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Research and Development Policy Framework

We are entering a new era of medicine, where breakthrough science and robust biopharmaceutical R&D are revolutionizing patient care. Advances in genomics and immunotherapy are enabling personalized treatments and harnessing the power of the immune system to fight diseases like cancer and rare conditions.

Over the past decade, PhRMA member companies have invested over \$850 billion in developing new treatments and cures, yielding groundbreaking results. The biopharmaceutical sector is the most R&D-intensive industry in the U.S., investing six times more in research than other manufacturing sectors.

This progress is transforming how we diagnose, treat, and cure diseases, offering hope for conditions once thought untreatable. With more than 8,000 medicines in clinical development, the future of medicine is brighter than ever.

Fact Sheet

The Biopharmaceutical Research Ecosystem – Five Things You Need to Know

Report

2024 PhRMA Annual Membership Survey

Report

Innovation in the Biopharmaceutical Pipeline

Progress toward New Medicines and Vaccines

The biopharmaceutical industry utilizes its scientific and industrial expertise to build on and advance basic science research into safe and effective treatments and vaccines that can be made available to patients. The biopharmaceutical industry is uniquely positioned to take on the necessary risk to advance research into safe and effective treatments. For example:

- On average, it takes 10-15 years and costs \$2.6 billion to develop one new medicine, including the cost of the many failures.
- Only 12% of new molecular entities that enter clinical trials eventually receive U.S. Food and Drug Administration (FDA) approval.
- Approximately 7,000 rare diseases exist today yet only 5% have an available treatment.

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Medicines in Development

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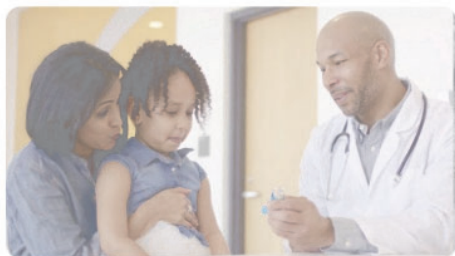
Nearly a Decade of Treatment Advances Bring Cures to the Vast Majority of Hepatitis C Patients

Fact Sheet March 20, 2023

Accelerated Approval: Bringing Patients Access to Needed Medicines

Graphic May 11, 2021

Development of new medicines relies on private sector expertise and investment



Video

The Unique R&D Ecosystem: Delivering New Treatments and Cures to Patients

September 16, 2020

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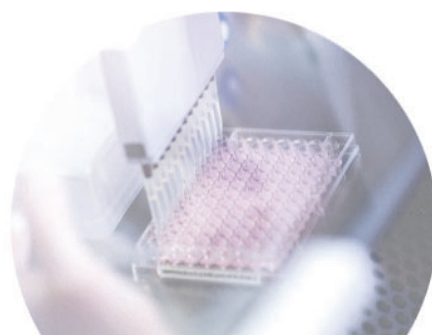
Biopharmaceutical Innovation in Fighting HIV/AIDS

Graphic August 7, 2020

Medicine Development in a Complex, Collaborative Ecosystem

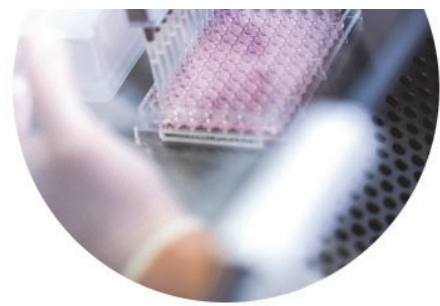
Advances in Treatment

- **Progress in the fight against cancer:** Since peaking in 1991, the cancer death rate in the United States has decreased by more than 33%. This progress is due in large part to new treatment advances in oncology like precision medicine, immunotherapy and CAR-T cell therapy.
- **Turning HIV/AIDs into a treatable chronic condition.** The introduction of highly active antiretroviral therapy (HAART) in the mid-1990s, which transformed treatment leading to over 90% decline in death rates and preventing an estimated 862,000 premature deaths.



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- **Harnessing the medical power of the genome.** In recent years, biopharmaceutical scientists have been harnessing the power of cell and gene therapies to treat and potentially cure a range of diseases from cancer to disorders of the blood.



Committed to Research

All of PhRMA's member companies meet the following criteria:

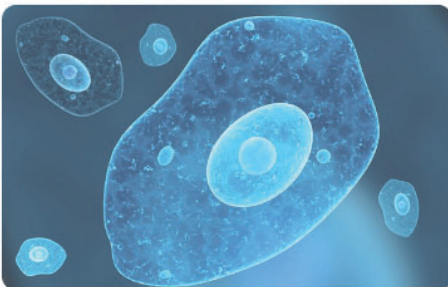
- A three-year average global R&D to global sales ratio of 10% or greater; and
- A three-year average global R&D spending of at least \$200 million per year.

PhRMA member companies have invested over \$1 trillion dollars in R&D since 2000, establishing the biopharmaceutical sector as the most R&D-intensive industry in the U.S. economy. In fact, the biopharmaceutical industry invests on average six times more in R&D as a percentage of sales than all other manufacturing industries.

Through investment in R&D, biopharmaceutical researchers and scientists have gained a better understanding of diseases and a greater ability to harness new scientific advances, leading to tremendous progress in the development of treatments and cures for some of the most debilitating diseases patients face.

Updated as of September 2024.

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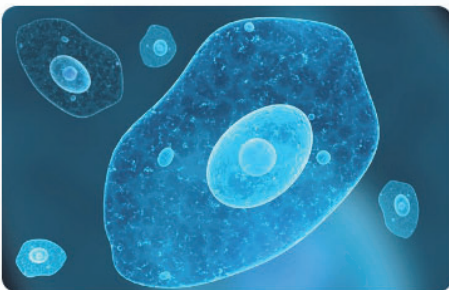
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