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## **Cira Discovery Sciences and The Wistar Institute Announce Collaboration to Develop New Approaches to Proteomics-Based Diagnostics**

**PHILADELPHIA, PA. February 23, 2004:** Cira Discovery Sciences, Inc. and The Wistar Institute today announced a collaborative research agreement to develop new approaches to creating next-generation diagnostic tests for cancer and lung disease. The new collaboration will bring together Cira's advanced computational methods for finding patterns in massive data sets and Wistar's world-class research in the emerging science of proteomics, the large-scale study of the structure and function of proteins.

Most diagnostic tests today rely on measurements of individual features known as biomarkers in the patient's blood or tissues, but currently available biomarkers provide physicians with limited information and often require them to attempt their own analysis and interpretation. Proteomics offers the possibility of more global and predictive diagnostics, but generates massive amounts of data that are too large and complex to be analyzed by current methods. Cira Discovery Sciences has developed a computational approach based on pattern discovery that makes the use of proteomics feasible.

"Effective analysis of complex proteomes such as those found in human cancer cells and tissues requires novel computational tools for data analysis, because no current methods are capable of quantitatively comparing the more than 20,000 proteins present in such samples," said Professor David Speicher, Ph.D., head of the proteomics research laboratory at The Wistar Institute. "Cira's proprietary computational algorithms and our proteomics technologies are perfect complements for solving key problems that hold great promise for improving the management of many diseases."

Over the past several years, Speicher and his team at Wistar have focused on improving protein profiling methods, and recently they developed a number of strategies for reproducible and robust quantitative comparisons of these protein profiles. However these methods produce large and complex data sets that cannot be handled by current mathematical approaches.

Cira Discovery Sciences has developed a computational approach for discovering patterns in large and complex data sets like those generated by proteomics technologies. Rather than relying on individual

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protein measurements, Cira's technology enables the analysis and interpretation of the entire proteome, the collection of proteins and peptides found in blood or tissue samples.

"Cira's innovative computational technology has the unique capability to address the tremendous dimensionality of complex systems, focusing on patterns representing the interactions of large numbers of individual biomarkers," said Wade Rogers Ph.D., president and chief executive officer of Cira Discovery Sciences. "We believe that this capability makes our technology particularly well-suited to identify proteomic-based diagnostic and prognostic biomarkers. We are pleased to collaborate with leading proteomic researchers at the Wistar Institute to explore applying our respective technologies to accelerate this process."

Cira recently received a seed round of investment from BioAdvance, the Biotechnology Greenhouse of Southeastern Pennsylvania, which was instrumental in bringing Cira and The Wistar Institute together.

"We invested in Cira because they have a game-changing technology platform," said Gary Kurtzman, M.D., chief operating officer of BioAdvance. "Our mission includes helping link key players in our region's life sciences community, and we're gratified to see these two come together to advance medical care."

**About Cira Discovery Sciences:** *Founded in 2003, Cira develops and applies advanced computational technologies for drug discovery and diagnostics. The privately-held company, located at the Science Center Port in Philadelphia, provides specialized research services to pharmaceutical and biotechnology firms as well as conducting its own internal programs aimed at developing advanced molecular diagnostics. For more information on Cira Discovery, please see [www.ciradiscovery.com](http://www.ciradiscovery.com)*

**About The Wistar Institute:** *The Wistar Institute is an independent nonprofit biomedical research institution dedicated to discovering the causes and cures for major diseases, including cancer, cardiovascular disease, autoimmune disorders, and infectious diseases. Founded in 1892 as the first institution of its kind in the nation, The Wistar Institute today is a National Cancer Institute-designated Cancer Center – one of only eight focused on basic research. Discoveries at Wistar have led to the development of vaccines for such diseases as rabies and rubella, the identification of genes associated with breast, lung, and prostate cancer, and the development of monoclonal antibodies and other significant research technologies and tools.*

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