

PNNL, Agilent CRADA signed for proteomic research

Research will lead to more accurate protein and peptide identification

Pacific Northwest National Laboratory (PNNL) has executed a Cooperative Research and Development Agreement (CRADA) with Agilent Technologies, Palo Alto, California, that is anticipated to provide PNNL with analytical equipment and software valued at approximately \$450,000 for use in its research programs.

The objective of the CRADA is to increase confidence in proteomic identification by developing and validating ways to more accurately identify peptides and proteins. This will complement current identifications PNNL scientists are making that are based on peptide and protein mass and charge. The U.S. Department of Energy's (DOE's) Office of Science, Office of Biological and Environmental Research (BER) is funding PNNL's work under the CRADA as part of ongoing work at PNNL to develop high-throughput proteomics production methods.

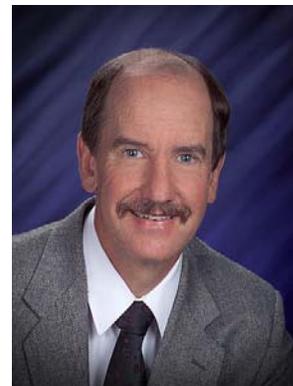
The CRADA is a follow-on effort to one conducted from 2003 to 2005 that was also funded by BER and resulted in liquid chromatography/mass spectrometry instrumentation valued at more than \$600,000 being supplied to PNNL by Agilent in return for PNNL efforts under the CRADA. This instrumentation is now used on a routine basis for DOE-BER's proteomics research programs at PNNL.

Once PNNL successfully completes the scope of work identified in the CRADA, ownership of the equipment will transfer to PNNL for subsequent use in DOE-funded research. The CRADA may be extended to provide additional high-value mass spectrometry instrumentation to PNNL.

The PNNL CRADA team includes Dick Smith, Konstantinos Petritis, Bruce Harrer, and Meg Soldat. Agilent provides core electronic and bio-analytical measurement tools to advance the electronics, communications, life science research, environmental, and petrochemical industries.



PNNL scientist Kostas Petritis inserts a protein ID chip into the chip cube mass spectrometry MS interface of the Agilent 1100 nano-high performance liquid chromatography (HPLC) -chip cube-ion trap mass spectrometry system. The nano-HPLC system delivers fluidics in the nanoliter-per-minute range, and the chip separates the components of interest for mass spectrometric analysis.



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