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Inv. No. 332-587
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SUBMITTED ELECTRONICALLY VIA EDIS

Ms. Lisa R. Barton
Secretary
U.S. International Trade Commission
500 E Street, SW
Washington, D.C. 20436

Re: Written Submission, Distributional Effects of Trade and Trade Policy on U.S. Workers, Investigation No. 332-587

Dear Secretary Barton,

The Pharmaceutical Research and Manufacturers of America (PhRMA) appreciates the opportunity to provide a written submission related to the United States International Trade Commission (USITC, or the Commission) investigation on the topic of "Distributional Effects of Trade and Trade Policy on U.S. Workers." Per the Commission's notice, attached is a summary of this submission for inclusion in the report. PhRMA represents the country's leading innovative biopharmaceutical research companies, which are devoted to discovering and developing medicines that enable patients to live longer, healthier, and more productive lives. Since 2000, PhRMA member companies have invested more than $1 trillion in the search for new treatments and cures, including more than $91 billion in 2020 alone.[1]

The Commission has asked for information concerning the distributional effects of goods and services trade and trade policy on U.S. workers. As the data below demonstrate, the U.S. innovative biopharmaceutical industry and its participation in the global trading system contribute significantly to the U.S. economy and its workers. In turn, the United States leads the world in developing new medicines, with biopharmaceutical companies sponsoring more than 4,500 clinical trials in the United States alone, with trials in all 50 states, the District of Columbia and Puerto Rico. In 2017, these trials involved close to one million participants and accounted for nearly $43 billion in economic activity.[2]

[1] 2021 PhRMA Annual Membership Survey, Jul. 21, 2021, available at https://phrma.org/research-and-development/2021-phrma-annual-membership-survey.
[2] TEConomy Partners; for PhRMA. Biopharmaceutical Industry-Sponsored Clinical Trials. April 2019.

The United States is the global leader in biopharmaceutical innovation and production and reaps an outsized share of the economic benefits of the global industry. For example: U.S. multinational biopharmaceutical companies locate 90 percent of their research and development (R&D) expenditures in the United States; nearly 80 percent of wages and salaries paid by U.S. multinational biopharmaceutical companies go to employees in the United States; and over 70 percent of the value added generated from all products manufactured globally by U.S. multinational biopharmaceutical companies occurs in the United States.[3] Unlike trade balance statistics, value added shows where multinationals develop and produce their products. Wages and salaries are the largest component of value added.

In short, the innovative biopharmaceutical sector generates high-quality American jobs, powers economic output and exports for the U.S. economy, and is the foundation of one of the nation's most dynamic innovation ecosystems. This large U.S. economic footprint, and the corresponding benefits that accrue to U.S. workers and their families, exist precisely *because* the sector is an active participant in the rules-based international trading system and a utilizer of longstanding, consistent and dependable U.S. trade policies that value innovation, protect intellectual property rights and champion open trade.

The Economic Impact of the U.S. Innovative Biopharmaceutical Industry

The men and women of America's biopharmaceutical sector strive every day to discover, develop and deliver innovative medicines to patients across the country and around the world to ensure that they can benefit from the latest treatments and cures. The industry's varied occupational base and extensive research, manufacturing and distribution infrastructure generate and support high-wage jobs, significant tax revenues and growing economic output for local communities. The strength and ingenuity of the U.S. biopharmaceutical industry and innovation-based policies have resulted in the United States being the global leader in biopharmaceutical innovation and production. The following economic metrics reflect this global and national leadership position.[4]

Sizeable, Stable and Diverse Employment

In 2020, the U.S. biopharmaceutical industry directly employed more than 903,000 U.S. workers and, with a substantial employment multiplier of 4.92, supported more than 3.5 million additional U.S. jobs, for a total U.S. employment impact of more than 4.4 million jobs. In 2020, 37 percent of U.S. biopharmaceutical industry employees were engaged in manufacturing at over 1,500 manufacturing plants across the country, nearly 35 percent were engaged in biopharmaceutical R&D, 25 percent were engaged in distribution and 3 percent were engaged in corporate administration.

[3] U.S. Bureau of Economic Analysis, Activities of U.S. Multinational Enterprises, available at https://www.bea.gov/data/intl-trade-investment/activities-us-multinational-enterprises-mnes. Note: U.S. import data reflect the transaction value of goods at the port of entry (e.g., manufacturer price plus freight charges) even when most of the value added (e.g., wages and salaries) and R&D generated to create that transaction value occurred in the United States.

[4] Unless otherwise indicated, this data is available in a Report prepared by TEConomy Partners for PhRMA, The Economic Impact of the U.S. Biopharmaceutical Industry: 2020 National and State Estimates, Mar. 2022, available at https://phrma.org/resource-center/topics/economic-impact/industry-economic-impact.

The U.S. biopharmaceutical industry is among the top five employers of U.S. manufacturing jobs, with more Americans directly employed in pharmaceutical manufacturing than in manufacturing in several other manufacturing industries, including each of the following: iron and steel products, aerospace products and parts, petroleum and coal products, and electric equipment and appliances.[5]

The U.S. biopharmaceutical industry has outpaced U.S. manufacturing and the overall U.S. private sector in employment growth over the 2015-2020 period, demonstrating a combination of expansion, stability and economic resilience that makes the industry a key driver of the U.S. economy. Whereas direct employment in biopharmaceutical manufacturing increased 28.4 percent over this period, total manufacturing employment fell 5.1 percent and overall economy-wide employment decreased 0.7 percent over the same period.

The U.S. biopharmaceutical manufacturing industry employs a diverse workforce.[6] For example, U.S. biopharmaceutical manufacturing is the second highest employer of women in the U.S. manufacturing sector and the fifth highest employer of minorities (Black, Asian, Latino). The industry created 55,000 U.S. manufacturing jobs for women over the past five years, the second highest among all manufacturing industries; women account for almost 60 percent of U.S. manufacturing jobs in the biopharmaceutical industry, but less than 30 percent of all U.S. manufacturing jobs. Similarly, the industry created 77,000 U.S. manufacturing jobs for minorities (Black, Asian, Latino) over the past five years, the second highest among all manufacturing industries; almost 80 percent of the U.S. manufacturing jobs created in the biopharmaceutical industry over the past five years went to minorities (Black, Asian, Latino).

Innovative biopharmaceutical companies and their supply chains also play key roles in supporting local economies and a wide range of jobs in every state across the country. In fact, nearly every state is involved in the manufacturing of FDA-approved medicines.

High Skills, High Wage, and High Productivity

The complexity of innovative biopharmaceutical production—driven by significant levels of research and development—requires a high proportion of STEM jobs and a significant share of employment in high-skill and advanced degree occupations. Yet, as a critical industry also requiring significant manufacturing and distribution infrastructure, the U.S. biopharmaceutical industry offers significant employment opportunities and careers for individuals with less than a bachelor's degree.

This unique employment mix benefits all workers, with average annual wages and benefits of more than $145,000—nearly $60,000 more than the average U.S. manufacturing industry job and more than twice the U.S. average across all industries. From an overall productivity perspective, this high-wage and high-quality employment mix, combined with the R&D intensity of the U.S. biopharmaceutical industry, generates a productivity level of nearly $381,000 per employee—more than twice that of the U.S. average manufacturing worker and more than three and half times than that of the average U.S. worker.

[5] U.S. Bureau of Labor Statistics, Current Population Survey (CPS) Labor Force Statistics, available at https://www.bls.gov/cps/home.htm.
[6] Id.

Significant Economic Driver

The innovative biopharmaceutical industry is one of the most research-intensive in America, annually investing an estimated $122.2 billion in researching and developing new medicines.[7] In 2020, the U.S. biopharmaceutical industry's direct output exceeded $710 billion and supported output totaled an additional $700 billion, with the ripple effect of this production through suppliers and other sectors of the U.S. economy. This combined, total output impact constitutes 3.7 percent of total U.S. output. Through its research, production, and overall operations, value added from the U.S. biopharmaceutical industry directly contributes 1.6 percent of U.S. GDP. This figure increases to 3.4 percent of U.S. GDP when indirect and induced effects, which support more than $720 billion in value added, are included.

Since 2015, over 50,000 jobs have been created in the U.S. biopharmaceutical industry by new foreign direct investment.[8] The biopharmaceutical industry attracts more new foreign direct investment into the United States than any other industry (over $143 billion over the past five years). In turn, the industry is by far the largest driver of new foreign direct investment in U.S. manufacturing, accounting for more than 20 percent over the past five years. The next-highest industry, computers and electronic products, accounted for only 7 percent over the same period.[9]

The biopharmaceutical industry also is a major U.S. exporter. In 2021, U.S. biopharmaceutical goods exports exceeded $80 billion.[10] The biopharmaceutical sector was the largest exporter of goods among the most R&D-intensive industries in 2020 – which in addition to biopharmaceuticals included navigational equipment, semiconductors and other electronic components, medical equipment and supplies and communications equipment.[11]

In addition to its significant contributions to the U.S. economy and patients, the U.S. innovative biopharmaceutical industry seeks to serve patients around the world through local affiliates. Data demonstrates that U.S. multinationals that increase their investments abroad simultaneously increase the size and strength of their manufacturing activities in the United States.[12] For example, creation of jobs by U.S. multinationals abroad and the expansion of sales by U.S. multinational affiliates abroad both lead to more production and employment at home, especially in high value-added services such as R&D. On average, a 10 percent increase in U.S. multinational firms' overseas sales by their affiliates correlates with an 8.2 percent increase in U.S. domestic R&D spending; 2.6 percent increase in U.S. exports; and 2.2 percent increase in U.S. employment. Preponderance of net job loss in U.S. manufacturing comes from companies that do not invest abroad.

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[7] Research!America, U.S. Investments in Medical and Health Research and Development, Jan. 2022.
[8] Financial Times Ltd, fDi Markets, available at https://www.fdimarkets.com/. Note: new foreign direct investment includes "greenfield projects" only, and not acquisitions.
[9] U.S. Bureau of Economic Analysis, New Foreign Direct Investment in the United States, available at https://www.bea.gov/data/intl-trade-investment/new-foreign-direct-investment-united-states/supplemental-data.
[10] TradeStats Express™: National Trade Data for NAICS Code 3254 Pharmaceuticals and Medicines, available at http://tse.export.gov/TSE/TSEHome.aspx.
[11] Analysis of National Science Foundation and Business Research and Development Survey (BRDIS) data by ndp | analytics.
[12] The Petersen Institute for International Economics, The U.S. Manufacturing Base: Four Signs of Strength, June 2014, available at https://www.piie.com/publications/policy-briefs/us-manufacturing-base-four-signs-strength.

In short, the nation's biopharmaceutical industry is a major driver of innovation and economic growth both within the U.S. and globally. The ongoing COVID-19 pandemic has highlighted the critical need for the industry as well as the ability of the U.S. biopharmaceutical industry to respond effectively in times of national and global crisis, while also consistently providing jobs for significant numbers of highly skilled, highly productive and highly paid workers across the country.

PhRMA appreciates the opportunity to share this information with the Commission.

Sincerely,

/s/ Douglas Petersen

Douglas Petersen
Deputy Vice President, International Affairs

/s/ Neil Pratt

Neil Pratt
Head of International Legal Affairs

Summary of PhRMA Submission for Inclusion in the Report

The U.S. innovative biopharmaceutical industry and its participation in the global trading system contribute significantly to the U.S. economy and its workers.

The Economic Impact of the U.S. Innovative Biopharmaceutical Industry

The industry's varied occupational base and extensive research, manufacturing and distribution infrastructure generate and support high-wage jobs, significant tax revenues and growing economic output for local communities.

Sizeable, Stable and Diverse Employment

In 2020, the U.S. biopharmaceutical industry directly employed more than 903,000 U.S. workers and supported more than 3.5 million additional U.S. jobs. In 2020, 37 percent of U.S. biopharmaceutical industry employees were engaged in manufacturing at over 1,500 plants across the country.

The U.S. biopharmaceutical industry is among the top five employers of U.S. manufacturing jobs, with more Americans directly employed in pharmaceutical manufacturing than in several other manufacturing industries, including iron and steel products, aerospace products and parts, and electric equipment and appliances.

The U.S. biopharmaceutical industry outpaced U.S. manufacturing and overall U.S. private sector employment growth over the 2015-2020 period. Whereas direct employment in biopharmaceutical manufacturing increased 28.4 percent over this period, total manufacturing employment fell 5.1 percent and overall economy-wide employment decreased 0.7 percent over the same period.

The U.S. biopharmaceutical manufacturing industry is the second highest employer of women in the U.S. manufacturing sector and the fifth highest employer of minorities (Black, Asian, Latino). The industry created 55,000 U.S. manufacturing jobs for women and 77,000 U.S. manufacturing jobs for minorities (Black, Asian, Latino) over the past five years, both of which are the second highest among all manufacturing industries.

High Skills, High Wage, and High Productivity

The complexity of innovative biopharmaceutical production requires a significant share of employment in high-skill and advanced degree occupations. Yet, as a critical industry also requiring significant manufacturing and distribution infrastructure, the industry offers significant employment opportunities for individuals with less than a bachelor's degree.

This unique employment mix benefits all workers, with average annual wages and benefits of more than $145,000—nearly $60,000 more than the average U.S. manufacturing industry job and more than twice the U.S. average across all industries.

Significant Economic Driver

The innovative biopharmaceutical industry is one of the most research-intensive in America, annually investing an estimated $122.2 billion in researching and developing new medicines. In 2020, the U.S. biopharmaceutical industry's direct output exceeded $710 billion and supported output totaled an additional $700 billion. This combined, total output impact constitutes 3.7 percent of total U.S. output.

Since 2015, over 50,000 jobs were created in the U.S. biopharmaceutical industry by new foreign direct investment (FDI). The biopharmaceutical industry attracts more new FDI into the U.S. than any other industry (over $143 billion over the past five years). In turn, the industry is the largest driver of new FDI in U.S. manufacturing, accounting for more than 20 percent over the past five years.

The biopharmaceutical industry also is a major U.S. exporter. In 2021, U.S. biopharmaceutical goods exports exceeded $80 billion. The biopharmaceutical sector remains the largest exporter of goods among the most R&D-intensive industries.