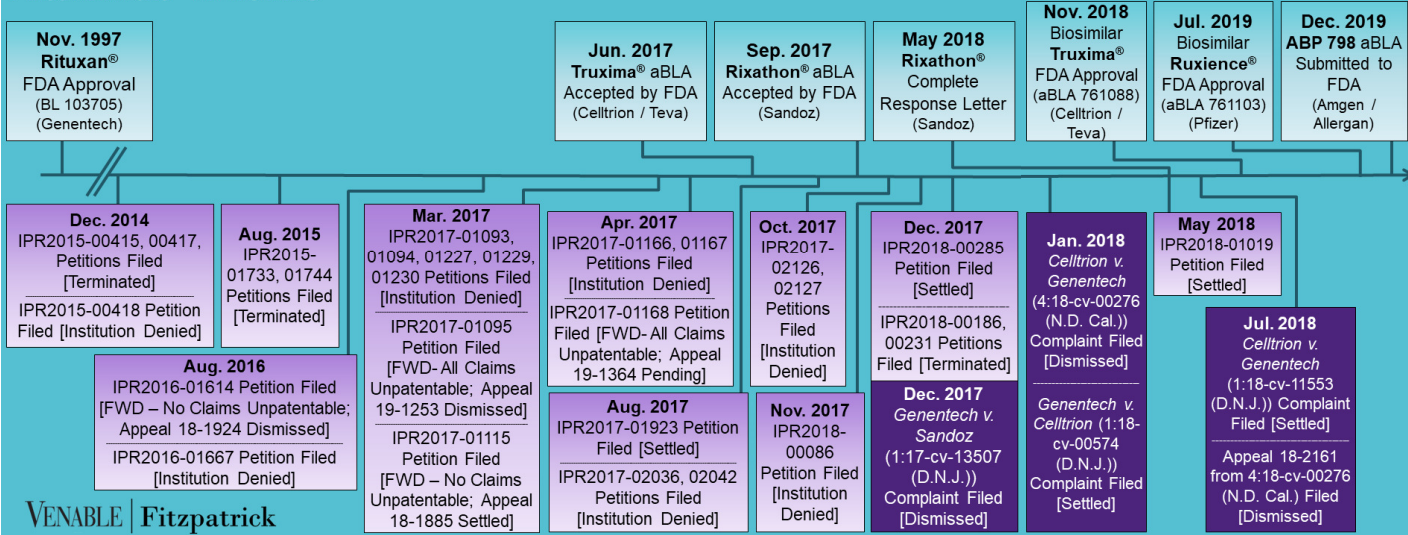
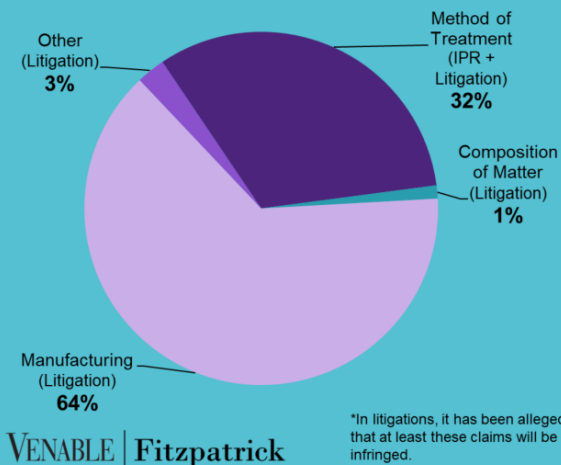


Rituximab Timeline



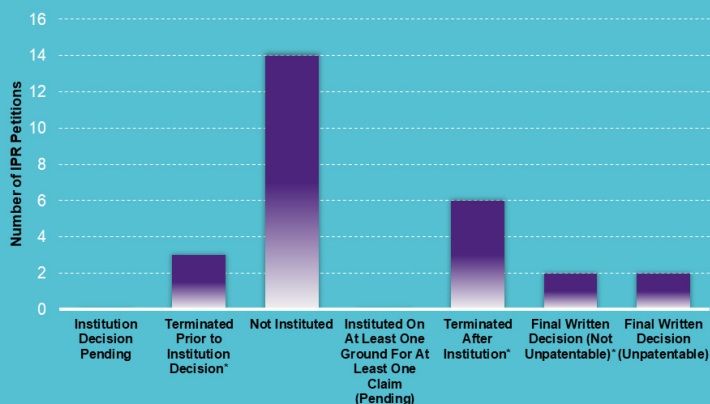
VENABLE | Fitzpatrick

Rituximab Challenged Claim Types in IPR and Litigation*



VENABLE | Fitzpatrick

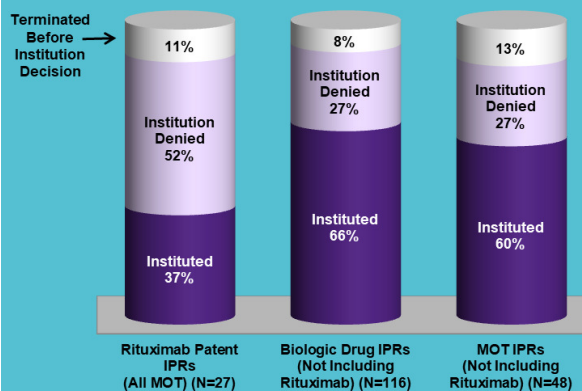
Rituximab IPR Status (All Method of Treatment Claims)



*Joinder counted as separate decisions
1 Motion to terminate after institution pending

VENABLE | Fitzpatrick

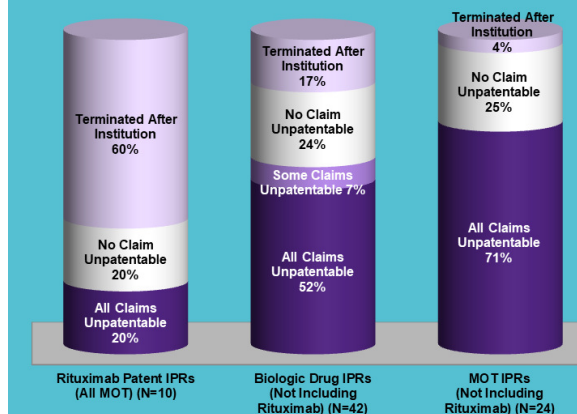
IPR Institution Rates*



*Joinder counted as separate decisions

VENABLE | Fitzpatrick

Outcomes After Institution*



*Joinder counted as separate decisions

VENABLE | Fitzpatrick

Technology: Rituximab is a chimeric murine/human monoclonal antibody that is directed against the CD20 antigen. CD20 is a protein that is primarily found on the surface of immune system B cells. CD20 is involved in cell growth and differentiation.

| | <i>Genentech v. Celltrion</i> 1:18-cv-11553 (D.N.J.) Settled Cont'd below | <i>Genentech v. Celltrion</i> 1:18-cv-00574 (D.N.J.) Settled Cont'd below | <i>Celltrion v. Genentech</i> 4:18-cv-00276 (N.D. Cal.) Dismissed; Appeal No. 18-2161 Dismissed Cont'd below | <i>Genentech v. Sandoz</i> 1:17-cv-13507 (D.N.J.) Dismissed Cont'd below | <i>Celltrion v. Genentech</i> IPR2017-01227 Institution denied | <i>Celltrion v. Genentech</i> IPR2017-01230 Institution denied | <i>Pfizer v. Genentech</i> IPR2017-02126 Institution denied | <i>Boehringer Ingelheim v. Genentech</i> IPR2015-00415 Petitioner request for adverse judgment after institution | <i>Celltrion v. Genentech</i> IPR2015-01744 Petitioner dismissed prior to institution decision | <i>Celltrion v. Genentech</i> IPR2016-01614 FWD (no instituted claim unpatentable); Appeal 18-1924 dismissed | <i>Pfizer v. Genentech</i> IPR2017-01115 (Joined with IPR2016-01614) FWD (no instituted claim unpatentable); Appeal 18-1885 dismissed (settled) |
|-----------|---|---|---|--|--|--|--|--|--|---|---|
| 6,121,428 | | x | | x | | | | | | | |
| 6,242,177 | | x | | | | | | | | | |
| 6,331,415 | x | x | x | x | | | | | | | |
| 6,417,335 | | x | x | | | | | | | | |
| 6,455,043 | | x | x | | | | | | | | |
| 6,489,447 | x | x | x | x | | | | | | | |
| 6,586,206 | | x | x | | | | | | | | |
| 6,610,516 | x | x | x | x | | | | | | | |
| 6,620,918 | x | x | x | x | | | | | | | |
| 6,716,602 | | x | x | | | | | | | | |
| 6,870,034 | | | | x | | | | | | | |
| 7,381,560 | x | x | | x | | | | | | | |
| 7,390,660 | | x | x | | | | | | | | |
| 7,485,704 | x | x | x | x | | | | | | | |
| 7,682,612 | | x | x | | x | x | x | | | | |
| 7,807,799 | x | x | x | x | | | | | | | |
| 7,820,161 | x | x | x | x | | | | x | x | x | x |
| 7,923,221 | x | x | x | x | <i>Boehringer Ingelheim v. Genentech</i> IPR2015-00417 Petitioner request for adverse judgment after institution | <i>Celltrion v. Genentech</i> IPR2015-01733 Petitioner dismissed prior to institution decision | <i>Celltrion v. Genentech</i> IPR2016-01667 Institution denied | <i>Pfizer v. Genentech</i> IPR2017-01923 Settled after institution | <i>Sandoz v. Genentech</i> IPR2017-02036 Institution denied | <i>Sandoz v. Genentech</i> IPR2017-02042 Institution denied | <i>Celltrion v. Genentech</i> IPR2018-01019 Joined with IPR2017-01923; Settled after institution |
| 7,976,838 | x | x | x | x | x | x | x | x | x | x | x |

| | <i>Genentech v. Celltrion</i> 1:18-cv-11553 (D.N.J.) Settled Cont'd from above | <i>Genentech v. Celltrion</i> 1:18-cv-00574 (D.N.J.) Settled Cont'd from above | <i>Celltrion v. Genentech</i> 4:18-cv-00276 (N.D. Cal.) Dismissed; Appeal No. 18-2161 Dismissed Cont'd from above | <i>Genentech v. Sandoz</i> 2:17-cv-13507 (D.N.J.) Dismissed Cont'd from above | <i>Celltrion v. Genentech</i> IPR2017-01229 Institution denied | <i>Pfizer v. Biogen</i> IPR2017-02127 Institution denied | <i>Boehringer Ingelheim v. Biogen</i> IPR2015-00418 Institution denied | <i>Celltrion v. Biogen</i> IPR2017-01093 Institution denied | <i>Pfizer v. Biogen</i> IPR2017-01166 Institution denied; Request for rehearing withdrawn | <i>Pfizer v. Biogen</i> IPR2018-00285 Settled after institution | |
|-----------|--|--|---|---|--|---|--|--|---|--|--|
| 8,044,017 | | x | x | | | | | | | | |
| 8,206,711 | x | x | x | x | x | x | | | | | |
| 8,314,225 | | | | x | | | | | | | |
| 8,329,172 | x | x | x | x | | | x | x | x | x | |
| 8,357,301 | | x | x | | | | | | | | |
| 8,460,895 | | x | x | | | | | | | | |
| 8,512,983 | | x | x | x | <i>Pfizer v. Genentech</i> IPR2018-00086 Institution denied | <i>Celltrion v. Biogen</i> IPR2017-01094 Institution denied | <i>Pfizer v. Biogen</i> IPR2017-01167 Institution denied | <i>Pfizer v. Biogen</i> IPR2017-01168 FWD (All instituted claims unpatentable); Appeal 19-1364 pending with US, settled with Pfizer | <i>Celltrion v. Biogen</i> IPR2017-01095 FWD (All instituted claims unpatentable); Appeal 19-1253 dismissed as to US, settled with Celltrion | <i>Pfizer v. Biogen</i> IPR2018-00186 Terminated after institution | <i>Pfizer v. Biogen</i> IPR2018-00231 Petitioner dismissed prior to institution decision |
| 8,545,843 | x | x | x | x | x | | | | | | |
| 8,557,244 | x | x | x | x | | x | x | | | | |
| 8,574,869 | x | x | x | x | | | | | | | |
| 8,633,302 | | x | x | | | | | | | | |
| 8,710,196 | | x | x | x | | | | | | | |
| 8,771,988 | | x | x | | | | | | | | |
| 8,821,873 | x | x | x | x | | | | x | | | |
| 8,822,655 | | x | x | | | | | | | | |
| 9,047,438 | | x | x | | | | | | | | |
| 9,080,183 | | x | x | | | | | | | | |
| 9,296,821 | x | x | x | x | | | | | x | x | |
| 9,428,548 | | x | x | | | | | | | | |
| 9,428,766 | | x | x | | | | | | | | |
| 9,487,809 | | x | x | | | | | | | | |
| 9,504,744 | x | x | x | x | | | | | | | x |
| 9,714,293 | | x | x | x | | | | | | | |