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J.P. Morgan Healthcare Conference: New Catalysts Set to Transform Patient Care

Earlier this month, Global X attended J.P. Morgan's Healthcare Conference. The 41st iteration of the conference hosted nearly 10,000 attendees with presentations from 550 leading healthcare companies. The conference often sets the tone for business development activity in the industry for the year and hosts the newest developments in healthcare innovation. This year, management presentations also touched on reducing costs, paths to profitability, and launching innovative products to help improve patient outcomes. In this piece, we share our highlights from the conference and how we see these trends impacting the healthcare industry.

Key Takeaways:

- Genomic Technologies: Lower price points and higher throughput are the next step towards widespread adoption at the patient level.
- Digital Health: New commitments to finding efficiencies that can improve patient care while reducing costs is a goal for traditional and non-traditional healthcare industry firms.
- Messenger RNA (mRNA): COVID-19 was just the start for mRNA as companies begin to deploy it in new disease categories.

Genomic Technologies: Laying Groundwork to Drive Widespread Availability

The growing interest and opportunities in genomic profiling and diagnostic capabilities to improve prevention and diagnosis of illnesses was a big theme at the conference. Life science company Illumina estimates that the sequencing market opportunity will be upwards of \$120 billion by 2027.¹ Currently, the sequencing industry is only 7% penetrated, a figure Illumina expects to reach 14% by 2027.² Adoption thus far is primarily in the research setting, where academic organizations, government institutions, and pharmaceutical firms utilize genomic sequencing to drive drug discovery and pathogen monitoring.

New industry targets are lower price points and increased throughput to drive widespread availability of genomic profiling at the patient level. Illumina, the leader in the genomic sequencing industry with about 70% market share, wants to expand its portfolio to help advance adoption.³

Illumina reported 2022 earnings of \$4.58 billion, relatively flat from 2021 due to macroeconomic factors. The launch of the firm's new high-throughput sequencer analyzer, NovaSeq X, is expected to play a key role in achieving 7–10% year-over-year (YoY) growth in 2023.⁴ NovaSeq X has already received 140 orders, with 300 total shipments expected this year.⁵ NovaSeq X features a 2.5x throughput improvement over their the existing NovaSeq 6000 and a 2x speed improvement.⁶ The new analyzer is expected to also play an important role in helping drive down cost of sequencing, given its \$200 price tag to sequence a genome with related analysis.

Pacific Biosciences hinted at 2022 performance, highlighting strong adoption of its long-read sequencing analyzers. PacBio's installed base increased 37% in 2022 to 512, propelled by acceptance from leading research institutes such as the Broad Institute of MIT and Harvard.⁷ Data generated from its sequencing lineup increased by 68% during the year.⁸ The company's newest long-read sequencer, Revio, is also reportedly off to an excellent start with 76 systems ordered, 30% of which are sales to new customers.⁹



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Aided by its new short-read sequencer, Onso, we view PacBio as well positioned to gain market share in the clinical market and to capitalize on the sector's growth.

Semiconductor firm Nvidia was also in attendance. Historically, facilitating AI integration for radiology systems and surgical robots has been Nvidia's focus in healthcare, making up 80% of the firm's healthcare-related revenues. ¹⁰ Now, Nvidia targets the growing genomic field, which now represents 50% of healthcare-related revenues. ¹¹ Nvidia noted that healthcare is now the largest data-generating industry in the world and the industry's ability to sequence DNA has outpaced its ability to decipher the information it contains. We view the ability to efficiently capture and learn from this data as essential to driving the power of genomic technology and we expect it to play a role in the AI-drug discovery segment. Nvidia estimates that over 30% of new drugs will be discovered using AI technology by 2025, up from zero today. ¹²

Digital Health: Making Personalized, Value-Based Care a Reality

Though the healthcare industry has delivered highly innovative diagnostic and therapeutic options in the 21st century, ensuring a more personalized and efficient experience remains elusive. Though life expectancy has remained stable at 76 since 1996, healthcare spending is four times higher. Digital health and value-based care focused on prevention intend to break that trend.¹³

Interestingly, industry experts highlighted the need to drive integration across digital heath verticals to facilitate adoption. For patients and healthcare practices alike, utilizing too many single solutions is expensive and complicated. As a result, we expect continued business development and partnership activity to help accelerate acceptance. We also expect non-traditional healthcare companies to play a role, evidenced by their attendance at the conference.

For example, Instacart CEO Fidji Simo outlined the firm's strategy to partner with healthcare companies to help study the role of nutrition and food and medicine delivery in patient outcomes. She noted that the use of online pharmacies to deliver medications to the home shows a 20% improvement in medication adherence. In Instacart is evaluating a service that enables physicians to order appropriate food for delivery to patients post-surgery or to help create tailored meal plans. Simo noted that 87% of healthcare costs come from diet-related diseases. In

Teladoc reported encouraging 2022 data, including strong consumer engagement and patient outcomes. In addition to its new pharmacy delivery and in-home laboratory testing, Teladoc wants to provide an integrated experience for patients across all care verticals. The firm's P360 offering, focused on comprehensive primary care, reported strong efficacy data. Sixty-five percent of participants did not have a primary care physician (PCP) prior to enrolling in the program, 31% of total participants were overdue for a colorectal screening, and 20% of female participants were overdue for a cervical screening. ¹⁶ Improvement in screening adherence will play a key role in disease prevention.

Teladoc also showed strong data of diagnosing and subsequently managing disorders via its P360 platform. Thirty-seven percent of patients with diabetes were previously undiagnosed. The While 25% of patients with hypertension were previously diagnosed, 56% of P360 members with high blood pressure lowered their blood pressure since joining the program. Across all care categories, Teladoc now boasts million members, with a total 21 million visits in 2022.

mRNA: Targeting Disease Categories Beyond COVID-19

The conferenced showcased numerous developments in pharmaceutical prevention and illness treatment. We were particularly encouraged by presentations on the performance of messenger RNA (mRNA) vaccines in 2022 and their future across the healthcare sector. Moderna presented preliminary 2022 earnings data, including \$18.4 billion in sales of its COVID-19 mRNA vaccine, Spikevax, up from \$17.7



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billion in 2021.²⁰ The firm also has \$5 billion in confirmed advanced purchase agreements for Spikevax in 2023.²¹ BioNTech announced that it delivered 2 billion doses of its Comirnaty mRNA vaccine in 2022.²²

Both Moderna and BioNTech intend to expand the promise of mRNA to other disease categories, including infectious diseases. The firms utilize mRNA to instruct the patient's immune system to fight disease but are focusing on different disorders.

Moderna announced that it enrolled over 36,000 patients for its pivotal phase III trial for respiratory syncytial virus (RSV) vaccine. RSV, like SARS-CoV2, is a highly infectious viral infection common in infants and children. Shortly after the conference, Moderna announced its RSV vaccine showed 83.7% efficacy and that it will seek U.S. Food and Drug Administration (FDA) approval in the first half of 2023. Moderna announced that its two concurrent phase III trials for influenza are fully enrolled and that it expects to publish efficacy data later this year.

The firm is also investigating a group of six latent viruses, including HIV, HPV, and varicella (chickenpox). Of this group, only HPV and varicella have approved vaccines, though CEO Stéphane Bancel noted that Moderna plans to expand into areas where they can improve on currently available vaccines.²⁵ The firm's therapy development process allows for rapid deployment of vaccines with projected 60-day timelines prior to in-human clinical trials.²⁶

In December 2022, Moderna announced that its experimental mRNA therapy for melanoma cut the risk of recurrence or death by 44% compared to standard of care.²⁷ Moderna is also investigating mRNA in chronic heart failure and rare disease. For cystic fibrosis, the firm is conducting a phase I trial for inhaled pulmonary mRNA in partnership with Vertex Therapeutics.

BioNTech is investigating its mRNA technology in influenza and investigational vaccines for malaria, shingles, tuberculosis, and herpes. BioNTech expects to release data across six clinical infectious disease programs in 2023.²⁸ Along with continued work in mRNA vaccines for oncology, BioNTech is exploring engineered cell therapies, antibody-based treatments, and small molecule immunomodulators across a variety of cancer types. In total, BioNTech has 19 clinical programs in oncology, with 22 clinical trials.²⁹ BioNTech expects to publish data for seven of these clinical trials in 2023.³⁰ To aid in its development of breakthrough medicines, BioNTech announced that it is acquiring UK-based InstaDeep for \$439 million to ramp up its efforts in AI-assisted immunotherapy development.³¹ For more information on this BioNTech's progress in oncology, see ASCO Annual Meeting 2022: An Innovation Showcase in Cancer Treatment.

Conclusion: Healthcare Innovation Resilient and Accelerating

As expected, the J.P. Morgan Healthcare Conference showcased exciting innovation in the healthcare field across genomic technologies, digital health, and pharmaceutical development. Despite the macroeconomic environment, management teams outlined a host of catalysts in 2023 that can improve patient care. In our view, these catalysts can help drive adoption across numerous investment themes, including Genomic & Biotechnology, Aging Population, Telemedicine & Digital Health, and Robotics & Artificial Intelligence.

Footnotes

- Illumina. (2023, January 9). 41st Annual J.P. Morgan Healthcare Conference Presentation & Breakout Session.
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- 10. Nvidia. (2023, January 12). J.P. Morgan 41st Annual Healthcare Conference Presentation.
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