

CURRICULUM VITAE

Xuefei Huang

Department of Chemistry
The University of Toledo
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I. EDUCATION HISTORY

B. S. 1994 (Chemistry)	University of Science and Technology of China (USTC)
M. A. 1996, 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 - present	Associate Professor, Department of Chemistry, University of Toledo

III. HONORS RECEIVED

Zhang Zhongzhi Award for Outstanding Undergraduates, USTC, 1992
Yi Lida Award for Outstanding Laboratory Works, USTC, 1993
Faculty Fellowship, Columbia University, 1994 - 1999
Pegram Award for Excellent Graduate Studies, Columbia University, 1999
NSF CAREER award, 2006
Dion D. Raftopoulos Outstanding Research Award, Sigma Xi, 2007

IV. COURSES TAUGHT

General Chemistry Laboratory
Organic Chemistry II
Advanced Organic Chemistry
Spectroscopic Methods & Analysis
Organic Synthesis

V. FUNDING

CURRENT SUPPORT

National Institute of General Medical Sciences, NIH

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

PI: Xuefei Huang, 3/1/2005 – 2/28/2010. Award amount: **\$1,194,834** (R01 GM72667)

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)

National Science Foundation

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

PI: Xuefei Huang, 6/1/2006 – 5/31/2011. Award amount: **\$525,000** (CHE 0547504).

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, 9/1/2005 – 8/31/2008. 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 – 8/31/2009. Award amount: **\$185,471**

DARPA, DOD

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

PI: Jon Kirchoff, one of several co-PIs: Xuefei Huang. 12/2006 – 1/2008

Award Amount: **\$1,000,000**

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**

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**

COMPLETED SUPPORT

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 Kirchoff, 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**.

VI. SERVICE

Graduate recruiting committee, member	2002 - present
Colloquium committee, chair	2003 - 2004
Faculty search committee, member	2002 - 2005
Departmental library liaison	2004 – present
Chair advisory committee	2004 – 2005, 2006 - present
College of Arts & Sciences council, member	2004 – 2007
1 st Midwest carbohydrate symposium, organizer	2005

VII. PUBLICATIONS

Journal articles

From Work Conducted Prior to University of Toledo

1. Li, J.; Zhang, J.; Huang, X.; Du, S.; Wu, X. “Crystal Structure of An Unusual Four Coordinated Copper (II) Complex Containing 1, 10-Phenanthroline and Salicylic Acid” *Cryst. Res. Technol.* **1995**, *30*, 211-116
2. Li, J.; Xu, M.; Huang, X.; Zhang, Y. “Spectroscopic and Structural Properties of Dichloro-(L-histidine) Copper (II) Crystal” *Spec. Lett.* **1995**, *28*, 111-118
3. Nakanishi, K.; Huang, X.; Jiang, H.; Liu, Y.; Fang, K.; Huang, D.; Choi, S.-K.; Katz, E.; Eldefrawi, M.E. “Structure/binding Relation of Philanthoxins from Nicotinic Acetylcholine Receptor Binding Assay” *Bioorg. Med. Chem.* **1997**, *5*, 1969-1988.
4. Huang, X.; Rickman, B.; Borhan, B.; Bevora, N.; Nakanishi, K. “Zinc Porphyrin Tweezer in Host-guest Complexation: Determination of Absolute Configurations of Diamines, Amino Acids, and Amino Alcohols by Circular Dichroism” *J. Am. Chem. Soc.* **1998**, *120*, 6185-6186.
5. Huang, X.; Borhan, B.; Berova, N.; Nakanishi, K. “UV-vis Spectral Changes in the Binding of Acyclic Diamines with a Zinc Porphyrin Tweezer” *J. Ind. Chem. Soc.* **1998**, *75*, 725-728. (Special issue for Prof. Sukh Dev’s 75th birthday)

6. Berova, N.; Borhan, B.; Dong, J.-G.; Guo, J.; Huang, X.; Karnaukhova, E.; Kawamura, A.; Lou, J.; Matile, S.; Nakanishi, K.; Rickman, B.; Su, J.; Tan, Q.; Zanze, I. "Solving Challenging Bioorganic Problems by Exciton Coupled CD" *Pure & App. Chem.* **1998**, *70*, 377-383.
7. Huang, X.; Borhan, B.; Matile, S.; Nakanishi, K. "Spectroscopic Studies of PhTX Facilitated Cation Movement Across Membranes" *Bioorg. Med. Chem.* **1999**, *7*, 811-814. (Special issue in memory of Sir. Derek H. Barton)
8. Jiang, H.; Huang, X.; Nakanishi, K.; Berova, N. "Nanogram Scale Absolute Configurational Assignment of Ceramides by Circular Dichroism" *Tetrahedron Lett.* **1999**, *40*, 7645-7649.
9. Huang, X.; Nakanishi, K.; Berova, N. "Porphyrins and Metalloporphyrins: Versatile Circular Dichroic Reporter Groups for Structural Studies" *Chirality* **2000**, *12*, 237-255.
10. Huang, X.; Borhan, B.; Rickman, B. H.; Berova, N.; Nakanishi, K. "Zinc Porphyrin Tweezer in Host-Guest Complexation: Determination of Absolute Configurations of Primary Monoamines by Circular Dichroism" *Chem.-Eur. J.* **2000**, *6*, 216-224.
11. Tsai, C.-Y.; Huang, X.; Wong, C.-H. "Design and Synthesis of Cyclic Sialyl Lewis X Mimetics: a Remarkable Enhancement of Inhibition by Pre-organizing All Essential Functional Groups" *Tetrahedron Lett.* **2000**, *41*, 9499-9503.
12. Huang, X.; Witte, K. L.; Bergbreiter, D. E.; Wong, C.-H. "Homogenous Enzymatic Synthesis Using a Thermo-Responsive Water-Soluble Polymer Support" *Adv. Syn. Cat.* **2001**, *1*, 675-681
13. Kurtán, T.; Nesnas, N.; Li, Y.-Q.; Huang, X.; Nakanishi, K.; Berova, N. "Chiral Recognition by CD-Sensitive Dimeric Zinc Porphyrin Host. 1. Chiroptical Protocol for Absolute Configurational Assignments of Monoalcohols and Primary Monoamines" *J. Am. Chem. Soc.* **2001**, *123*, 5962-5973.
14. Kozlov, I.A.; Mao, S.; Xu, Y.; Huang, X.; Lee, L.V.; Sears, P.S.; Gao, C.; Coyle, A.R.; Janda, K.D.; Wong, C.-H. "Synthesis of Solid Supported Mirror-Image Sugars: A Novel Method for Selecting Receptors for Cellular Surface Carbohydrates" *ChemBioChem.* **2001**, *2*, 741-746.
15. Ye, X.-S.; Huang, X.; Wong, C.-H. "Conversion of the Carboxy Group of Sialic Acid Donors to a Protected Hydroxymethyl Group Yields an Efficient Reagent for the Synthesis of the Unnatural β -linkage" *Chem. Commun.* **2001**, 974-975.
16. Solladié-Cavallo, A.; Marsol, C.; Pescitelli, G.; Di Bari, L.; Salvadori, P.; Huang, X.; Fujioka, N.; Berova, N.; Cao, X.; Freedman, T. B.; Nafié, L. A. "(R)-(+)- and (S)-(-)-1-(9-Phenanthryl)ethylamine: Assignment of Absolute Configuration by CD Tweezer and VCD Methods, and Difficulties Encountered with the CD Exciton Chirality Method" *Eur. J. Org. Chem.* **2002**, 1788-1796.

17. Huang, X.; Fujioka, N.; Pescitelli, G.; Koehn, F. E.; Williamson, R. T.; Nakanishi, K.; Berova, N. "Absolute Configurational Assignments of Secondary Amines by CD-Sensitive Dimeric Zinc Porphyrin Host" *J. Am. Chem. Soc.* **2002**, *124*, 10320-10335.
18. Proni, G.; Pescitelli, G.; Huang, X.; Nakanishi, K.; Berova, N. "Configurational Assignment of α -chiral Carboxylic Acids by Complexation to Dimeric Zn-porphyrin: Host/Guest Structure, Chiral Recognition and Circular Dichroism" *Chem. Commun.* **2002**, 1590-1591.
19. Zhang, Z.; Niikura, K.; Huang, X.; Wong, C.-H. "A Strategy for the One-pot Synthesis of Sialylated Oligosaccharides" *Can. J. Chem.* **2002**, *80*, 1051-1054.
20. Proni, G.; Pescitelli, G.; Huang, X.; Nakanishi, K.; Berova, N. "Magnesium Tetraarylporphyrin Tweezer: a Sensitive Host for Recognition of α -chiral Carboxylic Acids" *J. Am. Chem. Soc.* **2003**, *125*, 12914-12927.
21. Balaban, T. S.; Berova, N.; Drain, C. M.; Hauschild, R.; Huang, X.; Kalt, H.; Lebedkin, S.; Lehn, J.-L.; Nifaitis, F.; Pescitelli, G.; Prokhorenko, V. I.; Riedel, G.; Smeureanu, G.; Zeller, J. "Syntheses and Energy Transfer in Multiporphyrinic Arrays Self-Assembled with Hydrogen-Bonding Recognition Groups and Comparison with Covalent Steroidal Models" *Chem. Eur. J.* **2007**, *13*, 8411-8427.

From Work Conducted at the University of Toledo

22. Jing, Y.; Huang, X. "Fluorous Thiols in Oligosaccharide Synthesis" *Tetrahedron Lett.* **2004**, *45*, 4615-4618
23. Huang, L.; Wang, Z.; Huang, X. "One-pot Oligosaccharide Synthesis: Reactivity Tuning by Post-synthetic Modification of Aglycon" *Chem. Commun.* **2004**, 1960-1961.
24. Huang, X.; Huang, L.; Wang, H.; Ye, X.-S. "Iterative One-Pot Oligosaccharide Synthesis" *Angew. Chem. Int. Ed.* **2004**, *43*, 5221-5224.
25. Huang, X. "Mercuric Bromide" *Electronic Encyclopedia of Reagents in Organic Synthesis*, **2004**, RN00383.
26. Wang, Y.; Huang, X.; Zhang, L.-H.; Ye, X.-S. "A Four-Component One-Pot Synthesis of α -Gal Pentasaccharide" *Org. Lett.* **2004**, *6*, 4415-4417.
27. Huang, L.; Huang, X. "Methyl Triflate" *Electronic Encyclopedia of Reagents in Organic Synthesis*, **2005**.
28. Huang, L.; Wang, Z.; Li, X.; Huang, X. "Iterative One-Pot Synthesis of Chitotetraose", *Carbohydr. Res.* **2006**, *341*, 1669-1679.
29. Huang, L.; Teumelsan, N.; Huang, X. "A Facile Method for Oxidation of Primary Alcohols to Carboxylic Acids and Its Application in Glycosaminoglycan Syntheses" *Chem. Eur. J.* **2006**, *12*, 5246 - 5252.

30. Wang, C.; Wang, H.; Huang, X.; Zhang, L.-H.; Ye, X.-S. "Benzenesulfinyl Morpholine: A New Promoter for One-Pot Oligosaccharide Synthesis Using Thioglycosides by Pre-Activation Strategy" *Synlett* **2006**, 2846.
31. Huang, L.; Huang, X. "Highly Efficient Syntheses of Hyaluronan Oligosaccharides" *Chem. Eur. J.* **2007**, *13*, 529-540.
32. Wang, Z.; Huang, X. "Strategies in Oligosaccharide Synthesis" in *Comprehensive Glycoscience. From Chemistry to Systems Biology* **2007**, Editor: J. P. Kamerling, Elsevier, p379-413.
33. Wang, Z.; Zhou, L.; El-boubbou, K.; Ye, X.-S.; Huang, X. "Four Component One-Pot Synthesis of the Tumor-Associated Carbohydrate Antigen Globo-H Based on Preactivation of Thioglycoside Donors." *J. Org. Chem.* **2007**, *72*, 6409 - 6420.
34. Teumelsan, N.; Huang, X. "Synthesis of Branched Oligomannans and an Unusual Stereochemical Observation" *J. Org. Chem.* **2007**, *72*, 8976-8979.
35. Miermont, A.; Zeng, Y.; Jing, Y.; Ye, X.-S.; Huang, X. "Syntheses of Lewis^X and Dimeric Lewis^X: Construction of Branched Oligosaccharides by a Combination of Pre-activation and Reactivity Based Chemoselective One-Pot Glycosylations" *J. Org. Chem.* **2007**, *72*, 8958-8961.
36. El-Boubbou, K.; Gruden, C.; Huang, X. "Magnetic Glyco-nanoparticles: A Unique Tool for Rapid Pathogen Detection, De-contamination and Strain Differentiation" *J. Am. Chem. Soc.* **2007**, *129*, 13392-13393.
- This publication was highlighted by the following sources:
- American Chemical Society, News Service, Press Pac, Nov. 14th, 2007
http://portal.acs.org/portal/acs/corg/content?_nfpb=true&_pageLabel=PP_ARTICLEMAIN&node_id=223&content_id=WPCP_007042&use_sec=true&sec_url_var=region1
 - <http://www.nanowerk.com/spotlight/spotid=3522.php>
 - <http://www.physorg.com/news114696140.html>
 - <http://www.sciencedaily.com/releases/2007/11/071119110910.htm>
 - <http://www.nano-biology.net/showabstract.php?pmid=17929928>
 - www.ti.frost.com
37. Srinivasan, B.; Huang, X. "Functionalization of Magnetic Nanoparticles with Organic Molecules: Loading Level Determination and Evaluation of Linker Length Effect on Immobilization" *Chirality*, **2008**, *20*, 265-277. (Special issue dedicated to Prof. Nina Berova)
38. Huang, L.; Lu, X.; Huang, X. "Chemical Syntheses of Hyaluronic Acid Oligosaccharides" in *Chemical Glycobiology II: Glycopharmaceuticals and Glycovaccines*, ACS symposium series, **2008**, in press.

39. Li, X.; Huang, L.; Hu, X.; Huang, X. “Thio-arylglycosides with Various Aglycon Para-Substituents, a Useful Tool for Mechanistic Investigation of Chemical Glycosylations” *Org. Biomol. Chem.* **2008**, submitted.
40. Miermont, A.; Barnhill, H.; Strable, E.; Lu, X.; Wall, K. A.; Wang, Q.; Finn, M. G.; Huang, X. “Cowpea Mosaic Virus Capsid, a Promising Carrier towards the Development of Carbohydrate Based Anti-tumor Vaccines” *Chem. Eur. J.* **2008**, in press.
41. Ficke, L.; Cremer, T. J.; Huang, X.; von Granfenstein, H. “Hyaluronic Acid Tetra- and Hexasaccharides Do Not Activate Toll-like Receptor 4 in Macrophages and Vascular Endothelial Cells” *Innate Immun.* **2008**, submitted.
42. Wang, Z.; Gilbert, M.; Eguchi, H.; Yu, H.; Cheng, J.; Muthana, S.; Zhou, L.; Wang, P. G.; Chen, X.; Huang, X. “Chemoenzymatic Syntheses of Tumor-Associated Carbohydrate Antigen Globo-H and Stage-Specific Embryonic Antigen 4” *Adv. Synth. Cat.* **2008**, in press.
43. Sun, B.; Srivinasan, B.; Huang, X. “Pre-activation Based One-pot Synthesis of an α -(2,3)-Sialylated Core-Fucosylated Complex Type Bi-antennary N-Glycan Dodecasaccharide” *Chem. Eur. J.* **2008**, submitted
44. Wang, Z.; Huang, X. “*p*-Toluenesulfonyl Chloride” *Electronic Encyclopedia of Reagents in Organic Synthesis*, **2008**.

Patents

1. Huang, X.; Ye, X.-S. “Iterative One-pot Oligosaccharide Synthesis using Chemoselective Glycosylation of Thioglycosides” US patent application, **2005**
2. Lukaszew, R. A.; Huang, X. “Magnetic Nanoparticles and Methods for Detecting Same Using Modulated Surface Plasmon Resonance” US provisional patent application, **2005**

Presentations at Scholarly Meetings

1. Nakanishi, K.; Huang, D.; Monde, K.; Tokiwa, Y.; Matile, S.; Jiang, H.; Fang, K.; Huang, X.; Liu, Y.; Usherwood, P.N.R. “Studies on the Binding of Philanthotoxin to the Acetylcholine Receptor” *Abstr. Pap. Am. Chem. Soc.* **1995**, 210:10-Agro, Part 1, Aug. 20
2. Nakanishi, K.; Huang, D.; Monde, K.; Tokiwa, Y.; Fang, K.; Liu, Y.; Jiang, H.; Huang, X.; Matile, S.; Usherwood, P.N.R.; Berova, N.; “Philanthotoxins and the Nicotinic Acetylcholine Receptor” *Phytochemicals for Pest Control American Chemical Society Symposium Series* **1997**, Vol. 658, Chapter 26 (pp. 339 - 353)
3. Huang, X.; Rickman, B. H.; Borhan, B.; Berova, N.; Nakanishi, K. “Determination of the Absolute Configurations of Diamines, Amino Acids, and Amino Alcohols by Circular Dichroism Utilizing Zinc Porphyrin Tweezer” *21st IUPAC International Symposium on the Chemistry of Natural Products* **1998**, pp. 176.

4. Huang, X.; Borhan, B.; Rickman, B. H.; Berova, N.; Nakanishi, K. "Zinc Porphyrin Tweezer – A Sensitive and Versatile Circular Dichroism Reporter Molecule for Determining Absolute Configurations of Chiral Amines and Alcohols" *11th International Symposium on Chiral Discrimination* **1999**.
5. Huang, X.; Pescitelli, G.; Fujioka, N.; Proni, G.; Nakanishi, K.; Berova, N.; "Dimeric Metalloporphyrin Hosts for Chiral Recognition Monitored by Circular Dichroism" *14th International Symposium on Chirality* **2000**.
6. Huang, X.; Huang, L.; Jing, Y.; Wang, Z.; Miermont, A. "Studies Towards Assembly of Oligosaccharide Libraries" *Gordon Research Conferences on Natural Products*, **2004**.
7. Huang, X.; Huang, L.; Wang, Z. "Studies Towards Assembly of Oligosaccharide Libraries" *Ohio Valley Organic Chemistry Symposium*, **2004**.
8. Huang, X., Huang, L.; Jing, Y.; Wang, Z.; Miermont, A. "Studies Towards Assembly of Oligosaccharide Libraries" *Gordon Research Conferences in Bioorganic Chemistry*, **2004**.
9. Huang, X.; Huang, L.; Wang, Z.; Jing, Y.; Ye, X.-S.; "Iterative One-pot Oligosaccharide Synthesis" *229th ACS National Meeting*, **2005**.
10. Huang, X.; Huang, L.; Wang, Z.; Jing, Y.; Ye, X.-S.; "Development of New One-pot Oligosaccharide Synthesis Methodologies" *88th Canadian Chemistry Conference* (special symposium in memory of Raymond Lemieux), **2005**.
11. Huang, X.; Huang, L.; Wang, Z.; Jing, Y.; "Development of New One-pot Oligosaccharide Synthesis Methodologies" *Gordon Research Conference on Carbohydrates*, **2005**.
12. Huang, L.; Huang, X.; "Highly Efficient Syntheses of Hyaluronan Oligosaccharides" *Gordon Research Conference on Carbohydrates*, **2005**.
13. Huang, X.; Huang, L.; "Highly Efficient Syntheses of Hyaluronan Oligosaccharides" *232nd ACS National Meeting*, **2006**.
14. Huang, X.; Teumelsan, N. H.; "Synthesis of Man5 and Man7 Oligomannoses" *232nd ACS National Meeting*, **2006**.
15. Huang, X.; "Development of Novel One-Pot Oligosaccharide Synthesis Strategies" *2nd Annual Midwest Carbohydrate Symposium*, **2006**.
16. Miermont, A.; Jing, Y.; Huang, X.; "Syntheses of Complex Oligosaccharides via the Iterative One-pot Method and Studies Towards Carbohydrate Associated Cancer Antigens" *2nd Annual Midwest Carbohydrate Symposium*, **2006**. (Winner of the Best Oral Talk Award)

17. Li, X.; Teumelsan, N.; Huang, L.; Huang, X.; “Reactivity Independent Assembly of Man₅ and Investigation of Reactivity-tuning Through Aglycon Adjustment” *2nd Annual Midwest Carbohydrate Symposium*, **2006**.
18. Srinivasan, B.; Huang, X.; “Magnetic Iron Oxide Nanoparticles for Biological Applications: Evaluation of Surface Coverage and Influence of Linker Length on Loading” *2nd Annual Midwest Carbohydrate Symposium*, **2006**.
19. Wang, Z.; Zhou, L.; El-Boubbou, K.; Huang, X.; “Iterative One-pot Syntheses of the Tumor-associated Carbohydrate Antigen Globo-H” *2nd Annual Midwest Carbohydrate Symposium*, **2006**. (Winner of the Best Poster Award)
20. Wang, Z.; Zhou, L.; El-Boubbou, K.; Huang, X.; “Iterative One-pot Synthesis of the Tumor-associated Carbohydrate Antigen Globo-H” *233rd ACS National Meeting*, **2007**.
21. Sun, B.; Zeng, Y.; Huang, X.; “Highly Selective Sialylation and Total Syntheses of Tumor-related Antigens N3 by the Iterative One-pot Synthesis Strategy” *233rd ACS National Meeting*, **2007**.
22. Lu, X.; Huang, L.; Sun, B.; Huang, X.; “Highly Efficient Syntheses of Hyaluronic Acid Oligosaccharides” *233rd ACS National Meeting*, **2007**.
23. Miermont, A.; Jing, Y.; Huang, X.; “Syntheses of Complex Tumor Associated Carbohydrate Antigens” *233rd ACS National Meeting*, **2007**.
24. Srinivasan, B.; Huang, X.; “Evaluation of Surface Coverage and Influence of Linker Lengths on Loading of Magnetic Iron Oxide Nanoparticles” *233rd ACS National Meeting*, **2007**.
25. Li, X.; Huang, L.; Huang, X.; “Investigation of Glycosylation Mechanisms: The Effects of Thioglycoside Aglycons on Anomeric Reactivities” *233rd ACS National Meeting*, **2007**.
26. Huang, X.; “Highly Efficient Synthesis of Hyaluronic Acid Oligosaccharides” *The International Conference on Hyaluronan (HA-2007)*, **2007**.
27. Huang, X.; Lu, X.; Miermont, A.; Srinivasan, B.; Sun, B.; Teumelsan, N.; Zeng, Y.; “Pre-activation Based One-pot Synthesis of Complex Oligosaccharides” *Gordon Research Conference on Carbohydrates*, **2007**.
28. Wang, Z.; Zhou, L.; Huang, X.; “Iterative One-pot Synthesis of the Tumor-associated Carbohydrate Antigen Globo-H” *Gordon Research Conference on Carbohydrates*, **2007**.
29. Wang, Z.; Huang, X.; “Iterative One-pot Syntheses of the Tumor-Associated Carbohydrate Antigen Globo-H and SSEA-3” *3rd Midwest Carbohydrate and Glycobiology Symposium*, **2007**. (Winner of the Best Oral Talk Award)

30. Miermont, A.; Wang, Q.; Wall, K. A.; Huang, X.; “Cow Pea Mosaic Virus Capsid: a Promising Protein Carrier for Carbohydrate Based Anti-Cancer Vaccine Studies” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.*
31. El-boubbou, K.; Gruden, C.; Huang, X.; “Magnetic Glyco-nanoparticles: A Unique Tool for Rapid Pathogen Detection, De-contamination and Strain Differentiation” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.* (Winner of the Best Oral Talk Award)
32. Sun, B.; Huang, X.; “Synthesis towards Fucosylated Bi-antennary Complex Type N-glycans” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.*
33. Lu, X.; Huang, L.; Huang, X.; “Highly Efficient Synthesis of Hyaluronic Acid Decasaccharide” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.*
34. Zhou, L.; Wang, Z.; Huang, X.; “Iterative One-pot Synthesis of the Tumor-Associated Carbohydrate Antigen Globo-H and SSEA-3” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.*
35. Zeng, Y.; Miermont, A.; Jing, Y.; Huang, X.; “Synthesis of Lewis Family Oligosaccharides and N₃ Antigen by a Combination of Pre-activation and Reactivity Based Chemoselective One-Pot Glycosylations” *3rd Midwest Carbohydrate and Glycobiology Symposium, 2007.* (Winner of best poster award)

Invited seminars

- 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, University of Toledo
Department of Chemistry, John Carroll University
Department of Medicinal and Biological Chemistry, University of Toledo
Department of Chemistry, Tulane University
Faculty of Agriculture and Life Science, Hirosaki University, Japan
National Research Laboratory of Natural and Biomimetic Drug, Peking University,
China
- 2008 Department of Chemistry, Oakland University
Department of Chemistry, University of Cincinnati
Department of Chemistry, University of New Mexico