



Frederick



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SAIC-Frederick and Applied Research & Photonics Collaborate on Advancing Applications of Terahertz Spectrometry

FREDERICK, Md., Jan. 5, 2010 — Applied Research & Photonics (ARP) and National Cancer Institute (NCI) contractor SAIC-Frederick, Inc. have entered into a collaboration to assess a new technology – terahertz spectrometry – for analysis of structures and materials supporting biopharmaceutical manufacturing.

Under the Collaboration Agreement, SAIC-Frederick's Biopharmaceutical Development Program will assess Applied & Research Photonics's T-ray technology for identifying chemical compounds in materials related to cGMP manufacturing.

The agreement was formed under NCI's Advanced Technology Partnerships Initiative (ATPI), which aims to reduce the time and cut the cost of translating basic research into new preventive measures, diagnostic tests, and effective, patient-specific treatments for cancer patients. SAIC-Frederick is facilitating these partnerships.

The collaboration will focus on applications of time-domain terahertz spectroscopy to identify chemical compounds. SAIC-Frederick, as part of its normal function for biopharmaceutical development, explores alternatives to traditional methodologies used to support the development of new agents.

“We are very pleased to provide the terahertz capabilities in helping the NCI's efforts in fighting cancer. With its parts-per-trillion sensitivity, we are confident that the TeraSpectra will make a significant contribution to NCI's mission,” said Anis Rahman, CTO of ARP. He also added, “Presence of residuals in drug formulations is a major source of post-treatment toxicity. Current methods are not sensitive enough to detect a very small amount of residuals left in the drug candidates from the process chemistry. Since terahertz offers very high sensitivity at very low concentrations, it is expected that application of this tool will help solve some critical problems involving the identification and quantification of the residuals in biopharmaceutical products for cancer treatment.”

About Applied Research & Photonics

Headquartered in Harrisburg, PA, Applied Research & Photonics, Inc. (ARP) is a nanotechnology company with the core products in the terahertz area. ARP has demonstrated a number of products based on its proprietary dendrimer based nanotechnology. ARP's terahertz spectrometer, TeraSpectra, uses a high- power

terahertz source enabling high resolution spectrometry. It has a wider terahertz range for probing molecular phenomena on time scales from a few femto-seconds to a few tens of pico-seconds. Designed and manufactured in Harrisburg, TeraSpectra offers the potential of solving a number of problems in biomolecular, pharmaceutical, analytical and other research areas. More information: arphotonics.net

About SAIC-Frederick

SAIC-Frederick, Inc., a wholly owned subsidiary of Science Applications International Corporation (SAIC), a Fortune 500[®] company, is the operations and technical support contractor for the National Cancer Institute's research and development center in Frederick, Md. This is a national laboratory dedicated to rapidly translating basic research into new technologies for diagnosing, treating, and preventing cancer and AIDS. SAIC-Frederick maintains a full suite of advanced technologies in areas such as nanotechnology, genomics and imaging; operates the federal government's drug and vaccine manufacturing facilities; operates the high-performance Advanced Biomedical Computing Center; and supports more than 300 clinical trials for patients in the United States and around the world.

For information on NCI's Advanced Technology Partnerships Initiative:
ATPIhome.com

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