

Public-Private Collaboration Fuels the US Biopharmaceutical Ecosystem

Exchange of Scientific Knowledge

Private industry, academic, and government scientists all work to understand the function of newly discovered molecular compounds and cells, strange phenomena in the body, or little-understood disease processes. When that knowledge is shared in peer-reviewed publications, scientific meetings, patents, and licensing of intellectual property, and then expanded upon, this exchange of scientific knowledge fuels the creation of ideas for new medicines.

**PHARMA
& BIOTECH**

**MEDICINES
FOR PATIENTS**

**NIH &
ACADEMIA**

**SCIENTIFIC
KNOWLEDGE
ABOUT
PATIENTS**

Patents & Licenses

Patents allow researchers to protect and license their inventions for further development and potential commercialization, enabling the US biomedical research and development ecosystem to lead the world in biopharmaceutical progress. They also play an important role on the collaboration side, as the patents help companies identify who has the right assets and intellectual capital to bring together. The security that patents provide is fundamental to encouraging collaboration and investment, and incentivizing ongoing research and development into new medicines for patients.

Research Collaboration

Because the NIH does limited research related to drug development, without the scientific and industrial expertise of the biopharmaceutical industry the knowledge resulting from basic science research would generate many ideas for potential drugs and drug targets – but very few new medicines. Though industry, academic, and government scientists are encouraged to collaborate on research questions, the biopharmaceutical industry's ability to take the necessary risks is required to build on and advance basic science research into safe and effective treatments that can be made available to patients.