Partnering to Strengthen the Ecosystem of Biomedical Innovation

Robert J. Hugin
Chairman and CEO
Celgene

We are witnessing the emergence of a collaborative ecosystem that will help drive the discovery and delivery of cures.

According to the World Health Organization, the number of new cancer cases is projected to increase by more than 50 percent over the next 20 years. The incidence of Alzheimer's disease and other forms of dementia in the United States will double by 2050, creating a potential $1.1 trillion annual burden on the healthcare system. Without new medical innovations, the burden of these conditions will overwhelm our health system and threaten economic growth.

What will it take to overcome these challenges? Collaboration across a stronger and more sustainable ecosystem of medical innovation that transforms drug development, ensures patient access, and accelerates the virtuous cycle of investment in new cures. Over the last seven years, we are witnessing the emergence of a collaborative ecosystem that will help drive the discovery and delivery of these cures.

It is often cited that global biopharmaceutical companies spend more than $135 billion every year on research and development. What is not as often referenced is how much biopharmaceutical companies invest in one another—in building the biopharmaceutical research and development ecosystem. In Cambridge, San Francisco, San Diego, and other hotbeds of innovation across the United States, smaller companies focused on finding specialized solutions to complex and debilitating diseases are multiplying. Spurred in part by the capital markets credit freeze of 2008, larger biopharmaceutical companies created symbiotic relationships with smaller companies. We are now beginning to see its benefits – this symbiotic relationship has helped bring to fruition the nearly 1,813 treatments currently in development for various types of cancer and the 1,329 currently in development for neurologic diseases such as Alzheimer's. Seventy percent of these therapies in the ecosystem of innovation's pipeline are potential first in class medicines.

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The biopharmaceutical sector's investment in the innovation ecosystem encompasses much more than just providing capital to smaller start-ups. It necessitates a commitment to the belief that innovation requires collaboration, a willingness to be a flexible partner, and a recognition that both sides bring great value to any partnership—no matter how large one side may be, there is always room to learn from the other.

Being committed to collaborative solutions does not mean abandoning focus on building internal strengths. Since 2010, Celgene has invested more than 25 percent of its revenues into internal research and development programs—recognizing the importance of a proper balance between strengthening and enhancing our own expertise and developing others' expertise in related areas. Over the same period, Celgene has invested more than $5 billion into its collaborative "distributed" research model, consummating more than 40 collaborations with medical innovators in early- and late-stage molecules that have the potential to change the practice of medicine forever.

The dollar figures associated with the multitude of transactions only tell one part of the story. Partnering means finding win-win solutions for both sides, providing support whether it is strategic or operational, and being willing to change when circumstances warrant it. Ultimately, it requires both sides to share a common goal of accelerating the delivery of transformational therapies to patients and doing whatever is necessary to bring those therapies to market. Over the past few years, a number of compounds that have been developed in connection with our collaboration partners have received FDA fast-track designation—an important step toward bringing about faster cures for patients.

Patients are not the only ones who are benefiting from the biopharmaceutical sector's investment in this ecosystem. So does the economy. Research-driven biopharmaceutical companies employ more than 810,000 people directly and support a total of 3.4 million jobs across the country. A considerable number of these jobs are with companies that are no more than five years old.

We are already witnessing the future of biopharmaceutical "deal-making," better described as a commitment to strengthening the ecosystem of innovation that we are a part of. For the sake of patients, the healthcare system, and the broader economy, we must work together to continue our commitment to these types of collaborative partnerships and extend them to other areas of the healthcare system.

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