



## Medical Education and Research Grant Outcome Report

**Name:** Human Proteomics Program

**Principal Investigator:** Richard Moss, PhD

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**Department:** Physiology

**Program:** Targeted

**Grant Duration:** 03-01-2006 to 08-31-2009 (42 months)

**Expenditures:** \$1,821,684 (98%)

**Use of Funds (Taxonomy):** Type 1 Translational Research

**Research Keywords:** Proteomics, Biomarkers, Disease, Diagnostics, Therapeutic Targets

► **Description:** Proteomics is the systematic study of the proteins in a cell, tissue, or organism. Since proteins are responsible for structure and function in all living organisms, understanding and mapping the vast array of proteins in humans and other organisms will have significant effects on improving human health. This grant sought to increase the proteomics capacity of the University of Wisconsin School of Medicine and Public Health by establishing educational and training programs in proteomics, creating a core facility for proteomics research, and both initiating and implementing basic and translational research in proteomics.

► **Contributions/Results:** The Human Proteomics Program (HPP) has made excellent progress in meeting its three main objectives.

The HPP Mass Spectrometry Core Facility is now fully operational with modern instruments and highly qualified staff. It operates as a user-friendly training facility and currently serves more than 20 research labs within the UWSMPH and across campus. HPP staff have successfully pursued extramural funding and have published peer-reviewed papers in high impact journals. This work has demonstrated the potential impact of proteomics in studies of the basis for human health and disease.

The HPP has sponsored two symposia with a combined attendance of over 200 scientists and trainees. The HPP has established the Proteomics Journal Club and the Core Facility User Group, which both meet once a month to provide forums for communication, training and education within the

UW proteomics community. An educational website ([www.humanproteomics.wisc.edu](http://www.humanproteomics.wisc.edu)) has been established, including hands-on training programs and on-line tutorials about proteomics and mass spectrometry.

► **Met Objectives:** Project complete

► **Timeline for Application of Results:** Less than three years

► **New Partnerships or Collaborations:** HPP staff members have established dozens of collaborative projects investigating the molecular basis of health and disease, and developing and validating biomarkers for various diseases.

► **Matched Dollars (cash or in-kind):** \$97,324 (fee-for-service income from Oct 2007 to Aug 2009)

► **Dissemination:** Using data acquired at the HPP Mass Spectrometry Facility, Facility staff and users have published 20 peer reviewed articles and made 24 scholarly presentations.

► **Additional Funding:** Over \$500,000 in additional funding, including awards from the American Heart Association Scientist Development Grant, Dionex Corporation, the UW-Madison Graduate School, and the National Institutes of Health. In addition, MERC reauthorized the project in 2009, granting \$200,000 over the next two years. At this stage, the HPP and its MS Core Facility are on course to achieve financial self-sufficiency within three years through funding of extramural grants and a fee- for-service model for proteomic sample analysis.