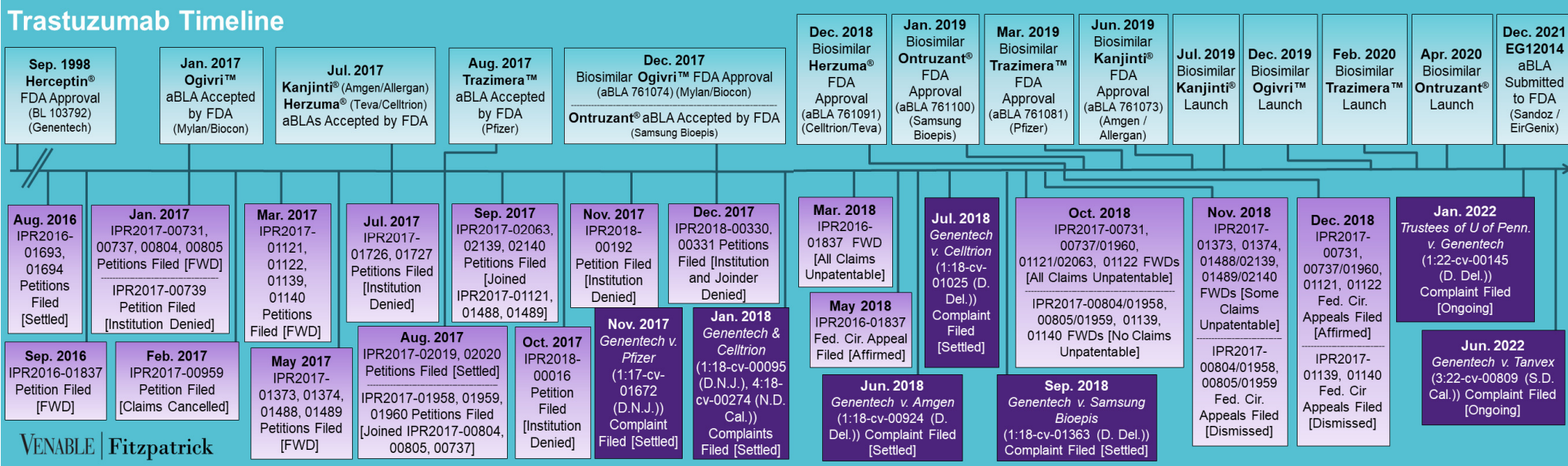
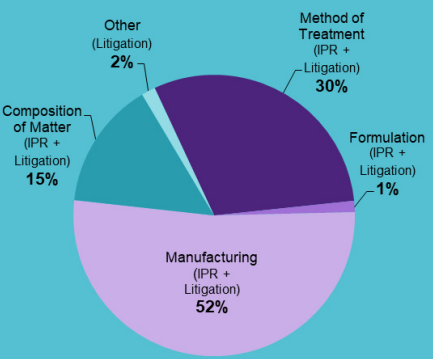


## Trastuzumab Timeline



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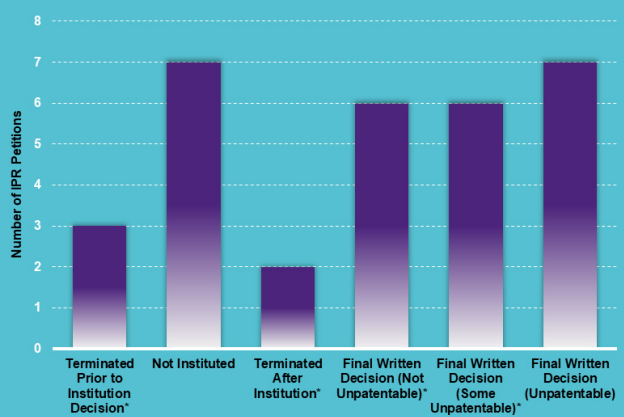
### Trastuzumab Challenged Claim Types in IPR and Litigation\*



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\*In litigations, it has been alleged that at least these claims will be infringed or are invalid.

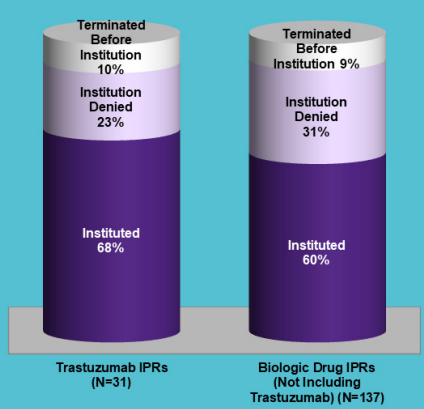
### Trastuzumab IPR Status



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\*Joinder counted as separate decisions

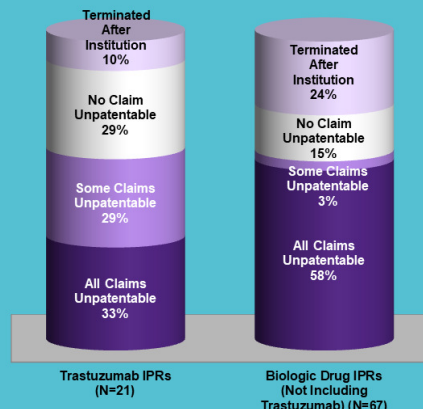
### IPR Institution Rates\*



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\*Joinder counted as separate decisions

### Outcomes After Institution\*



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\*Joinder counted as separate decisions

FWD = Final Written Decision

# Spotlight On: Trastuzumab

August 31, 2022

**Technology:** Trastuzumab is a humanized monoclonal antibody that targets the HER2/neu receptor, which is overexpressed in some types of cancer. The HER2 pathway is involved in cell growth and division.

	<i>Genentech v. Pfizer</i> 1:17-cv-01672 (D. Del.) Settled Cont'd below	<i>Celltrion v. Genentech</i> 4:18-cv-00274 (N.D. Cal.) Dismissed; Fed. Cir. 18-2160 Dismissed Cont'd below	<i>Genentech v. Celltrion</i> 1:18-cv-00095 (D. Del.) Settled Cont'd below	<i>Genentech v. Amgen</i> 1:18-cv-00924 (D. Del.) Settled; Fed. Cir. 19-2156 TRO/PI Denied Cont'd below	<i>Genentech v. Celltrion</i> 1:18-cv-01025 (D. Del.) Settled Cont'd below	<i>Genentech v. Samsung Bioepis</i> 1:18-cv-01363 (D. Del.) Settled Cont'd below	<i>Pfizer v. Genentech</i> IPR2017-02019 Settled after institution; IPR2018-00330 Institution and joinder denied	<i>Celltrion v. Genentech</i> IPR2017-01373 IPR2017-01374 FWD- Some claims unpatentable	<i>Pfizer &amp; Samsung Bioepis v. Genentech</i> IPR2017-01488 IPR2017-02139 (joined) FWD- Some claims unpatentable	<i>Pfizer &amp; Samsung Bioepis v. Genentech</i> IPR2017-01489 IPR2017-02140 (joined) FWD- Some claims unpatentable	<i>Pfizer &amp; Samsung Bioepis v. Genentech</i> IPR2017-00804 IPR2017-01958 (joined) FWD- No claims unpatentable, Fed. Cir. 19-1174 Settled	<i>Celltrion v. Genentech</i> IPR2017-01139 FWD- No claims unpatentable, Fed. Cir. 19-1258 Settled	<i>Hospira v. Genentech</i> IPR2016-01837 FWD- All claims unpatentable, Fed. Cir. 18-1933 Affirmed (US as Intervenor, Hospira settled)
6,121,428	x		x	x	x								
6,242,177	x		x	x	x								
6,331,415	x	x	x	x	x	x							
6,339,142	x	x	x		x	x	x						
6,407,213	x	x	x	x	x	x		x	x	x			
6,417,335	x	x	x	x	x	x							
6,489,447	x	x	x	x	x		<i>Pfizer &amp; Samsung Bioepis v. Genentech</i> IPR2017-00805 IPR2017-01959 (joined) FWD- No claims unpatentable, Fed. Cir. 19-1173 Settled	<i>Celltrion v. Genentech</i> IPR2017-01140 FWD- No claims unpatentable, Fed. Cir. 19-1259 Settled	<i>Hospira v. Genentech</i> IPR2017-00731 FWD- All claims unpatentable, Fed. Cir. 19-1263 Affirmed (US as Intervenor, Hospira settled)	<i>Celltrion &amp; Pfizer v. Genentech</i> IPR2017-01121 IPR2017-02063 (joined) FWD- All claims unpatentable, Fed. Cir. 19-1267 Affirmed (US as Intervenor, Other parties settled)			
6,586,206	x	x	x	x	x								
6,610,516	x	x	x		x	x							
6,620,918	x	x	x	x	x								
6,627,196	x	x	x	x	x	x					x	x	
6,716,602	x	x	x		x								
6,870,034				x							<i>Pfizer v. Genentech</i> IPR2018-00016 Institution denied	<i>Samsung Bioepis v. Genentech</i> IPR2018-00192 Institution denied	<i>Trustees of U of Penn. v. Genentech</i> 1:22-cv-00145 (D. Del.) Ongoing
7,371,379	x	x	x	x	x	x	x	x					
7,390,660	x	x	x		x	x							
7,449,184	x	x	x	x	x								
7,485,704	x	x	x		x	x							
7,501,122	x	x	x	x	x								
7,625,558													x
7,807,799	x	x	x		x	x							
7,846,441	x	x	x	x	x	x			x	x	x	x	

FWD = Final Written Decision

# Spotlight On: Trastuzumab

August 31, 2022

	<i>Genentech v. Pfizer</i> 1:17-cv-01672 (D. Del.)  Cont'd from above	<i>Celltrion v. Genentech</i> 4:18-cv-00274 (N.D. Cal.)  Cont'd from above	<i>Genentech v. Celltrion</i> 1:18-cv-00095 (D. Del.)  Cont'd from above	<i>Genentech v. Amgen</i> 1:18-cv-00924 (D. Del.)  Cont'd from above	<i>Genentech v. Celltrion</i> 1:18-cv-01025 (D. Del.)  Cont'd from above	<i>Genentech v. Samsung Bioepis</i> 1:18-cv-01363 (D. Del.) Cont'd from above	<i>Genentech v. Tanvex</i> 3:22-cv-00809 (S.D. Cal.) Ongoing	<i>Pfizer &amp; Samsung Bioepis v. Genentech</i> IPR2017-00737 IPR2017-01960 (joined) FWD- All claims unpatentable, Fed. Cir. 19-1265 Affirmed (US as Intervenor, Other parties settled)	<i>Pfizer v. Genentech</i> IPR2017-00739 Institution denied	<i>Celltrion v. Genentech</i> IPR2017-01122 FWD- All claims unpatentable, Fed. Cir. 19-1270 Affirmed (US as Intervenor, Celltrion settled)
7,892,549	x	x	x	x	x	x		x	x	x
7,923,221	x	x	x	x	x	x				
7,993,834	x	x	x	x	x	x				
8,044,017	x			x						
8,076,066	x	x	x	x	x	x				
8,314,225	x			x						
8,357,301		x	x	x	x					
8,425,908	x	x	x	x	x	x		<i>Pfizer v. Genentech</i> IPR2017-02020 Settled after institution; IPR2018-00331 Institution and joinder denied	<i>Celltrion v. Genentech</i> IPR2017-00959 Terminated before institution (claims cancelled)	<i>Pfizer v. Genentech</i> IPR2017-01726 IPR2017-01727 Institution denied (claims previously cancelled)
8,440,402	x	x	x	x	x	x				
8,460,895	x	x	x	x	x					
8,512,983	x	x	x	x	x	x				
8,574,869	x	x	x	x	x	x	x			
8,591,897								x	x	
8,633,302	x	x	x		x					
8,691,232	x	x	x	x	x					
8,710,196	x			x						
8,771,988	x	x	x	x	x					
8,822,655	x	x	x		x					
9,047,438		x	x	x	x					
9,080,183		x	x	x	x					
9,249,218	x	x	x	x	x	x		x		
9,428,548		x	x		x					
9,428,766	x	x	x	x	x					
9,487,809	x	x	x	x	x					
9,493,744	x			x						
9,714,293	x	x	x	x	x	x				
9,868,760				x						
10,160,811				x						
10,662,237							x			
10,808,037							x			