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Opening Remarks

Dr. Robert M. Califf, Commissioner, Food and Drugs Administration

Katherine K. Vidal, Undersecretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

Testimony by:

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Introduction

Commissioner Califf, Director Vidal, my name is Azeen James and I am Vice President, Chief IP Counsel, Biosimilars US at Fresenius Kabi. Fresenius Kabi is a health care company that specialize in bringing affordable medicines to patients with critical and chronic conditions, including sterile injectable generics and biosimilars. I appreciate the opportunity to participate in today's listening session.

Fresenius Kabi is encouraged by the PTO's October 4th request for comment and enthusiastically supports the terminal disclaimer proposal detailed within. Consequently, we believe that patents, tied together with terminal disclaimers (and therefore deemed non-patentably distinct from each other) should rise and fall together in patent challenges.

Peer-review data shows that branded drug companies are increasingly using "patent thickets," to delay generic and biosimilar market entry. We support the proposal, detailed in

the PTO's request for comment, that requires a patent application, granted with a terminal disclaimer, to stipulate that the claims are not patentably distinct from the previously granted claims to which they are obvious variations. This reform strikes the right balance by promoting new innovations and fostering competition. Director Vidal, we thank you for exploring these thoughtful proposals and we look forward to submitting our comments ahead of the February deadline.

Turning to the topic of USPTO/FDA coordination, I will focus on a tactic, commonly used by brand drug companies, to keep lower cost generic and biosimilar products off the market. Simply put, brand companies are inappropriately extending product patent protection for biologics by staggering claims on specific technical features of the same drug to later and later. The practice in question involves two steps.

Firstly, a principal patent is filed on the "backbone" of the drug's structure, i.e. the peptide sequence or a Markush claim to the chemical structure. Secondly, an ancillary patent is filed sometime later than the principal patent that claims other necessary structural features of the same drug. Features claimed in the ancillary patent may include properties such as the glycan profile, charge profile, variants profile, impurity profile, immunochemical properties, and functional activities. Patent examiners often mis-characterize or fail to recognize the value of the principal structure prior art against the ancillary structure patent claims.

Secondly, an ancillary patent is filed sometime later than the principal patent that claims other necessary structural features of the same drug. Features claimed in the ancillary patent may include properties such as the glycan profile, charge profile, variants profile, impurity profile, immunochemical properties, and functional activities. Patent examiners often mis-characterize or fail to recognize the value of the principal structure prior art against the ancillary structure patent claims.

The difference between the filing dates (and the subsequent expiry dates) of the principal drug patent versus the ancillary drug structure patent enables patent owners to put an early stick in the sand (using the principal patent) and to inappropriately prolong their

monopoly (using the ancillary patent) over the *same* drug. When pursuing this opportunistic strategy, the patent owner necessarily holds back information about the ancillary features of the drug's structure when first filing the patent on the drug's backbone structure.

However, despite the fact that patent applicants can withhold information regarding technical features of a drug's structure from the USPTO, they are required to disclose the same technical feature information about the drug to the FDA at the time they file for approval for the drug. This information is held as confidential by the FDA, so it is not publicly available for the patent examiners to access during the examination.

Some examples of drugs for which this type of gamesmanship has been done are:

Branded Drug name	**Principal patent claiming the primary "backbone" structure of the drug**	**Ancillary patent claiming other structural requirements of the same drug**
Herceptin®	US6407213 Filed on June 14, 1991 Claims the drug's peptide sequence	US6339142 Filed on May 3rd, 1999 Claims the drug's acidic profile
Actemra®	US5795965 Filed on April 24, 1992 Claims the drug's peptide sequence	US8398980 Filed on March 24, 2005 Claims the drug's C-terminal structure
Actemra®	See row above	US11021728 Filed on October 25, 2010

		Claims the drug's glycosylation profile
Humira®	US6090382 Filed on February 9, 1996 Claims the drug's peptide sequence	US8231876 Filed on April 4, 2007 Claims the drug's purity level (host cell protein level)
Perjeta®	US7862817 Filed on June 23, 2003 Claims the drug's peptide sequence	US8652474 Filed on January 28, 2009 Claims the drug's acidic/basic profile
Keytruda®	US8354509 Filed on June 13, 2008 Claims the drug's peptide sequence	US2022251205 (publication number) Filed on January 27, 2022 Claims the drug's oxidation level

Solutions:

a) The USPTO can facilitate patent examiner access and understanding of prior art against ancillary drug structure patents by (i) encouraging patent examiners to source prior art on the drug's principal structure and assess its relevance against ancillary structure claims; and (ii) enabling examiners to coordinate with the Food and Drug Administration (FDA) to seek disclosures and evidence as to whether the ancillary structure claims are anticipated or obvious over the principal structure prior art.

- Sources of prior art against ancillary structure pharmaceutical patents:

- List of applications for patent terms extensions (PTE) and PTEs granted under 35 U.S.C. § 156[1]
- Drug Bank Database[2]
- Commercial Database: IPD analytics[3]
- FDA guidance documents, e.g., relating to regulatory requirements on drug purification, expected glycan profiles etc.

- Proposal for coordination between the USPTO and FDA. The FDA should be available to:
  - answer questions from examiners regarding the technical details of the subject matter of the pharmaceutical invention;
  - provide FDA guidance documents that can serve as prior art (e.g., requirements for certain ancillary structures, drug purity etc.);
  - conduct research on special problems or questions for the USPTO; and
  - provide relevant extracts from the drug regulatory dossier (NDS, BLA).
  - With respect to point 4, this information could be provided to the USPTO by the FDA or, alternatively, the USPTO could require applicants to disclose this information on an IDS.

b) Drug regulatory dossiers typically consist of hundreds of thousands of pages. To avoid placing undue burden on USPTO examiners, the FDA or the patent applicant should be required to select the relevant extracts from the dossier that pertain to the claimed ancillary structural features, e.g. the drug's glycan profile. The USPTO examiner could use these extracts to help color the applicant's understanding of its own invention. For example, the extracts from the drug regulatory dossier may include data and statements from the applicant which demonstrate that the

[1] https://www.uspto.gov/patents/laws/patent-term-extension/patent-terms-extended-under-35-usc-156
[2] https://go.drugbank.com/unearth/advanced/drugs
[3] https://www.ipdanalytics.com/

ancillary structural feature has no effect on drug efficacy or drug safety. Such information may pertain to the obviousness of the claimed ancillary invention.

c) As well as providing extracts from the dossier that pertain to the claimed ancillary structural features, the FDA, or the patent applicant, should also provide the USPTO with a product development report. This report is relatively short and is a key component of all drug regulatory dossiers. The product development report contains information that will likely assist the USPTO examiner in characterizing whether the ancillary structural features are obvious versus any alleged secondary considerations.

d) To reduce the burden on the FDA, any agency coordination could be limited to those drugs that already have FDA approval. This would substantially reduce the number of patents that would be eligible for FDA input and would focus the FDA's support on high-value patents only. The agency coordination could be further limited to those patents that claim ancillary structural features, i.e. properties such as the glycan profile, charge profile, variants profile, impurity profile, immunochemical properties, and functional activities etc.

e) The onus should not only be on the agencies but should also be shared with patent applicants. Patent applicants should be required to stipulate to the USPTO that they have not made any statement to the FDA that is inconsistent with the statement they are making to the USPTO. There should also be a requirement for the patent applicant to name an individual who has ensured consistency between statements made to the FDA and statements made to the USPTO. Currently, some patent applicants defend against inequitable conduct claims during patent litigation by keeping the statements made by inventors and patent attorneys isolated from colleagues who work in regulatory affairs and vice versa. This can be addressed by a requirement to certify that an individual has coordinated the statements made by both functions to the two agencies.

In sum, we applaud you for your attention to these critical issues and urge your respective agencies to take action to address the root cause of high drug costs. Thank you again for the opportunity to speak on behalf of my company, and on behalf of patients who will benefit from access to affordable and essential medicines.

Respectfully submitted,

Azeen James
Vice President, Chief IP Counsel, Biosimilars US