TOP INNOVATIONS AND TRENDS IN THE LIFE SCIENCES INDUSTRY

Organizations are investing at different ends of the value chain, with the common theme being the ability to engage a broader range of partners in the development of drugs—from R&D to commercialization."

Huron offers its perspective on where Life Sciences innovation stems, what is motivating companies to innovate, and if significant investment in innovation is likely to continue.

What recent innovations are pushing the boundaries of life sciences, technology, and state-of-the-art care?

It's easy to pull together a list of the enabling and therapeutic technologies transforming the landscape. They range from CRISPR-Cas9, to a dizzying array of new protein constructs, to a growing variety of NGS platforms.

But, at a structural level, the less visible and glamorous developments are occurring.

Organizations are investing at different ends of the value chain, with the common theme being the ability to engage a broader range of partners in the development of drugs—from R&D to commercialization.

Research & Development

From an R&D perspective, organizations are moving away from high-cost, long-tail payout components.

Instead, they are favoring a distributed investment in capital and expertise through co-located networks of syndicated venture capital, partner research, site-of-care insights, and academic intellectual property generation, among other strategies.

This new approach has increased an organization's ability to articulate its mission, invest in cross-sector talent and data pollination, and align the risks and payoff opportunities—dramatically accelerating the diversity and transformational potential of an early-stage portfolio.

The results are starting to show. While program success rates in development continue to erode, the industry's throughput and time to market have improved dramatically.

Commercialization

From a commercialization perspective, pharmaceutical companies are slowly embracing the value of digital health to capture and act on marketplace insights.



To receive timely Life Sciences updates to your inbox, join **Huron Life Sciences' Strategy Subscription**.

Companies are now capturing and analyzing the overlay of physician practice, consumer behavior and real-world outcomes data to identify both macro- and micro-level opportunities to improve care while reducing costs through predicitive analytics.

This consolidation of both the payer and provider industries fostered the development of common data capture standards, ontologies, and platforms, enabling the analysis and intrepretation of enormous datasets.

Provider systems now have the ability to generate real-world evidence on their patient populations, allowing them to quickly assess the results of a change in practice and adjust the reach of that change—ultimately impacting patient experience.

The Sustainability of Life Sciences Innovation

The current "focus" on innovation isn't new—but it is leaving many in the life sciences industry to wonder: Is the current era and focus on innovation sustainable over the long term?

The life sciences industry generally follows a technology cycle that runs approximately 15 to 25 years—with the last notable event considered to be the evolution of biotechnology from a technical perspective.

This evolution took about 20 years.

Prior to biotechnology, innovation was generally seen as a 20-year medicinal chemistry cycle. Prior to that—there was little beyond crude vaccinology, dubious surgery, and narcotic experimentation.

But for all that modern medical technology has to offer today, much continues to be taken for granted. For instance, when proton beams give way to brachytherapy, biologics give way to biosimilars. The advanced procedure becomes a routine outpatient visit, and epistemological esoterica becomes an introductory course for first year medical students.

In the future, many in the industry anticipate seeing the incorporation of deep insights from the patient ecosystem into product discovery, development, and release.

As the body of human knowledge continues to grow, and our ability to mine that knowledge base to make connections increases, the pace of innovation will quicken.

And as is the case with every innovation, a new set of challenges will likely emerge.

CLINICAL RESEARCH MANAGEMENT BRIEFING

The Clinical Research Management Briefing is a weekly newsletter that Huron Consulting Group sends out to clients and interested parties.

As a subscriber, you will receive our newsletter every Monday morning, providing you with an aggregate of clinical research industry trends, noteworthy findings, and events—among other useful content.

To subscribe, visit: huronconsultinggroup.com/CRMB-Subscribe

HURON

huronconsultinggroup.com

© 2016 Huron Consulting Group Inc. All Rights Reserved. Huron in a management consulting firm and not a CPA firm, and does not provide attest services, audits, or other engagements in accordance with standards established by the AICPA or auditing standards promulgated by the Public Company Accounting Oversight Board ("PCAOB"). Huron is not a law firm; it does not offer, and is not authorized to provide, legal advice or counseling in any jurisdiction.

MU 160355