CURRICULUM VITAE

HUI ZHANG

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DEMOGRAPHIC INFORMATION

Current Appointments

2011-present Associate Professor, Department of Pathology, Johns Hopkins University
2012-present Director, Mass Spectrometry Core Facility, Center for Biomarker Discovery and Translation, Johns Hopkins University

Personal Data

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Education and Training

Undergraduate
1989 B.S.**,** Plant Biochemistry, Beijing University, Beijing, China, Advisor: Dr. Zhang-Liang Chen

Master/graduate
1992 M.S.**,** Gene and Protein Engineering, Beijing University, Beijing, China, Advisor: Dr. Zhang-Liang Chen

Doctoral/graduate
1999 PhD, Biochemistry, University of Pennsylvania, Philadelphia, PA, Advisor: Dr. Roland G. Kallen

Postdoctoral
2001-2006 Research Scientist (2001-2003) and Senior Scientist (2003-2006), Institute for Systems Biology, Seattle, WA, Advisor: Dr. Ruedi Aebersold

Professional Experience

1998-1999 Product Manager, New England Biolabs, Beverly, MA. Advisor: Dr. Michael Comb
1999-2001 Scientist and Senior Scientist, Cell Signaling Technology, Beverly, MA. Advisor: Dr. Michael Comb
2001-2003 Research Scientist, Institute for Systems Biology, Seattle, WA. Advisor: Dr. Ruedi Aebersold
2003-2006 Senior Research Scientist, Institute for Systems Biology, Seattle, WA. Advisor: Dr. Ruedi Aebersold
2006-2011 Assistant Professor, Department of Pathology, Johns Hopkins University, Baltimore, MD.
2011-present Associate Professor, Department of Pathology, Johns Hopkins University, Baltimore, MD.
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RESEARCH ACTIVITIES

* indicating the corresponding authorship. With over 1,000 annual citations, 8,300 total citations, and h-factor of 35. Please visit updated publications.

1. Bao Y, Chu R, Han J, **Zhang H**, Pan N, Gu X, Chen Z-L.* Cloning and sequencing of Trichosanthin gene and its expression in Escherichia coli and tobacco plant. Sci China. 1993; 36: 669-676.

2. Sheng Z-H, **Zhang H**, Barchi RL, Kallen RG.* Molecular cloning and functional analysis of the promoter of rat skeletal muscle voltage-sensitive sodium channel subtype 2 (rSkM2): evidence for muscle-specific nuclear protein binding to the core promoter. DNA Cell Biol. 1994; 13: 9-23.
3. **Zhang H,** Maldonado MN, Barchi RL, Kallen RG.* Dual tandem promoter elements containing CCAC-like motifs from the tetrodotoxin-resistant voltage-sensitive Na^+ channel (rSkM2) gene can independently drive muscle-specific transcription in L6 cells. Gene Expression. 1999; 8: 85-103.
4. **Zhang H**, Kolibal S, Vanderkooi JM, Cohen SA, Kallen RG.* A carboxyl-terminal α-helical segment in the rat skeletal muscle voltage-dependent Na^+ channel is responsible for its interaction with the amino-terminus. Biochim Biophys Acta. 2000; 1467: 406-418.
5. **Zhang H**, Zha X, Tan Y, Hornbeck PV, Mastrangelo AJ, Alessi DR, Polakiewicz RD, Comb MJ.* Phospho-protein analysis using antibodies broadly reactive against phosphorylated motifs. J Biol Chem. 2002; 277: 39379-39387.
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7. **Zhang H**, Li XJ, Martin DB, Aebersold R.* Identification and quantification of N-linked glycoproteins using hydrazide chemistry, stable isotope labeling and mass spectrometry. Nat Biotechnol. 2003; 21: 660-666.
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9. **Zhang H**, Yan W, Aebersold R.* Chemical probes and tandem mass spectrometry: a strategy for the quantitative analysis of proteomes and subproteomes. Curr Opin Chem Biol. 2004; 8: 66-75.
10. **Zhang H***, Yi EC, Li XJ, Mallick P, Spratt KSK, Masselon CD, Camp II DG, Smith RD, Kemp CJ, Aebersold R. High throughput quantitative analysis of serum proteins using glycopeptide capture and LC-MS. Mol Cell Proteomics. 2005; 4: 144-155.
11. Liu AY*, **Zhang H**, Sorensen CM, Diamond DL. Analysis of prostate cancer using tissue specimens. J Urology. 2005: 173: 73-78.
12. Rush J*, Moritz A, Lee KA, Goss VL, Guo A, **Zhang H**, Zha X, Polakiewicz RD, Comb MJ. Immunoaffinity profiling of tyrosine phosphorylation in cancer cells. Nat Biotechnol. 2005; 23: 94-101.
13. Chen J, Saeki F, Wiley BJ. Cang, H, Li Z, Cobb MJ, Au L**, Zhang H**, Kimmey MB, Li XD*, Xia Y*. Bioconjugated gold nanocages and evaluation of their potential for optical imaging and thermal therapeutic applications. Nano Lett. 2005; 5: 473-477.
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15. Pan S, **Zhang H**, Rush J, Eng J, Zhang N, Patterson D, Comb MJ, Aebersold R*. High-throughput proteome-screening for biomarker detection. Mol Cell Proteomics. 2005; 4: 182-190.
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22. **Zhang H***, Liu AY, Loriaux P, Wollscheid B, Zhou Y, Watts JD, Aebersold R. Mass spectrometric detection of tissue-derived proteins in blood. Mole Cell Proteomics. 2007; 6: 64-71.

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sensitivity of proteogenomic mapping of somatic mutations and novel splicing events in cancer. Molecular & Cellular Proteomics. 2015; doi:10.1074/mcp.M115.056226.

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113. Sun S, Shah P, Toghi Eshghi S, Yang W, Trikannad N, Yang S, Chen L, Aiyetan P, Höti UN, Zhang Z, Chan DW, **Zhang H*.** Comprehensive analysis of protein glycosylation by solid-phase extraction of N-linked glycans and glycosite-containing peptides. Nat Biotechnol. 2016; 34: 84-88.

114. Yang S, Rubin A, Toghi Eshghi S, **Zhang H***. Chemoenzymatic method for glycomics: isolation, identification, and quantitation. Proteomics. 2016; 16: 241-256.

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116. **Zhang H**, Liu T, Zhang Z, Payne SH, Zhang B, McDermott JE, Zhou J, Petyuk VA, Chen L, Ray D, Sun S, Yang F, Chen L, Wang J, Shah P, Cha S-W, Aiyetan P, Woo S, Tian Y, Gritsenko MA, Choi C, Monroe ME, Thomas S, Moore RJ, Yu K-H, Tabb DL, Fenyö D, Bafna V, Wang Y, Rodriguez H, Boja ES, Hiltke T, Rivers RC, Sokoll L, Zhu H, Shih I-M, Pandey A, Zhang B, Snyder MP, Levine DA, Smith RD, Chan DW*, Rodland KD*, and the CPTAC investigators. Deep proteogenomic characterization of human ovarian cancer. Cell. 2016; Accepted.

Inventions, Patents, Copyrights

Awarded

11/13/01 Comb MJ, Tan Y, **Zhang H.** Production of motif-specific and context-independent antibodies using peptide libraries as antigens. United States patent # 7,259,022.

6/19/02 Rush J, **Zhang H**, Zha X, Comb MJ, Tan Y. Immunoaffinity isolation of modified peptides from complex mixtures. United States patent # 7,198,896.

6/3/03 Aebersold R, **Zhang H.** Methods for quantitative proteome analysis of glycoproteins. United States patent # 7,183,118.

7/10/03 Aebersold R, **Zhang H.** Affinity capture of peptides by microarray and related method. United States patent # 7,794,947.

2/12/04 Rush J, **Zhang H**, Zha X, Comb MJ, Tan Y. Immunoaffinity isolation of modified peptides from complex mixtures. United States patent # 7,300,753.

6/4/07 **Zhang H**, Li Y, Sokoll LJ, Zhang Z, Chan DW. Biomarkers for prostate cancer. United States patent #8,603,734.

Pending

6/18/02 Comb MJ, Tan Y, **Zhang H.** Positive identification of phospho-proteins using motif-specific, context-independent antibodies coupled with database searching. WO Patent 2003107003.

5/21/04 Aebersold R, **Zhang H.** Compositions and methods for quantification of serum glycoproteins. WO Patent 20051142211.

10/17/05 **Zhang H**, Aebersold R. Tissue-and serum-derived glycoproteins and methods of their use. WO Patent 2007047796.

7/25/08 **Zhang H**, Meany DL, Chan DW, Zhang Z, Li Y, Sokoll LJ. Detection of prostate cancer using PSA glycosylation patterns. Pending US application 20140193832, WO Patent 2010011357.

3/22/11 **Zhang H,** Tian Y, Chen J, Chan DW. Biomarkers for aggressive prostate cancer. Pending US application 20140106369, WO Patent 2012129408.

6/6/11 **Zhang H**, Yang S. Glycan and glycopeptide capture and release using reversible hydrazone-based method. **Pending US application** 20140135235, WO Patent 2012170491.

9/10/13 **Zhang H** et al. Methods for quantitative analysis of glycans and glycosylation sites on glycoproteins using solid-phase extraction of glycopeptides and glycans (SPEGAG). Pending PCT application WO

#2014/040,072.

9/10/13 **Zhang H** et al. Glycomic analysis by glycoprotein immobilization for glycan extraction and liquid chromatography on microfluidic chip. Pending PCT application WO 2014/040,066.

10/9/13 Veltri R, **Zhang H**, Christudass C, Liu Z, Epstein JI, Carter HB. Active surveillance biomarkers for assessing cancer patients for treatment. Provisional applications filed.

6/30/14 Li D, **Zhang H**, Chan DW. Serum angiogenic factors as prognostic biomarkers in prostate cancer. Pending US application 14/375,535.

9/29/14 **Zhang H** et al. Solid phase extraction of global peptides, glycopeptides, and glycans using chemical immobilization in a tip**.** Pending PCT/US application #2014/058,087.

10/9/14 **Zhang H** et al. Biomarkers for aggressive prostate cancer. Pending US patent application #2014/006,503.

11/20/14 **Zhang H**, Toghi Eshghi S. Mass spectrometry imaging of glycans from tissue sections and improved analyte detection method. Pending US application 14/402,478.

9/9/14 **Zhang H**, Shah P, Li QK, and Chan DW. Glycoproteins in aggressive prostate cancer patients. Provisional application filed.

Extramural Sponsorship (current, pending, previous)

Current

1/1/16 - 12/31/20 Glycoprotein biomarkers for the early detection of aggressive prostate cancer
U01CA152813 Competitive Renewal
NIH/NCI
$400,000, Total annual direct budget
PI: Zhang H, Aebersold R
Role: Co-PI, 15%; Notes: This is a biomarker developmental laboratory (BDL) of the Early Detection Research Network (EDRN). The goal of this project is to identify glycoprotein biomarkers for the early detection of aggressive prostate cancer in tissues and urine

1/1/16 - 12/31/20 Biomarkers for the detection of early stage or low-volume ovarian cancer
Agency: NIH/NCI/U01
$400,000, Total Annual Direct Budget
PI: Zhang Z, Shih I-M
Role: Co-Investigator, 5%; Notes: Development of *in vitro* diagnostic multivariate index assay using liquid-based cervical cytology specimen and/or serum/plasma biomarkers for the detection of early stage or low-volume ovarian cancer

1/1/16 - 12/31/20 Clinical and analytical validation of cancer biomarkers
U24CA115102
NIH/NCI
$2,429,999, Total Five-year Budget
PI: Chan DW
Role: Co-investigator, 10%; Notes: This is a biomarker reference laboratory (BRL) of the Early Detection Research Network (EDRN). The major goal of this project is to conduct analytical and clinical validation studies of biomarkers

8/29/11 - 7/31/16 Proteome characterization center: a genoproteomics pipeline for cancer biomarkers
U24CA160036
NIH/NCI
$1,375,891, Annual Direct Cost
PI: Chan D, Zhang H, and Zhang Z
Role: Co-PI, 20%; Notes: This is a center for the Clinical Proteomic Tumor Analysis Consortium (CPTAC). The major goal of this Center is the proteomic characterization of tumors with genomic data to not only verify the genomic alterations at the protein level but also allow for the analysis of unique features that are inherent to proteins including post-translational modifications.

4/1/15 - 3/31/16 Urinary glycoproteins associated with aggressive prostate cancer The Patrick C. Walsh Prostate Cancer Research Fund
$100,000, Total Annual Direct Cost
Role: PI, 0%; Notes: The major goals of this project are to identify glycoprotein biomarkers for aggressive prostate cancer in urine samples. We will develop urinary tests for the candidate glyco-proteins and evaluate their clinical performance for the detection of aggressive prostate cancer.

6/1/11 - 5/31/18 Glycoconjugates and cardiovascular disease
P01HL107153
NIH/NHLBI
$1,535,224 and $245,000/year direct cost was located to my budget, Total Annual Direct Cost
PI: Hart G
Role: PI for project #4 and PI for mass spectrometry core, 24%; Notes: This is a center of Programs of Excellence in Glycosciences (PEG). The central theme of this center is to study the roles of both extracellular and intracellular glycoconjugates in the mechanisms protecting the heart or leading to atherosclerosis and cardiomyopathies, culminating in myocardial infarction and heart failure.

12/1/14 - 12/31/16 Omics Approaches to Analyze Proteins and Glycoproteins from Cell Surface and Body Fluids
MEDIMMUNE, LLC
$195,000, Total Budget
Role: PI, 1%; Notes: This project is collaboration with MedImmune to study cell surface proteins and body fluid proteins using integrated proteomic and glycoproteomic approaches.

12/3/14 - 11/30/17 AGX1/2 Inhibitors as Key Modulators of the Hexosamine Biosynthetic Pathway
1R21CA191715-01
NIH/NCI
$140,000, ~$35,000 was allocated to my budget, Annual Direct Costs
PI: Yarema KJ
Role: Co-investigator, 6%; Notes: This project aims to study the roles of AGX1/2 Inhibitors in the Hexosamine Biosynthetic Pathway.

12/1/15 - 11/30/20 Targeting Latently Infected Primary Cells using Integrated Glycoproteomics
R21AI122382
NIH/NIAID
$1,903,500, Total budget
Role: PI, 10%; Notes: This proposal aims to screen the cell surface glycoproteins in an *in vitro*-generated latently infected primary cell model to reveal latency associated cell surface glycoproteins using glycoproteomics and PRM-MS and target latently infected cells *ex vivo* using antibodies against cell surface glycoproteins.

12/1/15 - 8/30/16 QUANTITY: A novel analysis kit for robust drug development, clinical diagnostics, and biomarker discovery –
Maryland Innovation Initiative (MII)
$150,000 - Total Budget and $50,000 will be allocated to my budget.
PI: Li S and Zhang H
Role: Co-PI, 3%; Notes: Developing a novel technology terms termed quaternary amine containing isobaric tag for glycan (abbreviated as QUANTITY) and its applications for drug development, clinical diagnostics, and biomarker discovery.

3/27/15 - 3/26/16 Clinical Assay Validation and Clinical Chemistry Workflow Training for Shimadzu
Shimadzu
$242,618, Annual Direct Costs:
PI: Chan DW
Role: Co-Investigator, 2%; Notes: This project aims to validate clinical assays and provide clinical

chemistry workflow training for Shimadzu.

9/1/15 - 8/31/18 Intergrating novel nutrient feeding strategies with computational glycosylation models to improve production of complex biotherapeutics from mammalian factories
CBET 1512265
National Science Foundation (NSF/ENG/CBET)
$350,000 total cost for three years and 0.3 postdoctoral fellow/year will be allocated to my budget
PI: Betenbaugh M, Yarema KJ, Zhang H
Role: Co-PI; Percent Effort: 1%; Notes: This project aims to use computational glycosylation models to improve production of complex biotherapeutics from mammalian cells.

Pending

9/01/16 - 8/31/21 Proteome characterization center: a genoproteomics pipeline for cancer biomarkers
U24
NIH/NCI
$800,000, Annual Direct Cost
PI: Chan D, Zhang H, and Zhang Z
Role: Co-PI, 20%; Notes: This is a center for the Clinical Proteomic Tumor Analysis Consortium (CPTAC). The major goal of this Center is the proteomic characterization of cancer tissues with genomic data to not only verify the genomic alterations at the protein level but also allow for the analysis of unique features that are inherent to proteins including post-translational modifications.

9/01/16 - 8/31/21 Proteogenomic Data Analysis Center (PGDAC) for Personalized Analysis and Modeling of Proteogenomic Data
U24
NIH/NCI
$615,000, Annual Direct Cost
PI: Qian J and Bader JS
Role: Co-investigator, 5%; Notes: The Center will take an engineering approach to extracting maximum value from CPTAC data generated by GCCs, PCCs, and PTRCs.

7/1/16 - 6/30/21 Clinical Resources for Alcoholic Hepatitis Investigations
1R24AA025017-01
NIH/Alcohol Research Resource Awards
$100,000, Total annual direct budget
PI: Sun Z, Cameron AM
Role: Co-investigator, 5%; Notes: The aims are to develop a clinical resource of severe alcoholic hepatitis that serves the alcohol research community.

9/01/16 - 8/31/19 Discovery of Signaling Systems Controlling Retinal Regeneration Transcriptomic and Proteomic Comparison of Fish, Frog, Mouse, and Human Inducible Degenerative Disease Models
U01GRANT12068211
NIH
$500,000 - Total Budget and $70,000 will be allocated to my budget.
PI: Mumm J et al
Role: Co-PI, 5%

9/01/16 - 8/31/19 A Rational Polypharmacology Approach to Identifying Drugs and Cognate Signaling Systems Promoting Retinal Regeneration
U01GRANT12068217
NIH
$500,000 - Total Budget and $60,000 will be allocated to my budget.
PI: Mumm J et al

Role: Co-PI, 5%

Previous

9/1/10 - 06/30/15 Glycoprotein biomarkers for the early detection of aggressive prostate cancer
U01CA152813
NIH/NCI
$400,000, Annual Direct Cost
Role: PI, 20%; Notes: This is a biomarker developmental laboratory (BDL) for the Early Detection Research Network (EDRN). The goal of this project is to identify glycoprotein biomarkers for the early detection of aggressive prostate cancer in tissues and serum.

7/1/15 - 12/31/15 Glycoprotein biomarkers for the early detection of aggressive prostate cancer
3U01CA152813-05S1
NIH/NCI
$84,658, Annual Direct Cost
Role: PI, 15%; Notes: This is a supplementary support for the biomarker developmental laboratory (BDL) for the Early Detection Research Network (EDRN). The goal of this project is to identify glycoprotein biomarkers for the early detection of aggressive prostate cancer in tissues and serum.

8/18/10-12/31/15 Clinical and analytical validation of cancer biomarkers
U24CA115102
NIH/NCI
$300,000, Annual Direct Cost
PI: Chan DC
Role: Co-investigator/developmental project leader, 10%; Notes: This is a biomarker reference laboratory (BRL) of the Early Detection Research Network (EDRN). The major goal of this project is to conduct analytical and clinical validation studies of biomarkers.

4/1/15 - 12/31/15 High-flux Sugar Analogs: An Enabling Technology for Glycoengineered Therapeutic Proteins
2015-MII-1944
Maryland Innovation Initiative (MII)
$100,000, $30,000 was allocated to my budget.
PI: Yarema KJ
Role: Co-investigator, 2%; Notes: This project aims to develop methods to efficiently produce the sugar analogs required for "glycoengineering" glycoproteins and technologies to analyze the resultant glycoengineered proteins.

9/30/02 - 11/30/06 Seattle proteomics center
N01-HV28179
NIH/NHLBI
PI: Aebersold R
Role: Co-investigator; Notes: The major goal of this project is to develop proteomic technologies.

7/1/04 – 4/30/05 Glycopeptide isolation chemistry
Industrial Technology Research Institutes (ITRI), Taiwan
PI: Zhang H, Aebersold R
Role: Co-PI; Notes: The goals of this project are to standardize the glycoproteomic technology and develop glycopeptide isolation kit.

10/1/04 - 9/30/06 Biomarkers of prostate and bladder cancer
UO1-CA-111244
NIH/NCI
PI: Liu A

	Role: PI for Subcontract to the Institute for Systems Biology; Notes: The major goal of this project is to develop molecular markers to detect prostate cancer or bladder cancer using urine tests
12/1/04 - 11/30/06	Glycopeptide isolation Merck & Co Sponsored Research Contract Role: PI; Notes: The goals of this project are to assist Merck & Co to establish glycoproteomic technology and to train Merck's scientists from its biomarker development team.
6/1/05 - 5/31/08	Improving early detection of breast cancer with a blood test Entertainment Industry Foundation (EIF) PI: Hartwell H Role: PI for subcontract to the Institute for Systems Biology and Hopkins; Notes: The major goal of this project is to develop biomarkers for early detection of breast cancer.
6/1/05 - 11/30/08	A proteomic approach for early diagnosis of diabetes R21/R33-DK071725 NIH/NIDDK PI: Zhang H, Watts J Role: Co-Principal Investigator; Notes: The major goal of this project is to develop serum markers for early diagnosis of diabetes.
6/13/05 - 5/31/08	Profile serum proteins by glycopeptide capture and LC-MS R21-CA-114852 NIH/NCI/IMAT Role: PI; Notes: The goals of this project are to develop glycoproteomic technology and to apply the method to cancer development in mouse model.
4/1/08 - 3/31/10	Glycoproteins for pathologic prediction of prostate cancer The Patrick C. Walsh Prostate Cancer Research Fund Role: PI; Notes: The major goals of this project are to characterize glycosylation of prostate-specific glycoproteins in preoperative serum, and to determine whether glycosylation of prostate-derived glycoproteins can be used as serum markers for prediction of pathologic stages.
9/1/08 - 8/30/10	Glycoprotein biomarkers for prostate cancer EDRN associate member A NIH/NCI Role: PI; Notes: This is an associate membership of the Early Detection Research Network (EDRN). The goal of this project is to identify prostate cancer-specific biomarkers in serum.
2/1/10 - 1/31/15	Mechanism and anti-cancer activity of SCFA-hexosamine analogs R01CA112314 NIH/NCI PI: Yarema, Kevin Role: Co-investigator, Notes: The goal of the parent grant to this project is to develop novel sugar-based cancer drugs to treat metastatic cancer.
8/15/10-8/14/15	Johns Hopkins proteomic innovation center in heart failure HHSN268201000032C (N01-HV-00240) NIH/NHLBI $1,515,732, Total Annual Direct Cost; $100,000 direct cost was located to my budget. PI: Van Eyk J Role: Co-investigator, 10%; Notes: This is a center of NHLBI Proteomics Centers. The goal of this project is to develop and apply innovative mass spectrometry based PTM capture methods in heart failure. In particular, my project will focus on glycoproteome tools in both tissue and blood samples.
12/1/10 – 11/30/14	Glucosamine and novel analogs for cartilage tissue engineering R01AR054005

NIH
PI: Elisseeff, Jennifer
Role: Co-investigator
Notes: The goal of this project is to design and evaluate novel sugar analogs to stimulate new cartilage production.

10/1/12 - 6/30/14 Glycoprotein biomarkers for the early detection of aggressive prostate cancer
U01CA152813, Administrative Supplement
NIH/NCI
Role: PI; Notes: This is a biomarker developmental laboratory (BDL) of the Early Detection Research Network (EDRN). The goal of this project is to identify glycoprotein biomarkers for the early detection of aggressive prostate cancer in tissues and serum.

Research Program Building / Leadership

2/07-present Mass Spectrometry Facility for the Center for Biomarker Discovery and Translation (CBDT) at Johns Hopkins: I led the development, established the Facility, serve as the director of the Facility.

EDUCATIONAL ACTIVITIES

Educational Publications

Review articles

1. **Zhang H***. The Plasma Proteome: High Abundance versus Low Abundance. *Expert Rev Proteomics.* 2006;3:175-8

Editorials

1. **Zhang H***, Cotter RJ. Glycoproteomics: New Technology Developments and Applications Provide Renewed Interest in Glycoproteins. *Clinical Proteomics.* 2008; 2: 1-4.

Book Chapters, Monographs

1. Yi EC*, **Zhang H,** Cooke K, Aebersold, R, Goodlett DR. Quantitative analysis proteomes and subproteomes by Isotope Coded Affinity Tags (ICAT) and solid-phase glycoprotein capture. The Proteomics Handbook. Walker JM (ed), Humana Press Totowa, NJ, 2004
2. **Zhang H*.** Glycoproteomics. Unit 24.3 in Current Protocols in Protein Science. Coligan JE, Dunn BM, Speicher DW, Wingfield PT. (eds), John Wiley Sons Inc, Hoboken, NJ, 2007
3. Tian Y, **Zhang H*.** Isolation of proteins from formalin-fixed tissue for subsequent mass spectrometric analysis. Current Protocols in Molecular Biology. 2010; 10: Unit 10 26 1-7.
4. Li Y, **Zhang H*.** High throughput analysis of glycoproteins from plasma. Simpson RJ, Greening D (eds), Serum and Plasma Proteomics in Methods Mol Biol. 2011; 728: 125-133.

Letters, correspondence

8/11 The Center for Biomarker Discovery and Translation and its Role in Clinical Proteomics in Pathology. http://apps.pathology.jhu.edu/blogs/pathology/the-center-for-biomarker-discovery-and-translation-and-its-role-in-clinical-proteomics-in-pathology.

Teaching

Classroom instruction

2007, fall The Role of Chromatography and Mass Spectrometry in Biological Research, co-instructor for course ME330.804 with Dr. Robert Cotter - classroom instruction, JHUSOM

2008, fall The Role of Chromatography and Mass Spectrometry in Biological Research, co-instructor for course ME330.804 with Dr. Robert Cotter - classroom instruction, JHUSOM

2009, fall The Role of Chromatography and Mass Spectrometry in Biological Research, co-instructor for course ME330.804 with Dr. Robert Cotter - classroom instruction, JHUSOM

2010, fall The Role of Chromatography and Mass Spectrometry in Biological Research, co-instructor for course ME330.804 with Dr. Robert Cotter - classroom instruction, JHUSOM

2012, fall Fundamentals of Glycobiology, co-instructor for course ME340.709 with Dr. Gerald Hart, et al -classroom instruction, JHUSOM

2012, fall Mass Spectrometry in an "Omics" World, co-instructor for course ME330.804 – classroom instruction,

JHUSOM

2013, fall Techniques in Glycobiology, lecturer and laboratory instructor for course ME340.710 -classroom instruction and laboratory instruction, JHUSOM

2014, spring Mass Spectrometry, lecturer for course "Pharmacology Tutorials organized by Dr. Heng Zhu et al. – classroom instruction, JHUSOM

2015, spring Fundamentals of Glycobiology, co-instructor for course ME340.709 with Dr. Gerald Hart, et al -classroom instruction, JHUSOM

2015, spring Analysis of Glycoproteins, lecturer in Mass Spectrometry Class, University of Maryland, School of Pharmacy

2015, summer Techniques in Glycobiology, lecturer and laboratory instructor for course ME340.710 -classroom instruction and laboratory instruction, JHUSOM

CME instruction

4/09 Glycoproteins in Cancer Diagnosis, lecturer to Pathology Grand Rounds – CME instruction, JHUSOM

Workshops/seminars

2/09 Glycoproteomics using Mass Spectrometry and Protein Arrays, lecturer for Glycoproteomics Short Course, 5th US HUPO Annual Conference, San Diego**,** CA

3/13 Glycoproteomics and glycomics, organizer and lecturer of Glycoproteomics Short Course, 9th US HUPO Annual Conference, Baltimore, MD

Mentoring

Advisees

Current:

1/11-present **Shuang Yang,** Ph.D.; Present Position: Research Associate, Johns Hopkins University
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycoproteomics, mass spectrometry training to build career for technology development for glycan separation and analysis
- 11/11 Travel Award, Glycobiology Society Annual Meeting, Seattle, WA.
- 4/12 14th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
- 9/12 Travel Award. 11th World Conference of HUPO, Boston, MA
- 9/12 Best Presentation Award, 3rd place. 11th World Conference of HUPO, Boston, MA
- 5/13 Best Poster Award. NIH Glycosciences Research Day, Bethesda, MD.
- 6/13 Travel Award, 22nd International Symposium on Glycoconjugates, Dalian, China
- 10/13 Promoted to junior faculty position as Research Associate

6/11-present **Shadi Toghi Eshghi**, B.S.; Present Position: Ph.D candidate, Department of Biomedical Engineering, Johns Hopkins University
Awards/grants/degrees received: Pre-doctoral training; Research training; Thesis project
- 4/12 14th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
- 11/14 Travel Award. The Glycobiology for Society Annual Meeting, Honolulu , Hawaii.
- 4/15 17th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
- 8/15 Named a Class of 2016 Siebel Scholar at Johns Hopkins University to receive a $35,000 award from the Siebel Foundation

9/11-present **Shisheng Sun**, Ph.D.; Present Position: Post-doctoral Fellow, Johns Hopkins
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, mass spectrometry
- 9/12 Travel Award. The 11th World Conference of HUPO, Boston, MA
- 11/13 Travel Award. The Society for Glycobiology Annual Meeting, St. Petersburg, FL.
- 3/16 Travel Award. USHUPO, Boston, MA

11/11-present **Punit Shah**, Ph.D.; Present Position: Research Associate, Johns Hopkins University
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, mass spectrometry
- 4/13 15th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
- 12/13 Promoted to junior faculty position as Research Associate
- 9/15 Laboratory Manager

12/11-present **Weiming Yang**, Ph.D.; Present Position: Post-doctoral Fellow, Johns Hopkins

Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, mass spectrometry

11/12-present **Lijun Chen**, Ph.D; Present Position: Post-doctoral fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Mass spectrometry

2/13-present **Stefani Thomas**, Ph.D.; Present Position: Research Associate, Johns Hopkins
Awards/grants/degrees received: Proteomics, glycomics, mass spectrometry
4/13 15th Annual Department of Pathology Young Investigators' Day Award, Baltimore,
2/16 Young Investigator Award, Mass Spectrometry Applications to the Clinical Labs (MSACL), Palm Springs, CA

7/14-present **Naseruddin Hoti**, Ph.D.; Present Position: Research Specialist, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics

5/15-present **Lingquan Deng**, Ph.D.; Present Position: Post-doctoral fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics, and cell biology
12/15 Travel Award. The Society for Glycobiology Annual Meeting, San Francisco, CA.

9/15-present **Yang Liu**, Ph.D.; Present Position: Research Technologist, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics, and cell biology

9/15-present **Yingwei Hu**, Ph.D.; Present Position: Post-doctoral fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics, and cell biology

11/15-present **Ventzi Hristova**, Ph.D.; Present Position: Clinical fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics and glycomics

12/15-present **Joseph Mertz**, PhD.; Present Position: Post-doctoral fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics, and cell biology

3/16-present **David Clark**, PhD.; Present Position: Post-doctoral fellow, Johns Hopkins University
Awards/grants/degrees received: Research training; Proteomics, glycomics, and cell biology

Past:

5/05-11/06 **Yong Zhou,** Ph.D.; Leaving Position: Scientist, Institute for Systems Biology
Awards/grants/degrees received: Postdoctoral training; Promoted to Scientist

11/05-9/13 **Yuan Tian**, Ph.D.; Leaving Position: Research Associate, Johns Hopkins University, Department of Pathology. Awards/grants/degrees received: Postdoctoral training
1/08 Seed Grant from HERA Foundation
4/08 10th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
5/08 Best poster Award, 2nd place, AACC conference on Translating Proteomic Discoveries into Clinical Diagnostics, Seattle, WA
1/09 Seed Grant from HERA Foundation
4/09 11th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
10/09 Outstanding Poster Award, 3rd place. AACC (American Association of Clinical Chemistry) - Translating Novel Biomarker to Clinical Practice, Bethesda, MD
3/10 Travel Award, US Human Proteome Organization 6th Annual Conference in Denver, CO
4/10 12th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
3/11 Travel Award, US Human Proteome Organization 7th Annual Conference in Raleigh, NC
3/11 Promoted to a faculty as a Research Associate of Pathology at Johns Hopkins
10/13 Director of Glycoproteomics Core Facility, University of Mississippi Medical Center.

3/07-6/11 **Yan Li**, Ph.D.; Leaving Position: Research Associate, Johns Hopkins University
Awards/grants/degrees received: Postdoctoral training
7/09 Prostate Cancer Fellowship Training Award from DOD-CDMRP, 7/2009-6/2011.

9/09 Young Investigator Awards: Human Proteome Organization 8rd Annual World Congress. Toronto, Canada.
10/09 Outstanding Poster Award, 1st place. AACC (American Association of Clinical Chemistry) - Translating Novel Biomarker to Clinical Practice. Bethesda, MD.
9/10 Young Investigator Awards: Human Proteome Organization 9th Annual World Congress. Sydney, Australia
11/10 Travel Award of the Society of Glycobiology annual conference.
2/11 Promoted to Faculty as a Research Associate of Pathology at Johns Hopkins
7/11 Professor of Chinese Academy of Biophysics Institute

8/07-12/09 **Danni Li,** Ph.D.; Leaving Position: Assistant Professor, University of Minnesota Medical Center
Awards/grants/degrees received: 7/07 Postdoctoral training.
1/10 Promoted to a faculty position as an Instructor of Pathology at Johns Hopkins.
12/11 Promoted to Assistant Professor at Johns Hopkins
8/12 Assistant Professor of Lab Medicine and Pathology
Director of Clinical Chemistry
University of Minnesota Medical Center

11/09-12/11 **Deniz Baycin,** B.S.; Leaving Position: Ph.D candidate, Department of Chemical & Biomolecular Engineering, Johns Hopkins University
Awards/grants/degrees received: 11/09 Pre-doctoral training; Research training
12/11 Ph.D degree
12/11 Scientist in MedImmune

8/10-7/12 **Mark Marzinke,** Ph.D.; Leaving Position: Clinical Chemistry Fellow, Johns Hopkins
Awards/grants/degrees received: 8/10 Postdoctoral training; Proteomics, mass spectrometry training to build career for disease biomarker discovery
4/12 14th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
8/12 Promoted to a faculty position as an Assistant Professor of Pathology, Johns Hopkins University

6/11-8/13 **Xiangchun Wang**, Ph.D.; Leaving Position: Post-doctoral Fellow, Johns Hopkins
Awards/grants/degrees received: Postdoctoral training; Glycobiology, glycomics, mass spectrometry
11/11 Travel Award, Glycobiology Society Annual Meeting, Seattle, WA
10/13 Scientist, NIAID, NIH

9/11-6/15 **Jing Chen**, Ph.D.; Leaving Position: Post-doctoral Fellow, Johns Hopkins University
Awards/grants/degrees received: Postdoctoral training; Clinical proteomics, cell biology, molecular biology, glycomics, mass spectrometry
11/13 Travel Award. The Society for Glycobiology Annual Meeting, St. Petersburg, FL.
4/15 17th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
7/15 Work as scientist for Agilent

2/12-9/15 **Paul Aiyetan**, MS, M.D.; Present Position: Post-doctoral Fellow, Johns Hopkins
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, bioinformatics
4/12 14th Annual Department of Pathology Young Investigators' Day Award, Baltimore, MD
10/15 Postdoctoral fellow, JHU
Moved to position: Scientist (Research and Development) with a Biotech Groups' Diagnostics Laboratory

3/12-7/15 **Jian-Ying Zhou**, Ph.D.; Research Associate, Johns Hopkins University
Awards/grants/degrees received: Glycobiology, cell biology, mass spectrometry, proteomics, glycomics
9/15 Scientist in Abbott

3/14-8/15 **Xingwang Jia,** Ph.D.; Present Position: Post-doctoral fellow, Johns Hopkins
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, clinical chemistry
9/15 Clinical Chemist in 301 Hospital, Beijing, China

6/14-10/15 **Yuri Poluektov**, Ph.D.; Present Position: Post-doctoral Fellow, Johns Hopkins
Awards/grants/degrees received: Postdoctoral training; Proteomics, glycomics, bioinformatics, immunology
Moved to position: Post-doctoral Fellow in FDA

Thesis committees

2013-2015 David Clark, PhD University of Maryland, School of Dentistry, dissertation committee member
2014-2016 Chris Mitchell, PhD Johns Hopkins University, Department of Biochemical, Cellular & Molecular Biology, dissertation committee chair
2015-present Christopher Saeui, PhD Johns Hopkins University, Department of Biomedical Engineering, dissertation committee member

Educational Program Building/Leadership

2007-present Sponsor post-doc training grant applications and serves as advisor and sponsor of applications of postdoc fellowship

Educational Extramural Funding (current, pending, previous)

4/1/08 - 3/31/10 Identification of subtype-specific extracellular proteins from ovarian tumors
HERA Foundation
$ 30,000
PI: Tian Y
Role: Mentor, 0%; Notes: The objective of this project is to identify extracellular proteins in different subtypes of ovarian tumor and determine the tissue-specificity.

7/1/09 - 6/30/11 Glycoproteomic profiling of prostate cancer for biomarker discovery
DoD-W81xwh-09-1-0136
DOD-CDMRP
$104,872
PI: Li
Role: Mentor, 0%; Notes: The objective of this project is to determine the glycoprotein biomarkers to predict the outcome of the prostate cancer using glycoproteomic

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2015-present Member, Search Committee on Endowed Chairs of Bloomberg Distinguished Professorships

Editorial Activities

Editorial Board appointments

2008 Guest Editor of 2 Special Issues of Clinical Proteomics on Glycoproteomics
2008-present Member, Editorial Board of Clinical Proteomics
2010-present Associate Editor of Journal of Intergrated-omics
2011-present Associate Editor of Clinical Proteomics
2013 Guest Editor of Special Issue of Clinical Proteomics on Glycoproteomics and Glycomics
2014-present Member, Editorial Board of Journal of Bioinformatics

Journal Reviewer

2003 – present Journal of Proteome Research
2005 – present Molecular & Cellular Proteomics
2006 – present Rapid Communications in Mass Spectrometry,
2006 – present Nano Letters
2006 – present Nature Protocols
2006 – present Molecular BioSystems
2006 – present Expert Reviews of Proteomics
2006 – present Bioinformatics
2006 – present The Analyst

2006 – present Mass Spectrometry Reviews
2006 – present Cancer Research
2006 – present Journal of Proteomics
2006 – present Biomarkers
2006 – present Theronostics
2006 – present PLOS ONE
2007 – present Analytical Chemistry
2007 – present Clinical Proteomics
2008 – present Proteomics
2010 – present Proteomics-Clinical Applications

Advisory Committees, Review Groups/Study Sections

2/09 Member, NIH Review Panel for Studies of Antimicrobial and Prebiotic Activity of Oligosaccharides (R01)
7/10 Member, Technical Evaluating Panel-Reviewer for the Interagency Agreement between NCI and Pacific Northwest Laboratory
11/10-current Member, NIH Early Detection Research Network Standing Review Committee for Associate Membership applications to review application proposals three times a year
2/11 Reviewer, Netherlands Genomics Initiative-The Zenith project on Genomics and/or Bioinformatics
2011-2012 Reviewer, NIH small business SBIR-STTR
10/13 Member, PLCO Special Emphasis Panel/Scientific Review Group 2014/01 ZCA1 SRLB-Y (J1) B
6/14 Member, PLCO Special Emphasis Panel/Scientific Review Group 2014/10 ZCA1 TCRB-Y (01) S
7/14 Member, NIH IMST-B (40) P: A Resource for Biomedical Mass Spectrometry (Site Visit at Washington University for Renewal Application)
9/14 Reviewer, the Keck Foundation
6/15 Member, review panel for 2015/10 ZDK1 GRB-S (O3) S - RFA-DK-14-021: Human Islet Research Network Consortium on Beta Cell Death and Survival (HIRN-CBDS)
6/15 Member, review panel for NIH IMST-M (41), Bio-Organic Biomedical Mass Spectrometry (renewal application by University of California at San Francisco)
7/15 Member, Technical Evaluating Panel-Reviewer for the Interagency Agreement between NCI and Pacific Northwest Laboratory
3/16 Member, Panel-Reviewer for the Glycomics NIH common fund

Professional Societies

2003-present American Society for Mass Spectrometry (ASMS)
2006-present United States Human Proteomic Organization (USHUPO)
- 2012-2015 Elected as a Board of Director, United States Human Proteomic Organization (USHUPO)

2009-present Society for Glycobiology
2010-present American Chemical Society (ACS)
2010-present World Human Proteomic Organization (HUPO)
- 2012-present Chair of Cancer Human Proteome Project (Ca-HPP) of Human Proteomic Organization (HUPO)
- 2015-present Member, Executive Committee of World Human Proteomic Organization (HUPO) Biology/Disease Human Proteome Project (B/D-HPP)
- 2015-present Elected as a Council Member of World Human Proteomic Organization (HUPO)

2015-present Chinese American Society for Mass Spectrometry (CASMS)
- 2015-present Associate Chair of Member Connection Committee, Chinese American Society for Mass Spectrometry (CASMS)

2015-present America Association for Cancer Research (AACR)

Conference Organizer, Session Chair

1/06 Session chair: BuzZ session. 6th Annual Plasma Proteome, San Diego, CA
3/08 Organizing Committee Member: 4th Conference of US Human Proteome Organization (USHUPO), Bethesda, MD
3/08 Session organizer and chair: The 4th Conference of USHUPO, Bethesda, MD, responsible for inviting speakers

3/10 Session chair: 6th Conference of USHUPO, Denver, CO
3/12 Session organizer and chair: 8th Conference of USHUPO, San Francisco, CA
9/12 Session leader: Cancer Proteomics and Human Proteome Project, 11th World Conference of HUPO, Boston, MA
3/13 Organizing Committee Member: 9th US HUPO Annual Conference, Baltimore, MD
3/13 Session organizer and chair: 9th USHUPO Annual Conference, Baltimore, MD
3/13 USHUPO short course organizer on "Glycoproteomics and glycomics", 9th US HUPO Annual Conference, Baltimore, MD
9/13 Session organizer: Human Cancer Proteome Project. 12th World Conference of HUPO, Yokohama, Japan
10/14 Session organizer and chair: Human Cancer Proteome Project. 13th World Conference of HUPO, Madrid, Spain
9/15 Session chair: Proteomics. 43rd International Symposium on High Performance Liquid Phase Separations and Related Techniques, Beijing, China
9/15 Session organizer and chair: Human Cancer Proteome Project. 14th World Conference of HUPO, Vancouver, Canada

Consultantships
2015-present Consultant, Dalian Institute of Chemical Physics (DICP), Dalian, China

RECOGNITION

Awards, Honors
1997 Pre-doctoral Fellowship, American Heart Association
2003 Technology Development Award, Cell Signaling Technology
2004 Young Scientist Award, Human Proteome Organization (HUPO) 3rd Annual World Congress
2012 Elected as a Board of Director, United States Human Proteomic Organization (USHUPO)
2015 Elected as a Council Member of World Human Proteomic Organization (HUPO)

Invited Talks, Panels
7/03 Speaker, Glycopeptide profiling of serum proteins and potential application in cancer diagnosis, 94th Annual Meeting of American Association for Cancer Research, Washington, DC
2/04 Speaker, A platform for high throughput quantitative analysis of serum proteins, IBC's 2nd Annual Biomarkers: Application of Proteomics, Microarray and Metabolite Profiling Technologies, Reston, VA
8/04 Speaker, Glyco-biomarkers for diseases, 1st Human Disease Glycomics/Proteome Initiative (HGPI) Workshop, Osaka, Japan
2/05 Speaker, Analysis of prostate cancer by quantitative glycoproteomics using tissue specimens, Molecular Diagnostics: New Applications and Technologies Accelerating Drug Development, Princeton, NJ
7/05 Speaker, Analysis of prostate cancer by quantitative glycoproteomics using tissue specimens, 7th International Dalian Institute of Chemical Physics (DICP) Symposium on Separation and Detection of Biomolecules, Dalian, China
10/05 Speaker, Detection of cancer tissue-derived proteins in blood via glycopeptide analysis and mass spectrometry, 21st Asilomar Conference on Mass Spectrometry, Pacific Grove, CA
1/06 Speaker, Identification of proteotypic *N*-linked glycopeptides for serum biomarker discovery, 6th Annual Plasma Proteome, San Diego, CA
8/06 Keynote speaker, Challenges and technologies in the plasma proteome analysis for marker discovery, Chinese HUPO (CNHUPO) 4th Annual Conference, Xian, China
4/07 Speaker, Glycopeptide analysis technology, Cell Signaling Technology, Beverly, MA
4/07 Speaker, Selective isolation of subproteomes using covalent ligation of specific functional moieties, the Association of Biomolecular Resource Facilities (ABRF) 2007, Tampa, FL
5/07 Speaker, Glycoproteomic analysis of breast cancer tissues and identification of glycoproteins associated with advanced cancer, The Breast Cancer Conference. Baltimore, MD
7/07 Speaker, Identification of disease-associated glycopeptides as candidate biomarkers, Hepatitis B Foundation and the Institute for Hepatitis and Virus Research, Pennsylvania Biotechnology Center, PA
8/07 Speaker, Glycoproteomics technologies for biomarker discovery, Northwestern University, Xian, China
8/07 Speaker, Glycopeptides in cancer detection, Chinese HUPO (CNHUPO) 5th Annual Conference, Guangzhou, China
11/07 Speaker, Glycoproteomics, proteomics, and mass spectrometry, Case Western Reserve University,

Cleveland, OH

3/08 Speaker, Mapping expression patterns of extracellular proteomes. 4th US HUPO Annual Conference, North Bethesda, MD

3/08 Speaker, Targeted proteomics for cancer biomarker discovery. 2008 Early Detection Research Network (EDRN) 5th Scientific Workshop. Bethesda, MD

4/08 Speaker, N-Glycosites as molecular signatures of extracellular proteins for different cell types and diseases, Glycobiology Interest Group, Baltimore, MD

5/08 Speaker, The selective isolation of peptides for subproteomic analysis, Department of Anesthesiology, University of Washington, Seattle, WA

7/08 Speaker, N-linked glycosylation and cancer detection, Department of Biochemistry Seminar Program, Johns Hopkins University, Baltimore, MD

2/09 Speaker, Glycoproteins for pathologic prediction of prostate cancer, 3rd Annual Prostate Cancer Research Day, Department of Urology, Johns Hopkins Mt. Washington Conference Center, Baltimore, MD

2/09 Speaker, Glycoproteomics using mass spectrometry and protein arrays, 5th US HUPO Annual Conference, San Diego, CA

3/09 Speaker, Glycomics for prostate cancer detection, 18th Early Detection Research Network (EDRN, NCI) Steering Committee Meeting, Houston, TX

3/09 Speaker, Proteomic analysis of ovarian tumors identified proteins associated with drug resistance, Ovarian Cancer Research Meeting, Johns Hopkins University, Baltimore, MD

4/09 Speaker, Glycoproteins in cancer diagnosis, Pathology Grand Rounds, Johns Hopkins University, Baltimore, MD

7/09 Speaker, Changes in glycoproteins and glycans in disease development, Northwestern University, Xian, China.

8/09 Speaker, Glycoproteins and glycosylation patterns: a new paradigm for biomarker discovery, The 6th Early Detection Research Network (EDRN, NCI) Scientific Workshop, Bethesda, MD

9/09 Speaker, Glycoproteomics and glycomics analyses using protein microarray, HUPO 8th Annual World Congress, Toronto, Canada

12/09 Speaker, Altered glycosylation in breast cancer: sialylation and metastasis, The Breast Cancer Conference. Johns Hopkins University, Baltimore, MD

3/10 Speaker, Glycoproteomics and glycomics: A New Paradigm for Biomarker Discovery, Abbott, Chicago

4/10 Speaker, Glycoproteomics and glycomics: A New Paradigm for Molecular Analysis of Disease Progression, Glycobiology Interest Group (GIG) meeting, Baltimore, MD

8/10 Speaker, Biomarker development laboratory, EDRN planning and steering committee meeting, Rockville, MD

10/10 Speaker, Mass spectrometric analyses of glycoproteins and glycans, Washington-Baltimore Mass Spectrometry Discussion Group, Columbia, MD

11/10 Speaker, Glycomics using lectin microarray and mass spectrometry, Northwestern University, Xian, China

12/10 Speaker, Mass spectrometric analysis of proteins from FFPE- or OCT-embedded tissues, Cambridge Healthtech Institute, Providence, RI

3/11 Speaker, Proteomics and early detection, 22nd EDRN steering committee meeting, Los Angeles, CA

3/11 Speaker, From genomics, to proteomics, to glycoproteomics, and to glycomics, UCLA Proteomics Seminar Series, Los Angeles, CA

3/11 Speaker, Proteomics analysis of glycosylation, 7th US HUPO Annual Conference, Raleigh, NC

6/11 Speaker, Glycoproteins as disease biomarkers, NIH&FDA Glycosciences Research Day, Bethesda, MD

7/11 Speaker, Identification of disease biomarkers using glycoproteomics and glycomics, Institute of Biophysics, Beijing, China

7/11 Speaker, Glycoprotein biomarkers, Beijing Proteome Research Center, Beijing, China

9/11 Speaker, Glycoproteomics and bioinformatics analyses of biomarkers for the early detection of aggressive prostate cancer, The 23rd EDRN steering committee meeting, Bethesda, MD

3/12 Speaker, Targeted proteomics, The 8th Conference of USHUPO, San Francisco, CA

3/12 Speaker, Roles of platelet glycoproteins and glycans on platelet reactivity and cardiovascular disease, Programs of Excellence in Glycosciences (PEG), San Diego, CA

9/12 Speaker, Aberrant protein expression or PTMs associated with cancer, The 11th World Conference of HUPO, Boston, MA

9/12 Speaker, Glycosylation changes during disease progression, New England Biolabs, Ipswich, MA

10/12 Speaker, Integrated analysis of proteins and protein modification: Changes beyond gene expression, EDRN meeting, San Antonio, TX

12/12 Speaker, Protein post-translational modifications in tumor tissues and cells, Cell Signaling Technology, Danvers, MA

1/13 Speaker, Glycosylation and diseases, The Texas Medical Center, Methodist Hospital, Houston, TX

3/13 Speaker, Clinical proteomics, The 9th US HUPO Annual Conference, Baltimore, MD

5/13 Speaker, Glycomics analysis using solid-phase glycan extraction and mass spectrometry, The Sixth Frontiers at the Chemistry and Biology Interface Symposium, University of Maryland College Park. MD

5/13 Speaker, Structural analysis of glycoproteins and glycans, University of Mississippi Medical Center, Jackson, MS

5/13 Speaker, Cancer-specific glycoproteins and their roles in cancer detection, US-China Prevention Research Collaboration Meeting, Bethesda, MD

6/13 Speaker, Structure analysis of glycoproteins using mass spectrometry, Institute of Marine & Environmental Technology, Baltimore, MD

7/13 Speaker, Proteomic biomarker discovery for translational medicine: Team approaches, University of Maryland, School of Medicine, Baltimore, MD

7/13 Speaker, Glycomic analysis by glycoprotein immobilization for glycan extraction and liquid chromatography on microfluidic chip, Dalian Biophysical Chemical Institute, Dalian, China

9/13 Speaker, An integrated approach for glycoproteomics research, Shandong University and Johns Hopkins University Joined Conference, Johns Hopkins University, Baltimore, MD

9/13 Speaker, Glycoprotein biomarkers distinguishing between aggressive and indolent forms of prostate cancer, The 26th Early Detection Research Network (EDRN) Steering Committee meeting, Seattle, WA.

9/13 Speaker, Human proteome project in cancer, The 12th International HUPO Congress, Yokohama, Japan

9/13 An integrated approach of proteomics, glycoproteomics and glycomics for the structural and functional study of glycoproteins, The 12th International HUPO Congress, Yokohama, Japan

9/13 Speaker, New HPP Initiatives: Cancer – HPP, the HUPO Initiative Assembly in Kyoto, Uji Obaku Plaza, Kyoto University, Japan

10/13 Speaker, Structural and functional analyses of glycoproteins, University of Maryland, College Park, Silver Spring, MD

10/13 Speaker, tructural and functional analyses of glycoproteins using mass spectrometry, Glycobiology Interest Group, Johns Hopkins University, Baltimore, MD

11/13 Speaker, Long-term reproducibility assessment of proteomics data generated using iTRAQ labeling and LC-MS/MS platform for large-scale quantitative proteomics, the 1st annual Clinical Proteomic Tumor Analysis Consortium (CPTAC) Scientific Symposium, Bethesda, MD

1/14 Speaker, Glycoproteomics and glycomics approaches to study function of protein glycosylation, Georgia Institute of Technology, Atlanta, GA

1/14 Speaker, Proteomics, glycoproteomics, and glycomics using automated sample preparation and mass spectrometry, 2014 SSI Life Science Retreat and Service Summit, Washington Conference Center, Baltimore, MD

2/14 Speaker, Automation and clinical utility of mass spectrometry-based assays, The 4th Shimadzu International Collaborative Laboratory Forum, Ho Chi Minh city, Vietnam

3/14 Speaker, Periostin Expression in aggressive prostate cancer, The 27th Early Detection Research Network (EDRN) Steering Committee meeting, Houston, TX

3/14 Speaker, Glycoproteins and glycans on platelet reactivity and cardiovascular disease, Programs of Excellence in Glycosciences (PEG), Inter-PEG 2014, Washington DC

4/14 Speaker, O-glycoproteomics, National Cancer Institute's Clinical Proteomic Tumor Analysis Consortium (CPTAC) Data Jamboree, Bethesda, MD

4/14 Speaker, Analysis of glycoproteins using multi-omics approaches, Georgetown Univ, Washington, DC

5/14 Speaker, Integrated Analyses of transcriptome, proteome and glycoproteome reveal over expression of fucosylated proteins in aggressive prostate cancer, The International Symposium on Clinical and Translational Medicine. Shanghai, China

6/14 Speaker, Over expression of fucosylated proteins in aggressive prostate cancer, University of Maryland School of Medicine, Department of Pharmacology, Baltimore, MD

7/14 Speaker, Integrated glycoproteomic analysis of prostate cancer cells determines alterations in glycoprotein expression, glycosite occupancy, glycan structures, and glycosite-specific glycosylation. Chinese National Symposium on Bio-Mass Spectrometry, Shanghai, China

9/14 Speaker, Integrated genomic, proteomic, and glycoproteomic analyses of tumor tissues reveal alterations of glycosylation in tumor subtypes, Early Detection Research Network (EDRN) Workshop, Bethesda, MD

10/14 Speaker, HPP Initiatives: Cancer – HPP, International HUPO Congress 2014, Madrid, Spain

11/14 Speaker, Genome, proteome, and glycoproteome analyses of ovarian tumors, National Cancer Institute's Clinical Proteomic Tumor Analysis Consortium (CPTAC) Steering committee meeting, Bethesda, MD

11/14 Speaker, Integrated genomic, proteomic, and glycoproteomic analyses of prostate cancer cells, Annual Society Meeting of Glycobiology, Honolulu, Hawaii

12/14 Speaker, Integrated Analyses of Genome, Proteome and Glycoproteome Reveal Altered Glycosylation in Tumor Subtypes, University of Maryland, School of Pharmacy, Baltimore, MD

3/15 Speaker, Integrated Analyses of Genome, Proteome and Glycoproteome Reveal Altered Glycosylation in Tumor Subtypes, Beijing Proteome Research Center, Beijing, China

3/15 Speaker, Integrated Analyses of Genome, Proteome and Glycoproteome Reveal Altered Glycosylation in Tumor Subtypes, Dalian Chemical Physical Institute, Dalian, China

3/15 Speaker, Integrated Analyses of Genome, Proteome and Glycoproteome Reveal Altered Glycosylation in Tumor Subtypes, the 11th Annual Conference of USHUPO, Tempe, AZ

4/15 Speaker, Structural and Functional Analysis of Glycoproteins Using Proteomics, Glycoproteomics, and Glycomics, MedImmune, Gaithersburg MD

9/15 Speaker, Glycoproteomic and proteomic analyses reveal glycoprotein alteration in protein abundance, glycosite occupancy, glycans and glycosite-specific glycosylation, The 43rd International Symposium on High Performance Liquid Phase Separations and Related Techniques, Beijing, China

9/15 Speaker, Comprehensive analysis of glycoproteins, The 14th World Conference of HUPO, Vancouver, Canada

10/15 Speaker, Integrated Global and Glycoproteomic Analyses of TCGA Ovarian Tumors, National Cancer Institute's Clinical Proteomic Tumor Analysis Consortium (CPTAC) Steering committee meeting, Bethesda, MD

12/15 Speaker, Proteomic and Glycoproteomic Analyses Reveal Altered Protein Glycosylation, Targeted Proteomics Workshop and International Symposium, Mumbai, India

3/16 Speaker, Data Analysis and Future Analytical Trends of Glycoproteins, Frontiers in Glycan Analysis, University of Georgia, Complex Carbohydrate Research Center, Athens, GA

4/16 Speaker, Structural and Functional Analyses of Glycoproteins Using Mass Spectrometry, The 1st Phoenix Mini-Symposium on Frontiers of Proteomics, the National Center for Protein Sciences-Beijing (Phoenix Center) and Beijing Proteome Research Center, Beijing, China