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**Applicant’s Division:**   _____ clinical chemistry_______________________________

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(Must hold a primary appointment in Pathology)

**Appointment Category:**   _____ House Staff   _____ Clin Fellow   __X__ Research Fellow
   _____ Medical Student   _____ Graduate Student (Program:____________)

**Register for:**   _____ Clinical Research   _____ Translational Research   __X__ Basic Research

**Full Poster Title:**   ___ Specific Profiling of Sialylated Glycoproteins form Breast Cancer____

Where has the work been presented?
**Meeting Name**   __Fifth EDRN Scientific Workshop__________
**Meeting Date**   __March 17-19, 2008____________________________

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*INCLUDE A ONE-PAGE ABSTRACT (including title and all authors) OF THE WORK YOU WILL BE PRESENTING

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E-mail COMPLETED Registration form and abstract to:
Stacey Morgan (smorgan9@jhmi.edu) on or before
**Friday, March 14th, 2008**

If you have questions or problems regarding your submission, please
contact Stacey Morgan via e-mail (smorgan9@jhmi.edu)
Specific Profiling of Sialylated Glycoproteins from Breast Cancer

Yuan Tian, Francisco J. Esteva, Sheng-Te Tao, Heng Zhu, Julian Watts, Ruedi Aebersold and Hui Zhang

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Abstract

Glycosylation, one of the most important modifications to proteins, is known of heterogeneity and being varied associated with health state. The heterogeneity of glycosylation was presented by the modification of various sugars and a number of potential glycosylation sites on proteins. The question of which specific glycosylation related to a specific disease becomes urgent to be addressed for early-stage diagnosis and therapy of diseases. To determine the breast cancer related glycosylation, Lectin microarray was employed in this study. Sialic acid glycoproteins showed consistent changes in breast cancer and normal tissues. A specific isolation of sialylated glycoproteins was developed and reported here to identify and quantify sialylated glycoproteins in breast cancer tissues. The N-linked sialylated glycopeptides were profiled from three paired breast cancer and normal tissues. The patterns generated from N-linked sialylated glycopeptides were compared with the patterns generated from total N-linked glycopeptides and total tryptic peptides from the same specimens. The specific sialylated glycopeptides associated with cancer were determined.