Charles River and Aitia Enter Strategic Agreement to Utilize Logica in Discovery Programs for Neurodegenerative Diseases and Oncology

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- *Strategic partnership includes co-development of patient-derived xenograft (PDX) Digital Twins for in vivo oncology research*
- *Charles River to make an equity investment in Aitia as part of the agreement*

WILMINGTON, Mass. & SOMERVILLE, Mass.--(BUSINESS WIRE)--Nov. 13, 2023-- Charles River Laboratories International, Inc. (NYSE: CRL) and Aitia, a leader in the application of Causal AI and Digital Twins, today announced a strategic agreement that gives Aitia access to Logica™, Charles River's Artificial Intelligence (AI) powered drug solution platform, for the optimized discovery and early development of multiple therapeutic programs for neurodegenerative disease and oncology.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20231113943756/en/

Under the terms of the agreement, Aitia will deploy Logica across their portfolio of novel drug targets with the aim of creating and advancing drug candidates for neurological indications, including Alzheimer's, Parkinson's, and Huntington's diseases and cancers, including prostate cancer and multiple myeloma. According to the World Health Organization (WHO), Alzheimer's disease (AD), the most common form of dementia, affects 33 million people globally, while Parkinson's disease (PD) impacts 8.5 million, and it is estimated that Huntington's disease (HD) affects approximatively 1 in 10,000 people worldwide. There are currently no known cures for these diseases, and the prevalence of all three diseases rises year-over-year. In the field of oncology, there are approximately 1.4 million new cases of prostate cancer and 160,000 new cases of multiple myeloma reported globally each year. Each cancer presents unique challenges with acquired resistance to novel therapies and corresponding rates of overall survival.

"Unraveling the complex genetic and molecular circuitry of neurodegenerative disorders is critical to the discovery of treatments that significantly slow or reverse these devastating diseases," said Colin Hill, Chief Executive Officer and Co-founder of Aitia. "I do not believe we will get there without the insights from our Digital Twins, which now combined with the advantages of Logica, positions Aitia to rapidly translate our discoveries into novel drug candidates. We are excited to join forces with Charles River, leveraging their decades of industry expertise in research to fuel our R&D efforts."

"Combining Aitia's Digital Twins with Logica's next-generation solution stands to transform the discovery and development of novel therapeutics for neurological diseases and oncology," said Professor Julie Frearson, Ph.D., Corporate Senior Vice President and Chief Scientific Officer, Charles River. "The research landscape for Alzheimer's, Parkinson's, and Huntington's has moved slowly in recent years, and we are excited for the impact that this combined AI solution can deliver to patients."

Digital Twins: Increasing Translation Through Data

Additionally, Charles River and Aitia have signed a strategic partnership agreement, focused on the development of a patient-derived xenograft (PDX) Digital Twin to predict the best tumor models for *in vivo* oncology research. The partnership will combine Charles River's robust, fully-characterized, disease-relevant PDX data and expertise with Aitia's industry-leading Digital Twin technology to develop PDX Digital Twins in several cancer types. As part of the partnership, Charles River has made an equity investment in Aitia.

In drug discovery, Digital Twins enable the accurate simulation of gene and protein knockdowns at the individual patient level across patient cohorts to discover and genetically validate novel drug targets. This concept can be applied in a similar way to individual tumor types to design more targeted preclinical studies for oncology research. Digital Twins enable the simulation of disease progression and drug response for existing drug candidates to discover biomarkers to better select existing therapies and effective combination therapies.

The Strength of Logica, an Integrated AI Program
In 2022, Charles River and Valo Health launched Logica, leveraging the AI-powered Valo Opal Computational Platform™ and Charles River's leading preclinical expertise, providing clients with transformed drug discovery with a single integrated offering seamlessly translating targets to candidate nomination. Logica is offered as a fully managed, risk-sharing model, with most of the client's cost tied to success.

"Logica has optimized drug discovery," said Emilio Cordova, Executive Director, Logica. "Combining laboratory infrastructure, expert drug hunters, and large-scale compute capabilities, Logica eliminates whitespace and rapidly delivers results."

Logica utilizes industry-leading predictive models, chemical design, and synthesis capabilities, DNA-encoded libraries, *in silico* high throughput screening from Valo's Opal Computational Platform as well as Charles River's leading capabilities in all aspects of discovery optimization including high throughput screening, medicinal chemistry, ADME, biology, pharmacology, and ultimately safety testing and IND submission, joining together for the first time to create a computation-powered, unified target-to-candidate offering.

Last year, Charles River and Flagship's Pioneering Medicines announced an agreement to deploy Logica across a portfolio of targets with the aim of creating optimized small molecules that lead to novel therapies for unmet medical needs. More recently, Charles River and Related Sciences announced a multi-program collaboration to apply Logica across several previously undrugged targets.

About Aitia
Aitia is the leader in the development and application of Causal AI and Digital Twins to discover the next generation of therapies for neurodegenerative diseases and oncology. By leveraging the convergence of multi-omic patient data, high-performance computing, and causal learning and AI, Aitia is revealing the hidden circuitry of human biology to identify novel targets driving disease and focused patient recruitment for clinical development. Aitia has translated those insights into its Gemini Digital Twins (computational representations of disease), which the company is using to discover new

breakthrough therapies. Aitia's partners include six of the top ten pharmaceutical companies, leading academic research and medical centers, medical societies, leading multi-omic data companies, and patient advocacy groups globally. For more information, please visit www.aitiabio.com.

About Valo Health
Valo Health, Inc is a technology company focused on utilizing large scale data and AI-driven computation to discover and develop therapeutics. Valo aims to fully integrate human-centric data across the entire drug development life cycle into a single unified architecture, thereby accelerating the discovery and development of life-changing drugs while simultaneously reducing costs, time, and failure rates. The company's Opal Computational Platform™ is an end-to-end drug discovery and development platform with a unified architecture designed to transform data into valuable insights that may accelerate discoveries and enable Valo to advance a robust pipeline of programs, initially focused on cardiovascular metabolic renal, oncology, and neurodegenerative disease. Founded by Flagship Pioneering and headquartered in Boston, MA, Valo also has offices in Lexington, MA, and New York, NY. To learn more, visit valohealth.com.

About Charles River
Charles River provides essential products and services to help pharmaceutical and biotechnology companies, government agencies and leading academic institutions around the globe accelerate their research and drug development efforts. Our dedicated employees are focused on providing clients with exactly what they need to improve and expedite the discovery, early-stage development and safe manufacture of new therapies for the patients who need them. To learn more about our unique portfolio and breadth of services, visit www.criver.com.

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