UNIVERSITY OF WISCONSIN
1101 UNIVERSITY AVE.
MADISON, WI 53703
PHONE (206) 667-1947 • E-MAIL PHANSTIEL@WISC.EDU

DOUGLAS H. PHANSTIEL

EDUCATION

1997 - 2001 **University of California, San Diego** **La Jolla, CA**
Major: Biochemistry and Cell Biology, B.S.

2006 - present **University of Wisconsin, Madison** **Madison, WI**
Major: Analytical Chemistry, PhD candidate

RESEARCH EXPERIENCE

07/2006 – present **University of Wisconsin, Madison** **Madison, WI**
Advisor: Dr. Josh Coon

Investigated histone H4 modification changes in differentiating human embryonic stems cells
Evaluated isobaric stable isotope tags for use with electron transfer dissociation
Participated in implementation of electron transfer dissociation in and LTQ Orbitrap mass spectrometer

08/2004 – 06/2006 **Fred Hutchinson Cancer Research Center** **Seattle, WA**
Research Technician II
Molecular Diagnostics
Advisors: Dr. Hong Wang and Dr. Samir Hanash

Established sensitive and high throughput workflow (Thermo Electron LTQ-FT)
MS analysis (Waters Q-ToF Premier and Q-ToF Micro)
Optimized LC conditions for peak capacity and resolution (Thermo Electron Surveyor and Water nano Acquity)
Sample preparation, SDS-PAGE, gel-plug picking, protein digestion
Preparative Scale HPLC (Reverse Phase and Anion Exchange)
Data analysis and communication

06/2001 – 08/2003 **Structural GenomiX** **San Diego, CA**
Research Technician I
Mass Spectrometry Group
Advisor: Dr. Xia Gao

MS analysis, routine maintenance, and method development (ABI Voyager MALDI ToF and ABI Single quad)

Optimized and automated HPLC separations of proteins (Agilent 1100)
Identified proteins by peptide mass fingerprinting
Determined protein functional domain by limited proteolysis
Automated data analysis and entry into LIMS system by writing a short computer script

09/2003 – 05/2004 English Teacher/Chemistry Tutor Prague, CZE

Taught adults and children conversational and business English
Tutored high school students in basic chemistry

TECHNICAL SKILLS

Mass Spectrometry: MALDI and ESI, Ion Trap, FT-ICR, ToF, Quadrapole, Orbitrap
Peptide Identification: PMF, CID, ETD
HPLC: nano flow, micro liter flow, preparative scale (reverse phase and anion exchange)
Gel electrophoresis: SDS PAGE

AWARDS

Genomic Sciences Training Program Predoctoral Traineeship, UW-Madison (2007-2008)

National Merit Scholarship (1997-2001)

PUBLICATIONS

Faca, V.; Coram, M.; Phanstiel, D.; Glukhova, V.; Zhang, Q.; Fitzgibbon, M.; McIntosh, M.; Hanash, S. "Quantitative analysis of acrylamide labeled serum proteins by LC-MS/MS". Journal of Proteome Research **2006**, 5, 8 2009-2018.
(NOTE: This was one of the 20 most accessed articles from July-September 2006.)

McAlister GC; Phanstiel D; Good DM; Berggren WT; Coon JJ. "Implementation of electron-transfer dissociation on a hybrid linear ion trap-orbitrap mass spectrometer". Journal of Analytical Chemistry **2007**, May 15, 79, 10, 3525-34. Epub 2007 Apr 19.

CONFERENCE TALKS

Doug Phanstiel, Justin Brumbaugh, W. Travis Berggren, Mark Levenstein, Kevin Conard, Victor Ruotti, Ron Stewart, April Jue, James A. Thomson, and Joshua J. Coon. "Histone H4 isoforms in differentiating human embryonic stem cells". Proceedings of the 55th ASMS Conference on Mass Spectrometry, 2007, Indianapolis, IN.

CONFERENCE POSTERS

"Identifying Isoforms in Plasma; Beyond Shotgun Proteomics". Phanstiel D, Davis M, Faca VM, Zhang Q, Newcomb L, Glukhova V, Wang H, Krasnoselsky A, Struthers J, and Hanash S. Fred Hutchinson Cancer Research Center, Seattle, WA, USA
Presented at the 3rd International UPPSALA Conference on Electron Capture and Transfer Dissociation in Mass Spectrometry, Seattle, WA, USA 2005

"An Integrated Approach for Intact Protein Analysis and Protein Identification by LC/MS for Complex Biological ". Glukhova V, Phanstiel D, Faça V, Wang H, Krasnoselky H, Newcomb L, Hanash S. Fred Hutchinson Cancer Research Center, Seattle, WA.
Presented at the HUPO 4th Annual World Congress, Munich, Germany, August 2005.

"Identification of Glycoproteins in Lung Adenocarcinoma Cell Surface". V. Faca, B. Deng, Phanstiel D, Newcomb L, and Hanash S. Fred Hutchinson Cancer Research Center, Seattle, WA.
Presented at the HUPO 4th Annual World Congress, Munich, Germany, August 2005.

"Proteomic profiling of plasma for cancer mouse models". Krasnoselsky A, Faca V, Phanstiel D, Newcomb L, Song K, Glukhova V, Zhang Q, Struthers J, and Hanash S. Fred Hutchinson Cancer Research Center, Seattle, WA.
Presented at the HUPO 4th Annual World Congress, Munich, Germany, August 2005.

"Intact Protein Based Analysis System (IPAS) for Proteome Profiling Biological Fluids". Wang H[1], Clouthier SG[2], Galchev V[2], Misek DE[2], Zhao R[2], Duffner U[2], Min CK[2], Tra J[2], Phanstiel D[1], Omenn GS[2], Ferrara JLM[2], Hanash S[1]. [1]Fred Hutchinson Cancer Research Center, Seattle, WA; [2]University of Michigan, Ann Arbor, MI
Presented at the 53rd ASMS Conference, San Antonio, Texas, June 2005.

"Large-scale identification of surface proteins in lung adenocarcinoma cells". Faca VM, Deng B, Phanstiel D, Newcomb L, and Hanash S. Fred Hutchinson Cancer Research Center, Seattle, WA.
Presented at the HUPO 2005 Symposium, Washington D.C., USA, March 2005.

"Modeling Plasma Biomarker Discovery for Early Detection of Colonic Neoplasm in Mice". Kenneth S[1], Zhang Q[1], Phanstiel D[1], Faca V[1], Wang H[1], Krasnoselsky A[1], Struthers J[1], Misek D[2], Hung K[3], Kucherlapati R[3], Hanash S[1]. [1]Fred Hutchinson Cancer Research Center, Seattle, WA; [2]University of Michigan, Ann Arbor, MI; [3]Harvard Partners Center for Genetics and Genomics, Boston, MA
Presented at the 2005 AACR Conference on Colorectal Cancer, Dana Point, CA, USA, October 2005