



Association of Biomolecular Resource Facilities

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Dear Fellow ABRF Member,

September 13, 2004

A common request of proteomics core facilities is protein identification. However, in some instances there is little or no DNA sequence information in the public databases for the species from which these proteins originate. In other cases, the proteins may differ in some way from the protein predicted by the corresponding DNA sequence in the database as a result of gene mutation, gene splicing, and/or multiple posttranslational modifications. In these cases, it may be necessary to determine the sequence of one or more peptides *de novo* to identify and/or adequately characterize the protein of interest. The Proteomics Research Group (PRG) of the Association of Biomolecular Resource Facilities (ABRF) would like you to participate in a collaborative study focusing on evaluating the ability of core facilities to determine the sequences of several peptides for which sequences are not present in any public database.

The primary goal of this study is to give each laboratory an opportunity to evaluate its capabilities and approaches with regard to:

- Peptide sequencing
- Methods for the identification of unusual amino acids
- Software to assist in the interpretation of *de novo* sequence data

The PRG also plans to compile the data in a way that will facilitate comparison of the strategies used and aid in development of optimized protocols for these techniques. Laboratories requesting samples will receive a mixture containing up to six synthetic peptides present in amounts suitable for the use of mass spectrometric and/or chemical sequencing methods to determine the amino acid sequences. The PRG will request that along with the final sequences, participants return evidence for the sequence determinations, and to complete a web based questionnaire summarizing results and methods used.

This year's study is again open to both ABRF members and non-members. However, the total number of samples is limited, and priority will be given to ABRF members. Non-members are encouraged to join the ABRF (For more information go to <http://www.abrf.org>).

The PRG anticipates distributing the samples in September 2004, and requests that the resulting data be returned in early November so that sufficient time will be available to tabulate the results and to present them at the 2005 ABRF Meeting (February 5-8, 2005 in Savannah, GA). Due to increased security concerns, additional information about the study sample will be available if needed to expedite the arrival of your sample. If this information is needed please send a message to the email address noted in the next paragraph and include "more info" in the subject line.

Requests for samples must be submitted by e-mail to Dr. Dawn Maynard (maynardd@mail.nih.gov) prior to **September 20, 2004** (Note: this is the final deadline for requests). Please include the words "sample request" in the subject line and provide contact name, affiliation and complete mailing address in the body of the message. Because of the significant effort that goes into the preparation of the samples by the PRG, the research group asks that samples only be requested if there is a reasonable probability you will be able to return data by the deadline. As in the past, result submissions will be coded to insure anonymity of the participating laboratories. A summary of the results of this study will be available at the ABRF '05 meeting and will be subsequently posted on the ABRF website.

We thank you for your support of the ABRF and we look forward to your participation in this study.

Sincerely,

The ABRF Proteomics Research Group

Arnold M. Falick, Jeffrey A Kowalak, William Lane (EB liaison), Thomas Neubert (Chair), Brett Phinney, Christoph Turck, Susan Weintraub, and Karen West