Comment of the Staff of the Federal Trade Commission¹

Submitted to the Food and Drug Administration Department of Health and Human Services

In Response to a Request for Comments on Its Guidance for Industry on the "Nonproprietary Naming of Biological Products; Draft Guidance for Industry; Availability"

[Docket No. FDA-2013-D-1543]²

80 Fed. Reg. 52296 (Aug. 28, 2015)

Submitted on October 27, 2015

I. INTRODUCTION AND SUMMARY

The staff of the Federal Trade Commission's Office of Policy Planning, Bureau of Economics, and Bureau of Competition ("FTC staff") appreciates the opportunity to respond to the Food and Drug Administration's ("FDA") Request for Comments on its "Nonproprietary Naming of Biological Products: Guidance for Industry." As the FDA has noted, the "nonproprietary name" of a pharmaceutical identifies its active ingredient, also known as its drug substance. A Nonproprietary names appear on each drug's FDA-approved label and in the databases used both by physicians when prescribing, and by pharmacists when fulfilling orders for, recording, and dispensing, each pharmaceutical.

¹ This comment represents the views of the Federal Trade Commission's Office of Policy Planning, Bureau of Economics, and Bureau of Competition. This comment does not necessarily reflect the views of the Commission or any individual Commissioner. However, the Commission has voted to authorize the staff to submit this comment.

² Notice of Nonproprietary Naming of Biological Products: Draft Guidance for Industry; Availability, 80 Fed. Reg. 52296 (Aug. 28, 2015), https://federalregister.gov/a/2015-21383 [hereinafter Notice of FDA Draft Naming Guidance]. See also FOOD & DRUG ADMIN., DEP'T HEALTH & HUM. SERVS., NONPROPRIETARY NAMING OF BIOLOGICAL PRODUCTS: GUIDANCE FOR INDUSTRY (2015) [hereinafter DRAFT NAMING GUIDANCE], https://www.guidancecomplianceregulatoryinformation/-guidances/ucm459987.pdf; Designation of Official Names and Proper Names for Certain Biological Products, 80 Fed. Reg. 52224 (proposed Aug. 28, 2015), http://www.gpo.gov/fdsys/pkg/FR-2015-08-28/pdf/2015-21382.pdf [hereinafter Proposed Rulemaking].

³ See Notice of FDA Draft Naming Guidance, supra note 2; DRAFT NAMING GUIDANCE, supra note 2.

⁴ DRAFT NAMING GUIDANCE, *supra* note 2. The FDA generally uses the term "drug substance" to refer to the active ingredient in any FDA-approved medicine, and this comment uses the same terminology.

The FDA's Draft Naming Guidance would require that each biological product licensed under the Public Health Service Act bear a nonproprietary name that includes a unique FDA-designated suffix, in order to improve pharmacovigilance and to help minimize inadvertent substitution of biological products that FDA has not determined to be interchangeable. FTC staff appreciates FDA's concern that in order to promote and ensure patient health and safety, every drug product, including biologics, should be chosen, prescribed, and recorded with accuracy. Accurate record keeping is essential for pharmacovigilance.

The question is how best to achieve this outcome. FTC staff is concerned that FDA's proposal—to assign different suffixes to the drug substance names of biosimilars and their reference biologics—could result in physicians incorrectly believing that biosimilars' drug substances differ in clinically meaningful ways from their reference biologics' drug substances, especially since differences in drug substance names have traditionally connoted meaningful differences in drug substances.⁶ A misperception that the drug substance in a biosimilar differs in clinically meaningful ways from that in the reference biologic could deter physicians from prescribing biosimilars, thus impeding the development of biosimilar markets and competition.

Biosimilar competition is important because biologics are among the most promising medicines for the treatment of a variety of medical conditions for which patients have no other

⁵ "The proposed suffix *should*: [b]e four lowercase letters[;] [b]e unique[; and] [b]e devoid of meaning. The proposed suffix *should not*: [b]e promotional, such as by making misrepresentations with respect to safety or efficacy [;] [i]nclude abbreviations commonly used in clinical practice in a manner that may lead the suffix to be misinterpreted as another element on the prescription or order [;] [c]ontain or suggest any drug substance name or *core name* designated by the USAN Council[;] [l]ook similar to or be mistaken for the name of a currently marketed product (*e.g.*, should not increase the risk of confusion or medical errors with the product and/or other products in the clinical setting)[;] [b]e too similar to any other product's suffix designation." DRAFT NAMING GUIDANCE, *supra* note 2, at 10 (emphasis in original).

⁶ The Biologics Price Competition and Innovation Act ("BPCIA") requires a "biosimilar" to be "highly similar to the reference product notwithstanding minor differences in clinically inactive components," with "no clinically meaningful differences between the biologic product and the [FDA-licensed biological] reference product in terms of safety, purity, and potency of the product." 42 U.S.C. § 262(i)(2) (2012).

alternative.⁷ However, biologic prices are relatively high, with biologics 22 times more expensive, on average, than traditional medications.⁸ The annual cost for some biologic drugs is \$200,000, or more.⁹ Moreover, prices for biologics are rising rapidly, increasing about 10 to 15 percent each year, with the average price of biologics doubling from 2006 to 2012.¹⁰ At the FTC's 2014 workshop, healthcare payors explained that continued price increases will cause the cost of health insurance to rise for all insureds, not just those using biologic products.¹¹ Moreover, the relatively high prices of biologics, combined with patient cost-sharing requirements, can limit patient access to biologics.¹² Price competition from biosimilars would likely lead to reduced prices for, and thus greater patient access to, biologics and biosimilars.¹³

⁷ See Steven Kozlowski et al., *Developing the Nation's Biosimilar Program*, 365 New Eng. J. Med. 385, 385 (2011), http://www.nejm.org/doi/pdf/10.1056/NEJMp1107285; Transcript of Follow-On Biologics Workshop, Fed. Trade Comm'n 103 (Feb. 4, 2014), https://www.ftc.gov/system/files/documents/public_events/171301/140204biologicstranscript.pdf [hereinafter Workshop Tr.] (Dr. Miller, Express Scripts) ("[T]hese products truly are not just life-saving, they are life-altering and they are really important to have in the marketplace."); see also PHRMA, MEDICINES IN DEVELOPMENT: BIOLOGICS 3 (2013), http://www.phrma.org/sites/default/files/pdf/biologicsoverview2013.pdf.

⁸ See Leigh Purvis, AARP Public Policy Institute, A Sense of Déjà Vu: The Debate Surrounding State Biosimilar Substitution Laws 1 (2014), www.aarp.org/content/dam/aarp/research/public policy institute/ health/2014/the-debate-surrounding-state-biosimilar-substitution-laws-AARP-ppi-health.pdf.

⁹ *Id*.

¹⁰ ALEX BRILL, MATRIX ADVISORS, CONSIDERATIONS OF THE FDA'S IMPACT ON COMPETITION IN THE DRUG INDUSTRY 6 (Nov. 2014), http://static1.1.sqspcdn.com/static/f/460582/25678580/1416251439070/ MGA+PCMA% 1f+white+paper.pdf?token=3rgSsf4bzmI39uwCwjHXL34O4ac%3D ("U.S. spending on biologics totaled \$92 billion in 2013 (roughly 28 percent of all U.S. drug spending. This represented a nearly 10 percent increase over 2012 biologics spending."). See also Workshop Tr., supra note 7, at 264-70 (Harry Travis, Aetna); see also Sean P. Keehan, National Health Expenditure Projections, 2014–24: Spending Growth Faster Than Recent Trends, 34 HEALTH AFF. 1407 (2015), https://content.healthaffairs.org/content/34/8/1407.full.

¹¹ Workshop Tr., *supra* note 7, at 265-66 (Harry Travis, Aetna), and Harry Travis, Aetna, Presentation at FTC Follow-On Biologics Workshop: Private Payor Perspective on Growth of Specialty Medicines and Naming (Feb. 4, 2014), travis.pdf (reporting that in 2013, while only 1% of their overall prescriptions were for biologics, that 1% accounted for 50% of their total drug spend that year, and 10% of Aetna's overall health care spend.).

¹² See Purvis, supra note 8; see also Francis Megerlin et al., Biosimilars and the European Experience: Implications for the United States, 32 HEALTH AFF. 1803 (2013).

¹³ A former FDA Commissioner, Dr. Margaret A. Hamburg, recognized that "[b]iosimilars will provide access to important therapies for patients who need them." Press Release, FDA, FDA Approves First Biosimilar Product Zarxio (Mar. 6, 2015), http://www.fda.gov/newsevents/newsroom/pressannouncements/ucm436648.htm.

For the reasons set forth below, FTC staff respectfully suggests that the FDA reconsider its proposed system for nonproprietary names of biologic products in favor of other means to accomplish its purposes that are less likely to hinder competition from biosimilars. The alternatives discussed herein could enable the FDA to achieve its goal of improved pharmacovigilance and address its concern about the possible inadvertent substitution of biosimilars for biologics, without unintended adverse consequences for biosimilar competition.

II. INTEREST AND EXPERIENCE OF THE FTC

FTC staff offers this comment because it has a longstanding interest in fostering competition and promoting competitive outcomes. It has more than 40 years of experience in evaluating competition in healthcare markets. The FTC has worked to preserve generic drug price competition through enforcement and policy actions, ¹⁴ thereby gaining extensive expertise in the market dynamics that contribute to robust competition among pharmaceuticals. The FTC also has studied competitive issues affecting biologics. ¹⁵ Before Congress passed the Biologics Price Competition and Innovation Act ("BPCIA") in 2009, ¹⁶ the FTC held a 2008 workshop, and the following year issued its report, "*Emerging Health Care Issues: Follow-on Biologic Drug Competition*" ("FOB Report"). The FOB Report examined market factors likely to limit biologic competition, including: (1) lack of automatic substitution for biosimilar products; (2) potential chilling effects if products do not share the same nonproprietary names; and (3) concerns about

¹⁴ The FTC has brought enforcement actions against anticompetitive strategies and transactions, issued reports, and advocated against anticompetitive policies in pharmaceutical markets. *See*, *e.g.*, Fed. Trade Comm'n, *Competition in the Health Care Marketplace*, https://www.ftc.gov/tips-advice/competition-guidance/industry-guidance/health-care (last visited Oct. 20, 2015).

¹⁵ See, e.g., FED. TRADE COMM'N, EMERGING HEALTHCARE ISSUES: FOLLOW-ON BIOLOGIC DRUG COMPETITION, Exec. Summ. at 3-4, App. B-1 (2009) [hereinafter FTC FOB REPORT], http://www.ftc.gov/os/2009/06/P083901 biologicsreport.pdf.

¹⁶ 42 U.S.C. § 262(k) (2012).

market acceptance of biosimilar drugs.¹⁷

The FTC predicted that, due to these and other factors, follow on biologic ("FOB") entry would be less frequent than generic drug entry, with discounts between 10 and 30 percent of the pioneer product's price, instead of the typically greater discounts on generic drugs. ¹⁸

Nevertheless, the FOB Report pointed out that even a 10 to 30 percent discount represents significant savings, given biologics' higher prices. ¹⁹ In 2014, the FTC held a second workshop addressing biosimilar competition in the United States. Many participants at that workshop agreed that biosimilars may have difficulty achieving the same successes as small-molecule generics for a variety of reasons, including the current absence of mechanisms for automatic substitution between a biosimilar and its reference biologic. ²⁰

¹⁷ FTC FOB REPORT, *supra* note 15, Exec. Summ. at 3-5, *see id.* at 16 ("FOB market penetration also is likely to be hampered by lingering or institutionalized uncertainty about interchangeability and safety differences between pioneer and FOB products. This uncertainty may be heightened if the FOB product does not share the same name as the pioneer biologic product."). *See also* Fed. Trade Comm'n Public Workshop Notice, 78 Fed. Reg. 68840-02, 68843 (Nov. 15, 2013), https://www.federalregister.gov/articles/2013/11/15/2013-27406/public-workshop-follow-on-biologics-impact-of-recent-legislative-and-regulatory-naming-proposals-on [hereinafter FOB Workshop Notice]; Public Comment from Hospira to the FTC 5 (Feb. 28, 2014) (#0019), https://www.ftc.gov/system/files/documents/public_comments/2014/02/00019-88670.pdf [hereinafter Hospira Comment] ("Based on Hospira's experience in Europe since 2007, none of the FTC's predictions from 2009 need to be revised at this time.").

¹⁸ FTC FOB REPORT, supra note 15, at v, 26, 53.

¹⁹ *Id.* at v ("Although not as steep a discount as small-molecule generic drugs, a 10 to 30 percent discount on a \$48,000 drug product represents substantial consumer savings.").

²⁰ FOB Workshop Notice, *supra* note 17, at 68841. *See also* Workshop Tr., *supra* note 7, at 34 (Dr. Kesselheim, Harvard Medical School) (noting state automatic substitution laws were "key" to small-molecule generic penetration, and biosimilars will struggle due to the absence of automatic substitution); *id.* at 104 (Dr. Miller, Express Scripts) (predicting the financial harm from slow uptake of biosimilars in future spending on biologic medicines at around "a quarter of a trillion dollars"); *id.* at 69-75 (Dr. Gal, Sanford Bernstein) (recommending against additional barriers to biosimilar uptake in the U.S.); Public Comment from Am's Health Ins. Plans to the FTC 5, 7-9 (Feb. 28, 2014), https://www.ftc.gov/system/files/documents/public comments/2014/02/00017-88667.pdf [hereinafter AHIP Comment].

III. ANALYSIS

A. The FDA Draft Naming Guidance May Hinder Biosimilar Competition.

1. Increased Perceived Product Differentiation Dampens Price Competition.

Standard economic logic suggests that physicians' misperceptions of product differences between biosimilars and their reference biologics would likely reduce biosimilar competition. A common property of economic models of differentiated products is that price competition is more intense when the products are seen as close substitutes for one another. Conversely, price competition is less intense when goods are more differentiated, or are perceived as such by the economic actors selecting among them.²¹ Consumers can compare and substitute similar goods more readily than differentiated goods. This encourages sellers of similar goods to compete intensely on price, since that becomes a salient decision factor for consumers.²² For example, generic drugs tend to compete based primarily on price.

By contrast, differentiated goods are less easily substituted, and firms are less likely to compete aggressively on price. Therefore, reference biologics may compete less vigorously with biosimilars if physicians are reluctant to prescribe biosimilars due to concerns that they differ from their reference biologics in clinically meaningful ways. Physician perceptions of differentiation could cause price differences to be a less salient feature in the competition between the products, which would diminish the incentives to price aggressively.

²¹ See Dennis W. Carlton & Jeffrey M. Perloff, Modern Industrial Organization 225 (4th ed. 1994) ("The greater the perceived difference between two firms' products, the more each firm can charge.").

²² See id.

2. Physicians May Mistakenly Believe that Different Suffixes Indicate Clinically Meaningful Differences Between a Biologic and its Biosimilar.

Physicians' familiarity with biosimilars may be relatively limited because the first U.S. biosimilar only launched in September 2015.²³ Limited survey data from 2013 indicated that U.S. physicians have "a low level of understanding" about various aspects of biosimilars, including "the difference between biosimilars and reference biologics" and "the current regulatory pathway for biosimilars," although "[f]amiliarity is increased among practitioners who regularly use biologics products in their practice." A more recent survey from August 2015 indicated that even specialists who deal more frequently with biologics desired additional educational information about biosimilars' safety and efficacy.²⁵

Consequently, the American Medical Association ("AMA") has recommended further research: "Any change in current nomenclature rules or standards should be informed by a better, and more complete, understanding of how such changes, including requiring a unique identifier for biologic INNs [International Nonproprietary Names], would influence prescriber attitudes and patient access, and affect postmarketing surveillance." As the AMA noted, actions that solely enhance product identification during surveillance activities but act as barriers to clinical uptake are counterproductive.²⁷

²³ Press Release, Novartis, Sandoz Launches ZarixoTM (filgrastim-sndz), The First Biosimilar in the United States (Sep. 3, 2015), https://www.novartis.com/news/media-releases/sandoz-launches-zarxiotm-filgrastim-sndz-first-biosimilar-united-states.

²⁴ Public Comment from Am. Med. Ass'n to the FTC 3 (Feb. 28, 2014), https://www.ftc.gov/system/files/documents/public comments/2014/02/00023-88679.pdf [hereinafter AMA Comment]; see N. AM. CTR. FOR CONTINUING MED. EDUC., CME SURVEY ON BIOSIMILARS 4 (May 24, 2013), https://www.naccme.com/2013-biosimilars-cme-survey-results-full-report.

²⁵ See, e.g., Kevin McCaffrey, Most Docs Are in the Dark About Biosimilars: Survey, MED. MARKETING & MEDIA (Aug. 13, 2015), http://www.mmm-online.com/dataanalytics/most-docs-are-in-the-dark-about-biosimilars-survey/article/432650/ (researchers polled 120 prescribing specialists regarding knowledge gap on biosimilars: most specialists wanted educational information about safety and efficacy to better understand biosimilars.).

²⁶ AMA Comment, *supra* note 24, at 6.

²⁷ *Id.* Other commenters to the FTC's biosimilar workshop opposed distinct non-proprietary names more

FTC staff shares the AMA's concerns regarding physician familiarity with biologics generally and biosimilars in particular. To minimize physician misperception and its potential impact on biosimilar competition, we recommend that FDA consider pursuing physician education programs and testing how prescribers will react to its proposed nomenclature changes before implementing them.

The FDA proposal may affect physician behavior because it differs from FDA's usual approach to nonproprietary naming. To identify small-molecule and biologic drug substances, FDA traditionally relies on nonproprietary names developed by the United States Adopted Name ("USAN") Council and designated in an official Pharmacopeia ("USP") compendium.²⁸

generally, See, e.g., Public Comment from Academy of Managed Care Pharmacy to the FTC 3-5 (Feb. 28, 2014), https://www.ftc.gov/system/files/documents/public_comments/2014/02/00030-88714.pdf; see Workshop Tr., supra note 7, at 178 (Dr. Miller, Express Scripts), 265 (Harry Travis, Aetna) ("I stand here in support of Dr. McCamish [Sandoz], Dr. Miller [Express Scripts], Dr. Lotvin's [CVS] comments and others along the same line with them with respect to [opposing distinct nonproprietary] naming "); AHIP Comment, supra note 20, at 9; Public Comment from Am. Pharmacists Ass'n Comment to the FTC 2 (Mar. 1, 2014), https://www.ftc.gov/system/files/documents/ public comments/2014/02/00031-88734.pdf [hereinafter APhA Comment] (use of unique INNs could convince prescribers and patients the two products are not substitutable); Public Comment from CVS Caremark Comment to the FTC 2-3 (Mar. 1, 2014) [hereinafter CVS Comment], https://www.ftc.gov/system/files/documents/ public comments/2014/02/00026-88693.pdf ("[U]nique non-proprietary names will make for a less competitive biologic marketplace."); see Sumant Ramachandra, Hospira, What's in a Name? The Importance of Biosimilar Nonproprietary Names for Healthcare Innovation 2 (Hospira Policy Paper, 2013), available at https://www.ftc.gov/ system/files/documents/public comments/2014/02/00019-88671.pdf, attached to Hospira Comment, supra note 17; Public Comment from Momenta to the FTC 3-4 (Feb. 28, 2014), https://www.ftc.gov/system/files/documents/ public comments/2014/02/00025-88692.pdf; Public Comment from Mylan to the FTC 1-2 (Mar. 1, 2014), https://www.ftc.gov/system/files/documents/public comments/2014/03/00039-88995.pdf; Mark McCamish, Agnieszka, & John Orloff, Novartis/Sandoz, Biosimilar by Name and Biosimilar by Nature, THE RPM REPORT (June 28, 2013), available at https://www.ftc.gov/es/system/files/documents/public comments/2014/03/00037-88739.pdf. attached to Public Comment from Novartis/Sandoz Comment to the FTC (Mar. 1, 2014), https://www.ftc.gov/system/ files/documents/public_comments/2014/03/00037-88727.pdf. But see, e.g., Workshop Tr., supra note 7, at 253 (Emily Alexander, AbbVie) ("[D]istinct nonproprietary names will not prevent patients from having access to biosimilars."); Public Comment from the PhRMA to the FTC 1-2 (Feb. 28, 2014), https://www.ftc.gov/system/files/ documents/public_comments/2014/02/00027-88695.pdf; Public Comment from Alliance for Safe Biologic Naming to the FTC 1 (Mar. 1, 2014), https://www.ftc.gov/system/files/documents/public comments/2014/03/00035-88723.pdf.

²⁸ See FDA, How FDA Reviews Proposed Drug Names 1, http://www.fda.gov/downloads/Drugs/DrugSafety/MedicationErrors/ucm080867.pdf (last visited Oct. 20, 2015); About Us, USAN Council, AM. MED. ASS'N, http://www.ama-assn.org/ama/pub/physician-resources/medical-science/united-states-adopted-names-council/about-us.page (last visited Oct. 20, 2015); About USP, U.S. PHARMACOPEIAL CONVENTION, http://www.usp.org/about-usp (last visited Oct. 20, 2015); see Randi Hernandez, What's In a Name? For Biosimilars, A Lot, 28 BIOPHARM INT'L 6 (2015) (noting that by longstanding practice, such names do not make a statement about their FDA regulatory status, clinical attributes, or interchangeability, all of which are for FDA to determine); Workshop Tr., supra note 7, at 188-

Historically, all originator biologics that met the same identification tests and other aspects of identity set forth in an official USP monograph received the same nonproprietary name.²⁹ Just as biologics with the same nonproprietary name share a drug substance that is "essentially the same," biosimilars share a drug substance that is "essentially the same" as that of their reference biologics.³⁰ By contrast, any differences in nonproprietary names generally signal pharmacological and chemical relationship differences between the products. Although the FDA's proposal will use the same USAN as the core name for each biosimilar and its reference biologic, based on historical practice, the addition of unique differentiating suffixes may lead physicians to believe mistakenly that the products necessarily have clinically meaningful differences.³¹

90, 193-4 (Angela Long, USP) ("[T]he identification test links back to the name[, which . . .] links to publically available product quality standards and tests and criteria Once a biosimilar is approved, if that drug meets the identification test of the monograph, it should have the same title [name]"). *But see* 21 U.S.C. §358 (2012) ("The Secretary [of HHS] may designate an official name for any drug or device if he determines that such action is necessary or desirable in the interest of usefulness and simplicity.").

²⁹ There are eight different manufacturers of human growth hormone (recombinant) and all of their products carry the same nonproprietary name—"somatropin." *See* FDA, APPROVED DRUG PRODUCTS WITH THERAPEUTICAL EQUIVALENCE EVALUATIONS, at 3-329 (35th ed. 2015), http://www.fda.gov/downloads/drugs/developmentapprovalprocess/ucm071436.pdf; *see also* McCamish et al., *supra* note 27, at 8; Martina Weise et al., *Biosimilars: The Science of Extrapolation*, 124 BLOOD 3191 (2014); Ramachandra, *supra* note 27, at 14. The only exception appears to be Teva Inc's Granix (a full BLA product, not a biosimilar), which was required by the FDA to adopt a unique prefix to the USAN ("tbo-filgrastim") on its label. The FDA is now proposing to change that unique prefix to a suffix "filgrastim-vkzt." *See* Proposed Rulemaking, *supra* note 1, at 52227.

³⁰ If that were not the case, the biosimilar would differ from its reference biologic in a clinically meaningful way. *See also* EUROPEAN MEDICINES AGENCY (EMA), EMA/837805/2011, QUESTIONS AND ANSWERS ON BIOSIMILAR MEDICINES (SIMILAR BIOLOGICAL MEDICINAL PRODUCTS) (Sept. 27, 2012), http://www.ema.europa.eu/docs/en_GB/document_library/Medicine_QA/2009/12/WC500020062.pdf ("The active substance of a biosimilar and its reference medicine is essentially the same biological substance, though there may be minor differences due to their complex nature and production methods.").

³¹ Differences in the nonproprietary names of biosimilars could contribute to misperceptions that the drug substance of a biosimilar should be identical, not "highly similar" to that of its reference biologic. *See* Workshop Tr., *supra* note 6, at 208-210 (Dr. McCamish, Sandoz) (criticizing such an implication in survey of Alliance for Safe Biological Medicines, and contending "the term identical is abused to instill fear and foster misunderstanding."). Because biosimilars are new in the U.S., many physicians do not yet fully understand that a lack of identicality is inherent in biologics. *See* Weise et al., *supra* note 29, at 3191 ("[e]very biologic displays a certain degree of variability, *even between different batches of the same product*") (emphasis added).

3. An Example from Europe May Suggest that Biosimilars with Distinct Nonproprietary Names Are Less Commercially Successful than Those with the Same Nonproprietary Names.

An example from Europe suggests that biosimilars with distinct nonproprietary names are less commercially successful than biosimilars with the same nonproprietary name as the reference biologic. While the significance of this example may be limited because other factors may affect biosimilar uptake, it does provide some evidence regarding how the naming convention could influence the perceived differentiation.

Biosimilar manufacturers presented evidence at the 2014 FTC workshop that, in Europe, the market penetration of epoetin biosimilars with a different nonproprietary name than the brand (*e.g.*, Hospira's Retracrit epoetin zeta) trails the penetration of biosimilars with the same nonproprietary name as the brand (*e.g.*, Sandoz's Binocrit epoetin alpha), due to legal challenges and other impediments associated with the different nonproprietary name.³² This example is an exception to the practice in most other countries with biosimilar regulations, including all members of the European Union,³³ where biosimilars share the same nonproprietary name for their drug substances as their reference biologics.³⁴

³² See Sumant Ramachandra, Hospira, Presentation at FTC Follow-On Biologics Workshop: Lessons for the United States: Biosimilar Market Development Worldwide 8 (Feb. 4, 2014), https://www.ftc.gov/system/files/documents/public_events/Follow-On%20Biologics%20Workshop%3A%20Impact%20of%20Recent%20 Legislative%20and%20Regulatory%20Naming%20Proposals%20on%20Competition/ramachandra.pdf.

³³ See European public assessment reports (EPAR): Biosimilars, EUROPEAN MEDICINES AGENCY, <a href="http://www.ema.europa.eu/ema/index.jsp?curl=pages%2Fmedicines%2Flanding%2Fepar-search.jsp&mid=WC0b01ac058001d124&searchTab=searchByAuthType&alreadyLoaded=true&isNewQuery=true&status=Authorised&keyword=Enter+keywords&searchType=name&taxonomyPath=&treeNumber=&searchGenericType=biosimilars&genericsKeywordSearch=Submit [hereinafter EPAR: Biosimilars] (last visited Oct. 20, 2015).

³⁴ See Naming of Biosimilars, GENERIC PHARM. ASS'N, http://www.gphaonline.org/gpha-media/gpha-resources/1naming-biosimilars (last visited Oct. 20, 2015) ("The [nonproprietary names] assigned to biosimilars and already used in Europe, Japan, and other highly regulated markets match that of their reference.").

4. FDA's Proposal May Create Unnecessary Costs and Inefficiencies Due to Inconsistencies with Other Naming Systems.

Pharmacy data-coding entities and other pharmacists' organizations most knowledgeable with the systemic effects of nonproprietary name changes have consistently stated that non-traditional nomenclature negatively affects the existing systems and needlessly increases the costs of updating these systems for all health care providers. FDA's proposal to use suffixes rather than prefixes may partially mitigate such negative effects, because—as pharmacists' comments at the 2014 FTC workshop explained—using the same non-proprietary core name for products with the same active ingredient provides a "uniform, predictable, and effective way for healthcare professionals to identify drugs." However, suffixes will still distinguish the names from each other, thus undermining the efficiency of competitive products sharing the same active ingredient name, and leading to coding and system inefficiencies that pharmacists have detailed in their letters to the FDA.

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³⁵ See Letter from Lee Ann C. Stember, Pres., Nat'l Council for Prescription Drugs Programs (NCPDP) to Sylvia M. Burwell, Sec'y, Health and Human Services, & Margaret A. Hamburg, Comm., FDA (Feb. 27, 2015), http://www.ncpdp.org/NCPDP/media/pdf/NCPDP_Zarxio_Ltr_FDA_HHS.PDF; see also Letter from Lee Ann C. Stember, Pres., NCPDP to Ronald T. Piervincenzi, CEO, U.S. Pharmacopeial Convention (May 18, 2015), ("NCPDP is particularly concerned about recent biologics naming decisions by FDA that deviate from standard naming practices and have resulted in downstream confusion and data integrity and patient safety issues."); see also APhA Comment, supra note 27, at 3 ("In addition to creating confusion for prescribers and patients, the use of unique names for biosimilar products would create challenges within pharmacy management and payor systems.").

³⁶ Public Comment from the Am. Soc'y of Health-System Pharmacists to the FTC 3 (Feb. 27, 2014), https://www.ftc.gov/system/files/documents/public comments/2014/02/00016-88666.pdf [hereinafter ASHP Comment]; see also Public Comment from the Nat'l Ass'n of Chain Drug Stores to the FTC 4 (Feb. 26, 2014), https://www.ftc.gov/system/files/documents/public_comments/2014/02/00015-88665.pdf ("[h]aving the same INN for all products with the same chemical ingredient is a core principal in identifying products that should be associated with one another."); CVS Comment, supra note 27, at 2.

³⁷ E.g., ASHP Comment, *supra* note 36, at 3 ("[T]he current US standard nomenclature for naming clinical drug concepts, the National Library of Medicine's RxNorm, uses common root names among other things to normalize group products that conceptually are equivalent. *This terminology is critical in supporting semantic interoperability among drug terminologies and pharmacy knowledge base systems, allowing computer systems to communicate drug-related information efficiently and unambiguously.*" (emphasis added)).

FDA's proposal also is not consistent with a proposal for biologic naming currently under consideration by the World Health Organization ("WHO"). Although biosimilars in most other countries with biosimilar regulations, including members of the European Union, share the same INN as their reference biologics, a few countries have adopted non-proprietary names for biosimilars different from that of their reference biologics in particular cases. To facilitate global harmonization, the WHO is developing a system to assign "Biological Qualifiers" ("BQs") to similar biotherapeutic products. A BQ would be a four-letter, alphabetic code assigned at random to a biological active substance manufactured by one manufacturer. That is, unlike FDA's proposed suffix, which would be part of the nonproprietary name, the BQ would be separate from the nonproprietary name in pharmacy databases. Because FDA's proposal is inconsistent with the WHO BQ proposal, it risks undermining international harmonization efforts.

³⁸ The WHO administers the International Nonproprietary Naming ("INN") system, which corresponds to the USAN system in the U.S. *See International Nonproprietary Names*, WORLD HEALTH ORG., http://www.who.int/medicines/services/inn/en/ (last visited Oct. 20, 2015). The USAN of virtually all small-molecule and biologic drugs currently is identical to the INN for those drugs. *Guidance on INN*, WORLD HEALTH ORG., http://www.who.int/medicines/services/inn/innquidance/en (last visited Oct. 20, 2015) ("United States Accepted Names (USAN) are nowadays, with rare exceptions, identical to the INN.").

³⁹ The European Union began approving biosimilars in 2006, and presently nineteen biosimilars are marketed in various European countries. *See EPAR: Biosimilars, supra* note 33. *See generally Biosimilar Medicines*, EUROPEAN MEDICINES AGENCY, http://www.ema.europa.eu/ema/index.jsp?curl=pages/special-topics/document-listing/document-li

⁴⁰ See Naming of Biosimilars, GENERIC PHARM. ASS'N, http://www.gphaonline.org/gpha-media/gpha-resources/1naming-biosimilars (last visited Oct. 20, 2015) ("The INNs assigned to biosimilars and already used in Europe, Japan, and other highly regulated markets match that of their reference.").

⁴¹ Workshop Tr., *supra* note 7, at 206 (Dr. McCamish, Sandoz).

⁴² WHO's goal is that a single global "BQ" will avoid separate national qualifier systems. *See* Programme on Int'l Nonproprietary Names, World Health Org., *Biological Qualifier*, *An INN Proposal* (INN Working Doc. 14.342, Rev'd Draft, June 2015), http://www.who.int/medicines/services/inn/bq_innproposal201506.pdf.

⁴³ *Id*.

⁴⁴ *Id.* at 2. The WHO Secretariat would first approve a manufacturer's application and then allow the BQ's use for substances "made in all manufacturing sites demonstrated to be comparable and by all manufacturing authorisation holders (MAH) distributing products which contain the substance." *Id.* at 5.

⁴⁵ *Id.* at 4-5.

B. FDA Should Consider Alternative Means to Prevent Inadvertent Substitution and Track Adverse Events That Raise Fewer Physician Misperception Concerns.

FDA's Draft Naming Guidance explains that the FDA-designated suffix is necessary to "clearly identify biological products to improve pharmacovigilance [,]" and "to help minimize *inadvertent* substitution [, which] may lead to *unintended* alternating or switching of biological products that have not been determined by FDA to be interchangeable." During the FTC's 2014 workshop and in public comments, market participants suggested that alternatives exist that would not raise the same concerns with physician misperception.

First, reliance on trade names may improve pharmacovigilance and prevent inadvertent substitution. Trade names identify the manufacturer of a product—as FDA's proposed suffix would—but, unlike that suffix, do not run the same risk of conveying an inaccurate implication that a biosimilar's drug substance differs in a clinically meaningful way from that of its reference biologic. Most adverse event reports already contain trade names. For example, a study by Pfizer of the adverse event reports it received for a biologic with multiple branded products showed that "in about 99 percent of the cases, there was identification of the trade name." Pfizer concluded "distinct trade names or brand names do allow for more accurate reporting to the appropriate manufacturer, irrespective of the INN in a setting in which all similar products have a distinct invented trade name." Similarly, the European Union's adverse event reporting system also

⁴⁶ DRAFT NAMING GUIDANCE, *supra* note 2, at 1 (emphasis added).

⁴⁷ Workshop Tr., *supra* note 7, at 240 (Dr. Hartman, Pfizer); *see also id.* at 294-95 (Dr. Ramachandra, Hospira) ("Pfizer's data . . . they are seeing 99 percent in the biologics field are identifiable by brand name and that is exactly what we are seeing.").

⁴⁸ *Id.* at 241 (Dr. Hartman, Pfizer). Pharmacies using NDCs achieve even greater pharmacovigilance results. For example, Dr. Miller reported that Express Scripts dispensed about 160,000 prescriptions for Avorstatin in a one-week period, from almost 52,000 pharmacies and 15 different manufacturers," and "[w]e could tell you the exact product in the hands of every patient because of the use of the NDC codes that are required for pharmacy reimbursement." *Id.* at 109 (Dr. Miller, Express Scripts). *See also supra* note 23 (noting that Sandoz launched its biosimilar product under the trade name Zarxio.).

relies on the trade name plus a batch number, and the EU reportedly has had success with that system. 49

Second, the *Purple Book* can prevent inadvertent substitution by pharmacists. The FDA-published *Purple Book* is comparable to the FDA-published *Orange Book*, but lists biological products. Pharmacists "only substitute a generic for a prescribed brand in accordance with FDA's determinations as set forth in the Orange Book and with prescriber consent to substitution, [so] there is no associated patient safety risk with the brand and generic product having the same nonproprietary name." As one 2014 FTC workshop commenter noted, "[t]his model has worked well for small molecule prescription drugs. Accordingly, we believe there is no sound public safety reason to deviate from the established naming conventions for biologics and biosimilar products." Using the *Purple Book* in the same manner as the *Orange Book* is used today, *together* with physician/prescriber consent to substitution, provides an existing mechanism to prevent inadvertent substitution. ⁵²

⁴⁹ Niels S. Vermeer et al., *Traceability of Biopharmaceuticals in Spontaneous Reporting Systems: A Cross-Sectional Study in the FDA Adverse Event Reporting System (FAERS) and EudraVigilance Databases*, 36 DRUG SAFETY 617-625 (2013); Workshop Tr., *supra* note 7, at 290 (Dr. Ramachandra, Hospira) (at public workshop, an EMA representative stated that "they are quite proud of the pharmacovigilance reporting of biosimilars and biologics . . . in Europe.").

⁵⁰ APhA Comment, *supra* note 27, at 2-3.

⁵¹ *Id*.

⁵² Moreover, CVS has noted that, because many state statutes require that medicines have the same nonproprietary names in order to permit automatic substitution by the pharmacist, a different nonproprietary name for an *interchangeable* biosimilar could prevent a pharmacist from substituting the interchangeable for its reference biologic:

If resolution of the non-proprietary naming issue requires biosimilars to have a different non-proprietary name (such as a distinct prefix/suffix to the non-proprietary name of the reference) states will likely not allow the substitution of a brand product with a biosimilar—even when it explicitly cites it as its reference product, and even when the FDA has designated a biosimilar as interchangeable with its reference. The different proprietary name will be used to prevent substitution by suggesting that the active ingredient in the two medicines is different.

CVS Comment, *supra* note 27 at 3 (emphasis added).

IV. CONCLUSION

FTC staff is concerned that FDA's proposal for distinct suffixes on biologics' nonproprietary names could reduce biosimilar competition. It is unclear to what extent physician misperception resulting from FDA's proposal might threaten the full potential benefits that healthcare consumers could recognize from biosimilar competition. However, given the availability of alternative approaches that also appear likely to achieve the FDA's objectives for this naming convention without introducing the potential harm to competition discussed herein, FTC staff respectfully suggests that the FDA reconsider its approach as set forth in the Draft Naming Guidance.