FTC BIOSIMILARS REPORT REBUTTAL

FTC: Given that biosimilar competition with a pioneer biologic drug is likely to resemble brand-to-brand competition among biologics, the question arises whether provisions that "delay" biosimilar entry and "restrict competition" are necessary to benefit consumers. No economic arguments suggest that such provisions are necessary to foster pioneer drug innovation.

FACT: We agree with the FTC that the market dynamics of biosimilars are more akin to brand-to-brand competition in terms of likely number of entrants, price competition, and market share erosion, at least for the short-term. But this is NOT brand-to-brand competition in one critical respect that the FTC report all but ignores. Brand competitors have to engage in the same lengthy and costly R&D process, from basic invention, through proof of concept, through clinical trials, and full regulatory review and approval, that the initial brand innovator did. Biosimilar manufacturers, on the other hand, will be given a scientific and regulatory short-cut that, while still more demanding than small molecule generic drug entry, will be considerably shorter and cheaper than the process that the initial innovator had to go through. There is a huge difference between the $1.2 billion that is invested on average to produce true innovation, versus the $100-200 million (or less over time) that the FTC suggests a biosimilar manufacturer would have to invest. In no other industry outside of pharmaceuticals do we affirmatively permit (let alone encourage) such "free riding," and to suggest – as the FTC does – that this fact is essentially meaningless in terms of economic incentives for future innovation is baffling. The FTC also phrases its question in a way that is destined to lead to the wrong answer. It is not whether the Congress should enact provisions that delay entry and restrict competition – of course, Congress shouldn't. The proper question is at what point Congress should, when enacting a new pathway designed to facilitate additional competition from biosimilars, allow follow-on manufactures to "free ride" off the work of pioneer companies.

FTC: Nothing about the introduction of biosimilar drug products changes the relationship of pioneer biologic drug products to the patents protecting them. As a result, patent protection should continue to incentivize biotechnology innovation, even after enactment of an approval process for biosimilar drugs.

FACT: In the small molecule, generic drug context, patents do provide the incentives for continued innovation and the period of data exclusivity is less important, because the regulatory approval standard for generics ("sameness") and the patent system (with appropriate term extensions permitted under Hatch-Waxman) work in concert to provide protection against premature generic competition – on average for 12-14 years, as the FTC notes. However, the regulatory approval standard for biosimilars creates a "patent protection gap" that may allow for abbreviated regulatory approval of a biosimilar which does not infringe an innovator's patents. That likelihood exists because of the confluence of two critical factors not present in the Hatch-Waxman construct. First, unlike a generic drug which must be the same as an innovator product, a biosimilar will need only be "similar' to the corresponding innovator product. Indeed, some of the proposed legislation would permit the approval of products that are not very similar to the innovator biologic at all. For example, H.R. 1427, introduced by Energy & Commerce Committee Chairman

Henry Waxman, has a very broad and undefined view of similarity. While the Waxman bill provides for approval of a biosimilar that is highly similar structurally and has the same mechanism of action, dosage form, and strength, it also expressly allows for any or all of these requirements to be waived. Accordingly, the biosimilar product could be quite dissimilar from the innovator's product in structure, in route of administration, mechanism of action, dosage form or strength – or in all of these characteristics – yet still theoretically gain abbreviated approval. This uncertainty will raise substantial questions about the effectiveness of innovator patent protection – a fact that is completely ignored by the FTC report. Second, because of the nature of biologic products – large molecules produced by living cells and organisms through highly specific processes – patent protection is often narrower and easier to "design around" than that of small molecule drugs, and the trend is towards increasingly narrow biotech patents.

FTC: There is little empirical evidence that patent design-arounds have occurred in biologics to any greater degree than with respect to small molecule drugs.

FACT: There is currently no abbreviated biologics approval pathway, and hence much less financial motivation to develop competing "me too" products specifically designed to exploit gaps in the innovator's patent protection. The cost and risk of such an approach in today's market is high, and thus it is unsurprising that there are not many existing cases of biotech patent work-arounds. Yet even without the major incentives of an abbreviated approval pathway, successful biotech design-arounds have occurred (see Hormone Res. Found. v. Genentech, 904 F.2d 1558; Novo Nordisk v. Genentech 77 F.3d 1364; Genentech, Inc. v. Wellcome Foundation Ltd., 29 F.3d 1555; Amgen v. Hoechst Marion Roussel, 314 F.3d 1313; Biogen v. Berlex, 318 F.3d 1132; Genzyme v. TKT, 346 F.3d 1094). These cases illustrate that courts have indeed sometimes taken a very a narrow view of biotechnology patent claims, under which even very 'close' products were determined not to infringe a valid patent. The FTC report focuses on what has happened to date, while ignoring the fundamentally changed incentives once a biosimilar pathway is created.

FTC: Even if the biosimilar manufacturer were to design around the patents claiming a pioneer biologic drug product and enter prior to patent expiration, the pioneer manufacturer will continue to earn significant revenues after biosimilar entry; thus, the effect on the pioneer manufacturer caused by biosimilar entry is not nearly as great as it is with small-molecule generic drug entry and there is no need for data exclusivity to prevent the earlier competitive entry.

FACT: A peer reviewed, published study by Duke University Professor Henry Grabowski looked at this precise question, and found that, even with expected smaller market erosion based on Congressional Budget Office estimates, innovators will not be able to recoup their investment in a reasonable period of time without 12 – 14 years of data exclusivity. While the FTC report offers a critique of this study on other grounds, it never offers any economic data or support for its conclusion that, simply because innovators will still receive substantial revenues after biosimilar entry, there is no need for data exclusivity protections. The FTC report never addresses the fundamental questions raised about the impact of premature biosimilar entry on investment incentives.

FTC: 12-14 years of data exclusivity is too long to promote innovation.

FACT: In fact, the exact opposite is true – 12-14 years of data exclusivity is necessary to continue to foster long-term innovation. The FTC contends that a long period of data exclusivity will hurt innovation. However, currently – with no pathway – there are an unlimited number of years of data exclusivity. Under the current regime, there has been tremendous innovation with the developments of treatments for many diseases such as cancer, rheumatoid arthritis, Crohn's disease to name but a few. The danger of setting the number of years too low is stifling medical advancement and innovation. There is absolutely no evidence that adequate data exclusivity of 12 – 14 years will hamper innovation. In the small molecule world, innovators do not face generic competition for an average of 12-14 years. A similar data exclusivity period for biologics is needed to mitigate against the increased risk created by the similarity standard and patent work-arounds, and achieve parity between small molecule and biotech therapies. Without such parity, there is a real risk that investment incentives will be skewed away from biotechnology – an industry that is largely made up of small companies without profits that are heavily reliant on private investment to fund the R&D process and therefore are particularly susceptible to negative changes in investment incentives.

FTC: Special procedures to resolve patent issues between pioneer and follow-on manufacturers prior to FDA approval are unnecessary and could undermine patent incentives and harm consumers.

FACT: Again, the opposite is true. The early resolution of patent disputes benefits patients, physicians, insurers, follow-on manufacturers and innovators alike. Without a mechanism to resolve patent disputes early – before FDA approval of follow-on products – follow-on products would systematically have to enter the market under a cloud of patent uncertainty. Once on the market, patent disputes over such products would have to play out in high-stakes litigation, causing confusion for patients, physicians, and insurers about the long-term availability of certain products. Congress has recognized that patent disputes over medicines must be resolved as early as possible, and in 1984 created a specific mechanism to litigate patents before generic small molecule drugs are released to the public. The same should be true for biosimilars, so that patients can have the assurance that such products, once released, are there to stay.