Biogen and Envisagenics Announce Collaboration to Advance RNA Splicing Research

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- *As part of the agreement, Biogen will leverage Envisagenics' AI platform with the goal of better understanding Central Nervous System diseases*

CAMBRIDGE, Mass. and NEW YORK, May 13, 2021 (GLOBE NEWSWIRE) -- Biogen Inc. (Nasdaq: BIIB) and Envisagenics today announced a new collaboration to advance ribonucleic acid (RNA) splicing research within central nervous system (CNS) diseases. As part of the collaboration, Biogen will leverage Envisagenics' proprietary artificial intelligence (AI)-driven RNA splicing platform, SpliceCore ®, to define and understand the regulation of different RNA isoforms in CNS cell types.

Genetic information encoded in the human chromosome is converted into RNA molecules which is then used as the template to make proteins. RNA splicing is the process that trims out extra information embedded in the intermediate RNA molecules, and this trimmed RNA is what is then used to produce functional proteins.

"Since Biogen's earliest days, RNA splicing has been an integral part of our history and mission dating back to co-founder Phillip Sharp's discovery of the process in 1977," said Alfred Sandrock, Jr., M.D., Ph.D., head of research and development at Biogen. "By combining Envisagenics' SpliceCore platform with our deep expertise in this scientific approach, we believe that Biogen will be able to advance our understanding of RNA splicing and potentially identify new drug targets for CNS diseases."

"Envisagenics is thrilled to work with Biogen because we share a commitment to identifying potential treatments for CNS diseases through innovative AI technology like the SpliceCore platform. Envisagenics and Biogen recognize the power of RNA splicing to aid in the discovery of potential therapeutics," said Maria Luisa Pineda, Ph.D., chief executive officer of Envisagenics. Envisagenics' Chief Technology Officer, Martin Akerman, Ph.D., added, "scientists have only recently been able to uncover disease-causing novel isoforms at scale, thanks to improvements in the speed and sensitivity of bioinformatics software like SpliceCore."

Traditionally, the process of detecting, cataloging and interpreting RNA splicing errors has been laborious, slow and costly. However, by tapping into Envisagenics' machine learning algorithms and high-performance computing, Biogen may now be able to identify, test and validate splicing errors at scale. Through this collaboration, Biogen will gain access to SpliceCore's database of approximately seven million potential RNA splicing errors, which is the largest database of splicing errors in the world. This will provide Biogen with a broader lens to evaluate splicing events that may be targeted for therapeutic gain. In addition, collaboration aligns to Biogen's broader objective of identifying and validating genetic targets of disease to increase the probability of success in CNS drug discovery.

About Biogen
At Biogen, our mission is clear: we are pioneers in neuroscience. Biogen discovers, develops and delivers worldwide innovative therapies for people living with serious neurological and neurodegenerative diseases as well as related therapeutic adjacencies. One of the world's first global biotechnology companies, Biogen was founded in 1978 by Charles Weissmann, Heinz Schaller, Kenneth Murray and Nobel Prize winners Walter Gilbert and Phillip Sharp. Today Biogen has the leading portfolio of medicines to treat multiple sclerosis, has introduced the first approved treatment for spinal muscular atrophy, commercializes biosimilars of advanced biologics and is focused on advancing research programs in multiple sclerosis and neuroimmunology, Alzheimer's disease and dementia, neuromuscular disorders, movement disorders, ophthalmology, neuropsychiatry, immunology, acute neurology and neuropathic pain.

We routinely post information that may be important to investors on our website at www.biogen.com. Follow us on social media – Twitter, LinkedIn, Facebook, YouTube.

About Envisagenics
Envisagenics is an Artificial Intelligence-driven biotechnology company that focuses on the discovery of novel RNA splicing variants that cause cancer and other genetic diseases. Its principal technology is the SpliceCore® discovery platform. The platform re-envisions the human genome with a validated exon-centric approach, combined with machine learning algorithms and high-performance computing. It is up to 250 times more likely to discover novel targets than gene-centric discovery tools. Using innovative technology and RNA analysis expertise, Envisagenics accelerates the development of highly specific therapeutics that modulate RNA splicing variants that drive pathogenesis of oncology, neurodegenerative, and metabolic disorders.

Envisagenics partners with biopharmaceutical companies and academic institutions to advance their drug discovery capabilities. Envisagenics also has its own internally developed RNA therapeutic programs. Envisagenics is a spin-out of Cold Spring Harbor Laboratory and a current resident of Johnson & Johnson Innovation in JLABS@NYC. Envisagenics is a proud woman- and minority-led recipient of several grants from the National Institute of General Medical Sciences and the National Cancer Institute.

For more information, please visit www.envisagenics.com. Follow us on social media – Twitter, LinkedIn, YouTube.

Biogen Safe Harbor
This news release contains forward-looking statements, made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including statements relating to the potential benefits and results that may be achieved through Biogen's collaboration with Envisagenics; the potential treatment of CNS diseases; the potential of Biogen's commercial business and pipeline programs; Biogen's strategy and plans; Biogen's research and development plans; and risks and uncertainties associated with drug development and commercialization. These forward-looking statements may be accompanied by words such as "aim," "anticipate," "believe," "could," "estimate," "expect," "forecast," "goal," "intend," "may," "plan," "potential," "possible," "will," "would" and other words and terms of similar meaning. Drug development and commercialization involve a high degree of risk, and only a small number of research and development programs result in commercialization of a product. You should not place undue reliance on these statements or the scientific data presented.

These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements, including,

without limitation: uncertainty as to whether the anticipated benefits of the proposed collaboration can be achieved; risks of unexpected hurdles, costs or delays; uncertainty of success in the development and use of SpliceCore to define and understand the regulation of different RNA isoforms in CNS cell types; failure to protect and enforce data, intellectual property and other proprietary rights and uncertainties relating to intellectual property claims and challenges; product liability claims; third party collaboration risks; and the direct and indirect impacts of the ongoing COVID-19 pandemic on Biogen's business, results of operations and financial condition. The foregoing sets forth many, but not all, of the factors that could cause actual results to differ from Biogen's expectations in any forward-looking statement. Investors should consider this cautionary statement as well as the risks factors identified in Biogen's most recent annual or quarterly report and in other reports Biogen has filed with the U.S. Securities and Exchange Commission. These statements are based on Biogen's current beliefs and expectations and speak only as of the date of this news release. Biogen does not undertake any obligation to publicly update any forward-looking statements, whether as a result of new information, future developments or otherwise.

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