

CURRICULUM VITAE

Xuefei Huang

Aug. 19th, 2025

MSU Foundation Professor
Departments of Chemistry and Biomedical Engineering
Institute for Quantitative Health Science and Engineering
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https://scholar.google.com/citations?user=hvUf_MoAAAAJ&hl=en&oi=ao

I. EDUCATION HISTORY

B. S. 1994 (Chemistry)	University of Science and Technology of China (USTC)
M. A. 1995, M. Phil. 1998	Columbia University in the City of New York
Ph.D. 1999 (Chemistry)	Columbia University in the City of New York

II. PROFESSIONAL EXPERIENCE

1994 - 1999	Graduate Research Assistant, Columbia University
1999 - 2001	Postdoctoral Fellow, the Scripps Research Institute
2001 - 2002	Postdoctoral Fellow, Department of Chemistry, Columbia University
2002 – 2006	Assistant Professor, Department of Chemistry, University of Toledo
2006 – 2008	Associate Professor, Department of Chemistry, University of Toledo
2008 – 2012	Associate Professor, Department of Chemistry, Michigan State University
2012 – present	Professor, Department of Chemistry, Michigan State University
2013 – 2024	Associate Chair for Research, Dept. of Chemistry, Michigan State Univ.
2016 – present	Professor, Department of Biomedical Engineering, Michigan State Univ.
2016 – present	Member, Institute for Quantitative Health Science and Engineering, Michigan State University
2017 – present	MSU Foundation Professor, Michigan State Univ.
2018 – present	Founder, Iaso Therapeutics, Inc.
2023 – present	Chief, Chemical Biology Division, Institute for Quantitative Health Science and Engineering, Michigan State University

III. HONORS AND AWARDS RECEIVED

1990-1991	People's Fellowship, USTC
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1992	Zhang Zhongzhi Award for Outstanding Undergraduates, USTC
1993	Yi Lida Award for Outstanding Laboratory Works, USTC
1994 – 1999	Faculty Fellowship, Columbia University
1999	Pegram Award for Excellent Graduate Studies, Columbia University
2006 – 2012	NSF CAREER award, National Science Foundation
2007	Dion D. Raftopoulos Outstanding Research Award, Sigma Xi, Univ. of Toledo
2008	Distinguished Faculty Award, Chinese-American Chemistry Prof. Association
2009	New Investigator Award, American Chemical Society Carbohydrate Division
2011	Horace S. Isbell Award, American Chemical Society Carbohydrate Division
2013	ACS Fellow
2017	Melville L. Wolfrom Award, American Chemical Society Carbohydrate Division
2020	Fellow, the American Association for Advancement of Science
2020	William J. Beal Outstanding Faculty Award, Michigan State University
2024	MSU Technology Transfer Achievement Award, Michigan State University

IV. PROFESSIONAL AFFILIATIONS

American Association for Advancement of Science
American Association for Cancer Research
American Chemical Society
American Chinese Chemistry Professor Association

V. COURSES TAUGHT

General Chemistry Laboratory
Organic Chemistry I & II
Advanced Organic Chemistry
Spectroscopic Methods & Analysis of Spectra
Organic Synthesis
Intermediate Organic Chemistry
Physical Organic Chemistry
Special Topics in Chemical Biology
Chemistry and Biology of Pathogens
Molecular (Neuro) Imaging

VI. FUNDING

CURRENT SUPPORT

MSU Foundation

Title: “*Structure guided rational design of an antigen vehicle for next generation vaccine development*”

PI: James Geiger (MSU); one of several co-PIs: Xuefei Huang

7/1/2025 – 6/30/2028. Award amount: ~ **\$400,000**

National Institute of Allergy and Infectious Diseases, NIH

Title: “*Carbohydrate based multi-component vaccine against Bordetella pertussis*”

MPI (contact PI): Xuefei Huang, MPI: Rajendar Deora (Ohio State University)

05/13/2025 – 4/30/2030. Award amount: **\$ 3,769,806** (R01AI190348)

Award amount to Huang lab: ~\$2,100,000

National Institute of Allergy and Infectious Diseases, NIH

Title: “*Deciphering the amine/acetylation code of PNAG through comprehensive libraries of synthetic oligosaccharides for effective anti-microbial vaccines*”

MPI (contact PI): Xuefei Huang, MPI: Gerald Pier (Brigham and Women’s Hospital, Harvard University)

11/12/2024 – 10/31/2029. Award amount: **\$ 3,931,589** (R01AI182419 - 01A1)

Award amount to Huang lab: \$2,176,058

National Institute of General Medical Sciences, NIH

Title: “*Syntheses of homogeneous proteoglycan like glycopeptide and glycoprotein libraries for microarray studies*”

PI: Xuefei Huang

08/10/2025 – 07/31/2030. Award amount: **\$1,987,243** (R35 GM158263)

National Institute of General Medical Sciences, NIH

Title: “*Enabling Synthesis and Biological Studies of Homogeneous Heparan Sulfate and Chondroitin Sulfate Glyco-polypeptides and Proteoglycans*”

PI: Xuefei Huang, co-I: Jian Liu (UNC, Chapel Hill)

1/1/2021 – 12/31/2024. No cost extension to 12/31/2025. Award amount: **\$1,221,309** (R01 GM72667)

Award amount to Huang lab: \$911,329

National Institute of Allergy and Infectious Diseases, NIH

Title: “*Rationally guided discovery platform for monoclonal antibodies against carbohydrate antigens using virus-like particle conjugate immunization and high throughput selection*”

PI: Daniel Woldring, co-I: Xuefei Huang

7/10/2023 – 6/30/2025. Award amount: \$415,574 (R21AI174001)

Award amount to Huang lab: ~**\$40,000**

Title: “*Synthesis of the library of heparan sulfate hexasaccharide mimetics*”

SBIR grant PI: Guowei Su (Glycan Therapeutics, Inc.); MSU PI of the subcontract from Glycan: Xuefei Huang

9/21/2023 – 9/14/2026. Award amount: \$2,255,001 (R44 GM145004)

Award amount to Huang lab: ~\$1,100,000

COMPLETED SUPPORT

Pfizer through Iaso Therapeutics, Inc.

Title: “*Q-beta nanoparticles as carrier proteins for gram-negative OAg haptens*”

PI: Aaron Odom, co-I: Xuefei Huang (Due to conflict of interests, Dr. Odom is serving as the PI on this grant as it is a subaward from Iaso Therapeutics.)

1/9/2023 – 12/31/2024. Award amount: \$293,845

Award amount to Huang lab: **\$293,845**

National Cancer Institute, NIH

Title: “*Engineering Bacteriophage Q β Conjugates with Tumor Associated Carbohydrate Antigens as Multi-component Anti-cancer Vaccines*”

PI: Xuefei Huang, co-Is: Vilma Yuzbasiyan-Gurkan (MSU), Paulo Vilar Saavedra (MSU)

1/1/2018 – 12/31/2024. Award amount: **\$2,400,000** (R01 CA225105)

Award amount to Huang lab: ~ \$2,000,000

https://www.eurekalert.org/pub_releases/2018-03/msu-vpc030218.php

<https://futurism.com/animal-cancer-vaccine-awarded-grant/>

<http://wearethecure.org/virus-like-particle-could-lead-to-new-canine-cancer-vaccine/>

<https://msutoday.msu.edu/news/2018/virus-like-particle-could-lead-to-new-cancer-vaccine/>

<https://aggregator.leafscience.org/virus-like-particle-could-lead-to-new-cancer-vaccine/>

National Cancer Institute, NIH

Title: “*Generation of Active Immunity against Cytotoxic Oligomeric Tau Species*”

PI: Xuefei Huang, co-I: Rakez Kaye (Univ. of Texas, Medical Branch)

7/1/2019 – 12/31/2024. Award amount: **\$375,606** (R01 CA225105-02S1)

National Institute of Allergy and Infectious Diseases, NIH

Title: “*Synthetic Glycan Conjugates with Bacteriophage Q β for Broad Spectrum Antisalmonella Vaccines*”

PI: Xuefei Huang, co-I: Sharon Tennant (University of Maryland)

07/16/2019 – 06/30/2024. No cost extension to 06/30/2025.

Award amount: **\$1,500,000** (R01AI146210)

Award amount to Huang lab: ~ \$1,000,000

MSU / Henry Ford Health System Integration Grant

Title: “*Development of sialyl Lewis A targeting monoclonal antibodies towards the treatment of pancreatic cancer*”

MPI: Xuefei Huang, Howard Crawford (Henry Ford Health System)

10/1/2022 – 03/31/2024. Award amount: \$82,720

Award amount to Huang lab: ~ **\$50,000**

Michigan State University Foundation, MSU

Title: “*Preclinical Development of MUC1 Based Anti-cancer Immunotherapy*”

PI: Xuefei Huang (MSU); co-PIs: Vilma Yuzbasiyan-Gurkan, Paulo Vilar Saavedra, Tim Whitehead, Anas Al-janadi, Xiangshu Jin, Deimante Tamkus

7/1/2018 – 6/30/2023. Award amount: ~ **\$400,000**

National Institute of General Medical Sciences, NIH

Title: “*Diverse Heparan Sulfate Oligosaccharide Libraries for Understanding and Therapeutically Manipulating Glycosaminoglycans*”

PI: Vijayakanth Pagadala (Glycan Therapeutics), Subcontractor: Xuefei Huang, Linda Hsieh-Wilson (Caltech)

8/1/2019 – 1/31/2022. Award amount: ~ **\$2,500,000** (R44 GM134738)

Award amount to Huang lab: ~ \$682,500

National Institute of General Medical Sciences, NIH

Title: “*Enabling Synthesis and Biological Studies of Homogeneous Heparan Sulfate and Chondroitin Sulfate Glyco-polypeptides and Proteoglycans - supplement*”

PI: Xuefei Huang, co-PI: Jian Liu (UNC, Chapel Hill)

1/1/2021 – 12/31/2021. Award amount: **\$212,182** (R01 GM72667-14S1)

Supplement to acquire a mass spectrometry instrument.

National Institute of General Medical Sciences, NIH

Title: “*Homogeneous Heparan Sulfate Glycopeptides: Synthetic and Functional Studies*”

PI: Xuefei Huang, co-PI: Jian Liu (UNC, Chapel Hill)

6/1/2015 – 12/31/2020. Award amount: **\$1,157,264** (R01 GM72667)

Award amount to Huang lab: ~ \$803,500

Michigan Economic Development Corp

Title: “*A Novel Vaccine Strategy to Target Breast Cancer Based on Proprietary Mutant Bacteriophage Q β -MUC1 Conjugate Designed to Maximize Immunogenicity while Minimizing Side Effects*”

PI: Xuefei Huang;

2/1/2019 – 8/31/2020. Award amount: **\$195,689**

National Institute of General Medical Sciences, NIH

Title: “*Stereoselective Assembly of Challenging Glycosidic Linkages with Earth-Abundant Metal Catalysts*”

PI: Hao Xu (Georgia State Univ.); co-PI: Xuefei Huang

5/1/2018 – 4/30/2020. Award amount: ~ **\$432,650** (1R21GM128442-01)

Award amount to Huang lab: ~ \$140,000

National Institute of General Medical Sciences, NIH

Title: “*Expedited Synthesis of Glycosaminoglycans Containing Defined Sulfation Domains*”

PI: Linda Hsieh-Wilson (California Institute of Technology, Contact PI) and Xuefei Huang, co-

PI: Jian Liu (UNC, Chapel Hill)

7/1/2015 – 5/31/2019. Award amount: **\$2,481,666** (U01 GM116262)

Award amount to Huang lab: ~ \$950,000

National Science Foundation

Title: “*Synthetic and Biological Studies of Chondroitin Sulfate Oligosaccharides and Glycopeptides*”

PI: Xuefei Huang

8/1/2015 – 7/31/2018. Award amount: **\$540,000** (CHE 1507226).

National Science Foundation

Title: “*Development of Functionalized Membranes to Enhance Antibody Sequencing and Screening*”

PI: Merlin Bruening (University of Notre Dame), co-PI: Xuefei Huang

9/1/2015 – 8/31/2018. Award amount: **\$450,000** (CHE 1506315).

National Cancer Institute, NIH

Title: “*Virus-Like Particle Based Antigen Display as Multi-component Anticancer Vaccines*”

PI: Xuefei Huang, co-PIs: M.G. Finn (Georgia Institute of Technology), Lbachir BenMohammad (UC Irvine)

1/15/2011 – 12/31/2017. Award amount: **\$2,530,050** (R01 CA149451)

Award amount to Huang lab: ~ \$1,400,000

National Institute of Allergy and Infectious Diseases, NIH

Title: “*Virus Like Particles as Carriers for Carbohydrate Based Anti-Salmonella Vaccines*”

PI: Xuefei Huang

8/1/2015 – 7/31/2017. Award amount: **\$153,500** (R03 AI111054)

Michigan State University Foundation, MSU

Title: “*Chemically Engineered Nanomaterials for Translational Biomedical Imaging*”

PI: Erik Shapiro (MSU); one of several co-PIs: Xuefei Huang

7/1/2014 – 6/30/2017. Award amount: ~ **\$400,000**

National Institute of General Medical Sciences, NIH

Title: “*Uncovering the Controlling Mechanisms in Heparan Sulfate Biosynthesis*”

PI: Jian Liu (UNC Chapel Hill); co-PIs: Robert J. Linhardt (Rensselaer Institute of Technology), Xuefei Huang

9/1/2013 – 5/31/2017. Award amount: ~ **\$1,160,000** (U01 GM102137)

Award amount to Huang lab: ~ \$340,000

National Institute of General Medical Sciences, NIH

Title: “*Homogeneous Heparan Sulfate Glycopeptides: Synthetic and Functional Studies*”

PI: Xuefei Huang

3/1/2016 – 2/28/2017. Award amount: **\$103,458** (R01 GM72667-11S1)

Supplement for purchasing an Octet K2 detection system

National Institute of Biomedical Imaging and Bioengineering, NIH

Title: “*MRI Contrast Agents for in vivo Monitoring of Stem Cell Differentiation*”

PI: Erik Shapiro (MSU); one of the two co-PIs: Xuefei Huang

7/1/2014 – 6/30/2016. Award amount: ~ **\$400,000** (R21 EB017881)

Award amount to Huang lab: ~ \$20,000

National Institute of General Medical Sciences, NIH

Title: “*Chemoenzymatic Synthesis of Heparin and Heparan Sulfate Oligosaccharides*”

PI: Xuefei Huang, co-PI: Jian Liu (UNC, Chapel Hill)

6/1/2010 – 5/31/2015. Award amount: **\$1,150,000** (R01 GM72667)

Award amount to Huang lab: ~ \$800,000

National Science Foundation

Title: “*Synthesis of Homogeneous Heparan Sulfate Proteoglycans*”

PI: Xuefei Huang, co-PI: Jian Liu (UNC, Chapel Hill)

8/15/2011 – 7/31/2014. Award amount: **\$390,000** (CHE 1111550)

Award amount to Huang lab: ~ \$270,000

National Science Foundation

Title: “*CAREER Syntheses of Hyaluronan Oligosaccharides as Biological Probes*”

PI: Xuefei Huang, 6/1/2006 – 5/31/2012. Award amount: **\$525,000** (CHE 0547504).

American Chemical Society

Local Section Innovative Project Grant

Title: “*Science Café*”

PI: Xuefei Huang, 6/1/2011 – 5/31/2012. Award amount: **\$1,600**.

American Heart Association, Post-doctoral Fellowship

Title: “*Magnetic nanoparticles: Applications in atherosclerotic plaque imaging and targeted drug delivery*”

PI: Medha Kamat; Advisor: Xuefei Huang, 7/2009 – 10/2011

Award Amount: **\$95,224**

National Institute of General Medical Sciences, NIH

Title: “*Development of New Carbohydrate Synthesis Methodologies*”

PI: Xuefei Huang, 3/1/2005 – 5/31/2010. Award amount: **\$1,194,834** (R01 GM72667)

American Heart Association, Ohio Valley Affiliates Pre-doctoral Fellowship

Title: “*Design, Synthesis and Biological Evaluation of Hyaluronic Oligosaccharides as Potent Inhibitors of CD44*”

PI: Kheireddine El-boubbou; Advisor: Xuefei Huang, 7/2007 – 6/2009

Award Amount: **\$42,000**

National Science Foundation

Title: “*Ohio Consortium for Undergraduate Research: Research Experiences to Enhance Learning (REEL)*”

PI: Prabir Dutta (Ohio State University), UT PI: Xuefei Huang, 9/2005 – 8/2008. Award amount: **\$ 1,337,196** (CHE 0532250).

National Science Foundation

Title: “*A Novel Approach to Antibiotic and Anti-biofouling Activities of Natural Phenols*”

PI: Dong-Shik Kim, co-PI: Xuefei Huang, 9/1/2006 – 8/31/2008. Award amount: **\$185,471**

DARPA, DOD

Title: “*Novel Sensors for Chemical and Bio-Defense*”

PI: Jon Kirchhoff, one of several co-PIs: Xuefei Huang. 12/2006 – 8/2008

Award Amount: **\$970,000**

University of Toledo, Interdisciplinary Research Award

Title: “*Development towards Carbohydrate-Based Cancer Vaccines*”

PI: Steven Sucheck, one of four co-PIs: Xuefei Huang. 5/2007 – 8/2008

Award Amount: **\$50,000**

University of Toledo, Program for Academic Excellence

Title: “*Saturday Morning Science: A Community Outreach Program*”

PI: Xuefei Huang, co-PI: R. Alejandra Lukaszew. 9/2006 – 8/2008

Award Amount: **\$4,500**

National Institute of General Medical Sciences, NIH

Title: “*Development of New Carbohydrate Synthesis Methodologies – Minority Supplement*”

PI: Xuefei Huang, 1/1/2006 – 12/31/2007. Award amount: **\$86,983** (R01 GM72667-S1)

Pardee Foundation

Title: “*Syntheses of Tumor Associated Carbohydrate Antigens Using the Iterative One-pot Strategy*”

PI: Xuefei Huang, 12/9/2004 – 3/31/2006. Award Amount: **\$60,000**.

University of Toledo, Interdisciplinary Research Award

Title: “*Design of Novel Nano- to Microscale Sensors for Biochemical Applications*”

PI: Jon Kirchhoff, one of four co-PIs: Xuefei Huang. 6/2005 – 5/2006.

Award Amount: **\$30,000**

deArce Memorial Endowment Fund

Title: “*A Novel Synthesis of an Anticancer Glycolipid by Chemical Glycosylation in Water with Colloidal Dispersions*”

PI: Xuefei Huang, 5/2003 – 4/2004. Award Amount: **\$12,650**.

VII. SERVICE

A) Activities at the University of Toledo

Graduate recruiting committee, member	2002 - 2008
Colloquium committee, chair	2003 - 2004
Faculty search committee for chemistry department	2002 – 2005
Faculty search committee for medicinal chemistry dept.	2006
Graduate student examination committee	2002 – 2008
Departmental library liaison	2004 – 2008
Chair advisory committee	2004 – 2005, 2006 – 2008
Departmental personnel committee	2007 - 2008
Departmental merit committee	2007 - 2008
College of Arts & Sciences council, member	2004 – 2007

B) Activities at Michigan State University

Chair advisory committee	2008 – 2010, 2013 - 2023
Graduate student examination committee	2008 – 2018
Awards committee	2009 – 2011
Departmental colloquium committee chair	2011
Graduate admission committee	2010 – 2022
Departmental colloquium committee	2012 – 2013

Associate chair for research	2013 – present
Chemistry equipment committee	2013 - 2022
Chemistry safety committee	2013 - present
Reappointment, tenure & promotion committee, chair	2013 – 2014
Chemistry awards committee, chair	2013 - 2022
BME awards committee, chair	2018 – 2022
IQ leadership committee	2018 - present
Chinese faculty club, chair	2019 – 2020
BME faculty advisory committee	2020 – 2023, 2024-present
University committee on best practices for risk management	2021
Chemistry faculty search committee, chair	2021 - 2022
Chemistry staff search committee, chair	2022 - 2023
BME faculty search committee, chair	2022 - 2023
Faculty advisor, Chemistry Graduate Student Organization	2022 - present
William J Beal outstanding faculty award selection committee	2023 – present
IQ/NatSci faculty search committee, chair	2023 – 2024
Chief, Chemical Biology Division, IQ	2023 - present
NatSci/IQ faculty search committee, chair	2023 - 2024

C) Other Professional Activities

Oct. 2007	<i>Ad hoc</i> member, NIH study sections HT
June 2008	<i>Ad hoc</i> member, NIH study section SBCA
Oct. 2008	NSF CAREER proposal review panelist
June 2009	Member, NIH study section ZRG1 BCMB-B
July 2009	Member, NIH study section ZRG1 BCMB-A
July 2009	Member, NIH study section ZGM1 PPBC-3
Oct. 2009	Member, NIH study section ZRG1 BCMB
Mar. 2010	Member, NIH study section ZRG1 BCMB-B
May 2010	Member, NIH study section ZRG1 CB-B
Oct. 2011	Mail Reviewer, NIH K99 review panel
Mar. 2012	Mail Reviewer, NIH special emphasis panel ZCA1 SRLB-9
Feb. 2013	Member, NIH study section MSFE
Jan. 2014	Member, NIH study section ZAI1 SV-A (J3)
2014 – 2018	Member, NIH study section SBCA
Feb. 2019	Member, NIH special emphasis panel, U01 Technologies for Analysis of Glycans
March 2020	Member, NIH special emphasis panel, New Innovator DP2 Award
July 2020	Member, NIH special emphasis panel, MOSAIC K99/R00 Award
March 2021	Member, NIH special emphasis panel, New Innovator DP2 Award
April 2024	Member, NIH special emphasis panel
2005	Organizer of the 1 st Annual Midwest Carbohydrate and Glycobiology Symposium, Toledo, OH

2006	Section chair, 2 nd Annual Midwest Carbohydrate and Glycobiology Symposium, Detroit, MI
2007	Discussion leader, Gordon Research Conference on Carbohydrates
2007	Section chair, 3 rd Annual Midwest Carbohydrate and Glycobiology Symposium, Columbus, OH
2008 – present	Board member of the Chinese-American Chemistry Professor Association
2009	Section chair, 5 th Annual Midwest Carbohydrate and Glycobiology Symposium, Cincinnati, OH
2010 – 2011	Secretary of the American Chemical Society Carbohydrate Division
2010	Organizer and Chair of “Petite and Sweet: Glyco-nanotechnology as a Bridge to New Medicines” symposium, ACS 240 th National Meeting, Boston, MA
2010	Chair-elect, American Chemical Society MSU local section
2010	Section chair, 6 th Annual Midwest Carbohydrate and Glycobiology Symposium, Toledo, OH
2011	Chair, American Chemical Society MSU local section
2011	Organizer of the 7 st Annual Midwest Carbohydrate and Glycobiology Symposium, East Lansing, MI
2011	One of the two editors for ACS Symposium book, “Glyco-nanotechnology as a Bridge to New Medicines” (Dr. Joseph Barchi from NCI is the other editor)
2011 – present	Member, Editorial Advisory Board, <i>Carbohydrate Research</i>
2012 – 2013	Program Chair of the American Chemical Society Carbohydrate Division
2012 – present	Associate Editor, <i>Journal of Carbohydrate Chemistry</i>
2014	Chair-elect, the American Chemical Society Carbohydrate Division
2015	Chair, the American Chemical Society Carbohydrate Division
2016	Past chair, the American Chemical Society Carbohydrate Division
2018	Organizer of the 14 th Annual Midwest Carbohydrate and Glycobiology Symposium, East Lansing, MI
2019	Organizer of the Chemistry and Biology of Pathogens Symposium, East Lansing, MI
2019	Co-Vice Chair, Carbohydrates Gordon Research Conferences Hong Kong, China
2023	Co-Chair, Carbohydrates Gordon Research Conferences Holderness, NH

Review proposals for

National Science Foundation

National Institutes of Health

Petroleum Research Foundation of the American Chemical Society

Bicentennial Program in Science and Technology of Chile

Natural Sciences and Engineering Research Council of Canada (NSERC)

Chilean National Commission for Science and Technology Research

North Carolina Biotechnology Center

Ohio Cancer Associate

Central Michigan University

Austrian Programme for Advanced Research and Technology
Danish Council for Independent Research
Israel Science Foundation
Research Cooperation
CUNY
Netherlands Organization for Scientific Research
Czech Science Foundation
New Zealand Genesis Oncology Trust
University of North Carolina

Review manuscripts for *J. Am. Chem. Soc.*, *J. Org. Chem.*, *Chem. Commun.*, *Org. Lett.*, *Angew. Chemie.*, *Tetrahedron*, *Tetrahedron Lett.*, *Eur. J. Org. Chem.*, *Synthesis*, *Adv. Synth. Catal.*, *Cancer Immun. Immunother.*, *Carbohydr. Res.*, *Chirality*, *Bioorg. Med. Chem.*, *Lett. Org. Chem.*, *Curr. Med. Chem.*, *J. Carbohydr. Chem.*, *Org. Biomol. Chem.*, *Biochemistry*, *Mol. Biosys.*, *Med. Chem. Rev.*, *J. Med. Chem.*, *Molecular Diversity*, *Science China Chemistry*, *Anal. Chem.*, *Analyst*, *Glycobiology*, *Proc. Nat. Acad. Sci. USA*, *Nanoscale*, *Appl. Microbiol. Biotech.*, *Adv. Func. Mater.*, *Int. J. Mol. Sci.*, *Beilstein J. Org. Chem.*; *ACS Chem. Biol.* Etc.

Review various faculties for tenure and/or promotion

D) Service to the Community

2003 - 2008	Gave chemistry demos during National Chemistry Day
2005	Judge, Northwest District Science Day
2005 - 2008	Speaker and organizer, Saturday Morning Sciences, a community outreach seminar program
2011	<i>Frontiers in Science</i> program for secondary science teachers
2017 – 2019	Executive committee member, Chinese Faculty Club, MSU
2018	Judge, University Undergraduate Research and Arts Forum
2019 – 2020	President of Chinese Faculty Club, MSU
2021 – 2024	Member of the Board, Spartan Chinese School

VIII. Thesis Advisor and Postgraduate-Scholar Sponsor

Postdoctoral Associates

Dr. Kedar Baryal	8/15 – 9/20
Dr. Somnath Bhagat	4/21 – 1/23
Dr. Dushen Chen	9/21 – 7/22
Dr. Qi Chen	9/07 – 5/08
Dr. Zhiyuan Chen	8/25 - present
Dr. Pratim Das	3/25 - present
Dr. Mohammad El-dakdouki	09/09 – 8/12
Dr. Fei Fan	9/22 - present
Dr. Lei Gao	12/22 - present
Dr. Lijun Huang	4/03 – 7/06
Dr. Chang-xin Huo	3/16 – 8/18
Dr. Medha Kamat	12/07 – 10/10

Dr. Hao Li	11/15 – 10/16
Dr. Hongguang Li	10/10 – 9/11
Dr. Tianlu Li	1/17 – 12/18
Dr. Setare Nick	7/17 – 11/19
Dr. Xingling Pan	4/21 - present
Dr. Sherif Ramadan	08/16 – present
Dr. Abhishek Santra	12/13 – 5/14
Dr. Vincent Shaw	9/19 – 5/22
Dr. Balasubramanian Srinivasan	8/05 – 7/07
Dr. Bin Sun	7/06 – 6/09
Dr. Gopinath Tiruchinapally	11/08 – 5/11
Dr. Zhen Wang	8/08 – 6/09
Dr. Xuanjun Wu	7/15 – 5/19
Dr. Jingguang Xia	11/11 – 7/13
Dr. Bo Yang	5/12 – 2/13
Dr. Weizhun Yang	1/13 – 1/21
Dr. Zhaojun Yin	07/10 – 11/15
Dr. Keisuke Yoshida	4/11 – 3/13
Dr. Yunqin Zhang	11/23 - present
Dr. Youlin Zeng	9/06 – 5/08
Dr. Yuetao Zhao	3/17 – 5/18

Visiting Scientist

Dr. Isaac Bello	8/13 – 5/14
Prof. Hang Dai	11/10 – 10/11
Ms. Hui Li	10/14 – 5/16
Prof. Zheng Li	7/06 – 12/06
Mr. Patpanat Sermmai	07/19 – 12/19
Mr. Sherif Ramadan	11/13 – 10/15

Graduate Students

Ms. Momota Akter	Ph.D.	1/23 - present
Mr. Y. Vindula Alwis	Ph.D.	1/22 - present
Ms. Shiva Amin	Ph.D.	5/22 - present
Mr. Philip Bentley	M.S.	9/08 – 8/11
Ms. Shivangi Chugh	Ph.D.	1/18 – 4/23
Mr. Steven Dulaney	Ph.D.	9/08 – 7/13
Mr. Kheireddine El-Boubbou	Ph.D.	9/05 – 7/10
Mr. Jia Gao	Ph.D.	9/13 – 3/21
Ms. Baraa Hijazi	Ph.D.	1/25 - present
Mr. Kourosh Hoshiyarehghi	Ph.D.	1/24 - present
Ms. Yuqing Jing	M.S.	1/03 – 12/05
Mr. Herbert Kavunja (minority)	Ph.D.	1/10 – 8/15
Mr. Hovig Kouyoumdjian	Ph.D.	5/08 – 8/14
Ms. Shuyao Lang	Ph.D.	1/14 – 12/20

Mr. Xiaoning Li	M.S.	1/05 – 8/07
Ms. Chun-yi Lin	Ph.D.	1/25 - present
Mr. Po-Han Lin	Ph.D.	1/19 – 1/24
Mr. Kunli Liu	Ph.D.	1/18 – 8/22
Ms. Xiaowei Lu	Ph.D.	9/05 – 7/12
Mr. Hunter Mcfall-Boegeman	Ph.D.	9/16 – 8/22
Mr. Morgan Mayieka (minority)	Ph.D.	1/21 - present
Ms. Adeline Miermont	Ph.D.	9/03 – 8/08
Ms. Yuvarani Murali	Ph.D.	1/25 – present
Mr. Seyedmedhi Nasr	Ph.D.	9/12 – 11/18
Ms. Athar Nakisa	Ph.D.	4/21 - present
Ms. Shahnaz Akhtar Nishat	Ph.D.	1/24 - present
Ms. Lillie Purcell	Ph.D.	1/25 - present
Ms. Qian Qin	Ph.D.	9/10 – 7/16
Mr. Nima Ramezani	Ph.D.	5/22 - present
Ms. Zahra Rashidijahanabad	Ph.D.	9/15 – 12/21
Ms. Fatemeh Shafieichaharberoud	Ph.D.	1/21 - present
Ms. Mengxia Sun	Ph.D.	9/16 – 8/22
Mr. Suttipun Sungsuwan	Ph.D.	9/11 – 5/17
Mr. Cameron Talbot	Ph.D.	1/20 - present
Mr. Zibin Tan	Ph.D.	9/16 – 4/24
Mr. Nardos Teumelsan (minority)	M.S.	9/04 – 8/07
Mr. A K M Atique Ullah	Ph.D.	4/21 - present
Mr. Peng Wang	Ph.D.	9/11 – 4/18
Mr. Zhen Wang	Ph.D.	9/03 – 7/08
Mr. Gilbert Wasonga (minority)	M.S.	9/06 – 8/10
Mr. Bo Yang	Ph.D.	9/06 – 4/12
Mr. Chia-wei Yang	Ph.D.	1/20 – 8/24
Mr. Jicheng Zhang	Ph.D.	9/12 – 1/20
Mr. Zeren Zhang	M.S.	9/12 – 12/18

IX. PUBLICATIONS

Journal articles (Corresponding authors are highlighted with a *. Peer reviewed articles are designated with a ^P after the full citation.)

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58. Yang, B.; Yoshida, K.; Yin, Z.; Hang, D.; El-dakdouki, M.; Huang, X. “Synthesis towards Homogenous Heparan Sulfate Proteoglycan” *The 7th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2011**, East Lansing, MI. (Winner of the best oral talk award)*
59. Dulaney, S.; Wang, Z.; El-dakdouki, M.; Kathawa, J.; Huang, X. “Synthesis of Heparan Sulfate Oligosaccharides” *The 7th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2011**, East Lansing, MI. (Winner of the best poster award)
60. Yin, Z.; Bentley, P.; Miermont, A.; Wang, Q.; Huang, X. “Tobacco Mosaic Virus (TMV) As a Promising Platform for Cancer Vaccine” *The 7th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2011**, East Lansing, MI.
61. Kavunja, H.; El-dakdouki, M.; Wang, J.; Huang, X. “Magnetic Glyco-nanoparticles, a New Tool for Profiling of Carbohydrate Binding Properties of Cancer Cells and Discovery of New Lectins” *The 7th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2011**, East Lansing, MI.
62. Huang, X. “Synthesis of Complex Oligosaccharides and Glyco-conjugates” *243rd ACS National Meeting*, **2012**, San Diego, CA.*
63. Huang, X.; “Magnetic Glyco-nanoparticles, a Tool for Cancer Cell Profiling and Targeted Drug Delivery” *243rd ACS National Meeting*, **2012**, San Diego, CA.*
64. Huang, X. “Magnetic Glyco-nanoparticles, a Tool for *in vitro* and *in vivo* Detections” *8th National Carbohydrate Symposium*, **2012**, Banff, Alberta, Canada.*

65. Huang, X.; El-Dakdouki, M. H.; Li, H.; Zhu, D. C.; Abela, G. S. "Iron Oxide Based Nanoparticles as Selective MR Contrast Agents for the Detection of Atherosclerotic Cholesterol Crystals" *244th ACS National Meeting*, **2012**, Philadelphia, PA.
66. Sheng, J.; Xu, Y.; Dulaney, S. B.; Huang, X.; Liu, J. "Uncovering a Biphasic Catalytic Mode of C5-epimerase in Heparan Sulfate Biosynthesis" *244th ACS National Meeting*, **2012**, Philadelphia, PA.
67. Yang, B.; Yoshida, K.; Yin, Z.; Huang, X.; "Chemical Synthesis of Homogeneous Heparan Sulfate Proteoglycan" *244th ACS National Meeting*, **2012**, Philadelphia, PA.
68. Yin, Z.; Bentley, P.; Wang, Q.; Finn, M. G.; Huang, X.; "Virus-like Particles (VLPs) as Promising Platform for Cancer Vaccine" *244th ACS National Meeting*, **2012**, Philadelphia, PA.
69. Kouyoumdjian, H.; Wang, P.; Huang, X. " β -Amyloids: Novel, MRI-Based Detection Method and Evaluation of the Soluble Tyrosine-Conjugated Glycopeptides via Mass Spectrometry" *The 8th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2012**, Detroit, MI. (Winner of the best poster award)
70. Yang, B.; Yoshida, K.; Huang, X. "Chemical Synthesis of Homogenous Heparan Sulfate Proteoglycan" *The 8th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2012**, Detroit, MI.
71. Dulaney, S.; Wang, Z.; El-dakdouki, M.; Kathawa, J.; Liu, J.; Huang, X. "Accessing a Heparin/HS Library through Chemical and Chemoenzymatic Strategies" *The 8th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2012**, Detroit, MI.
72. Yin, Z.; Bentley, P.; Wang, Q.; Finn, M. G.; Huang, X. "Virus-like Particles as a Promising Platform for Cancer Vaccine" *The 8th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2012**, Detroit, MI.
73. Huang, X.; Dulaney, S. B.; Xu, Y.; Yang, B.; Yoshida, K.; Wang, Z.; Liu, J. "Chemoenzymatic Synthesis of Heparan Sulfate Oligosaccharides" *245th ACS National Meeting*, **2013**, New Orleans, LA.*
74. Kouyoumdjian, H.; Zhu, D.; El-dakdouki, M.; Lorenz, K.; Chen, J.; Li, W.; Huang, X. "Glyconanoparticle Aided Detection of β Amyloid by Magnetic Resonance Imaging and Attenuation of β Amyloid Induced Cytotoxicity" *245th ACS National Meeting*, **2013**, New Orleans, LA.
75. Huang, X.; El-Dakdouki, M. H.; Pure, E. "Hyaluronan Coated Nanoparticles for Deep Tumor Penetration and Targeted Drug Delivery" *ACS Central Regional Meeting*, **2013**, Mount Pleasant, MI.*

76. Dulaney, S. B.; Wang, Z.; El-Dakdouki, M.; Kathawa, J.; Liu, J.; Huang, X. "Accessing a Heparin/HS Library through Divergent Chemical and Chemoenzymatic Means" *ACS Central Regional Meeting*, **2013**, Mount Pleasant, MI.
77. Kouyoumdjian, H.; Zhu, D.; El-dakdouki, M.; Lorenz, K.; Chen, J.; Li, W.; Huang, X. "Glyconanoparticle Aided Detection of β Amyloid by Magnetic Resonance Imaging and Attenuation of β Amyloid Induced Cytotoxicity" *ACS Central Regional Meeting*, **2013**, Mount Pleasant, MI.
78. Huang, X.; Yin, Z. "Virus-like Particles, a Powerful Platform to Boost the Immune Responses towards Tumor Associated Carbohydrate Antigens" *International Symposium on Chemical Glycobiology*, **2013**, Shanghai, China.*
79. Dulaney, S. B.; Kouyoumdjian, H.; Kathawa, J.; El-Dakdouki, M.; Liu, J.; Huang, X. "Elucidating the Structure Activity Relationship of Heparin using a Chemoenzymatically Prepared Glycan Microarray" *246th ACS National Meeting*, **2013**, Indianapolis, IN.
80. Huang, X.; Yin, Z.; Finn, M. G.; Wang, Q.; Gildersleeve, J.; BenMohamed, L. "Boosting the Immune Responses towards Weak Tumor Associated Carbohydrate Antigens by Organized display on Virus-like Particles" *246th ACS National Meeting*, **2013**, Indianapolis, IN.*
81. Yin, Z.; Finn, M. G.; Huang, X. "Bacteriophage Q β as a Promising Carrier for Anti-MUC1 Cancer Vaccine" *246th ACS National Meeting*, **2013**, Indianapolis, IN.
82. Huang, X.; El-Dakdouki, M. H.; Pure, E. "Receptor Mediated Transcytosis for Enhancement of Tumor Penetration by Hyaluronan Coated Nanoparticles" *246th ACS National Meeting*, **2013**, Indianapolis, IN.*
83. Huang, X. Dulaney, S. B.; Xu, Y.; Yang, B.; Yoshida, K.; Wang, Z.; Liu, J. "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH (plenary lecture).*
84. Yin, Z.; Finn, M. G.; Huang, X. "Bacteriophage Q β as a Promising Platform for Anti-carbohydrate Cancer Vaccine" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.
85. Baniel, C.; Dulaney, S. B.; Yin, Z.; Finn, M. G.; Huang, X. "Virus-like Particle Vaccines Targeting Tumor Associated Carbohydrate Antigens" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.
86. Kouyoumdjian, H.; Wang, P.; Huang, X. "Serum Albumin and Heparin Functionalized Superparamagnetic Iron-oxide Nanoparticles for Enhanced Blood Brain Barrier Permeability and β -Amyloid Binding" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.

87. Qin, Q.; Sungsuwan, S.; Huang, X. "Glycopolymers and Lipopeptide Coated Iron Oxide Nanoparticles as Antigen Presenting Platforms for Anti-cancer Vaccines" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.
88. Hossaini Nasr, S.; Huang, X. "Nanoworms vs Nanoparticles: Strategies to Enhance CD44 Targeting by Hyaluronan Coated Nanoconstructs" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.
89. Yang, W.; Huang, X. "Building Biomarker by Chemical Synthesis: Practical Preparation of Tetrabranched N-Linked Glycopeptides" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH.
90. Zhang, Z.; Zhang, J.; Huang, X. "Chemical Synthesis of Homogenous Heparan Sulfate Proteoglycan and Chondroitin Sulfate Proteoglycan" *The 9th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2013**, Toledo, OH (Best poster award).
91. Huang, X.; El-Dakdouki, M. H.; Pure, E. "CD44 Mediated Transcytosis for Enhancement of Drug Delivery by Hyaluronan Coated Nanoparticles" *247th ACS National Meeting*, **2014**, Dallas, TX.
92. Huang, X.; Yin, Z.; Baniel, C.; Bentley, P.; Finn, M. G.; Gildersleeve, J. C.; BenMohamed, L. "To Click or Not to Click: the Design of a Carbohydrate Based Anticancer Vaccine for Effective and Long Term Antitumor Immunity" *248th ACS National Meeting*, **2014**, San Francisco, CA.*
93. El-Dakdouki, M. H.; Xia, J.; Zhu, D. C.; Kavunja, H.; Grieshaber, J.; O'Reilly, S.; McCormick, J. J.; Huang, X.; "Advanced Functional Magnetic Glyconanoparticles for the *in vivo* Treatment and Detection of Diseases" *248th ACS National Meeting*, **2014**, San Francisco, CA.
94. Qin, Q.; Yin, Z.; Bentley, P.; Huang, X.; "Glycopolymer Platform for Presentation of Tumor Associated Carbohydrate Antigens" *248th ACS National Meeting*, **2014**, San Francisco, CA.
95. Kavunja, H.; El-Dakdouki, M.; Wang, J.; Huang, X.; "Identification, Profiling, and Purification of Lectins from Cancer Cells using Magnetic Glyconanoparticles" *248th ACS National Meeting*, **2014**, San Francisco, CA.
96. Qin, Q.; Yin, Z.; Bentley, P.; Huang, X. "Glycopolymer Platform for Tumor-Associated Carbohydrate Antigen Presentation as Potential Anti-Cancer Vaccines" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
97. Kavunja, H.; El-Dakdouki, M. H.; Wang, J.; Huang, X. "Identification, Profiling and Purification of Sugar-Binding Proteins from Cancer Cells using Magnetic Glyconanoparticles" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.

98. Allmon, A.; Yin, Z.; Huang, X. "Synthesis of BSA-MUC1 Conjugates for MUC1 Peptide Microarrays to Evaluate Serum Specificity" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
99. Baniel, C.; Dulaney, S. B.; Yin, Z.; Finn, M. G.; Huang, X. "Virus-Like Particle Q β as a Carrier in GM2 Specific Anti-Cancer Vaccines" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
100. Kouyoumdjian, H.; Huang, X. "To BBB or not to BBB: A β Detection via Delivering Glyco-Nanoparticles through BBB" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI. (Best poster award).
101. Hossaini Nasr, S.; Huang, X. "Enhancing CD44 Targeting by Engineering Geometry of Nanocarriers: Nanoworms Address CD44 More Efficiently than Nanoparticles" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
102. Ramadan, S. I.; Yang, W.; Huang, X. "Chemical Synthesis of Isotopically Labelled N- and O-Glycopeptides for Quantification of Tumor Associated Glycopeptides" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
103. Sungsuwan, S.; Yin, Z.; Huang, X. "Lipopeptide Coated Iron Oxide Nanoparticles as a MUC1 Antigen Carrier Platform for Anti-Cancer Vaccine" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
104. Yin, Z.; Huang, X. "Developing Bacteriophage Q β as Versatile Carrier for Anti-Carbohydrate Cancer Vaccine: Influence of Antigen Design on Antibody Responses" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI. (Best poster award).
105. Wang, P.; Huang, X. "Synthesis Aided Structural Determination of Amyloid- β (1-15) Glycopeptide, a New Biomarker for Alzheimer's Disease" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
106. Zhang, Z.; Zhang, J.; Huang, X. "Chemical Synthesis of Chondroitin Sulfate Oligosaccharides and Heparin Derivatives as Heparanase Inhibitors" *The 10th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2014**, Ann Arbor, MI.
107. Huang, X.; "Fighting Cancer with a Sweet Bullet: The Development of Carbohydrate Based Anticancer Vaccines" *249th ACS National Meeting*, **2015**, Denver, CO.*
108. Huang, X. Dulaney, S. B.; Xu, Y.; Yoshida, K.; Yang, B.; Yang, W.; Liu, J.; "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptide" *249th ACS National Meeting*, **2015**, Denver, CO.*
109. Huang, X. "Development of Carbohydrate Based Anti-cancer Vaccines" *Gordon Research Conference on Carbohydrates*, **2015**, West Dover, VT.*

110. Ramadan, S.; Yang, W.; Eissa, A.-M.; Goldman, R.; Huang, X. "Chemical Synthesis of Isotopically Labeled *N*- and *O*- Glycopeptides for Quantification of Tumor Associated Glycopeptides" *250th ACS National Meeting*, **2015**, Boston, MA.
111. Sungsuwan, S.; Yin, Z.; Huang, X. "Lipopeptide Coated Iron Oxide Nanoparticles as a MUC1 Antigen Carrier Platform for Anticancer Vaccine" *250th ACS National Meeting*, **2015**, Boston, MA.
112. Wang, P.; Huang, X. "Heparin Nanoparticles for β Amyloid Binding and Mitigation of β Amyloid Associated Cytotoxicity" *250th ACS National Meeting*, **2015**, Boston, MA.
113. Huang, X. "Magnetic Glyconanoparticles for Disease Detection" *250th ACS National Meeting*, **2015**, Boston, MA.*
114. Qin, Q.; Huang, X. "Carbohydrate Density and Valency Matter: a Study of T Cell Independent Immune Response Triggered by Glycopolymers" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH. (Best Oral Talk Award)
115. Yang, W.; Huang, X. "Chemical Synthesis of Human Syndecan-3 Glycopeptides Bearing two Heparan Sulfate Glycan Chains" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
116. Gao, J.; Huang, X. "Chemoenzymatic Synthesis of a Novel Heparan Sulfate Glycopeptide" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
117. Lang, S.; Huang, X. "pH Sensitive Nanoparticles for Foreign Antigen Delivery and Tumor Immunotherapy" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
118. Li, H.; Huang, X. "GD2 and Its Derivative with Q β as Potential Anticancer Vaccines" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
119. Nasr, S. H.; Huang, X. "Magnetic Resonance Imaging of Amyloid Plaques in Alzheimer's Disease Transgenic Mice by Targeted Glyconanoparticles" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
120. Sungsuwan, S.; Huang, X. "Lipopeptide-Coated Iron Oxide Nanoparticles as Potential Glycoconjugate-Based Synthetic Anticancer Vaccines" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
121. Wang, P.; Huang, X. "Interactions of Synthetic Heparan Sulfate Oligosaccharides with β -Amyloid" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.

122. Yin, Z.; Huang, X. "Mapping Bioconjugation Sites of Virus-like Particle Vaccines by a Bottom-up LC-MS/MS Approach" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
123. Zhang, J.; Huang, X. "Chemical Synthesis of Heparin Derivatives as Heparanase Inhibitors" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
124. Zhang, Z.; Huang, X. "Chemical Synthesis of Chondroitin Sulfate Oligosaccharides" *The 11th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2015**, Cleveland, OH.
125. Huang, X. "Advanced Functional Magnetic Glyconanoparticles for Disease Detection" *Pacificchem-2015*, **2015**, Honolulu, HI.*
126. Huang, X.; Yang, W.; Dulaney, S.; Xu, Y.; Wang, P.; Yang, B.; Yoshida, K.; Liu, J. "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides" *28th International Carbohydrate Symposium*, **2016**, New Orleans, LA.*
127. Huang, X.; "Development of Acid Responsive Microparticles for Delivery of Foreign Cytotoxic T-lymphocyte Epitopes to Tumor Tissues for Effective Antitumor Immunotherapy against Pre-established Solid Tumor" *2nd International CRI-CIMT-EATI-AACR International Cancer Immunotherapy Conference: Translating Science into Survival*, **2016**, New York City, NY.
128. Huo, C.; Huang, X. "Synthesis of a Trisaccharide Repeating Unit of the O-Antigen from Salmonella and Its Oligomer" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
129. Gao, J.; Huang, X. "Chemoenzymatic Synthesis of Heparan Sulfate Glycopeptides" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI. (Best poster award)
130. Zhang, J.; Huang, X. "Chemical Synthesis of Heparin Like Head to Tail Multimers" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
131. Baryal, K. N.; Huang, X. "Combinatorial Synthesis of HS Oligosaccharide Library" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
132. Ramadan, S.; Huang, X. "Chemical Synthesis towards Chondroitin Sulfate Oligosaccharide Library and Chondroitin Sulfate Proteoglycan" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
133. Sungsuwan, S.; Huang, X. "Evaluating Bacteriophage Q β Virus-like Particle and the Engineered Variants as Carriers for Tumor Associated Carbohydrate Antigen Based Anti-cancer Vaccine" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.

134. Wang, P.; Huang, X. "Synthesis of Pentasaccharide from *Bordetella pertussis* for a New Bactericidal Vaccine" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
135. Yang, W.; Huang, X. "Homoserine as Aspartic Acid Surrogates for Synthesis of Proteoglycan Glycopeptide Containing Aspartic Acid and Sulfated Glycan Chain" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
136. Zhang, Z.; Huang, X. "Chemical Synthesis towards Chondroitin Sulfate Oligosaccharide Library and Chondroitin Sulfate Proteoglycan" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
137. Yang, W.; Huang, X. "Divergent Chemoenzymatic Synthesis of Isotopically Labeled N-Linked Glycopeptide from Haptoglobin" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
138. Nasr, S. H.; Kouyoumdjian, H.; Mallet, C.; Shapiro, E.; Huang, X. "*In vivo* Detection of Amyloid Plaques by Sialic Acid Decorated Nanoparticles in a Mouse Model of Alzheimer's Disease" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI.
139. Lang, S.; Kawunja, H.; Sungsuwan, S.; Yin, Z.; Huang, X. "Glycan Based pH Responsive Microparticles for Cytotoxic T Lymphocyte Epitopes Delivery for Cancer Immunotherapy" *The 12th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2016**, Mount Pleasant, MI. (Best oral talk award)
140. Huang, X. "Fighting Cancer with a Sweet Bullet: The Development of Carbohydrate Based Anticancer Vaccines" *253rd ACS National Meeting*, **2017**, San Francisco, CA.*
141. Huang, X.; Yang, W.; Dulaney, S.; Xu, Y.; Wang, P.; Yang, B.; Yoshida, K.; Liu, J. "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides" *253rd ACS National Meeting*, **2017**, San Francisco, CA.*
142. Huang, X.; Yang, W.; Dulaney, S.; Xu, Y.; Wang, P.; Yang, B.; Yoshida, K.; Liu, J. "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides" *2nd Carbohydrate Synthesis Chemistry Youth Conference*, **2017**, Jinan, China.*
143. Ramadan, S.; Huang, X. "Chemical Synthesis of Chondroitin Sulfate A Bearing Syndecan-1 Glycopeptide" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
144. Wang, P.; Huang, X. "Synthesis of Pentasaccharide from *Bordetella pertussis* for a New Bactericidal Vaccine" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI (best oral talk award).

145. Baryal, K. N.; Huang, X. "Combinatorial Synthesis of HS Oligosaccharide Library" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
146. Gao, J.; Nick, S.; Huang, X. "Towards Chemoenzymatic Synthesis of Heparan Sulfate Glycopeptides" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
147. Li, T.; Huang, X. "Chemical Synthesis towards Syndecan-1 Glycoprotein" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
148. Rashidi, Z.; Nasr, S.; Huang, X. "Targeting Inflammatory Macrophages in Atherosclerosis Plaques by Hyaluronic Acid Conjugated Atorvastatin" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
149. Wu, X.; McFall-Boegeman, H.; Huang, X. "Bioconjugation of Bacteriophage Q β with Tumor Associated MUC1 Antigen or Cytotoxic T Cell Epitopes for Anti-cancer Vaccine Development" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
150. Zhang, J.; Zhang, Z.; Sun, M.; Huang, X. "Chemical Synthesis of Heparin Like Head to Tail Multimers and Chondroitin Sulfates" *The 13th Annual Midwest Carbohydrate and Glycobiology Symposium*, **2017**, Madison, WI.
151. Lang, S.; Kavunja, H.; Sungwuwan, S.; Yin, Z.; Huang, X. "Foreign Cytotoxic T Lymphocyte Epitopes Loaded Nanoparticles for Cancer Immunotherapy" *15th International Nanomedicine & Drug Delivery Symposium*, **2017**, Ann Arbor, MI.
152. Nasr, S. H.; Rashidi, Z.; Huang, X. "Targeting Inflammatory Atherosclerotic Plaques with Hyaluronic Acid Nanoparticles for Imaging and Therapy" *15th International Nanomedicine & Drug Delivery Symposium*, **2017**, Ann Arbor, MI.
153. Huang, X. "Development of Glycoconjugate-based Anticancer Vaccines" American Association for Cancer Research (AACR) Annual Meeting 2018, **2018**, Chicago, IL.
154. Huang, X.; Yang, W.; Dulaney, S. B.; Xu, Y.; Wang, P.; Yang, B.; Yoshida, K.; Liu, J. "Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides" 2018 Glass City Chemistry Conference, June 14th – 16th, **2018**, Toledo, OH.*
155. Huang, X.; Nasr, S. H.; Qian, C. "Advanced Functional Magnetic Glyconanoparticles for Atherosclerosis Detection" ASME 2018, NanoEngineering for Medicine and Biology Conference, Aug. 21st – 24th, **2018**, Los Angeles, CA.*
156. Rashidi, Z.; Nick, S. T.; Huang, X. "Engineered Virus-like Particle Q β as a Novel Carrier for a Cholesterol-lowering Vaccine Targeting PCSK9" *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.

157. Yang, W.; Li, T.; Huang, X. “*Chemical Synthesis of Heparan Sulfate Glycopeptides and Syndecan-1 Glycoprotein*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI. (Best poster award)
158. Lang, S.; Kavunja, H.; Huang, X. “*Foreign Cytotoxic T Lymphocyte Epitopes Loaded Micro/nano Glycoparticles for Cancer Immunotherapy*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
159. Gao, J.; Nick, S.; Huang, X. “*Towards Chemoenzymatic Synthesis of Heparan Sulfate Glycopeptides*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
160. Ramadan, S.; Zhang, Z.; Huang, X. “*Chemical Synthesis towards Chondroitin Sulfate Oligosaccharide Library and Chondroitin Sulfate Proteoglycan*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
161. Zhang, J.; Huang, X. “*Chemical Synthesis of Heparin Like Head to Tail Multimers*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
162. Baryal, K.; Huang, X. “*Synthesis of Heparin Sulfate Oligosaccharide Library*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
163. Tan, Z.; McFall-Boegeman, H.; Huang, X. “*Chemically and Genetically Engineered Bacteriophage Q β as Carbohydrate-Based Anti-Tumor Vaccine Carriers*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI.
164. Hossaini Nasr, S.; Huang, X. “*Imaging Inflammatory Atherosclerotic Plaques by Hyaluronan Conjugated Nanoprobe: Glyconanoprobe Shape Plays an Important Role for its In Vivo Application*” *The 14th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 21st – 22nd, **2018**, East Lansing, MI. (Best oral talk award)
165. Huang, X. “*Engineering Virus Like Particle Bacteriophage Q β for the Development of Glycoconjugate Based Anticancer Vaccines*” *The 5th International Conference on Virus-like Particle & Nano-particle Vaccines*, Sept. 25th – 27th, **2018**, Bern, Switzerland.
166. Huang, X. “*Polysaccharide Coated Nanoparticles for Biological Detection*” *257th ACS National Meeting*, March 31st – April 3rd, **2019**, Orlando, Fl.
167. Huang, X. “*Synthesis of Heparan Sulfate Oligosaccharides and Glycopeptides*” *257th ACS National Meeting*, March 31st – April 3rd, **2019**, Orlando, Fl.*
168. Huang, X. “*Development of Synthetic Carbohydrate Based Anti-Salmonella Vaccines*” *Chemistry and Biology of Pathogens*, May 16th, **2019**, East Lansing, MI.

169. Huang, X.; Wu, J.; Huo, C.-X.; Dhara, D.; Yin, Z.; McKay, C.; Baliban, S.; Pett, C.; Manuel Schorlemer, M.; Gohl, T.; Sungsuwan, S.; Ramadan, S.; Baniel C.; Allmon, A.; Tahmasebi Nick, S.; Tan, Z.; Das, R.; Westerlind, U.; Simon, R.; Misra, A. K.; Finn, M.G. "Development of Next Generation Glyco-conjugate Based Vaccines" *Carbohydrates Gordon Research Conference*, June 23rd – 28th, **2019**, Hong Kong, China.
170. Huang, X. "Fighting Cancer with a Sweet Bullet, the Development of Glycoconjugate Based Anticancer Vaccines" *258th ACS National Meeting*, Aug. 25th – 29th, **2019**, San Diego, CA.*
171. Ramadan, S.; Li, T.; Huang, X. "Chemical Synthesis and Anti-inflammatory Activity of the Chondroitin Sulfate Oligosaccharide Chain (24-mer) of Bikunin" *258th ACS National Meeting*, Aug. 25th – 29th, **2019**, San Diego, CA.
172. Gao, J.; Xu, Y.; Liu, J.; Huang, X. "Chemoenzymatic Synthesis of a Heparan Sulfate Glycopeptide Mimetic and Evaluation of its Biological Functions" *258th ACS National Meeting*, Aug. 25th – 29th, **2019**, San Diego, CA.
173. Pawar, N. J.; Linhardt, R.; Huang, X.; Hsieh-Wilson, L.; Wang, L.; Higo, T.; Bhattacharya, C.; Kancharla, P.; Zhang, F.; Baryal, K.; Huo, C-X.; Liu, J. "Streamlined Synthesis of Core Disaccharide Building Blocks from Natural Polysaccharides for the Generation of Heparan Sulfate Libraries" *258th ACS National Meeting*, Aug. 25th – 29th, **2019**, San Diego, CA.
174. Lang, S.; Huang, X. "Glyco-engineering of Natural Killers Cells with CD22 Ligands for Effective Anti-Cancer Immunotherapy" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN. (Best Oral Talk Award)
175. Zhang, J.; Huang, X. "Chemical Synthesis of Heparin Like Head to Tail Multimers" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
176. Gao, J.; Huang, X. "Chemoenzymatic Synthesis of Heparan Sulfate Glycopeptide Mimetics and Evaluation of Its Biological Functions" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
177. Baryal, K.; Huang, X. "Synthesis of a Comprehensive Heparan Sulfate Tetrasaccharide Library" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN. (Best Poster Award)
178. Chugh, S.; Rashidi, Z.; Huang, X. "Exploring Bacteriophage Q β Virus-like Particle as a Platform to Design Vaccines for Various Applications" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
179. Liu, K.; Sun, M.; Huang, X. "Design, Synthesis and Screening of Carbohydrate Derivatives and Mimetics for Cancer Therapy" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.

180. Ramadan, S.; Huang, X. "Synthesis of Chondroitin Sulfate (CS) Oligosaccharide Library and CS Chain (24-mer) of Bikunin and its Anti-Inflammatory Activity" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
181. Tan, Z.; McFall-Boegeman, H.; Huang, X. "Engineering of Bacteriophage Q β for Use as a Conjugate Vaccine Platform" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
182. Yang, W.; Huang, X. "Chemical Synthesis of Syndecan-4-Glycopeptide Bearing O-, N-sulfation and Multiple Aspartic Acids for Probing Impacts of the Glycan Chain and the Core Peptide on Biological Functions" *The 15th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 20th – 21st, **2019**, Notre Dame, IN.
183. Huang, X. "Principles and Applications of Anti-cancer Vaccines" *Summer Advanced Training of Molecular Biology in China*, Central South China University, Aug. 3rd, **2020**. (Received 3,360 likes from the audience right after the online presentation)*
184. Huang, X. "Development of Next Generation Glycoconjugate Vaccines with Bacteriophage Q β Nanoparticles" *Big C 2020, Bio Incheon Global Conference*, hosted by Incheon, Korea, Incheon National University and co-organized by AFOB and Incheon Tourism Organization, Aug. 25th, **2020**.*
185. Huang, X. "Synthesis toward Heparan Sulfate Proteoglycans", *ACS Virtual National Meeting*, Aug. 17th – 20th, **2020**.*
186. Huang, X. "Development of Glycoconjugate Based Anticancer Immunotherapy" *American Association of Cancer Research Virtual Annual Meeting*, June 22nd – 24th, **2020**.
187. Huang, X. "Principles and Development of Anti-cancer Vaccines" *Department of Medicine Grand Rounds*, MSU, Sept. 12th, **2020**.*
188. Huang, X. "Development of Carbohydrate Based Vaccines" *Vaccines Summit Ohio 2021*, March 1st – 3rd, **2021**.
189. Huang, X. "Effective atherosclerotic plaque inflammation inhibition with targeted drug delivery by hyaluronan conjugated atorvastatin nanoparticles" *ACS Spring National Meeting*, April 5th – 16th, **2021**.
190. Huang, X. "Development of carbohydrate based anti-microbial vaccines" *ACS Spring National Meeting*, April 5th – 16th, **2021**.*
191. Huang, X.; Zhang, J.; Ramadan, S.; Baryal, K.; Huo, C.; Zhao, Y.; Liu, J.; Hsieh-Wilson, L. C. "Expedient synthesis of heparan sulfate oligosaccharide libraries and mimetics" *ACS Fall National Meeting*, Aug. 22nd – 26th, **2021**.

192. Huang, X.; “Development of next generation glycoconjugate based anticancer vaccines” *MSU Precision Health Symposium, Precision Oncology to Precision Health* Sept. 30th, **2021**.
193. Huang, X.; “Development of carbohydrate based anti-microbial vaccines” *Recent advances in carbohydrate chemistry and chemical glycobiology symposium. Pacificchem* Dec. 16th -21st, **2021**.
194. Huang, X.; Wu, X.; Ye, J.; DeLaitch, A. T.; Rashidijahanabad, Z.; Lang, S.; Kakeshpour, T.; Zhao, Y.; Ramadan, S.; Saavedra, P. V.; Yuzbasiyan-Gurkan, V.; Kavunja, H.; Cao, H.; Gildersleeve, J. C. “Chemoenzymatic Synthesis of 9NHAc-GD2 Antigen for Anticancer Vaccine Development” *ACS Fall National Meeting*, Aug. 21st – 25th, **2022**.*
195. Huang, X.; “Development of Carbohydrate based Anti-microbial Vaccines” *ACS Fall National Meeting*, Aug. 21st – 25th, **2022**.*
196. Chugh, S.; Swenson, C.; Yuzbasiyan-Gurkan, V.; Huang, X. “Design and synthesis of bovine leukemia virus associated peptide based Q β conjugate eliciting long-lasting immunity in mice” *ACS Fall National Meeting*, Aug. 21st – 25th, **2022**.
197. Huang, X. “Expedient Synthesis of Extensive Heparan Sulfate Oligosaccharide Libraries” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.*
198. Talbot, C.; Pan, X.; Huang, X. “Targeting and development of a potential broad spectrum *Salmonella* vaccine” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
199. Yang, C.; Huang, X. “Indocyanine Green Conjugated Superparamagnetic Iron Oxide Nanoworm for Multimodality Breast Cancer Imaging” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
200. Mayieka, M.; Huang, X. “Development of a synthetic strategy to prepare mimetics of heparan sulfate” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
201. Lin, P.-H.; Huang, X. “Facile synthesis of glycopeptide bearing tetrasaccharide linkage region and chondroitin sulfate” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
202. Ramadan, S.; Huang, X. “Chemical synthesis of Pertussis core Pentasaccharide as Potential Anti-pertussis Vaccines” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
203. Ramadan, S.; Huang, X. “Synthesis of a Large, Comprehensive Heparan Sulfate (HS) Library from Solution Phase to Automation on Solid Phase” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.

204. Bhagat, S.; Huang, X. “Development of heparan sulfate mimetics for inhibition of HMGB-1 protein” *The 17th Annual Midwest Carbohydrate and Glycobiology Symposium*, Sept. 30th – Oct. 1st, **2022**, Detroit, MI.
205. Huang, X. “Development of Next Generation Carbohydrate-Based Vaccines” *Wayne State University, Karmanos Institute, and Henry Ford Health System Immunology Focus Group*, Nov. 1st, **2022**, Detroit, MI.*
206. Huang, X. “Development of carbohydrate based anti-microbial vaccines” *7th International Conference on Vaccines Research & Development* Nov. 7th – 9th, **2022**, Boston, MA.*
207. Huang, X. “Development of CA19-9 (sialyl Lewis a) targeting immunotherapy” *Driving Innovations in Cancer Treatment and Prevention Cancer Research Symposium* Nov. 10th – 11th, **2022**, Detroit, MI.*
208. Huang, X. “Development of Next Generation Carbohydrate-Based Vaccines” *Japan Consortium for Glycobiology & Glycotechnology* Nov. 21st – 22nd, **2022**, Gifu, Japan.*
209. Huang, X. “Expedient Synthesis of Extensive Heparan Sulfate Oligosaccharide Libraries” *International Carbohydrate Conference (CARBO-XXXXVI)* Dec. 4th – 7th, **2022**, Mumbai, India.*
210. Huang, X. “Expedient Synthesis of Extensive Heparan Sulfate Oligosaccharide Libraries” *2022 CAPA Symposium* Dec. 22nd, **2022**, Tampa, FL.*
211. Huang, X. “Development of next generation carbohydrate based anticancer vaccines” *Translational Research Cancer Centers Consortium Symposium*, Feb. 21st - 24th, **2023**, Seven Springs, PA.
212. Huang, X. “Expedient Synthesis of a Library of Heparan Sulfate-Like “Head-to-Tail” Linked Multimers for Structure and Activity Relationship Studies” *GlycoMIP Scientists on Screen*, Feb. 27th, **2023**, zoom presentation.*
213. Pan, X.; Huang, X. “Development of a carbohydrate based potential broad spectrum anti-Salmonella vaccine” *Carbohydrates Gordon Research Conference*, June 18th – June 23rd, **2023**, Holderness, NH.
214. Lin, P.-H.; Huang, X. “Facile Synthesis of Glycopeptide Bearing Tetrasaccharide Linkage Region and Chondroitin Sulfate” *Carbohydrates Gordon Research Conference*, June 18th – June 23rd, **2023**, Holderness, NH.
215. Ramadan, S.; Huang, X. “Synthesis of Pertussis Associated Glycans for Vaccine Development” *Carbohydrates Gordon Research Conference*, June 18th – June 23rd, **2023**, Holderness, NH.

216. Huang, X. "Stereoselective chemical synthesis of sialyl Lewis^a antigen and evaluation of its conjugate with bacteriophage Q β as a potential anti-cancer vaccine" Mid-South Glycoscience Meeting, June 28 - 30th, **2023**, Oxford, MS.*
217. Huang, X. "Synthesis of Extensive Heparan Sulfate Oligosaccharide Libraries" ACS Fall National Meeting, August 13 - 17th, **2023**, San Francisco, CA.*
218. Huang, X. "Development of next generation vaccines" *MSU/HFH Immunology Research Symposium*, Sept. 15th, **2023**, East Lansing, MI.*
219. Fan, F.; Huang, X. "Distinguishing Binding to Hyaluronan Receptors via Combinatorial Synthesis of a Hyaluronan Based Polysaccharide Library from Ugi Reactions" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN. Winner of the best poster award.
220. Pan, X.; Huang, X. "Development of a carbohydrate based potential broad spectrum anti-Salmonella vaccine" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
221. Ullah, A. K. M. A.; Huang, X. "Surface Enhance Raman Spectroscopy-Based Glycan Biosensor with Enhanced Stability for Ultrasensitive Multimodality Detection of Carbohydrate-Protein Interactions" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
222. El-Dakdouki, M.; Huang, X. "A Novel Chemically Modified Hyaluronan-Based Iron Oxide Nanoparticle for Enhanced Uptake by CD44 Expressing Cells and Selective Magnetic Particle Imaging" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
223. Alwis, Y. V.; Akter, M.; Huang, X. "Synthesis of CP5 of *S. aureus* and ECA of Enterobacteriaceae for Vaccine Development" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
224. Nakisa, A.; Huang, X. "Sialyl Lewis A Antigen as a Target for Anti-Pancreatic Cancer Vaccination" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
225. Yang, C-W.; Huang, X. "Indocyanine Green and Hyaluronan Conjugated Superparamagnetic Iron Oxide Nanoparticle for Multimodality Breast Cancer Primary Tumor and Lung Metastasis Imaging" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
226. Gao, L.; Huang, X. "Chemoenzymatic Synthesis of OAc-GD2 Antigen for Anticancer Conjugate Vaccine Development" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.

227. Lin, P.-H.; Huang, X. "Facile Synthesis of Glycopeptide Bearing Tetrasaccharide Linkage Region and Chondroitin Sulfate" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
228. Mayieka, M.; Huang, X. "Development of Novel Heparan Sulfate Mimetics as Sulfatase Inhibitors" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.
229. Ramadan, S.; Huang, X. "Synthesis of Chondroitin Sulfate Oligosaccharides and Glycopeptides" *The 18th Annual Midwest Carbohydrate and Glycobiology Symposium*, Oct. 6th – Oct. 7th, **2023**, West Lafayette, IN.*
230. Huang, X. "Enhancing Protective Antibodies against Opioids through Antigen Display on Virus-like Particles" *Molecular Targets and Medications Discovery Branch Meeting*, National Institute of Drug Abuse, NIH, March 1st, **2024**.*
231. Huang, X. "Principles and Development of Anti-cancer Vaccines" *2024 HFCI Cancer Research Grand Rounds*, Henry Ford Health, May 15th, **2024**.*
232. Huang, X. "Development of Carbohydrate Based Anti-Salmonella Vaccines" *2024 Virtual Symposium on Salmonella Infections*, June 25th -26th, **2024**.* (invited lecture)
233. Huang, X. "A Comprehensive Synthetic Library of Poly-N-Acetyl Glucosamines Enabled Vaccine Against Lethal Challenges of *Staphylococcus aureus*" *The 31st International Carbohydrate Symposium*, Shanghai, China, July 14th - 18th, **2024**.* (invited lecture)
234. Shafiei, F., Huang, X. "Enhancing Protective Antibodies against Opioids through Antigen Display on Virus-like Particles", *ACS National Meeting*, Denver, CO, Aug. 18th – 22nd, **2024**.*
235. Huang, X. "A Comprehensive Synthetic Library of Poly-N-Acetyl Glucosamines Enabled Vaccine Against Lethal Challenges of *Staphylococcus aureus*" *19th Midwest Carbohydrate and Glycobiology Symposium*, St. Louis, MO, Sept. 20th -21st, **2024**.* (invited lecture)
236. Mayieka, M.; Goldman, R.; Ramadan, S.; Huang, X. "Development of Novel Heparan Sulfate Mimetics as Sulfatase Inhibitors" *19th Midwest Carbohydrate and Glycobiology Symposium*, St. Louis, MO, Sept. 20th -21st, **2024**.
237. Zhang, Y.; Hoshiyareshghi, K.; Huang, X. "Towards the total synthesis of 2C7 epitopes from *Neisseria gonorrhoeae* for the development of a carbohydrate-based gonococcal vaccine" *19th Midwest Carbohydrate and Glycobiology Symposium*, St. Louis, MO, Sept. 20th -21st, **2024**.
238. Huang, X. "Efficient Synthesis of Glycosaminoglycans and Proteoglycan Glycopeptides" *International Carbohydrate Conference: Carbo-XXXVIII*, Dec. 4th - 6th, **2024**.* (Plenary lecture)

239. Nakisa, A.; Huang, X. "Cancer Immunotherapy: Large Animal Vaccine for Targeting CA 19-9 Positive Cancers", *Translational Research Cancer Centers Consortium Annual Meeting*, Seven Springs, PA, Feb. 19th -21st, **2025**.
240. Huang, X. "New hyaluronan like polysaccharides with enhanced CD44 affinity for molecular imaging and targeted drug delivery", *Kyoto Pharmaceutical University International Symposium*, Kyoto, Japan, March 11th - 12th, **2025**.* (Invited lecture)
241. Huang, X. "Carbohydrate Based Vaccines against Lethal Challenges of *Staphylococcus aureus*", *ACS National Meeting*, San Diego, CA, March 23rd - 27th, **2025**.* (Invited lecture)
242. Huang, X. "Expedient Synthesis of Extensive Heparan Sulfate Oligosaccharide Libraries and Proteoglycan Glycopeptides", *ACS National Meeting*, San Diego, CA, March 23rd - 27th, **2025**.* (Invited lecture)
243. Huang, X. "Next Generation Carbohydrate Based Vaccine Against Lethal Challenges of *Staphylococcus aureus*", *World Vaccine Congress*, Washington DC, April 21st- 24th, **2025**.* (Invited lecture)
244. Huang, X. "Development of Next Generation Carbohydrate Based Anti-Cancer Conjugate Vaccines", *AACR Annual Meeting 2025*, Chicago, IL, April 25th- 30th, **2025**.

Invited seminars at universities and institutes

- 2004 Department of Medicinal and Biological Chemistry, the University of Toledo
Department of Chemistry, Kenyon College
Department of Chemistry, Wright State University
- 2005 Department of Chemistry, Youngstown State University
Department of Chemical and Environmental Engineering, the University of Toledo
Department of Chemistry, University of Georgia
Department of Chemistry, Georgia State University
Department of Chemistry, Wayne State University
Department of Chemistry, University of Guelph
- 2006 Department of Chemistry, University of Akron
Department of Chemistry, University of California, Davis
Department of Chemistry, Cleveland State University
Department of Chemistry, Duke University
Department of Chemistry, University of South Carolina
Department of Chemistry, North Carolina State University
Department of Chemistry, West Virginia University
Department of Chemistry, Pennsylvania State University
Department of Chemistry, Michigan State University
Department of Chemistry, Columbia University

- Department of Chemistry, Hunter College, City University of New York
- 2007 Department of Bioengineering, the University of Toledo
Department of Chemistry, John Carroll University
Department of Medicinal and Biological Chemistry, the University of Toledo
Department of Chemistry, Tulane University
National Institutes of Health, NIH Workshop on Carbohydrates
Faculty of Agriculture and Life Science, Hirosaki University, Japan
National Research Laboratory of Natural and Biomimetic Drug, Peking Univ., China
- 2008 Department of Chemistry, Oakland University
National Institutes of Health, NIH Glycoscience day
School of Chemistry and Materials Science, USTC, Hefei, China
Department of Chemistry, University of New Mexico
Department of Chemistry, University of Missouri, St. Louis
- 2009 Department of Chemistry and Chemical Biology, Cornell University
Department of Chemistry, Binghamton University
Laboratory of Medicinal Chemistry, National Cancer Institute
National Institutes of Health, NIH Workshop on Carbohydrate Microarray Development
- 2010 Department of Chemistry, University of New Orleans
Department of Chemistry, Osaka University, Japan
Department of Biomedical Engineering, University of Michigan
Department of Medicinal Chemistry, University of North Carolina, Chapel Hill
- 2011 Department of Chemistry, Purdue University
Shanghai Institute of Organic Chemistry, China
Department of Chemistry, Shandong University, China
Department of Chemical Biology, Xiamen University, China
Department of Chemistry, Shanghai Jiaotong University, China
- 2012 Department of Chemistry, Central Michigan University
Department of Melanoma Medical Oncology Research, M. D. Anderson Cancer Center
Department of Chemistry, Brown University
- 2013 Department of Chemistry, University of Pittsburgh
Department of Chemistry, Hunan Normal University, China
National Research Laboratory of Natural and Biomimetic Drug, Peking Univ., China
Department of Chemistry, Columbia University
- 2015 Department of Chemistry, The Scripps Research Institute
Department of Chemistry, University of Michigan, Dearborn
College of Pharmacy, University of Wisconsin
Department of Chemistry, Binghamton University
Department of Chemistry, Wayne State University

- 2016 Department of Chemistry and Biochemistry, University of Notre Dame
Department of Chemistry, University of Colorado
Department of Chemistry, Rensselaer Polytechnic Institute
Department of Chemistry, Georgia State University
Department of Chemistry and Biochemistry, University of Arkansas
- 2017 Department of Chemistry, Northeastern University
Department of Chemistry, Old Dominion University
National Center for Carbohydrate Synthesis and Engineering, Jiangxi Normal University
Department of Chemistry, York University, Canada
Department of Chemistry, University of Toronto, Canada
- 2019 Department of Chemistry & Biochemistry, University of Maryland, College Park
College of Pharmacy, Sichuan University, Chengdu, China
- 2020 Department of Chemistry, University of Alberta, Edmonton, Canada
National Glycoengineering Center, Shandong University, Shandong, China
- 2021 China Ocean University, Qingdao, Shandong, China
- 2022 Michigan Technological University, Houghton, MI
Gifu University, Gifu, Japan
Kyoto Pharmaceutical University, Kyoto, Japan
RIKEN, Tokyo, Japan
Keio University, Tokyo, Japan
Mahidol University, Bangkok, Thailand
- 2024 Shandong University, Qingdao, China
- 2025 Drug Discovery, Michigan State University, East Lansing, MI
University of Notre Dame, South Bend, IN