Litigation Webinar

Biosimilars – 2019 Mid-Year Update

July 18, 2019

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Today's Topics

- Market Update
- Regulatory Update
- Legislation Update
- Litigation Update
- IPR Update

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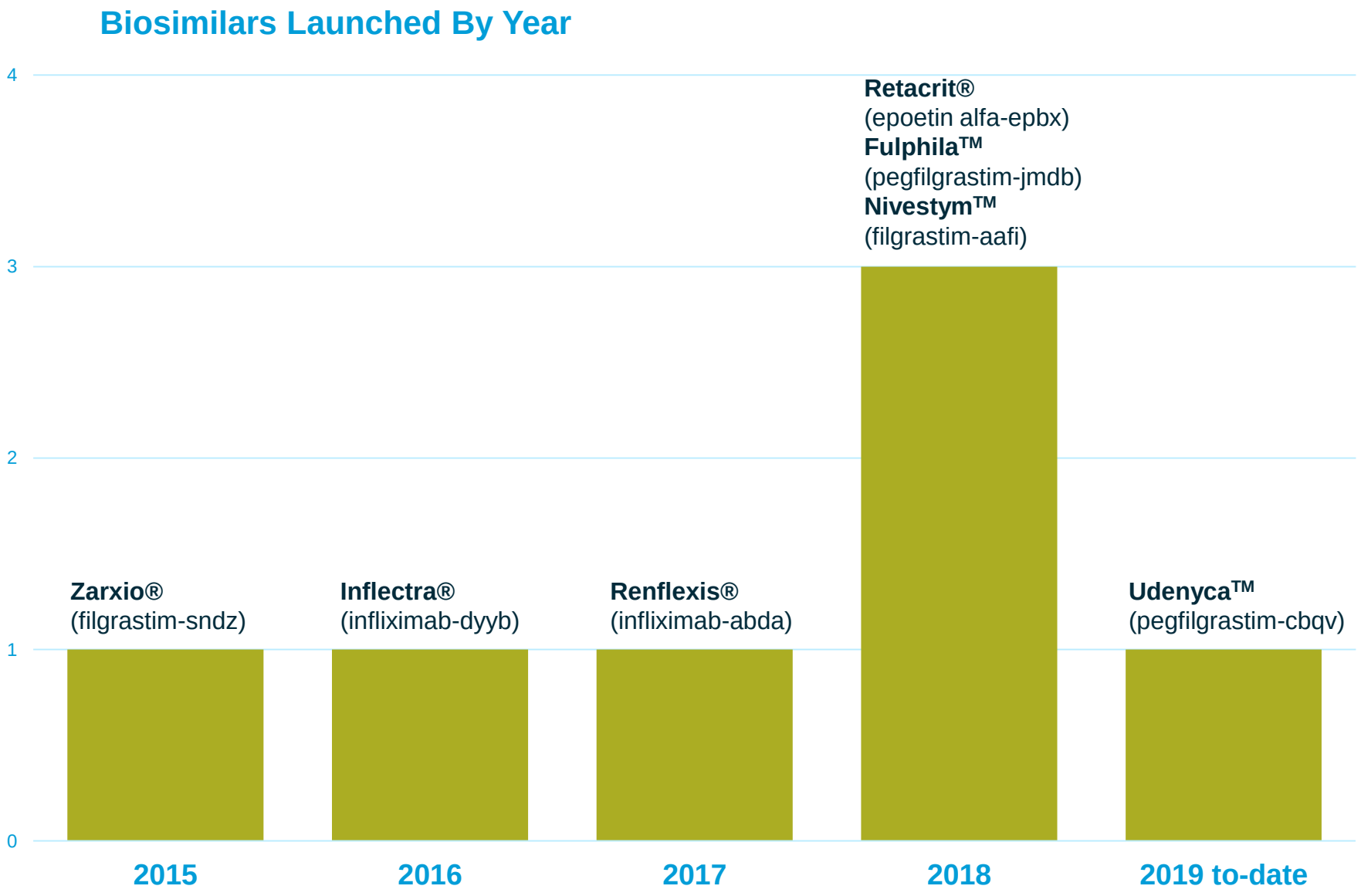
Biosimilars on the U.S. Market



Discount Off Wholesale Price at Launch

Biosimilar	Reference Product	Launch Date	% Discount off Wholesale at Launch
Zarxio®	Neupogen®	Sep 2015	15%
Inflectra®	Remicade®	Nov 2016	15%
Renflexis®	Remicade®	July 2017	35%
Retacrit®	Epogen®	Nov 2018	33.5%
Fulphila®	Neulasta®	Jul 2018	33%
Nivestym™	Neupogen®	Oct 2018	30.3%
Udenyca™	Neulasta®	Jan 2019	33%

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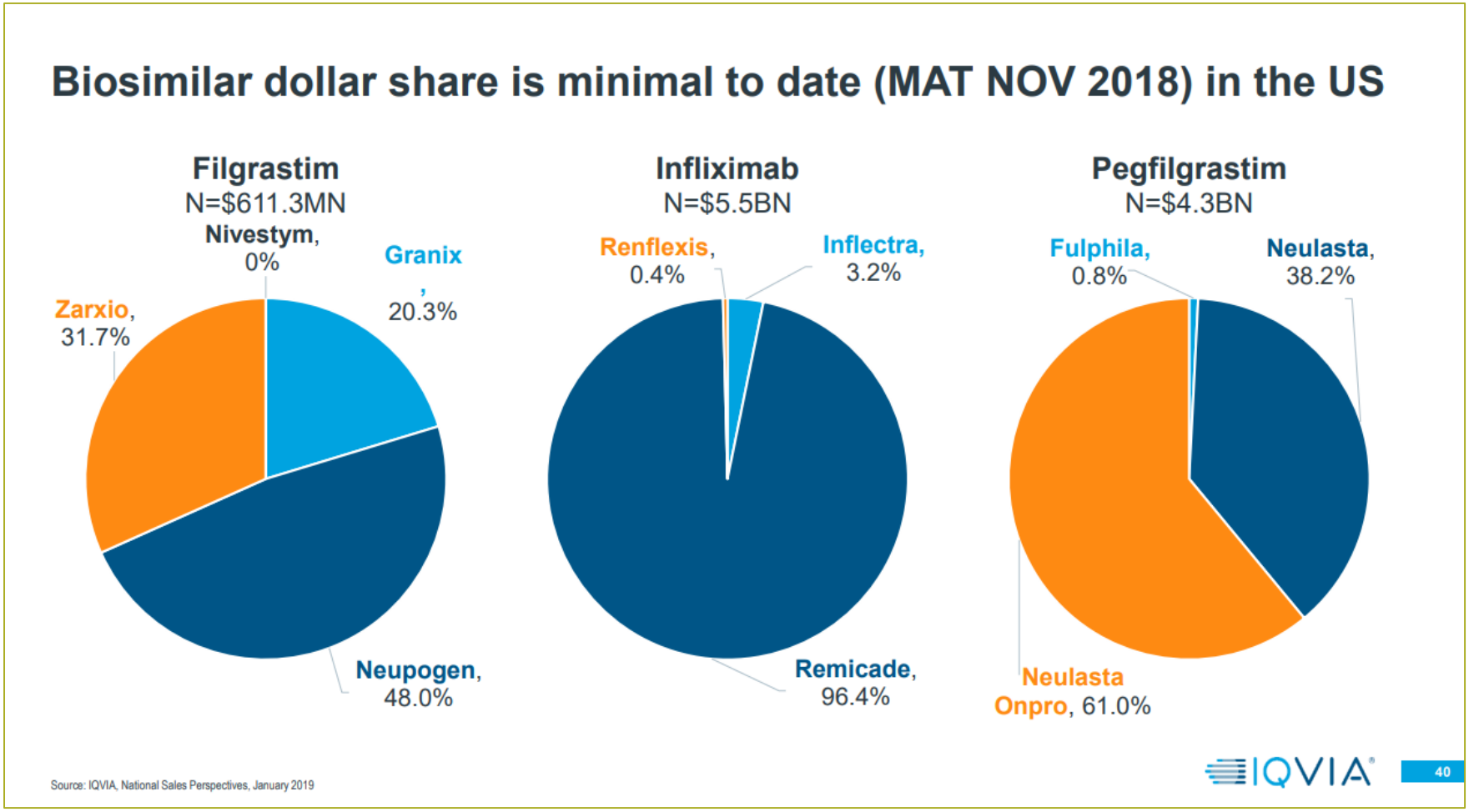
Biosimilar Market Share



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Source:https://www.accessiblemeds.org/sites/default/files/2019-02/Doug-Long-Access2019.pdf

Regulatory Update

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FDA Has Approved 21 Biosimilars

	Biosimilar	Biologic Reference Product	FDA Approval Date	Biosimilar Code
1	Zarxio (Sandoz)	Neupogen (Amgen)	March 2015	Filgrastim-sndz
2	Inflectra (Pfizer/Celltrion)	Remicade (Johnson & Johnson)	April 2016	Infliximab-dyyb
3	Erelzi (Sandoz)	Enbrel (Amgen)	August 2016	Etanercept-szzs
4	Amjevita (Amgen)	Humira (AbbVie)	September 2016	Adalimumab-atto
5	Renflexis (Samsung Bioepis/Merck)	Remicade (J&J)	April 2017	Infliximab-abda
6	Cyltezo / BI-695501 (BI)	Humira (AbbVie)	August 2017	Adalimumab-adbm
7	Mvasi (Amgen)	Avastin (Roche)	September 2017	Bevacizumab-awwb
8	Ogivri (Mylan)	Herceptin (Genentech/Roche)	December 2017	Trastuzumab-dkst
9	Ixifi (Pfizer)	Remicade (J&J)	December 2017	Infliximab-qbtx
10	Retacrit (Pfizer/Hospira)	Epogen/Procrit (Amgen/J&J)	May 2018	Epoetin alfa-epbx
11	Fulphila (Mylan/Biocon)	Neulasta (Amgen)	June 2018	Pegfilgrastim-jmdb
12	Nivestym (Pfizer)	Neupogen (Amgen)	July 2018	Filgrastim-aafi
13	Hyrimoz (Sandoz)	Humira (AbbVie)	November 2018	Adalimumab-adaz
14	Udencya / CHS-1701 (Coherus)	Neulasta (Amgen)	November 2018	Pegfilgrastim-cbqv
15	Truxima (Celltrion/Teva)	Rituxan (Roche/Genentech)	November 2018	Rituximab-abbs
16	Herzuma (Celltrion)	Herceptin (Genentech)	December 2018	Trastuzumab-pkrb
17	Ontruzant (Samsung Bioepis / Merck)	Herceptin (Genentech)	January 2019	Trastuzumab-dttb
18	Trazimera (Pfizer)	Herceptin (Genetech)	March 2019	Trastuzumab-qyyp
19	Eticovo (Samsung Bioepis)	Enbrel (Amgen)	April 2019	Etanercept-ykro
20	Kanjinti (Amgen)	Herceptin (Genentech)	June 2019	Trastuzumab-anns
21	Zirabev (Pfizer)	Avastin (Roche)	June 2019	Bevacizumab-bvzr

July 2018 “Biosimilars Action Plan”

The FDA will continue to play a critical role in facilitating increased access to biosimilars. The agency is taking steps to more efficiently manage our review and licensure pathways to facilitate biosimilar competition. We are modernizing our policies that govern the development of biosimilars to make it more efficient. We are also educating clinicians, payors and patients about biosimilar products and the rigorous evaluation they must go through. And, we are modernizing regulatory policies to accommodate new scientific tools that can better enable comparison between biosimilars and reference products that may reduce the need for clinical studies.

These actions will help create a more competitive market today, while creating greater incentives for sponsors to make the investments required to support future products that deliver greater benefits to patients and public health after statutory exclusivities have expired.

2019-To-Date BAP Deliverables

- **March 2019**
  - Nonproprietary Naming of Biological Products – Update; Draft Guidance
- **May 2019**
  - Biosimilar and Interchangeable Insulins; Part 15 Public Hearing
- **May 2019**
  - Considerations in Demonstrating Interchangeability with a Reference Product; Final Guidance
- **May 2019**
  - Development of Therapeutic Protein Biosimilars: Comparative Analytical Assessment and Other Quality-Related Considerations

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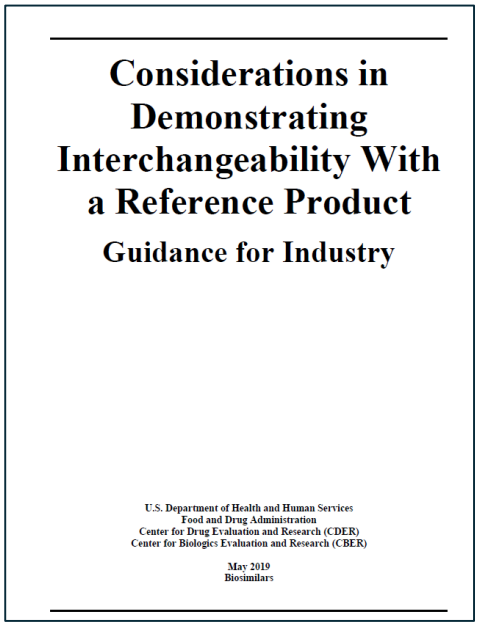
May 2019: Final Guidance re Interchangeability


Considerations in Demonstrating Interchangeability With a Reference Product

Guidance for Industry

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)
Center for Biologics Evaluation and Research (CBER)

May 2019
Biosimilars

- **Generally provides flexibility if interchangeable sponsor has a scientific justification**
- **Encourages meeting early and often with FDA**
- **Switching Studies:**
  - "Expects" switching studies for products administered more than once
  - Switching studies should evaluate 2 or more switches
  - Non-US-licensed products can be used in studies if interchangeable sponsor establishes a "bridge" to the US reference product
  - "Generally recommends" patients be used, but others can be used with a scientific justification
- **Indications:**
  - "Recommends" but does not require seeking licensure for all reference product's licensed conditions
  - No licensure for condition not approved for reference product

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FDA's Future BAP Deliverables

Looking Ahead: Biosimilars Action Plan

Anticipated deliverables include:

- Draft guidance providing clarity to biosimilar applicants who seek approval for fewer than all conditions of use for which a reference product is licensed
- Draft guidance on product presentations for interchangeable products
- Develop an enhanced version of the Purple Book for biological products
- Evaluate FDA's regulations regarding the submission and review of BLAs to ensure that they account for current practices and authorities
- Reference Product Exclusivity for Biological Products Filed Under Section 351(a) of the PHS Act; Final Guidance
- New communication materials to educate providers and patients about biosimilars

Joe Franklin
Policy Director for the Principal Deputy Commissioner, FDA

Pfizer's Citizen Petition – August 22, 2018

- "Just as there is a need for policies that support innovation, there is also a need for policies that ensure that patients and physicians have truthful and non-misleading information that encourages appropriate uptake of biosimilars so that biosimilars can reach their full potential for patients."
- Claims that many RPSs have issued misleading communications about biosimilars and asks FDA to issue guidance
  - **Example Tweet from Amgen: "Biologics or biosimilars? It's not apples to apples. While #biosimilars may be highly similar to their #biologic reference products, there's still a chance that patients may react differently . . . ."**

Industry & Groups Continue to Respond

- **Janssen's February 7, 2019 Comment:**
  - "[T]his does not mean, as Pfizer suggests, that the FDA has determined that every patient in every circumstance should be switched from a reference product to a biosimilar…. [J]ust because a product can be prescribed doesn't mean it necessarily should be prescribed."
  - "[S]ponsor communications that accurately reflect the differences between biosimilars and interchangeables … are entirely appropriate…"
  - Pfizer "blurs the line between biosimilarity and interchangeability."
- **BI's February 7, 2019 Comment:**
  - Supports Pfizer's Citizen Petition and other suggestions in other comments (e.g., from Novartis), such as "increased FDA collaboration with FTC to 'prevent injury and deception of the consumer'; correspondence from FDA to those organizations involved in the misinformation requesting immediate withdrawal of that information and the suspension of those campaigns" and more.
  - "Consumers need to be able to have confidence in all FDA approval decisions… irrespective of the regulatory pathway used."
  - "[W]e are now seeing a 'Precautionary Principle' panic reaction being actively fostered by some originator sponsors and their partners."
  - Expresses concerns that interchangeability is being broadcasted as a "better biosimilar" even though data shows "all biosimilars can be safely switched for a reference product."

FDA's February 15, 2019 Response

Lisa M. Skeens, Ph.D.
Vice President, Global Regulatory Affairs
Pfizer Essential Health
235 East 42nd Street
New York, NY 10017

FDA U.S. FOOD & DRUG ADMINISTRATION

Re: Docket No. FDA-2018-P-3281

FEB 15 2019

Dear Dr. Skeens:

I am writing to inform you that the Food and Drug Administration (FDA) has not yet resolved the issues raised in your citizen petition received on August 22, 2018. Your petition requests that FDA issue guidance to ensure truthful and non-misleading communications by sponsors concerning the safety and effectiveness of biosimilars, including interchangeable biologics, relative to the corresponding reference product.

FDA has been unable to reach a decision on your petition because it raises complex issues requiring extensive review and analysis by Agency officials. This interim response is provided in accordance with FDA regulations on citizen petitions (21 CFR 10.30(e)(2)). We will respond to your petition as soon as we have reached a decision on your request.

Sincerely,

Carol J. Bennett
Acting Director
Office of Regulatory Policy
Center for Drug Evaluation and Research

Other Pending Citizen's Petitions

- **Professor Sarfaraz K. Niazi filed a petition on March 9, 2019**
  - Requested changes to rules that "prevent damage to the reputation of biosimilars"
    - **FDA should "withdraw its naming guidance immediately, more particularly now that [as of March 7, 2019] it has been revised to exclude originator products, creating a definite doubt in the minds of prescribers and patients about the similarity of biosimilars to the reference products."**
      - Other tracking methods or a brand name is sufficient
    - **FDA should no longer use the double negative ("has no clinically meaningful differences") and should instead define biosimilars as "analytically and clinically similar" to a reference product**

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Legislation Update

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S.1416: Affordable Prescriptions for Patients Act of 2019

- **Sponsor: Sen. John Cornyn (R-TX)**
- **Introduced: May 9, 2019**
  - A bill to amend the Federal Trade Commission Act to prohibit anticompetitive behaviors by drug product manufacturers
  - Prima facie antitrust violation for product hopping and patent thicketing, unless manufacturer demonstrates by a preponderance of the evidence that the anticompetitive effects of the action do not outweigh the procompetitive effects of the action
  - Proposes limiting the number of patents (20) that can be asserted if a biosimilar complies with the patent dance provisions
    - **Patents must: claim the biological product or its use, patents that have actual filing date of more than 4 years after the date on which the reference product is approved or include a claim to a method in a manufacturing process that is not used by the reference product sponsor**

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S.659: Biologic Patent Transparency Act

- **Sponsor: Sen. Susan Collins (R-ME)**
- **Introduced: March 5, 2019**
  - Codifies the publication of FDA's "Purple Book" as a single, searchable list;
  - Requires additional information to be published in the "Purple Book," including:
    - **Patents that claim and relate to FDA-approved biological products, including composition patents, patents claiming methods of use, and patents claiming methods of manufacture;**
    - **Information related to biosimilarity and interchangeability;**
    - **Information related to exclusivities; and**
    - **Approved indications;**
  - Limits the enforceability of late-filed patents by the biologic manufacturer when a biosimilar application has already been filed with the FDA.

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H.R.1520: Purple Book Continuity Act of 2019

- **Sponsor: Rep. Anna Eshoo (D-CA)**
- **Introduced: March 5, 2019**
  - Notes:
    - **To amend the Public Health Service Act to provide for publication of a list of licensed biological products.**
    - **Intended to codify the publication of approved biological products in the Purple Book, in a similar format and with similar requirements to the Orange Book.**
      - The Purple Book would be published electronically on the FDA's website and updated routinely.
      - Directs the FDA to consider the types of patents that should be listed in the Purple Book.

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S.344: Hatch-Waxman Integrity Act of 2019

- **Sponsor: Sen. Thom Tillis (R-NC)**
- **Introduced: February 6, 2019**
- **Notes:**
  - Amendment to Federal Food, Drug, and Cosmetic Act and the Securities Exchange Act of 1934 to prevent the inter partes review process for challenging patents from diminishing competition in the pharmaceutical industry and with respect to drug innovation, and for other purposes.
    - **Limits availability of IPR for biosimilar manufacturers.**
  - Intended to restore a proper balance in the market so that companies will continue to develop treatments.
  - The same-named S. 3738 and H.R. 7251 were introduced in December 2018 but were not acted on before the 115th Congress ended.

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Other Legislative Proposals (Senate)

- S.1895: Lower Health Care Costs Act
- S.1681: Advancing Education on Biosimilars Act of 2019
- S.1617: Second Look at Drug Patents Act of 2019
- S.1224: Stop STALLING Act
- S.1140: Protecting Access to Biosimilars Act of 2019
- S.340: CREATES Act of 2019
- S.102: Prescription Drug Price Relief Act of 2019
- S.64: Preserve Access to Affordable Generics and Biosimilars Act
- S.__: The No Combination Drug Patents Act

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Other Legislative Proposals (House)

- H.R.2700 Lowering Prescription Drug Costs and Extending Community Health Centers and Other Public Health Priorities Act
- H.R.2375: Preserve Access to Affordable Generics and Biosimilars Act
- H.R.2374: Stop STALLING Act
- H.R.2011: Protecting Access to Biosimilars Act of 2019
- H.R.1499: Protecting Consumer Access to Generic Drugs Act of 2019
- H.R.1478: Affordable Insulin Act of 2019
- H.R.1332: Fair Care Act of 2019
- H.R.990: Hatch-Waxman Integrity Act of 2019
- H.R.985: FAST Generics Act of 2019
- H.R.965: CREATES Act of 2019
- H.R.447: Affordable and Safe Prescription Drug Importation Act

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Litigation Update

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New Biosimilar-Related Cases Filed in 2019

Parties	Case No.	Reference Biologic
Coherus v. Amgen	19-cv-139 (D. Del)	Humira®
Sandoz v. Amgen	19-cv-977 (N.D.Cal.)	Neulasta®
Genentech v. Immunex	19-cv-602 (D.Del.)	Avastin®
Genentech v. Pfizer	19-cv-638 (D.Del.)	Avastin®
Amgen/Immunex v. Samsung Bioepis	19-cv-11755 (D.N.J.)	Enbrel®

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First Biosimilar v. Biosimilar Litigation

- ***Coherus v. Amgen* (19-cv-139, D. Del. - filed Jan. 24, 2019)**
  - Both Coherus and Amgen are developing Humira® (adalimumab) biosimilars
  - Coherus filed a complaint against Amgen asserting several adalimumab formulation patents
  - Coherus alleges infringement based on Amgen "actively offering for sale and selling Amgevita™ throughout Europe" and "actively manufacturing Amgevita™ in the United States for sale in Europe."
    - Amgen launched Amgevita™ (its Humira® biosimilar) in Europe in October 2018
    - Per settlements with AbbVie, neither party can launch in the U.S. prior to 2023
  - Jury trial set for March 2021

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Sandoz v. Amgen – Declaratory Judgment

- ***Sandoz v. Amgen* (19-cv-977, N.D. Cal. – filed Feb. 21, 2019)**
  - Related to Sandoz's biosimilars of Amgen's Neupogen® and Neulasta®
    - Sandoz's Zarxio is on the market
    - Sandoz's pegfilgrastim biosimilar is not yet FDA-approved, but Sandoz provided Notice of Commercial Marketing on 2/21/2019
  - Sandoz sought DJ of non-infringement and invalidity of U.S. Patent 9,643,997, issued May 9, 2017
    - Amgen had notified Sandoz of the patent when it issued and said it could be reasonably asserted
    - But Amgen did not amend its claim in the previous litigations to include the '997 patent
  - Sandoz argued "[t]he same parties litigated patent infringement claims in this District regarding the same patent family, the same products and the same accused purification processes…."
  - Final judgment in favor of Sandoz was entered in the prior suits on January 8, 2018
  - Sandoz sought "to ensure that any issues … are resolved promptly, efficiently, and well in advance of the launch of Sandoz's pegfilgrastim product."

Previous Lessons on Declaratory Judgment

In prior cases, district courts did not allow biosimilars to bring DJ actions in the middle of the patent dance, even after giving notice of commercial marketing

- *Amgen v. Genentech* (C.D. Cal., Jan. 11, 2018 and Feb. 2, 2018):
  - **"Allowing an applicant to side-step the BPCIA's exchange and negotiation requirements and bring suit on any patent simply by filing its notice of commercial marketing would effectively vitiate the BPCIA's provisions"**
- *Celltrion v. Genentech* (N.D. Cal., May 9, 2018)
  - **Celltrion "fails to state a claim for relief … Because Celltrion did not complete its obligations under Section (*l*)(5), Celltrion may not file actions for declaratory judgment with respect to the patents at issue."**
  - **Celltrion may not "satisfy several steps [of the BPCIA dance] at once" by saying it "'wished' to litigate all listed patents" on the 3(A) list.**
  - **Notice of commercial marketing did raise the declaratory judgment bar where Celltrion did not complete the dance**
  - **Appeal dismissed due to settlement**

Sandoz v. Amgen - Declaratory Judgment

- **April 24, 2019 - Amgen moved to dismiss under 12(b)(6)**
  - Argued Sandoz was barred under the BPCIA section (*l*)(9) from bringing a DJ action, and neither notice of commercial marketing, *nor actual marketing,* lifts the statutory bar to DJ
  - Argued court should decline to exercise its discretion to entertain the DJ action given Sandoz's failures to comply with BPCIA and the fact that the patent is already being litigated in three other cases against other defendants in other jurisdictions
- **May 8, 2019** – court granted parties' joint request to extend MTD briefing schedule to account for the newly issued CAFC affirmance of non-infringement in related cases
- **May 13, 2019** – Sandoz voluntarily dismissed the case

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Genentech v. Immunex – New Patent Dances

- ***Genentech v. Immunex* (19-cv-602, D. Del. – filed Mar. 29, 2019)**
  - Related to Immunex/Amgen's Mvasi biosimilar of Genentech's Avastin®
    - **Redacted complaint asserts numerous patents at issue in another pending case between the parties, but adds two additional patents**
  - May 13, 2019: Immunex filed a motion to dismiss the entire complaint
    - **Immunex argues, *inter alia*, that the two new patents should have been added to the already-pending case, and this new suit is just an attempt to side-step the deadlines and good cause requirements in the previous case.**
  - June 17, 2019: Genentech opposed motion to dismiss
    - **Genentech takes the position that Immunex's supplemental aBLA filing kicks off another patent dance (and lawsuit) under the statute**
    - **"This dispute raises a statutory construction question of first impression: does an 'application' in 42 U.S.C. § 262(*l*), unmodified by any adjective, include the type of filing known as a supplemental biologics license application?"**

Genentech v. Pfizer – Striking Counterclaims/ Defenses

- ***Genentech v. Pfizer* (19-cv-638, D. Del. – filed April 5, 2019)**
  - Genentech asserted 22 patents against Pfizer's Avastin® biosimilar
  - May 20, 2019: Genentech moved to dismiss counterclaims and affirmative defenses
    - **Declaratory judgment counterclaims are "actions" barred by BPCIA because Pfizer failed to fully comply with Section (2)(A) of the patent dance (e.g., failed to produce entire aBLA)**
    - **DJ counterclaims and affirmative defenses of invalidity and unenforceability are "facially deficient" because they allege grounds broader than those disclosed during dance (e.g., providing contentions for patents that Pfizer did not include in (3)(B) contentions)**
  - June 3, 2019: Pfizer opposition to motion to dismiss
    - **Pfizer complied with (2)(A) – and anyway the BPCIA does not preclude counterclaims for declaratory relief**
    - **"[T]he BPCIA does not limit Pfizer to only the legal theories in its detailed statement pursuant to § 262(*l*)(3)(B)"**

Pending District Court BPCIA Litigation

Parties	Case No.	Reference	Current Status
Immunex v. Sandoz	16-cv-01118 D.N.J.	Enbrel®	Waiting on opinion re invalidity following bench trial
Janssen v. HyClone Labs	16-cv-00071 D. Utah	Remicade®	Stayed pending outcome of Celltrion case in D.Mass., now on appeal
Amgen v. Mylan	17-cv-01235 W.D. Pa.	Neulasta®	Deadlines stayed until August 14, 2019 in light of appeals in *Amgen v.* Sandoz and *Amgen v. Coherus*.
Genentech v. Amgen	17-cv-01407 D. Del. 17-cv-01471 D. Del.	Avastin®	Fact discovery ongoing; trial set for July 2020
Amgen v. Kashiv (previously Adello)	18-cv-03347 D.N.J.	Neupogen®	Fact discovery ongoing; claim construction ongoing
Genentech v. Amgen	18-cv-00924 D. Del.	Herceptin®	Fact discovery ending/expert discovery starting; claim construction ongoing; recent PI/TRO filed under seal
Amgen v. Hospira and Pfizer	18-cv-01064 D. Del.	Neupogen®	Fact discovery ongoing; claim construction ongoing.
Amgen v. Apotex	18-cv-61828 S.D. Fla.	Neupogen®/ Neulasta®	Fact discovery ongoing
Genentech v. Immunex	19-cv-00602 D. Del.	Avastin®	Motion to dismiss pending; recent PI/TRO filed under seal
Genentech v. Pfizer	19-cv-00638 D. Del.	Avastin®	Genentech's motion to dismiss pending.
Immunex v. Samsung Bioepis	19-cv-11755	ENBREL®	Awaiting answer; pending motion to intervene by Sandoz

BPCIA Litigation at the Federal Circuit

Case	Status
Amgen v. Sandoz (18-1551, 1552)	Pending petition for rehearing *en Banc*
Amgen v. Coherus (18-1993)	Oral argument held
Janssen v. Celltrion (18-2321, 2350)	Briefs filed, no oral argument date
Amgen v. Hospira (19-1067)	Briefs filed, no oral argument date

Amgen v. Sandoz

- **District Court case (N.D. Cal. 14-cv-04741, 16-cv-2581)**
  - Amgen asserted U.S. Patent Nos. 8,940,878 and 6,162,427 were infringed by Sandoz's biosimilars of Neupogen® (filgrastim) and Neulasta® (pegfilgrastim).
  - After claim construction, Amgen and Sandoz stipulated to non-infringement of the '427 Patent.
  - In December 2017, the Northern District of California granted summary judgement of non-infringement regarding the '878 Patent because the asserted protein purification method required separate washing and eluting steps, but Sandoz's process involved a single, simultaneous washing and eluting step.
  - The court also denied Amgen's Rule 56(d) motion to deny or continue the motion for summary judgment until Sandoz submitted its intended new purification method to FDA, since the revised method would not materially change the infringement analysis.

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Amgen v. Sandoz

- **Federal Circuit (CAFC 2018-1551, 1552) (Opinion May 8, 2019)**
  - Amgen appealed claim construction and non-infringement, as well as whether the district court properly denied Amgen's motion for additional discovery pursuant to Rule 56(d), in light of the fact that Sandoz was going to change the resin in its manufacturing process
  - **May 8, 2019: Federal Circuit affirmed lower court ruling**
    - With respect to 56(d), court analogized to Hatch-Waxman setting –
      - Court needs to determine whether "what is likely to be sold" will infringe
      - "[W]hile a district court cannot ignore amendments to an ANDA or aBLA … it also has a broad mandate to render a 'just, speedy, and inexpensive decision.'"
    - Here, denying Amgen's Rule 56(d) motion was proper
      - For the anticipated pegfilgrastim product, "Amgen has conceded that, under the claim construction we have affirmed, there is no genuine dispute that the process Sandoz will likely use … will not infringe…"
      - For Zarxio, the analysis is for the product actually sold
    - "[I]f the facts change" then Amgen can plead infringement in the future

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Amgen v. Sandoz

- **Federal Circuit (CAFC 2018-1551, 1552)**
  - June 7, 2019: Amgen petitioned for rehearing en banc
    - **"Amgen respectfully submits that *en banc* review is warranted because a panel of this Court has established a bright-line rule that 'the doctrine of equivalents applies only in exceptional cases,' which it then applied to 'accordingly' find that the district court was correct to grant summary judgment of no infringement under the doctrine of equivalents."**
    - **Panel did not define "exceptional"**
    - **Such a rule is contrary to Supreme Court precedent and its retroactive application "in many cases may destroy the value of existing patent claims."**
    - **"Under the correct standard for proving infringement under the doctrine of equivalents, the district court's grant of summary judgment should be reversed."**
  - July 29, 2019: Sandoz's deadline to respond to petition for rehearing *en banc*

Janssen v. Celltrion

- **District Court (17-cv-11008, D. Mass.)**
  - Janssen alleged that the cell culture media used by Celltrion to produce its Remicade® biosimilar infringes U.S. Patent No. 7,598,083 (the "'083 Patent") under the doctrine of equivalents.
    - DOE theory accounted for "at least twelve differences in concentration" in the claimed cell media component ranges
  - In July 2018, Judge Wolf of the District of Massachusetts granted Celltrion's motion for summary judgment of non-infringement.
    - 104-page opinion on ensnarement

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Janssen v. Celltrion

- **Federal Circuit (CAFC 18-2321, 2350)**
  - Janssen filed its opening brief on December 10, 2018, arguing the district court erred by
    - **(1) impermissibly using hindsight to find that a hypothetical claim covering Celltrion's cell culture medium would have been obvious;**
    - **(2) failing to find Celltrion's arguments regarding ensnarement legally baseless where Celltrion failed to offer any motivation to choose and modify the prior art references; and**
    - **(3) failing to draw reasonable inferences in Janssen's favor (e.g., teaching away from using ferric ammonium citrate and evidence of copying) in its summary judgment analysis.**
  - Celltrion responded and cross-appealed on February 11, 2019, arguing
    - **Janssen does not have standing because not all co-owners of the '083 patent were joined as plaintiffs – assignments for many of the inventors assigned to more than just Janssen.**
  - Briefing completed, no oral argument date set.

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Amgen v. Coherus

- **District Court (17-cv-546, D.Del.)**
  - In March 2018, D. Del. granted Coherus's motion to dismiss Amgen's complaint over Coherus's Neulasta® (pegfilgrastim) biosimilar.
    - **The court found that Coherus's protein purification process differed from the process claimed in Amgen's asserted patent and Amgen was barred by prosecution history estoppel from asserting infringement under the doctrine of equivalents. Amgen thus failed to state a claim for patent infringement.**
- **Federal Circuit (CAFC 18-1993)**
  - Amgen's appeal centers around two issues:
    (1) whether dismissal of Amgen's complaint based on prosecution history estoppel was proper, and
    (2) whether dismissal of Amgen's complaint based on disclosure-dedication doctrine was proper.
  - Oral Argument held May 8, 2019.

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Amgen v. Hospira

- **District Court Case (15-cv-839, D. Del.)**
  - In September 2017, a jury awarded Amgen $70 million in reasonable royalty damages based on Hospira's infringement of U.S. Patent No. 5,856,298 (the "'298 Patent") in relation to a biosimilar of Amgen's Epogen® (epoetin alfa).
    - **First BPCIA Damages award**
    - **Patent was expired by time of trial**
    - **The biosimilar was neither approved nor launched**
    - **Damages awarded for "stockpiling" batches not covered by safe harbor of 35 U.S.C. § 271(e)**
  - The jury also found that Hospira did not infringe U.S. Patent No. 5,756,349 (the "'349 Patent").
  - In ruling on post-trial motions, Judge Andrews of the District of Delaware upheld the jury verdict.

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Amgen v. Hospira

- **Federal Circuit (CAFC 19-1067 and 19-1102)**
  - Hospira's appeal
    - **Whether the court/jury were correct on claim construction, infringement, and validity of the '298 patent**
    - **Whether the court incorrectly instructed the jury on Hospira's subjective intent for purposes of the safe harbor rather than objectively reasonable uses of the batches**
    - **Whether a reasonable jury correctly determined the batches were not covered by the safe harbor**
    - **Whether the court erred in allowing the jury to consider a damages position from Plaintiffs' damages expert that "goes well beyond what was adequate to compensate for infringement … and was not tied to any damages suffered by Amgen, but sought $170 million in damages for two expired patents, although Hospira made no sales"**
  - Amgen's cross-appeal
    - **Whether JMOL of non-infringement of the '349 patent was proper**
    - **Whether the court properly denied a new trial motion on the '349 patent**
  - Briefing complete, awaiting oral argument.

Biosimilar Antitrust Litigation - Infliximab

- ***Pfizer v. Johnson & Johnson and Janssen*** **(No. 17-cv-04180, E.D.Pa)**
  - Alleged J&J and Janssen maintained their Remicade® (infliximab) market share through a multifaceted scheme of "exclusionary contracts that foreclose Pfizer's access to an overwhelming share of consumers, coupled with anticompetitive bundling and coercive rebate policies designed to block both insurers from reimbursing, and hospitals and clinics from purchasing, Inflectra or other biosimilars of Remicade despite their lower pricing."
  - J&J's motion to dismiss denied
  - Document production deadline September 2019, to be followed by over 140 depositions
- ***In re Remicade (Direct Purchaser) Antitrust Litigation*** **(No. 18-cv-00303, E.D.Pa.)**
- ***In re Remicade (Indirect Purchaser) Antitrust Litigation*** **(No. 17-cv-04326, E.D.Pa.)**
- ***Walgreen Co. and The Kroger Co. v. Johnson & Johnson, et al.*** **(No. 18-cv-02357, E.D.Pa) –** On Appeal

Biosimilar Antitrust Litigation - Adalimumab

- ***In re: Humira (Adalimumab) Antitrust Litigation* (1:19-cv-1873, N.D.Ill.)**
  - First case filed March 18, 2019
  - Since then, the court has consolidated for pretrial purposes more than 10 different class action suits filed on behalf of end-payers against AbbVie and parties that settled with AbbVie re Humira®
  - Numerous theories:
    - **Patent thickets**
    - **Pay-for-delay settlements**
  - Numerous counts – federal and state claims
  - Interim class counsel appointed June 11, 2019
  - Status report filed July 12, 2019
    - **Proposed deadline of Aug 9 for consolidated complaint**
    - **Proposed deadline of Oct 11 for motions to dismiss**
    - **Parties dispute whether discovery should be stayed pending motion to dismiss**

AbbVie's Humira® Biosimilar Settlements

Manufacturer	Date of Settlement	Date of U.S. Entry	Date of European Union Entry	Associated U.S. BPCIA Litigation
Amgen (Amjevita™)	September 2017	01/31/2023	10/16/2018	(16-cv-666, D. Del.)
Samsung Bioepis (Imraldi™)	April 2018	06/30/2023	10/16/2018	
Mylan (Hulio™)	July 2018	07/31/2023	N/A	
Sandoz (Hyrimoz™)	October 2018	09/30/2023	10/16/2018	(18-cv-12668, D.N.J)
Fresenius Kabi (MSB11022)	October 2018	09/30/2023	Date of approval from European Medicines Agency	
Momenta (M923)	November 2018	11/20/2023	Date of approval from European Medicines Agency	
Pfizer (PF-06410293)	November 2018	11/20/2023	Date of approval from European Medicines Agency	
Coherus (CHS-1420)	March 2019	12/15/2023	N/A	
BI (Cyltezo™)	May 2019	7/1/2023	N/A	(17-cv-1065, D. Del.)

IPR Update

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AbbVie v. U.S. – Constitutionality of IPRs

- ***AbbVie v. U.S.* (Lead case: CAFC 17-2304)**
  - Coherus and BI invalidated three AbbVie Patents re Humira® in five IPRs
  - AbbVie appealed
    - **Challenged obviousness findings on various grounds**
    - **Challenged "[w]hether the Board's decisions are unconstitutional under Article III and the Seventh Amendment"**
      - AbbVie's reply brief specifies that it is challenging "retroactive application of IPR" to pre-AIA patents
  - Coherus and BI have since settled, but the USPTO intervened to defend the Board's decisions
  - The U.S. intervened to address AbbVie's constitutionality challenges
  - USPTO and U.S.'s revised briefs are due in August 2019; AbbVie's replacement reply due 14 days later

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Genentech v. Hospira – Constitutionality of IPRs

- ***Genentech v. Hospira* (CAFC 18-1959)**
  - Genentech appealed the PTAB's invalidation of U.S. 7,622,115 to Avastin®
  - Genentech also raised a constitutional challenge to retroactive application of IPR to patents issued before the AIA – unconstitutional taking
  - Oral arguments were held July 11, 2019

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Thank You!

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