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**NEWS RELEASE**

**FOR IMMEDIATE RELEASE**

**PROTEA & VCU IN MOLECULAR IMAGING RESEARCH PARTNERSHIP**

*Joint Research to combine LAESI<sup>®</sup> Mass Spec Imaging with PET and MRI*

**Savannah GA USA 8:30am ET September 18, 2013** . Protea Biosciences Group, Inc. (“Protea”) announced today that it has entered into a Collaborative Research Agreement with Virginia Commonwealth University (“VCU”) and its Center for Molecular Imaging. The research focuses on the combination of LAESI, Protea’s ex vivo molecular imaging mass spectrometry technology platform, with VCU’s in vivo molecular PET, SPECT and MRI/MRS imaging capabilities, in hopes of developing new methods to better elucidate the molecular basis of cancer, Alzheimer’s and other human disease.

The announcement was made at the Sixth Annual World Molecular Imaging Congress, being held this week in Savannah, Georgia <http://www.wmicmeeting.org/>.

“We are pleased to form this exciting research collaboration with VCU’s Center for Molecular Imaging”, stated Steve Turner, CEO. He added, “Under the leadership of Dr. Jamal Zweit, VCU has built a world class biomolecular imaging infrastructure and capability”. He added, “It has been the dream of medical science to be able to obtain data on cellular changes at the molecular level, rapidly, and in tandem with existing imaging screening methods. This research initiative is directed at achieving this goal.”

LAESI (short for Laser Ablation Electrospray Ionization) was developed by Protea to rapidly generate imaging profiles of the biomolecules present in cells and tissue sections. The LAESI DP-1000 allows the direct identification of biomolecules in living cells and bacterial colonies, with analysis completed in seconds to minutes. Thus, molecular changes that occur in cells over time can be identified and tracked.

Jamal Zweit, PhD., Director of the VCU Center for Molecular Imaging stated, “We are excited to make this research collaboration with Protea. Our center has established state of the art technical capabilities, including the ability to design and synthesize radiolabeled compounds for PET and MRI Imaging. Our scientific team emphasizes multi-modality imaging, and our applications of imaging, biochemistry, physics and clinical medicine to advance molecular imaging make us uniquely-qualified to undertake this research initiative.”

**About Protea Biosciences Group, Inc.**

Protea is a technology leader in the field of mass spectrometry (“mass spec”) molecular imaging - the identification and localization of the molecular products of living cells, that is foundational science for all pharmaceutical, medical, and life science research.



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About LAESI imaging: <https://proteabio.com/imaging/LAESI-MSI>

### **About The Virginia Commonwealth University Center for Molecular Imaging**

The Center for Molecular Imaging integrates molecular imaging and molecular medicine with systems biology approaches to understand disease complexity, promising to provide predictive, preventative and personalized medicine that will transform health care. The Center for Molecular Imaging at the VCU Medical Center is designed to foster multidisciplinary molecular imaging research using advanced imaging technologies that together provide real-time in-vivo information, complemented with ex-vivo data. The center's objective is to study biological systems and interactions at the molecular, cellular and tissue level in their intact environment. The center has a focus in cancer and neuroscience research.

VCU Center for Molecular Imaging website: <http://www.molecularimaging.vcu.edu/>

### **Forward-Looking Statements**

*This release includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements regarding our expected future financial position, results of operations, cash flows, financing plans, business strategy, products and services, competitive positions, growth opportunities, plans and objectives of management for future operations, as well as statements that include words such as "anticipate," "if," "believe," "plan," "estimate," "expect," "intend," "may," "could," "should," "will," and other similar expressions are forward-looking statements. All forward-looking statements involve risks, uncertainties and contingencies, many of which are beyond our control, which may cause actual results, performance, or achievements, as described in our reports filed with the Securities and Exchange Commission which are available for review at [www.sec.gov](http://www.sec.gov), to differ materially from anticipated results, performance, or achievements. We are under no obligation to (and expressly disclaim any such obligation to) update or alter our forward-looking statements, whether as a result of new information, future events or otherwise.*

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