

Biological Sciences Division

Journal lists two PNNL articles in top five most accessed

Two journal articles by Pacific Northwest National Laboratory scientists were among the most-accessed scientific papers in 2005 in the *Journal of Proteome Research*.

“Probability-Based Evaluation of Peptide and Protein Identifications from Tandem Mass Spectrometry and SEQUEST Analysis: The Human Proteome” was listed among the journal’s three most accessed articles. The article described proteomic evaluations PNNL made of false positive peptide identifications from human proteome samples. Their findings demonstrated the need for new information filtering criteria for the samples. These criteria yielded significantly higher confidence levels (>95%) for peptide identifications and were further validated using a peptide normalized LC elution time (NET) criterion.

Authors are Wei-Jun Qian, Tao Liu, Matthew E. Monroe, Eric F. Strittmatter, Jon M. Jacobs, Lars J. Kangas, Konstantinos Petritis, David G. Camp II, and Richard D. Smith. The research was supported by a National Center for Research Resources NIH project and the Environmental Molecular Sciences Laboratory at PNNL, sponsored by DOE’s Office of Biological and Environmental Research (BER).



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“Simple Protein Complex Purification and Identification Method for High-Throughput Mapping of Protein Interaction Networks” was number five on the list. The article describes a method developed by PNNL staff to purify and identify protein complexes that is not only simpler than current methods, but is easier to scale up and automate, making it suitable for high-throughput mapping of protein interaction networks and functional proteomics. The authors are L. Meng Markillie, Chiann-Tso Lin, Joshua N. Adkins, Deanna L. Auberry, Eric A. Hill, Brian S. Hooker, Priscilla A. Moore, Ronald J. Moore, Liang Shi, H. Steven Wiley, and Vladimir Kery. This work was supported by DOE’s Genomics:Genomes to Life program, a BER project.



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The list and articles can be accessed at
http://pubs.acs.org/journals/jprobs/promo/most_accessed/index.html.