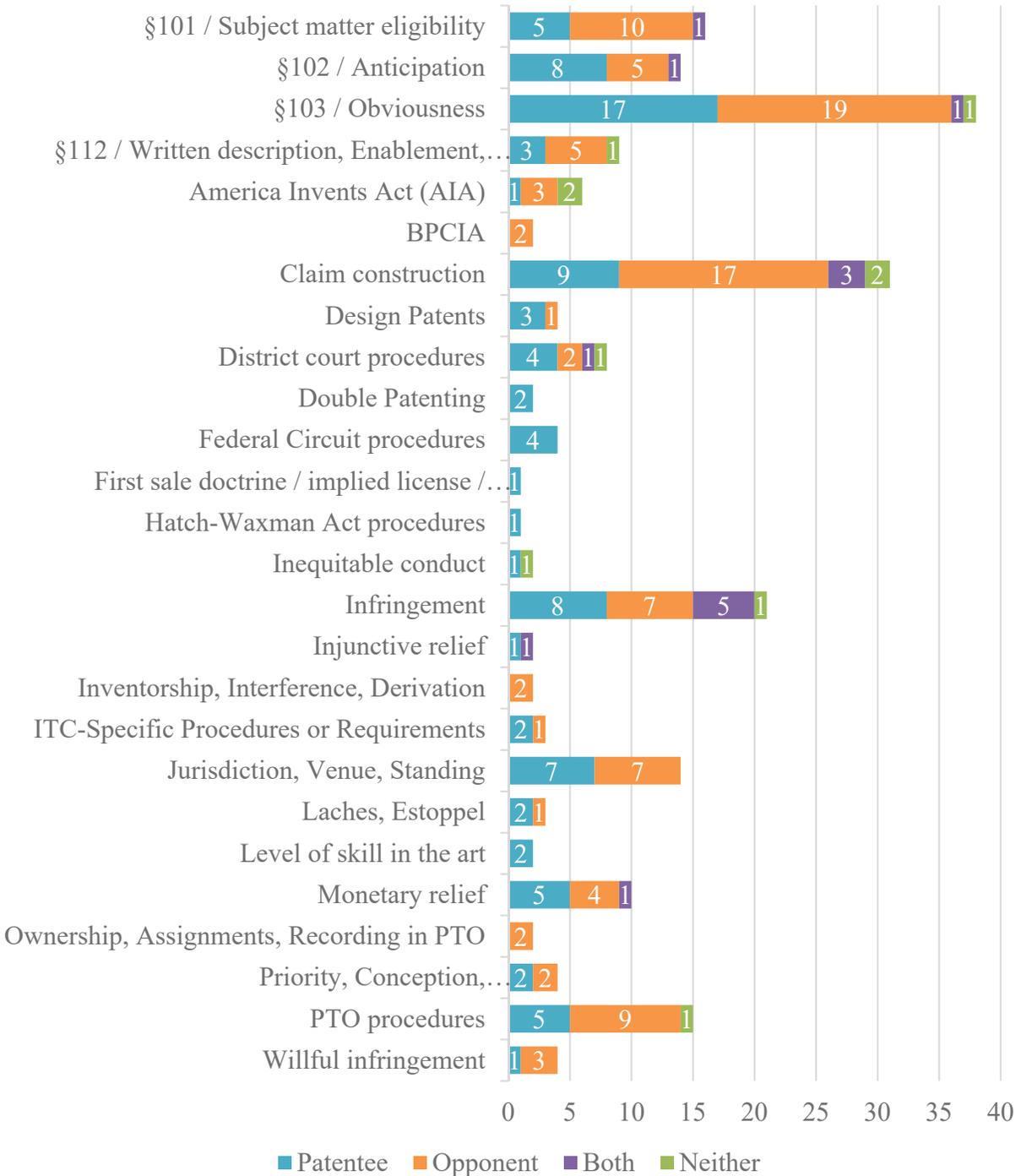




Top Issues

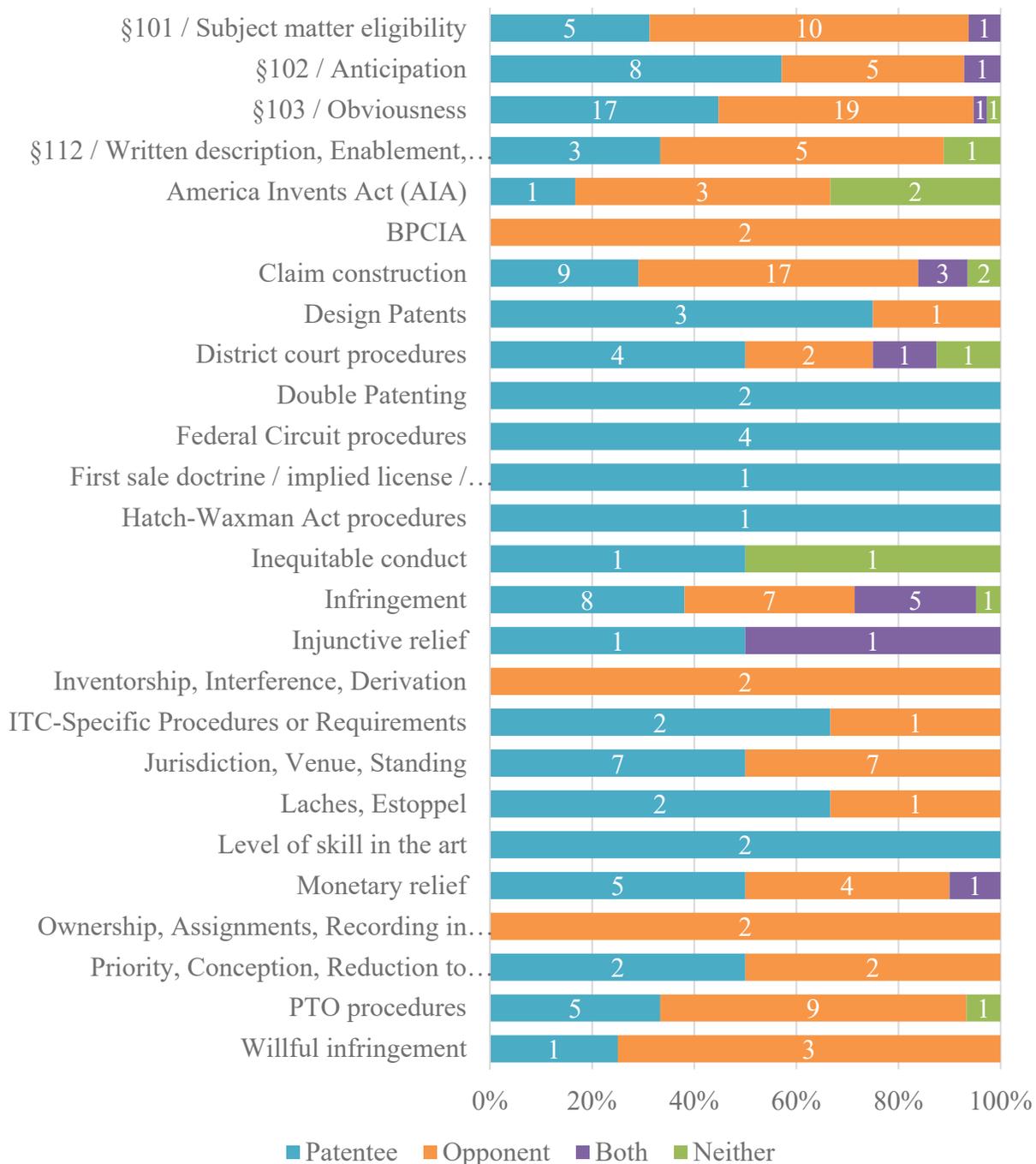


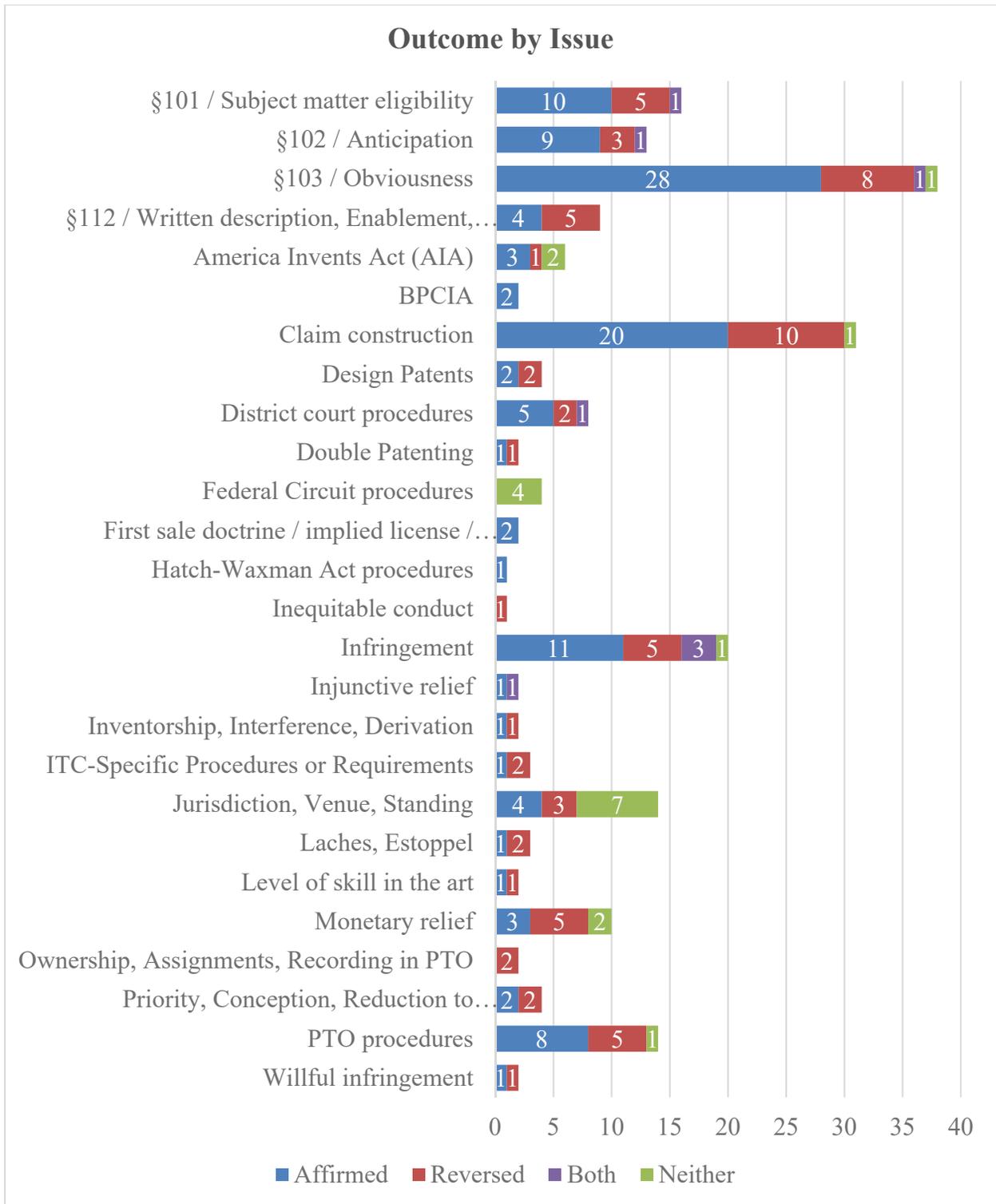
Winning Side by Issue



Winning Side Rates by Issue

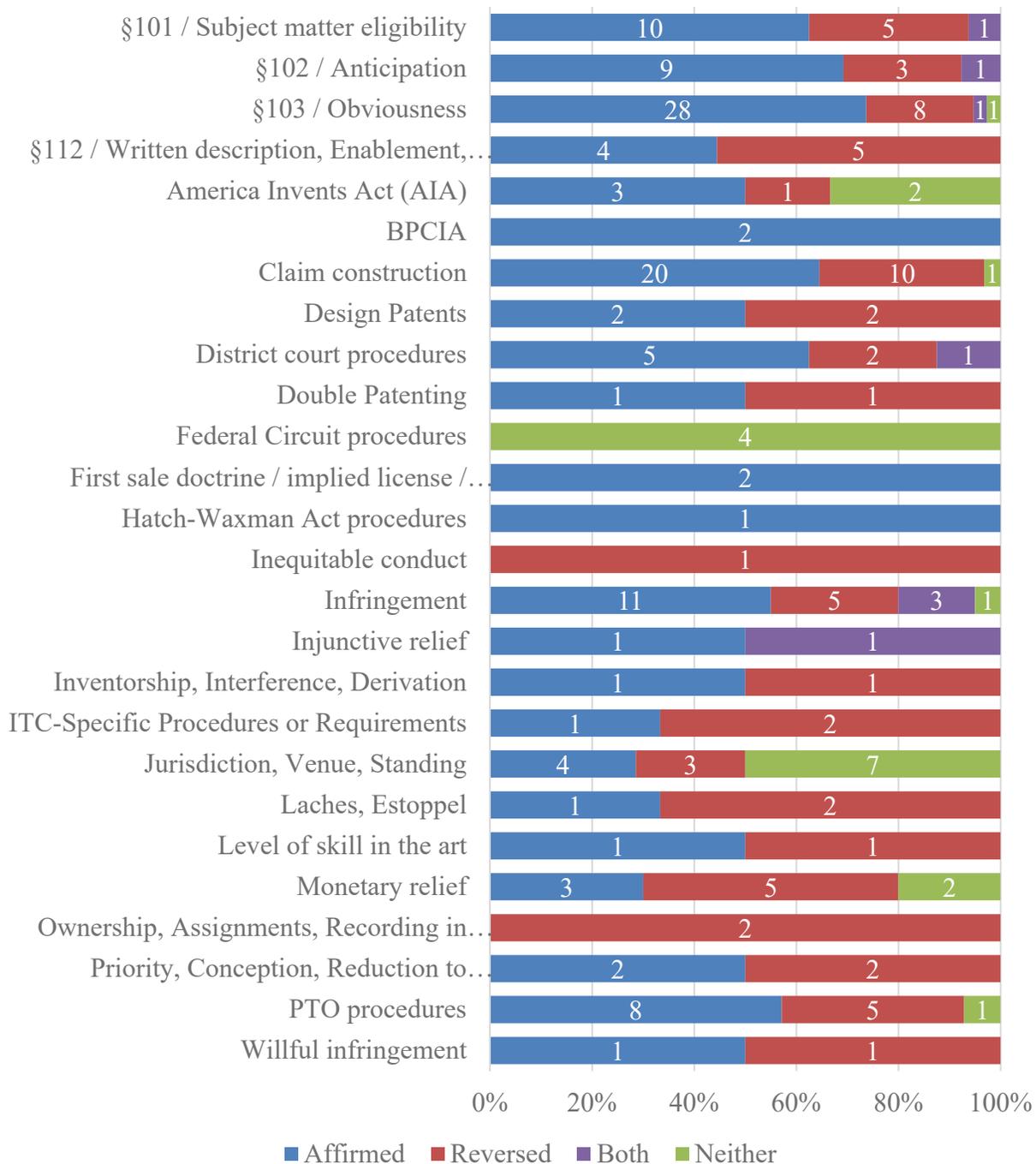
Decision counts shown in bar graph

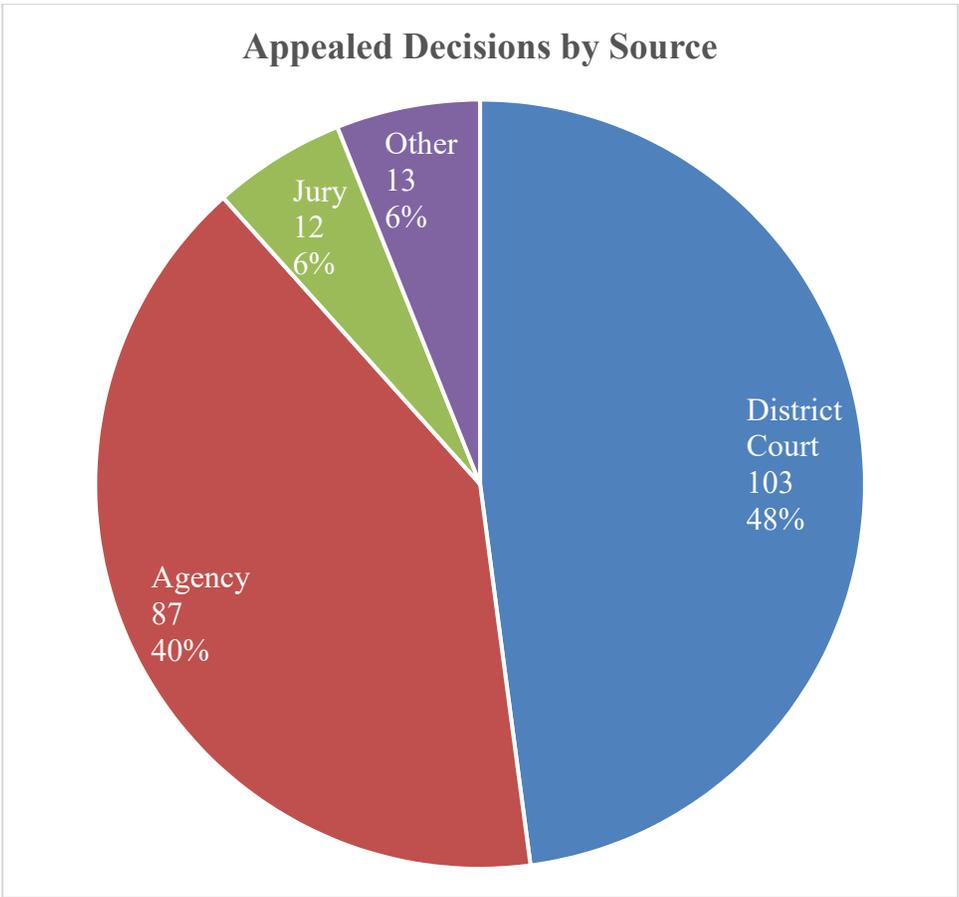




Outcome Rates By Issue

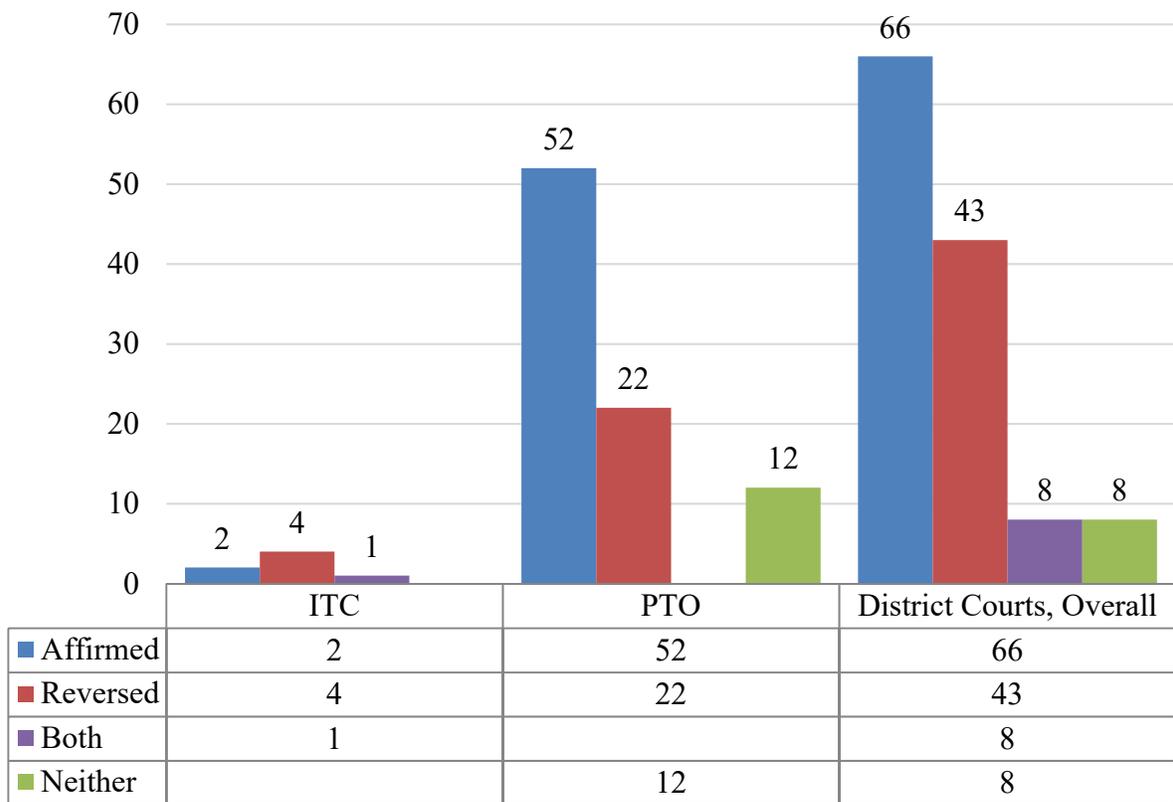
Decision counts shown in bar graph



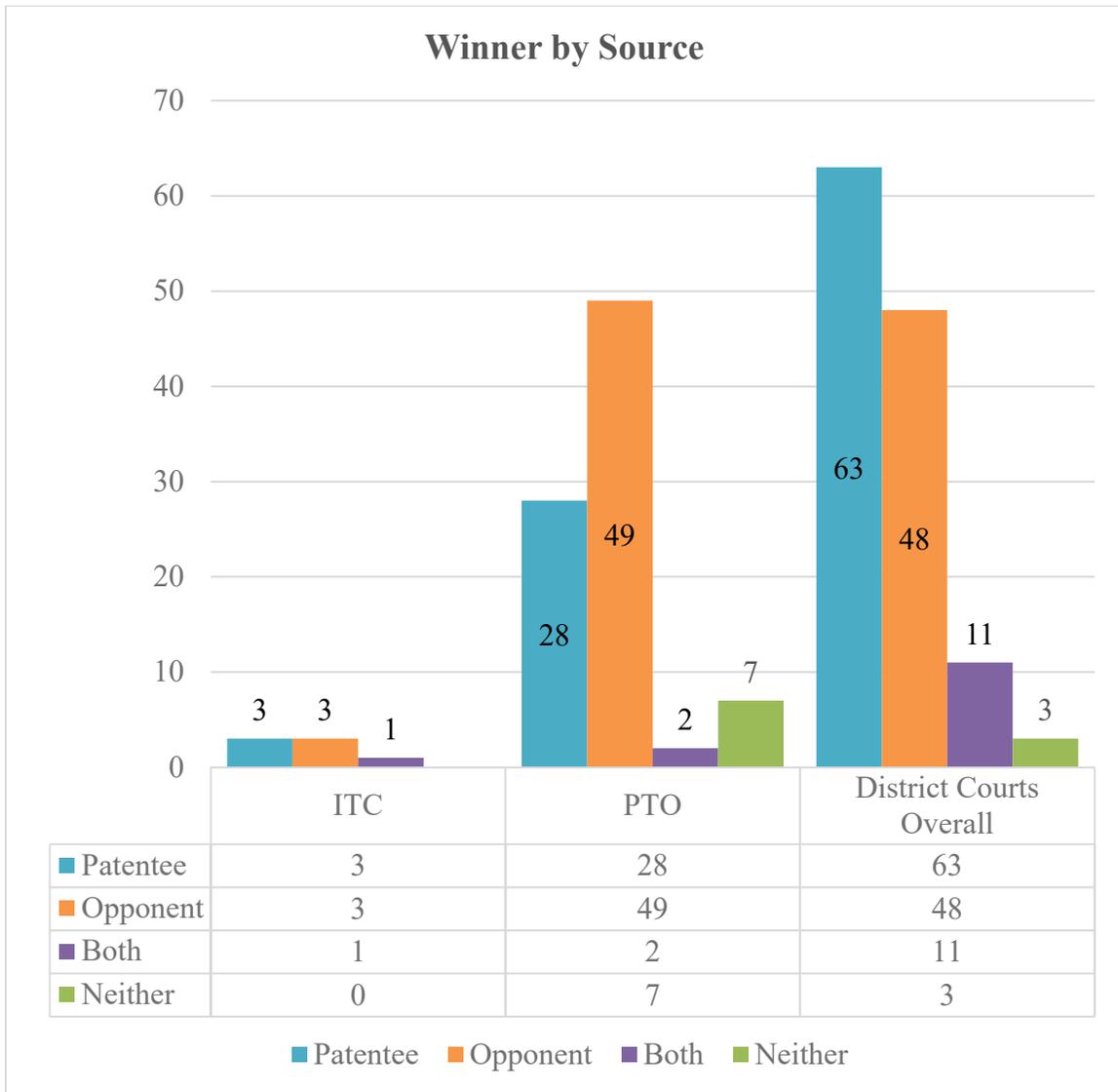




Outcome by Source



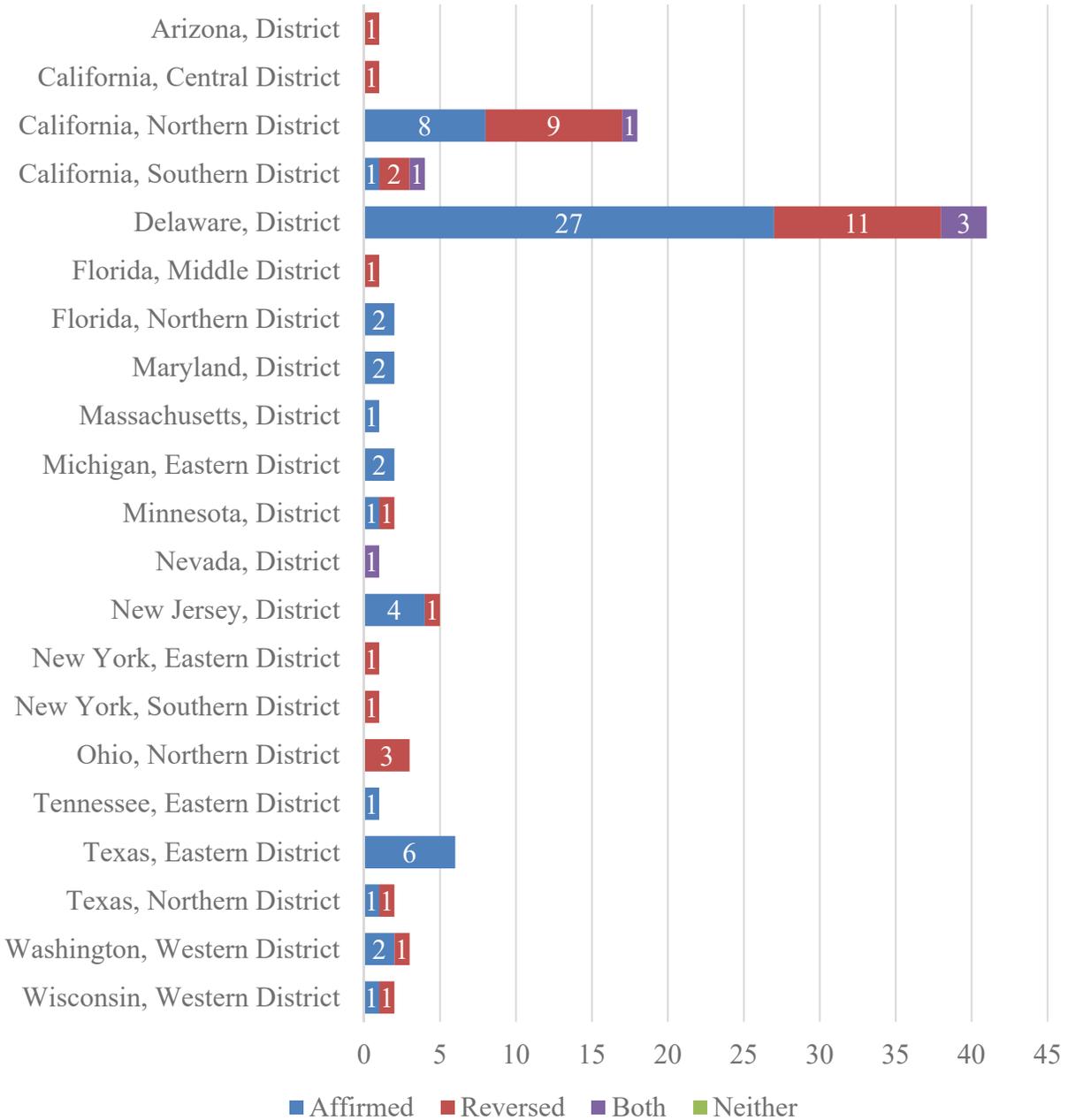
■ Affirmed ■ Reversed ■ Both ■ Neither





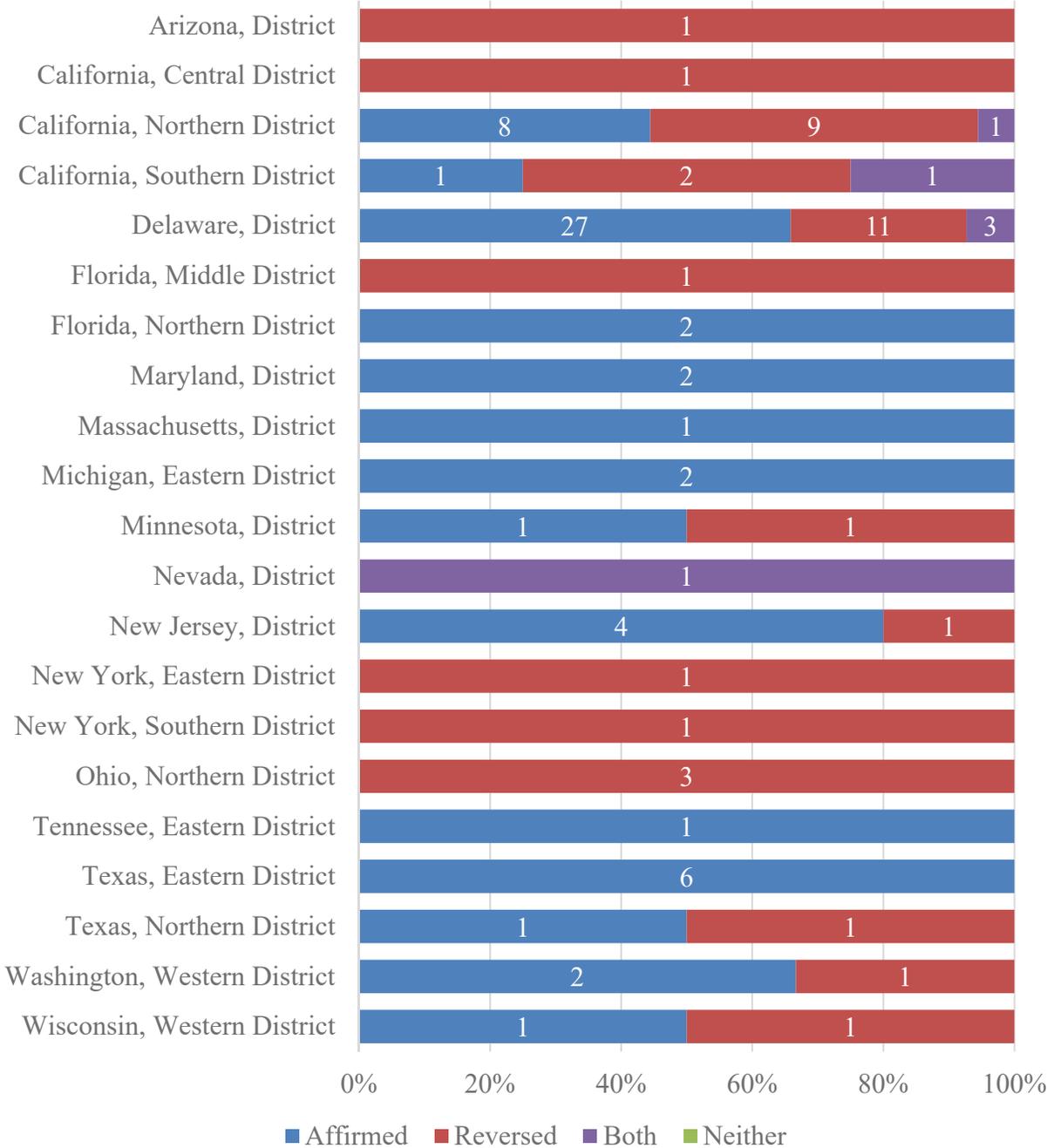
Outcome by District Court

(district courts with 0 decisions not shown)



Outcome Rates by District Court

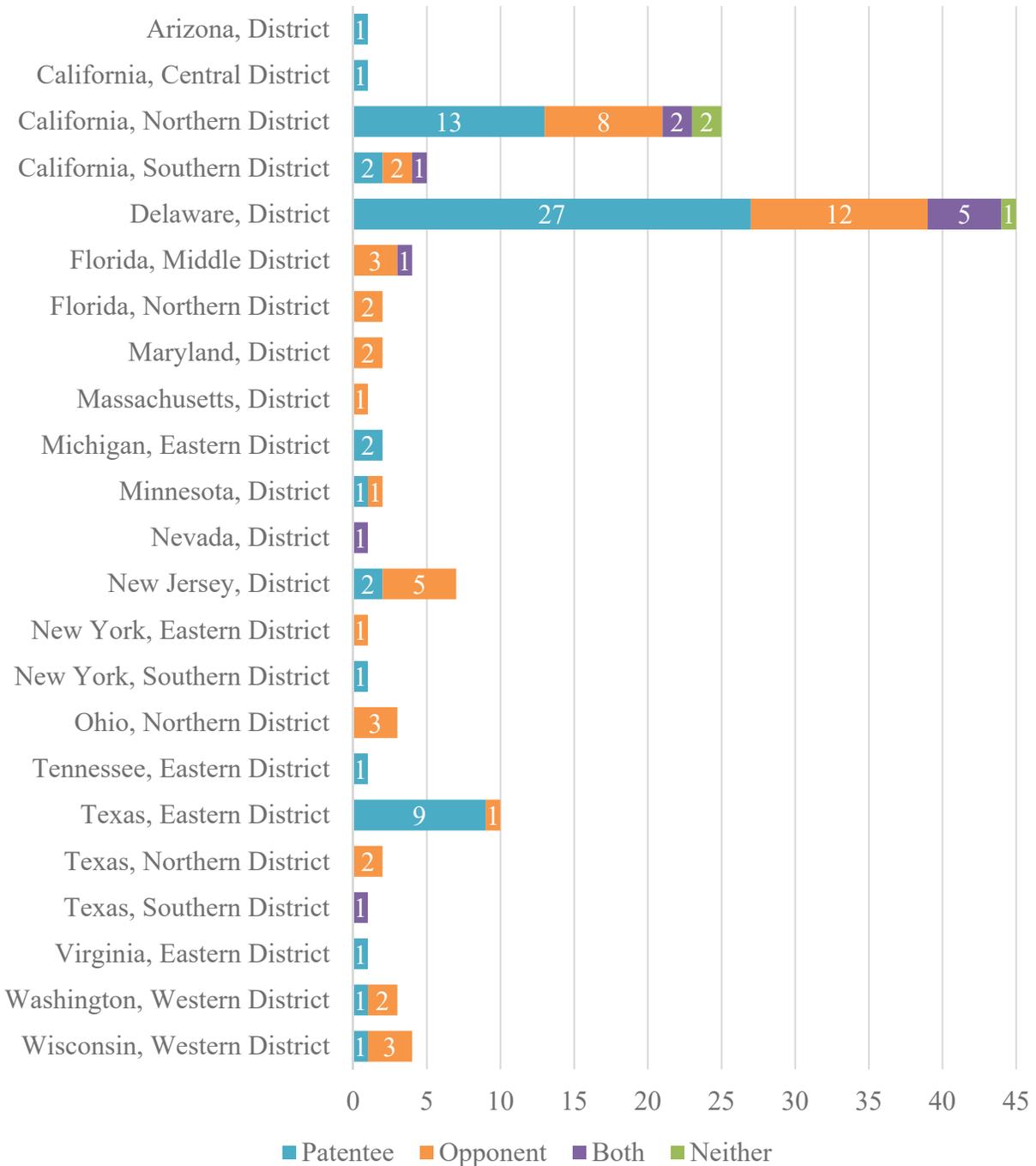
Decision counts shown in bar graph
(district courts with 0 decisions not shown)





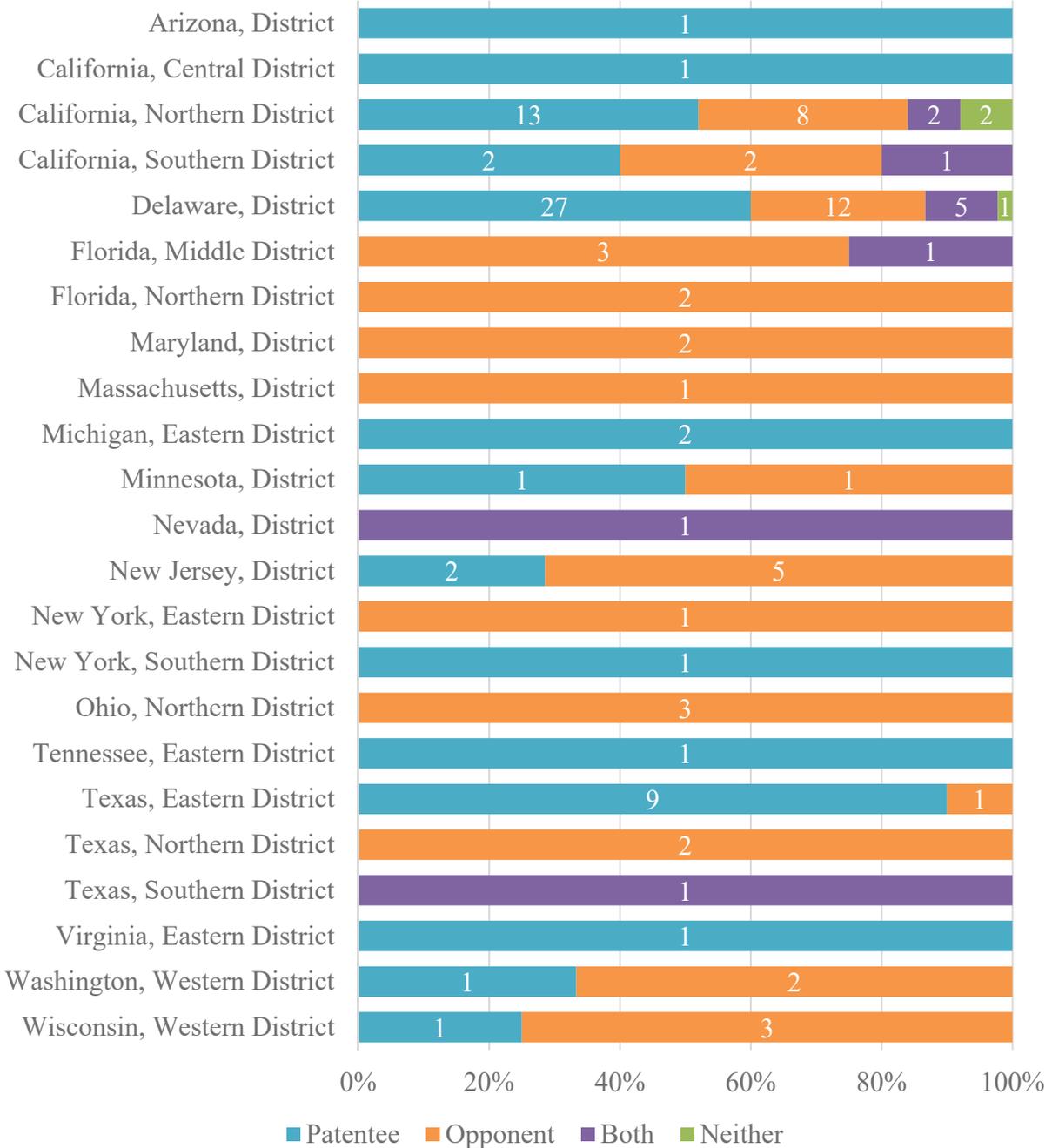
Winner by District Court

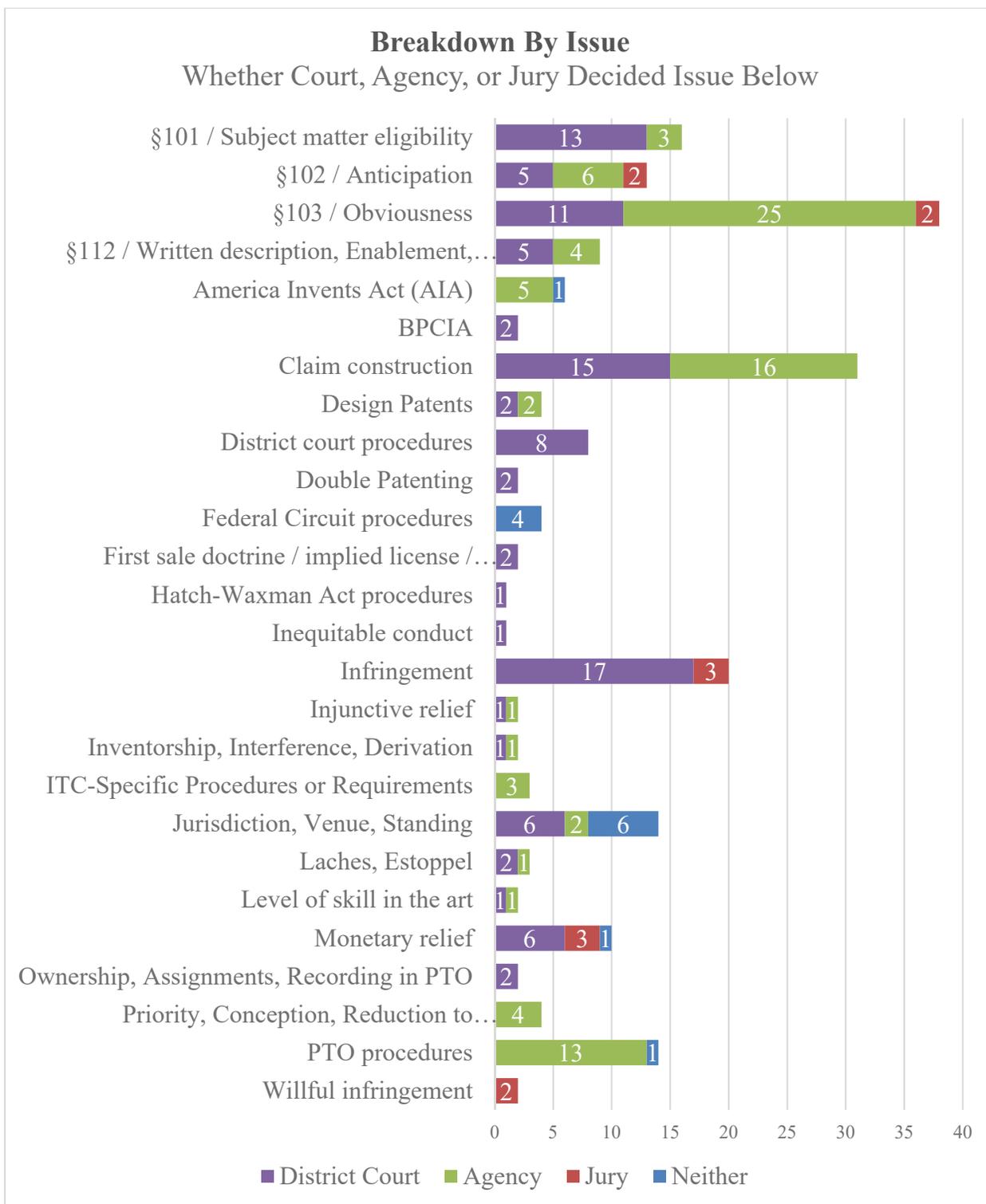
(district courts with 0 decisions not shown)



Winner Rates by District Court

Decision counts shown in bar graph
(district courts with 0 decisions not shown)

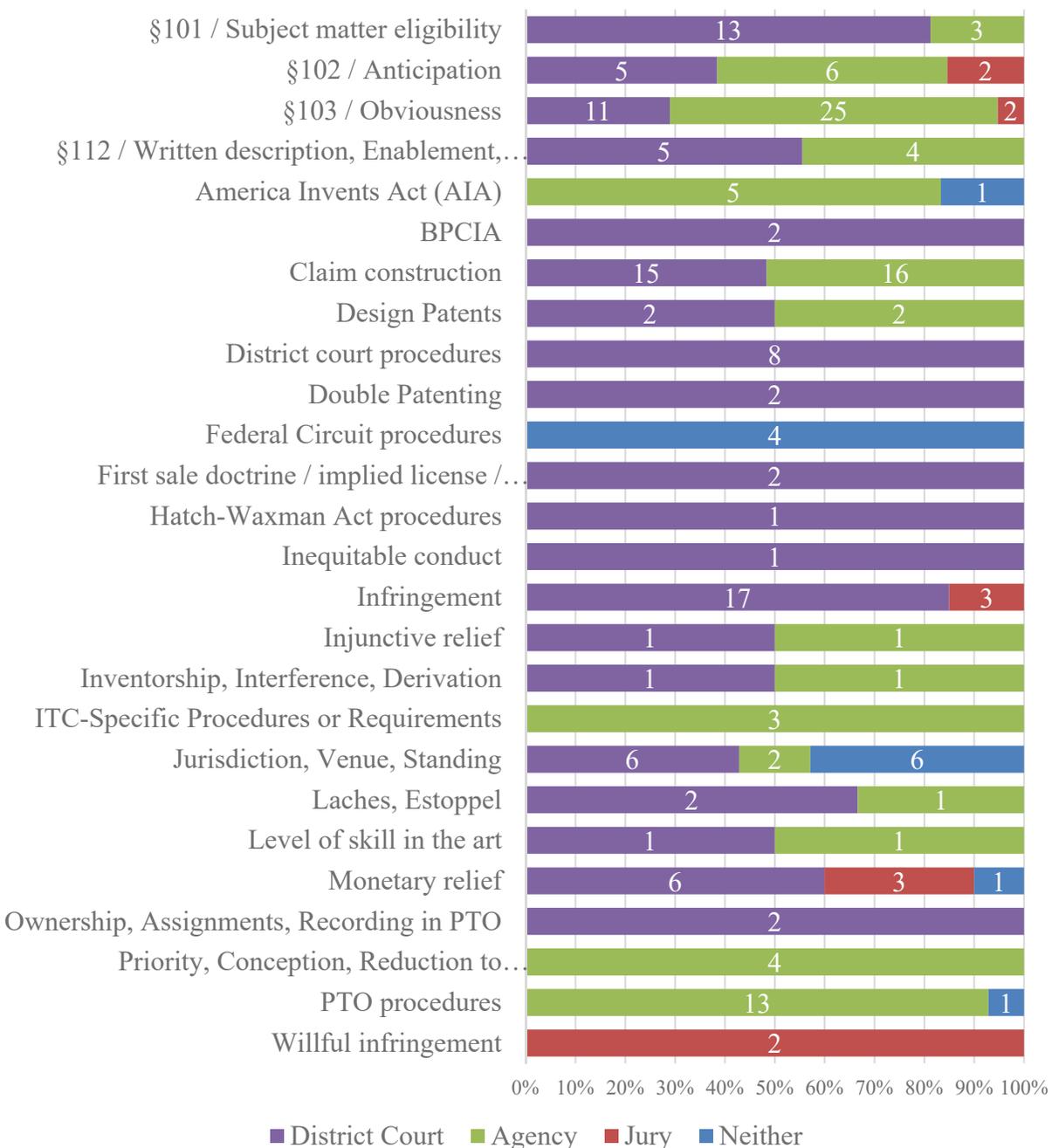




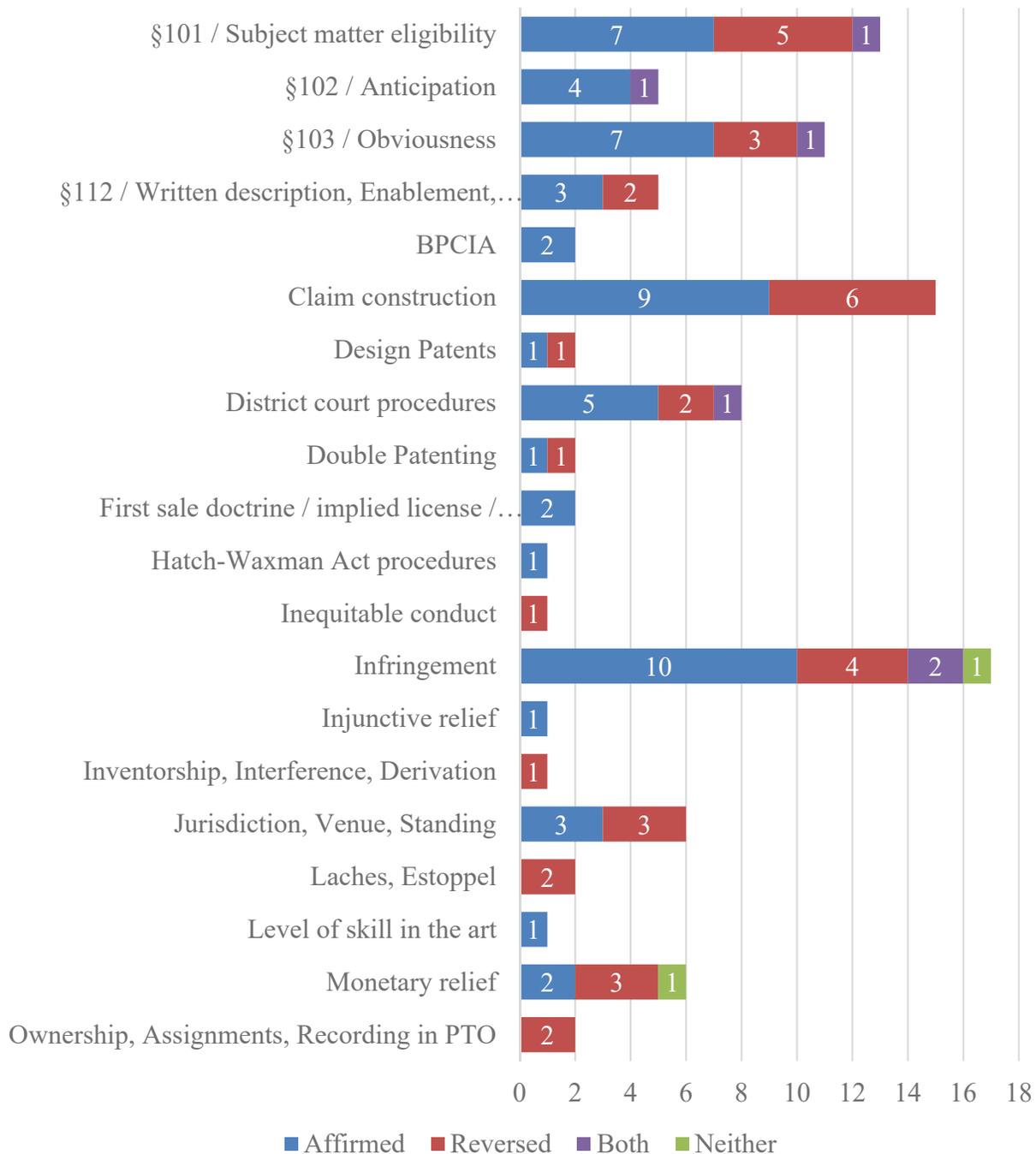


Breakdown By Issue, Rates

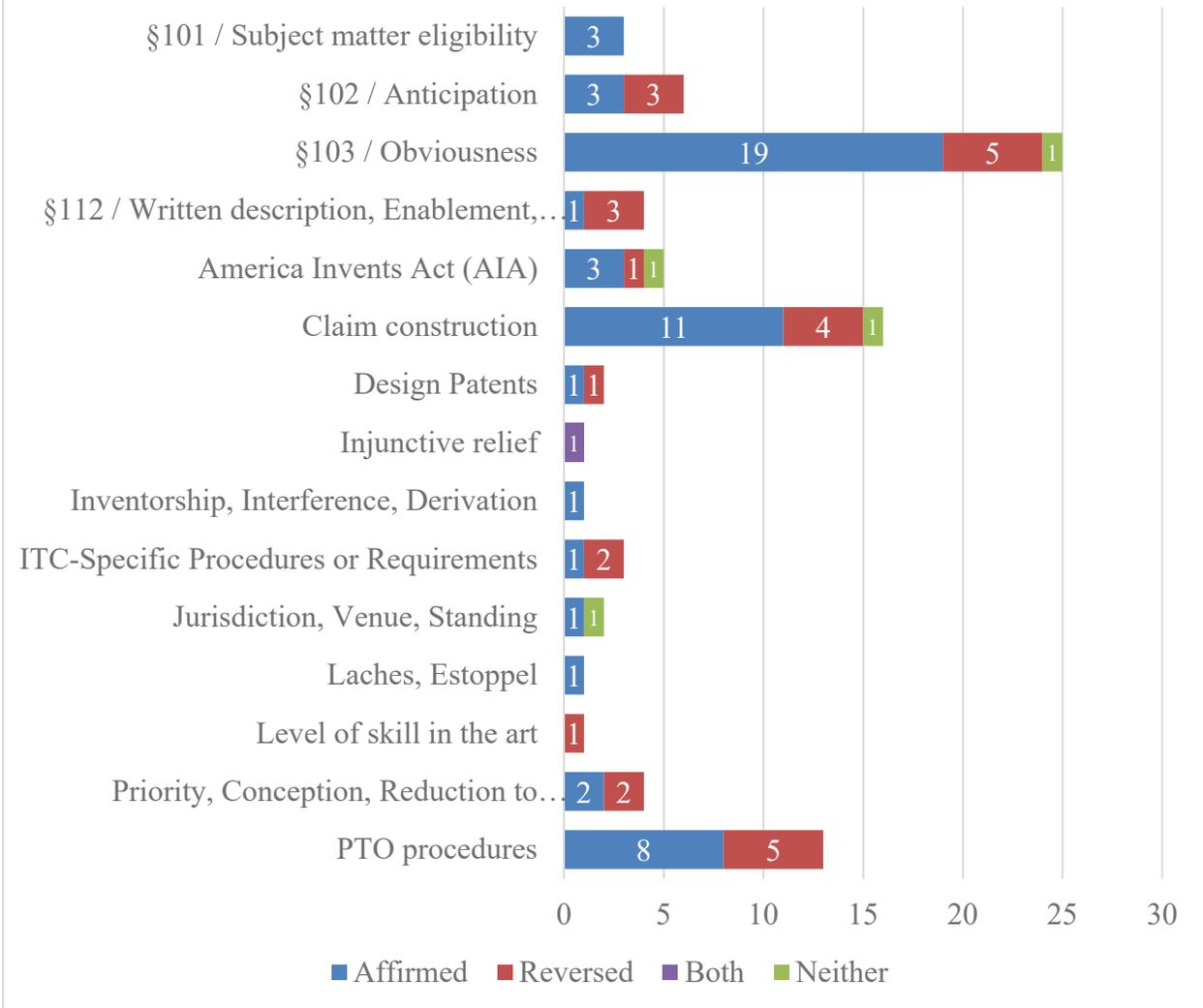
Whether Court, Agency, or Jury Decided Issue Below
Decision counts shown in bar graph

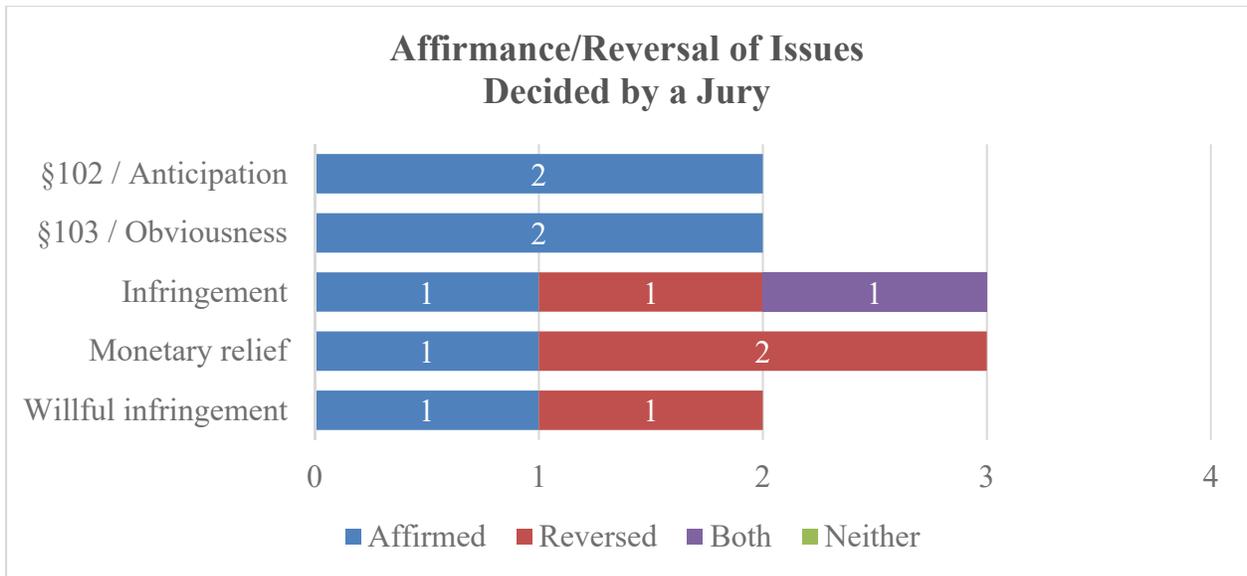


Affirmance/Reversal of Issues Decided by a Court



Affirmance/Reversal of Issues Decided by an Agency





INDEX BY ISSUE

I. § 101 / Subject Matter Eligibility

<i>Ancora Techs., Inc. v. HTC Am., Inc.</i> 908 F.3d 1343 (Fed. Cir. 2018)	47
<i>Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC</i> 915 F.3d 743 (Fed. Cir. 2019)	50
<i>BSG Tech LLC v. BuySeasons, Inc.</i> 899 F.3d 1281 (Fed. Cir. 2018)	57
<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> 927 F.3d 1306 (Fed. Cir. 2019)	59
<i>ChargePoint, Inc. v. SemaConnect, Inc.</i> 920 F.3d 759 (Fed. Cir. 2019)	61
<i>Data Engine Tech. LLC v. Google LLC</i> 906 F.3d 999 (Fed. Cir. 2018)	66
<i>Endo Pharms. Inc. v. Teva Pharms. USA, Inc.</i> 919 F.3d 1347 (Fed. Cir. 2019)	73
<i>Forum US, Inc. v. Flow Valve, LLC</i> 926 F.3d 1346 (Fed. Cir. 2019)	78
<i>In re Marco Guldenaar Holding B.V.</i> 911 F.3d 1157 (Fed. Cir. 2018)	89
<i>Laerdal Medical Corp. v. Int’l Trade Comm’n</i> 910 F.3d 1207 (Fed. Cir. 2018)	97
<i>Natural Alternatives Int’l, Inc. v. Creative Compounds, LLC</i> 918 F.3d 1338 (Fed. Cir. 2019)	103
<i>Roche Molecular Sys., Inc. v. Cepheid</i> 905 F.3d 1363 (Fed. Cir. 2018)	121
<i>SAP Am., Inc. v. InvestPic, LLC</i> 898 F.3d 1161 (Fed. Cir. 2018)	124
<i>Solutran, Inc. v. Elavon, Inc.</i> 931 F.3d 1161 (Fed. Cir. 2019)	125
<i>Trading Tech. Int’l v. IBG LLC</i> 921 F.3d 1084 (Fed. Cir. 2019)	133

<i>Trading Techs. Int'l, Inc. v. IBG LLC</i> 921 F.3d 1378 (Fed. Cir. 2019)	133
<i>Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.</i> 916 F.3d 1363 (Fed. Cir. 2019)	135
<i>VersaTop Support Sys., LLC v. Ga. Expo, Inc.</i> 921 F.3d 1364 (Fed. Cir. 2019)	135

II. § 102 / Anticipation

<i>AC Techs. S.A. v. Amazon.com, Inc.</i> 912 F.3d 1358 (Fed. Cir. 2019)	41
<i>Acceleration Bay, LLC v. Activision Blizzard, Inc.</i> 908 F.3d 765 (Fed. Cir. 2018)	41
<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i> 919 F.3d 1320 (Fed. Cir. 2019)	48
<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019)	53
<i>Core Wireless Licensing S.A.R.L. v. Apple Inc.</i> 899 F.3d 1356 (Fed. Cir. 2018)	65
<i>Duncan Parking Techs., Inc. v. IPS Grp., Inc.</i> 914 F.3d 1347 (Fed. Cir. 2019)	68
<i>E.I. DuPont De Nemours & Co. v. Unifrax I LLC</i> 921 F.3d 1060 (Fed. Cir. 2019)	70
<i>Enplas Display Device Corporation v. Seoul Semiconductor Co., Ltd.</i> 909 F.3d 398 (Fed. Cir. 2018)	74
<i>Nobel Biocare Services AG v. Intradent USA, Inc.</i> 903 F.3d 1365 (Fed. Cir. 2018)	105
<i>Quest Integrity USA, LLC v. Cokebusters USA Inc.</i> 924 F.3d 1220 (Fed. Cir. 2019)	118
<i>Samsung Elecs. Co., Ltd. v. Infobridge Pte. Ltd.</i> 929 F.3d 1363 (Fed. Cir. 2019)	123
<i>SRI Int'l, Inc. v. Cisco Sys., Inc.</i> 930 F.3d 1295 (Fed. Cir. 2019)	128
<i>UCB, Inc. v. Watson Labs. Inc.</i> 927 F.3d 1272 (Fed. Cir. 2019)	134

<i>Wis. Alumni Research Found. v. Apple Inc.</i> 905 F.3d 1341 (Fed. Cir. 2018)	139
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III. § 103 / Obviousness

<i>AC Techs. S.A. v. Amazon.com, Inc.</i> 912 F.3d 1358 (Fed. Cir. 2019)	41
<i>Acorda Therapeutics, Inc. v. Roxane Labs., Inc.</i> 903 F.3d 1310 (Fed. Cir. 2018)	43
<i>Amerigen Pharm. Ltd. v. UCB Pharma GmbH</i> 913 F.3d 1076 (Fed. Cir. 2019)	44
<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i> 919 F.3d 1320 (Fed. Cir. 2019)	48
<i>Bradium Techs. LLC v. Iancu</i> 923 F.3d 1032 (Fed. Cir. 2019)	56
<i>BTG Int'l Ltd. v. Amneal Pharms. LLC</i> 923 F.3d 1063 (Fed. Cir. 2019)	58
<i>Celgene Corp. v. Peter</i> 931 F.3d 1342 (Fed. Cir. 2019)	59
<i>Core Wireless Licensing S.A.R.L. v. Apple Inc.</i> 899 F.3d 1356 (Fed. Cir. 2018)	65
<i>E.I. DuPont de Nemours & Co. v. Synvina C.V.</i> 904 F.3d 996 (Fed. Cir. 2018)	69
<i>Endo Pharms. Inc. v. Actavis LLC</i> 922 F.3d 1365 (Fed. Cir. 2019)	72
<i>Forest Labs., LLC v. Sigmapharm Labs., LLC</i> 918 F.3d 928 (Fed. Cir. 2019)	77
<i>Game & Tech. Co., Ltd. v. Activision Blizzard Inc.</i> 926 F.3d 1370 (Fed. Cir. 2019)	79
<i>Gen. Elec. Co. v. United Techs. Corp.</i> 928 F.3d 1349 (Fed. Cir. 2019)	79
<i>GoPro, Inc. v. Contour IP Holding LLC</i> 906 F.3d 1031 (Fed. Cir. 2018)	81
<i>Grunenthal GmbH v. Alkem Labs. Ltd.</i> 919 F.3d 1333 (Fed. Cir. 2019)	82

<i>Hamilton Beach Brands, Inc. v. f'real Foods, LLC</i> 908 F.3d 1328 (Fed. Cir. 2018)	83
<i>Hyosung TNS Inc. v. Int'l Trade Comm'n</i> 926 F.3d 1353 (Fed. Cir. 2019)	85
<i>In re Copaxone Consolidated Cases</i> 906 F.3d 1013 (Fed. Cir. 2018)	86
<i>Indivior Inc. v. Dr. Reddy's Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019)	92
<i>IXI IP, LLC v. Samsung Electronics Co., Ltd.</i> 903 F.3d 1257 (Fed. Cir. 2018)	94
<i>Kolcraft Enters., Inc. v. Graco Children's Prods., Inc.</i> 927 F.3d 1320 (Fed. Cir. 2019)	96
<i>Luminara Worldwide, LLC v. Iancu</i> 899 F.3d 1303 (Fed. Cir. 2018)	99
<i>Mylan Pharms. Inc. v. Research Corp. Techs., Inc.</i> 914 F.3d 1366 (Fed. Cir. 2019)	102
<i>Neptune Generics v. Eli Lilly & Co.</i> 921 F.3d 1372 (Fed. Cir. 2019)	105
<i>Novartis Pharm. Corp. v. West-Ward Pharm. Int'l Ltd.</i> 923 F.3d 1051 (Fed. Cir. 2019)	107
<i>Orexo AB v. Actavis Elizabeth LLC</i> 903 F.3d 1265 (Fed. Cir. 2018)	111
<i>Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.</i> 924 F.3d 1243 (Fed. Cir. 2019)	111
<i>ParkerVision, Inc. v. Qualcomm Inc.</i> 903 F.3d 1354 (Fed. Cir. 2018)	112
<i>PersonalWeb Techns., LLC v. Apple, Inc.</i> 917 F.3d 1376 (Fed. Cir. 2019)	113
<i>Realtime Data, LLC v. Iancu</i> 912 F.3d 1368 (Fed. Cir. 2019)	119
<i>Regents of the Univ. of Cal. v. Broad Inst. Inc.</i> 903 F.3d 1286 (Fed. Cir. 2018)	120
<i>Samsung Elecs. Co., Ltd. v. Elm 3DS Innovations, LLC</i> 925 F.3d 1373 (Fed. Cir. 2019)	122

<i>Sony Corp. v. Iancu</i> 924 F.3d 1235 (Fed. Cir. 2019)	126
<i>TEK Global, S.R.L. v. Sealant Sys. Int’l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019)	130
<i>TQ Delta, LLC v. DISH Network LLC</i> 929 F.3d 1350 (Fed. Cir. 2019)	132
<i>UCB, Inc. v. Watson Labs. Inc.</i> 927 F.3d 1272 (Fed. Cir. 2019)	134
<i>VirnetX Inc. v. Apple, Inc.</i> 909 F.3d 1375 (Fed. Cir. 2018)	136
<i>Yeda Research & Dev. Co. v. Mylan Pharm. Inc.</i> 906 F.3d 1031 (Fed. Cir. 2018)	141

IV. Double Patenting

<i>Novartis AG v. Ezra Ventures LLC</i> 909 F.3d 1367 (Fed. Cir. 2018)	106
<i>Novartis Pharms. Corp. v. Breckenridge Pharm. Inc.</i> 909 F.3d 1355 (Fed. Cir. 2018)	108

V. § 112 / Written Description, Enablement, Definiteness

<i>CenTrak, Inc. v. Sonitor Tech., Inc.</i> 915 F.3d 1360 (Fed. Cir. 2019)	60
<i>Diebold Nixdorf, Inc. v. Int’l Trade Comm’n</i> 899 F.3d 1291 (Fed. Cir. 2018)	66
<i>Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.</i> 928 F.3d 1340 (Fed. Cir. 2019)	75
<i>In re Glob. IP Holdings LLC</i> 927 F.3d 1373 (Fed. Cir. 2019)	87
<i>In re Maatita</i> 900 F.3d 1369 (Fed. Cir. 2018)	89
<i>Indivior Inc. v. Dr. Reddy’s Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019)	92
<i>Intellectual Ventures I LLC v. T-Mobile USA, Inc.</i> 902 F.3d 1372 (Fed. Cir. 2018)	93

	<i>Nuvo Pharms. (Ireland) Designated Activity Co. v. Dr. Reddy's Labs. Inc.</i>	
	923 F.3d 1368 (Fed. Cir. 2019)	109
	<i>Quake v. Lo</i>	
	928 F.3d 1365 (Fed. Cir. 2019)	117
VI.	Level of Skill in the Art	
	<i>In re Maatita</i>	
	900 F.3d 1369 (Fed. Cir. 2018)	89
	<i>Indivior Inc. v. Dr. Reddy's Labs., S.A.</i>	
	930 F.3d 1325 (Fed. Cir. 2019)	92
VII.	Claim Construction	
	<i>AC Techs. S.A. v. Amazon.com, Inc.</i>	
	912 F.3d 1358 (Fed. Cir. 2019)	41
	<i>Acceleration Bay, LLC v. Activision Blizzard, Inc.</i>	
	908 F.3d 765 (Fed. Cir. 2018)	41
	<i>Amgen Inc. v. Coherus Biosciences Inc.</i>	
	931 F.3d 1154 (Fed. Cir. 2019)	45
	<i>Amgen Inc. v. Sandoz Inc.</i>	
	923 F.3d 1023 (Fed. Cir. 2019)	46
	<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i>	
	919 F.3d 1320 (Fed. Cir. 2019)	48
	<i>Arista Networks, Inc. v. Cisco Sys., Inc.</i>	
	908 F.3d 792 (Fed. Cir. 2018)	49
	<i>Bradium Techs. LLC v. Iancu</i>	
	923 F.3d 1032 (Fed. Cir. 2019)	56
	<i>BTG Int'l Ltd. v. Amneal Pharms. LLC</i>	
	923 F.3d 1063 (Fed. Cir. 2019)	58
	<i>Cisco Sys., Inc. v. TQ Delta, LLC</i>	
	928 F.3d 1359 (Fed. Cir. 2019)	62
	<i>Cont'l Circuits LLC v. Intel Corp.</i>	
	915 F.3d 788 (Fed. Cir. 2019)	64
	<i>Diebold Nixdorf, Inc. v. Int'l Trade Comm'n</i>	
	899 F.3d 1291 (Fed. Cir. 2018)	66

<i>Duncan Parking Techs., Inc. v. IPS Grp., Inc.</i> 914 F.3d 1347 (Fed. Cir. 2019)	68
<i>E.I. DuPont de Nemours & Co. v. Synvina C.V.</i> 904 F.3d 996 (Fed. Cir. 2018)	69
<i>Endo Pharms. Inc. v. Actavis LLC</i> 922 F.3d 1365 (Fed. Cir. 2019)	72
<i>Forest Labs., LLC v. Sigmapharm Labs., LLC</i> 918 F.3d 928 (Fed. Cir. 2019)	77
<i>Game & Tech. Co., Ltd. v. Activision Blizzard Inc.</i> 926 F.3d 1370 (Fed. Cir. 2019)	79
<i>Hamilton Beach Brands, Inc. v. f'real Foods, LLC</i> 908 F.3d 1328 (Fed. Cir. 2018)	83
<i>In re Copaxone Consolidated Cases</i> 906 F.3d 1013 (Fed. Cir. 2018)	86
<i>Indivior Inc. v. Dr. Reddy's Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019)	92
<i>Intellectual Ventures I LLC v. T-Mobile USA, Inc.</i> 902 F.3d 1372 (Fed. Cir. 2018)	93
<i>Mayne Pharma Int'l Pty. Ltd. v. Merck Sharp & Dohme Corp.</i> 927 F.3d 1232 (Fed. Cir. 2019)	101
<i>Nobel Biocare Services AG v. Instradent USA, Inc.</i> 903 F.3d 1365 (Fed. Cir. 2018)	105
<i>Omega Patents, LLC v. CalAmp Corp.</i> 920 F.3d 1337 (Fed. Cir. 2019)	110
<i>Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.</i> 924 F.3d 1243 (Fed. Cir. 2019)	111
<i>Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.</i> 904 F.3d 965 (Fed. Cir. 2018)	114
<i>Realtime Data, LLC v. Iancu</i> 912 F.3d 1368 (Fed. Cir. 2019)	119
<i>Samsung Elecs. Co., Ltd. v. Elm 3DS Innovations, LLC</i> 925 F.3d 1373 (Fed. Cir. 2019)	122
<i>Sony Corp. v. Iancu</i> 924 F.3d 1235 (Fed. Cir. 2019)	126

<i>TEK Global, S.R.L. v. Sealant Sys. Int’l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019)	130
<i>TQ Delta, LLC v. DISH Network LLC</i> 929 F.3d 1350 (Fed. Cir. 2019)	132
<i>Wis. Alumni Research Found. v. Apple Inc.</i> 905 F.3d 1341 (Fed. Cir. 2018)	139

VIII. Infringement

<i>Amgen Inc. v. Coherus Biosciences Inc.</i> 931 F.3d 1154 (Fed. Cir. 2019)	45
<i>Amgen Inc. v. Sandoz Inc.</i> 923 F.3d 1023 (Fed. Cir. 2019)	46
<i>ArcelorMittal Alantique et Lorraine v. AK Steel Corp.</i> 908 F.3d 1267 (Fed. Cir. 2018)	48
<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019)	53
<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> 927 F.3d 1306 (Fed. Cir. 2019)	59
<i>CenTrak, Inc. v. Sonitor Tech., Inc.</i> 915 F.3d 1360 (Fed. Cir. 2019)	60
<i>Core Wireless Licensing S.A.R.L. v. Apple Inc.</i> 899 F.3d 1356 (Fed. Cir. 2018)	65
<i>Duncan Parking Techs., Inc. v. IPS Grp., Inc.</i> 914 F.3d 1347 (Fed. Cir. 2019)	68
<i>E.I. DuPont de Nemours & Co. v. Synvina C.V.</i> 904 F.3d 996 (Fed. Cir. 2018)	69
<i>Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC</i> 927 F.3d 1292 (Fed. Cir. 2019)	71
<i>Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.</i> 928 F.3d 1340 (Fed. Cir. 2019)	75
<i>Forest Labs., LLC v. Sigmapharm Labs., LLC</i> 918 F.3d 928 (Fed. Cir. 2019)	77
<i>Grunenthal GmbH v. Alkem Labs. Ltd.</i> 919 F.3d 1333 (Fed. Cir. 2019)	82

<i>Indivior Inc. v. Dr. Reddy's Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019)	92
<i>Nuvo Pharms. (Ireland) Designated Activity Co. v. Dr. Reddy's Labs. Inc.</i> 923 F.3d 1368 (Fed. Cir. 2019)	109
<i>Omega Patents, LLC v. CalAmp Corp.</i> 920 F.3d 1337 (Fed. Cir. 2019)	110
<i>Power Integrations, Inc. v. Semiconductor Components Indus., LLC</i> 926 F.3d 1306 (Fed. Cir. 2019)	115
<i>TEK Global, S.R.L. v. Sealant Sys. Int'l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019)	130
<i>UCB, Inc. v. Watson Labs. Inc.</i> 927 F.3d 1272 (Fed. Cir. 2019)	134
<i>Westech Aerosol Corp. v. 3M Co.</i> 927 F.3d 1378 (Fed. Cir. 2019)	137
<i>Wis. Alumni Research Found. v. Apple Inc.</i> 905 F.3d 1341 (Fed. Cir. 2018)	139

IX. Willful Infringement

<i>Enplas Display Device Corporation v. Seoul Semiconductor Co., Ltd.</i> 909 F.3d 398 (Fed. Cir. 2018)	74
<i>Omega Patents, LLC v. CalAmp Corp.</i> 920 F.3d 1337 (Fed. Cir. 2019)	110
<i>SRI Int'l, Inc. v. Cisco Sys., Inc.</i> 930 F.3d 1295 (Fed. Cir. 2019)	128
<i>Wis. Alumni Research Found. v. Apple Inc.</i> 905 F.3d 1341 (Fed. Cir. 2018)	139

X. Injunctive Relief

<i>Hyosung TNS Inc. v. Int'l Trade Comm'n</i> 926 F.3d 1353 (Fed. Cir. 2019)	85
<i>TEK Global, S.R.L. v. Sealant Sys. Int'l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019)	130

XI. Monetary Relief

<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> 927 F.3d 1306 (Fed. Cir. 2019)	59
<i>Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC</i> 927 F.3d 1292 (Fed. Cir. 2019)	71
<i>Enplas Display Device Corporation v. Seoul Semiconductor Co., Ltd.</i> 909 F.3d 398 (Fed. Cir. 2018)	74
<i>Gust, Inc. v. AlphaCap Ventures, LLC</i> 905 F.3d 1321 (Fed. Cir. 2018)	82
<i>Omega Patents, LLC v. CalAmp Corp.</i> 920 F.3d 1337 (Fed. Cir. 2019)	110
<i>Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.</i> 904 F.3d 965 (Fed. Cir. 2018)	114
<i>Princeton Digital Image Corp. v. Office Depot Inc.</i> 913 F.3d 1342 (Fed. Cir. 2019)	116
<i>TEK Global, S.R.L. v. Sealant Sys. Int'l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019)	130
<i>Thermolife Int'l LLC v. GNC Corp.</i> 922 F.3d 1347 (Fed. Cir. 2019)	131
<i>WesternGeco L.L.C. v. ION Geophysical Corp.</i> 913 F.3d 1067 (Fed. Cir. 2019)	138

XII. Laches, Estoppel

<i>Advantek Marketing, Inc. v. Shanghai Walk-Long Tools Co.</i> 898 F.3d 1210 (Fed. Cir. 2018)	43
<i>ArcelorMittal Alantique et Lorraine v. AK Steel Corp.</i> 908 F.3d 1267 (Fed. Cir. 2018)	48
<i>VirnetX Inc. v. Apple, Inc.</i> 909 F.3d 1375 (Fed. Cir. 2018)	136

XIII. First Sale Doctrine/Implied License/Exhaustion

<i>Auto. Body Parts Ass'n v. Ford Glob. Techs., LLC</i> 930 F.3d 1314 (Fed. Cir. 2019)	52
---	----

	<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019)	53
XIV.	Inequitable Conduct	
	<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019)	53
	<i>Core Wireless Licensing S.A.R.L. v. Apple Inc.</i> 899 F.3d 1356 (Fed. Cir. 2018)	65
XV.	Ownership, Assignments, Recording in PTO	
	<i>Coda Dev. S.R.O. v. Goodyear Tire & Rubber Co.</i> 916 F.3d 1350 (Fed. Cir. 2019)	63
	<i>Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.</i> 925 F.3d 1225 (Fed. Cir. 2019)	98
XVI.	Inventorship, Interference, Derivation	
	<i>Coda Dev. S.R.O. v. Goodyear Tire & Rubber Co.</i> 916 F.3d 1350 (Fed. Cir. 2019)	63
	<i>Regents of the Univ. of Cal. v. Broad Inst. Inc.</i> 903 F.3d 1286 (Fed. Cir. 2018)	120
XVII.	Priority, Conception, Reduction to Practice, Diligence	
	<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i> 919 F.3d 1320 (Fed. Cir. 2019)	48
	<i>ATI Techs. ULC v. Iancu</i> 920 F.3d 1362 (Fed. Cir. 2019)	51
	<i>Kolcraft Enters., Inc. v. Graco Children's Prods., Inc.</i> 927 F.3d 1320 (Fed. Cir. 2019)	96
	<i>Natural Alternatives Int'l, Inc. v. Iancu</i> 904 F.3d 1375 (Fed. Cir. 2018)	104
XVIII.	Design Patents	
	<i>Advantek Marketing, Inc. v. Shanghai Walk-Long Tools Co.</i> 898 F.3d 1210 (Fed. Cir. 2018)	43

<i>Auto. Body Parts Ass'n v. Ford Glob. Techs., LLC</i> 930 F.3d 1314 (Fed. Cir. 2019)	52
<i>In re Maatita</i> 900 F.3d 1369 (Fed. Cir. 2018)	89
<i>Kolcraft Enters., Inc. v. Graco Children's Prods., Inc.</i> 927 F.3d 1320 (Fed. Cir. 2019)	96

XIX. PTO Procedures

<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i> 919 F.3d 1320 (Fed. Cir. 2019)	48
<i>Arista Networks, Inc. v. Cisco Sys., Inc.</i> 908 F.3d 792 (Fed. Cir. 2018)	49
<i>Celgene Corp. v. Peter</i> 931 F.3d 1342 (Fed. Cir. 2019)	59
<i>Click-To-Call Techs., LP v. Ingenio, Inc.</i> 899 F.3d 1321 (Fed. Cir. 2018)	62
<i>Ericsson Inc. v. Intellectual Ventures I LLC</i> 901 F.3d 1374 (Fed. Cir. 2018)	76
<i>Hamilton Beach Brands, Inc. v. f'real Foods, LLC</i> 908 F.3d 1328 (Fed. Cir. 2018)	83
<i>In re Power Integrations, Inc.</i> 899 F.3d 1316 (Fed. Cir. 2018)	91
<i>Luminara Worldwide, LLC v. Iancu</i> 899 F.3d 1303 (Fed. Cir. 2018)	99
<i>Mayne Pharma Int'l Pty. Ltd. v. Merck Sharp & Dohme Corp.</i> 927 F.3d 1232 (Fed. Cir. 2019)	101
<i>Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.</i> 904 F.3d 965 (Fed. Cir. 2018)	114
<i>Quake v. Lo</i> 928 F.3d 1365 (Fed. Cir. 2019)	117
<i>Regents of the Univ. of Minn. v. LSI Corp.</i> 926 F.3d 1327 (Fed. Cir. 2019)	121
<i>Supernus Pharm., Inc. v. Iancu</i> 913 F.3d 1351 (Fed. Cir. 2019)	129

	<i>TQ Delta, LLC v. DISH Network LLC</i> 929 F.3d 1350 (Fed. Cir. 2019)	132
	<i>Worlds Inc. v. Bungie, Inc.</i> 903 F.3d 1237 (Fed. Cir. 2018)	140
XX.	America Invents Act (AIA)	
	<i>AVX Corp. v. Presidio Components, Inc.</i> 923 F.3d 1357 (Fed. Cir. 2019)	53
	<i>Bennett Regulator Guards, Inc. v. Atlanta Gas Light Co.</i> 905 F.3d 1311 (Fed. Cir. 2018)	55
	<i>Celgene Corp. v. Peter</i> 931 F.3d 1342 (Fed. Cir. 2019)	59
	<i>Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.</i> 904 F.3d 965 (Fed. Cir. 2018)	114
	<i>Regents of the Univ. of Minn. v. LSI Corp.</i> 926 F.3d 1327 (Fed. Cir. 2019)	121
	<i>Trading Tech. Int'l v. IBG LLC</i> 921 F.3d 1084 (Fed. Cir. 2019)	133
XXI.	ITC-Specific Procedures or Requirements	
	<i>Diebold Nixdorf, Inc. v. Int'l Trade Comm'n</i> 899 F.3d 1291 (Fed. Cir. 2018)	66
	<i>Hyosung TNS Inc. v. Int'l Trade Comm'n</i> 926 F.3d 1353 (Fed. Cir. 2019)	85
	<i>Laerdal Medical Corp. v. Int'l Trade Comm'n</i> 910 F.3d 1207 (Fed. Cir. 2018)	97
XXII.	District Court Procedures	
	<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019)	53
	<i>ChargePoint, Inc. v. SemaConnect, Inc.</i> 920 F.3d 759 (Fed. Cir. 2019)	61
	<i>Coda Dev. S.R.O. v. Goodyear Tire & Rubber Co.</i> 916 F.3d 1350 (Fed. Cir. 2019)	63

<i>Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC</i> 927 F.3d 1292 (Fed. Cir. 2019)	71
<i>Hyatt v. U.S. Patent & Trademark Office</i> 904 F.3d 1361 (Fed. Cir. 2018)	84
<i>Indivior Inc. v. Dr. Reddy's Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019)	92
<i>Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.</i> 925 F.3d 1225 (Fed. Cir. 2019)	98
<i>Spineology, Inc. v. Wright Med. Tech., Inc.</i> 910 F.3d 1227 (Fed. Cir. 2018)	127

XXIII. Jurisdiction, Venue, Standing

<i>Amerigen Pharm. Ltd. v. UCB Pharma GmbH</i> 913 F.3d 1076 (Fed. Cir. 2019)	44
<i>AVX Corp. v. Presidio Components, Inc.</i> 923 F.3d 1357 (Fed. Cir. 2019)	53
<i>Gen. Elec. Co. v. United Techs. Corp.</i> 928 F.3d 1349 (Fed. Cir. 2019)	79
<i>In re Google LLC</i> 914 F.3d 1377 (Fed. Cir. 2019)	88
<i>In re Oath Holdings Inc.</i> 908 F.3d 1301 (Fed. Cir. 2018)	90
<i>Jack Henry & Associates, Inc. v. Plano Encryption Techs. LLC</i> 910 F.3d 1199 (Fed. Cir. 2018)	94
<i>JTEKT Corp. v. GKN Automotive Ltd.</i> 898 F.3d 1217 (Fed. Cir. 2018)	96
<i>Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.</i> 925 F.3d 1225 (Fed. Cir. 2019)	98
<i>Maxchief Investments Limited v. Wok & Pan, Ind., Inc.</i> 909 F.3d 1134 (Fed. Cir. 2018)	100
<i>Momenta Pharms., Inc. v. Bristol-Myers Squibb Co.</i> 915 F.3d 764 (Fed. Cir. 2019)	101
<i>Mylan Pharms. Inc. v. Research Corp. Techs., Inc.</i> 914 F.3d 1366 (Fed. Cir. 2019)	102

<i>Samsung Elecs. Co., Ltd. v. Infobridge Pte. Ltd.</i> 929 F.3d 1363 (Fed. Cir. 2019)	123
<i>Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.</i> 916 F.3d 1363 (Fed. Cir. 2019)	135
<i>Westech Aerosol Corp. v. 3M Co.</i> 927 F.3d 1378 (Fed. Cir. 2019)	137

XXIV. Federal Circuit Procedures

<i>Dr. Falk Pharma GMBH v. Generico, LLC</i> 916 F.3d 975 (Fed. Cir. 2019)	67
<i>Gen. Elec. Co. v. United Techs. Corp.</i> 928 F.3d 1349 (Fed. Cir. 2019)	79
<i>In re Google LLC</i> 914 F.3d 1377 (Fed. Cir. 2019)	88
<i>Princeton Digital Image Corp. v. Office Depot Inc.</i> 913 F.3d 1342 (Fed. Cir. 2019)	116

XXV. Hatch-Waxman Act Procedures

<i>Novartis AG v. Ezra Ventures LLC</i> 909 F.3d 1367 (Fed. Cir. 2018)	106
---	-----

XXVI. BPCIA

<i>Amgen Inc. v. Coherus Biosciences Inc.</i> 931 F.3d 1154 (Fed. Cir. 2019)	45
<i>Amgen Inc. v. Sandoz Inc.</i> 923 F.3d 1023 (Fed. Cir. 2019)	46

CASE SUMMARIES

AC Techs. S.A. v. Amazon.com, Inc.

912 F.3d 1358 (Fed. Cir. 2019)

In this case, AC Technologies S.A. appealed the PTAB's finding that certain claims of its '680 patent are unpatentable. The PTAB issued a final written decision ruling certain claims of the '680 patent unpatentable and, on reconsideration, invalidated the remaining claims based on a ground of unpatentability raised in the IPR petition but not addressed in the final written decision. AC argued on appeal that the PTAB exceeded its authority and deprived it of fair process by belatedly considering this additional ground of unpatentability.

The Federal Circuit disagreed with AC, holding that Federal Circuit precedent mandated that the PTAB consider all grounds of unpatentability raised in an instituted petition and that PTAB complied with due process. Specifically, following *SAS Institute Inc. v. Iancu*, 138 S. Ct. 1348 (2019), the Federal Circuit held that "if the Board institutes an IPR, it must . . . address all grounds of unpatentability raised by the petitioner." This foreclosed AC's argument that the PTAB exceeded its statutory authority when it addressed a non-instituted ground for the first time on reconsideration. The Federal Circuit further held that the patent owner's due process was not violated because it was permitted to take discovery and submit additional briefing and evidence on the additional ground of invalidity.

On the merits, the Federal Circuit found no error in the PTAB's claim construction of the "claim limitations reciting 'piece(s).'" The court found that the intrinsic evidence supports the PTAB's view that the claim does not require storage of individual pieces of the file, as AC argued. The PTAB looked to recitations like "*at least one piece*" and "pieces" in the claims to show that the claim contemplated and included copying more than one piece of a file. The court explained that "[h]aving broadly drafted its claims to encompass both systems that copy and store individual pieces and those that copy and store multiple pieces of a file, AC cannot now read features from preferred embodiments" to bolster its claim. Under this claim construction, the Federal Circuit found no errors in the PTAB's determinations regarding anticipation and obviousness.

Acceleration Bay, LLC v. Activision Blizzard, Inc.

908 F.3d 765 (Fed. Cir. 2018)

The patents at issue in this appeal relate to a broadcast technique in which a broadcast channel overlays a point-to-point communications network. This appeal arose from multiple IPR petitions filed by Activision Blizzard, each of which was filed on the basis of a single prior art reference. In the IPRs based on the Shoubridge article, the PTAB found the following claims unpatentable: '966 patent claims 1–11 and 16–17, '344 patent claims 1–11 and 16–19, and '634 patent claims 1–9. In the IPRs based on the Lin article, the PTAB found that Lin is not a printed publication under Section 102(a) and therefore Blizzard failed to show the challenged claims were unpatentable. Acceleration appealed

portions of the Shoubridge determinations, while Blizzard cross-appealed portions of Shoubridge and the Lin determination. The Federal Circuit affirmed all six of the PTAB's decisions.

Acceleration challenged three aspects of the PTAB's decisions. First, Acceleration argued that the PTAB erred by construing the term "participant" in the various claims according to its plain meaning. Second, Acceleration argued that the PTAB erred by failing to give patentable weight to the phrases "game environment" and "information delivery service," which appear in the preambles of the '344 and '966 patents, respectively. Third, Acceleration argued that the PTAB failed to determine whether Shoubridge discloses a broadcast channel of the kind described in the claims.

The Federal Circuit rejected all of Acceleration's arguments. First, the court concluded that the PTAB properly construed "participant," and refused to import detailed structural information into the term. Second, the court held that the phrases "game environment" and "information delivery service" were in the preamble of the claims despite the lack of a transition word or phrase denoting a preamble. In doing so, the court explained that "poor claim drafting" cannot be used as an excuse to create confusion and cautioned patentees against failing to include a transition word or phrase in their claims. Because the terms did not provide structure for the remainder of the claims, and instead described intended uses for a structurally complete invention, the court affirmed the PTAB's decision. Finally, as to whether Shoubridge discloses a "broadcast channel overlaying a point-to-point communications network," the court held that the specifications did not have the "precise and clear language" necessary to warrant reading that limitation into the claims, and the claims themselves did not contain such a limitation. Thus, according to the court, the PTAB did not err by failing to identify this type of broadcast channel in Shoubridge.

On cross-appeal, Blizzard raised three arguments. First, Blizzard argued that the PTAB erroneously concluded that Lin is not a printed publication under Section 102(a). Second, Blizzard argued that the '634 patent claims 10–18 were anticipated or rendered obvious by Shoubridge. Third, Blizzard argued that the PTAB erred in determining various amended claims were patentable over prior art.

The Federal Circuit affirmed. First, the court affirmed the PTAB's finding that Lin is not a printed publication because it was not publicly accessible. Although it had been uploaded to the CSE Technical Reports Library's website, there was evidence that the website was lacking in search functionality, particularly the ability to perform a keyword search. Accordingly, Lin was not "meaningfully indexed" and therefore not publicly accessible, meaning it was not a printed publication under Section 102(a). Second, as to the argument that claims 10–18 of the '634 patent were anticipated or rendered obvious, the Federal Circuit found that the PTAB had substantial evidence to support its findings and that Blizzard had the opportunity to present certain paragraphs of an expert declaration but chose not to, such that it was not an abuse of discretion for the PTAB to not consider those paragraphs. Finally, the Federal Circuit affirmed the PTAB's findings that certain claims were patentable over prior art, despite Blizzard's argument that the phrase "join-leave

limitation” had been improperly construed. This was because Blizzard had provided no construction of its own and the PTAB simply used the ordinary meaning of the phrase.

Acorda Therapeutics, Inc. v. Roxane Labs., Inc.

903 F.3d 1310 (Fed. Cir. 2018)

In this obviousness challenge, the Federal Circuit held that objective indicia of obviousness may be discounted in cases involving blocking patents.

Acorda Therapeutics owns four patents claiming a stable dosage method of administering 4-aminopyridine (“4-AP”), which is intended to improve walking in individuals with multiple sclerosis (“MS”). Acorda markets this FDA-approved treatment as Ampyra, a 10 mg 4-AP sustained-release tablet that must be taken twice a day for at least two weeks to achieve certain 4-AP serum levels. Acorda also holds the Elan patent, which broadly claims treating individuals with MS using sustained-release formulations of 4-AP.

Acorda sued three companies seeking to develop generic versions of Ampyra. The defendants stipulated to infringement but challenged the validity of the claims. The district court invalidated the Ampyra patents for obviousness but upheld the Elan patent. The Federal Circuit affirmed the invalidation of the Ampyra claims and dismissed the Elan claims as moot since the patent had expired.

The Federal Circuit found that prior art rendered the stable dosing mechanism, 10 mg dosing regimen, and pharmacokinetic limitations obvious. The court further held that the district court had not erred by discounting objective indicia of nonobviousness because the patents at issue were blocking patents. The court reasoned that blocking patents discourage investment activity by non-owners and non-licensees, even if that activity would be in the safe harbor for infringement liability, but that the significance of the diminution of activity and whether to discount objective indicia like commercial success in light of the diminution is a fact-specific inquiry. Applying these principles to the facts of the case, the Federal Circuit found that no one but the Elan patentees and their licensees could have invented the products claimed in the Ampyra patents without facing liability for infringement. Thus, the lower courts properly discounted indicia like commercial success, failure of others, and long-felt but unmet need.

Judge Newman, in dissent, argued that the decades of failure to find a treatment showed that the patent claims were nonobvious. She also criticized the majority as adopting a new legal theory of obviousness.

Advantek Marketing, Inc. v. Shanghai Walk-Long Tools Co.

898 F.3d 1210 (Fed. Cir. 2018)

In this patent case on appeal from the Central District of California, the Federal Circuit reversed and remanded the district court’s decision that prosecution history estoppel bars Advantek from enforcing design patent No. D715,006 for a portable animal kennel against Walk-Long’s product, the Pet Companion.

Advantek appealed the district court's grant of judgment on the pleadings holding that prosecution history estoppel bars Advantek from enforcing the '006 patent against the Pet Companion. The '006 patent relates to the ornamental design for an animal kennel with a particular skeletal structure. In the original application for the '006 patent, the examiner deemed that there were two distinct designs of kennels. Both designs used the same skeletal structure but one had a cover and one did not. Advantek elected to retain the design without the cover due to the restriction that design patent applications are limited to a single claim under 37 C.F.R. § 1.143.

The Federal Circuit affirmed that the three-part test for prosecution history estoppel in a design patent case depends on: (1) whether there was a surrender; (2) whether it was for reasons of patentability; and (3) whether the accused design is within the scope of the surrender. The focus of the Federal Circuit and the issue on appeal in this case was the third prong of the test. The district court found that since Walk-Long's product contains a cover and Advantek had elected to retain the design without the cover, Walk-Long's product is therefore within the scope of Advantek's surrender.

However, the Federal Circuit found that Advantek's claim against the Pet Companion is only against the particular structure of the kennel and not the product as a whole. Citing *Samsung Electronics v. Apple Inc.*, 137 S. Ct. 429 (2016), the Federal Circuit reaffirmed that "the Patent Office and the courts permit a design patent for a design extending to only a component of a multicomponent product." The Federal Circuit found that if a competing kennel has the same skeletal structure as the patented design then it would infringe on Advantek's patent regardless of any extra features added to the kennel. Therefore, the Federal Circuit found that the accused product falls outside the scope of the purported surrender and, as a result, the third prong of the test for prosecution history estoppel is not met. The district court's holding that Advantek is estopped by prosecution history from asserting the '006 patent against Walk-Long was therefore improper and the Federal Circuit remanded the case for further proceedings.

Amerigen Pharm. Ltd. v. UCB Pharma GmbH

913 F.3d 1076 (Fed. Cir. 2019)

In this appeal from an IPR by the PTAB, the Federal Circuit found that petitioner-appellant Amerigen Pharmaceuticals Limited ("Amerigen") had standing but ultimately affirmed the decision of the PTAB. At issue in the case was the '650 patent, which covers certain chemical derivatives of 3,3-diphenylpropylamines and relates to drugs used to treat urinary incontinence. Amerigen argued that modifying the inactive molecule in 5-HMT was obvious and thus the '650 patent was invalid.

The Federal Circuit first decided that Amerigen had standing to appeal the IPR. The patent owner, UCB Pharma GmbH ("UCB"), argued that Amerigen lacked Article III standing because Amerigen had filed an ANDA that had only tentative FDA approval, and a Paragraph IV certification was required to trigger litigation under the Hatch-Waxman Act and, therefore, a concrete Article III injury. Indeed, the FDA would not approve the ANDA until expiry of the previously upheld '650 patent. However, the Federal Circuit found that

Amerigen had standing because it did not premise its injury on a risk of infringement liability but on the present “commercial injury” of the delay to the FDA’s final approval of its ANDA. Because invalidating the ’650 patent would speed the launch of Amerigen’s ANDA product, there was a controversy of “sufficient immediacy and reality” for standing. Though the Federal Circuit found that Amerigen had standing, it also concluded that the PTAB did not legally err and that substantial evidence supported its finding that the claims of the ’650 patent were not obvious. The Federal Circuit agreed with the PTAB finding that a person of ordinary skill would not have been motivated to modify 5-HMT. First, the PTAB pointed to unrebutted expert testimony showing that there was no bioavailability problem that would motivate modification. Second, the PTAB noted that the prodrug development process is complex and difficult, so a person of ordinary skill would not turn to a prodrug approach “to solve an undefined problem.”

Agreeing that a person of ordinary skill would not have been motivated to modify 5-HMT, the Federal Circuit affirmed the PTAB’s finding that Amerigen failed to prove that a skilled artisan would have made the specific modifications leading to the claimed compound. The Federal Circuit noted that a skilled artisan would seek some degree of certainty that a prodrug would be inactive before trying to create it, and petitioners failed to provide any such certainty. They also found that petitioners did not point to any prodrugs analogous to 5-HMT. The Federal Circuit thus found that substantial evidence supported the PTAB’s finding that it would not have been routine to make the modifications. Finally, the Federal Circuit rejected the argument that a skilled artisan would have been motivated to modify 5-HMT because it was patented at the time of invention. The court held that a general motivation to modify did not suffice to prove that the specific claimed modifications were obvious. As a result, the Federal Circuit found no error by the PTAB in its obviousness analysis, and thus affirmed its decision.

Amgen Inc. v. Coherus Biosciences Inc.

931 F.3d 1154 (Fed. Cir. 2019)

In this appeal involving technology for purifying proteins from contaminants using hydrophobic interaction chromatography (“HIC”), the Federal Circuit affirmed the district court’s dismissal under Rule 12(b)(6) for failure to state a claim on which relief can be granted. The Federal Circuit agreed with the district court’s application of argument-based prosecution history estoppel to bar the patentee’s infringement allegations.

Amgen owns the ’707 patent, which claims processes for purifying a protein with HIC. More specifically, the ’707 patent claims recite the use of “first” and “second” salts, each of which is “selected from the group consisting of citrate and sulfate, citrate and acetate, and sulfate and acetate, respectively.” During prosecution of the ’707 patent, Amgen distinguished prior art in several respects, one of which being that the prior art did not teach or suggest the “particular combinations of salts” recited in the ’707 patent’s claims.

Amgen markets a pegfilgrastim product under the name “Neulasta,” and Coherus filed an abbreviated Biologic License Application (“aBLA”), seeking FDA approval for a biosimilar to Neulasta. Coherus’s aBLA revealed that its manufacturing process contains

several steps for purifying pegfilgrastim, and Amgen sued Coherus for infringing the '707 patent. Coherus's manufacturing process purifies a protein using a salt combination, but the process does not utilize any of the salt combinations recited in the claims. Amgen, however, asserted that Coherus's purification method infringes under the doctrine of equivalents. The district court granted Coherus's motion to dismiss under Fed. R. Civ. P. 12(b)(6), holding that the patentee's correspondence with the PTO showed a clear and unmistakable disclaimer of claim scope by the patentee.

On appeal, the Federal Circuit affirmed, agreeing that Amgen clearly and unmistakably surrendered salt combinations other than the particular combinations recited in the claims. Prosecution history estoppel therefore bars Amgen from asserting that Coherus's process infringes under the doctrine of equivalents. In particular, the Federal Circuit agreed with the district court that, based on Amgen's statements during prosecution, a competitor would reasonably believe that Amgen surrendered unclaimed salt combinations. Amgen argued that prosecution history estoppel should not apply because it made other arguments to distinguish the prior art. But the Federal Circuit rejected that argument, explaining that each argument that an applicant makes in prosecution creates a separate estoppel where (as is the case here) the applicant did not rely on the combination of various grounds to distinguish the prior art.

Amgen Inc. v. Sandoz Inc.

923 F.3d 1023 (Fed. Cir. 2019)

In this appeal relating to treatments for neutropenia (a deficiency of white blood cells), the Federal Circuit affirmed the district court's claim construction and its resulting grant of summary judgment of noninfringement.

Amgen sued Sandoz for infringement of the '427 patent and the '878 patent under the Biologics Price Competition and Innovation Act ("BPCIA"). The patents covered biologic products used in the treatment of neutropenia. The district court construed "disease treating-effective amount of at least one chemotherapeutic agent," as recited in claim 1 of the '427 patent, as limited to "an amount sufficient to treat a disease for which at least one chemotherapeutic agent is prescribed." In reaching that conclusion, the district court rejected Amgen's argument that the limitation covers an amount "sufficient to enhance the mobilization of stem cells," regardless of its effect on the underlying disease. After claim construction, Amgen stipulated to noninfringement. The district court also construed claim 7 of the '878 patent to require a multiple steps for a protein purification process, including separate "washing" and "eluting" steps. Since Sandoz's process only involved one step, the district court granted summary judgment of noninfringement of the '878 patent. Amgen appealed.

On appeal, the Federal Circuit first addressed the '878 patent, affirming the district court's claim construction that the '878 patent required separate steps. The court reasoned that "the claim language logically requires that the process steps, lettered (a) through (g) be performed in sequence," and there is no indication on the face of claim 7 the "washing" and "eluting" steps are any different. The court further noted that, in the specification of

the '878 patent, “washing” and “eluting” are consistently described as separate steps. Since Sandoz’s process only used one step, the court held there was no literal infringement. The court also rejected Amgen’s argument that Sandoz’s process infringed claim 7 of the '878 patent under the doctrine of equivalents. The court held that the “district court correctly held that Sandoz’s one-step, one-solution process does not function in the same way as the claimed process.” Indeed, Amgen’s proposed application of the doctrine of equivalents would override the “natural language of claim 7,” extending the claim’s scope to cover “nearly any type of adsorbent chromatographic separation.”

Turning to the '427 patent, the Federal Circuit held that the district court did not err in its construction of claim 1. Amgen argued that claim 1 should encompass “situations where the chemotherapeutic agent is prescribed only for stem cell mobilization rather than treatment of an underlying disease.” The court disagreed with Amgen, holding that the claim term “disease-treating-effective amount” of chemotherapeutic agent requires that the chemotherapeutic agent be administered to treat an underlying disease. The court added that if “Amgen simply wanted to claim a method of mobilizing stem cells, in any context, it could have done so.”

Ancora Techs., Inc. v. HTC Am., Inc.
908 F.3d 1343 (Fed. Cir. 2018)

This appeal involves a patent for methods of limiting a computer’s ability to run software the computer is not authorized to run. Ancora sued HTC for patent infringement in 2016. HTC moved to dismiss under Section 101, arguing that the claims are directed to no more than an abstract idea. The district court agreed and granted the motion to dismiss, and Ancora appealed.

The Federal Circuit held that the claims are not directed to ineligible subject matter because the patent refers to a concrete assignment of specific functions to particular computer components that enables them to work in specified ways. The court concluded that this solution to the specific problems identified in prior-art methods improves computer functionality. The court discussed its precedent explaining that technological patents are not invalid when they utilize specific techniques and depart from earlier approaches to solve a given problem. Here, a specific technique addressed the issue of vulnerability to hacking by relying on characteristics of BIOS memory not previously used in the way now claimed. The claim therefore is not directed to an abstract idea but rather is directed to a solution to a computer-functionality problem with the specificity required to transform the claims from claiming a result to claiming a way of achieving the result. Because the representative claim is not directed to an abstract idea, the court held that the claim passed step one of the *Alice* test such that the claim is not ineligible. The Federal Circuit reversed the judgment of the district court and remanded for further proceedings.

ArcelorMittal Alantique et Lorraine v. AK Steel Corp.

908 F.3d 1267 (Fed. Cir. 2018)

ArcelorMittal Alantique et Lorraine sued AK Steel Corp. for infringing its RE'940 patent. The patent relates to the boron steel sheets that have been treated through a process called hotstamping to become highly mechanically resistant.

The District of Delaware granted summary judgment to AK Steel on the ground that ArcelorMittal's infringement action was collaterally estopped. ArcelorMittal first sued AK Steel in 2010 for infringing the '805 patent related to steel sheets. A jury found that AK Steel's steel sheets were not infringing under the doctrine of equivalents. ArcelorMittal appealed, and the Federal Circuit remanded after reversing on another issue. While the 2010 litigation was on remand, ArcelorMittal sued AK Steel again, alleging infringement of the RE'940 patent. AK Steel moved to dismiss on collateral estoppel grounds, arguing that the issue before the court was the same as the issue in the 2010 case.

The district court concluded that ArcelorMittal's suit was collaterally estopped because the offending products, the steel sheets, were the same in both lawsuits. On appeal, the Federal Circuit held that AK Steel failed to establish that the steel sheets are materially the same as the products at issue in the 2010 action. On the contrary, AK Steel's own product brochures showed that its current steel sheets achieve higher levels of mechanical resistance than the 2010 steel sheets after receiving thermal treatment. Therefore, the court vacated the summary judgment ruling and remanded.

Arctic Cat Inc. v. GEP Power Prods., Inc.

919 F.3d 1320 (Fed. Cir. 2019)

This case concerns an appeal from IPR of two Arctic Cat ("AC") patents for a "power distribution module for personal recreational vehicle[s]"—an electrical-connection box that allows wires to be "arranged and secured" for distribution of power "to various electrical components, including components of a personal recreational vehicle." The Federal Circuit summarily affirmed the PTAB's finding of unpatentability in relation to one patent and vacated its finding of unpatentability in relation to the other patent. It found that although the PTAB's claim construction was correct, the PTAB had mistakenly held that the AC patent was preempted by prior art because it had applied too rigorous a standard in determining whether the AC inventor had reduced his inventions to practice with "reasonable diligence."

GEP Power Products petitioned the PTAB for IPR of all claims of the AC patents, arguing that they were unpatentable as anticipated and obvious, predominantly based on a Boyd patent ("Boyd"). AC responded that preamble references to recreational motor vehicles limited its patent, so as to render GEP's complaints inapposite. AC also maintained that Boyd was not prior art because Janisch, the sole inventor listed on AC's patents, had "conceived the inventions . . . and diligently worked to reduce them to practice" before Boyd was filed. The PTAB rejected AC's preamble-limitation argument on the grounds that the preamble's references merely articulated an "intended use." It rejected the prior-

art argument because AC had failed to show that Janisch exercised “reasonable diligence” in reducing his invention to practice. AC appealed.

The Federal Circuit affirmed the PTAB’s ruling that the phrase “personal recreational vehicle” in the preamble was not limiting because the phrase identified only an “intended use” and “deletion of the disputed phrase . . . [would] not affect the structural definition or operation” of the invention. The preamble did not “supply ‘antecedent basis’ for terms in the body defining a module; nor [did] it supply structure needed to make the body itself a structurally complete invention.”

The court remanded regarding anticipation and obviousness, with instructions not to treat Boyd as prior art. The PTAB held that Janisch had not shown reasonable diligence because the evidence showed several months of inactivity between the time he conceived of the invention and the date of the Boyd application. But the Federal Circuit stated that “diligence need not be perfectly continuous—only reasonably continuous.” And it noted that Janisch’s inactivity came during periods when the invention was being tested by a third party hired by AC. The court rejected the idea that “putting the invention into someone else’s hands for needed testing and awaiting the test results” constituted lack of diligence, “at least where oversight was diligent.” Because the record showed that Janisch oversaw over the testing process and otherwise proceeded diligently, the Federal Circuit held that his invention antedated Boyd, and therefore Boyd could not be prior art.

Arista Networks, Inc. v. Cisco Sys., Inc.

908 F.3d 792 (Fed. Cir. 2018)

This appeal arose following PTAB’s determination on Arista’s petition for IPR of the ’597 patent, owned by Cisco. The ’597 patent relates to a method for securing network devices from external attacks by using a logging module to communicate configuration changes to a device. The named inventor of this process is Dr. David Cheriton, who assigned the patent to Cisco prior to leaving the company to found Arista. The PTAB upheld claims 29, 63, 64, 73, and 86 as patentable, but invalidated claims 1, 14, 39–42, 71, 72, 84, and 85 as anticipated or obvious. Arista appealed with respect to the claims upheld as patentable, arguing that the PTAB’s decision rested on an improper construction of the term “broadcast.” Cisco cross-appealed, arguing that the PTAB erred in refusing to apply the doctrine of assignor estoppel as barring Arista from challenging the ’597 patent’s validity.

The PTAB construed the term “broadcast” in the various claims as requiring a transmission delivered to *all* network devices. Both parties agreed that this was incorrect. Arista argued that “broadcast” should be construed to mean “a transmission to one or more devices.” By contrast, Cisco argued that the correct definition was “transmitting data to one or more devices without specifying what devices will ultimately receive the data.” The Federal Circuit explained that the broadest reasonable construction should be given, and that the plain meaning of a term should generally be used unless it is inconsistent with the specification or prosecution history. Here, both parties and the specification made clear that the only example of broadcast involves a multicast address, which does not necessarily

transmit a message to *all* destinations on a network. Rejecting Arista’s proposed construction as too broad and Cisco’s as unnecessarily limited, the Federal Circuit construed “broadcast” as “a transmission to one or more devices using a multicast address” and “transmitting to one or more devices using a multicast address.”

The Federal Circuit then determined that the PTAB’s decision on whether to apply the doctrine of assignor estoppel was reviewable, notwithstanding Section 314(d)’s provision that the Director’s decision whether to institute IPR is final and nonappealable. Relying on the Supreme Court’s 2016 decision in *Cuozzo Speed Technologies v. Lee* and the Federal Circuit’s en banc decision in *Wi-Fi One, LLC v. Broadcom Corp.*, the Federal Circuit held that the PTAB’s decision was not “closely related to the preliminary patentability determination or the exercise of discretion not to institute” and could therefore be reviewed.

The Federal Circuit then affirmed the PTAB’s decision not to apply assignor estoppel. The PTAB concluded that the doctrine of assignor estoppel is unavailable in the IPR context because Congress had given a broad grant of ability to challenge patentability through the IPR process, and had not expressly provided for the doctrine of assignor estoppel as part of that process. The Federal Circuit concluded that Congress’s statutory purpose not to allow for the doctrine of assignor estoppel is evident in the unambiguous plain language of Section 311(a), which allows for IPR by any person not the owner of a patent. Although this might create some discrepancies between forums where assignor estoppel is allowed, the Federal Circuit concluded that any such discrepancy represented an intentional congressional choice.

The Federal Circuit therefore affirmed the PTAB’s decision not to apply assignor estoppel, and remanded the case for consideration of patentability in light of the Federal Circuit’s construction of “broadcast.”

Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC
915 F.3d 743 (Fed. Cir. 2019)

In this appeal from the District of Massachusetts, the Federal Circuit affirmed the district court’s determination that claims 6–9 of the ’820 patent were invalid under 35 U.S.C. § 101 and affirmed the district court’s dismissal of Athena’s complaint under Rule 12(b)(6).

Athena brought suit against Mayo for infringement of its ’820 patent. The ’820 patent covered “methods for diagnosing neurological disorders by detecting antibodies to a protein called muscle-specific tyrosine kinase.” Mayo moved to dismiss under Rule 12(b)(6) by arguing that “the asserted claims of the ’820 patent were invalid under [Section 101].” Mayo argued that Athena was essentially claiming the natural relationship between the presence of certain antibodies and the diagnosis of myasthenia gravis by attaching known diagnostic methods. The district court agreed and granted the motion to dismiss on the grounds that the asserted claims of the ’820 patent were invalid under Section 101 for claiming ineligible subject matter.

The Federal Circuit affirmed the district court’s decision to dismiss because the claims at issue were directed to a natural law and lacked an inventive concept. The court applied the two-part test set forth by the Supreme Court in *Alice*. The court first held that the claims were directed to a natural law. In particular, the court concluded that “the claimed advance was only in the discovery of a natural law, and that the additional recited steps only apply conventional techniques to detect that natural law.” Under the second step, the Federal Circuit held that the claims failed to contain an inventive concept. Therefore, the court determined that the district court correctly found that the claims of the ’820 patent were ineligible under Section 101.

In addition, the Federal Circuit held that “the district court did not abuse its discretion in declining to consider Athena’s expert declaration and convert the motion into one for summary judgment.”

Judge Newman, writing in dissent, criticized the court’s inconsistent decisions on the patent-eligibility of new diagnostic methods. Judge Newman argued that the majority’s decision “enlarge[d] the inconsistencies and exacerbate[d] the judge-made disincentives to development of new diagnostic methods.” Instead of treating Athena’s claims as a law of nature, Judge Newman would have ruled that the claims were for “a new multi-step diagnostic method.”

ATI Techs. ULC v. Iancu

920 F.3d 1362 (Fed. Cir. 2019)

Overtuning the PTAB’s findings of anticipation and obviousness, the Federal Circuit held that ATI Technologies LLC (“ATI”) had successfully demonstrated diligence, despite some of the work on the invention being directed toward an unclaimed feature.

ATI owned a group of three patents related to “shaders,” which control how a computer presents a three-dimensional image on a two-dimensional medium. LG Electronics (“LGE”) petitioned for IPR of the three patents. In response to the grounds raised by LGE, ATI “swore behind” its patents under 37 C.F.R. § 1.131, alleging conception dates earlier than the critical dates of each of the IPR references. The PTAB found that ATI had prior conceived of the invention, but had not shown reasonable diligence during the necessary time periods.

During the IPR, the PTAB applied the erroneous standard of “continuous reasonable diligence,” rather than “reasonably continuous diligence.” The inventor presented almost 1300 pages of documentary evidence and a calendar summary of what changes were made on a particular date. The evidence included metadata, document logs, and folder histories. At least one person on the relevant project team at ATI had worked on the project every non-holiday business day from conception to ATI’s patent filing date.

The PTAB found this insufficient to demonstrate diligence and dismissed the evidence because some of the work was directed toward optional features of the invention that were not claimed in the patent. In addition, the PTAB stated that ATI had not identified any

unexplained lapses. The Federal Circuit reversed, holding that there was no view of the evidence that could lead to the conclusion that ATI had not demonstrated diligence. The court noted that there were no unexplained lapses because team members had worked on the invention every day. Furthermore, work done as improvements and alternatives while developing an invention does not necessarily negate diligence, even if the improvements are not claimed in the patent.

Auto. Body Parts Ass'n v. Ford Glob. Techs., LLC
930 F.3d 1314 (Fed. Cir. 2019)

In this case, the Automotive Body Parts Association (“ABPA”) sought to vitiate two of Ford’s design patents relating to its pickup truck hoods and headlamps. The ABPA sued Ford in district court, seeking a declaratory judgment of invalidity or unenforceability relating to the two patents. The ABPA eventually moved for summary judgment, alleging that designs for automotive parts were not ornamental and thus not eligible for patent protection, and that manufacturer’s rights in truck hood and headlamp designs were exhausted when the trucks were sold. After considering the ABPA’s arguments, the district court denied the motion, noting that the ABPA effectively asked it “to eliminate design patents on auto-body parts.” The district court instead entered a judgment for Ford, and the ABPA appealed to the Federal Circuit.

The Federal Circuit had to delineate some of the differences and similarities between design patents and utility patents. Specifically, it had to determine what types of functionality invalidate a design patent and whether long-standing rules of patent exhaustion and repair rights applicable to utility patents also apply to design patents. On the issue of validity, the ABPA argued that since car owners seek parts that restore the original appearance of their vehicles, there is a functional benefit to aesthetically compatible designs. The court rejected this argument, pointing out that the ABPA failed to argue that the designs achieve any utilitarian goal and instead relied on a theory that had no basis in case law. Thus, the court affirmed the district court’s determination that the ABPA failed, as a matter of law, to prove Ford’s designs functional by clear and convincing evidence.

The ABPA next contended that Ford’s patents were unenforceable under the related doctrines of exhaustion and repair. Ford conceded that when it sells an F-150, its patents are exhausted as to the components actually sold as part of that truck. However, the ABPA argued that exhaustion extended further, asserting that the sale of an F-150 truck totally exhausts any design patents embodied in the truck, and permits use of Ford’s designs on replacement parts so long as those parts are intended for use with Ford’s trucks. The court rejected the ABPA’s argument, asserting that exhaustion only attaches to items sold, and that there was no persuasive reason to extend the exhaustion doctrine. Remaining unpersuaded with all of the ABPA’s arguments, the court concluded: “we thus reject ABPA’s attempts to develop design patent-specific exhaustion and repair rules. Consequently, we affirm the district court’s ruling that ABPA has not shown that Ford’s designs for an F-150 hood and headlamp are exhausted when Ford sells an F-150 truck.”

AVX Corp. v. Presidio Components, Inc.

923 F.3d 1357 (Fed. Cir. 2019)

In this appeal from a Final Written Decision in an IPR, the Federal Circuit dismissed the appeal for lack of jurisdiction upon finding that petitioner AVX Corporation (“AVX”) lacked Article III standing to appeal the decision of the PTAB. The Federal Circuit reasoned that “any party that appeals to this court must have standing under Article III before we can consider the merits of the case.”

AVX had presented two theories in support of Article III standing, both of which were rejected by the court. First, AVX argued an estoppel theory. AVX petitioned the lower court for an IPR of all 21 claims of Presidio Components’ ’639 patent. Although the PTAB agreed with AVX that certain claims were unpatentable, it rejected AVX’s obviousness challenges with respect to the remaining claims. As such, AVX argued that it suffered an “injury in fact.” AVX claimed that it would be “materially hindered” if the PTAB’s decision was given estoppel effect under Section 315(e), which would preclude it from repeating the same obviousness challenges to the ’639 patent if future litigation occurred. AVX argued that the threat of future litigation was “substantial” given that AVX and Presidio Components are direct market competitors, and have been involved in four district court actions within the last ten years.

The court rejected this argument, reasoning that an invocation of the estoppel provision is not a sufficient basis for standing. The court held that Section 315(e) “does not constitute an injury in fact, when as here, the appellant is not engaged in any activity that would give rise to a possible infringement suit.” The court also expressly left open the question of whether Section 315(e) would even have the estoppel effect that AVX postulated. Specifically, the court declined to decide “whether [Section] 315(e) would have estoppel effect even where the IPR petitioner lacked Article III standing to appeal the Board’s decision to this court” on the grounds that the parties never briefed the issue.

AVX also argued a “competitor standing” theory. AVX argued that it suffered an injury in fact because the PTAB’s decision reduced its ability to compete with Presidio Components. The court held that competitor standing exists only when the disputed action poses a nonspeculative threat to a concrete interest of the appellant. Here, AVX had not asserted that it developed—or even had plans to develop—a product that fell within the scope of the upheld claims. AVX was unable to demonstrate competitive harm as a result of the PTAB’s decision. The court therefore rejected AVX’s competitor standing argument upon finding that AVX “has not shown that it is engaging in, or has nonspeculative plans to engage in, conduct even arguably covered by the upheld claims of the ’639 patent.”

Barry v. Medtronic, Inc.

914 F.3d 1310 (Fed. Cir. 2019)

In an appeal from the Eastern District of Texas, the Federal Circuit affirmed the district court’s decision to uphold a jury verdict of infringement. The jury found that the asserted patents were valid, as the invention was not in public use or on sale before the critical date,

and that Medtronic induced infringement. The district court then denied Medtronic's post-trial challenges and rejected their charge of inequitable conduct. The Federal Circuit affirmed each of the district court's decisions. In doing so, the court held that an invention cannot be "ready for patenting" to trigger a public-use or on-sale bar until the invention has been tested in various settings and is known to work for its intended purpose.

The two patents at issue in this case, the '358 and '121 patents, relate to a method for correcting spinal column anomalies, such as scoliosis, by applying force to multiple vertebrae at once. Dr. Barry, the inventor of this surgical method, first filed for a patent on December 30, 2004. Thus the critical date for an invalidating public use under Section 102(b) was December 30, 2003.

The public use bar is triggered when, before the critical date, the invention "is in public use and ready for patenting." The Federal Circuit applied the Supreme Court's "ready for patenting" test from *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55 (1998), which requires showing either "reduction to practice" or "drawings or descriptions enabling an ordinarily skilled artisan to practice the invention." In other words, Medtronic was required to show that this method was "shown or known to work for its intended purpose" before December 30, 2003.

Medtronic relied on surgeries performed by Dr. Barry in August and October 2003 as evidence of reduction to practice. Dr. Barry had performed three surgeries for all three common types of scoliosis. Medtronic argued that these surgeries showed that the claimed invention of the patents would work for its intended purpose. The Federal Circuit rejected this argument. It found that the evidence allowed for a reasonable finding that Dr. Barry did not know his invention would work for its intended purpose until January 2004, when he completed a follow-up appointment with the third, and final, patient. While Dr. Barry performed surgeries before the critical date, he did not complete follow-ups on all of those surgeries until 2004. The court relied on testimony from Dr. Barry stating that he only concluded the surgical method would work for its intended purpose after completing these follow ups, and evidence that Dr. Barry only wrote up his development work for publication after completing these follow-up appointments in 2004.

The Federal Circuit held that the an invention's "intended purpose" need not be stated in claim limitations. Instead, the Federal Circuit looked to the specification of the patent. In the specification, Dr. Barry sought to address his patients' condition beyond the end of surgery. Thus, even though the claims were only directed at a method of correcting particular spinal anomalies, Dr. Barry did not know his invention would work for the intended purpose of the patent as a whole until after he completed follow-up visits for all three common types of scoliosis.

The Federal Circuit also found that the invention was not in public use, and in any event its use fell within the experimental use exception. The court found that the invention was not in public use because Dr. Barry never relinquished control of his invention and the few people who viewed Dr. Barry's surgeries were staff under an implied duty of confidentiality. The court also found that Dr. Barry's activities fell within the experimental

use exception, which negates any public-use or on-sale bar. The Federal Circuit found it particularly persuasive that Dr. Barry needed testing due to uncertainty about efficacy, that he accepted his normal rate for the surgeries, and that he kept control of the invention through an expectation of secrecy. The court specifically rejected Medtronic's argument that it is a necessary requirement that an experimenter inform patients of the experimental nature of the product. The court explained that notifying patients that a procedure is experimental "was not vital to keeping it from the public domain."

The court also rejected several other challenges from Medtronic. First, it affirmed the district court's jury instruction clarifying that there is a difference between "experimental use" in patent law compared to the medical field. Second, the court found substantial evidence supporting the jury finding that Medtronic failed to prove that another doctor reduced the method to practice before Dr. Barry. Third, it found no inequitable conduct by Dr. Barry. During prosecution of the patent, x-ray drawings were submitted to the patent examiner. Contrary to their description, those x-ray drawings were not of patients treated with the inventive methods. Though he had failed to correct the submission of an inaccurate x-ray until litigation commenced, the Federal Circuit affirmed the district court's finding of no inequitable conduct. The district court found that there was no intent to deceive the PTO, a required element of inequitable conduct. The Federal Circuit could not find a clear error with this finding given the explanations of Dr. Barry and his counsel. Finally, the Federal Circuit found substantial evidence supporting the jury finding of direct infringement and induced infringement of Dr. Barry's patents.

Chief Judge Prost, dissenting in part, concluded that Dr. Barry's surgeries performed prior to the critical date constituted "on sale" or "public use" for the '358 patent. In her opinion, the majority found an "intended purpose" outside the claim limitations and specifications. Chief Judge Prost found no evidence that the patent mentioned follow-up time or the need to test all three common types of scoliosis. Thus, she found that Dr. Barry had reduced the invention to practice by the second surgery. Chief Judge Prost also deviated with the majority's finding of an experimental use. She determined that the surgeries were not experimental uses of the invention due to the lack of records concerning experimentation, the failure of Dr. Barry to inform customers of an experimental purpose, and the fact that Dr. Barry charged the patients a normal fee for these surgeries.

Bennett Regulator Guards, Inc. v. Atlanta Gas Light Co.
905 F.3d 1311 (Fed. Cir. 2018)

This case concerned the statutory time bar for filing a petition for IPR under 35 U.S.C. § 315(b), as well as sanctions under the AIA. In 2012, Bennett sued Atlanta Gas Light for patent infringement, which the district court dismissed without prejudice. In 2015, Atlanta Gas Light petitioned for IPR. On appeal, Bennett argued that the PTAB erred in instituting the IPR, as the filing was time-barred under Section 315(b). Additionally, in the course of those proceedings, Atlanta Gas Light failed to notify the PTAB of a merger and name change, as required by the AIA. This led the PTAB to consider sanctions. Though it did not dismiss the IPR, it did allow Bennett to seek costs and fees. Atlanta Gas cross-appealed from that judgment.

First, the Federal Circuit ruled that the IPR was, indeed, time-barred. Section 315(b) prohibits such a filing made more than one year after service of the initial infringement complaint. The PTAB reasoned that a without-prejudice dismissal had nullified service; however, the Federal Circuit found no basis for that exception, since the statute clearly refers to *service* of a complaint. Therefore, the court held, the IPR filing occurred over eighteen months past the statutory time limit. The Federal Circuit vacated the PTAB's decision and remanded with instructions to dismiss the IPR.

As to sanctions, the Federal Circuit held that it did not have jurisdiction to review a non-final order. The court declined to extend pendent jurisdiction to the sanctions issue, noting that pendent jurisdiction should be exercised "reluctantly and only to issues 'inextricably intertwined' with . . . [those] already before the court." Here, the timeliness of the IPR petition and the award of sanctions had different legal bases. The court also declined to bifurcate the sanctions decision and find a "final order" in the PTAB's decision not to punitively terminate IPR. Instead, the Federal Circuit decided that sanctions—including the monetary amount to be determined—comprised a single, non-final order that was not yet appealable.

Bradium Techs. LLC v. Iancu
923 F.3d 1032 (Fed. Cir. 2019)

In this appeal relating to patents directed to retrieving large-scale images over low-bandwidth channels and to displaying such images on devices with limited processing power, the Federal Circuit upheld the PTAB's determination finding the claims unpatentable as obvious over the prior art.

On appeal, the patent owner Bradium Technologies LLC argued that the PTAB's construction of the claim term "limited bandwidth communications channel" as a "communications channel whose bandwidth is limited" was overly broad. Relying on the written description, Bradium argued that this term should be construed as requiring the claimed channel to be "substantially permanently limited in bandwidth due to technical constraints on the channel itself." The Federal Circuit affirmed the PTAB's construction, holding that the passage of the written description that Bradium pointed to did not clearly indicate that the patentee meant to redefine the claim term. To the contrary, the passage that Bradium pointed to made clear that the "limited bandwidth" is not necessarily due to "technical constraints," as Bradium averred, but rather can be due to "high concurrent user loads." The Federal Circuit further reasoned that the PTAB's construction is consistent with testimony of the inventor, which the PTAB relied on as factual extrinsic evidence to support its plain meaning construction.

With respect to the PTAB's ultimate obviousness conclusion, Bradium argued that the prior art references at issue, Reddy and Hornbacher, did not disclose a "limited bandwidth communication channel" under the PTAB's construction. Bradium argued that Reddy taught that the large-scale image retrieval technology at issue in the case could only operate on a high speed broadband network. But the Federal Circuit held that Reddy was not

limited to high-speed networks and indeed encouraged the use of technology that could operate over lower-bandwidth communication channels.

Bradium also argued that Reddy disclosed only methods for sequencing images for retrieval, but that it did not teach the claimed process of associating a distinct prioritization value with images for retrieval. The Federal Circuit rejected Bradium's argument, reasoning that Reddy's algorithms suggest prioritization. For example, Reddy's "coarse-to-fine" and "predict-and-pre-fetch" algorithms prioritized some image tiles over others.

BSG Tech LLC v. BuySeasons, Inc.
899 F.3d 1281 (Fed. Cir. 2018)

In this patent case on appeal from the Eastern District of Texas, the Federal Circuit affirmed the district court's decision to dismiss BSG's suit against BuySeasons for patent infringement because BSG's asserted patents—the '294, '699, and '562 patents—are ineligible under Section 101. BSG appealed the district court's decision, arguing that the claims in these patents were not directed towards patent ineligible subject matter. BSG's asserted patents related to software that used a self-evolving generic index to organize information being stored in a database.

The Federal Circuit applied the two-part *Alice* test for patent eligibility. Under step one, the court determined that the claims were directed to the abstract idea of considering historical usage information while inputting data, which was a patent ineligible concept. BSG made three arguments as to why the patent claims were not directed to this abstract idea: (1) the claims required a specific database structure, (2) the claims required users to consider summary usage information rather than any type of historical usage information, and (3) the claim was focused on a non-abstract improvement in database functionality. The court did not find any of the three arguments persuasive. For the first argument, the court determined that reciting components of a database structure slightly more detailed than a generic database did not make the asserted claims less abstract enough to overcome step one. For the second argument, the court determined that this was merely changing the application of an abstract idea to be more narrow, but this type of narrowing had never by itself satisfied step one. For the third argument, the court determined that the non-abstract improvement improved the information itself but did not actually improve the functioning of the database. A database of ordinary functionality and capacity was unpatentable.

Under step two, the Federal Circuit found that BSG's supposed inventive concept amounted to no more than performing the abstract idea of parsing and comparing data on conventional computer components. The court reaffirmed that, as a matter of law, narrowing or reformulating an abstract idea did not significantly add to it and therefore could not be considered to be an inventive concept. Summary judgment on these claims was therefore proper, and the court affirmed the district court's decision.

BTG Int'l Ltd. v. Amneal Pharms. LLC

923 F.3d 1063 (Fed. Cir. 2019)

In this consolidated appeal, the Federal Circuit affirmed a ruling by the District of New Jersey finding the claims of the asserted patent invalid as obvious. The district court's ruling, which came after a bench trial, was based on a Final Written Decision by the PTAB that construed the term "treatment" in the asserted claims and then, based on that construction, found that the claims were obvious over the prior art.

The asserted patent disclosed a cancer "treatment" whereby an anti-cancer drug is combined with a steroid, such as prednisone, to more effectively treat prostate and breast cancer. The claims explicitly recited "a method for the treatment of a prostate cancer," and the district court agreed with the PTAB's finding that the asserted claims' use of "treatment" includes "the eradication, removal, modification, management, or control of a tumor or primary, regional, or metastatic cancer cells or tissue and the minimization or delay of the spread of cancer." Appellants argued that this construction was incorrect because it does not require "an anti-cancer effect" and that, under its construction, the prior art references would not render the claims obvious.

The Federal Circuit reviewed the claim language, specification, and prosecution history. It concluded that the use of "treating" and "therapeutic agent," as applied to prednisone (an example cited in the specification) supported the district court's construction of "treatment." Further, the prosecution history showed that a broad construction of "treatment" was necessary "because the claims were not allowable otherwise." The Federal Circuit therefore held that the claims were properly construed.

The Federal Circuit then affirmed the finding that the asserted claims were invalid as obvious, noting that they still would have been found obvious under appellants' proposed construction. More specifically, the court held that a person having ordinary skill in the art "would have a reasonable expectation of success in combining [the prior art references] to arrive at the invention of the Asserted Claims." Further, under the appellants' construction, the court found a reasonable expectation of success in combining prednisone with an anti-cancer drug "because they were both together and individually considered promising prostate cancer treatments at the time." The Federal Circuit also rejected the patent holders' arguments that the district court (and the PTAB) failed to consider the entirety of the record and improperly allowed its construction of "treatment" to "infect[]" its analysis of objective indicia of nonobviousness." Instead, the Federal Circuit held that the district court "properly considered the objective indicia of nonobviousness under the accurate claim scope and determined that they were 'neutral or not in favor of the patentability of the Asserted Claims, and do not outweigh the other *Graham* factors in its obviousness analysis."

Celgene Corp. v. Peter

931 F.3d 1342 (Fed. Cir. 2019)

Celgene Corporation sells and distributes thalidomide. The Coalition for Affordable Drugs VI LLC (“CFAD”) filed an IPR petition challenging the validity of a number of claims directed to Celgene’s Systems for Thalidomide Education and Prescription Safety (“S.T.E.P.S.”). In its final written decisions, the PTAB held that CFAD had shown that certain of Celgene’s claims were unpatentable. Celgene appealed not only the PTAB’s unpatentability determinations, but also that the retroactive application of IPR to patents filed before September 16, 2012, when the relevant provisions of the Leahy-Smith America Invents Act went into effect (“pre-AIA patents”), is an unconstitutional taking.

The Federal Circuit disagreed. Determining that “this [wa]s one of those exceptional circumstances in which [the court’s] discretion [wa]s appropriately exercised to hear Celgene’s constitutional challenge even though it was not raised below,” the court held that “the retroactive application of IPR proceedings to pre-AIA patents is not an unconstitutional taking under the Fifth Amendment.”

Patent owners have always had the expectation that the validity of their patents could be challenged in district court. And by the time Celgene filed the patents at issue, *ex parte* reexamination had existed for roughly two decades. *Inter partes* reexamination was also available when Celgene filed one of the two patents at issue. Thus, the court determined, Celgene’s pre-AIA patents were granted subject to existing judicial and administrative avenues for reconsidering their validity. It was in this context that the court considered the effect that retroactive application of IPR proceedings would have on the patent right granted by the PTO. Specifically, the court considered whether IPR proceedings differ from the pre-AIA review mechanisms significantly enough, substantively or procedurally, to effectuate a taking. It concluded that they do not.

Cellspin Soft, Inc. v. Fitbit, Inc.

927 F.3d 1306 (Fed. Cir. 2019)

Cellspin brought action against Fitbit and other co-defendants alleging infringement of four patents setting forth a method of connecting a data capture device to a mobile device allowing users to automatically publish content from the data capture device to online websites. Fitbit and co-defendants filed a motion to dismiss and a motion for attorney’s fees. The Northern District of California granted both motions. The Federal Circuit vacated the district court’s grant of the motion to dismiss and its award of attorneys’ fees. The Federal Circuit remanded the case for further proceedings.

The district court held that the patents failed to satisfy eligibility requirements of Section 101. The four patents at issue all related to connecting a data capture device to a mobile device so that the user can publish content from the data capture device to a website. The patent claimed involved using Bluetooth to transfer data from the data capture device to the mobile device. The district court concluded that the asserted claims were directed to the abstract idea of “acquiring, transferring, and publishing data and multimedia content

on one or more websites.” The asserted claims merely transformed a conventional manual process into simple automation. Because the system used generic computer components “performing as expected according to their ordinary use,” the asserted claims lacked “inventive concept.” The district court awarded co-defendants attorney’s fees because it found that Cellspin’s claims were “manifestly directed to an abstract idea” and “exceptionally meritless.” The district court also criticized Cellspin for “refusal to analyze its patents critically” before filing suit.

The Federal Circuit agreed with the district court that Cellspin’s asserted claims were directed to an abstract idea; however, the court held that Cellspin’s claims recited a “specific, plausibly inventive way of arranging devices and using protocols rather than the general idea of capturing, transferring, and publishing data.” Cellspin’s asserted claims made specific, plausible factual allegations regarding why its claimed inventions were not conventional, including its two-step, two-device structure requiring a connection before the data is transmitted. The district court should have accepted Cellspin’s allegations as true; and thus, erred in granting the motion to dismiss under Section 101.

The Federal Circuit further held that the district court erred in awarding attorneys’ fees to co-defendants. The district court awarded attorneys’ fees because it erroneously concluded that issued patents are presumed valid but not patent eligible. The Federal Circuit held that the district court misapplied the law. When challenging a patent’s validity, the burden is on the alleged infringer to prove that the patent does not satisfy the prerequisites for issuance of a patent. The patents at issue in this case were granted by the PTO and were presumptively valid.

CenTrak, Inc. v. Sonitor Tech., Inc.
915 F.3d 1360 (Fed. Cir. 2019)

CenTrak sued Sonitor for infringement claiming that the Sonitor Sense system infringed the ’909 patent. The District of Delaware granted summary judgment in favor of Sonitor. The district court rejected CenTrak’s assertion that the party assembling components into the claimed assembly “makes” the patented invention, even when someone else supplies most of the components (the “final assembly” theory of infringement). Moreover, the district court held that CenTrak’s patent failed to satisfy the written description requirement. The Federal Circuit reversed and remanded for further proceedings.

The ’909 patent claims systems for locating and identifying portable devices using ultrasonic base stations. The accused Sonitor Sense system uses gateways, ultrasonic location transmitters, and portable locator tags to track location of devices. Sonitor also provides software for installation on customers’ server hardware. CenTrak asserted that the integration of these components infringes the ’909 patent.

The Federal Circuit held that CenTrak raised a triable issue of fact regarding infringement based on the final assembly theory. Although Sonitor did not make, use, or sell each individual component element of the system, the Federal Circuit stated that “a final assembler can be liable for making an infringing combination . . . even if it does not make

each individual component element.” In this case, Sonitor integrated the components by installing and configuring software and performing data entries. On this basis, a fact-finder could find Sonitor liable for infringing the ’909 patent.

The Federal Circuit also held that there were genuine issues of material fact as to whether disclosure of the implementation details satisfied the written description requirement. While the specification devoted “relatively less attention to the ultrasonic embodiment compared to the infrared embodiment” of the system, experts characterized the infrared and ultrasound technologies as “interchangeable.” The inner workings and details of the system were known to skilled artisans. Thus, the district court erred in granting summary judgment.

ChargePoint, Inc. v. SemaConnect, Inc.
920 F.3d 759 (Fed. Cir. 2019)

The Federal Circuit in this appeal held that patents directed to systems and methods for “networked charging stations” for automobiles were unpatentable under Section 101. Patentee ChargePoint represented that these patents “describe a paradigm-shifting concept of how to charge electric vehicles in a dynamic, networked environment.” The Federal Circuit, however, found all claims to be unpatentable on the grounds that, under *Mayo/Alice*, they were “directed to” patent-ineligible concepts and that none “amount[ed] to significantly more than a patent upon the [ineligible concept] itself.”

ChargePoint sued SemaConnect for patent infringement, in response to which SemaConnect filed a motion to dismiss, contending that all of ChargePoint’s asserted claims were unpatentable under Section 101. The district court granted SemaConnect’s motion to dismiss, holding that all ChargePoint’s claims were directed to an ineligible concept. ChargePoint appealed.

At the first step of its *Alice* inquiry, the Federal Circuit found that all claims were “directed to a patent-ineligible concept,” *i.e.*, the abstract idea of communication over a network to interact with a device connected to the network. In examining the claim language, the court found that the claims were not directed at “overcoming some . . . [specific] technical difficulty.” Rather, they were “drafted in such a result-oriented way” that they would “preempt the use of any networked charging stations.”

At step two, the court found that no claim contained the requisite “inventive concept.” ChargePoint argued that its claims asserted remote operation as a way of “solving a problem in the field” in an “unconventional way.” The court found, however, that the claim language underlying ChargePoint’s defenses merely restated an abstract idea or a “familiar business choice of terms” that failed to “capture technical improvements.” The abstract idea itself—here, communication over a network—could not supply the inventive concept needed to pass *Alice* step two.

Cisco Sys., Inc. v. TQ Delta, LLC

928 F.3d 1359 (Fed. Cir. 2019)

Cisco filed an IPR challenging numerous claims of TQ Delta’s ’404 patent. In *TQ Delta, LLC v. DISH Network LLC*, 929 F.3d 1350 (Fed. Cir. 2019), the Federal Circuit affirmed the PTAB’s decision finding six of the patent claims unpatentable for obviousness. However, in this appeal, the court held that the PTAB failed to give the disputed patent terms in the remaining challenged claims the “broadest reasonable interpretation.”

TQ Delta’s patent described a “method for establishing a power management sleep state in a multicarrier system’ and efficiently waking up a transmission system utilized on a hardware, such as a computer, from sleep mode.” The PTAB construed the claim term “synchronization signal” to include only a frequency synchronization between the signal’s transmitter clock and the signal’s receiver clock. However, Cisco argued that “synchronization signal” meant “a signal allowing frame synchronization between the transmitter of the signal and the receiver of the signal,’ and was not limited to describing what the signal must synchronize, or to a particular type of synchronization.” The court analyzed an illustrative claim’s language, a surrounding claim’s language, and the patent specification to determine that because frame synchronization requires frequency synchronization, “synchronization signal” included both synchronization types. Thus, the court remanded the case for the PTAB to determine the patentability of the remaining challenged claims under the correct claim construction.

Click-To-Call Techs., LP v. Ingenio, Inc.

899 F.3d 1321 (Fed. Cir. 2018)

In this case, the Federal Circuit held that the one-year time-bar on IPR petitions in 35 U.S.C. § 315(b) is still triggered by service of the complaint even if the suit itself is subsequently voluntarily dismissed without prejudice.

In 2001, Inforocket.com and Ingenio filed infringement suits against each other in district court but voluntarily dismissed the suits without prejudice. In 2013, Ingenio and several companies filed an IPR petition challenging claims in the patent at issue. The PTAB held that the petitioners were not time-barred from filing an IPR petition.

On appeal, the Federal Circuit found that the PTAB’s interpretation did not merit *Chevron* deference at either step of the analysis. At step one, the court found that the plain language of Section 315(b) neither contained explicit exceptions nor indicated that subsequent acts or rulings affected its application. This was telling because Congress explicitly provided exceptions for dismissal in other parts of the statute. Furthermore, legislative history supported the idea that the date of service is determinative of whether an IPR petition is time-barred.

At step two, the court found the PTAB’s interpretation unreasonable because it misread Section 315(b), which unambiguously looks only at whether the complaint was served, not subsequent events after service. Reviewing the Federal Circuit precedents that the PTAB

relied on, the court found that those cases dealt with whether filing an appeal and subsequently dismissing that appeal voluntarily tolls the jurisdictional deadline to appeal the decision below. Thus, they were inapplicable. Pointing to the context of costs and fees, the court further rejected that there was a background legal principle that voluntary dismissal without prejudice leaves parties in the same legal position as if the underlying complaint had never been filed.

The court also rejected the petitioners' alternative argument that, because the patent was materially changed, they had not been served with a complaint about the patent currently at issue outside of the one-year limit. The court emphasized that Section 315(b) measures timeliness with reference to the patent as a whole, not the claims within.

Finally, the court refused to apply harmless error analysis. It declined to inquire into the relationship between the petitioners because Section 315(b) treats a petition as if there is a single petitioner to determine timeliness. Since timeliness goes to the authority to institute IPR, the error was not harmless.

The en banc court joined in the Section 315(b) analysis. Judges Dyk and Lourie dissented, finding that the statutory language was ambiguous.

Coda Dev. S.R.O. v. Goodyear Tire & Rubber Co.

916 F.3d 1350 (Fed. Cir. 2019)

This case arose out of a dispute on inventorship in several Goodyear patents. Frantisek Hrabal, Coda's CEO, claimed that he invented certain self-inflating tire ("SIT") technology. In 2009, Mr. Hrabal met several times with Goodyear representatives regarding SIT technology. Mr. Hrabal allowed Goodyear to examine a functional prototype of Coda's SIT technology. Both parties signed a nondisclosure agreement. In 2011, Goodyear applied for a patent on SIT technology. The patent was issued as U.S. Patent No. 8,042,586. Between 2012 and 2015, eleven other patents were issued to Goodyear covering devices used in SIT. Coda brought claims against Goodyear seeking correction of inventorship and misappropriation of trade secrets. The Northern District of Ohio granted Goodyear's motion to dismiss for failure to state a claim. The Federal Circuit vacated the judgment and remanded the case to district court.

The Federal Circuit held that the district court erred in granting Goodyear's motion. Accepting the complaint's well-pleaded factual allegations as true, the Federal Circuit concluded Coda's claims for correction of inventorship were plausible. Mr. Hrabal met with Goodyear officials on two separate occasions, Goodyear took pictures of Coda's prototype without authorization, and Goodyear stopped communicating with Coda after the second meeting. There was a reasonable inference that Mr. Hrabal conceived the invention of the '586 patent and warranted a correction of inventorship.

The district court made a procedural error in granting Goodyear's motion to dismiss. In granting the motion, the district court considered Mr. Hrabal's published article in November 2008 disclosing proprietary information regarding SIT technology. The article

was not part of the pleadings. Because the district court considered matters outside of the pleadings, the district court should have converted Goodyear's motion to dismiss into a motion for summary judgment, and allowed Coda a reasonable opportunity to present all pertinent material.

The district court also erred in dismissing Coda's trade secret misappropriation claim as time-barred. Under Ohio law, a trade secret misappropriation claim must be brought within four years after the misappropriation is discovered or by the exercise of reasonable diligence should have been discovered. The district court stated that Coda's interaction with Goodyear employees and the subsequent silence from Goodyear "should have been sufficient notice to [Coda] that something might have been amiss," thus triggering a duty to investigate. The Federal Circuit held that the district court misapplied the statute-of-limitations standard. Rather than inferring when Coda should have begun investigating, the inquiry should be fact-specific. The Federal Circuit stated that it was reasonable for Coda to assume that Goodyear lost interest or would adhere to the nondisclosure agreement signed by both parties. Thus, Coda's claim for trade secret misappropriation was not time-barred because Coda did not have adequate notice of Goodyear's misappropriation.

Cont'l Circuits LLC v. Intel Corp.

915 F.3d 788 (Fed. Cir. 2019)

In this appeal from the District of Arizona, the Federal Circuit vacated and remanded the district court's judgment of noninfringement based on an incorrect claim construction.

Continental sued Intel for patent infringement. The four patents at issue covered the process for making multilayer electrical devices. The district court found that Intel "had 'met the exacting standard required' to read a limitation into the claims" and the court held that the claims required a "*repeated desmear process*." Based on the court's claim construction, the parties "stipulated to noninfringement and the court entered judgment accordingly." On appeal, Continental challenged the district court's claim construction. Continental argued that the district court erred by construing the claims to require that the "dielectric material be 'produced by a repeated desmear process.'"

The Federal Circuit agreed with Continental, finding that the district court erred in "limiting the claims to require a repeated desmear process." The court first acknowledged that the plain language of the claims did not include a repeated desmear process. Next, the court examined the specification statements and concluded that the statements did not "result in a clear disavowal of claim scope." In addition, the court found that the prosecution history failed to constitute a clear disavowal of claim scope. The court held that an expert declaration explaining one technique did not "amount to clear statements of disavowal." Furthermore, the court held that since the "patentee ha[d] not 'made clear' that the repeated desmear process [was] 'an essential part of the claimed invention' . . . it was improper for the district court to read this process limitation into the product claims." Therefore, the Federal Circuit vacated the judgment and remanded for further proceedings.

Core Wireless Licensing S.A.R.L. v. Apple Inc.

899 F.3d 1356 (Fed. Cir. 2018)

Core Wireless owns the '151 and '536 patents. The '151 patent claims technology to synchronize a mobile station, like a cell phone, to a base station using the same timing advance value (“TAV”) information for both the uplink and downlink channels. The '536 patent uses “frame stealing” to transmit unexpected control messages on the user information channel.

The jury found that both patents were valid and that Apple infringed both. During the concurrent bench trial, the district court held that the '151 patent was not unenforceable due to implied waiver. The Federal Circuit affirmed the jury findings of infringement and validity for the '151 patent but vacated the lower court’s finding of no unenforceability. The court also reversed the finding of infringement for the '536 patent.

On appeal, Apple argued that its devices have modes that are configured to receive multiple TAVs, so they did not infringe the patents, which claimed devices “configured to[] receive a [TAV] once.” The court rejected Apple’s reading of the claim as referring to mobile devices configured to receive one and only one TAV. Furthermore, the fact that Apple’s devices could operate in non-infringing modes did not save the fact that they also operate in infringing modes.

On Apple’s anticipation and obviousness claims, the court found conflicting testimony from Apple and Core Wireless’s experts, either of which the jury could have reasonably believed. Thus, the court affirmed.

Apple also argued that the '151 patent was unenforceable by implied waiver because Nokia, the original assignee of the patent, violated its duty to disclose its patent applications when submitting related proposals to ETSI, the European standard-setting agency. There was un rebutted expert testimony at trial that the applications were covered by ETSI’s disclosure rules. However, the Federal Circuit found that the district court’s determination could have been based on the rationale that because Nokia’s proposal was not adopted, no inequitable consequences resulted from the failure to disclose. The court vacated and remanded for proceedings to determine whether Nokia or Core Wireless inequitably benefited.

Apple further challenged the jury’s finding of infringement for the '536 patent, which described a system where frames had two states, one good and one bad. “Good state” and “bad state” were previously construed to refer to the state of the frame itself, not how the device treated the frame. Since Apple’s device flagged frames as good, bad, and a third state, the court held that there was no infringement. Apple also challenged the finding that it infringed the bit pattern claim. In prior proceedings, “bit pattern” was construed to exclude messages “delineated by a code word.” Reviewing the prosecution history, the court found that the '536 patent was differentiated from prior patents which “delineated” the start and end of the message with code words. Because Apple included code words before messages, the court found it did not infringe the '536 patent.

Data Engine Tech. LLC v. Google LLC

906 F.3d 999 (Fed. Cir. 2018)

The Federal Circuit heard a pair of patent-eligibility appeals pertaining to electronic spreadsheets. Data Engine Technologies (“DET”) held patents over a system of organizing multi-page spreadsheets with notebook-like tabs. Additionally, DET held patents to a system of running track-change data simulations, wherein the original data is preserved and the new outputs are clearly identified. DET brought infringement action against Google on both counts. The district court held that all of DET’s claims were patent-ineligible abstract ideas.

On appeal, the Federal Circuit reversed with respect to the tabbing patents but affirmed the other findings of ineligibility. The tabbing patents were a patent-eligible concept at *Mayo/Alice* step one because they presented a “specific” and “particular” way to navigate electronic spreadsheets, thereby “improv[ing] the efficient functioning of computers.” Though notebook tabs are now in widespread use, they solved a significant problem of navigating three-dimensional spreadsheets and were lauded improvements at the time. Reading the claims as a whole, the panel found that the structure and function of the notebook tabs offered a *specific* improvement to computer functionality. The tabbing patents were not directed to an abstract idea, so the Federal Circuit held the claims patent-eligible.

For the remaining patent claims, the Federal Circuit applied the *Mayo/Alice* framework to affirm the district court’s judgment. The court held a claim of the tabbing patents, pertaining to partitioning and associating spreadsheet pages, was directed to an abstract idea at step one because it lacked “the specific technical solution and improvement in [computer] functionality” present in other claims. At step two, the Federal Circuit held that there was no inventive concept sufficient to transform the abstract idea into a patent-eligible application. Likewise, the track-change patent also failed the patent-eligibility test, as it was directed to the abstract idea of recognizing and storing changes to spreadsheet data, with no inventive concept.

Diebold Nixdorf, Inc. v. Int’l Trade Comm’n

899 F.3d 1291 (Fed. Cir. 2018)

The Federal Circuit reversed the ITC’s finding that Diebold violated Section 337 by importing automated teller machines (“ATM”) that infringe on certain claims of Hyosung TNS Inc.’s ’235 patent. Reviewing an ALJ determination in a Section 337 investigation, the ITC determined that Diebold violated Section 337 and issued a limited exclusion order and cease and desist orders. The ’235 patent describes a specific ATM that is capable of depositing a bundle of checks and cash in the same transaction.

Diebold argued that the term “cheque standby unit” used in the claims of the ’235 patent was nothing more than a generic verbal construct that did not connote a sufficiently definite structure and therefore did not meet the requirement of definiteness in 35 U.S.C. § 112(f).

The Federal Circuit determined that the term “cheque standby unit” was subject to the application of Section 112 and was intended to be a means-plus-function term.

The Federal Circuit agreed with Diebold that the term “cheque standby unit” as understood by a person of ordinary skill in the art failed to connote any particular structure and therefore would be invalid for indefiniteness under Section 112. To rebut the applicability of Section 112, the ITC attempted to argue that Diebold failed to present affirmative evidence of how a person of ordinary skill would understand the claim language. The court rejected this argument on the grounds that affirmative evidence was not a necessity. The court instead concluded that Diebold could overcome the presumption against the applicability of Section 112 solely on evidence intrinsic to the patent. Expert testimony was insufficient to overcome the intrinsic evidence because the testimony did not offer any structural limitations to the scope of the term or show that there was a definite structural meaning to persons of ordinary skill in the art. Since the term “cheque standby unit” was subject to Section 112 and the specification did not disclose a sufficient structure that corresponds to the claimed function, the court concluded that the claims at issue in the ’235 patent were invalid for indefiniteness. Accordingly, the court reversed the ITC finding that Diebold violated Section 337.

Dr. Falk Pharma GMBH v. Generico, LLC

916 F.3d 975 (Fed. Cir. 2019)

At issue in this case were three motions to disqualify Katten Muchin Rosenman LLP (“Katten”) as counsel for Mylan Pharmaceuticals Inc. in three appeals before the Federal Circuit. Valeant Pharmaceuticals International, Inc. (“Valeant-CA”) and Salix Pharmaceuticals (“Salix”) moved to disqualify counsel in *Valeant Pharmaceuticals International, Inc. v. Mylan Pharmaceuticals Inc.*, No. 2018-2097, Salix moved to disqualify in *Salix Pharmaceuticals, Inc. v. Mylan Pharmaceuticals Inc.*, Nos. 2017-2636, 2018-1320, and Valeant-CA and Salix moved to disqualify in *Dr. Falk Pharma GmbH v. GeneriCo, LLC*, No. 2017-2312. The Federal Circuit concluded that Katten’s representation of Mylan in the appeals presented concurrent conflicts of interest. The Federal Circuit granted the motions to disqualify.

The conflicts of interests arose out of Katten’s representation of Valeant-CA and its affiliates. Katten represented Bausch & Lomb, a corporate affiliate of Valeant-CA, in a separate trademark litigation. When Katten signed the engagement letter with Bausch & Lomb, the engagement letter defined Katten’s client as any Valeant-CA entity. Salix, a movant in all three appeals, was a wholly owned subsidiary of Valeant-DE, which was an indirect, wholly owned subsidiary of Valeant-CA. Valeant-CA contended that it was a longstanding client of Katten both directly and through its subsidiaries. Thus, the express language of the engagement letter prohibited Katten from representing Valeant-CA and Salix.

The Federal Circuit reasoned that Valeant-CA, including its subsidiaries, were so interrelated that representation of one constituted representation of all. Valeant-CA, Salix, and Bausch & Lomb “all share[d] a high degree of operational commonality and [were]

financially interdependent.” Based on the contents of the engagement letter and the interrelatedness of Bausch & Lomb, Salix, and Valeant-CA, the Federal Circuit granted patentee’s motion to disqualify counsel.

Duncan Parking Techs., Inc. v. IPS Grp., Inc.
914 F.3d 1347 (Fed. Cir. 2019)

In this case involving consolidated appeals from the PTAB and the Southern District of California, the Federal Circuit: (1) affirmed the district court’s grant of summary judgment of noninfringement of one patent relating to parking meter technology; (2) reversed the PTAB’s decision that certain claims of the patent were not unpatentable as anticipated by a second patent; and (3) vacated the district court’s grant of summary judgment of noninfringement of the second patent based on faulty claim construction, remanding the case for further proceedings on that issue.

In July 2015, IPS Group, Inc. (“IPS”) sued Duncan Solutions Inc., Duncan Parking Technologies, (together, “DPT”), and CivicSmart, Inc., claiming that DPT infringed two IPS patents for credit card-enabled, solar-powered, single-space parking meter devices (the ’310 patent and the ’504 patent). IPS claimed that DPT’s device, the Liberty Meter, infringed claims 1–9 and 11 of the ’310 patent because it shared many features described in the patent claims. DPT moved for summary judgment on the grounds that the Liberty Meter was missing a claimed element: a “window and a plurality of buttons that operate the parking meter.” The district court for the Southern District of California agreed, finding that the cover panel of the Liberty Meter did not contain such a control panel, and therefore the device did not infringe. In a separate decision, the district court also found that the Liberty Meter did not infringe the ’504 patent, because it was missing the required claim element that the “lower portion of the parking meter device be configured to have a shape and dimensions such that the lower portion is receivable within the housing base of the single space parking meter.”

After IPS filed its complaint, DPT petitioned the USPTO for IPR of claims 1–5 and 7–10 of the ’310 patent, on the ground that the ’054 patent anticipates the ’310 patent. IPS argued that the anticipating portions of the ’054 patent were solely the invention of Dave King, CEO of IPS and a named inventor of the patent, and therefore could not be applied as prior art against the ’310 patent claims. DPT argued that the ’054 patent is prior art under Section 102(e) because at least a portion of the patent’s anticipating disclosure was conceived of by Alexander Schwartz, IPS CTO and another named inventor. The PTAB agreed with IPS, concluding that King was the sole inventor of the ’504 patent, and therefore the claims at issue were not unpatentable due to anticipation. IPS appealed the district courts’ findings of noninfringement and DPT appealed the PTAB’s findings. The appeals were consolidated for review by the Federal Circuit.

The Federal Circuit’s decision contained at least three findings. First, the Federal Circuit reversed the PTAB’s determination, finding that the PTAB erred in concluding that King was the sole inventor and agreeing with DPT that the ’504 patent anticipated the ’310 patent. The court specifically pointed to one figure in the ’054 patent containing

electrical connections and components on which the claims of the '310 patent plainly rely, finding that because Schwartz conceived “much of the '054 patent’s electrical system, including designing the diagram showing how all the electronic components are connected,” and because his contributions to the electrical system were significant to the invention as a whole, he was a joint inventor of the anticipating embodiment. The court therefore held claims 1–5 and 7–10 of the '310 patent unpatentable as anticipated by the '054 patent.

Next, the Federal Circuit affirmed the district court’s finding that the Liberty Meter did not infringe the '310 patent. IPS argued that, in the '310 case, the district court applied its construction of the term “cover panel” too narrowly, improperly limiting its scope to a cover panel that swings open. IPS argued that, properly construed, the term “cover panel movably attached to the intermediate panel set” covered Liberty Meter’s keypad, which was an internal part of the device itself but was “slidably attached” to the housing. The court disagreed, finding that the Liberty Meter’s keypad is an extension of its device and that IPS’s broad construction of the term was inconsistent with the claims of the patent. The court also rejected IPS’s argument that the Liberty Meter infringed by the doctrine of equivalents, finding that its keypad “does not work in the same way as the claimed invention,” and therefore did not perform “substantially the same function.”

The district court’s finding that the Liberty Meter did not infringe the '504 patent did not withstand scrutiny. IPS argued that the district court construed the term “receivable within,” in the claim limitation of “a lower portion [of the parking meter device] . . . receivable within the housing base” too narrowly, effectively requiring that the entire lower portion of the parking meter device be contained inside the parking meter housing and excluding a potential unclaimed “middle portion” of the device between the upper and lower portions. This construction, IPS argued, would leave the preferred embodiment of the device outside the claim at issue, because it would require everything in the upper portion to be inside the cover panel and everything in the lower portion to be “receivable within” the housing base. The court agreed that the district court construed the term too narrowly, vacated the noninfringement judgment, and remanded the case for further proceedings.

E.I. DuPont de Nemours & Co. v. Synvina C.V.

904 F.3d 996 (Fed. Cir. 2018))

The Federal Circuit reversed the PTAB’s finding of nonobviousness in an IPR decision, finding that the PTAB applied the wrong legal standard. DuPont petitioned for IPR of Synvina C.V.’s '921 patent. Synvina’s patent teaches a method of oxidizing 5-hydroxymethylfurfural (“HMF”) and its derivatives to yield FDCA. It was undisputed that the process of oxidizing HMF and its derivatives to yield FDCA was known at the time of the invention. The issue was whether the specific reaction conditions recited in the patent, including the choice of temperature, catalyst, pressure, and solvent, would have been obvious to a person of ordinary skill in the art.

The PTAB found that the prior art did not expressly teach the process described in the patent, and that DuPont did not prove that the variables with overlapping ranges were result-effective variables. As such, the PTAB held that the claims of the '921 patent were not obvious, even though the ranges recited in the claims significantly overlapped with the ranges disclosed in prior art.

The Federal Circuit held that the PTAB applied the wrong legal framework to its its obviousness analysis, specifically its analysis related to overlapping ranges and result-effective variables. The court explained that there is a rebuttable presumption of obviousness where the ranges of a claimed composition overlap with the ranges disclosed in the prior art. The court found that the PTAB incorrectly interpreted precedent when it held that the burden-shifting framework in prior cases did not apply in the context of IPR. The court agreed with Petitioner that “the Board erred in concluding that the type of burden-shifting framework consistently applied in our overlapping range cases was implicitly foreclosed by subsequent cases not addressing this framework.” Specifically, the Federal Circuit held that there was no basis not to apply the district court standard in IPR proceedings. Applying this framework, the Federal Circuit held that here, the presumption of obviousness applied, and that DuPont did not sufficiently rebut that presumption.

Additionally, the court found that PTAB erred in holding that two variables at issue were not “result-effective variables.” In a result-effective analysis, the burden on the party claiming that a variable is result-effective is to show that the variables were recognized in prior art, either expressly or implicitly, and that the claimed process, in this case an oxidation reaction, was affected by the variables. The variables in this case—temperature and the type of catalyst used—were indisputably known to affect the oxidation reaction. Therefore, optimization of these variables was clearly result-effective. The court found that the PTAB improperly imposed a burden on Petitioner to prove that the disclosures in the prior art “necessarily required” the variable to be within the claimed range, or that the variables predictably affected yields. Applying the proper legal standard, the panel concluded that each claim was obvious.

E.I. DuPont De Nemours & Co. v. Unifrax I LLC

921 F.3d 1060 (Fed. Cir. 2019)

E.I. Du Pont de Nemours & Company (“DuPont”) brought an infringement suit against Unifrax for infringement of the '926 patent in the District of Delaware. A jury found that Unifrax infringed DuPont’s patent and failed to prove that the '926 patent was invalid. Unifrax moved but was denied in its motion to overturn the jury verdict as a matter of law. The Federal Circuit affirmed the district court’s judgment in a split decision with Judge O’Malley authoring a dissent.

The '926 patent claims “composite laminates that are incorporated into thermal-acoustic blankets installed on the interior of the fuselage in aircraft to shield passengers from flames and reduce noise.” The claimed laminates comprise an inorganic refractory layer that is “100% by weight” platelets with a dry areal weight of 15 to 50 gsm and a residual moisture

contents of not greater than 10 percent by weight. The parties disputed the meaning of “100% by weight.” DuPont proposed that the “100% by weight” meant that “there is no carrier material such as resin, adhesive, cloth or paper in addition to the inorganic platelets. There may be some residual dispersant arising from incomplete drying of the platelet dispersion.” Unifrax proposed that the “100% by weight” be given its plain meaning and did not allow for any amount of organic additives in the refractory layer.

The Federal Circuit rejected Unifrax’s interpretation. According to the claims themselves, claim 1 recited a “residual moisture content of up to 10% by weight” in addition to “100% by weight” platelets in the refractory layer. The majority held that the claim’s reference to both “100% by weight” platelets and “10% residual moisture” supported the conclusion that “100% by weight” was relative to carrier material, otherwise claim 1 would add up to 110%.

The ’926 patent was filed as a continuation-in-part to the ’027 patent, which claimed a similar composite laminate but lacked an adhesive layer that is present in the ’926 patent’s laminate. The Federal Circuit held that the ’027 patent could be used as intrinsic evidence in construing claims in the ’926 patent because both patents related to a “common subject matter.” Both specifications disclosed 100% platelet refractory layer embodiments that allowed for “residual dispersant” in the 100% platelet layer. Both language in the ’926 and ’027 patents supported the construction of “100% by weight” to mean that there may be some residual dispersant arising from incomplete drying of the platelet dispersion. Accordingly, the Federal Circuit agreed with the district court’s construction and found substantial evidence supported the jury’s verdict.

Judge O’Malley disagreed with the majority’s construction of “100% by weight.” Judge O’Malley stated that “100% by weight” should be given its plain and ordinary meaning, *i.e.*, that there are no other additives to the refractory layer. Judge O’Malley primarily disagreed with the majority’s reliance on the ’027 patent because despite sharing “common subject matter,” the specification of the ’926 patent was substantially changed over its parent. Accordingly, Judge O’Malley believed the specification of the parent did not overcome the plain and ordinary meaning of “100% by weight.”

Elbit Sys. Land & CAI Ltd. v. Hughes Network Sys., LLC
927 F.3d 1292 (Fed. Cir. 2019)

Elbit brought an action against Hughes for infringement of the ’073 and ’874 patents. A jury in the Eastern District of Texas found system claims 2-4 of the ’073 patent infringed and not invalid, and awarded damages and attorney’s fees to Elbit. The Federal Circuit affirmed the court’s decision for infringement and damages. The Federal Circuit lacked jurisdiction to review the district court’s exceptionality finding and unquantified award of attorney’s fees.

The ’073 patent claimed a system for “transmitting information from user terminals to a central hub using satellite communication.” The satellite communication from the hub to user terminals was “a complete two way communication system via satellite.” There were

two ways to transmit data in the system: the first was for “transmitting short bursty data,” while the second was for “continuous transmission of data.” The patent also described a “switching means” to switch between the two communication means.

There was substantial evidence to support that the accused Hughes products infringed the ’073 patent. The accused products had a continuous communication means. Moreover, the accused products also had a switching means. Much like Elbit’s asserted claims, the Hughes products had terminals that controlled the switching mechanism and the request to switch communication means also included a “specific requested data rate.” Thus, the jury’s findings as to infringement were supported by substantial evidence.

The Federal Circuit also affirmed the jury’s damages award. The damages award was supported by the testimony of Mr. Christopher Martinez, Elbit’s expert on damages. In assessing the award, Mr. Martinez properly relied on a prior settlement and “appropriately accounted for the differences between the circumstances of that settlement and the present circumstances.” In assessing apportionment, Mr. Martinez “came up with a market, comparable royalty rate, and then he adjusted it as necessary.” Mr. Martinez’s testimony allowed the jury “to find that the components at issue, for purposes of apportionment to the value of a larger product or service, were comparable to the components at issue in the settlement.” Hughes, on the other hand, offered no expert of its own.

The Federal Circuit held that it lacked jurisdiction to review the district court’s exceptionality finding entitling Elbit to an award of attorney’s fees. The district court’s finding the case exceptional and awarding unquantified attorney’s fees was not final and thus not appealable.

Endo Pharms. Inc. v. Actavis LLC
922 F.3d 1365 (Fed. Cir. 2019)

In this appeal from the District of Delaware, the Federal Circuit affirmed the district court’s ruling that Endo’s patents were valid and infringed.

Endo sued Actavis, alleging that “two Abbreviated New Drug Applications filed by Actavis infringed claims 1–6” of the ’779 patent, which Endo licensed. The patent covered “morphinan alkaloids,” which are used for pain relief. The district court held that Actavis failed to prove by clear and convincing evidence that the challenged claims were invalid as obvious or anticipated. Accordingly, the court entered judgment of infringement. Actavis appealed.

On appeal, Actavis challenged the district court’s claim construction of the term “14-hydroxymorphinone” and argued that claims 1–6 of the ’779 patent should have been found to be obvious in light of the prior art. Under the claim construction analysis, the Federal Circuit reviewed the plain language of the claims, the specification, and extrinsic evidence. After this review, the court held that the district court correctly construed the term.

With respect to the obviousness issue, the Federal Circuit reviewed the three prior art references and concluded that a person of ordinary skill in the art “would lack a reasonable expectation of success in combining [the prior art references].” Further, the court found that the FDA communications would not have provided a person of ordinary skill in the art “with a reasonable expectation of success of achieving the claimed purity levels for oxymorphone” because the FDA communications only “recite[d] a goal without teaching how the goal is attained.” Additionally, the court rejected Actavis’s argument that the district court erred by “imposing a heightened standard in its application of the reasonable expectation of success test” because it referred to a “definitive solution.” The district court applied the correct legal standard and carefully considered each expert’s testimony on the issue. Therefore, the court held that the claims of the ’779 were not invalid as obvious.

Judge Stoll dissented, arguing that the district court’s decision should have been vacated and remanded “to allow the district court to apply the correct obviousness test and properly consider the role of the FDA mandate—the sole reason for the ’779 patent’s existence—in the obviousness analysis.” In his view, the district court erred by excluding the FDA communications in the obviousness analysis because they clearly motivated the ’779 patent and by applying “an erroneously heightened standard” for reasonable expectation of success.

Endo Pharms. Inc. v. Teva Pharms. USA, Inc.
919 F.3d 1347 (Fed. Cir. 2019)

The Federal Circuit reversed the district court’s holding that Endo Pharmaceuticals Inc.’s (“Endo”) patent directed to “a method of treating pain in a renally impaired patient” was invalid under Section 101. In doing so, the Federal Circuit emphasized that a patent directed to an application of a natural law was not directed to patent-ineligible subject matter under the first prong of the *Mayo/Alice* standard.

Endo sued Actavis and Teva for infringement of its patent covering “methods using oxymorphone in the treatment of pain . . . [by] providing a patient [with renal impairment] with a therapeutically effective amount of oxymorphone.” The inventor of the patent had found that there was a statistically significant correlation between plasma AUC for oxymorphone and a patient’s degree of renal impairment, as indicated by their creatinine clearance rate. This meant a lower oxymorphone dose could be used to treat renally impaired patients. Actavis filed a motion to dismiss, alleging that Endo’s claims were unpatentable under Section 101 because they claimed a natural law. Conducting an *Alice/Mayo* inquiry, the magistrate judge recommended that the district court grant Actavis’ motion to dismiss. The district court adopted this recommendation. Endo appealed.

In reversing, the Federal Circuit found that the claims succeeded on the first step of *Alice/Mayo* because of the claims’ high degree of specificity. Accordingly, the claims were “directed to” more than the natural law alone. The Federal Circuit emphasized the technical precision of the three steps outlined in the representative claim: step one, “providing a pharmaceutical,” specified a dosage range of “5–80 mg of oral controlled-

release oxymorphone”; step two, “testing the patient,” referenced numerical “creatinine clearance rates”; and finally, step three, “administering the pharmaceutical,” picked out “an average AUC of oxymorphone over a 12-hour period of less than 21 ng hr/mL” as the goal.

This level of specificity, the court stated, made the claims “legally indistinguishable” from the claims held patentable in *Vanda*, and distinct from the claims held unpatentable in *Mayo*. Like the claims in *Vanda*, the representative claim was “directed to a specific method of treatment for specific patients using a specific compound at specific doses to achieve a specific outcome.” Unlike the *Mayo* claims, Endo’s claims did not merely “describe[] giving the drug to patient with a certain disorder”; rather, they determine a particular dosage level based on renal impairment.

Enplas Display Device Corporation v. Seoul Semiconductor Co., Ltd.
909 F.3d 398 (Fed. Cir. 2018)

This appeal arose following a jury verdict finding infringement by Enplas of SSC’s ’209 and ’554 patents awarding \$4 million in damages for a lump-sum freedom-to-operate payment. Enplas moved for judgment as a matter of law that the ’554 patent was anticipated, that there was no induced infringement, and that the damages award was excessive and not supported by trial evidence. The district court denied all three motions. Enplas appealed these denials, as well as an earlier grant of summary judgment that claim 20 of the ’209 patent was not anticipated.

Between 2010-2011, Enplas and SSC collaborated on the manufacture of light bars. In 2012, SSC suspected that Enplas had provided lenses to competitors and created products that infringed SSC’s patents. SSC purchased televisions and took them apart for analysis in order to confirm their suspicions, after which they sent a letter alleging that Enplas had induced and contributed to infringement. A jury trial, and ultimately this appeal, followed.

On appeal, Enplas argued that the district court’s grant of summary judgment on the anticipation issue for the ’209 patent and denial of judgment as a matter of law on the anticipation issue for the ’554 patent constituted error. The Federal Circuit disagreed. In the case of the ’209 patent, expert testimony indicated that the prior art, Gleckman, could be modified to include light sources on the bottom wall. As anticipation requires that a single reference disclose each and every element of the claimed invention, Gleckman could not be found to anticipate the ’209 patent. Similarly, expert testimony distinguished the ’554 patent from the prior art. Although Enplas presented conflicting expert testimony, the Federal Circuit held that the jury is permitted to make credibility determinations, and that their decision was supported by the expert testimony.

Enplas further argued that the trial evidence did not support a finding of specific intent to induce infringement in the United States. The Federal Circuit found that the jury received substantial evidence from which knowledge and intent could reasonably be found. For example, the jury received information about the prior business relationship, about the pre-suit letter and ensuing discussions, and about Enplas’s knowledge of the patents and

knowledge of market share which made it likely televisions would end up in the United States. The jury also received evidence that Enplas had provided customers with specifications that recommended infringing configurations for its products. All of this was sufficient to affirm the jury's verdict.

Finally, the Federal Circuit held that the only evidence supporting the \$4 million damages award was testimony from a damages expert that included non-infringing devices in the royalty calculation. Because a lump sum calculation must be based on an estimate of the extent of future sales of accused products, the damages award was vacated and the case was remanded.

Judge Newman concurred in the portions of the opinion affirming the grant of summary judgment and the jury's decisions on anticipation and induced infringement, but dissented from the reversal of the jury's damages verdict. Newman argued that the Patent Act requires only that a jury award no less than a "reasonable royalty" and that questions of expert testimony should be resolved under the Federal Rules of Evidence rather than under the guise of a lack of substantial evidence.

Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.
928 F.3d 1340 (Fed. Cir. 2019)

The Federal Circuit affirmed the district court's grant of summary judgment against Enzo, concluding that the challenged claims of Enzo's '180 and '450 patents were invalid for lack of enablement. In 1981, colleagues at Yale university "developed a nonradioactive probe by attaching a label to a polynucleotide at certain positions of the nucleotide ('the Ward positions')" without disrupting "the polynucleotide's ability to hybridize and be detected upon hybridization."

Enzo's '180 patent claims related to all polynucleotides with non-radioactive labels attached at the phosphate position of a nucleotide, as long as the polynucleotide remained hybridizable and detectable upon hybridization. Enzo's '450 patent claims included: (1) in situ hybridization claims, which used "non-radioactively labeled probes at any non-Ward position," and (2) liquid phase hybridization claims, which used non-radioactively labeled probes "at any position on the nucleotide, including the three Ward positions." Enzo filed separate suits against Roche, Becton Dickinson Diagnostics Inc., and GeneOhm Sciences, Inc. (collectively, "BD"), and Abbott Laboratories and Abbott Molecular, Inc. (collectively, "Abbott") alleging infringement of the '180 patent. Enzo filed a second suit against Abbott, alleging that Abbott infringed its '405 patent.

On appeal, the issue was not whether the patents' shared specification enabled labeling, but whether it specifically enabled creating "a labeled probe that was both hybridizable and detectable upon hybridization." The court asserted that the holding in *Wyeth & Cordis Corp. v. Abbott Laboratories*, 720 F.3d 1380 (Fed. Cir. 2013), controlled this case. In *Wyeth*, the Federal Circuit held that the asserted claims were invalid for lack of enablement "because it would have required undue experimentation to determine which compounds in the claimed class would have the required functionality."

In this case, the court similarly found Enzo's claims invalid for lack of enablement because a skilled artisan would be unable to practice the patents' claimed inventions without undue experimentation. Even if the specification taught a skilled artisan how to create the claims' broad range of polynucleotides, the specification still failed to teach them which combinations would be hybridizable and detectable upon hybridization.

The court noted that Enzo's '180 patent claims only provided broad categories of the non-radioactive labels used, and did not limit the structure of the claimed polynucleotide, "the chemistry used to attach the label, the chemical linker used, the number of labels within a probe, or the location of the labels on the probe." It was unclear how such variables would affect the claimed probes' functionality. Further, at the time of the 1981 invention, the art was highly unpredictable, and those skilled in the art had serious doubts about whether they could attach labels to non-Ward positions without disrupting hybridization.

Enzo provided one of the patent embodiments, Example V, as a working example of an internal phosphate-labeled polynucleotide that was hybridizable and detectable. However, Enzo's expert testified that he did not know of a time when Enzo actually conducted a bench experiment to determine the hybridizability and detectability of Example V, or any phosphate-labeled probe. Further, Enzo's expert testified that each labeled polynucleotide would need to be tested to determine whether it was hybridizable and detectable upon hybridization, and that the number of polynucleotides within the '180 patent's limitations would be at least tens of thousands.

Moreover, Enzo's '405 patent claims were broader than the '180 patent claims because they not only included phosphate-labeled polynucleotides, but also labeling at other locations on a nucleotide. Though the '405's patent claims related to certain processes, because the specification did not enable the '180 patent's narrower polynucleotide scope, it could not enable the '405 patent's broader scope.

Ericsson Inc. v. Intellectual Ventures I LLC

901 F.3d 1374 (Fed. Cir. 2018)

This case concerned technology intended to decrease loss of information due to signal dropout when the receiver of a wireless communication system is in motion. Specifically, the '831 patent claimed a method of "encoding" packets, which contain information, into packet blocks. It also claimed an "encoder" for combining and varying the number of packets within blocks according to changes in signal dropout characteristics.

Ericsson petitioned for IPR on the grounds that several of the claims in the patent were obvious. The PTAB found that the claims were nonobvious. On review, the Federal Circuit vacated the decision below and remanded for consideration of excluded arguments.

The PTAB initially applied the broadest reasonable interpretation standard and concluded that the claims about "encoding" packets and an "encoder" did not require the use of the interleaving coding technique. After institution, Ericsson argued for the first time that the claims must be construed under *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005)

(en banc), because the '831 patent had already expired. Under this standard, the PTAB construed “encoding” to require interleaving. Ericsson submitted a reply arguing that, to a person of ordinary skill in the art, there is no substantial difference between interleaving within packets and interleaving the packets themselves. So, the technique described in the patent was obvious. With the revised construction, PTAB found that prior art taught interleaving within packets, not interleaving packets within packet blocks. It refused to consider the “new” argument in Ericsson’s reply and held that the claims were nonobvious.

On review, the Federal Circuit found that Ericsson’s argument was not new since it did not cite new evidence or rely on an entirely new rationale. Rather, Ericsson merely expanded on its previous argument by addressing the different types of interleaving. Furthermore, the argument only became important after the PTAB revised its construction of “encoding” to require interleaving. Under 5 U.S.C. § 555(b)-(c), Ericsson should have been given a chance to respond to the changed construction, so the court vacated and remanded.

Forest Labs., LLC v. Sigmapharm Labs., LLC

918 F.3d 928 (Fed. Cir. 2019)

This case concerns patent claims for Saphris, an atypical antipsychotic medication, sublingually administered, with active ingredient asenapine maleate. The Federal Circuit vacated and remanded the district court’s findings of nonobviousness and noninfringement, holding that the district court failed to make a key factual finding in its obviousness analysis and that the district court based its infringement analysis on an inaccurate construction of a key claim term.

Forest Laboratories owns the patents for Saphris. When Sigmapharm and other generic manufacturers filed ANDAs and sought to market generic versions of Saphris, Forest Laboratories sued for infringement. Claims 1 and 4 were the heart of this dispute. Claim 1 recites “[a] pharmaceutical composition comprising as a medicinally active compound: [asenapine]; wherein the composition is a solid composition and disintegrates within 30 seconds in water at 37°C.” Claim 4 recites “[a] method for treating tension, excitation, anxiety, and psychotic and schizophrenic disorders, comprising administering sublingually or buccally an effective amount of a pharmaceutical composition comprising [asenapine].” The district court held that both claims were nonobvious but that the generic was noninfringing, prompting an appeal from Sigmapharm on obviousness and a cross-appeal from Forest on infringement.

First, the Federal Circuit affirmed the district court’s construal of claim 1 as “limited to buccal and sublingual formulations,” foreclosing certain challenges to the claims’ validity. Although claim 1 does not contain the words “buccal” or “sublingual,” the court emphasized the patent’s assertion that the “invention relates to a sublingual or buccal” composition. The court also drew supporting inferences from the patent title and from the patent’s definitions section.

The court found the lower court’s obviousness inquiry contained an incomplete motivation-to-combine analysis and a flawed “unexpected results” analysis. First, the court observed

that the lower court had not articulated a “clear finding” as to whether a motivation to combine could have been provided by “compliance concerns regarding patients with swallowing difficulties.” The district court had “discussed” the testimony of an expert witness regarding compliance as a motivation to combine, but the court observed that “[s]ummarizing testimony . . . is not a clear finding.” As for unexpected results, the lower court had erred in finding it unexpected that sublingual administration obviated certain cardiotoxic events, because, at the time of the invention, there had been no indication that other routes of administration could cause cardiotoxic problems.

Finally, the court rejected the lower court’s finding of noninfringement as based on an erroneous construction of claim 4. The district court had reasoned that the generic manufacturers’ products were “indicated for the treatment of ‘manic episodes,’ associated with bipolar I disorder,” but claim 4 did not cover the treatment of bipolar disorder, because its language encompassed only “disorders,” not symptoms, and did not explicitly name bipolar disorder. Drawing on language elsewhere in the specification and on expert opinion, the court found, however, that “tension,” “excitation,” and “anxiety” all described symptoms, rather than disorders, and noted that excitation can be a symptom of bipolar disorder. The court accordingly vacated the noninfringement finding and remanded for reconsideration of the infringement claim in light of its construction of the word “excitation” as a symptom rather than a disorder.

Forum US, Inc. v. Flow Valve, LLC
926 F.3d 1346 (Fed. Cir. 2019)

In this appeal from the Western District of Oklahoma, the Federal Circuit affirmed the grant of summary judgment of the invalidity of Flow Valve’s reissue patent. The original patent expressly claimed an invention with arbors. The claims of the reissue patent, however, omitted these arbor limitations, which created a question of whether the new claims complied with the original patent requirement under 35 U.S.C. § 251.

In the district court, Forum US filed a declaratory judgment seeking a declaration that the reissue patent was invalid. Forum US argued that the claims of the reissue patent were invalid because they impermissibly broadened the original patent claims, and thus did not comply with 35 U.S.C. § 251. The court granted summary judgment for Forum US, holding that the written description and drawings in the reissue patent did not “explicitly and unequivocally” support the claimed invention.

The Federal Circuit began by explaining the standard of *U.S. Indus. Chems., Inc. v. Carbide & Carbon Chems. Corp.*, 315 U.S. 668 (1942), and *Antares Pharma, Inc. v. Medac Pharma, Inc.*, 771 F.3d 1354 (Fed. Cir. 2014). For a reissue patent to properly include broadened claims, “it must appear from the face of the [original] instrument that what is covered by the reissue was intended to have been covered and secured by the original.” Though Flow Valve asserted that a person of ordinary skill in the art would have understood from the original specification that arbors were not required for the disclosed invention, the court did not agree. Instead, it noted that the original patent never stated that arbors were optional.

The Federal Circuit held that, as a matter of law, the reissue patent was invalid under *Industrial Chemicals* and *Antares*. The “boilerplate language” allowing for modifications to the original disclosed invention was not sufficient to “clearly and unequivocally” disclose an arbor-less embodiment of the invention. The court distinguished *In re Amos*, 953 F.2d 613 (Fed. Cir. 1991) because the reissue patent there was based on an original that disclosed alternative specifications, whereas no alternatives were disclosed in the original patent here. The court thus affirmed summary judgment for Forum US and invalidated the reissue patent under Section 251(a).

Game & Tech. Co., Ltd. v. Activision Blizzard Inc.

926 F.3d 1370 (Fed. Cir. 2019)

On appeal from the PTAB, the Federal Circuit affirmed a Final Written Decision determining that the challenged claims in Game and Technology’s (“GAT”) patent were obvious. The patent specification disclosed a method and system for generating an avatar called a “gamvatar” and using “layers” to provide internet game characters with “game item[s]” for a specific game.

GAT challenged the PTAB’s claim construction. The PTAB issued its claim construction under the broadest reasonable interpretation standard. The Federal Circuit affirmed the claim construction of both “gamvatar” and “layers” based on the plain language of the patent’s claims, the prior art references, and the prosecution history. More specifically, the court found that a “gamvatar” was a “combination of the conventional avatar with the game item function,” and that a “layer” included both display and performance functions.

The court then analyzed whether the challenged claims were obvious in light of the prior art. The court explained that the challenged claims were obvious because one prior art reference, a gaming manual, disclosed that a gamvatar with several layers could be used on an online gaming platform, which was not limited to a single game. That manual also taught layers that displayed graphics and “perform[ed] the plurality of game item functions,” further supporting the obviousness of the challenged claims. The court rejected GAT’s argument that a single prior art reference cannot support obviousness and affirmed the PTAB’s Final Written Decision.

Gen. Elec. Co. v. United Techs. Corp.

928 F.3d 1349 (Fed. Cir. 2019)

In dismissing an appeal of an unsuccessful IPR challenge, the Federal Circuit determined that the appellee-petitioner failed to show injury-in-fact and thus lacked standing as required by Article III.

On January 29, 2016, General Electric Company (“GE”) filed an IPR challenging multiple claims of the ’605 patent. UTC is the assignee of the ’605 patent, which is directed to a gas turbine engine having a gear train driven by a spool with a low stage count low pressure turbine. On June 26, 2017, the PTAB found that the claims of the ’605 patent were not invalid for obviousness, under the preponderance of evidence standard. GE appealed. The

Federal Circuit dismissed the appeal, holding that GE lacked standing to appeal its decision because it did not prove that it suffered a “concrete and imminent injury” related to the ’605 patent.

GE offered three grounds for the alleged injury: (1) competitive harm; (2) economic losses and threat of future litigation; and (3) estoppel under 35 U.S.C. § 315(e). In support, GE submitted two declarations from its Chief IP Counsel and General Counsel of Engineering, Alexander E. Long. In his first declaration, Long explained that commercial airplane engines require eight years or longer to develop, which forced GE to develop new engines based on old designs. As a result, he stated, GE could not use its 1970s-designed geared-fan engine as a basis for future engines without implicating the ’605 patent, thereby hindering GE’s ability to compete in the highly competitive aircraft engine market. Further, he asserted, designing around the ’605 patent cost GE additional research and development expenses.

In his second declaration, Long stated that Boeing asked GE and its competitors for engine designs for future aircrafts, including designs for geared-fan engines and direct-drive engines. GE allegedly spent time and money researching a geared-fan engine design “that would potentially implicate [UTC’s] ’605 patent” but ultimately submitted only a direct-drive engine design to Boeing.

The court rejected GE’s arguments and concluded that GE failed to show an injury in fact sufficient for Article III standing. First, the court determined that the alleged competitive injuries amounted to “speculative harms untethered to the ’605 patent.” Specifically, the court found, GE failed to show why it forwent the geared-fan engine, whether GE lost the bid to Boeing and other customers (and if so, whether this was due to the ’605 patent), and whether Boeing required an engine design covered by UTC’s ’605 patent.

Relying on *AVX Corp. v. Presidio Components, Inc.*, 923 F.3d 1357 (Fed. Cir. 2019), the court added that GE lacked “competitor standing.” In *AVX Corp.*, the same court explained that competitor standing may be found “when government action alters competitive conditions,” conferring benefits to a competitor and altering the status quo of the market. In this case, the court found, the IPR decision did not change the competitive landscape of commercial airplane engines because upholding a patent “do[es] not address prices or introduce new competitors” and only affects exclusivity rights over the claimed features.

In addition, the court determined that GE’s purported economic losses did not constitute imminent injuries. Despite its assertions of increased R&D costs to design around the ’605 patent, the court found that GE failed to provide an accounting of such expenses or show that the costs were tied to Boeing’s demand for a geared-fan engine. Also, the court noted that without more, purported economic harm derived from an engine designed in the 1970s could not be used to prove an imminent injury. Further, the court added that GE failed to show that it was currently designing around the ’605 patent or had any definite plans to practice the claimed features, and UTC has not sued or threatened to sue GE for patent infringement. Lastly, the court rejected GE’s argument that estoppel under 35 U.S.C. § 315(e) could establish standing.

Judge Hughes wrote the concurring opinion. He agreed with the majority's conclusion based on binding precedent but argued that *AVX Corp.* was wrongly decided. Without *AVX Corp.*, Judge Hughes explained, GE would have established standing to appeal the PTAB's decision. He stated that the precedent created an "overly rigid and narrow standard" for establishing standing in IPR appeals, and the Supreme Court has found a "probable economic injury" sufficient to establish standing in other areas of civil litigation. Therefore, Judge Hughes argued that GE should have been able to establish standing because the PTAB's decision, through "government action that *excludes*" GE, benefited a direct competitor engaged in "fierce" competition in the aircraft engine market requiring significant upfront investment and long product life cycles.

GoPro, Inc. v. Contour IP Holding LLC
906 F.3d 1031 (Fed. Cir. 2018)

GoPro, Inc. appealed from final written decisions of the PTAB in two IPR proceedings. Because the PTAB found that a certain GoPro catalog was not a prior art printed publication, it concluded that GoPro did not demonstrate that the challenged claims are unpatentable as obvious. The Federal Circuit vacated and remanded for further proceedings.

On appeal, the Federal Circuit considered whether GoPro's product catalog could be considered a "printed publication." Because it is a question of law whether a given document represents a "printed publication," the Federal Circuit reviewed the PTAB's determination de novo.

The Federal Circuit found that the PTAB improperly focused on only one of several factors that are relevant to determining public accessibility in the context of materials distributed at conferences or meetings. The court has never strictly held that the expertise of the target audience is dispositive of the inquiry of accessibility. The case law directs the court to also consider the nature of the conference or meeting; whether there are restrictions on public disclosure of the information; expectations of confidentiality; and expectations of sharing the information. Thus, the court concluded, because direct availability to an ordinarily skilled artisan is not dispositive, the undisputed record evidence compels a conclusion that the GoPro Catalog is a printed publication as a matter of law.

According to the Federal Circuit, GoPro need show only that the relevant public had means of accessing the catalog with "reasonable diligence." This is a forgiving standard, counseled by the Federal Circuit's permissive reading of Section 102(b). Here, GoPro distributed hundreds of catalogs without restriction, intending to reach the general public and beyond the trade show. This rendered its catalog a "printed publication," which should have been considered in IPR.

*This opinion, originally issued on July 27, 2018, was modified and reissued following appellee Contour's petition for rehearing.

Grunenthal GmbH v. Alkem Labs. Ltd.

919 F.3d 1333 (Fed. Cir. 2019)

Assignee Grunenthal GmbH and exclusive licensee Assertio Therapeutics, Inc. (formerly Depomed) (collectively, “Cross-Appellants”) brought ANDA litigations against Alkem Laboratories Limited, Hikma Pharmaceuticals International Limited, and Actavis Elizabeth LLC (collectively, “Appellants”) alleging infringement of the ’364 and ’130 patents. The ’364 patent is directed to the Form A polymorph of tapentadol hydrochloride. The ’130 patent in turn describes a method of using tapentadol in the treatment of polyneuropathic pain. The Federal Circuit affirmed that Hikma’s and Actavis’s proposed labels did not induce or contributorily infringe the ’130 patent, and, furthermore, that the patents were not invalid for obviousness or lack of utility.

The Federal Circuit affirmed the finding of no induced and contributory infringement over Hikma and Actavis. Although Hikma’s and Actavis’s proposed labels covered certain forms of polyneuropathic pain, their indications for “moderate to severe chronic pain in adults” also included mononeuropathic pain and nociceptive (non-nerve) pain. The Federal Circuit found that the proposed labels did not specifically encourage the use of tapentadol for polyneuropathic pain and therefore Hikma and Actavis had not encouraged infringement. For similar reasons, the Federal Circuit found there were substantial noninfringing uses of the proposed generics and affirmed the district court’s finding of no contributory infringement.

The Federal Circuit also affirmed that the patents were nonobvious. The Federal Circuit held that a POSA would not have had a reasonable expectation of success in producing Form A of tapentadol given the knowledge of Form B and a general description in the art of “considerations” used to determine if a compound is a polymorph. The Federal Circuit insisted, however, that its decision did not “rule out the possibility that polymorph patents could be found obvious.”

As for utility, the Federal Circuit also affirmed, rejecting the notion that substantial utility must be “proven by test data.” The patents clearly disclosed the analgesic properties of Form A, and the record, even without test data, was sufficient to establish the superior stability of Form A at room temperature.

Gust, Inc. v. AlphaCap Ventures, LLC

905 F.3d 1321 (Fed. Cir. 2018)

This case concerns a fee award against patentee’s counsel, based on the “unreasonable and vexatious multiplication of proceedings.” 28 U.S.C. § 1927. A panel majority of the Federal Circuit reversed the district court’s fee award. The majority found that patentee had colorable claims under unsettled doctrine, and that the purported evidence of bad faith was based on decisions committed to the client, not counsel.

The patentee, AlphaCap Ventures LLC (represented by Gutride Safier LLP) brought infringement actions against ten internet crowdfunding companies. Nine settled their cases

for less than \$50,000 each, but Gust Inc. decided to litigate. Specifically, Gust argued that the AlphaCap patents were directed at the abstract idea of crowdfunding, so they must fail under the Supreme Court’s *Alice* decision. The district court agreed, and it additionally held the Gutride lawyers directly responsible for Gust’s costs of defending the proceedings. It imposed \$492,420 in fees and \$15,923 in costs.

The district court’s findings—which Gutride appealed—were that patentee’s counsel had brought entirely colorless claims in bad faith, with the design of unreasonably delaying litigation. The court looked to statements by Gutride that the case was “not worth litigating,” to support a conclusion that counsel knew the claims were meritless under *Alice Corp. v. CLS Bank*. Moreover, the court found bad faith in Gutride’s strategy of “forum shopping” in the Eastern District of Texas, then fighting a venue transfer to New York (where Gust is headquartered).

On appeal, a panel majority of the Federal Circuit reversed the district court’s fee award. It concluded that the patentability of abstract ideas remained uncertain after *Alice*, and that counsel’s statements only concerned the calculus of settlement. Additionally, the majority held, Texas was a proper forum, given the presence of some end users there. The decision to continue litigation at that stage was one committed to the client, AlphaCap. Thus, the majority held, the counsel’s actions were not “so completely without merit” as to require an inference of bad faith.

Judge Wallach dissented, stating that he would have deferred to the district court’s fact-finding under an ordinary abuse-of-discretion standard. Wallach viewed *Alice* as settling the abstract idea doctrine so as to fully preclude a colorable claim by AlphaCap. Furthermore, Gutride’s holistic litigation strategy revealed their goal to “harass Gust into settling.” Accordingly, Wallach would have upheld the fee award.

Hamilton Beach Brands, Inc. v. f̄real Foods, LLC

908 F.3d 1328 (Fed. Cir. 2018)

This appeal arose from an IPR final decision upholding the patentability of a patent held by f̄real Foods for a rinseable splash shield and method of use. Hamilton Beach petitioned for IPR of claim 21, arguing that it was obvious under prior art references Neilson, Kelly, and Miller. The PTAB concluded that Neilson, Kelly, and Miller do not teach or suggest the invention claimed by the ’662 patent at issue. Hamilton Beach appealed. The Federal Circuit affirmed the PTAB’s determination.

On appeal, Hamilton Beach raised arguments relating to both claim construction and obviousness. Regarding claim construction, Hamilton Beach first argued that the PTAB had violated the APA by changing claim construction theories without providing the parties an opportunity to respond. Although neither party had initially sought construction of “nozzle,” f̄real proposed construction after institution of IPR. Hamilton Beach opposed the proposed construction both in briefing and at oral hearing. The Federal Circuit held that this constituted adequate notice of PTAB’s construction, as the final constructions were similar enough to those proposed by f̄real.

Hamilton Beach next argued that the PTAB erred by construing the claims to conclude that the nozzles were in a fixed position. The Federal Circuit held that the plain language of the claim, combined with the figures in the specification, was sufficient to support the PTAB's construction. Parts of the device that could be moved were referred to within the claim as "positionable," while the term "oriented to" was used in reference to the positioning of the nozzles. The Federal Circuit affirmed the PTAB's claim construction.

Thirdly, Hamilton Beach argued that the patents were invalid as obvious. The PTAB concluded that Hamilton Beach had not sufficiently proved a motivation to combine the prior art references. The Federal Circuit again affirmed, holding that there was substantial evidence to support PTAB's finding. The method of cleaning described in the '662 patent is fundamentally different from the prior art, requiring, for example, that the mixing vessel must be isolated and a spray device be fixed in position. Furthermore, even if the prior art discloses the limitations Hamilton Beach identified, the Federal Circuit held that the prior art does not identify why there would have been a motivation to combine the limitations. Hamilton Beach pointed to no testimony that would compel the PTAB to find such motivation. For example, Kelly contemplates cleaning components without removal from the machine, but does not comment on why that would be desirable. Because substantial evidence supported the PTAB's determination, the Federal Circuit affirmed.

Lastly, the Federal Circuit briefly considered f'real's argument that the appeal should be dismissed because Hamilton Beach was time barred from petitioning for IPR under Section 315(b). Although recent Federal Circuit precedent supported this argument, the court declined to reach the merits of the issue, holding that f'real had failed to file a cross-appeal, which would have been required for consideration of an argument that would, if accepted, have required vacatur and remand for dismissal.

Hyatt v. U.S. Patent & Trademark Office
904 F.3d 1361 (Fed. Cir. 2018)

Mr. Hyatt, a named inventor on more than 70 patents and approximately 400 pending patent applications, filed suit in alleging that the PTO exceeded its statutory authority and violates 35 U.S.C. § 6(b)(1). The district court granted summary judgment to the PTO on the grounds that the court lacked subject matter jurisdiction over Hyatt's claims. The Federal Circuit reversed the district court's dismissal, but affirmed on other grounds.

Mr. Hyatt's pending patents were all filed before June 8, 1995 and as of August 2015 they contained 115,000 claims in total. In 2013, the PTO issued formal actions requiring Mr. Hyatt to limit the number of claims to 600 per patent family, unless he could show that more claims were necessary. The PTO then reopened the prosecution of 80 of Mr. Hyatt's patent applications that had previously been rejected under Section 1207.04 of the Manual of Patent Examining Procedure ("MPEP"). Mr. Hyatt filed suit in the U.S. District Court for the District of Nevada arguing that by reopening 80 of his applications, the PTO unreasonably delayed the examination of his application because it delayed the applications from getting to the PTAB on appeal. The district court held that it lacked jurisdiction and

transferred the case to the U.S. District Court for the Eastern District of Virginia. The court granted summary judgment for the PTO.

While these cases were pending, Mr. Hyatt filed a petition for rulemaking with the PTO asking the PTO to promulgate a rule that would repeal or declare unenforceable Section 1207.04. Mr. Hyatt raised three arguments, two of which the Federal Circuit found to be precluded by 28 U.S.C. § 2401(a), which requires civil actions against the United States to be filed within six years after the right of action accrues. Mr. Hyatt's only claim that was not time-barred was that the PTO unlawfully denied his petition for rulemaking because Section 1207.04 of the MPEP violates 35 U.S.C. § 6(b)(1).

Mr. Hyatt argued that the examiner's ability to reopen an appeal deprives applicants of their right to appeal final examiner rejections. The court rejected this argument, finding that nothing in the plain language of Section 6(b)(1) prevents the PTO from delaying an appeal or imposing conditions which may affect PTAB's ability to reach the merits of an appeal like imposing a filing fee requirement. The court noted that Mr. Hyatt can still appeal to the PTAB after the examiners reach a final judgment after reopening his application. Hyatt argued that PTAB's ability to reopen the application creates an opportunity for abuse. The court responded that there is a remedy for such situations under the APA. As such, the Federal Circuit affirmed the district court's grant of summary judgment and remanded to the district court to enter judgment in favor of the PTO consistent with the opinion. The Supreme Court recently docketed this case.

Hyosung TNS Inc. v. Int'l Trade Comm'n
926 F.3d 1353 (Fed. Cir. 2019)

In an appeal from the ITC, which found that automatic teller machines (ATM) models imported by Hyosung violated Diebold's '616 and '631 patents, the Federal Circuit dismissed the appeal as to the '616 patent as moot, vacated the ITC's decision with regard to the patent, and remanded with instructions to revise applicable orders and affirmed the ITC's decision and orders regarding the '631 patent.

Diebold and Hyosung both manufacture and sell ATMs. Diebold filed a complaint with the ITC alleging that Hyosung's imported ATM models infringed upon its '616 and '631 patents and that Hyosung's machines were imported in violation of 19 U.S.C. § 1337(a)(1)(B). The ITC investigated and concluded that Hyosung's products infringed both patents, that Diebold's patents were not shown to be invalid, and that the domestic industry requirement of Section 1337(a)(1)(B) was met as to both patents. The ITC entered a limited exclusion order and cease and desist orders against Hyosung.

Following the ITC's decision, Hyosung redesigned its products to avoid infringing Diebold's '616 patent. Hyosung then received a ruling from U.S. Customs and Border Protection that its redesigned products did not infringe on the '616 patent and were not covered by the ITC's limited exclusion order. Hyosung appealed the ITC's decision.

Regarding the '616 patent, the Federal Circuit held that the appeal had become moot because the patent had expired, and because there was no evidence that the ITC orders were violated during the time that they were in effect. The court did not reach Hyosung's arguments as to why the ITC had allegedly erred in finding infringement of the '616 patent, although ITC and Hyosung were in agreement that the appeal itself was moot. The court rejected Diebold's argument that the appeal was not moot because the possibility of future enforcement proceedings was too speculative to constitute a continuing case or controversy and because the potential for collateral consequences in Diebold's pending district court litigation against Hyosung did not in these circumstances caution against mootness. The court vacated the ITC's decision regarding the '616 patent and remanded with instructions to amend the cease and desist orders and limited exclusion orders to make them inapplicable to the importation of products alleged to infringe the '616 patent.

For the '631 patent, the Federal Circuit affirmed the ITC's conclusions that Hyosung failed to show that the asserted claims were invalid as obvious and that the economic prong of the domestic industry requirement of Section 1337(a)(3) was satisfied. Although the court was skeptical of the ITC's motivation to combine analysis, it did not reach the issue because it determined that Hyosung had failed to show that the prior art combination rendered the asserted claims obvious. Regarding the economic prong of the domestic industry requirement, the court rejected Hyosung's bright-line contention that research expenditures made more than five years prior to the filing of a complaint should be barred from consideration. Here, substantial evidence supported the ITC's conclusion that the economic prong was met because there was a sufficient nexus between Diebold's investment in research made between 2005 and 2010 and its ongoing field service and assembly expenditures.

In re Copaxone Consolidated Cases

906 F.3d 1013 (Fed. Cir. 2018)

At issue are a series of patents claiming COPAXONE, a drug used to treat relapsing-remitting multiple sclerosis (RRMS). Specifically, the patents claim a treatment regimen using subcutaneous injections of 40 mg/ml of glatiramer acetate (GA), a synthetic mixture of polypeptides, three times a week. Yeda Research and Development Co., Ltd., the assignee of the patents, licenses them to Teva Pharmaceuticals USA, Inc. and its associated companies.

Yeda and Teva brought infringement claims after several drug manufacturers submitted ANDAs to the FDA to manufacture and sell generic versions of COPAXONE. At trial, the district court invalidated the Copaxone patents for obviousness. The Federal Circuit affirmed.

On appeal, Yeda and Teva argued that the district court improperly construed the phrases "sufficiency" and "reduced frequency of relapses," in claims like "the regimen being sufficient to reduce the frequency of relapses in the patient." It also disputed the construction of "effective" in claims like "which is as effective as administration of 20 mg of [GA] daily." The district court found that these terms were nonlimiting statements of

intended effect that did not change the claimed method or describe any additional required structure or condition. The Federal Circuit agreed.

The appellants also challenged the obviousness of the dosing regimen, the decrease in side effects, and the reduced severity of side effects. Prior art taught that 20 mg and 40 mg were effective doses for treating RRMS and had similar safety profiles. Studies also showed that dosing every other day did not produce significantly different results than dosing every day and would likely produce more long-term patient compliance. Furthermore, prior patents claimed a dosing regimen of once every two weeks and other MS drugs used a three-times-a-week dosing regimen. Thus, the Federal Circuit adopted the district court's finding that trying a dosing regimen of 40 mg three times a week would be obvious to a person of ordinary skill in the art.

The court rejected Teva's argument that the district court engaged in an impermissible "obvious to try" analysis. The Federal Circuit found that this case did not fall into either of the two impermissible categories of "obvious to try" analyses identified by *In re Kubin*. It also rejected Teva's argument that *In re Cyclobenzaprine* established a rule categorically forbidding a finding of obviousness without pharmacokinetic and pharmacodynamics data.

Ultimately, the Federal Circuit affirmed the determination that the COPAXONE patents were invalid for obviousness.

In re Glob. IP Holdings LLC

927 F.3d 1373 (Fed. Cir. 2019)

Global IP Holdings ("Global") filed a reissue application to broaden its '233 patent claims for automotive vehicle load floors using sandwich-like composite panels with cellular cores. In its application, Global switched the composite panel's material from "thermoplastic" to "plastic," for both the panel skin, and the cellular core. To identify the original application's error, the patent's inventor filed a declaration explaining that, at the time of the invention, he knew that plastics, other than thermoplastics, were used to form sandwich-like composite panels with a cellular core. Further, he cited other patent applications and technical papers using thermoset plastics instead of thermoplastics in vehicle load floors.

The examiner rejected Global's reissue claims, noting that the specification only described the skin and cellular core's composition to include thermoplastic materials, and that using the term "plastic" would introduce new matter. Global argued that the type of plastic used was not critical to the invention, and that plastics other than thermoplastics were predictable options. However, on appeal, the PTAB agreed with the examiner, finding that the '233 patent's specification was insufficient under 35 U.S.C. § 112 regardless of the predictability of the results of substituting alternative plastics, or the criticality of thermoplastics in the overall invention. This appeal followed.

The Federal Circuit held that the PTAB's application of Section 112's written description requirement conflicted with *Ariad Pharmaceuticals, Inc. v. Eli Lilly & Co.*, 598 F.3d 1336

(Fed. Cir. 2010) (en banc). *Ariad* held that the detail necessary to satisfy the written description requirement varies depending on the predictability of the relevant technology, among other factors. Further, according to *In re Peters*, 723 F.2d 891 (Fed. Cir. 1983), the criticality or importance of an invention's unclaimed limitation can be relevant to the written description analysis. Therefore, the Federal Circuit vacated the PTAB's decision and remanded the case for the PTAB to determine whether, considering relevant factors, such as predictability and criticality, Global satisfied the written description requirement.

In re Google LLC

914 F.3d 1377 (Fed. Cir. 2019)

This case arises from the Federal Circuit's denial of a petition for a writ of mandamus after the district court had denied a motion to dismiss or transfer for improper venue. SEVEN Networks, LLC sued Google in the Eastern District of Texas for allegedly infringing ten of its patents. SEVEN argued that venue was proper under 28 U.S.C. § 1400(b) because Google had committed acts of infringement in the district and Google had a regular and established place of business in the district. When the district court denied Google's motion to dismiss or transfer the case, Google sought mandamus.

In its mandamus petition, Google challenged the district court's conclusion that servers located in the district constituted a regular and established Google place of business to render venue proper under Section 1400(b). The panel majority denied mandamus because "it is not known if the district court's ruling involves the kind of broad and fundamental legal questions relevant to § 1400(b)" and "it would be appropriate to allow the issue to percolate in the district courts so as to more clearly define the importance, scope, and nature of the issue for us to review." In his dissent, Judge Reyna argued that the issues raised in Google's petition "have far reaching implications" and that mandamus review should have been granted to provide much "needed guidance on how to apply the statute in this context."

On appeal, the Federal Circuit denied Google's combined petition for panel rehearing and rehearing en banc. Judge Reyna, writing in dissent, argued that the majority's decision to deny rehearing en banc "sidestep[ped] the precise purpose of mandamus relief" and left a critical issue affecting venue unanswered. The dissent asserted that mandamus review is "part of our bedrock supervisory duty as an appellate court" and necessary to "further the goals of uniformity and predictability that are 'the cornerstones of a well-functioning patent system.'" The dissent also highlighted the disagreement among district courts as to whether "conducting business virtually through servers and similar equipment in the district" meets the requirements of Section 1400(b). Instead of "sit[ting] idly by" and "needlessly wast[ing]" judicial and litigant resources, Judge Reyna would have addressed this venue issue.

***In re Maatita***

900 F.3d 1369 (Fed. Cir. 2018)

In this patent case on appeal from the PTAB, the Federal Circuit reversed the PTAB's decision to affirm the examiner's decision to reject Maatita's design patent application, No. 29/404,677, as non-enabled and indefinite under 35 U.S.C. § 112. Maatita's design patent was a single, two-dimensional plain-view drawing that illustrated an athletic shoe bottom design.

Maatita first responded to the examiner's objection that the embodiment depicted in the '677 application was identical to a previous design by amending the specification of the application to indicate that it was the same embodiment but in different environmental settings. Maatita also responded that there was no enablement or indefinite issue because the lack of depth did not prevent someone of ordinary skill from selecting the appropriate depth to recreate the design. Additionally, he asserted that the depth element only affected the breadth of the claimed design. The examiner issued a final rejection to these responses, prompting Maatita to appeal to the PTAB which subsequently affirmed the rejection by applying an obviousness-type test used in double patenting situations.

The Federal Circuit affirmed that the written description of a design patent must meet the statutory requirements of enablement and definiteness. The court held that in this particular case the indefiniteness and enablement inquiry could be assessed together because the issues addressed for each inquiry are generally the same in the design patent claim context. The court found that the purpose of the definiteness requirement in Section 112 is to ensure that the disclosure is clear enough to give potential competitors, who are skilled in the art, notice of what would infringe on the design patent. Additionally, that notice should be assessed from the perspective of an ordinary observer. In essence, the court reaffirmed that this ordinary observer test is the correct test for design patent anticipation. Accordingly, the court held that the obviousness-type double patenting test using multiple drawings that the PTAB applied in its review of the '677 application was improper.

Additionally, the Federal Circuit rejected the PTAB's argument that the '677 application was also indefinite under the ordinary observer test. The court held that although a shoe bottom can be designed as three-dimensional, the ornamental design could be judged from a two-dimensional plane, and such assessment would leave open no doubt as to how to determine infringement. Maatita was only patenting a two-dimension design and the scope for assessing infringement would be from that perspective. Therefore, the Federal Circuit reversed the decision of the PTAB to reject the '677 application on the grounds of indefiniteness.

In re Marco Guldenaar Holding B.V.

911 F.3d 1157 (Fed. Cir. 2018)

In this case, the Federal Circuit affirmed the PTAB's rejection of patent claims directed to a dice game with wagering, affirming the PTAB's determination that the claims were directed to patent-ineligible subject matter. The Federal Circuit also rejected the

applicant's argument that the PTAB improperly treated claim 1 as representative of all rejected claims.

The Federal Circuit analyzed the claims under the *Alice* two-step framework. Under the first step, determining "whether the claims are directed to a patent-ineligible concept," the Federal Circuit held that "playing a dice game" that features wagering is an abstract idea. The court held that the claims failed step two of *Alice* as well, because "the steps of placing a wager, rolling the dice, and paying" are "purely conventional" and "insufficient to recite an inventive concept." Finally, the court held that the printed markings on the dice could not serve as the inventive concept, because such markings constituted "printed matter" outside the scope of Section 101.

Separately, the court held that the PTAB did not err in focusing on a single representative claim. The court noted that "our case law and Rule 41.37(c)(1)(iv) make clear that, for an applicant to receive separate consideration by the PTAB for each of its appealed claims, an applicant's appeal brief must contain substantive argument beyond 'a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.'" Because the applicant here did not explain why additional dependent claim limitations rendered the subject matter patentable, the PTAB was right to focus on the independent claim alone.

Judge Mayer concurred in the judgement, writing to emphasize his view that subject matter eligibility under Section 101 is "a pure question of law" that "should . . . be resolved at the earliest stage of litigation," and not, as the majority stated, a question that may contain underlying issues of fact. Judge Mayer opined that "inserting factual determination into" Section 101 will make the statute a "dead letter."

In Judge Mayer's view, "[t]he fault line for patent eligibility generally runs along the divide between man and machine. Simply put, while new machines and mechanized processes can potentially be patent eligible, ideas about how to improve or influence human thought and behavior fail to pass section 101 muster." Under this rubric, "claims directed to dice, card, and board games can never meet the section 101 threshold because they endeavor to influence human behavior rather than effect technological change."

In re Oath Holdings Inc.

908 F.3d 1301 (Fed. Cir. 2018)

The Federal Circuit granted Oath Holdings's petition for a writ of mandamus and ordered the case remanded for dismissal or transfer to an appropriate venue. This case arose out of AlmondNet's suit for patent infringement against Oath, a Delaware corporation with no established place of business in the Eastern District of New York. AlmondNet filed suit in March 2016, and Oath filed a motion to dismiss under Federal Rule of Civil Procedure 12(b)(6), which did not include an objection to venue. Oath then withdrew their Rule 12(b)(6) motion and instead filed an answer, in which Oath expressly reserved the right to challenge venue following the Supreme Court's decision in *TC Heartland LLC v. Kraft*

Foods Group Brands, LLC, which was then forthcoming. Following the Supreme Court’s decision in *TC Heartland*, Oath filed a motion to dismiss for improper venue.

The district court denied Oath’s motion, holding that Oath had waived its venue defense. Oath petitioned the Federal Circuit for a writ of mandamus. The Federal Circuit denied that petition and ordered Oath to move for reconsideration in the district court in light of the Federal Circuit’s holding in *In re Micron Technology, Inc.*, which made clear that the venue defense raised by Oath was not “available” prior to *TC Heartland*.

Although there was no dispute that venue in the Eastern District of New York was not proper under Section 1400(b), the district court denied Oath’s motion for reconsideration and held that *TC Heartland* did not change the relevant law. The district court considered and declined to follow the Federal Circuit’s decision in *Micron*. Oath again petitioned for a writ of mandamus, which the Federal Circuit granted due to the need to ensure “proper judicial administration.” Holding that the district court had ignored directly controlling precedent and there was no non-Rule 12 ground that would justify denial of Oath’s motion, the Federal Circuit remanded the case for the limited purpose of either dismissal or transfer to an appropriate venue.

In re Power Integrations, Inc.

899 F.3d 1316 (Fed. Cir. 2018)

The Federal Circuit denied PI’s petition for writ of mandamus after the PTAB had denied IPR of claims from three patents owned by Semiconductor Components. PI’s petitions for IPR were supported entirely by three references, all three of which the PTAB determined to not qualify as printed publications within the meaning of 35 U.S.C. §§ 102 and 311(b). As a result, the PTAB concluded that PI failed to show it was likely to prevail in its patentability challenges and denied institution of IPR.

35 U.S.C. §§ 314(a) and (c) detail the discretion of the PTAB to not authorize an IPR and that the determination whether to institute IPR shall be final and nonappealable. In light of this statutory prohibition, PI sought to obtain a review of the non-institution decisions of the PTAB’s orders through a petition for mandamus. In order to obtain the remedy of mandamus the petitioner must (1) demonstrate a clear and indisputable right to the issuance of the writ, and (2) that there are no adequate alternative legal challenges to obtain that relief. Additionally, even if those two conditions are met, the issuing court, in the exercise of its discretion, must be satisfied that the writ is appropriate under the circumstances.

The Federal Circuit held that PI had failed to demonstrate that its right to the writ was clear and indisputable. PI argued that it was seeking to vindicate its rights under the Administrative Procedure Act (“APA”), claiming that the PTAB did not provide an adequate explanation for its non-institution decisions. Since the PTAB provided a detailed written decision to PI, the Federal Circuit concluded that it could not be determined that the PTAB clearly and indisputably failed to fulfill its obligation of providing notice required by the APA.

The Federal Circuit further found that relief by way of mandamus would not be appropriate in this case. PI argued that the APA required the agency to support its denial with reasoned decision making and that the PTAB failed this because its decision was premised on an incorrect legal standard. Thus, PI sought to challenge the decision on its merits through this mandamus proceeding because of the statutory bar to appellate review. The Federal Circuit rejected this argument because the Supreme Court determined that Congress intended to bar appellate review of institution decisions for situations such as this. The Federal Circuit determined that ultimately PI was attempting to avoid the statutory prohibition on appellate review through a feigned assertion against procedural irregularities. Consequently, the Federal Circuit denied PI's petitions for a writ of mandamus.

Indivior Inc. v. Dr. Reddy's Labs., S.A.
930 F.3d 1325 (Fed. Cir. 2019)

In this appeal, the Federal Circuit affirmed multiple decisions concerning the construction, validity, and infringement of patents pertaining to rapidly dissolving pharmaceutical films used to treat opioid addiction. Indivior holds the New Drug Application patent for Suboxone film. Several generic drug companies filed ANDAs to market generic versions of Suboxone Film prior to the expiration of the patents in suit. Indivior then brought several actions for patent infringement. This appeal dealt specifically with Indivior's accusations that Dr. Reddy's Laboratories, S.A. ("DRL"), Watson Laboratories Inc. ("Watson"), and Alvogen Pine Brook, LLC ("Alvogen") infringed the '514 patent, and that DRL infringed the '150 patent.

Indivior first challenged the district court's decision that DRL and Alvogen did not infringe the '514 patent. It argued that the district court misconstrued the meaning of a "drying limitation" in the '514 patent's specification. Specifically, Indivior argued that "drying limitation" should be given its plain and ordinary meaning, rather than being construed to disclaim conventional top air drying. However, the Federal Circuit disagreed and held that the district court correctly construed the drying limitation because the '514 patent specification unmistakably disclaimed conventional top air drying. Having affirmed the district court's construction of the drying limitation, the court then found that DRL and Alvogen both used conventional top air drying in their ANDA processes, which did not meet the '514 patent's drying limitation as properly construed. Thus, the court affirmed the district court's ruling that DRL and Alvogen did not infringe on the '514 patent.

By contrast, the district court found that Watson did infringe on the '514 patent because its ANDA product met the viscosity limitation of the asserted claims. In its appeal, Watson argued that the district court clearly erred in finding that Watson's ANDA product met the viscosity limitation because Indivior failed to show that viscosity contributed to the uniformity of Watson's films, and the district court improperly placed the burden on Watson to prove noninfringement. The court disagreed and affirmed the district court's infringement finding because Watson's ANDA specified a viscosity that was plainly encompassed by the most preferred range disclosed in the '514 patent. On the issue of the '514 patent's validity, the court rejected Watson's arguments claiming that the '514 patent

recited a physical impossibility and was thus indefinite. The court instead found Watson's interpretation to be nonsensical, and affirmed the district court's finding that the '514 patent was not indefinite because it made clear that the film was flowable only before drying.

As for the '150 patent infringement claims, Indivior argued that DRL's product infringed under the doctrine of equivalents because it substituted polyvinyl pyrrolidone ("PVP") for HCP in its ANDA product. The court disagreed and affirmed the district court's ruling that DRL's product did not infringe under the doctrine of equivalents because the '150 patent disclosed PVP as an alternative to HCP but did not claim it, thereby dedicating it to the public. As for the '150 patent's validity, the court found that '902 application provided an adequate written description of the claims of the '150 patent, so disclosure of the '902 application reasonably conveyed to a skilled artisan the films claimed in the '150 patent. Thus, the court affirmed the district court's finding of nonobviousness with relation to the '150 patent.

Judge Mayer dissented, stating that there was no reason for the court to reach the issues of infringement because the '514 and '150 patents should have been found to be invalid as obvious.

Intellectual Ventures I LLC v. T-Mobile USA, Inc.

902 F.3d 1372 (Fed. Cir. 2018)

Intellectual Ventures I LLC owns the '248 patent, which describes an "application-aware resource allocator" and an "application-aware media access control (MAC) layer." Depending on the quality of service (QoS) each software application requires, the allocator allots a certain amount of bandwidth resources to transmit information from the application over a packet-switched network. To determine the QoS requirements, the allocator can look to information in the seven-layer Open System Interface (OSI).

On the infringement claim, the district court granted summary judgement in favor of T-Mobile. The Federal Circuit vacated and remanded the claim construction decision but affirmed the indefiniteness decision.

On appeal, Intellectual Ventures challenged the construction of "application-aware resource allocator" and "application-aware media access control (MAC) layer." Based on prosecution history, the district court held that the phrase meant a resource allocator that needed to take into account "information about applications at [OSI] application layer 7." On appeal, the Federal Circuit rejected this construction since the plain language of the patent only mentioned application type without specifying how the resource allocator becomes aware of this information. Rather, the figures in the patent depict the allocator receiving information from multiple layers. The court also rejected T-Mobile's argument that statements in the prosecution history showed clear disavowal by limiting the allocator to layer 7 information. Thus, the court adopted Intellectual Ventures' construction that the resource allocator merely needed to allocate resources based on application type. Because

the district court's grant of summary judgment was based upon an erroneous claim construction, the Federal Circuit remanded the case.

For one of the claims, T-Mobile further argued that the function was indefinite in the means-plus-function claim describing "allocating means of allocating resources to said IP flow. . . so as to optimize end use application IP QoS requirements of said software." In response to Intellectual Ventures' proposal of two forms of subframe schedulers as structures to perform the function, T-Mobile countered that the patent did not disclose such a structure. The district court ruled for T-Mobile because the patent itself described QoS as "subjective" and determined by the end user. So, there was no way for one of ordinary skill in the art to determine when the QoS was "optimize[d]." The Federal Circuit affirmed.

IXI IP, LLC v. Samsung Electronics Co., Ltd.
903 F.3d 1257 (Fed. Cir. 2018)

This appeal involves a dispute over IXI IP's ("IXI")'s patent directed to a system that connects devices to a managed wireless network using short-range radio signals through a gateway device, in this case a cellphone. The Federal Circuit affirmed the PTAB's holding that the claims-at-issue are invalid as obvious.

Apple and Samsung filed a petition for IPR review of certain claims of IXI's patent. The PTAB held that the claims were invalid because a combination of the prior art would have made the claim obvious to a person of ordinary skill in the art. IXI appealed. Both parties agreed that the single issue on appeal was whether a person of ordinary skill in the art would read the prior art as implicitly disclosing that the short-wave technology may be located on a cellphone. The parties agreed that the prior art did not expressly disclose that the short-wave is located on a cellphone. IXI argued that because the primary prior art reference, Marchand, expressly disclosed short-wave technology located on a laptop computer in a figure, it could not disclose that such technology could be located on a cellphone.

The PTAB affirmed, rejecting IXI's argument that the express disclosure illustrating how the technology would work precluded the possibility that a cellphone could house the shortwave technology. The court found that the diagram in Marchand showing the laptop was merely an example of how the technology could work, and should not be read to exclude other possible technologies. Based on other prior art references, the court found that the PTAB's determination that a person of ordinary skill would read Marchand as explicitly disclosing short-wave technology located on a cell-phone was reasonable and supported by substantial evidence.

Jack Henry & Associates, Inc. v. Plano Encryption Techs. LLC
910 F.3d 1199 (Fed. Cir. 2018)

In this case, the Federal Circuit reversed the District Court for the Northern District of Texas's dismissal of a declaratory judgment action for improper venue. Patentholder Plano Encryption Technologies LLC ("PET") is located in the Eastern District of Texas. PET's

sole business is to enforce its intellectual property. PET wrote letters to eleven Texas banks (the “Banks”), accusing the banks’ mobile apps of infringement and inviting the Banks to license PET’s patent portfolio. The Banks each either have their principal offices in the Northern District of Texas, or have branches and customers conducting banking business there.

Jack Henry provides the Banks with the software systems for the mobile apps at issue, and indemnifies the Banks for any patent infringement liability. Jack Henry’s counsel responded to PET’s letters, stating reasons why the PET patents were not infringed, questioning the patents’ validity, and requesting a meeting with PET. PET did not respond to Jack Henry, and instead their counsel wrote to the Banks again. PET stated that only the Banks were accused of infringement, and disputed Jack Henry’s views on noninfringement and invalidity.

Jack Henry and the Banks filed a declaratory action against PET in the Northern District of Texas. PET moved for dismissal stating that venue was improper because its actions did not subject it to personal jurisdiction in the Northern District of Texas. The district court granted PET’s motion for dismissal, finding venue in the Northern District of Texas improper, and dismissed the action.

The Federal Circuit reversed the district court’s determination, applying 28 U.S.C. § 1391, and taking due process considerations into account. Three relevant factors are taken into account when applying due process to jurisdiction and venue considerations: (1) whether the defendant “purposefully directed its activities at residents of the forum”; (2) whether the claim arose from, or relates to, the defendant’s activities in the forum; and (3) whether assertion of personal jurisdiction is “reasonable and fair.” The first two factors make up the “minimum contacts” portion of the jurisdictional inquiry, and the third factor makes up the due process inquiry.

The Federal Circuit found that minimum contacts were established because sending a letter that forms the basis of the claim into the forum may be sufficient to establish minimum contacts. Where minimum contacts are met, the defendant must present a compelling case that the exercise of personal jurisdiction would be unreasonable or unfair. PET failed to meet that burden. Additionally, the Northern District had a substantial interest in the case, as the Banks reside and conduct business there, and PET charged infringement in that jurisdiction through its letters.

Although the district court’s decision did not mention a standing issue, the Federal Circuit made a determination on Jack Henry’s standing as well. PET challenged Jack Henry’s standing because it did not accuse Jack Henry of infringement; it only accused the Banks. However, the Federal Circuit held that an indemnitor has standing to participate in an action that could determine its liability, and thus Jack Henry had standing as an indemnitor of the Banks.

JTEKT Corp. v. GKN Automotive Ltd.

898 F.3d 1217 (Fed. Cir. 2018)

In this patent case on appeal from the PTAB, the Federal Circuit dismissed JTEKT's appeal of claims 2 and 3 of U.S. Patent No. 8,215,440 that the PTAB found to be not unpatentable in IPR. Claims 2 and 3 of the '440 patent specified how side-shaft couplings connect the secondary axle in a drivetrain that can be switched from two-wheel drive to four-wheel drive mode.

JTEKT appealed the PTAB's decision that claims 2 and 3 of the '440 patent were not unpatentable under 35 U.S.C. § 141(c) as a "party to an inter partes review who is dissatisfied with the final written decision of the Board (who) may appeal the Board's decision to the Federal Circuit." The Federal Circuit reaffirmed its previous decisions that held that the appellant must meet the Article III injury in-fact requirement in order to appeal to the Federal Circuit even when a statute explicitly provided the appellant with a method to appeal. To establish injury in-fact, the appellant must show that an injury that is concrete and particularized, or, if the injury is hypothetical, that the appellant is engaged or will likely engage in an activity that would give rise to a possible infringement suit.

The Federal Circuit found that JTEKT had no product on the market, and therefore was no concrete injury. The Federal Circuit also found that the declarations submitted by JTEKT were insufficient in establishing that at the current stage of development, its planned product would create a substantial risk of infringing claims 2 or 3 of the '440 patent. The declarations indicated that JTEKT had not yet developed a final product and that JTEKT determined that the '440 patent only posed a risk to future development.

The Federal Circuit also rejected JTEKT's argument that the creation of estoppel based on its participation in the IPR constituted an independent injury in-fact. The Federal Circuit reaffirmed that estoppel provisions do not constitute an injury in-fact when the appellant is not engaged in activity that would give rise to a possible infringement suit. Since JTEKT failed to establish that it had met the Article III injury in-fact requirement, the Federal Circuit dismissed the appeal for lack of standing.

Kolcraft Enters., Inc. v. Graco Children's Prods., Inc.

927 F.3d 1320 (Fed. Cir. 2019)

The patents at issue here, design patents '970 and '231, are assigned to Kolcraft and concern "exposed legs for a children's play yard." Graco filed an IPR petition challenging the patents on several grounds, including obviousness in light of Chen '393, which also concerned exposed legs for a children's play space. To establish that its patents were conceived prior to Chen '393, Kolcraft introduced a declaration from the inventors, Troutman and Bretschger, and exhibits portraying photos and sketches of the designs. However, neither the declaration nor the exhibits identified the patents' specific conception dates, and the declaration redacted the exhibits' purported creation dates.

Kolcraft eventually turned over an unredacted inventor declaration displaying the patents' alleged conception dates. And Mr. Troutman stated in his deposition that the dates in the declaration were based on the metadata of the exhibits' computer files. One day before the PTAB oral hearing, Kolcraft filed under seal the unredacted inventor declaration and hard copies of the exhibits, but not the exhibits' metadata. Relying only on redacted version of the inventor declaration, the PTAB concluded that "Kolcraft failed to show that the conception, diligence, and reduction to practice of the '970 and '231 patents occurred before Chen '393 was filed." Therefore, Chen '393 was prior art, and '970 and '231 were unpatentable.

On appeal, the Federal Circuit affirmed the PTAB's finding that Kolcraft did not establish conception prior to Chen '393. The court reiterated that inventor testimony alone cannot establish conception, and it found that all of Kolcraft's conception evidence originated with the patents' inventors and was not independently corroborated. Kolcraft argued that the PTAB should have considered the unredacted inventor declaration and inventor deposition testimony, and that the physical exhibits did not need to be corroborated because they were self-explanatory. However, the court noted that the exhibits were undated and lacked any showing of authorship. Moreover, the metadata associated with the exhibits were not part of the record. Lastly, the court concluded that whether the PTAB considered the unredacted inventor declaration or inventor testimony was irrelevant because both were supported solely by the inventors. Because Kolcraft could not independently corroborate the date of conception, the court affirmed the PTAB's finding of obviousness without reaching the issue of diligence.

Laerdal Medical Corp. v. Int'l Trade Comm'n
910 F.3d 1207 (Fed. Cir. 2018)

In this case, the Federal Circuit reversed the U.S. International Trade Commission's ("Commission") denial of relief for Laerdal's trade dress allegations, and vacated and remanded proceedings for the Commission to determine proper remedy.

Laerdal is a manufacturer and distributor of medical devices and products. Laerdal filed a complaint with the Commission asserting violations of 19 U.S.C. § 1337 by eleven respondents for allegedly infringing Laerdal's patent, trademark, copyright, and trade dress rights. In response, the Commission requested supplemental information from Laerdal. Laerdal provided the information and requested that if the additional evidence was insufficient, that the Commission institute an investigation. The Commission instituted an investigation on some of Laerdal's claims.

No respondent submitted any response, appeared, or otherwise participated in the proceedings, despite being served with the amended complaint and receiving notice of the investigations. Laerdal moved for an order requiring respondents to show cause why they should not be found in default under section 1337(g)(1). The Administrative Law Judge ("ALJ") granted Laerdal's motion and issued an Order to Show Cause. Respondents again failed to respond or acknowledge the order, and the ALJ issued an initial determination

finding the respondents in default. The Commission determined not to review the ALJ's determination of default, and requested Laerdal provide briefing on remedy.

Laerdal provided the briefing on remedy and asserted that under section 1337(g)(1), once the Commission finds respondents in default, it is required to not only accept the facts pleaded in the complaint as true, but also issue a remedy, subject only to public interest concerns. The Commission granted relief on Laerdal's patent and trademark claims, but issued no relief on Laerdal's trade dress claims, finding that Laerdal inadequately alleged those claims under section 1337, even when the pleaded facts were presumed true. The Commission asserted that even in the case of defaulting respondents, where facts alleged in the complaint are taken as true, it must still find a violation before issuing relief.

The Federal Circuit reversed the Commission's denial of remedy for Laerdal's trade dress claims, reviewing the section 1337 issues de novo. The Federal Circuit concluded "that the statute, on its face, unambiguously requires" the Commission "to grant relief against defaulting respondents, subject only to public interest concerns," so long as section 1337(g)(1)'s service and notice prerequisites are satisfied. This conclusion was supported by the statute's plain text, its purpose, legislative history, and the Commission's own previous decisions. Primarily, section 1337(g)(1)'s use of the word "shall" where other subsections use the word "may" indicated to the Federal Circuit that section 1337(g)(1)'s requirement to provide relief when respondents default was mandatory. Additionally, prior to Congress's 1998 Amendment to the Trade Act, the Commission was required to find violation against a defaulting respondent before issuing relief, but § 1337(g) was added in 1998 to change this. The Commission's decision that no relief was warranted was vacated, and the case remanded to the Commission for determination on remedy after considering public interest concerns.

Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.
925 F.3d 1225 (Fed. Cir. 2019)

Lone Star sued two companies for patent infringement. Lone Star had obtained the asserted patents from AMD, the original assignee and patentee. AMD and Lone Star executed an agreement that purportedly transferred "all right, title and interest" in the patents to Lone Star. But because the agreement limited Lone Star's rights by allowing AMD to control how Lone Star asserts, transfers, and practices the patents and permitting AMD to share in "monetization efforts," the district court found that Lone Star did not obtain all substantial rights in the patents. The court granted the Rule 12(b)(1) motions to dismiss, reasoning that Lone Star could not sue in its own name without joining AMD, and such joinder would unfairly prejudice the defendants.

On appeal, the Federal Circuit vacated the district court's dismissal of Lone Star's infringement claims and remanded with instruction for the court to consider whether AMD must be joined. The court addressed three issues: (1) whether Lone Star possessed all substantial rights in the patents such that it could assert them in its own name; (2) whether Lone Star had standing to sue; and (3) if Lone Star lacked the necessary substantial rights,

whether the court should have given Lone Star the opportunity to join AMD as a plaintiff before dismissal.

First, the court analyzed whether Lone Star was an assignee or a mere licensee. Affirming the district court's finding that AMD did not give Lone Star all substantial rights in the asserted patents, the court explained that rather than rely on labels, it must look to the totality of the transfer agreement. Despite the broad conveyance of "all right, title and interest," the agreement did not sufficiently convey all substantial rights to Lone Star because AMD retained some of those rights. Thus, the court held that Lone Star was a licensee and could not assert the patents in its own name.

Second, the court addressed whether Lone Star lacked standing because it never explicitly alleged that it was an exclusive licensee. The court explained that standing requires the injured party to possess "exclusionary rights" in a patent; Lone Star alleged infringement of its exclusionary rights, even if those rights were limited. Rejecting the district court's finding that Lone Star lacked standing, the court held that the substance of Lone Star's allegations satisfied Article III standing. The court held that the district court erred in confusing Article III standing requirements with those of statutory standing, clarifying that defects in statutory standing do not implicate a court's subject-matter jurisdiction. The Federal Circuit also noted that "several courts have concluded that motions to dismiss based on 'statutory standing' defects are properly brought under Rule 12(b)(6) rather than Rule 12(b)(1)" because "such defects are not jurisdictional."

Third, the court held that the district court erred in dismissing the case without according Lone Star the opportunity to join AMD as a necessary party. Application of Federal Rule of Civil Procedure 19 is mandatory. The court explained that as the patentee, AMD is a necessary party and its joinder was required. The court noted that the cure for a statutory standing defect "is to join the patent owner and not to dismiss the case." Thus, the district court erred by failing to consider whether AMD's joinder was feasible, and if not feasible, whether AMD is indispensable.

Luminara Worldwide, LLC v. Iancu
899 F.3d 1303 (Fed. Cir. 2018)

In this patent case on appeal from the PTAB, the Federal Circuit vacated and remanded for dismissal of the PTAB's IPR decision on Luminara's patent, U.S. Patent No. 8,070,319, on the grounds that the PTAB's review of Patent '319 was improper under the time-bar of 35 U.S.C. § 315(b). The Federal Circuit also affirmed the PTAB's IPR decision that Luminara's other two patents, U.S. Patent Nos. 8,696,166 and 8,534,689 were unpatentable as obvious.

For the '319 patent, Luminara appealed the time-bar determination and for all three patents Luminara appealed the obviousness determinations for each claim. Liown Electronics Co., Ltd., the original party that requested the IPR of Luminara's patents, declined to participate on appeal so the United States Patent and Trademark Office ("Iancu") intervened to defend

the PTAB's decision. All three patents were related and employed moving pendulums in a flameless candle to simulate the appearance of a natural flame.

The Federal Circuit affirmed their previous decision in *Click-To-Call Technologies, LP, v. Ingenio, Inc.*, which held that the Section 315(b) time-bar applies when a party petitioning for IPR was served with a complaint for patent infringement more than a year before filing its petition but the district court action for the complaint was voluntarily dismissed without prejudice. This exact scenario applied to the situation relating to the '319 patent and therefore the Federal Circuit vacated and remanded for dismissal the PTAB's IPR decision.

For the obviousness determinations of the '166 patent and the '869 patent, the Federal Circuit reviewed the claim constructions de novo. Upon review, the Federal Circuit agreed with the PTAB's finding that the claim language at issue, which specifically described the pivot hole component that rotated around the support element component to be larger than the support element component, to be obvious. The Federal Circuit agreed with the PTAB that the ability of relative motion (rotation) between the two components, necessarily implied that a person of ordinary skill would conclude that the pivot hole was larger than the support element. The Federal Circuit concluded that this was substantial evidence supporting the PTAB's obviousness determinations for the claims at issue in the '166 patent and the '869 patent and therefore affirmed the PTAB's decisions.

Maxchief Investments Limited v. Wok & Pan, Ind., Inc
909 F.3d 1134 (Fed. Cir. 2018)

The Federal Circuit affirmed the District Court for the Eastern District of Tennessee's grant of a declaratory judgment defendant/patentee's motion to dismiss for lack of personal jurisdiction. Patentee Wok, a manufacturer of plastic folding tables, filed suit against Maxchief's customer, Staples, in California, after which Maxchief filed an action for (1) declaratory judgment of noninfringement and invalidity and (2) tortious interference with business relations under Tennessee state law against Wok, giving rise to this appeal. The district court dismissed the declaratory judgment claim for lack of personal jurisdiction due to a failure to allege sufficient minimum contacts with Tennessee. It also dismissed the tortious interference claim on the basis that Maxchief had failed to specifically allege subject matter jurisdiction in its complaint, and there was no independent basis for subject matter jurisdiction.

The Federal Circuit held that the district court lacked personal jurisdiction over either claim based on principles of constitutional due process. As to the declaratory judgment claim, the court noted that, under patent law, some enforcement activity by the patentee in the forum state is required to constitute minimum contacts. The Federal Circuit held that a lawsuit against Staples which might have "effects" in Tennessee was insufficient, because Wok's actions were not directed at the forum state.

As to the tortious interference claim, Wok had sent an infringement notice letter to a Tennessee lawyer representing both Maxchief and its customer Coleman. However, the letter alleged infringement by only Coleman, a Kansas corporation. The Federal Circuit

held that, even though the lawyer was located in Tennessee, Wok's letter was directed to Kansas, not Tennessee. Because there was no personal jurisdiction, the Federal Circuit declined to reach the question of subject matter jurisdiction as to the tortious interference claim.

Mayne Pharma Int'l Pty. Ltd. v. Merck Sharp & Dohme Corp.
927 F.3d 1232 (Fed. Cir. 2019)

Mayne appealed a final written decision by the PTAB that the claims of its '745 patent were unpatentable as anticipated or obvious. The patent purported to provide a pharmaceutical composition that overcame obstacles like low absorption and poor bioavailability inazole antifungal drugs. On appeal, Mayne argued that the PTAB erred by: (1) instituting review when Merck's petition should have been found time-barred under 35 U.S.C. § 315(b) for not identifying Merck as a real party in interest; and (2) by declining to limit the claims to nontoxic compositions that produce the claimed pharmacokinetic effects in humans. Merck responded that the court was not entitled to review the PTAB's decision to permit Merck's amendment to its real-party-in-interest disclosure, and that the term "pharmaceutical composition" in the '745 patent was not limited to nontoxic compositions only affecting humans.

First, the court found that the PTAB did not err in applying 37 C.F.R. § 42(c)(3) to excuse Merck's late disclosure, which provides that a "late action will be excused on a showing of good cause or upon a Board decision that consideration on the merits would be in the interests of justice." The court reasoned that there was no evidence that Mayne intended to conceal Merck's identity, particularly because Merck was a named defendant in the parallel district court litigation, and to "unwind[] the proceedings based on a strict view of the real-party-in-interest disclosure" would be at odds with PTO policy to secure the "just, speedy, and inexpensive resolution of every proceeding." Because the court concluded that PTAB committed no reversible error, it did not address the issue of appealability.

Second, the court found that because the '745 patent's specification was silent as to whether the claimed pharmaceutical composition was limited to being nontoxic, there was no basis to import such a limitation into the claim. Additionally, the court agreed with Merck that the broadest reasonable interpretation of the '745 patent's claims were not limited to humans, as the patent's specification repeatedly required that the parameters be met "in vivo," which generally means "in the living body of a plant or animal."

Because the court found that the PTAB had not erred in either of its conclusions, it affirmed the PTAB's decision.

Momenta Pharms., Inc. v. Bristol-Myers Squibb Co.
915 F.3d 764 (Fed. Cir. 2019)

Momenta sought IPR of the '239 patent owned by Bristol-Myers Squibb ("BMS"). The '239 patent "describes and claims specific fluid formulations of [a protein] . . . used in treatment of immune system disorders such as rheumatoid arthritis." BMS marketed the

product under the brand name Orenzia®. The PTAB sustained patentability of the '239 patent claims and Momenta appealed to the Federal Circuit.

On appeal, BMS argued that Momenta lacked standing because its proposed product “had failed its Phase 1 clinical trials and had been withdrawn.” Momenta responded that it intended to continue developing and producing a counterpart to Orenzia®. Momenta also alleged that it was injured by the estoppel statute, 35 U.S.C. § 315(e). However, Momenta’s press releases and SEC filings showed that it no longer sought to participate in the development of a proposed biosimilar to Orenzia®. Thus, the Federal Circuit held that Momenta failed to show “‘an invasion of a legally protected interest’ that is ‘actual or imminent, not conjectural or hypothetical’” because it terminated all “‘potentially infringing activity.’”

In addition, the court rejected Momenta’s alternative argument that the estoppel provision under Section 315(e) provided injury-in-fact to support Article III standing. The court held that “[e]stoppel cannot constitute an injury-in-fact when Momenta ‘is not engaged in any activity that would give rise to a possible infringement suit.’” Therefore, Momenta lacked standing to appeal.

The Federal Circuit also held that the appeal was moot because Momenta voluntarily ceased its potentially infringing activity, which meant there was no longer the potential for injury. Accordingly, the court dismissed the appeal for lack of standing and mootness.

Mylan Pharms. Inc. v. Research Corp. Techs., Inc.
914 F.3d 1366 (Fed. Cir. 2019)

In this appeal from an IPR, the Federal Circuit held that Appellants had standing to appeal, but ultimately affirmed the PTAB’s decision that the claims of the '551 patent were not unpatentable for obviousness.

Argentum Pharmaceuticals LLC sought IPR of the '551 patent owned by Research Corporation Technologies (“RCT”). The patent involved compounds that were “useful in the treatment of epilepsy and other central nervous system disorders.” Three days after PTAB instituted Argentum’s petition, Mylan, Breckenridge, and Alembic (collectively, “Appellants”) each “filed their own petitions for review with concurrent motions for joinder.” In 2013, Appellants had each been sued by RCT for infringement of the '551 patent. The PTAB “instituted on each petition and joined each proceeding” with the Argentum proceeding. The PTAB concluded that “each challenged claim had not been shown to be unpatentable.” Appellants appealed, except for Argentum.

On appeal, RCT argued that Appellants lacked statutory standing to appeal the PTAB’s decision because they did not “fall within the zone of interests” of 35 U.S.C. § 319. RCT did not challenge Appellants’ Article III standing. Section 319 creates the right to appellate review of PTAB decisions. RCT asserted that Appellants did not fall within the zone of interests of § 319 because each Appellant filed its IPR petition more than a year after RCT had already sued it for infringement, making each of their original IPR petitions time-

barred. The Federal Circuit found that the PTAB had properly exercised its discretion to “join” the appellants in the IPR under 35 U.S.C. § 315(c). The court then examined Section 319, which provides that “[a]ny party to the inter partes review shall have the right to be a party to the appeal.” Accordingly, the Federal Circuit held that Appellants had a statutory right to appeal under Section 319.

As to the merits of the PTAB’s IPR decision, the Federal Circuit affirmed the PTAB’s determination that Appellants failed to show the claims of the ’551 patent “would have been obvious at the time of the invention.” The court rejected Appellants’ argument that “a person of skill in the art would ... have been motivated to modify [the lead compound],” and moreover found that the prior art taught away from the specific modifications that the patent claimed. Further, the court rejected Appellants’ argument that the PTAB incorrectly credited RCT’s expert. Therefore, the court concluded that the PTAB’s “obviousness conclusion was supported by substantial evidence.”

Additionally, the Appellants requested that, in light of the Supreme Court’s decision in *SAS Institute v. Iancu*, the court remand the case. However, the Federal Circuit held that Appellants waived their request for *SAS* relief by waiting over six months after *SAS* and raising the issue during their rebuttal oral argument.

Natural Alternatives Int’l, Inc. v. Creative Compounds, LLC
918 F.3d 1338 (Fed. Cir. 2019)

In this case, the Federal Circuit reversed and remanded the Southern District of California’s grant of judgment on the pleadings in favor of an alleged infringer who argued that the patents were directed to patent-ineligible subject matter.

The patents at issue relate to dietary supplements containing beta-alanine, a naturally occurring amino acid used for the purpose of “increas[ing] the anaerobic working capacity of muscle and other tissue.” The patent claims fell into three categories: “Method Claims” specifying methods of treatment using beta-alanine, “Products Claims” specifying the composition of the supplements themselves, and “Manufacturing Claims” specifying the method of producing the supplements. Natural Alternatives, the patent holder, asserted these claims against Creative Compounds, which moved for judgment on the pleadings, arguing that all claims were invalid. The lower court, conducting a two-step Alice analysis, agreed, finding that the patent claims were directed to natural laws. Natural Alternatives appealed.

At step one of its own Alice analysis, the Federal Circuit found that the Method Claims were not directed to a natural law, because they covered “using a natural product in unnatural quantities to alter a patient’s natural state, to treat a patient with specific dosages outlined in the patents.” The court likened the case to *Vanda Pharmaceuticals Inc. v. West-Ward Pharmaceuticals International Inc.*, finding that the method claims’ specificity, which included identification of particular forms of beta-alanine, a dosage limitation, and a method for calculating said limitation, was sufficient. In distinguishing between patenting a treatment method involving natural products and patenting the natural products

themselves, the court found it significant that, although “beta-alanine may exist in nature[,] the claimed consumption greatly exceeds natural levels.”

The court reached the same conclusion with respect to the Product Claims. “Directed to specific treatment formulations,” the claims specified a supplement that “incorporate[s] natural products, but have different characteristics and can be used in a manner that beta-alanine as it appears in nature cannot.” For claims involving the combination of glycine and beta-alanine, the court clarified that Funk Brothers did “not stand for the proposition that any combination of ineligible subject matter is itself ineligible.” The court found that the combination at issue here satisfied the Funk Brothers standard because the relationship between glycine and beta-alanine was “synergistic,” producing “effects that are greater than the sum of the parts.”

The Manufacturing Claims recited using “beta-alanine in manufacturing a human dietary supplement” for oral consumption “in doses over a period of time” sufficient to “increase[] beta-alanyl histidine levels in human tissue sufficient to delay the onset of fatigue in the human.” Again, the district court had held that these claims were directed to a natural phenomenon, but the Federal Circuit held that the claims were directed to neither the “natural law or product of nature, but instead are an application of the law and new use of that product.” It accordingly reversed and remanded as to all claims, noting that “[w]e live in the natural world and all inventions are constrained by the laws of nature,” but the courts “must be careful not to overly abstract claims when performing the Alice analysis.”

Judge Reyna concurred in the result but dissented as to the rationale. He agreed that the claims should have been remanded, but argued that both the district court and the majority relied on an erroneous claim construction because they accepted a construction proffered by Natural Alternatives that was “contradicted by the written description” and the plain meaning of the claim text.

Natural Alternatives Int’l, Inc. v. Iancu
904 F.3d 1375 (Fed. Cir. 2018)

This dispute originated as an IPR initiated by Woodbolt Distributors. Natural Alternatives International (NAI) had filed a chain of eight patent applications between 1997 and 2011, all related to athlete endurance. Successive applications claimed priority back to the first, allowing NAI to trade a shorter exclusivity period for a greater insulation against the growing pool of prior art. NAI eventually amended the fifth patent to delete its priority claim to the first through fourth patents, thereby severing the chain. Nonetheless, it continued to claim full priority in later patents by way of patent five. When the PTAB heard Woodbolt’s IPR, it concluded that NAI’s most recent patent was not entitled to the priority benefit—and thus could be anticipated by prior art arising after 1997.

On NAI’s appeal, the PTO Director intervened to defend the PTAB’s decision. The Federal Circuit found for the Director. First, the panel reaffirmed its acknowledgement that amending earlier “parent” applications can affect the priority of later “child” applications. Nothing in the Manual of Patent Examining Procedure suggested that NAI

could waive its priority *only* as to patent five. To the contrary, there is a longstanding practice of viewing priority as “a single chain, growing with each additional continuation.” When NAI severed the link between patents four and five, it broke the chain back to patent one. Additionally, the Federal Circuit rejected two counterarguments by NAI: that full priority had “vested” in patent six, and that patent eight could claim a direct independent link back to patent one. Because NAI chose to extend the term of patent five by severing the priority link, it “cannot have it both ways” by claiming priority for later patents in the same chain.

Neptune Generics v. Eli Lilly & Co.

921 F.3d 1372 (Fed. Cir. 2019)

On appeal from the PTAB, the Federal Circuit held that substantial evidence supported the PTAB’s finding that the patent claims at issue were not unpatentable for obviousness. The patent at issue related to administering folic acid and a methylmalonic acid (“MMA”) lowering agent, such as vitamin B12, before administering pemetrexed disodium, a chemotherapy agent, in order to reduce the toxic effects of pemetrexed. The PTAB considered three IPR petitions, each raising different prior art patents or publications, and concluded in each case that the claims were not established to be unpatentable for obviousness. It was found that it was known in the prior art that pretreatment with folic acid reduces the toxicity associated with administration of an antifolate, like pemetrexed, but there was not a reason to pretreat with vitamin B12 along with folic acid.

The Federal Circuit held that the PTAB’s findings were appropriately based on the prior art’s disclosure of the relationships between various biochemicals and toxicities. For example, the PTAB properly credited the testimony of the patent owner’s expert “that a skilled artisan would have understood that there was no observed correlation between vitamin B12 deficiency and pemetrexed-induced toxicity.” The Federal Circuit also held that the PTAB did not err when it declined to consider patentee’s communications with the FDA about the prior art references because those communications were “made through the lens of what [the patentee] had invented.”

Nobel Biocare Services AG v. Intradent USA, Inc.

903 F.3d 1365 (Fed. Cir. 2018)

The Federal Circuit affirmed the PTAB’s decision that six claims of Nobel Biocare Services AG’s (“Nobel”) patent were invalid as anticipated. In 2014, Nobel filed a complaint with the ITC alleging that Intradent USA, Inc. (“Intradent”) had infringed its ’977 patent, which relates to dental implants comprising, inter alia, “a coronal region of the body, the coronal region having a frustoconical shape.” Intradent argued that the asserted claims were anticipated by an Alpha-Bio Tech (ABT) product catalog that was distributed at a conference and thus accessible prior to the patent’s critical date. But the ITC concluded that Intradent failed to show by clear and convincing evidence that the ABT Catalog was prior art.

Instradent the petitioned the PTAB for IPR of Nobel's patent. Upon review, the PTAB considered new evidence, including deposition testimony of conference attendees, and found that the ABT Catalog was prior art because it was available to interested members of the public without restrictions. The BTAB also adopted the same construction of the "frustoconical limitation" as the ITC, that "the coronal region has, partly or entirely, a frustoconical shape," explaining that the term "having" does not preclude an implant where a portion of the coronal region is frustoconical while another portion is not. Based on that construction, the PTAB found the ABT Catalog anticipated Nobel's claims, and reversed in favor of Instradent.

On appeal, the Federal Circuit affirmed the PTAB's finding that the ABT Catalog was prior art and anticipated the Nobel's asserted claims. The court primarily focused on whether the ABT catalog was a prior art based on public accessibility. It explained that whether a reference qualifies as a publicly accessible printed publication requires a case-by-case analysis. As such, it was able to rely on additional evidence and was not bound by the PTAB's ruling in favor of Nobel. The court relied on testimony from an individual who attended a conference where a copy of the ABT Catalog was publicly available and was distributed without any restrictions. The court additionally noted that the ABT Catalog was the type of document intended for public consumption. In rejecting Nobel's argument that the evidence the court relied upon was not sufficiently corroborated, the court applied a "rule of reason" analysis, and found that the testimony of different individuals was corroborated by other witnesses.

Finally, court rejected Nobel's claim construction argument and affirmed the PTAB's construction that the word "having" should be interpreted as open-ended meaning that the coronal region must contain a frustoconical shape, but the entire region does not have a frustoconical shape. This finding was supported by the written description of the patent and by both wholly and partly frustoconical figures contained in the patent. The court noted that where a term has multiple ordinary meanings like the word "having," the term should be interpreted in such a way so as to not exclude disclosed examples in the patent.

Novartis AG v. Ezra Ventures LLC
909 F.3d 1367 (Fed. Cir. 2018)

Novartis owns several patents that cover fingolimod, the active ingredient in Gilenya®. The '229 patent claims the compound, while the '565 patent claims a method of administration. The '565 patent expired in 2017. While the '229 patent was originally set to expire in 2014, Novartis obtained a PTE, extending the expiration to 2019.

Ezra Ventures filed an ANDA related to Gilenya®. Novartis subsequently filed an infringement suit asserting its '229 patent. Ezra argued that the '229 patent is invalid because a PTE extends expiration beyond the '565 patent's expiry date. Section 156(c)(4) allows only one patent's term to be extended, and Ezra alleged an extension on the '229 patent "effectively" extends the life of '565 patent.

The district court and Federal Circuit rejected Ezra's argument, holding that reading Section 156(c)(4) to mean "effective extension" would be inconsistent with how "extend," "extension," and "extending," are used in the remainder of Section 156. The other uses refer specifically to legal status conferred upon a patent and its literal expiration date, rather than the patent's "effective" or "de facto" exclusionary power. The court declined to force patentees to pick a patent to extend so that "effective" extension was limited to one patent, noting that Section 156 specifically allows patentees to choose.

Alternatively, Ezra also argued that the '229 patent should be invalid for double patenting because the claims of the '229 patent and '565 patent are not patentably distinct. The Federal Circuit disagreed, concluding as a "logical extension" of its holding in *Merck & Co. v. Hi-Tech Pharmaceutical Co.*, 482 F.3d 1317 (Fed. Cir. 2007), that obviousness-type double patenting does not invalidate a validly obtained PTE under Section 156. In *Merck*, the patentee terminally disclaimed its '413 patent at expiry of its '115 patent in order to overcome a obviousness-type double patenting rejection. The patentee subsequently filed for a PTE for the '413 patent under Section 156. The *Merck* panel held that Section 156 does not prohibit such behavior. Here, since a PTE on a terminally disclaimed patent is permissible under *Merck*, a validly obtained PTE under Section 156 will not be invalidated due to double patenting.

Novartis Pharm. Corp. v. West-Ward Pharm. Int'l Ltd.
923 F.3d 1051 (Fed. Cir. 2019)

Novartis, sued a competitor, West-Ward, for infringing its patent to methods of using a compound, everolimus, to treat advanced renal cell carcinoma (RCC). Before the district court, West-Ward argued that the asserted claims of Novartis's patent for the compound were invalid as obvious over prior art. But the district court rejected West-Ward's arguments, holding that West-Ward failed to establish that a POSITA would have been motivated to combine the prior art and further failed to establish that a POSITA would have had a reasonable expectation of successfully doing so. With respect to motivation to combine, the Federal Circuit found that the district court erred by requiring West-Ward "to show by clear and convincing evidence that a person of ordinary skill would have had a reason to select a proposed lead compound . . . over other compounds in the prior art." The Federal Circuit noted that it has used a test in cases disputing the obviousness in "lead compound cases" where the court must determine whether a POSITA would have selected the asserted prior compounds as the "lead compound," or starting point, for further development. The Federal Circuit has also used this test for assessing obviousness with respect to a claim limitation that falls within a range disclosed in the prior art. However, the court held that this test was inappropriate for this case because Novartis's patent was for methods of using everolimus to treat advanced RCC, not for the compound itself. Therefore, West-Ward was not required to show that a POSITA "would have selected everolimus over other prior art compounds." The proper inquiry is instead whether a POSITA would have been motivated to modify the prior art disclosing use of another compound to treat advanced RCC with the prior art disclosing everolimus. Because West-Ward was able to show that a person of ordinary skill "would be motivated to pursue

everolimus as one of several potential treatment options” for advanced RCC, the Federal Circuit held that West-Ward had established motivation to combine.

Nevertheless, the Federal Circuit upheld the district court’s nonobviousness finding because the patent challenger failed to prove that a person of ordinary skill would have a reasonable expectation of success in treating advanced RCC using everolimus. On appeal, West-Ward argued that the district court erred by conflating the lack of clinical data on the use of everolimus for advanced RCC treatment with a lack of reasonable expectation for success. But the Federal Circuit considered the district court’s analysis of prior art and expert testimony and found no clear error in the district court’s determinations that (1) phase I clinical data of a prior art compound had diminished weight because of small sample sizes, (2) the prior art compound and everolimus are “pharmacologically different” due to different half-lives, and (3) existing studies showed “the molecular biology of advanced RCC was not fully understood.”

Novartis Pharms. Corp. v. Breckenridge Pharm. Inc.

909 F.3d 1355 (Fed. Cir. 2018)

The Federal Circuit held that a post-URAA (Uruguay Round Agreements Act of 1994) patent that was filed after and expires before a pre-URAA patent cannot qualify as a double patenting reference against the pre-URAA patent. Under the URAA, patents filed before June 8, 1995, expire 17 years after their issue date, but patents filed on or after that date expire 20 years after their earliest effective filing date. Patentee Novartis owned two related patents: one pre-URAA patent (the ’772 patent) and the other post-URAA (the ’990 patent). Even though the ’990 patent was filed and issued after the ’772 patent, the ’990 patent expired before the ’772 patent due to the URAA. Novartis sued Defendants for infringing the ’772 patent. Defendants conceded that they infringed, but both sides stipulated that if the district court found the ’990 patent to be a proper double patenting reference to the ’772 patent, then the claims of the ’990 patent would render the claims of the ’772 patent invalid. The district court concluded that the ’990 patent was a proper double patenting reference to the ’772 patent and invalidated the claims.

The Federal Circuit held that the district court erred in applying the court’s 2014 decision in *Gilead Sciences, Inc. v. Natco Pharma Ltd.*, which held that a later-filed but earlier-expiring patent can serve as a double-patenting reference for an earlier-filed but later-expiring patent in the post-URAA context. Here, Novartis owned one pre-URAA patent and one post-URAA patent. Consequently, the 17-year post-issue term granted to the ’772 patent did not pose the same unjustified time extension problem that was at issue in *Gilead*. The ’772 patent expired after the ’990 patent only due to the happenstance of an intervening change in patent term law.

Rather than invalidating the ’772 patent, the Federal Circuit applied the traditional, pre-URAA obviousness-type double patenting practice, which used the ’772 patent’s issue date as a reference point for the analysis. Under this analysis, the ’990 patent had not yet issued when the ’772 patent issued, meaning the ’990 patent was not a double patenting

reference against the '772 patent at that time. The judgment of the district court was reversed.

Nuvo Pharms. (Ireland) Designated Activity Co. v. Dr. Reddy's Labs. Inc.
923 F.3d 1368 (Fed. Cir. 2019)

In this ANDA case, several generic drug manufacturers appealed a decision by the District of New Jersey finding that the claims of the two asserted patents were not invalid under 35 U.S.C. § 112 for lack of written description. Nuvo cross-appealed the district court's grant of summary judgment of noninfringement of a drug manufactured by Dr. Reddy's Labs. The Federal Circuit reversed the district court's ruling, finding that both asserted patents were invalid for lack of written description. Furthermore, the Federal Circuit held that Nuvo's cross appeal regarding noninfringement was rendered moot in view of its holding that the claims were invalid.

The generic manufacturers argued that the district court's holding regarding written description was incorrect because the specification did not adequately describe the efficacy of using an uncoated proton pump inhibitor (PPI) to reduce side effects of an NSAID by raising the pH of the stomach and upper small intestine before the NSAID is released, as required by the asserted claims. The Federal Circuit agreed with the generics, finding first that the portions of the specification cited by the district court "in no way provides support for the claimed efficacy of uncoated PPI," despite the testimony from Nuvo's expert relying on a nearly verbatim recitation of the claim language in the specification. The Federal Circuit held that merely reciting the claim language, without more, does not demonstrate possession of the invention, as required by 35 U.S.C. § 112.

In response, Nuvo argued that the effectiveness of uncoated PPI "is necessarily inherent in the specification's explicit disclosure of methods for making and using drug formulations containing PPI." In support of this argument, Nuvo relied on *Alcon Research Ltd. v. Barr Laboratories, Inc.*, 745 F.3d 1180 (Fed. Cir. 2014), and *Allergan, Inc. v. Sandoz Inc.*, 796 F.3d 1293, 1309 (Fed. Cir. 2015), which it alleged supported its position that it is sufficient that the patents taught making and using the claimed combination. The Federal Circuit recognized that "under a narrow set of circumstances, the written description requirement may be satisfied without an explicit disclosure if the claimed features are necessarily inherent in what is expressly described." However, it went on to find that Nuvo's patents did not fall within that narrow exception because, "unlike in *Allergan*, whether uncoated PPI is inherently effective in raising gastric pH to at least 3.5 [was] disputed."

Because the court found that the claims were invalid for lack of written description, it found Nuvo's cross-appeal of the district court's grant of summary judgment of noninfringement moot.

Omega Patents, LLC v. CalAmp Corp.

920 F.3d 1337 (Fed. Cir. 2019)

CalAmp Corp. appealed from a judgment that the '876, '885, '727, and '278 patents were infringed and not invalid. In a multipart decision, the Federal Circuit upheld the patents as not invalid but reversed in part on several grounds of infringement as well as on damages and willfulness.

Omega Patents, LLC owns several patents relating to technology that can be used to remotely control and monitor a fleet of vehicles (*e.g.*, remote vehicle starting, battery health, and speeding). Omega sued CalAmp for infringement based on CalAmp's Location Messaging Unit ("LMU") products. At trial, a jury found Omega's patent to be valid and infringed and awarded Omega \$2.98 million in compensatory damages. The district court trebled damages for willfulness and awarded attorneys' fees, bringing the total to approximately \$15 million.

On appeal, the Federal Circuit found that CalAmp had waived its validity argument. CalAmp argued that it would have introduced additional prior art references had the district court adopted its proposed claim construction. However, CalAmp failed to specifically identify any prior art that would have been actually impacted by claim construction below.

On the issue of infringement, the Federal Circuit affirmed the finding of infringement as to Omega's '727 patent, but vacated the jury's findings of the '876 patent and '885 patents. With regards to '876 patent and '885 patents, the Federal Circuit found Omega's infringement theory at trial to be inconsistent with the agreed upon claim construction. At the *Markman* hearing, the district court refused to construe a term because CalAmp's definition was taken from Omega's patent specification and Omega proposed "plain and ordinary meaning" or that Omega was fine with CalAmp's definition. The district court instructed the jury to give the term its plain and ordinary meaning. The Federal Circuit noted that even if the parties agreed regarding claim construction, the court was still obligated to give the construction via jury instruction. Since it was impossible to know whether the jury's verdict of infringement was based upon Omega's inconsistent theory, the court set aside the jury's verdict.

Finally, the Federal Circuit vacated the damages and willfulness awards and remanded for a new trial. The court found that the district court had improperly limited willfulness testimony from two key witnesses—Gallin Chen, the senior director of business development, and David Bailey, CalAmp's outside counsel. The district court allowed Chen to testify regarding his investigation into the patent landscape but excluded his conclusions based on the finding that he was an undisclosed expert. The district court also limited Bailey's testimony to his conclusions regarding infringement and validity, barring testimony as to how Bailey arrived at his conclusions. The Federal Circuit found the exclusion of Chen's conclusions to be improper, since Chen's conclusions served to illuminate CalAmp's state of mind prior to infringement rather than as expert testimony regarding whether the patent was infringed or valid. The Federal Circuit also found

exclusion of Bailey's testimony to be improper, CalAmp's outside counsel should have been allowed to present a reasonable explanation as to how he arrived at his conclusions.

Orexo AB v. Actavis Elizabeth LLC
903 F.3d 1265 (Fed. Cir. 2018)

This case arose when Actavis Elizabeth LLC filed an ANDA to sell a generic version of Orexo's Zubsolv product, which was approved by FDA for treating opioid dependence. Zubsolv uses a 4:1 ratio of buprenorphine, an opioid agonist, to naloxone, an opioid antagonist. The buprenorphine microparticles are attached to a citric acid carrier. Using microparticles requires less buprenorphine than other forms of the treatment, and reduces chances of abuse since dissolving the pill for injection causes the naloxone to block the buprenorphine's effects. Orexo's asserted its Orange Book-listed patent, which recites a tablet suitable for sublingual administration that is less subject to abuse. Specifically, in the claimed formulation, microparticles of buprenorphine adhere to the surface of carrier particles of citric acid. The formulation contains naloxone in the 4:1 ratio.

The district court held that the asserted claims were obvious. The prior art taught that administering buprenorphine to naloxone in a 4:1 ratio provided optimal treatment for opioid addiction while deterring abuse. It also taught that mixing in citric acid to lower the pH could improve the buprenorphine's effectiveness, but doing so interfered with the naloxone's effectiveness and destroyed the 4:1 ratio. The district court found that the ingredients and ratio were known, and as such found that the claims were obvious.

On appeal, the Federal Circuit reversed, finding that, although the ingredients and ratio were known, nothing in prior art taught the selection and combination of the components in the manner claimed by the patent. No prior art taught that using microparticles would increase effectiveness and decrease risk of abuse. Similarly, nothing taught that using citric acid as a carrier, rather than simply adding it to the mix, would achieve these added benefits and maintain the 4:1 ratio. The court further looked to objective indicia of obviousness. It found that the dramatically increased effectiveness was an unexpected result of the formulation and that the district court improperly ignored testimony about the decreased chance of abuse. Thus, the Federal Circuit found that that Actavis had not established obviousness by clear and convincing evidence.

Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.
924 F.3d 1243 (Fed. Cir. 2019)

The Federal Circuit affirmed the PTAB's final written decision construing a claim limitation and determining that certain claims were unpatentable for obviousness in view of prior art. The court relied both on issue preclusion and its review of the merits.

Papst owns the '437 patent, which contains the same specification as Papst's '144 and '746 patents. The specification describes a certain interface device that communicates between a data device and a host computer without needing user-installed drivers specific

to the interface device. After Papst sued for infringement, several companies petitioned the PTAB for IPRs.

Samsung successfully petitioned the PTAB for IPR challenging the validity of the '437 patent. The PTAB construed a claim limitation—that the patent's "without requiring" limitations did not *prohibit* an end user from installing other drivers—and subsequently applied that construction to find that prior art rendered the claims obvious. Simultaneously, the PTAB issued final written decisions in two other IPRs involving Papst's '144 and '746 patents, finding unpatentability based on the same prior art.

Papst appealed the decisions from all three IPRs, which were consolidated for oral argument. Shortly before argument, Papst voluntarily dismissed its appeals for the '144 and '746 patents, making those decisions final, non-appealable judgments. Because this triggered issue preclusion, the Federal Circuit held that it did not need to reach the issues pertaining to the '437 patent appeal. Further, the court explained that Papst had not advanced persuasive reasons for it to apply an exception to issue preclusion, such as inadequate representation or an impaired opportunity to litigate the other IPRs. Because the abandoned appeals' issues were materially identical to those in the '437 patent appeal, and the PTAB's findings on those key issues "were essential to the Board's decision," the court held that issue preclusion applied.

Nonetheless, the court addressed the three issues Papst raised on the merits. First, the court rejected Papst's new factual challenge to the PTAB's finding about the teachings of a key piece of prior art, Aytac. Reasoning that Papst had not fairly presented this factual contention to the PTAB, the court held that Papst had forfeited this argument. Second, the court held that substantial evidence supported the PTAB's claim construction of the '437 patent's "without requiring" limitations. Third, the court held that substantial evidence supported the PTAB's "resolution of the crucial factual issue" of what Aytac teaches, which affirmed the PTAB's obviousness finding.

ParkerVision, Inc. v. Qualcomm Inc.
903 F.3d 1354 (Fed. Cir. 2018)

In this case, ParkerVision appealed from three PTAB decisions in related IPR proceedings, in which the PTAB held certain method and apparatus claims of ParkerVision's '940 patent unpatentable as obvious. Qualcomm cross-appealed from the PTAB's decision that Qualcomm failed to prove that other claims of the '940 patent are obvious. The Federal Circuit affirmed.

ParkerVision's '940 patent relates to the use of telecommunication devices to up-convert low-frequency electromagnetic signals to higher frequency signals. The process of up-converting these signals allows the information contained in the signal to be transmitted more efficiently.

With respect to the apparatus claims, ParkerVision argued that the court erred in its construction of the term "plurality of harmonics." The court noted that its cases distinguish

between claims with language reciting capability, and claims reciting configuration. Here, the court found that the claim language related to capability and not configuration because it related to the purpose of the claimed components and did not specify structural limitations. The court noted that prior art may render obvious a device that is “capable of” performing a function if the prior art can perform the same function. Since it was undisputed that the prior art was capable of producing a “plurality of harmonics,” the court affirmed the PTAB’s finding of unpatentability because the prior art renders the infringing claims as obvious.

In contrast, the court explained that the method claims were not rendered obvious by prior art that was merely capable of producing a plurality of harmonics. The court contrasted the case at hand with prior holdings where the default setting of a prior art satisfied a particular claim limitation. Here, the court explained that there was no evidence that a person of skill would be motivated to actually operate the prior art device in a way that generated a “plurality of harmonics,” even if the device was capable of doing so. Accordingly, the court upheld the PTAB’s finding that the method claims were not unpatentable.

The court affirmed the PTAB’s holding that ParkerVision’s methods claims were patentable and nonobvious. To show that a method claim is obvious, Qualcomm needed to show that a person of ordinary skill in the art would have been motivated to operate the prior art in the manner described in the patent. Because Qualcomm did not provide evidence that a person of ordinary skill in the art would have been motivated to use the prior art to produce the “plurality of harmonics” as described in the ParkerVision patent, the court affirmed the PTAB’s holding.

PersonalWeb Techns., LLC v. Apple, Inc.

917 F.3d 1376 (Fed. Cir. 2019)

This case is about a patent for a system of data management that utilizes a cryptographic hash function to assign digital files identifiers—*i.e.*, names—based exclusively on their content. The system associates each identifier with a list of access-authorized users in a “license table” in order to prevent unauthorized file access. The Federal Circuit reversed the PTAB, holding that the PTAB’s inherency finding was not supported by substantial evidence.

PersonalWeb owns the patent at issue. Upon a petition for IPR from Apple, the PTAB instituted review to decide whether PersonalWeb’s claims were unpatentable for obviousness. The disputed claim language, from claim 24, described PersonalWeb’s data management system as “causing the content-dependent name of the particular data item to be compared to a plurality of values.” The PTAB held for Apple, finding that PersonalWeb’s claim was obvious because it was inherently taught under a Woodhill patent that used “contents identifiers” in a backup-and-restore system, and because a skilled artisan would have been motivated to combine Woodhill with Stefik, a patent disclosing a digital access-authentication system, to yield PersonalWeb’s method.

The court held that the PTAB had mistakenly treated the possibility that Woodhill's system utilized object identifiers like the ones described in claim 24 as enough to establish inherency. Relying on *PAR Pharm., Inc. v. TWI Pharm., Inc.*, 773 F.3d 1186 (Fed. Cir. 2014), the court noted that to show inherency, a party must "show that the natural result flowing from the operation as taught would result in the performance of the questioned function." Therefore, "[i]nherency . . . may not be established by probabilities or possibilities."

Applying this principle, the court found that the PTAB had erred in concluding that PersonalWeb's patent was obvious under Woodhill. The PTAB had inferred that PersonalWeb's method was necessary for the Woodward system to function as described. The court dismissed this inference as unwarranted given PersonalWeb's "equally plausible, if not more plausible" account of how the Woodward system could work without using PersonalWeb's method. The existence of this alternative account established that what the PTAB called "necessity" was merely possibility; hence the PTAB's finding of inherency was not based on substantial evidence.

Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.
904 F.3d 965 (Fed. Cir. 2018)

Power Integrations, Inc. ("Power"), owner of the '079 and '908 patents, and Fairchild Semiconductor Corporation and Fairchild (Taiwan) Corporation (collectively "Fairchild") both manufacture power supply controller chips used to transform alternating current electricity to direct current electricity. Power sued Fairchild for infringement. A jury found that Fairchild literally infringed the '079 patent and infringed the '908 patent under the doctrine of equivalents, and awarded damages of \$139.8 million. Fairchild appealed. The Federal Circuit affirmed the judgment of infringement, vacated the damages award, and remanded for a new trial to determine damages.

Fairchild argued that the district court erred in construing the claim term "fixed switching frequency" to mean "a non-varying number of switching cycles per second." Some of Fairchild's infringing products are advertised as "fixed," but operate at varying frequencies due to the impact of operating conditions like temperature and voltage. Fairchild argued that this variability meant that the accused products do not have a fixed switching frequency and thus do not infringe. The court rejected this argument, relying on expert testimony that no power supply controllers operate with an absolutely fixed frequency. Therefore, construing the claim language to require an absolutely fixed frequency without any natural variations would cause the claims to be inoperable.

Fairchild additionally argued that the district court erred in adding the "per second" limitation to the construction of "fixed switching frequency" that neither party had requested. The district court construed the claim in Markman orders two years before trial, but Fairchild never objected to the "per second" construction and did not seek rehearing or supplemental construction. Nor did it object to the district court's instruction using the "per second" limitation at trial.

Generally, a party does not waive a claims construction issue by failing to object during trial if the construction proposed on appeal is the same construction presented in the Markman hearing, and the construction was fully litigated at the hearing. But here, the court held that Fairchild waived its right to object, even though the construction was the same, because the issue was not fully litigated in the *Markman* hearing. The court relied on evidence that neither party proposed the “per second” limitation during the hearing and Fairchild did not object to the “per second” limitation issue during the hearing to conclude that the issue was not fully litigated.

Regarding infringement of the '908 patent, Fairchild objected to the court's reliance on the doctrine of equivalents. Specifically, Fairchild argued that the prosecution history of the parent to the '908 patent showed that Power was estopped from arguing that the term “current limit” was a function of current or voltage because Power had previously argued in regards to the parent patent that the terms voltage and current were not equivalent. The court rejected this argument, finding that the claim and the functions performed by the two patents were different. Therefore, the prosecution history was not clear enough for prosecution estoppel to apply.

Lastly, the court agreed with Fairchild that the district court should have granted a new trial on damages because the application of the entire market rule was inappropriate in this case. Specifically, Power's royalty rate was premised on the '079 patent's frequency reduction feature as driving demand for Fairchild's accused controller chips. But the parties agreed that the accused products contained other valuable features as well, and Power presented no evidence about the effect of those features on consumer demand or the extent to which those features were responsible for the accused products' value. Because the Federal Circuit found that the evidence presented by Power was insufficient as a matter of law to invoke the entire market value rule, it vacated the award of damages and remanded for a new trial.

Power Integrations, Inc. v. Semiconductor Components Indus., LLC
926 F.3d 1306 (Fed. Cir. 2019)

The Federal Circuit vacated and remanded the PTAB's final written decision with instructions to dismiss the IPR as time-barred by Section 315(b). The court determined that the best reading of Section 315(b) requires the consideration of privity and real party in interest relationships arising after filing but before institution of IPR.

Appellee Semiconductor Components Industries (“ON Semiconductor”) consummated its merger with Fairchild Semiconductor Corporation (“Fairchild”) after filing a petition for IPR of Power Integration's '079 patent but before PTAB's institution of IPR. Power Integrations previously had sued Fairchild for infringement of its '079 patent. The jury determined that the '079 patent was not invalid and infringed and awarded substantial damages; the Federal Circuit affirmed the jury's verdict of infringement. ON Semiconductor's petition for IPR was filed more than one year after Fairchild was served with the complaint alleging infringement of the '079 patent. PTAB held that real party in interest and privity relationships for purposes of Section 315(b) are only relevant up to the

date the petition is filed. PTAB then determined that the challenged claims were invalid; Power Integrations appealed. After principal briefing in the appeal, ON Semiconductor filed a motion arguing that Power Integration was precluded from challenging PTAB's Section 315(b) determination because it had failed to appeal PTAB's final written decision reaching the same Section 315(b) issue in another IPR of a different patent.

The court first held that that issue preclusion did not bar Power Integrations's challenge because the lack-of-incentive-to-litigate exception applied. The court noted the significant disparity in incentives to appeal the Section 315(b) issue between the IPR underlying the present appeal and the IPR that Power Integrations chose not to appeal. In the appealed IPR, there was a finding of infringement and a substantial damages award against Fairchild in connection in with the underlying '079 patent, whereas there was no similar infringement finding or damages award for the underlying patent in the nonappealed IPR.

The court then held that ON Semiconductor's IPR was time-barred by Section 315(b) because Fairchild was a real party in interest at the time IPR was instituted. Section 315(b)'s text and common law preclusion principles require consideration of privity and real party in interest relationships arising after filing but before institution. The court also pointed to statutory purpose, noting that the language of Section 315(b) sought to bar petitions where proxies or privies would benefit from an instituted IPR.

Lastly, the court rejected ON Semiconductor's contention that it should give the PTO's regulation on time-bar determinations deference under either *Chevron* or *Auer*, or that it should give the PTAB's nonprecedential decisions interpreting Section 315(b) *Chevron* deference.

Princeton Digital Image Corp. v. Office Depot Inc.
913 F.3d 1342 (Fed. Cir. 2019)

The Federal Circuit dismissed this appeal for lack of jurisdiction under 28 U.S.C. § 1295 because there was no final decision on the merits, where the district court had entered judgment on the issue of damages at intervenor Adobe's request.

Princeton Digital Image Corporation ("PDIC") licensed the '056 patent, which relates to methods for encoding image data, to Adobe in 2011 and promised not to sue Adobe or Adobe's customers for claims arising from the licensed products. The next year, PDIC sued Adobe customers for infringement of the '056 patent. Adobe intervened and asserted that PDIC breached its license agreement by suing Adobe's customers. PDIC dismissed the infringement claims, and the parties continued to litigate the contract claims. The district court denied Adobe's motions for attorneys' fees under 35 U.S.C. § 285 and Rule 11 sanctions.

In 2017, the district court granted in part and denied in part PDIC's motion for summary judgment, finding there were genuine issues of material fact as to liability and limiting damages to the fees incurred in defending Adobe's customers, denying attorney's fees from pursuing the breach of contract claim. In order to obtain an appealable decision, Adobe

requested the court enter judgment on behalf of PDIC. The district court entered judgment in favor of PDIC, but noted that Adobe could still prove damages from defending the patent case.

The Federal Circuit held that the district court's damages ruling was not dispositive because the ruling did not resolve the claims on the merits, such as infringement, and thus there was no final decision. Discussing the Supreme Court's 2017 decision in *Microsoft v. Baker*, which held that voluntary dismissal of individual claims after being denied class certification would not make the order decertifying the class an appealable final decision, the Federal Circuit also agreed with other circuit courts that found no appealable final decision where plaintiffs voluntarily dismissed claims after adverse non-merits rulings. The Federal Circuit noted that the damages issue was distinguishable from an adverse claim construction decision that could foreclose infringement, that Adobe could still have proven nominal or defensive damages, and that actual damages are not even a required element of a breach of contract claim. The Federal Circuit concluded that there can only be an appeal after the district court determines whether PDIC breached its license agreement and, if so, what damages Adobe is entitled to.

Because there was no final judgment in the case, the Federal Circuit also lacked jurisdiction to consider the denial of Section 285 attorneys' fees and Rule 11 sanctions, which preceded any judgment on the merits.

Quake v. Lo

928 F.3d 1365 (Fed. Cir. 2019)

Four claims of Quake's patents covered a massively parallel sequencing ("MPS") technology used to discover a chromosomal abnormality in fetuses, called aneuploidy. The claims at issue recited a "random MPS" method to detect the abnormality. However, Quake's specification only expressly described "the detection of *target* sequences," without specifically mentioning that a "random MPS" method could determine fetal aneuploidy.

In 2015, the PTAB found Quake's four claims unpatentable for lack of adequate written description under 35 U.S.C. § 112. Quake appealed the PTAB's decision to the United States District Court for the Northern District of California. After allowing limited expert discovery, the district court transferred the appeal to the Federal Circuit for lack of jurisdiction, which later remanded the case back to the PTAB. In 2017, on remand, the PTAB again found Quake's claims unpatentable for lack of adequate written description. Further, the PTAB declined to reopen the record to admit expert testimony from the terminated district court proceeding. Quake appealed both decisions.

The Federal Circuit held that the patents shared specification insufficiently described using random MPS to discover fetal aneuploidy. Through a citation and single sentence in the specification, Quake described elements of the random MPS method. However, those elements could have also been used to describe a targeted MPS method. Moreover, the first time that Quake attempted to include random MPS in his specification was after Lo's

published patent specifically mentioned random MPS. Quake then canceled his pending claims and replaced them with claims covering random MPS, creating a disparity between the claims and the originally filed specification. The court agreed with the PTAB's finding that had Quake's specification discussed adjusting for chromosome size when comparing the MPS results, a skilled artisan could have contemplated using random MPS to determine fetal aneuploidy, and Quake could have cured its written description issue.

The court also found that the PTAB did not abuse its discretion by declining to admit expert testimony from the terminated district court proceeding. The relevant testimony was consistent with testimony already in the record, and there was a written, reviewable transcript of the PTAB's reasoning for declining to reopen the record.

Quest Integrity USA, LLC v. Cokebusters USA Inc.
924 F.3d 1220 (Fed. Cir. 2019)

In this case, Quest appealed the District of Delaware's decision that the asserted claims of the asserted patent (claims 12, 24, 30, 33, and 40) were invalid under 35 U.S.C. § 102 over Quest's use of the patented invention. The Federal Circuit found that the district court properly construed claim limitations and properly invalidated three of the patent claims. However, the court found error in the district court's application of the "sham affidavit" doctrine to declarations by two of the inventors regarding the remaining two claims. It held that those declarations created a question of material fact as to those two claims, and accordingly reversed the district court's grant of summary judgment on those claims, and remanded for further proceedings.

The asserted claims related to a system and method for displaying inspection data collected from certain commercial furnaces, such as those used in refineries. Cokebusters argued that they were invalid as anticipated because Quest itself had provided services using the claimed invention prior to the filing of the application that led to the asserted patent. The district court construed one of the claim terms—"generating a display of at least a portion of said tube segments and enable visual detection of a problem area comprising one or more of said tube segments" (referred to as the "Display Limitation")—to include "strip charts," which were described in the specification. Based on that construction, it found that Quest's public use of the invention anticipated the claims.

On appeal, Quest argued that the claims were not anticipated because the construction of the "Display Limitation" was incorrect. It argued that the use of "strip charts," while being described in the specification, was disclaimed during prosecution of the asserted patent. The Federal Circuit rejected this argument, finding that there was no "clear and unmistakable disclaimer" of the use of strip charts. Based on this ruling, the Federal Circuit affirmed the judgment of invalidity as to claims 12, 24, and 33 of the asserted patent.

With respect to claims 30 and 40, however, the Federal Circuit found that there was an issue of fact created by declarations from two of the inventors regarding Quest's prior use of the patented invention, which alleged that the prior use did not use the "composite data markers" or analyze "sensor data" recited by those claims (and not claims 12, 24, and 33).

The inventor declarations were dismissed by the district court as “sham affidavits” because they contradicted prior deposition testimony by one of the same inventors. The Federal Circuit disagreed that the affidavits were sham affidavits because one of the affidavits “did not contradict any earlier testimony,” and the other, which did contradict earlier testimony, was supported by “independent evidence in the record” and gave a plausible explanation of why the earlier testimony was incorrect. The Federal Circuit held that the district court erred by excluding the declarations and that they created a genuine issue of material fact, precluding summary judgment. Accordingly, the district court’s judgment as to claims 30 and 40 was reversed, and the case was remanded for further proceedings.

Realtime Data, LLC v. Iancu

912 F.3d 1368 (Fed. Cir. 2019)

In this case, Hewlett Packard sought review of claims 1–4, 8, 14–17, 21, and 28 of Realtime Data’s ’812 patent. The PTAB instituted review and found that all of the challenged claims would have been obvious over a combination of O’Brien in view of Nelson, a data compression textbook, and Welch. The Federal Circuit affirmed the PTAB on appeal from Realtime.

On appeal, Realtime argued that the PTAB erred in its determination that a person of ordinary skill would “have been motivated to combine the teachings of O’Brien and Nelson” and that the PTAB erred “by failing to construe the ‘maintaining a dictionary’ limitation and in finding that O’Brien disclosed” that limitation.

The Federal Circuit found that the PTAB was not required to make any finding regarding motivation to combine the teaching of O’Brien and Nelson because in its primary argument, HP argued that O’Brien, by itself, disclosed all of the elements of claims 1–4, 8, and 28. “[B]ecause the Board did not rely on Nelson for the disclosure of a particular element or teaching, the Board had no obligation to find a motivation to combine O’Brien and Nelson.”

Further, the Federal Circuit found that if the PTAB were required to make the finding regarding motivation to combine the two, that finding would also be supported by substantial evidence.

Realtime also argued that the PTAB erroneously found that O’Brien disclosed the “maintaining a dictionary” term to include “the requirement that the dictionary be retained during the entirety of the data compression unless and until the number of entries in the dictionary exceeds a predetermined threshold, in which case the dictionary is reset.” The court found that the PTAB did not commit legal error in failing to adopt Realtime’s proposed construction because the PTAB’s finding that O’Brien disclosed all of the steps for “maintaining a dictionary” which were listed in dependent claim 4 was supported by both the claim language and the specification.

Realtime then argued that the word “comprises” in dependent claim 4 “does not foreclose the possibility of additional unstated limitations in the interpretation of ‘maintaining a

dictionary.” The court held that comprising “does not mean that the claim can be read to require additional unstated elements, only that adding other elements to the device or method is not incompatible with the claim.”

The court affirmed the PTAB’s interpretation that dependent claim 4 listed one way of maintaining a dictionary. Further, the court found that “Realttime points to no law” that would require the PTAB to interpret “comprising” as meaning the claim “can be read to require additional unstated elements.” Because the PTAB did not err in finding that dependent claim 4 listed the steps for “maintaining a dictionary,” and because “comprising” does not mean that a claim contains additional unstated elements, the court affirmed the PTAB’s finding that O’Brien disclosed the “maintaining a dictionary” limitation because he disclosed all the steps in dependent claim 4.

Regents of the Univ. of Cal. v. Broad Inst. Inc.

903 F.3d 1286 (Fed. Cir. 2018)

This appeal involves a dispute over multiple patents and applications concerning the Clustered Regularly Interspaced System Palindromic Repeats (“CRISPR”) Cas9 protein system. In 2012, the University of California, the University of Vienna, and Emmanuelle Charpentier (collectively “UC”) published an article explaining how a CRISPR-Cas9 system could be used. UC sought patent protection in patent application 13/842,859. In 2013, the Broad Institute, Inc., Massachusetts Institute of Technology, and the President and Fellows of Harvard College (collectively “Broad”) published an article describing how CRISPR-Cas9 system could be used in a human cell line. At issue in this case were the claims in Broads’ twelve patents and one application covering the use of the CRISPR-Cas9 system in eukaryotic cells. The PTAB instituted an interference. Broad moved to terminate the interference arguing their patent claims was distinct from UC’s. The PTAB found that there was no interference-in-fact because a person of ordinary skill in the art would not have had a reasonable expectation of success in applying the CRISPR-Cas9 system to human cells. The Federal Circuit affirmed the PTAB’s decision that there was no interference-in-fact.

The main issue in the case was whether UC’s claims to the use of CRISPR-Cas9 rendered obvious Broads’s claims to its use in eukaryotes. The court affirmed the PTAB’s finding that the claim was not obvious because a person of ordinary skill in the art would not have had a reasonable expectation of success in applying the CRISPR-Cas9 system to human cells. The court relied on testimony from experts in the field, contemporaneous statements by skilled artisans expressing surprise at Broads’ success, statements by the inventors themselves about the challenges of applying their findings to human cells, and failures of prior art. The court also rejected UC’s argument that the PTAB had adopted a test requiring that the prior art need contain “specific instructions” in order to establish a likelihood of success.

The court additionally addressed UC’s argument that the PTAB had erred by treating evidence of simultaneous invention as irrelevant in an obviousness review. The court explained that simultaneous invention may serve as evidence of obviousness in light of all

the circumstances, but is not alone dispositive of obviousness. The court found that the PTAB had not treated the evidence of simultaneous invention as irrelevant, but had appropriately considered the evidence.

Regents of the Univ. of Minn. v. LSI Corp.

926 F.3d 1327 (Fed. Cir. 2019)

In a consolidated appeal from two IPR actions, the Federal Circuit affirmed the PTAB's decisions that state sovereign immunity does not apply to IPR proceedings and could not act as a bar to IPR review of state-owned patents. In so holding, the court addressed its unanswered question in last term's *Saint Regis Mohawk Tribe v. Mylan Pharm. Inc.* decision and concluded that state sovereign immunity, like tribal sovereign immunity, posed no bar to IPR review of state-owned patents.

The University of Minnesota ("UMN"), a public university, sued LSI Corp. ("LSI") and separately sued customers of Ericsson Inc. ("Ericsson") in district court alleging infringement of its patents. Ericsson intervened in the customer suits. LSI and Ericsson then separately petitioned for IPR. After the filing of the petitions and prior to institution, UMN filed motions to dismiss based on state sovereign immunity. In each action, the PTAB concluded that state sovereign immunity applied to IPR proceedings, but that UMN had waived its immunity by suing the petitioners. In concurrences, the PTAB noted that IPR is a form of in rem proceeding, over which the Patent Office exercises jurisdiction over a patent, rather than the parties themselves.

The Federal Circuit affirmed, finding that state sovereign immunity posed no bar to IPR of state-owned patents. The court noted that IPR proceedings are essentially agency reconsiderations of prior patent grants, and Congress's utilization of third parties to identify potentially incorrect grants did not change their essential character. The Federal Circuit pointed to several factors it listed in *Saint Regis*, in which it explained that IPR proceedings behaved more like agency enforcement actions than civil suits brought by private parties. These factors included the Director's status as an appointed executive branch official entrusted with the discretion to institute IPR, the ability for IPR to continue with or without participation of the petitioner or patent owner, and the procedural differences between IPR and ordinary civil litigation. The Federal Circuit also interpreted the Supreme Court's reasoning in *Oil States Energy Services, LLC v. Greene's Energy Group, LLC* to conclude that IPR proceedings are an adjudication of public rights; such proceedings brought by the United States are not barred by state sovereign immunity.

Roche Molecular Sys., Inc. v. Cepheid

905 F.3d 1363 (Fed. Cir. 2018)

In this appeal, the Federal Circuit affirmed the district court's grant of summary judgment on the basis that the patent claims at issue were not patent eligible under Section 101. The patent claims at issue recited methods of detecting a particular pathogenic bacterium called *Mycobacterium tuberculosis*. The defendant moved for summary judgment on the basis that the claims were ineligible, and the district court granted the motion.

On appeal, the Federal Circuit agreed with the district court. The court first held that claims directed to DNA primers were not patent eligible because they were “indistinguishable from their corresponding sequences on naturally occurring DNA.” The court then held that claims directed to a method of detecting the bacterium were also ineligible. Specifically, the claims were directed to detecting in a biological sample the presence of certain nucleotides of a naturally occurring gene, which indicates the presence of the bacterium. At step one of the *Mayo/Alice* test for patent eligibility, the court held that the claims were directed to this natural phenomenon of the “relationship between the signature nucleotides” and the bacterium. At step two, the court held that the claims lacked any inventive concept, as they only involved routine and conventional methods.

Judge O’Malley concurred with the conclusion, but wrote separately to encourage an en banc rehearing of *In re BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litigation*, 774 F.3d 755 (Fed. Cir. 2014). Judge O’Malley stated that *BRCA1* compelled the decision here, since it found primers to be patent ineligible as naturally occurring phenomena. Judge O’Malley emphasized that the procedural posture of *BRCA1* (reviewing the denial of a preliminary injunction) left some arguments underdeveloped, however. In Judge O’Malley’s view, Roche had presented genuine issues of material fact—never previously briefed—regarding whether the primers have a unique structure or perform a different function from their natural counterparts.

Samsung Elecs. Co., Ltd. v. Elm 3DS Innovations, LLC
925 F.3d 1373 (Fed. Cir. 2019)

In an appeal from thirteen IPRs, the Federal Circuit affirmed PTAB’s decisions that the challenged claims were not unpatentable as obvious because each challenged claim required a low-tensile stress dielectric, and because substantial evidence supported PTAB’s finding that a person of ordinary skill in the art would not have reasonably expected success in combining the prior art to meet this limitation.

Appellee Elm 3DS Innovations LLC’s (“Elm”) eleven challenged patents all relate to “stacked integrated circuit memory.” Appellants Samsung Electronics Co., Ltd., Micron Technology, Inc., and SK Hynix Inc. (collectively, “Samsung”) challenged 105 claims across Elm’s patents. Each ground challenging the claims was based on obviousness, and asserted either U.S. Patent No. 5,202,754 (“Bertin”) or a 1996 article by Kee-Ho Yu (“Yu”) as the primary reference in combination with U.S. Patent No. 5,354,695 (“Leedy”).

In reviewing PTAB’s construction of the phrase “substantially flexible,” the Federal Circuit arrived at a narrower definition than PTAB’s adopted construction. PTAB adopted the general-purpose dictionary meaning of “largely able to bend without breaking.” Nearly all of the 105 of challenged claims use the term “substantially flexible” in at least one of two ways—either to modify the term “semiconductor substrate” or the term “circuit layer.” The court disagreed with Samsung’s proposed construction of “substantially flexible” substrate as one that “has been thinned to a thickness of less than 50 μm and subsequently polished or smoothed” because the claim language indicated that polishing and smoothing was one way, but not the only way, to achieve substantial flexibility. The court then looked

to the prosecution history, which evinced a narrower construction of substantially flexible than PTAB's construction. The court referenced examiner objections made during the prosecution of the application to the unclear scope of the term "substantially flexible" and Elm's response that the meaning of the term in the claims was clearly explained in the specification. Drawing from the prosecution history, the court interpreted a substantially flexible semiconductor substrate as one that is "thinned to 50 μm and subsequently polished or smoothed such that it is largely able to bend without breaking." Similarly, the court interpreted a substantially flexible circuit layer as one that "is largely able to bend without breaking and contains a substantially flexible semiconductor substrate and sufficiently low tensile stress dielectric material."

The court then reviewed PTAB's obviousness determinations. Each ground of unpatentability relied on either Bertin or Yu in combination with Leedy. Regarding the Bertin-Leedy combinations, the court held that substantial evidence supported PTAB's finding that the Samsung did not adequately explain how Bertin's fabrication process would be changed to use Leedy's dielectric material. Referencing Elm's expert testimony, the court explained that selection and formation of a dielectric was a complicated, multi-factor process that would not have made it obvious to a person of ordinary skill in the art to make the proposed substitution.

The court rejected Samsung's contention that PTAB had erred in declining to resolve a dispute about front-end-of-line and back-end-of-line processing steps. The court found no legal error in PTAB's decision because the timing of the processing steps would not matter, and because the Samsung's contentions, even if accurate, were lacking in explanation. The court also rejected Samsung's argument that PTAB had improperly required proof that unclaimed elements were actually combinable. The court explained that PTAB recognized the complexity of integrated circuit technology, and as a result it looked for specific evidence from Samsung that a person of ordinary skill in the art would have reasonably expected success in combining Bertin's fabrication process and Leedy's dielectric material. With regard to the Yu-Leedy combinations, PTAB found that Samsung had failed to meet its burden for essentially the same reasons, and the court found that substantial evidence supported PTAB's finding of a lack of reasonable expectation of success.

Samsung Elecs. Co., Ltd. v. Infobridge Pte. Ltd.
929 F.3d 1363 (Fed. Cir. 2019))

In two IPR proceedings requested by Samsung Electronics Co., Ltd. ("Samsung"), the PTAB upheld all challenged claims of the '772 patent, which is owned by Infobridge. The PTAB found that Samsung failed to show that the working draft of the H.265 standard for high-efficiency video coding ("the WD4 reference") was publicly accessible before the '772 patent's critical date. On appeal, Samsung first argued that it had standing, and next argued that the PTAB applied the wrong legal standard for public accessibility.

The Federal Circuit first held that Samsung, a contributor of the fixed royalty patent pool containing the '772 patent, had established standing to appeal the PTAB's decision. It reasoned that since Samsung could receive a higher proportion of the fixed royalty if the

'772 patent was invalidated, this constituted concrete injury for Article III standing. The court then turned to the merits of Samsung's appeal to determine whether, as Samsung alleges, the PTAB applied the wrong legal standard when it determined that the WD4 reference was not publicly accessible.

Samsung argued that the WD4 reference was disclosed on three occasions before the patent '772's critical date, and that these occasions, either independently or together, constituted a publicly accessible disclosure so as to make the patent invalid. First, Samsung argued the patent was disclosed when the Joint Collaborative Team on Video Coding ("JCT-VC"), the group of 250 academics and tech representatives that developed the WD4 reference, met to discuss the H.265 standard. However, the court sided with Infobridge and found Samsung waived this argument because it never mentioned public access in connection with such meetings until the appeal. The court also found that even without waiver, this argument was meritless because the WD4 reference was created after the meetings. Second, Samsung argued the WD4 reference was disclosed when it was uploaded to the JCT-VC website. The court disagreed and found that "a person of ordinary skill in the art would not have been able to find the WD4 reference on the MPEG website, even after exercising reasonable diligence."

Finally, Samsung argued the WD4 reference was disclosed when it was emailed to the JCT-VC listserv, which could include any interested individual who requested a subscription. On this issue the PTAB found this was not publicly accessible, because it failed to meet the legal standard that the WD4 reference be generally and widely disseminated. However, the court sided with Samsung and found that rather than requiring Samsung to prove that persons of ordinary skill actually received the listserv email, the PTAB should have considered whether an ordinarily skilled artisan could have accessed the WD4 reference, after exercising reasonable diligence, based on the listserv email. Accordingly, the court vacated the PTAB's listserv ruling and remanded so that the PTAB could consider the issue under the proper legal standard.

SAP Am., Inc. v. InvestPic, LLC
898 F.3d 1161 (Fed. Cir. 2018)

In this patent case on appeal from the Northern District of Texas, the Federal Circuit affirmed the district court's decision to grant SAP's motion for a judgment on the pleadings on the grounds that the claims in InvestPic's '291 patent are invalid because their subject matter is ineligible for patenting under Section 101. InvestPic appealed the district court's decision, arguing that the claims in the '291 patent are not directed towards a patent ineligible concept. The '291 patent relates to systems and methods for performing statistical analyses of investment information.

The Federal Circuit applied the two-part *Alice* test for patent eligibility. Under step one, the Federal Circuit determined that the claims were directed to the abstract idea of a new series of mathematical calculations based on selected information and the presentation of the results of those calculations, which is a patent ineligible concept. InvestPic argued that the investment information analyzed was about real investments and therefore had physical

implications which made it not an abstract idea. The Federal Circuit rejected this argument: even if the process of collecting and analyzing information is limited to a particular content, that limitation does not make the collection and analysis process any less abstract. InvestPic also argued that these claims may be patent eligible if they improve the ways computers carry out their basic functions and that improvement is parallel to what the '291 patent accomplishes. The Federal Circuit rejected this argument on the grounds that the '291 patent did not improve computers as a tool but rather improved independent abstract ideas that use computers as a tool.

Under step two, the Federal Circuit found that all of InvestPic's claim details either were themselves abstract or there were no factual allegations from which one could plausibly infer that they were inventive. The Federal Circuit found that InvestPic's claims required various physical databases and processors. However, these limitations did not require any improved computer resources that InvestPic claimed to have invented but rather used already available basic computers as a tool for the invented process. The Federal Circuit concluded that these uses of computers were not even arguably inventive to sufficiently pass the inventive concept requirement of step two. Summary judgment on these claims was therefore proper, and the Federal Circuit affirmed the district court's decision.

Solutran, Inc. v. Elavon, Inc.

931 F.3d 1161 (Fed. Cir. 2019)

In this appeal, the Federal Circuit reversed the district court's denial of summary judgment on the basis that the asserted patent claims were not patent eligible under Section 101.

The claims at issue covered a "system and method for processing paper checks" electronically, in which "(1) 'data from the checks is captured at the point of purchase,' (2) 'this data is used to promptly process a deposit to the merchant's account,' (3) the paper checks are moved elsewhere 'for scanning and image capture,' and (4) 'the image of the check is matched up to the data file.'"

The defendant moved for summary judgment on the basis that the claims were not patent eligible under Section 101. The district court denied the motion. At step one of the *Mayo/Alice* test for patent eligibility, the court held that the claims were not directed to an abstract idea. At step two, the court held that the claims provided a "new combination of steps, in an ordered sequence, that was never found before in the prior art and ha[d] been found to be a nonobvious improvement over the prior art" by a U.S. Patent Office examiner and the PTAB.

On appeal, the Federal Circuit disagreed with the district court. At step one, the appeals court held that the claims were directed to the abstract idea of "crediting a merchant's account as early as possible while electronically processing a check." At step two, the Federal Circuit held that the claims lacked an inventive concept because they effected no improvement to the functioning of a computer or any other technology, and instead only involved routine elements. The court further held that "[t]o the extent [the patentee] argues that these claims are patent-eligible because they are allegedly novel and nonobvious," "we

have previously explained that merely reciting an abstract idea by itself in a claim— even if the idea is novel and nonobvious—is not enough to save it from ineligibility.” Thus, the Federal Circuit reversed the district court’s judgment.

Sony Corp. v. Iancu

924 F.3d 1235 (Fed. Cir. 2019)

In this case, Sony appealed a ruling by the PTAB finding its ’676 patent invalid as obvious in an IPR proceeding. The Federal Circuit found that the PTAB’s construction of the term “reproduction means” was improper and, accordingly, vacated the PTAB’s decision and remanded the case for further proceedings.

Sony’s ’676 patent is directed to “an information recording medium . . . that can store audio data having multiple channels” and a “reproducing device that can select which channel to play based on a default code or value stored in nonvolatile memory.” The reproducing device is provided with “reproducing means” for reproducing the audio information based on the default code or value. During the IPR proceeding, the PTAB concluded that the “reproducing means” was a means-plus-function limitation, but that it was not computer-implemented and thus did not require an algorithm. Sony appealed this ruling, arguing that the finding of obviousness under the PTAB’s construction was incorrect. Because the infringement case had already settled prior to appeal, the IPR petitioner elected not to participate in the appeal, and the Director of the U.S. Patent and Trademark Office intervened to defend the PTAB’s decision.

The Federal Circuit found that the PTAB’s construction was incorrect. While the court disagreed with Sony’s arguments on appeal, it noted that it is not bound by the parties’ claim construction arguments and that it was free to adopt Sony’s arguments from the IPR proceedings. Because all parties agreed that “reproducing means” is a means-plus-function limitation, and that the claimed function is “reproducing the audio data of the channel designated by the default value stored in the storing means,” the court moved directly to the step of determining the corresponding structure disclosed in the specification. In analyzing this step, the court found that the PTAB erred in determining that the claimed structure was not computer-implemented and therefore did not require an algorithm. Specifically, the court held that the “reproducing means is necessarily construed as computer-implemented” and therefore “the corresponding structure must include an algorithm.” It further held that the specification clearly linked the “reproducing means” to a flowchart set forth in a figure of the patent. Based on this ruling, the PTAB vacated the PTAB’s decision that the claims were obvious, and remanded the case for further invalidity proceedings under the Federal Circuit’s claim construction.

Judge Newman dissented on the grounds that the appeal should have been dismissed for lack of a live case or controversy under Article III standing. Judge Newman reasoned that the patent that is the subject of the appeal in the case was expired, and the petitioner had elected not to participate in the appeal. As such, the Judge noted there would be no consequence of an appellate decision or a remand, because there was “no interest, neither private interest nor public interest” in the fate of the patent at issue.

Spineology, Inc. v. Wright Med. Tech., Inc.

910 F.3d 1227 (Fed. Cir. 2018)

In this case, the Federal Circuit affirmed the district court's denial of Wright's motion for attorneys' fees under Section 285, holding that the district court did not abuse its discretion in denying the motion.

Spineology sued Wright for infringement of the '188 patent, which described an "expandable reamer" for use in orthopedic surgery. At summary judgment, the court found that the issue of infringement depended on the construction of the word "body." The court construed "body" as proposed by Wright, and granted Wright's motion for summary judgment of noninfringement. Wright then moved for attorneys' fees, arguing that Spineology's construction of "body," its damages theories, and its conduct during litigation rendered the case "exceptional" under Section 285. The district court denied the motion, and Wright appealed.

On appeal, the Federal Circuit held that the district court did not abuse its discretion when denying Wright's motion for attorneys' fees under Section 285.

First, the Federal Circuit was unpersuaded by Wright's argument that Spineology's construction of "body" was so unreasonable and meritless that it rendered the case "exceptional." Without significant analysis, the Federal Circuit affirmed the district court's finding.

Second, the Federal Circuit rejected Wright's argument that the district court should have reviewed the party's expert reports on damages (an issue obviated by the ruling on summary judgment), and determined that Spineology's damages theories were exceptionally unreasonable. The Federal Circuit stated that it would not "force the district court to conduct the trial it never had" for purposes of evaluating a fees motion. "A district court need not . . . litigate to resolution every issue mooted by summary judgment to rule on a motion for attorney fees. And we need not . . . get into the weeds on issues the district court never reached."

Third, the Federal Circuit rejected Wright's argument that Spineology's conduct during litigation was "exceptional." Wright argued that Spineology attempted to mislead the district court by cropping and annotating a piece of evidence, ignoring related evidence that undermined Spineology's construction of "body" and withholding an expert's measurements of Wright's medical device at issue. The district court observed that none of these things made the case stand out from other cases with respect to conduct during litigation. The Federal Circuit held that the district court is in a better position to decide whether such behavior is "exceptional."

The Federal Circuit affirmed the district court's denial of the fees motion and reminded the parties that fee awards should not be used as a "penalty for failure to win a patent infringement suit."

SRI Int'l, Inc. v. Cisco Sys., Inc.

930 F.3d 1295 (Fed. Cir. 2019)

This case concerns patent claims for “a computer-automated method of hierarchical event monitoring and analysis within an enterprise network”—that is, a way of using multiple network monitors to detect security threats invisible from the single-monitor perspective. The Federal Circuit held that this method was not directed toward a patent ineligible concept, that the patent claims were not anticipated, and that Cisco’s pre-notice infringement on said patents was not willful.

Patent-holder SRI sued Cisco for infringement. Cisco moved for summary judgment on the grounds that SRI’s patents were directed toward patent-ineligible concepts and anticipated by an earlier SRI cyber-security patent, EMERALD 1997. The district court denied Cisco’s motion and sua sponte granted summary judgment for SRI on the anticipation issue. At trial, a jury found Cisco had directly and indirectly infringed SRI’s patents, and had done so willfully. Cisco moved for judgment as a matter of law that its infringement had not been willful, but the district court denied it. Cisco appealed the ineligibility, anticipation, and willfulness rulings.

The Federal Circuit ruled that “using a plurality of network monitors that each analyze specific types of data” to produce “integrat[ed] reports” constituted a sufficiently “specific technique” to survive Alice. By disclosing “a network defense system that monitors network traffic . . . to automatically detect large-scale attacks,” the patent claims represented an improvement in technology, not a generic way of analyzing data. The court emphasized that SRI’s claimed method “overrides the routine and conventional sequence of events” related to detection of “suspicious network activity.”

As for anticipation, the court found that the EMERALD 1997 patent did not “disclose each and every limitation of the claimed invention, either expressly or inherently.” The court distinguished between what, for a person of ordinary skill, would be “required” to engage in network monitoring to prevent cyber-attacks and what would merely be “one very good way” of doing so. The court found that the record did not support a finding that direct examination of digital information packets—a limitation of the claims at issue—was implicit in the methods of EMERALD 1997, even if it may have been one of several ways EMERALD 1997 could have prevented attacks.

Finally, the court reversed and remanded the district court’s denial of Cisco’s motion for a judgment as a matter of law that Cisco’s pre-notice infringement was not willful. The Cisco employees who had neglected to read the SRI patents were engineers, the court emphasized, with no legal training. The court rejected the district court’s treatment of proof of infringement, such as that Cisco directed its customers to infringing uses, as sufficient in se to establish willfulness. But it left open the possibility that the district court could decide that the jury’s finding of post-notice willful infringement was supported by substantial evidence.

Having partially reversed on willfulness, the Federal Circuit also vacated the district court's award of enhanced damages and attorneys' fees. It acknowledged that the district court had documented "exceptional[ly]" aggressive litigation behavior by Cisco, but it held that because the district court had based its fee award partly on the reversed willfulness finding, it was appropriate to vacate the fee award and remand for further consideration.

Judge Louri dissented, arguing that the claims at issue were directed to patent-ineligible abstract ideas, namely "monitoring network activity," and therefore there was no need to reach the remaining issues in the case.

Supernus Pharm., Inc. v. Iancu

913 F.3d 1351 (Fed. Cir. 2019)

In this appeal, the Federal Circuit reversed and remanded the entry of summary judgment by the district court because the PTO exceeded the limitations of the Patent Term Adjustment ("PTA") statute. The Federal Circuit held that the PTO, in calculating any reduction to PTA, cannot count as applicant delay a period of time where there was no action an applicant could take to conclude prosecution.

Appellant Supernus Pharmaceuticals, Inc. ("Supernus") is the owner and assignee of the '897 patent. In 2006, Supernus simultaneously filed a domestic and international application for this invention. Supernus's international application eventually issued as a European patent in 2011. Supernus then received a final rejection from the PTO and filed a Request for Continued Examination (RCE) in 2011. Later, in 2012, the European Patent Office notified Supernus that a Notice of Opposition was filed by Sandoz AG to its European patent. One-hundred days after receiving this notification, and 646 days after filing its RCE, Supernus submitted a supplemental information disclosure statement ("IDS") to the PTO, informing them of the Sandoz Opposition and providing documents cited by Sandoz. The PTO eventually issued the '897 patent, adding a PTA to the patent's twenty-year term. In doing so, the PTO reduced the PTA because it attributed 646 days to applicant delay for the time period between the RCE filing and the supplemental IDS filing.

Section 154(b)(2)(C) authorizes the PTO to reduce the total amount of PTA for different types of delays by deducting the number of days equal to the period of time that the applicant fails to engage in reasonable efforts to conclude prosecution of that application. Pursuant to this statute, the PTO has prescribed regulations establishing the circumstances that constitute a failure to engage in reasonable efforts. Relevant here is 37 C.F.R. § 1.704(c)(8), which states that PTA will be reduced by the number of days between the date an initial reply is filed and the date that a supplemental reply or paper is filed. Here, the time period between the filing of the RCE and the filing of the supplemental IDS was 646 days.

Supernus requested reconsideration of the PTA on the grounds that the 646-day reduction was improper, but this was denied by the PTO. Supernus then appealed to the district court. Supernus argued that Section 1.704(c)(8) is arbitrary, capricious, or contrary to the PTA statute because Supernus could not have undertaken any efforts to conclude prosecution

with the PTO during the time period between the filing of the RCE and the EPO's notification. The district court rejected this argument and granted summary judgment against Supernus. The lower court reasoned that the PTO did not err in its PTA calculation because the Federal Circuit's decision in *Gilead Sciences, Inc. v. Lee*, 778 F.3d 1341 (Fed. Cir. 2015) foreclosed any argument that the regulations at issue were "arbitrary, capricious, or otherwise contrary to the PTA statute."

The Federal Circuit disagreed. The Federal Circuit held that its decision in *Gilead* did not foreclose Supernus's argument that Section 1.704(c)(8) is arbitrary, capricious, or contrary to the PTA statute. The *Gilead* court only addressed whether Section 154(b)(2)(C) of the PTA statute requires conduct that *actually* causes delay, or if it authorizes the PTO to also reduce the amount of PTA for conduct that has the *potential* to cause delay. Under a *Chevron* analysis, the court in *Gilead* found that the regulation reasonably drew no line between conduct by an applicant that actually causes delay or has the potential to cause delay. The *Gilead* court found that Congress expressly delegated authority to the PTO to determine what constitutes a failure to engage in reasonable efforts to conclude examination. At step two of *Chevron*, the court gave deference to the PTO's interpretation of the PTA statute.

Unlike *Gilead*, the Federal Circuit here addressed an entirely different question—whether the PTO can count a period of time as applicant delay where there was no action that the applicant could take to conclude prosecution. The Federal Circuit said no. Under a *Chevron* analysis, the court determined that the plain language of the PTA statute meant that applicants could only be penalized for time during which they failed to engage in reasonable efforts. Thus, if there is no period of time during which the applicant could have engaged in reasonable efforts, there can be no reduction in PTA. The Federal Circuit found that the PTO's interpretation of the statute would unfairly penalize applicants, fail to incentivize applicants not to delay, and was contrary to the plain meaning of the statute.

The Federal Circuit agreed with Supernus that there was nothing they could do for 546 of the 646 days between receiving the Notice of Opposition to its European patent and filing the supplemental IDS. Because the PTA reduction was inconsistent with Section 154(b)(2)(C), the Federal Circuit gave no deference to the PTO's application of the regulations at issue and instead reversed and remanded the district court's grant of summary judgment.

TEK Global, S.R.L. v. Sealant Sys. Int'l, Inc.
920 F.3d 777 (Fed. Cir. 2019)

The Federal Circuit affirmed the use of an indirect product-to-product comparison for infringement where both parties agreed that the patentee's commercial product was an embodiment of the patent. However, the court granted a new trial on validity where the lower court had mistakenly construed a previous Federal Circuit opinion as foreclosing all theories of obviousness based on the asserted references.

Patentee TEK Corporation (“TEK”) and accused infringer Sealant Systems International (“SSI”) both sell emergency kits for repairing punctured tires. While the traditional solution was to replace the tire, TEK’s ’110 patent describes a sealing liquid kit that mends the hole. The claims require a conduit connecting the sealing liquid to a compressor assembly and the tire. The Federal Circuit affirmed the district court’s holding that “conduit” had a structural definition, and thus the claims were not functional claims under 35 U.S.C. § 112, ¶ 6.

At trial, TEK compared its tire sealing kit to SSI’s kit. SSI argues that it was prejudiced, and the only comparison should have been of its product to the claims of the patent. The Federal Circuit disagreed in this instance. A product-to-product comparison was proper where TEK’s commercial product met all the claim limitations of the patent—as confirmed by SSI’s own expert—and where SSI itself had also compared SSI’s product to a figure in the patent.

Finally, in an earlier claim construction proceeding, the Federal Circuit held that prior art references Eriksen and Bridgestone could not be combined to disclose “an additional hose” based on SSI’s identified theory. Based on that holding, the district court rejected all obviousness arguments based to these two references. However, the Federal Circuit found that the only obviousness argument that had been precluded was the one specifically advanced in the claim construction proceeding, not all arguments. Thus, the court granted SSI a new trial on the validity issue.

Thermolife Int’l LLC v. GNC Corp.

922 F.3d 1347 (Fed. Cir. 2019)

In this appeal, the Federal Circuit affirmed the district court’s exceptional-case determination and award of fees even though “the fee award had nothing to do with the only issues litigated to reach the judgment on the merits.”

After a bench trial on invalidity, the Southern District of California held that all asserted claims of all patents-at-issue were invalid for anticipation or obviousness. Defendants Hi-Tech and Vital moved for attorneys’ fees under 35 U.S.C. § 285 and argued that (1) plaintiffs did not conduct an adequate pre-suit investigation, and (2) plaintiffs filed many suits for the purpose of extracting settlements. In its opinion, the district court found that plaintiffs had conducted an inadequate pre-suit investigation, only listed one marketed product, filed numerous infringement suits even though some of the patents were about to expire, and settled early for “seemingly small dollar amounts.” Based on the totality of the circumstances, the district court found the case exceptional and awarded fees.

On appeal, the Federal Circuit recognized that while this was “an unusual basis for fees,” it was not an abuse of discretion for the district court to base its exceptional-case determination on an issue “that was neither fully adjudicated nor even fully litigated before the judgment on the merits.” The Federal Circuit also determined that there was no basis for denying the fee award because the defendants did not give early notice that plaintiffs’ infringement contentions were lacking. The court clarified that while the lack of early

notice can support a denial of attorney's fees, such notice is not required especially when there is reason to avoid a rigid and retroactive imposition. Here, the parties had agreed to postpone issues such as infringement to give priority to issues like validity. Thus, the lack of early notice was not a bar to fees.

Turning to the exceptional-case determination, the Federal Circuit found no abuse of discretion in either the district court's determination that plaintiffs had failed to conduct an adequate investigation into infringement before filing suit or its pattern-of-misconduct determination. Because the district court tied its pattern-of-misconduct determinations to the plaintiffs' failure to adequately investigate claims before filing multiple suits, these findings were relevant to exceptionality. The Federal Circuit thus affirmed the district court's judgment.

TQ Delta, LLC v. DISH Network LLC
929 F.3d 1350 (Fed. Cir. 2019)

TQ Delta's '404 patent described a "method for establishing a power management sleep state in a multicarrier system' and efficiently waking up a transmission system utilized on a hardware, such as a computer, from sleep mode." The technology promoted communication between transceivers by dividing bandwidth between a central office and a subscriber, ultimately permitting internet access through telephone lines at a cheaper price. DISH Network ("Dish") filed an IPR challenging several of TQ Delta's '404 patent claims. The PTAB found that, among other reasons, the challenged claims were unpatentable for obviousness. TQ Delta appealed, claiming that the PTAB violated its procedural rights under the Administrative Procedure Act ("APA") by: (1) sua sponte using a new claim construction in its Final Written Decision to interpret the claim limitation, "without needing to reinitialize," and (2) failing to give TQ Delta the opportunity to respond. Further, TQ Delta argued that the PTAB's obviousness finding was not supported by substantial evidence.

The Federal Circuit held that the PTAB did not change course in its final decision because the PTAB did not interpret the claim limitation in its institution decision. Further, the PTAB did not violate TQ Delta's procedural rights because the PTAB repeatedly questioned TQ Delta's narrow interpretation of the term during the oral hearing, giving TQ Delta adequate notice of its understanding of the term and the opportunity to respond.

In addition, the court affirmed the PTAB's claim construction of "without needing to reinitialize." After looking at '404's claim language and specification, the court determined that the term's limitation was satisfied if *any* step of initialization was avoided, and did not require that *every* step of initialization be avoided.

Moreover, the court affirmed the PTAB's finding of obviousness based on a combination of three prior art references: Bowie, the Asymmetric Digital Subscriber Line, and Vanzielegem. TQ Delta argued that Bowie taught away from the claimed reinitialization limitation, and did not disclose all claim limitations, making the combination of Bowie and Vanzielegem inoperable. However, the court determined that Bowie "teaches ways to

reduce power, but does not teach that maximum power reduction is its intended purpose.” Further, the court noted that Bowie’s stored parameters included parameters that the ’404 patent used for the same process. In addition, the court found that a skilled artisan “would have been motivated to employ Vanzielegem’s synchronization signal, or pilot tone, in combination with Bowie.” Lastly, TQ Delta admitted that Bowie disclosed *some* of its steps during the reinitialization process, making TQ Delta’s argument meritless.

Trading Tech. Int’l v. IBG LLC

921 F.3d 1084 (Fed. Cir. 2019)

Trading Technologies International, Inc. owned the ’056, ’999, and ’374 patents. IBG LLC and Interactive Broker LLC petitioned for CBM review of the patents. The PTAB held that the patents met the criteria to be eligible for CBM review and the claims were ineligible under Section 101. The Federal Circuit affirmed.

The Federal Circuit affirmed that the patents at issue were eligible for CBM review. The ’999, ’056, and ’374 patents were directed to a graphical user interface (“GUI”) for electronic trading. The Federal Circuit found that the claims did not solve a technical problem using a technical solution. In particular, the Federal Circuit found that the invention made the *trader* faster and more efficient, not the computer used by the trader. Accordingly, the Federal Circuit agreed with the PTAB’s holding that the patents were eligible for CBM review.

The Federal Circuit further affirmed that the patents were directed to patent-ineligible subject matter and did not contain an inventive concept. The patents were directed to the “abstract idea” of graphing and displaying bids to assist a trader in making an order. Essentially, the technology helped traders receive, display, and process generic trading information. Gathering and displaying information was a routine and conventional activity that lacked an inventive concept. Thus, the Federal Circuit affirmed the PTAB’s conclusion that the claims were patent ineligible.

Trading Techs. Int’l, Inc. v. IBG LLC

921 F.3d 1378 (Fed. Cir. 2019)

On appeal, the Federal Circuit affirmed the PTAB’s decision that the claims of a CBM patent were ineligible under Section 101. The Federal Circuit agreed with the PTAB that the patent-at-issue was a CBM patent because it “merely provid[ed] a trader with new or different information in an existing trading screen,” and thus the claims focused on “improving the trade, not the functioning of the computer.” In a rather straightforward application of *Alice*, the Federal Circuit held that the claims were ineligible under Section 101 because they focused on gathering and arranging information and failed to recite an inventive concept.

UCB, Inc. v. Watson Labs. Inc.

927 F.3d 1272 (Fed. Cir. 2019)

The patents at issue in this case concern transdermal patches that treat Parkinson's disease using the compound rotigotine, a dopamine receptor simulator. UCB is the assignee of the '434 patent, which claims a rotigotine transdermal patch, and the '414 patent, which claims a polymorph of rotigotine. The District Court for the District of Delaware found that the '434 patent was valid, despite obviousness and anticipation challenges by generic manufacturers Watson and Actavis. It also found that ANDA products manufactured by Actavis infringed the '434 patent. It held the '414 patent invalid under Section 102 after finding that the rotigotine polymorph at issue had been known and used before the patent's priority date. Actavis appealed as the district court's decisions on the '434 patent, and UCB cross-appealed as to the '414 patent.

Actavis argued that its transdermal patch did not infringe the '434 patent because it used polyisobutylene adhesive, rather than the silicone-based polymer adhesive claimed in UCB's patent. The Federal Circuit agreed with the district court and UCB that Actavis's adhesive was "interchangeable" with the claimed adhesive and "result[ed] in an insubstantially different system." Therefore, under the doctrine of equivalents, Actavis's product infringed the '434 patent.

The Federal Circuit also affirmed the district court's findings upholding the '434 patent's validity under an obviousness challenge. Actavis had argued that several different combinations of prior patents rendered the '434 patent obvious. The Federal Circuit disagreed, because none of the prior patents taught a patch using rotigotine in the specific form claimed in '434 patent—in free base form in a water-free transdermal patch. Prior patents disclosing the general idea of transdermal patches and listing possible drugs that could be delivered via such a system did not constitute prior art, because "transdermal drug administration is not a straightforward task" such that selecting an appropriate drug for transdermal delivery "could be achieved via routine experimentation."

As for the validity of the '414 patent, Actavis had argued that it was invalid because it had been used in the United States prior to its invention date. The '414 patent claims "Form II rotigotine," a crystalline polymorph of the compound. The '414 patent had a priority date of November 28, 2007. But the evidence showed that on November 30, 2007, a patient using UCB's Neupro patches experienced an adverse reaction, and it was determined that she had been treated with a lot of patches that had developed Form II crystals. The patient had been using patches from that lot for "one week" prior to her adverse reaction. The Federal Circuit held that the district court had not erred by concluding that this information demonstrated by clear and convincing evidence that Form II rotigotine had been used in the United States prior to the priority date of November 28, 2007. Therefore, the '414 patent was invalid under Section 102.

Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.

916 F.3d 1363 (Fed. Cir. 2019)

The University of Florida Research Foundation (“UFRF”) brought an infringement action against General Electric (“GE”), alleging infringement of the ’251 patent. GE filed a motion to dismiss challenging the patent’s eligibility under Section 101. The motion to dismiss was granted by the Northern District of Florida. The Federal Circuit affirmed the district court’s dismissal because the patent failed to satisfy eligibility requirements under Section 101.

Before reaching the merits of GE’s Section 101 eligibility challenge to the ’251 patent, the Federal Circuit held that the district court had subject matter jurisdiction to hear the challenge. UFRF asserted that the district court lacked jurisdiction because UFRF, as an arm of the State of Florida, enjoyed sovereign immunity under the Eleventh Amendment. However, the court held that a state waives its immunity when it consents to federal court jurisdiction by voluntarily appearing in federal court. Such a waiver extends not only to the cause of action, but also to any relevant defenses and counterclaims. The court held that GE’s eligibility challenge was a defense to infringement. Because UFRF brought a claim of infringement, it waived sovereign immunity as to both the infringement claim and GE’s defensive eligibility challenge.

The Federal Circuit held that the ’251 patent did not satisfy eligibility requirements. The ’251 patent purported to describe a method and system for integrating physiologic data from various bedside machines and converting the information into standardized data that could be displayed on a single interface. But the ’251 patent did not explain how its method and system work; instead, it described the system in purely functional terms. It also acknowledged that the processes it described could be performed on any computer. The Federal Circuit agreed with the district court that the patent’s claims were directed to the “abstract idea of collecting, analyzing, manipulating, and displaying data.” The court stated that the ’251 patent was a “quintessential ‘do-it-on-a-computer’ patent” that described performing certain tasks via computer but lacked an inventive concept. It therefore held that the claims were not patent eligible under Section 101.

VersaTop Support Sys., LLC v. Ga. Expo, Inc.

921 F.3d 1364 (Fed. Cir. 2019)

At issue in this appeal was whether the Ninth Circuit’s “use in commerce” standard applied to trademark infringement.

VersaTop and Georgia Expo were direct competitors in the “drape and rod” industry. VersaTop brought a trademark infringement suit against Georgia Expo, alleging that Georgia Expo had distributed advertising and brochures that contained VersaTop’s trademarks and pictures of VersaTop’s products. The District of Oregon granted summary judgment of noninfringement in favor of Georgia Expo. Applying the “use in commerce” standard, the district court reasoned that Georgia Expo had not infringed because it had not

“affixed” VersaTop’s trademarks to goods that were “sold or transported in commerce.” The Federal Circuit reversed and entered judgment in favor of VersaTop.

The Federal Circuit held that the district court erred in applying the “use in commerce” standard to trademark infringement. The Ninth Circuit distinguishes between “use in commerce” as a requirement for federal trademark registration and an infringing use of a trademark. The “use in commerce” standard, as defined by Section 1127 of the Lanham Act, “applies to the required use a plaintiff must make in order to have rights in a mark.” The “use in commerce” standard was thus not the legal standard for proving infringement.

Rather, the core element of trademark infringement was the “likelihood of confusion,” or whether the similarity of the marks was likely to confuse customers about the source of the products. The Ninth Circuit applies eight non-exhaustive factors when determining the “likelihood of confusion:” (1) strength of the marks; (2) relatedness of the goods; (3) similarity of the marks; (4) evidence of actual confusion; (5) marketing channels; (6) degree of consumer care; (7) defendant’s intent; and (8) likelihood of expansion.

In this case, Georgia Expo admitted that it used VersaTop’s marks in its advertising and brochures. The two companies were direct competitors and sold the same type of goods. VersaTop was not required to prove actual confusion but only had to demonstrate likelihood of confusion. Based on the above factors, the Federal Circuit held that Georgia Expo infringed VersaTop’s trademark as a matter of law, and entered judgment in favor of VersaTop.

VirnetX Inc. v. Apple, Inc.

909 F.3d 1375 (Fed. Cir. 2018)

In this case, the Federal Circuit affirmed the PTAB’s conclusion that several claims of the ’696 patent were unpatentable as obvious. In December 2015, Apple filed two petitions for IPR of the ’696 patent, challenging the claims as obvious over the ’867 patent and RFC 2401. VirnetX, the patent holder, argued that RFC 2401 was not a printed publication under Section 102(b) as of November 1998. The PTAB found that RFC 2401 was a printed publication and concluded that the ’696 patent was unpatentable as obvious.

VirnetX challenged the PTAB’s decision on appeal. The Federal Circuit concluded that VirnetX was collaterally estopped from relitigating the threshold question of whether RFC 2401 is a printed publication, and determined that the issue was dispositive of all issues preserved on appeal, thereby affirming the PTAB’s determination.

While this appeal was pending, the Federal Circuit decided in a separate case, *VirnetX Inc. v. Apple Inc.*, No. 17-1131, 715 F. App’x 1024 (Fed. Cir. Mar. 16, 2018) (“*VirnetX P*”), that the PTAB’s decision that RFC 2401 is a printed publication was correct, and summarily affirmed the decision pursuant to Federal Circuit Rule 36. At that point, Apple notified the Federal Circuit in this case of its judgment on the issue in *VirnetX I*. Apple proceeded to argue that VirnetX was collaterally estopped from relitigating the threshold issue regarding RFC 2401, due to the Federal Circuit’s judgment in *VirnetX I*.

The Federal Circuit held that VirnetX was collaterally estopped from relitigating the RFC 2401 issue by the Rule 36 judgment in *VirnetX I*. The parties only disputed “whether the issue was necessary or essential to the judgment in *VirnetX I*.” The Federal Circuit held that the issue was necessary or essential to the judgment in *VirnetX I* because each ground of unpatentability that VirnetX had appealed in *VirnetX I* relied on RFC 2401. The Federal Circuit added that even if VirnetX was not collaterally estopped, it “would affirm the PTAB’s conclusion that RFC 2401 was a printed publication as of November 1998,” because this appeal presented a similar record to *VirnetX I* with respect to RFC 2401, and thus it would have likely reached the same conclusion.

Lastly, VirnetX argued that RFC 2401’s status as a printed publication was not dispositive of all issues raised in the appeal because it preserved in its opening brief the separate issue of whether IPR procedures apply retroactively to patents filed before Congress enacted the AIA. In the opening brief, VirnetX asked the court to set aside the issue dependent on a pending Supreme Court decision in *Oil States Energy Services, LLC v. Greene’s Energy Group, LLC*, 138 S. Ct. 1365 (2018). The Federal Circuit held that VirnetX’s insistence that it preserved the issue was “likely less than sincere” because it merely provided “a single, generic paragraph” on the issue, never provided supplemental briefing or otherwise developed the argument following the Supreme Court’s decision in *Oil States*, and did not insist that it had preserved the issue until after Apple filed its notice of supplemental authority identifying the court’s Rule 36 judgment in *VirnetX I*.

Therefore, because VirnetX was collaterally estopped from raising the threshold RFC 2401 issue, and because that issue was dispositive of all issues preserved on appeal, the Federal Circuit affirmed the PTAB’s conclusion that the claims of the ’696 patent were unpatentable as obvious.

Westech Aerosol Corp. v. 3M Co.

927 F.3d 1378 (Fed. Cir. 2019)

Westech Aerosol (“Westech”) filed suit in the Western District of Washington alleging that 3M Company and Northstar Chemical (collectively, “3M”) infringed Westech’s ’056 patent for an aerosol adhesive system. While 3M’s second motion to dismiss was pending, the Supreme Court issued *TC Heartland LLC v. Kraft Foods Group Brands LLC*, 137 S. Ct. 1514 (2017), holding that under the patent venue statute, 28 U.S.C. § 1400(b), “a corporation ‘resides’ only in its state of incorporation.” As a result, 3M amended its motion to dismiss, arguing that Westech had not asserted facts sufficient to satisfy Section 1400(b). Westech filed a response to the motion to dismiss, arguing that 3M had sales, sales representatives, and various business locations throughout Washington. 3M’s subsequent reply asserted that it did not occupy any of the locations named in Westech’s response. The district court found that sales in a judicial district did not satisfy the venue statute, but denied 3M’s motion to dismiss without prejudice, and allowed Westech to amend its complaint to plead proper venue.

However, in its amended complaint, Westech merely recited Section 1400(b) without alleging facts to support that the venue was proper. Relying on the recently issued decision

in *In re Cray Inc.*, 871 F.3d 1355 (Fed. Cir. 2017), the district court stated that there was no factual basis that 3M had a “regular and established place of business” in the Western District of Washington. The district court granted 3M’s subsequent motion to dismiss without prejudice.

Westech appealed to determine the proper pleading standard for venue, asserting that it satisfied the standard to survive a motion to dismiss. 3M moved for sanctions, requesting attorneys’ fees and double costs for having to defend Westech’s frivolous appeal.

First, the Federal Circuit held that Westech failed to allege any facts to establish that venue was proper under *Cray*, and merely recited legal conclusions that the district court was not required to accept as true. Thus, the court concluded that the district court did not erroneously grant 3M’s motion to dismiss.

Second, the court held that Westech’s appeal was not frivolous as filed because *In re ZTE (USA) Inc.*, 890 F.3d 1008 (Fed. Cir. 2018), had not yet held that plaintiffs have the burden to establish venue. Next, the court held that Westech’s appeal was frivolous as argued because it failed to cite to *Cray* in its opening brief, and disregarded *ZTE*, both of which were clearly relevant and conflicted with Westech’s argument. However, the court ultimately did not impose sanctions on Westech because of the patent venue law’s evolution in relation to the case’s procedural posture.

WesternGeco L.L.C. v. ION Geophysical Corp.

913 F.3d 1067 (Fed. Cir. 2019)

This case deals with the impact of an intervening invalidation of patent claims on a reasonable royalty award and a lost profits award. ION challenged WesternGeco’s (i) \$12.5 million reasonable royalty award based on the PTAB’s intervening invalidation of four of six asserted patent claims; (ii) \$93.4 million lost profits award for lack of causation, apportionment and because ION argued the jury’s single lost profits award could not be sustained where it did not separate damages relating to invalidated claims versus remaining claims; and (iii) \$5 million in enhanced damages, which the Federal Circuit did not address.

First, the Federal Circuit rejected ION’s challenge to the reasonable royalty award. ION cited *Fresenius v. Baxter* for the proposition that judgment cannot be final if any part of the litigation remains pending, pointing to the ongoing litigation of the lost profits award. The court disagreed, finding that *Fresenius* only applies where judgments are not final and “does not allow reopening of a satisfied and unappealable final judgment.” The court found that the particular facts of this case “establish that the reasonable royalty award constitutes a fully satisfied and unappealable final judgement such that the subsequent invalidation of asserted patent claims does not support reopening” where the parties had entered into a compromise agreement resolving all issues except lost profits, the compromise agreement was reflected in a joint motion filed a year and a half *after* the IPR decisions invalidating most of the asserted claims, and ION had completed its payments.

On the lost profits question, the Federal Circuit disagreed with ION’s argument that there was no *Panduit* but-for causation—where WesternGeco only sells surveys and ION only sells survey devices—but noted that the fact may be relevant to the computation of lost profits. The Federal Circuit held that *Rite-Hite* and *BIC* require only that the parties’ products compete, and do not impose a requirement of direct competition between the patentee and alleged infringer. The opinion went on to say that ION’s argument related to the apportionment of damages was waived on this appeal because it was first raised at oral argument, but ION may present apportionment arguments if the district court orders a new trial on damages.

The Federal Circuit also disagreed with ION’s argument that a new trial was required for the lost profits award after four of the asserted claims were invalidated. The court reasoned it was possible that the remaining claim *could* have supported the full lost profits award. However, because the record did not establish whether the technology covered by the remaining asserted claim, independent of the now-invalid claims, could have been necessary to perform the surveys, the Federal Circuit remanded to the district court to determine whether a new trial on lost profits was necessary.

Wis. Alumni Research Found. v. Apple Inc.
905 F.3d 1341 (Fed. Cir. 2018)

This case concerns a computer processing technique for predicting data dependencies. Data dependencies result when the output of an earlier calculation becomes the input for some later command. Because it is rarely efficient for computers to process all programming commands strictly in the order they appear, programs need to predict data dependencies and ensure that the input is calculated first. The Wisconsin Alumni Research Foundation (WARF) patented one such method, and it sued Apple in January 2014 for willful patent infringement.

WARF’s patent claims detailed a data dependency predictor “to produce a prediction associated with the particular data consuming instruction” (claim 1), as well as a prediction table “to create an entry listing a particular data consuming instruction each associated with a prediction” (claim 9). The parties disputed the construction of *particular*. Apple utilized an allegedly similar data dependency predictor in its integrated circuit chips; however, Apple’s technology ran in 12-bit, meaning that a single data tag would cover *multiple* programming commands.

At trial, the jury found that Apple infringed WARF’s claims, and awarded \$234 million in damages. The district court, having already granted summary judgment against Apple’s anticipation defense, also denied Apple’s motion for judgment as a matter of law that it did not infringe. Apple appealed both decisions to the Federal Circuit.

The Federal Circuit reversed as to the district court’s denial of JMOL of no infringement, but it affirmed summary judgment against the anticipation defense. First, the Federal Circuit ruled that no reasonable jury could have found that Apple infringed. The court explained that the plain meaning of the term “particular”—as understood by an ordinary

artisan after reading the entire patent—required that each prediction be associated with a *single* programming command. Since Apple’s algorithm covered a *group* of commands, it did not literally infringe the WARF patent. Second, as to Apple’s anticipation defense, the Federal Circuit ruled that the district court correctly granted summary judgment on the basis that each and every element of WARF’s patent claims had been disclosed in the prior art.

Worlds Inc. v. Bungie, Inc.

903 F.3d 1237 (Fed. Cir. 2018)

Worlds Inc. owns three patents relating to computer-generated display of avatars in a virtual world, including methods and systems to determine if an avatar is displayed in a particular situation. In district court, Worlds Inc. asserted the three patents against Activision Publishing, Inc., a videogame developer. Activision distributes the *Destiny* videogames, which were developed by the appellee, Bungie, Inc. After Worlds notified Bungie of its intent to add the *Destiny* products to the infringement litigation, Bungie filed the three IPR petitions at issue. The PTAB invalidated all three patents. On appeal, the Federal Circuit vacated and remanded.

At issue was whether the IPR petitions should have been time-barred because the relationship between Bungie and Activision meant that Activision was a real party in interest. Worlds argued that the petitions were filed more than a year after it served Activision with a complaint alleging infringement of the challenged patents. It further claimed that the developer’s agreement between Bungie and Activision would allow Activision to control the IPRs since it provided that Activision had to approve all of Bungie’s “legal reviews of [p]roduct[s]” to clear intellectual property rights. The PTAB held that IPR proceedings involved patents, not “product[s],” so there was insufficient evidence to show Activision should have been a real party in interest.

On appeal, the Federal Circuit looked to the *Atlanta Gas Light Co. v. Bennett Regulator Guards, Inc.*, IPR2013-00453, Paper 88 (P.T.A.B. Jan. 6, 2015), framework, which creates a rebuttable presumption that the IPR petitioner accurately identified the real parties in interest. However, the court questioned the wisdom of creating a rebuttable presumption since presumptions usually rely on the petitioner first proving certain facts, which is not required in the real-parties-in-interest context. Furthermore, the court found no policy rationale to justify the presumption since it disfavors the party that likely has less access to potential proof. Rather than applying a rebuttable presumption, the court stated that the initial identification should be accepted unless the patent owner raises the issue and produces some evidence to show there is an error.

The court found that Worlds produced enough evidence to put the issue in dispute. Furthermore, though the PTAB did not state what standard it used, it seemed to have incorrectly put the burden of persuasion on the patent owner and improperly relied on attorney argument as evidence. The Federal Circuit also declined to decide Bungie’s issue preclusion claim because there was a sparse record on the issue and the determination of

whether a party is a real party in interest could differ between IPRs. Thus, the court vacated and remanded.

Yeda Research & Dev. Co. v. Mylan Pharm. Inc.

906 F.3d 1031 (Fed. Cir. 2018)

Appellant Yeda Research & Development Co., Ltd. challenged the PTAB's final written decisions finding the claims of three patents as obvious in three IPR proceedings. The Federal Circuit affirmed the PTAB's decisions.

Yeda's Copaxone patents are directed to a particular dosage regimen for treatment of relapsing-remitting multiple sclerosis. Yeda produces the drug Copaxone (with an active ingredient referred to as "GA"), which is administered by 40 mg injections three times a week. Yeda's patented regimen claims to reduce side effects as compared to daily injections. The PTAB found that, in light of the prior art, moving to a thrice-weekly regimen was obvious to an ordinarily skilled artisan and thus unpatentable.

The court first addressed what it called a "state of the art" reference. A 2009 study by Omar Khan ("Khan 2009") compared 20 mg GA administered twice a week to 20 mg GA administered daily in a two-year study. Although the study was initiated two years before the priority date of the asserted patents, Khan 2009 did not publish until three weeks after the priority date. Yeda objected to the use of this study as a violation of Section 311(b). But because Section 311(b) only relates to prior art, and Khan 2009 is indisputably not prior art, the court found this provision to be irrelevant to its analysis. The question before the court was whether "the Board may consider non-prior art evidence, such as Khan 2009, in considering the knowledge, motivations, and expectations of a POSITA regarding the prior art." The court concluded that it could. The court did identify, however, one instance where the PTAB relied on Khan 2009 for a different purpose. In particular, the PTAB used the study in deciding whether a POSITA would have had a reasonable expectation of success of a thrice-weekly regimen. But the court found that, to the extent that this was error, it was harmless.

The court also dismissed Yeda's APA and due process claims with respect to Khan 2009 because Yeda had an opportunity to contest the Khan study when it moved to exclude that evidence as irrelevant.

Upon reviewing the other academic studies cited before the PTAB, the Federal Circuit affirmed the PTAB's obviousness determinations. It was well-known that GA caused reactions at its injection site, leading many patients to discontinue clinical trials. Other studies had established that GA could be administered every other day for greater tolerability, and that its dosage could be safely increased to 40 mg. Viewing the prior art as a whole, an ordinarily skilled artisan would have had a reasonable expectation that a 40 mg, thrice-weekly dosage would succeed. Because the pool of literature was finite and the solutions predictable, the Federal Circuit found ample evidence to support the PTAB's obviousness finding.

ALPHABETICAL INDEX OF ALL CASES

<i>AC Techs. S.A. v. Amazon.com, Inc.</i> 912 F.3d 1358 (Fed. Cir. 2019).....	41
<i>Acceleration Bay, LLC v. Activision Blizzard, Inc.</i> 908 F.3d 765 (Fed. Cir. 2018).....	41
<i>Acorda Therapeutics, Inc. v. Roxane Labs., Inc.</i> 903 F.3d 1310 (Fed. Cir. 2018).....	43
<i>Advantek Marketing, Inc. v. Shanghai Walk-Long Tools Co.</i> 898 F.3d 1210 (Fed. Cir. 2018).....	43
<i>Amerigen Pharm. Ltd. v. UCB Pharma GmBH</i> 913 F.3d 1076 (Fed. Cir. 2019).....	44
<i>Amgen Inc. v. Coherus Biosciences Inc.</i> 931 F.3d 1154 (Fed. Cir. 2019).....	45
<i>Amgen Inc. v. Sandoz Inc.</i> 923 F.3d 1023 (Fed. Cir. 2019).....	46
<i>Ancora Techs., Inc. v. HTC Am., Inc.</i> 908 F.3d 1343 (Fed. Cir. 2018).....	47
<i>ArcelorMittal Alantique et Lorraine v. AK Steel Corp.</i> 908 F.3d 1267 (Fed. Cir. 2018).....	48
<i>Arctic Cat Inc. v. GEP Power Prods., Inc.</i> 919 F.3d 1320 (Fed. Cir. 2019).....	48
<i>Arista Networks, Inc. v. Cisco Sys., Inc.</i> 908 F.3d 792 (Fed. Cir. 2018).....	49
<i>Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC</i> 915 F.3d 743 (Fed. Cir. 2019).....	50
<i>ATI Techs. ULC v. Iancu</i> 920 F.3d 1362 (Fed. Cir. 2019).....	51
<i>Auto. Body Parts Ass'n v. Ford Glob. Techs., LLC</i> 930 F.3d 1314 (Fed. Cir. 2019).....	52
<i>AVX Corp. v. Presidio Components, Inc.</i> 923 F.3d 1357 (Fed. Cir. 2019).....	53
<i>Barry v. Medtronic, Inc.</i> 914 F.3d 1310 (Fed. Cir. 2019).....	53

<i>Bennett Regulator Guards, Inc. v. Atlanta Gas Light Co.</i> 905 F.3d 1311 (Fed. Cir. 2018).....	55
<i>Bradium Techs. LLC v. Iancu</i> 923 F.3d 1032 (Fed. Cir. 2019).....	56
<i>BSG Tech LLC v. BuySeasons, Inc.</i> 899 F.3d 1281 (Fed. Cir. 2018).....	57
<i>BTG Int’l Ltd. v. Amneal Pharms. LLC</i> 923 F.3d 1063 (Fed. Cir. 2019).....	58
<i>Celgene Corp. v. Peter</i> 931 F.3d 1342 (Fed. Cir. 2019).....	59
<i>Cellspin Soft, Inc. v. Fitbit, Inc.</i> 927 F.3d 1306 (Fed. Cir. 2019).....	59
<i>CenTrak, Inc. v. Sonitor Tech., Inc.</i> 915 F.3d 1360 (Fed. Cir. 2019).....	60
<i>ChargePoint, Inc. v. SemaConnect, Inc.</i> 920 F.3d 759 (Fed. Cir. 2019).....	61
<i>Cisco Sys., Inc. v. TQ Delta, LLC</i> 928 F.3d 1359 (Fed. Cir. 2019).....	62
<i>Click-To-Call Techs., LP v. Ingenio, Inc.</i> 899 F.3d 1321 (Fed. Cir. 2018).....	62
<i>Coda Dev. S.R.O. v. Goodyear Tire & Rubber Co.</i> 916 F.3d 1350 (Fed. Cir. 2019).....	63
<i>Cont’l Circuits LLC v. Intel Corp.</i> 915 F.3d 788 (Fed. Cir. 2019).....	64
<i>Core Wireless Licensing S.A.R.L. v. Apple Inc.</i> 899 F.3d 1356 (Fed. Cir. 2018).....	65
<i>Data Engine Tech. LLC v. Google LLC</i> 906 F.3d 999 (Fed. Cir. 2018).....	66
<i>Diebold Nixdorf, Inc. v. Int’l Trade Comm’n</i> 899 F.3d 1291 (Fed. Cir. 2018).....	66
<i>Dr. Falk Pharma GMBH v. Generico, LLC</i> 916 F.3d 975 (Fed. Cir. 2019).....	67
<i>Duncan Parking Techs., Inc. v. IPS Grp., Inc.</i> 914 F.3d 1347 (Fed. Cir. 2019).....	68

<i>E.I. DuPont de Nemours & Co. v. Synvina C.V.</i> 904 F.3d 996 (Fed. Cir. 2018).....	69
<i>E.I. DuPont De Nemours & Co. v. Unifrax I LLC</i> 921 F.3d 1060 (Fed. Cir. 2019).....	70
<i>Elbit Sys. Land & C4I Ltd. v. Hughes Network Sys., LLC</i> 927 F.3d 1292 (Fed. Cir. 2019).....	71
<i>Endo Pharms. Inc. v. Actavis LLC</i> 922 F.3d 1365 (Fed. Cir. 2019).....	72
<i>Endo Pharms. Inc. v. Teva Pharms. USA, Inc.</i> 919 F.3d 1347 (Fed. Cir. 2019).....	73
<i>Enplas Display Device Corporation v. Seoul Semiconductor Co., Ltd.</i> 909 F.3d 398 (Fed. Cir. 2018).....	74
<i>Enzo Life Scis., Inc. v. Roche Molecular Sys., Inc.</i> 928 F.3d 1340 (Fed. Cir. 2019).....	75
<i>Ericsson Inc. v. Intellectual Ventures I LLC</i> 901 F.3d 1374 (Fed. Cir. 2018).....	76
<i>Forest Labs., LLC v. Sigmapharm Labs., LLC</i> 918 F.3d 928 (Fed. Cir. 2019).....	77
<i>Forum US, Inc. v. Flow Valve, LLC</i> 926 F.3d 1346 (Fed. Cir. 2019).....	78
<i>Game & Tech. Co., Ltd. v. Activision Blizzard Inc.</i> 926 F.3d 1370 (Fed. Cir. 2019).....	79
<i>Gen. Elec. Co. v. United Techs. Corp.</i> 928 F.3d 1349 (Fed. Cir. 2019).....	79
<i>GoPro, Inc. v. Contour IP Holding LLC</i> 906 F.3d 1031 (Fed. Cir. 2018).....	81
<i>Grunenthal GmbH v. Alkem Labs. Ltd.</i> 919 F.3d 1333 (Fed. Cir. 2019).....	82
<i>Gust, Inc. v. AlphaCap Ventures, LLC</i> 905 F.3d 1321 (Fed. Cir. 2018).....	82
<i>Hamilton Beach Brands, Inc. v. f'real Foods, LLC</i> 908 F.3d 1328 (Fed. Cir. 2018).....	83
<i>Hyatt v. U.S. Patent & Trademark Office</i> 904 F.3d 1361 (Fed. Cir. 2018).....	84

<i>Hyosung TNS Inc. v. Int’l Trade Comm’n</i> 926 F.3d 1353 (Fed. Cir. 2019).....	85
<i>In re Copaxone Consolidated Cases</i> 906 F.3d 1013 (Fed. Cir. 2018).....	86
<i>In re Glob. IP Holdings LLC</i> 927 F.3d 1373 (Fed. Cir. 2019).....	87
<i>In re Google LLC</i> 914 F.3d 1377 (Fed. Cir. 2019).....	88
<i>In re Maatita</i> 900 F.3d 1369 (Fed. Cir. 2018).....	89
<i>In re Marco Guldenaar Holding B.V.</i> 911 F.3d 1157 (Fed. Cir. 2018).....	89
<i>In re Oath Holdings Inc.</i> 908 F.3d 1301 (Fed. Cir. 2018).....	90
<i>In re Power Integrations, Inc.</i> 899 F.3d 1316 (Fed. Cir. 2018).....	91
<i>Indivior Inc. v. Dr. Reddy’s Labs., S.A.</i> 930 F.3d 1325 (Fed. Cir. 2019).....	92
<i>Intellectual Ventures I LLC v. T-Mobile USA, Inc.</i> 902 F.3d 1372 (Fed. Cir. 2018).....	93
<i>IXI IP, LLC v. Samsung Electronics Co., Ltd.</i> 903 F.3d 1257 (Fed. Cir. 2018).....	94
<i>Jack Henry & Associates, Inc. v. Plano Encryption Techs. LLC</i> 910 F.3d 1199 (Fed. Cir. 2018).....	94
<i>JTEKT Corp. v. GKN Automotive Ltd.</i> 898 F.3d 1217 (Fed. Cir. 2018).....	96
<i>Kolcraft Enters., Inc. v. Graco Children’s Prods., Inc.</i> 927 F.3d 1320 (Fed. Cir. 2019).....	96
<i>Laerdal Medical Corp. v. Int’l Trade Comm’n</i> 910 F.3d 1207 (Fed. Cir. 2018).....	97
<i>Lone Star Silicon Innovations LLC v. Nanya Tech. Corp.</i> 925 F.3d 1225 (Fed. Cir. 2019).....	98
<i>Luminara Worldwide, LLC v. Iancu</i> 899 F.3d 1303 (Fed. Cir. 2018).....	99

<i>Maxchief Investments Limited v. Wok & Pan, Ind., Inc.</i> 909 F.3d 1134 (Fed. Cir. 2018).....	100
<i>Mayne Pharma Int’l Pty. Ltd. v. Merck Sharp & Dohme Corp.</i> 927 F.3d 1232 (Fed. Cir. 2019).....	101
<i>Momenta Pharms., Inc. v. Bristol-Myers Squibb Co.</i> 915 F.3d 764 (Fed. Cir. 2019).....	101
<i>Mylan Pharms. Inc. v. Research Corp. Techs., Inc.</i> 914 F.3d 1366 (Fed. Cir. 2019).....	102
<i>Natural Alternatives Int’l, Inc. v. Creative Compounds, LLC</i> 918 F.3d 1338 (Fed. Cir. 2019).....	103
<i>Natural Alternatives Int’l, Inc. v. Iancu</i> 904 F.3d 1375 (Fed. Cir. 2018).....	104
<i>Neptune Generics v. Eli Lilly & Co.</i> 921 F.3d 1372 (Fed. Cir. 2019).....	105
<i>Nobel Biocare Services AG v. Intradent USA, Inc.</i> 903 F.3d 1365 (Fed. Cir. 2018).....	105
<i>Novartis AG v. Ezra Ventures LLC</i> 909 F.3d 1367 (Fed. Cir. 2018).....	106
<i>Novartis Pharm. Corp. v. West-Ward Pharm. Int’l Ltd.</i> 923 F.3d 1051 (Fed. Cir. 2019).....	107
<i>Novartis Pharms. Corp. v. Breckenridge Pharm. Inc.</i> 909 F.3d 1355 (Fed. Cir. 2018).....	108
<i>Nuvo Pharms. (Ireland) Designated Activity Company v. Dr. Reddy’s Labs. Inc.</i> 923 F.3d 1368 (Fed. Cir. 2019).....	109
<i>Omega Patents, LLC v. CalAmp Corp.</i> 920 F.3d 1337 (Fed. Cir. 2019).....	110
<i>Orexo AB v. Actavis Elizabeth LLC</i> 903 F.3d 1265 (Fed. Cir. 2018).....	111
<i>Papst Licensing GMBH & Co. KG v. Samsung Elecs. Am., Inc.</i> 924 F.3d 1243 (Fed. Cir. 2019).....	111
<i>ParkerVision, Inc. v. Qualcomm Inc.</i> 903 F.3d 1354 (Fed. Cir. 2018).....	112
<i>PersonalWeb Techns., LLC v. Apple, Inc.</i> 917 F.3d 1376 (Fed. Cir. 2019).....	113

Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.
 904 F.3d 965 (Fed. Cir. 2018)..... 114

Power Integrations, Inc. v. Semiconductor Components Indus., LLC
 926 F.3d 1306 (Fed. Cir. 2019)..... 115

Princeton Digital Image Corp. v. Office Depot Inc.
 913 F.3d 1342 (Fed. Cir. 2019)..... 116

Quake v. Lo
 928 F.3d 1365 (Fed. Cir. 2019)..... 117

Quest Integrity USA, LLC v. Cokebusters USA Inc.
 924 F.3d 1220 (Fed. Cir. 2019)..... 118

Realtime Data, LLC v. Iancu
 912 F.3d 1368 (Fed. Cir. 2019)..... 119

Regents of the Univ. of Cal. v. Broad Inst. Inc.
 903 F.3d 1286 (Fed. Cir. 2018)..... 120

Regents of the Univ. of Minn. v. LSI Corp.
 926 F.3d 1327 (Fed. Cir. 2019)..... 121

Roche Molecular Sys., Inc. v. Cepheid
 905 F.3d 1363 (Fed. Cir. 2018)..... 121

Samsung Elecs. Co., Ltd. v. Elm 3DS Innovations, LLC
 925 F.3d 1373 (Fed. Cir. 2019)..... 122

Samsung Elecs. Co., Ltd. v. Infobridge Pte. Ltd.
 929 F.3d 1363 (Fed. Cir. 2019)..... 123

SAP Am., Inc. v. InvestPic, LLC
 898 F.3d 1161 (Fed. Cir. 2018)..... 124

Solutran, Inc. v. Elavon, Inc.
 931 F.3d 1161 (Fed. Cir. 2019)..... 125

Sony Corp. v. Iancu
 924 F.3d 1235 (Fed. Cir. 2019)..... 126

Spineology, Inc. v. Wright Med. Tech., Inc.
 910 F.3d 1227 (Fed. Cir. 2018)..... 127

SRI Int’l, Inc. v. Cisco Sys., Inc.
 930 F.3d 1295 (Fed. Cir. 2019)..... 128

Supernus Pharm., Inc. v. Iancu
 913 F.3d 1351 (Fed. Cir. 2019)..... 129

<i>TEK Global, S.R.L. v. Sealant Sys. Int’l, Inc.</i> 920 F.3d 777 (Fed. Cir. 2019).....	130
<i>Thermolife Int’l LLC v. GNC Corp.</i> 922 F.3d 1347 (Fed. Cir. 2019).....	131
<i>TQ Delta, LLC v. DISH Network LLC</i> 929 F.3d 1350 (Fed. Cir. 2019).....	132
<i>Trading Tech. Int’l v. IBG LLC</i> 921 F.3d 1084 (Fed. Cir. 2019).....	133
<i>Trading Techs. Int’l, Inc. v. IBG LLC</i> 921 F.3d 1378 (Fed. Cir. 2019).....	133
<i>UCB, Inc. v. Watson Labs. Inc.</i> 927 F.3d 1272 (Fed. Cir. 2019).....	134
<i>Univ. of Fla. Research Found., Inc. v. Gen. Elec. Co.</i> 916 F.3d 1363 (Fed. Cir. 2019).....	135
<i>VersaTop Support Sys., LLC v. Ga. Expo, Inc.</i> 921 F.3d 1364 (Fed. Cir. 2019).....	135
<i>VirnetX Inc. v. Apple, Inc.</i> 909 F.3d 1375 (Fed. Cir. 2018).....	136
<i>Westech Aerosol Corp. v. 3M Co.</i> 927 F.3d 1378 (Fed. Cir. 2019).....	137
<i>WesternGeco L.L.C. v. ION Geophysical Corp.</i> 913 F.3d 1067 (Fed. Cir. 2019).....	138
<i>Wis. Alumni Research Found. v. Apple Inc.</i> 905 F.3d 1341 (Fed. Cir. 2018).....	139
<i>Worlds Inc. v. Bungie, Inc.</i> 903 F.3d 1237 (Fed. Cir. 2018).....	140
<i>Yeda Research & Dev. Co. v. Mylan Pharm. Inc.</i> 906 F.3d 1031 (Fed. Cir. 2018).....	141