Brand vs. Brand Patent Battles Heat Up, Focus On Big Drug Classes

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Executive Summary

Patent brawl between Merck and Gilead involving Sovaldi and Harvoni was one of the marquee litigation events of 2016; a compilation of disputes between brand-name companies over the past six years shows how consequential they can be.
The Merck & Co. Inc. vs. Gilead Sciences Inc. litigation over hepatitis C treatment patents put a spotlight on the stakes involved when brand-name pharmaceutical companies go up against each other.

In December, a Delaware jury found that Gilead willfully infringed a Merck patent and awarded Merck damages of $2.45bn, a record-breaking verdict in an infringement case. And in a separate case earlier in the year, a California jury found Gilead’s Sovaldi (sofosbuvir) and Harvoni (ledipasvir/sofosbuvir) infringed two other patents and awarded Merck $200m. However, Merck lost the award when a judge subsequently found it had engaged in misconduct. Gilead is now seeking $15.5m in attorneys’ fees in the case.

While brand-name drug makers routinely fight generic companies over their patents, brand vs. brand disputes are far less frequent. According to the legal analytics arm Lex Machina, innovator drug makers filed 467 infringement suits in response to generic manufacturers’ abbreviated new drug application filings in 2015. (Also see “ANDA Litigation Soars In 2014-2015; Patent Office Petitions Also Jump” - Pink Sheet, 28 Apr, 2016.)

There are no similar statistics on the litigation between big pharma companies but a review of company SEC filings indicates that they are relatively infrequent compared to ANDA cases. They typically involve competitors in a lucrative drug class, from the recent litigation between makers of anti-PD-1 immunotherapies to the previous dispute between Pfizer Inc. and Eli Lilly & Co. over erectile dysfunction patents (see chart of select cases below).

Paul Ragusa, a partner at Baker Botts, said he has seen an increase in litigation between brand-name companies. He pointed to two factors for the uptick: consolidation in the industry and the patent cliff, the steep decline in revenues that occurs when patents on key products expire.

"Companies are looking at their IP portfolio and deciding how to best protect not only the portfolio protecting their product but the portfolio that may cover alternative methods of administration," Ragusa said.

**Different Kind Of Fight**

The litigation between brand-name firms is different from ANDA battles. One contrast is in timing. A brand company does not have to wait for a Paragraph IV notice to sue another brand company who commercializes an alternative (non-ANDA) product as it must do in disputes with generic manufacturers. Ragusa noted that there are also differences in how generic and brand companies budget litigation and pick their defenses.
For example, he said Teva Pharmaceutical Industries Ltd. files a lot of Paragraph IV notices certifying that its ANDAs do not infringe the innovator’s patents or that the patents are invalid and has a budget for handling the ensuing litigation. To meet that budget, the company may drop some infringement defenses along the way. But he said that may not be the case when two brand-name powerhouses go after each other.

The most common infringement defenses are that a company is not infringing, and that the brand’s patent is invalid based on prior art or because the patent’s specifications failed to meet requirements of Section 112 of the Patent Act, which include having a complete written description of the claimed invention and sufficient specificity.

Another distinction in brand litigation is the potential for settlements. While generic firms are open to settlement as it gives them a chance to launch the first generic, Ragusa said brand-name competitors are looking to market their own full-scale products so will go the distance.

The outcome though is uncertain. PricewaterhouseCoopers’ 2016 patent litigation study reported that the patent holder’s overall success rate (trial and summary judgment combined) for all industries from 1996-2015 was approximately 33%. Those in the biotech/pharma sector had a higher success rate of about 40%. The study did not specify if the litigation was between brand-name companies or included both brand-name and generic cases.

The report notes that the largest damages award – which was surpassed by the verdict for Merck – was the $1.67bn Johnson & Johnson’s Centocor Ortho Biotech unit received in its suit against Abbott Laboratories Inc. alleging infringement of its Humira (adalimumab) patent. The Federal Circuit overturned the verdict in 2011.

Sanofi/Regeneron Denied New Trial In PCSK9 Patent Fight

The headline cases naturally involve blockbuster products. In the Merck-Gilead dispute, Gilead’s two hepatitis C drugs had US sales of $25.4bn through August 2016. FDA approved Sovaldi in December 2013 and Harvoni in October 2014. Merck’s hepatitis C drug Zepatier (elbasvir/grazoprevir), approved in January 2016, had sales of $326m for the nine months ended Sept. 30.

In another major case, Amgen Inc. won a jury verdict in March that patents covering its PCSK9 inhibitor Repatha (evolocumab) are valid. Amgen filed suit against Sanofi and Regeneron Pharmaceuticals Inc. in October 2014 alleging that their anti-PCSK9 antibody Praluent (alirocumab) infringed Amgen patents. Repatha was approved in August 2015 and Praluent was approved in July 2015.

Prior to the trial Sanofi and Regeneron stipulated that they infringed the patents at issue. On Jan. 3, Delaware District Court Judge Sue Robinson issued orders denying Sanofi and Regeneron’s motions for judgment as a matter of law that the patent specification lacked written description of the invention and was not enabled and for a new trial.

In a memorandum opinion, Judge Robinson said “viewing the record in the light most favorable to plaintiffs, substantial evidence supports the jury’s verdict.”
Amgen has filed a motion for a permanent injunction which the judge has yet to rule on. Sanofi and Regeneron are appealing the jury verdict. Barclays analysts said in a Jan. 3 note that the judge could rule to remove Praluent from the market or allow the drug to remain and assign a royalty, either decision of which would likely be appealed. They said they expect Sanofi and Regeneron will ultimately pay Amgen some sort of royalty on sales.

In other ongoing litigation, Bristol-Myers Squibb Co. and Ono Pharmaceutical Co. Ltd. claim Merck’s anti-PD-1 immunotherapy Keytruda (pembrolizumab) infringes patents relating to Opdivo (nivolumab).

Brand-name battles are also likely to increase as more biosimilars come on the market. Biotech giants AbbVie Inc. and Amgen are in litigation over Amgen’s Amjevita (adalimumab-atto), a biosimilar to AbbVie’s Humira. AbbVie sued Amgen for infringement in August and FDA approved Amjevita in September. It is the first approved Humira biosimilar and the fourth biosimilar to clear the agency. (Also see "Amgen’s Amjevita Approved As First Biosimilar To AbbVie’s Humira” - Pink Sheet, 23 Sep, 2016.)

In another biosimilar case, Janssen Biotech Inc.’s suit against Celltrion Inc. and Pfizer unit Hospira Inc. remains ongoing after Pfizer launched Inflectra (infliximab-dyyb), a biosimilar to Janssen’s Remicade (infliximab), in the US in November. A jury trial is scheduled to begin on Feb. 13, 2017 to determine if Inflectra infringes Janssen’s cell culture media patent.

Given the battles of 2016, it seems likely that brand-name companies will be going into the ring against each other more frequently in the coming year.

### Brand vs. Brand Litigation

Below are some of the patent battles waged between brand-name pharma companies over the past six years.

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<thead>
<tr>
<th>Case</th>
<th>Dispute</th>
<th>Status</th>
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<tr>
<td>Idenix Pharmaceuticals LLC (Merck &amp; Co. Inc.) v. Gilead Sciences Inc.</td>
<td>Idenix filed suit against Gilead in December 2013 alleging Gilead’s hepatitis C drugs Sovaldi (sofosbuvir) and Harvoni (ledipasvir/sofosbuvir) infringe two patents. Claims asserted</td>
<td>In December, a Delaware jury found Gilead willfully infringed the patent and awarded Merck $2.45bn in damages. Judge is to decide if Gilead must pay a penalty for willful infringement and additional royalties on future sales of Sovaldi and Harvoni. Gilead is appealing to the Federal Circuit (Also see “Will $2.5Bn Jury Verdict Against Gilead“)</td>
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<td>Case</td>
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<td>Gilead Sciences Inc. v. Merck &amp; Co. Inc.</td>
<td>Gilead filed suit in August 2013 seeking a declaratory judgment that it does not infringe two other patents covering compounds and methods used to develop hepatitis C treatments. California jury found that Merck’s patents are valid and awarded the company damages of $200m. (Also see “Merck Gets $200m In Gilead Patent Case, But Who Wins?” - Scrip, 25 Mar, 2016.) A judge subsequently found that Merck engaged in misconduct, vanquishing the award. Gilead is seeking $15.5m in attorneys’ fees.</td>
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<td>AbbVie Inc. v. Amgen Inc.</td>
<td>AbbVie claims Amgen’s Humira (adalimumab) biosimilar infringes 10 patents. Complaint filed in August in Delaware District Court. (Also see “AbbVie v. Amgen Round One: Humira Biosimilar Infringes 10 Patents, Suit Claims” - Pink Sheet, 5 Aug, 2016.) Amgen filed counterclaims of non-infringement and invalidity.</td>
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| Janssen Biotech Inc. v. Celltrion Inc./Hospira (Pfizer Inc.) | Janssen filed suit claiming Celltrion/Pfizer’s Inflectra, a biosimilar to Remicade (infliximab), infringes several patents. Massachusetts district court judge ruled in August that a Janssen patent covering the infliximab antibody is invalid for obviousness-type double patenting. A jury trial is to begin in February 2017 to determine if Inflectra infringes a cell culture media patent. (Also see "How Risky Is Pfizer’s Launch Of Its..."
Bristol and Ono filed suit in September 2014 claiming Merck's marketing of Keytruda (pembrolizumab) will infringe patent No. 8,728,474 covering use of antibodies that bind to PD-1 to treat cancer. BMS used the invention to develop Opdivo (nivolumab).

In June 2015, Ono filed suits alleging infringement of two other patents (Nos. 9,067,999 and 9,073,994). In June 2016, Merck filed petitions for inter partes review challenging the validity of these patents.

In April 2016, Merck filed declaratory judgement action against BMS and Ono seeking a ruling that two other patents (Nos. 8,779,105 and 9,084,776) are invalid and/or not infringed by the sale of Keytruda. BMS and Ono filed a counterclaim of infringement in June.

Amgen Inc. v. Sanofi/Regeneron Pharmaceuticals Inc.

Amgen claims Sanofi's Praluent (alirocumab) infringes patents covering its PCSK9 inhibitor.

In March 2016 Delaware jury found Amgen's Repatha patents are valid. (Also see "Praluent Fate Uncertain After Amgen Wins PCSK9 Patent Battle" - Pink Sheet, 16 Mar, 2016.) On Jan. 3, district
<table>
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<th>Case Details</th>
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<tr>
<td>14-cv-01317, District of Delaware</td>
<td>Repatha (evolocumab). Both drugs were approved in 2015.</td>
<td>court judge denied Sanofi/Regeneron’s motions for a new trial and a judgement as a matter of law. Judge has yet to rule on Amgen’s motion for a permanent injunction.</td>
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<td>Merck Sharp &amp; Dohme Corp. v. Genentech Inc. and City of Hope</td>
<td>Merck filed complaint in July 2016 seeking declaratory judgement that patent No. 7,923,221 (the Cabilly III patent) is invalid and that Keytruda and Zinplava (bezlotoxumab) do not infringe it.</td>
<td>Roche’s Genentech unit and City of Hope filed a counterclaim for infringement. Merck filed two inter partes review petitions challenging the validity of claims in patent No. 6,331,415 (the Cabilly II patent). Patent Trial and Appeal Board denied institution of one petition and instituted review of the other petition and joined it with Mylan Pharmaceuticals Inc.’s IPR petition.</td>
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<td>AbbVie v. MedImmune LLC</td>
<td>AbbVie sought a declaratory judgement that a MedImmune patent covering Humira is invalid and it should thus no longer have to continue paying royalties on it.</td>
<td>The suit was filed in April 2016. (Also see “AbbVie As Patent Enemy: Suit vs. MedImmune Aims To Halt Humira Royalty” - Pink Sheet, 18 Apr, 2016.) The parties stipulated to dismissal of the suit in June.</td>
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<td>Sanofi-Aventis US LLC v. AstraZeneca Pharmaceuticals LP and Amylin Pharmaceuticals LLC</td>
<td>Sanofi filed complaint in July 2015 seeking declaratory judgement that its proposed GLP-1 agonist lixisenatide does not infringe three AstraZeneca patents and that the patents are invalid.</td>
<td>In July 2016 FDA approved Sanofi’s Adlyxin (lixisenatide) once-daily injection for type 2 diabetes and in October the parties agreed to dismiss all claims and counterclaims.</td>
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<td>Novartis Vaccines &amp; Diagnostics Inc. v. Pfizer Inc.</td>
<td>Novartis’ February 2015 complaint alleges Pfizer’s sale of its Trumenba (meningococcal group B vaccine) infringes six patents.</td>
<td>GlaxoSmithKline took over the litigation with its acquisition of Novartis’ vaccine business and filed an amended complaint in April 2015 asserting the same patents. It filed a second amended complaint in March 2016 asserting infringement of 12 patents.</td>
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<td>GlaxoSmithKline Biologicals SA v. Pfizer</td>
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<td>15-cv-01283, District of New Jersey</td>
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<td>16-cv-00221, District of Delaware</td>
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<td>Juno Therapeutics Inc. v. Novartis Pharmaceuticals Corp.</td>
<td>Patent and contract dispute over chimeric antigen receptor T-cell (CAR-T) technology was originally between St. Jude Children’s Research Hospital and University of Pennsylvania. Juno took over for its partner St. Jude and Novartis intervened on behalf of UPenn.</td>
<td>In April 2015, Novartis agreed to pay Juno an initial $12.5m plus future milestone payments and royalties. (Also see ”Juno-Novartis CAR-T Settlement Puts Focus Back In Clinic“ - Pink Sheet, 6 Apr, 2015.)</td>
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<tr>
<td>15-cv-01502, Eastern District of Pennsylvania</td>
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<td>Centocor Ortho Biotech Inc. v. Abbott Laboratories Inc.</td>
<td>J&amp;J unit alleged Abbott’s Humira infringed its patent claiming antibodies and antibody</td>
<td>In 2011, Federal Circuit overturned a $1.67bn jury verdict against Abbott, finding J&amp;J’s patent claims were invalid because they did not include an</td>
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<td>Ariad Pharmaceuticals Inc. v. Eli Lilly &amp; Co.</td>
<td>2008-1248, Federal Circuit</td>
<td>2010-1144, US Court of Appeals for the Federal Circuit</td>
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<tr>
<td>Amgen v. Roche</td>
<td>2008-1248, Federal Circuit</td>
<td>2010-1144, US Court of Appeals for the Federal Circuit</td>
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05-12237, District of Massachusetts

Epogen (epoetin alpha) and Aranesp (darbepoetin alfa).

mid-2014. (Also see "Roche Can Launch Mircera 10 Months Before Amgen's EPO Patent Expires" - Pink Sheet, 23 Dec, 2009.)
PINK SHEET
Will $2.5Bn Jury Verdict Against Gilead Stand? Future Royalties, Willful Infringement Penalty Uncertain
16 Dec 2016

PINK SHEET
How Risky Is Pfizer’s Launch Of Its Remicade Biosimilar?
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Amgen’s Amjevita Approved As First Biosimilar To AbbVie’s Humira
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16 Mar 2016

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Juno-Novartis CAR-T Settlement Puts Focus Back In Clinic
06 Apr 2015

PINK SHEET
Late-Stage Data Advantage Or Just Late To The Game: Bristol's Opdivo Approval Sets Off PD-1 Competition
05 Jan 2015

Topics

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Related Companies

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Gilead Sciences Inc.