

C U R R I C U L U M V I T A E

Robert James Woods PhD, FRSC

Professor of Biochemistry and Molecular Biology

University of Georgia, Complex Carbohydrate Research Center

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Curriculum vitae

Robert James Woods, Ph.D.

Education

- 1985—1990 Ph.D. (Computational and Carbohydrate Chemistry)
School of Graduate Studies and Research, Queen's University at Kingston, Canada
- 1981—1985 B.Sc. (Honors, Engineering Chemistry)
Faculty of Applied Science, Queen's University at Kingston, Canada

Appointments

- 2020—2020 Member of the 2021 Emil Fischer Award Selection Committee
- 2020—Present Adjunct Professor, Center for Molecular Modeling, University of Georgia, Athens
- 2019—Present Chair, National Center for Biotechnology Information (NCBI) Glycoscience Advisory Group
- 2008—Present Professor, Faculty of Infectious Disease (UGA), Athens
- 2008—2014 Professor, School of Chemistry, National University of Ireland, Galway
- 2008—2012 Leader, 3-D Structural Glycobiology Subgroup, Consortium for Functional Glycomics (Scripps)
- 2007—Present President, Glycosensors and Diagnostics, LLC.
- 2007—Present Professor, Complex Carbohydrate Research Center and Department of Biochemistry and Molecular Biology, University of Georgia, Athens
- 2006—Present Adjunct Professor, Department of Chemistry, National University of Ireland Galway
- 2002—2007 Associate Professor, Complex Carbohydrate Research Center and Department of Biochemistry and Molecular Biology, University of Georgia, Athens
- 1998—Present Adjunct Professor, Department of Chemistry, University of Georgia, Athens
- 1995—2002 Assistant Professor, Complex Carbohydrate Research Center and Department of Biochemistry and Molecular Biology, University of Georgia, Athens
- 1994—1995 Term Scientist, Institute for Biological Sciences, National Research Council of Canada, Ottawa, Canada
- 1991—1994 Postdoctoral Fellow, Glycobiology Institute, University of Oxford, United Kingdom
- 1990—1991 Postdoctoral Fellow, Laboratory for Molecular Modeling, University of North Carolina

University Governance

- 2014—Present Chair, Integrated Life Science Interest Groups
- 2014—Present Chair, Structural Biology Interest Group
- 2011—Present Member, Center for Drug Discovery
- 2009—Present Chair, Computer Lab Oversight Committee
- 2008—2011 Member, Life Sciences Area Committee for Appointment and Reappointment
- 2004—2005 Member, Integrative Life Sciences (Systems Biology) Task Force
- 1998—2008 Member, Molecular Biosciences Graduate Program Working Committee
- 1995—2005 Member, Faculty Search Committees
- 1995—1999 Member, Research Computing Subcommittee on Curriculum Development

1995–2005 Member, Research Computing Advisory Committee
1995–1998 Member, Campus Information Technology Forum

Memberships in Professional Organizations

2020–2024 Member, Board of Directors for the Society for Glycobiology
2019–Present Chair-Elect, Northeast Georgia American Chemical Society Section
2009–Present Fellow, Royal Society of Chemistry
2004–2014 Member, Consortium for Functional Glycomics
1999–Present Member, Society for Glycobiology

1991–2009 Member, Royal Society of Chemistry
1990–Present Member, American Chemical Society

Journal Editorial Service

2015–Present Member, Editorial Board, *Journal of Biological Chemistry*

2011–Present Member, Editorial Board, *Glycobiology*
2008–Present Member, Editorial Board *International Journal of Carbohydrate Chemistry*
2003–2012 Member, Editorial Board, *Carbohydrate Research*

Reviewer for the following Granting Agencies

National Institutes of Health, National Science Foundation, Petroleum Research Fund, Research Corporation, National Research Council of Canada

Ad hoc member of NIH Review Panel for Biophysics Fellowships (2004)

Ad hoc member of the NIH Macromolecular Structure and Function B study section, responsible for reviewing glycoscience applications (2006)

Mentoring/Advising service

2014–Present External Mentor for Dr. Henry Wan, Centers of Biomedical Research Excellence (COBRE)
2012–Present Scientific Advisory Board Member, Gates Foundation Award to Dr. Shan Lu

Honors

2014 UGA Faculty Entrepreneur of the Year

Patents

U.S. Patent Publication No.: PCT Application US 2021/0009975 A1
WIPO International Publication No.: WO2018/200478 A2
Title: Sialic Acid Binding Polypeptide

Status:	Published: January 14, 2021
Role:	Co-Inventor (w/ L. Yang, K.N. Samli, S. Wu, J.C. Cooper, M.K. Paul, M.J. Saunders, Z.M. Eletr)
U.S. Provisional Application Serial No.:	PCT /US2015/02637 4
WIPO International Publication No.:	WO2015/161201
Title:	Carbohydrate-binding Protein
Status:	Published July 23, 2019
Role:	Co-Inventor (w/ K. Samli & L. Yang)
Israeli Patent Application No.:	212806
WIPO International Publication No.:	2010/068817
Title:	Catalytically Inactive Carbohydrate Processing Enzyme, Methods and Uses Thereof
Status:	Published June 28, 2018
Role:	Co-Inventor
U.S. Patent Publication No.:	PCT Application PCT/US2013/031238
WIPO International Publication No.:	WO2013/138563
Title:	Glycomimetics to Inhibit Pathogen-host Interactions
Status:	Published March 28, 2017
Role:	Co-Inventor (w/ P.V. Murphy, L. Yang, H.M.K. Smith, J. Hendel)
International Application No.:	PCT/US2012/0272 11
WIPO International Publication No.:	WO2012/118928 A2
Title:	Glycoprofiling with Multiplexed Suspension Arrays
Status:	Published September 7, 2012
Role:	Co-Inventor (w/ L. Yang)
International Application No.:	PCT/US2009/067582
WIPO International Publication No.:	WO/2010/068817
Title:	Glycan-Specific Analytical Tools
Status:	Published June 17, 2010
Role:	Inventor

Currently Funded Research Projects

1R01GM140201	12/1/2021– 7/31/2024
NIH	\$604,000
Title:	Novel Carbohydrate-binding Antibodies to Human Glycans Using the Lamprey System
Role on Project:	Co-PI (w/ Richard Cummings)
DMR-1933525	08/01/2020—01/31/2025
NSF	\$936,655 (Woods Portion, Year 1)
Title:	MIP: GlycoMIP – Automating the Synthesis Rationally Designed Glycomaterials

Role on Project:	Co-PI (w/ Maren Roman)
1R01GM135473	9/1/2020 – 5/31/2024
NIH	\$1,556,705
Title:	Computational tools to aid the design of glycomimetic Agents
Role on Project:	Principal Investigator
1R56AG06808901	9/15/2020 – 8/31/2022 (No-Cost Extension)
NIH	\$179,735 (Woods Portion)
Title:	Regulation of microglia in Alzheimer's disease by Siglecs and Siglec
Role on Project:	Co-PI (w/ Ronald Schnaar)
R24GM136984	05/01/2020 – 04/30/2023
NIH	\$1,434,500
Title:	Transitioning GLYCAM-Web to a Self-sustaining Carbohydrate Modeling Service
Role on Project:	Principal Investigator
1R01GM134335	07/01/2019 – 4/30/2023
NIHGMS	\$329,164 (Woods Portion)
Title:	Sparse NMR Labeling Approach to Glycoprotein Structure and Function
PI:	James Prestegard
Role on Project:	Co-investigator
1U01GM125267	09/01/2017 – 6/30/2022
NIHGMS	\$337,047 (Woods Portion)
Title:	Computational and Informatics Resources and Tools for Glycoscience Research
PI:	Michael Tiemeyer
Role on Project:	Co-investigator
CHE-2002628	08/15/2020 – 07/31/2023
NSF	\$72,000 (Woods Portion)
Title:	Collaborative Research: Conformational Equilibria of Biologically Important Saccharides and Related Biomolecules
Role on Project:	Co-PI (w/ Anthony Serianni)
DMR-2034567	08/10/2020 – 06/30/2022 (No-Cost Extension)
NSF	\$67,444 (Woods Portion)
Title:	RAPID: Rational Design of Biomimetic, Virus-Trapping Polymers
Role on Project:	Co-PI (w/ Maren Roman & Michael Schulz)

Significant Former Support:

1U01CA221216	08/01/2019—07/31/2021
NIH	\$658,026
Title:	GlyProbit: Tools to Curate Glycan Structure Pre and Post Deposition in the PDB
Role on Project:	Principal Investigator
8P41GM103390	02/01/19—01/31/20
NIH/NIGMS	\$141,892
Title:	Research Resource for Integrated Glycotechnology
PI:	Kelley W. Moremen
Role on Project:	Senior Investigator
1U01CA207824	09/01/2016—08/31/2019
NIH	\$569,725
Title:	Tools to Enable Non-specialists to Model Glycoconjugates and Glycan-Protein Interactions
Co-PI	Bethany L. Foley
Role on Project:	Co-Principal Investigator
R56AG062342	09/30/18 – 08/31/19
NIH	\$96,150
Title:	Defining the role of keratan sulfate recognition in Alzheimer's Disease progression
Role:	Principal Investigator
R01GM127267	06/01/2018—2/29/2020
NIH	\$76,496
Title:	Molecular Structure Determination by Mass Spectrometry and Computational Modeling
PI:	James Prestegard
Role on Project:	Senior Investigator
1R01HL128237	06/01/2015—05/31/2018
NIH	\$120,000
Title:	A PSGL-1 Glycopeptide Mimetic for Treatment of Venous Thromboembolism
PI:	Elliot Chaikof
Role on Project:	Sub-Award PI
1R01DK107405	03/01/2015—02/28/2018
NIH	\$50,400
Title:	A PSGL-1 Glycopeptide Mimetic for Treatment of Metabolic Syndrome
PI:	Elliot Chaikof
Role on Project:	Sub-Award PI
CHE-1402744	08/01/2015—07/31/2017

NSF	\$136,824
Title:	Conformational Equilibria of Biologically Relevant Oligosaccharides
Role on Project:	Co-Principal Investigator
1R41GM113351	01/15/2015 – 12/31/2016
NIH-STTR	\$159,598
Title:	High-specificity Affinity Reagents for the Detection of Glycan Sialylation
PI:	Loretta Yang
Role on Project:	Co-Principal Investigator
1R01GM096049-01A1 (Sharp)	12/01/2011 – 11/30/2016
NIH	\$131,860 (Woods portion only)
Title:	Improved Hydroxyl Radical Footprinting for Modeling Protein Structure
Role on Project:	Co-Principal Investigator
R42GM086991	09/01/2015 – 08/31/2016
NIH	\$377,080
Title:	High-Specificity Affinity Reagents for N-Glycosylation Site Mapping and Glycomics
Role on Project:	Co-Principal Investigator
1R01GM100058	05/01/12 – 02/29/16
NIH	\$266,877
Title:	Continued Development and Maintenance of Glycam-Web
Role on Project:	Co-Principal Investigator
1R01GM094919-03	09/01/10 – 08/31/14
NIH/NIGMS (EUREKA)	\$1,525,125
Title:	Integrating Experiment & Theory to Characterize Diagnostic Antibody Specificity
Role on Project:	Principal Investigator
08/IN.1/B2070	09/01/09 – 08/31/14
Science Foundation Ireland	€1,171,425 (\$1,563,423)
Title:	Virtual Glycan Array Development and Carbohydrate Receptor Engineering
Role on Project:	Principal Investigator
RCS1103	07/01/11 – 06/30/13
IRCSET	€79,280
Title:	Development of Anti-Adhesion Based Influenza Blockers
Role on Project:	Principal Investigator
RCS1075	10/01/10 – 09/30/12
IRCSET	€77,280
Title:	Quantifying the Influence of Point Mutations on Receptor

	Binding in Influenza Hemagglutinin: Toward the A Priori Prediction of Species Specificity
Role on Project:	Principal Investigator
RCS932	09/01/09—09/01/12
Irish Research Council for Science, Engineering and Technology (IRCSET)	€72,009
Title:	Molecular Recognition of Glycans in Human Disease
Role on Project:	Principal Investigator
RSF0877	01/01/09—01/01/12
Science Foundation Ireland	€206,250 (\$262,788)
Title:	Undergraduate Research Experience & Knowledge Award (UREKA) Site in Molecular Recognition
Role on Project:	Principal Investigator
5R01GM055230-10	03/01/97—08/31/11 (No-cost Extension)
NIH/NIGMS	\$1,612,811
Title:	Computational Analysis of Carbohydrate Antigenicity
Role on Project:	Principal Investigator
07/RP1/B1321	04/01/08—04/01/10
Science Foundation Ireland	€999,120 (\$1,439,000)
Title:	Characterizing Molecular Interactions in Glycoscience
Role on Project:	Principal Investigator
1R41GM086991-01	09/01/09—08/31/11
NIH (STTR)	
Title:	High-specificity Affinity Reagents for N-glycosylation Site Mapping and Glycomics
Role on Project:	Principal Investigator
GRA.VAC08.E	09/30/2007—06/30/2009
Georgia Research Alliance Collaboration Planning Grant	\$200,000
Title:	Defining the Structural Basis of Lipid A Variants as Vaccine Adjuvants
Role on Project:	Co-Principal Investigator
5RO1DE13982	09/29/00—07/31/05
NIH/NIGMS	\$997,064
Title:	Oral Candidiasis: Antigen Structure and Vaccine Design
Role on Project:	Principal Investigator

Publication Activity

Peer-Reviewed Journal Articles:

2021

143. Tjondro, H. C., Ugonotti, J., Kawahara, R., Chatterjee, S., Loke, I., Chen, S., Soltermann, F., Hinneburg, J., Parker, B. L., Venatakrisnan, V., Dieckmann, R., Grant, O. C., Bylund, J., Rodger, A., **Woods, R. J.**, Karlsson-Bengtsson, A., Struwe, W. B., Thaysen-Andersen, M. (2021). Hyper-truncated Asn355- and Asn391-glycans modulate the activity of neutrophil granule myeloperoxidase. *J. Biol. Chem.*, **296**, 100144. [PMID: 33273015](#)
142. Shanthamurthy, C. D., Ben-Ayre, S. L., Kumar, N. V., Yehuda, S., Amon, R., **Woods, R. J.**, Padler-Karavani, V., Kikkeri, R. (2021) Heparan sulfate mimetics differentially affect homologous chemokines and attenuate cancer development. *J. Med. Chem.* **64**(6), 3367-3380. [PMID: 33683903](#)
141. French, A. D., Montgomery, D. W., Prevost, N. T., Edwards, J. V., **Woods, R. J.** (2021) Comparison of cellooligosaccharide conformations in complexes with proteins with energy maps for cellobiose. *Carbohydr. Polym.* **264**, 118004-118004. [DOI: 10.1016/j.carbpol.2021.118004](#)
140. Jain, P., Shanthamurthy, C. D., Ben-Arye, S. L., **Woods, R. J.**, Kikkeri, R., Padler-Karavani, V. (2021) Discovery of rare sulfated N-unsubstituted glucosamine based heparan sulfate analogs selectively activating chemokines. *Chem. Sci.*, **12**, 3674-3681. [DOI: 10.1039/D0SC05862A](#)
139. Benicky, J., Sanda, M., Brnakova Kennedy, Z., Grant, O. C., **Woods, R. J.**, Zwart, A., & Goldman, R. (2021). PD-L1 Glycosylation and Its Impact on Binding to Clinical Antibodies. *J. Proteome Res.*, **20**(1), 485-497. [PMID: 33073996](#)

2020

138. Meredith, R. J., **Woods, R. J.**, Carmichael, I., & Serianni, A. S. (2020). Reconciling MA'AT and molecular dynamics models of linkage conformation in oligosaccharides. *Phys. Chem. Chem. Phys.*, **22** (26), 14454-14457. [PMID: 32597425](#)
137. Overeem, N. J., Hamming, P. H. E., Grant, O. C., Di Iorio, D., Tieke, M., Bertolino, M. C., Li, Z., Vos, G., de Vries, R. P., **Woods, R. J.**, Tito, N. B., Boons, G.-J. P. H., van der Vries, E. Huskens, J. (2020). Hierarchical Multivalent Effects Control Influenza Host Specificity. *ACS Cent. Sci.*, **6** (12), 2311-2318. [PMCID: PMC7760459](#)
136. Smith, C. C., Entwistle, S., Willis, C., Vensko, S., Beck, W., Garness, J., Sambade, M., Routh, E., Olsen, K., Kodysh, J., O'Donnell, T., Haber, C., Heiss, K., Stadler, V., Garrison, E., Grant, O.C., **Woods, R. J.**, Heise, M., Vincent, B.G., & Rubinsteyn, A. (2020). Landscape and Selection of Vaccine Epitopes in SARS-CoV-2. bioRxiv, 2020.06.04.135004. [PMCID: PMC7302209](#)
135. Olson, L.J., Misra, S.K., Ishihara, M. Battaile, K. P., Grant, O.C., Sood, A., **Woods, R. J.**, Kim, J.-J. P., Tiemeyer, M., Ren, G. Sharp, J. S., Dahms, N. M. (2020) Allosteric regulation of lysosomal enzyme recognition by the cation-independent mannose 6-phosphate receptor. *Commun. Biol.* **3**, 498. [PMCID: PMC7481795](#)
134. Zhao, P., Praissman, J. L., Grant, O. C., Cai, Y., Xiao, T., Rosenbalm, K. E., Aoki, K., Kellman, B. P., Bridger, R., Barouch, D. H., Brindley, M. A., Lewis, N. E., Tiemeyer, M., Chen, B., **Woods, R. J.**, Wells, L. (2020). Virus-receptor interactions of glycosylated SARS-CoV-2 spike and human ACE2 receptor. *Cell Host Microbe*, **28** (4), 586-601. [PMCID: PMC7386495](#)
133. Kim, S. Y., Jin, W., Sood, A., Montgomery, D. W., Grant, O. C., Fuster, M. M., Fu, L., Dordick, J. S., **Woods, R. J.**, Zhang, F., Linhardt, R. J. (2020). Characterization of heparin and severe acute

respiratory syndrome-related coronavirus 2 (SARS-CoV-2) spike glycoprotein binding interactions. *Antiviral Res.*, **181**, 104873. [PMCID: PMC7347485](#)

132. York, W. S., Mazumder, R., Ranzinger, R., Edwards, N., Kahsay, R., Aoki-Kinoshita, K. F., ... & Zhang, W. (2020). GlyGen: Computational and informatics resources for glycoscience. *Glycobiology*, **30** (2), 72-73. [PMCID: PMC7335483](#)
131. Tang, M., Wang, X., Gandhi, N. S., Foley, B. L., Burrage, K., Woods, R. J., & Gu, Y. (2020). Effect of Hydroxylysine-O-glycosylation on the structure of type I collagen molecule: A computational study. *Glycobiology*. [PMCID: PMC7526737](#)
130. Mandalasi, M., Kim, H. W., Thieker, D., Sheikh, M. O., Gas-Pascual, E., Rahman, K., ... & West, C. M. (2020). A terminal α 3-galactose modification regulates an E3 ubiquitin ligase subunit in *Toxoplasma gondii*. *Journal of Biological Chemistry*, JBC-RA120. [PMCID: PMC7335778](#)
129. Flowers, S. A., Grant, O. C., **Woods, R. J.**, & Rebeck, G. W. (2020). O-glycosylation on cerebrospinal fluid and plasma apolipoprotein E differs in the lipid-binding domain. *Glycobiology*, **30**(2), 74-85. [PMCID: PMC7335482](#)
128. Amon, R., Rosenfeld, R., Perlmutter, S., Grant, O.C., Yehuda, S., Borenstein-Katz, A., Alcalay, R., Marshanski, T., Yu, H., Diskin, R., **Woods, R. J.**, Chen, X., Padler-Karavani, V. (2020) "Directed Evolution of Therapeutic Antibodies Targeting Glycosylation in Cancer", *Cancers*, **12**, 2824 [PMCID: PMC7601599](#)
127. Grant, O.C., Montgomery, D., Ito, K., **Woods, R.J.** (2020) "Analysis of the SARS-CoV-2 spike protein glycan shield reveals implications for immune recognition", *Sci. Rep.* **10**, 14991 [PMCID: PMC7217288](#)

2019

126. Neelamegham S., Aoki-Kinoshita, K., Bolton, E., Frank, M., Lisacek, F., Lütteke, T., O'Boyle, N., Packer, N.H., Stanley, P., Toukach, P., Varki, A., **Woods, R.J.**; SNFG Discussion Group. (2019) Updates to the Symbol Nomenclature for Glycans guidelines. *Glycobiology*. **29** (9): 620-624. [PMCID: PMC7335484](#)
125. Zhang, W., Meredith, R., Pan, Q., Wang, X., **Woods, R.J.**, Carmichael, I., Serianni, A.S. (2019) "Use of Circular Statistics To Model α Man-(1 \rightarrow 2)- α Man and α Man-(1 \rightarrow 3)- α/β Man O-Glycosidic Linkage Conformation in 13 C-Labeled Disaccharides and High-Mannose Oligosaccharides", *Biochemistry*, **58** (6): 546-560. [DOI: 10.1021/acs.biochem.8b01050](#) [PMID: 30605318](#)
124. Chalmers, G.R., Eletsky, A., Morris, L.C., Yang, J.-Y., Fang, T., **Woods, R.J.**, Moremen, K.W., Prestegard, J.H. (2019) "NMR Resonance Assignment Methodology: Characterizing Large Sparsely Labeled Glycoproteins" *J. Mol. Biol.*, *Accepted*.
123. Singh, A., Montgomery, D., Xingran, X., Foley, B.L., **Woods, R.J.** (2019) "GAG Builder: A Web-tool for Modeling 3D Structures of Glycosaminoglycans", *Glycobiology*, cwz027, [DOI: 10.1093/glycob/cwz027](#)
122. Zhang, W., Meredith, R., Yoon, M.-K., Wang, X., **Woods, R.J.**, Carmichael, I., Serianni, A.S. (2019) "Synthesis and O-Glycosidic Linkage Conformational Analysis of 13 C-Labeled Oligosaccharide Fragments of an Antifreeze Glycolipid", *J. Org. Chem.*, **84** (4): 1706-1724 [PMID: 30624062](#)

2018

121. Nemanichvili N., Tomris I., Turner H.L., McBride R., Grant O.C., van der Woude R., Aldosari M.H., Pieters R.J., **Woods R.J.**, Paulson J.C., Boons G.J., Ward A.B., Verheije M.H., de Vries R.P. (2018) "Fluorescent Trimeric Hemagglutinins Reveal Multivalent Receptor Binding Properties", *J. Mol. Biol.* **431**(4): 842-856. [PMCID: PMC6397626](#)
120. De Leoz, M.L., Simon-Manso, Y., **Woods, R.J.**, Stein, S.E. (2018) "Cross-Ring Fragmentation Patterns in the Tandem Mass Spectra of Underivatized Sialylated Oligosaccharides and Their

Special Suitability for Spectrum Library Searching”, *J. Am. Soc. Mass Spectrom.* 30 (3): 426-438
[PMCID: PMC6416239](#)

119. **Woods, R.J.**, (2018) Predicting the Structures of Glycans, Glycoproteins, and Their Complexes. [Special Issue – Carbohydrate Chemistry] *Chemical Reviews*. **118** (17): 8005-8024. [PMCID: PMC6659753](#)
118. Nielsen, I.M., Stegmayr, J., Grant, O.C., Yang, Z., Nilsson, U.J., Boos, I., Carlsson, M.C., **Woods, R.J.**, Unverzaqt, C., Leffler, H., Wandall, H.H. (2018) “Galectin binding to cells and glycoproteins with genetically modified glycosylation reveals galectin-glycan specificities in a natural context”, *J. Biol. Chem.*, [PMCID: PMC6311502](#)
117. Sood, A., Gerlits, O., Ji, Y., Bovin, N., Coates, L., **Woods, R.J.** (2018) “Defining the specificity of carbohydrate-protein interactions by quantifying functional group contributions”, *J. Chem. Inf. Model.*, 58 (9): 1889-1901. [PMCID: PMC6442460](#)
116. Ferreira, R.-C., Grant, O.C., Moyo, T., Dorfman, J., **Woods, R.J.**, Travers, S., Wood, N. (2018) “Structural Rearrangements Maintain the Glycan Shield of an HIV-1 Envelope Trimer After the Loss of a Glycan”, *Sci. Rep.*, 8 (1): 15031. [PMCID: PMC6177452](#)
115. Thieker, D.F., Xu, Y., Digantkumar, C., Nora, C., Hong, Q., Felix, T., Wang, L., Moremen, K.W., Liu, J., Esko, J.D., **Woods, R.J.** (2018) “Downstream Products are Potent Inhibitors of the Heparan Sulfate 2-O-Sulfotransferase”, *Sci. Rep.*, 8: 11832. [PMCID: PMC6081452](#)
114. Zhao, Y., Yang, J.Y., Thieker, D.F., Xu, Y., Zong, C., Boons, G.-J., Liu, J., **Woods, R.J.**, Moremen, K.W., Amster, I.J. (2018) “A Traveling Wave Ion Mobility Spectrometry (TWIMS) Study of the Robo1-Heparan Sulfate Interaction”, *J. Am. Soc. Mass. Spectrom.*, 29 (6): 1153-1165. [PMCID: PMC6004239](#)
113. Amon, R., Grant, O.C., Ben-Arye, S.L., Makeneni, S., Nivedha, A.K., Marshanski, T., Norn, C., Yu, J., Glushka, J.N., Fleishman, S.J., Chen, X., **Woods, R.J.**, Padler-Karavani, V. (2018) “A Combined Computational-experimental Approach to Define the Structural Origin of Antibody Recognition of Sialyl-Tn, a Tumor-associated Carbohydrate Antigen”, *Nat. Biotechnol. Sci. Rep.*, 8: 10786, 1-12. [PMCID: PMC6050261](#)
112. Peng, W., Bouwman, K., McBride, R., Grant, O.C., **Woods, R.J.**, Verheije, M., Paulson, J., de Vries, R. (2018) “Enhanced Human-Type Receptor Binding by Ferret-Transmissible H5N1 with a K193T Mutation”, *J. Virology*, 92 (10): e02016-17. [PMCID: PMC5923085](#)
111. Makeneni, S., Thieker, D.F., **Woods, R.J.** (2018) “Applying Pose Clustering and MD Simulations to Eliminate False Positives in Molecular Docking”, *J. Chem. Inf. Model.*, 58 (3): 605-614. [PMCID: PMC6067002](#)
110. Pikoula M., Tessier, M.B., **Woods, R.J.**, Ventikos, Y. (2018) “Oligosaccharide model of the vascular endothelial glycocalyx in physiological flow”, *Microfluid Nanofluidics* (2018) 22: 21 [PMCID: PMC5847235](#)

2017

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- Woods, R.J.**, Moremen, K.W., Wells, L., Montgomery, D., Ito, K., Grant, O.C. (Poster) "The Role of Spike Protein Glycosylation in Modulating SARS-CoV-2 Antigenicity and Adhesion", Society for Functional Glycobiology Annual Meeting, San Diego, California, November 8, 2021.
- Ye, J., Grant, O.C., Peng, W., McBride, R., Paulson, J.C., **Woods, R.J.** "Why humans Don't Routinely Get Bird Flu: The Importance of Bidentate Glycan Binding", ACS Fall 2019 National Meeting, San Diego, California, August 25, 2019.
- Woods, R.J.** "Generation & Visualization of Glycoprotein 3D Structure", GlyGen All Hands Meeting, Washington, D.C., August 23, 2019.
- Woods, R.J.** "Modeling Glycoproteins and Glycan Processing", NIH & FDA Glycoscience Research Day 2019, Bethesda, Maryland, July 8, 2019.

- Xiao, Y., **Woods, R.J.** "Computational Tools to Aid the Design of Glycomimetic Agents", EUROCARB XX, Leiden, Netherlands, July 2, 2019.
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- Woods, R.J.**, Young, J.Y. "GlyProbit: Tools to Curate Glycan Structure Pre and Post Deposition in the PDB", NIH Common Fund Glycoscience Program, Bethesda, Maryland, May 29, 2019.
- Foley, B.L., **Woods, R.J.** "Tools to Enable Non-specialists to Model Glycoconjugates and Glycan-protein Interactions", NIH Common Fund Glycoscience Program, Bethesda, Maryland, May 29, 2019.
- Woods, R.J. (Invited)** "Engineering High-specificity Carbohydrate-binding Reagents from Glycosidases", 3rd Argentinian Symposium on Glycobiology, San Martin, Buenos Aires, Argentina, May 8, 2019.
- Woods, R.J.**, Wu, S., Meng, L., Gerner-Smidt, C., Sanders, M., Ben-Ayre, S., Padler-Karavani, V., Yang, L. (Poster) "Engineered High-Specificity Affinity Reagents for the Detection of Glycan Sialylation", Journal of Biological Chemistry Editorial Board Meeting, Orlando, Florida, April 9, 2019.
- Woods, R.J.**, Saunders, M., Young, L. (Poster) "GlycoSenseTM: A Simple Alternative to Existing Methods for Glycosylation Detection and Monitoring", Journal of Biological Chemistry Editorial Board Meeting, Orlando, Florida, April 9, 2019.
- Ji, Y., Hendel, J., Glushka, J., Wu, N., Wilson, I., Tompkins, S.M., Murphy, P.V., **Woods, R.J.** "Novel Rigid Glycomimetics to Inhibit Influenza Infection", Journal of Biological Chemistry Editorial Board Meeting, Orlando, Florida, April 8, 2019.
- Sood, A., Gerlits, O.O., Ji, Y., Bovin, N.V., Coates, L., **Woods, R.J.** "Defining the Specificity of Carbohydrate-Protein Interactions by Quantifying Functional Group Contributions", ACS National Meeting & Exposition, Orlando, Florida, April 2, 2019.
- Kirschner, K.N., Yongye, A.B., Tschampel, S.M., González-Outeiriño, J., Daniels, C.R., Foley, B.L., **Woods, R.J.** "GLYCAM06: a generalizable biomolecular force field. Carbohydrates." Amber Developers Meeting, March 28, 2019.
- Woods, R.J.**, Saunders, M.J., Wu, S., Meng, L., Gerner-Smidt, C., Ben-Arye, S.L., Padler-Karavani, V., Yang, L. "GlycoSense: A Rapid and Simple Method for Glycosylation Detection and Monitoring", 2019 GlycoBioTec Symposium, Berlin, Germany, January 30, 2019.
- Woods, R.J. (Invited)** "Defining the 3D-Structure and Antigenicity of Pathogenic Polysaccharides" 8th Baltic Meeting on Microbial Carbohydrates, Dublin, Ireland, September 12, 2018.
- Woods, R.J. (Invited)** "Modeling Glycan-protein Interactions: The Importance of Entropy in Defining Specificity" 43rd FEBS Congress, Prague, Czech Republic, July 8, 2018.
- Grant, O.C., Makeneni, S., **Woods, R.J.** "The Effect of Substrate Presentation and Michaelis Complex Stability on Neuraminidase 2 (NEU2) Specificity" FASEB Conference on "Microbial Glycobiology", Scottsdale, Arizona, June 19, 2018.
- Yang, L., Wu, S., Cooper, J.C., Paul, M.K., Cummings, A.L., Eletr, Z.M., Ben-Arye, S.L., Padler-Karavani, V., Samli, K.N., **Woods, R.J.** "Engineering High-Specificity Affinity Reagents for the Detection of Glycan Sialylation" 2018 Sialoglyco Symposium, Banff, Alberta, Canada, May 13, 2018.
- Hendel, J., Ji, Y., Smith, H., Glushka, J., Wu, N., Wilson, I.A., Tompkins, M., Murphy, P., **Woods, R.J. (Invited)** "Glycomimetics to Inhibit Influenza Infection?" 3rd Conference on Mitigation Strategies for Infectious Diseases, Cali, Columbia, October 25, 2017.
- Woods, R.J. (Invited)** "How Proteins Recognize Flexible Carbohydrates: The Roles of Affinity, Avidity, and Entropy" MSSMBS, St. Petersburg, Russia, September 8, 2017.
- Woods, R.J.** "Defining carbohydrate antigenicity: How are flexible molecules recognized by the immune system?" 254th ACS National Meeting & Exposition, Washington, D.C., August 22, 2017.

- Woods, R.J.** "Computational and Biophysical Insight into Glycan Specificity: The Role of Entropy and Avidity" Gordon Research Conference, West Dover, VT, June 25, 2017.
- Woods, R.J.** "Insight into influenza specificity" Virocarb Symposium, Hamburg, Germany, February 25, 2017.
- Grant, O.C., Makeneni, S., Foley, B.L., **Woods, R.J.** "The Effect of Substrate Presentation and Activation on Neuraminidase NEU2 Specificity" Sialoglyco 2016, Santa Barbara, CA, November 15, 2016.
- Grant, O.C., **Woods, R.J.** "Predicting N-glycan processing based on enzyme glycan accessibility", Warren Workshop VI 2016, Sapporo, Hokkaido, August 25, 2016.
- Grant, O.C., Hadden, J.A., Ye, J., Smith, H.M.K., Peng, W., De Vries, R., **Woods, R.J.** (Keynote Lecture) "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", 18th European Carbohydrate Symposium, Moscow, Russia, August 3, 2015.
- Grant, O.C., Hadden, J.A., Ye, J., Smith, H.M.K., Peng, W., De Vries, R., McBride, R., Paulson, J.C., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", International Glyco-Symposium, University of Oslo, Oslo, Norway, May 18, 2015.
- Woods, R.J.** "Computationally-guided design of reagents for Glycoscience", GlycoCom 2015, Banff, Alberta, Canada, May 4, 2015.
- Singh, A., Kett, W.C., Severin, I.C., Agyekum, I., Duan, J., Amster, J., Proudfoot, A.E.I., Coombe, D.R., **Woods, R.J.** "The Interaction of Heparin Tetrasaccharides with Chemokine CCL5 is Modulated by Sulfation Pattern and pH", 1st Southeast Glycoscience Symposium, Georgia State University, Atlanta, GA, April 18, 2015.
- Grant, O.C., Hadden, J.A., Smith, H.M.K., Peng, W., De Vries, R., McBride, R., Paulson, J.C., **Woods, R.J.** (Plenary Lecture) "A Role for Underlying Glycan Structure in Modulating Influenza Binding: Extending the Species Specificity Paradigm", Sialoglyco2014, Griffith University, Gold Coast, Australia, September 10, 2014.
- Grant, O.C., **Woods, R.J.** "Combining Computational Carbohydrate Grafting with Glycan Array Data to Define the 3D Epitopes of Carbohydrate Binding Antibodies", 248th ACS National meeting – Glycoconjugate Symposium, San Francisco, CA, August 11, 2014.
- Thieker, D., Liu, J., **Woods, R.J.** "Computer modeling and crystallography illuminate the origin of substrate specificity in the Heparan Sulfate modifying enzyme 2-OST", 9th International Symposium on Glycosyltransferases (GLYCO-T), Porto, Portugal, June 20, 2014.
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- Grant, O.C., Firsova, D., **Woods, R.J.** "Combining Computational Carbohydrate Grafting with Glycan Array Data to Define the 3D Epitope of Carbohydrate Binding Proteins", 17th European Carbohydrate Symposium, Tel Aviv, Israel, July 9, 2013.
- Woods, R.J.** "Computational screening of virtual glycan arrays: a new tool for specificity prediction and validation", Gordon Research Conference on Carbohydrates, West Dover, VT, June 19th, 2013.
- Grant, O.C., Firsova, D., **Woods, R.J.** "Combining Computational Carbohydrate Grafting with Glycan Array Data to Define the 3D Epitope of Carbohydrate Binding Proteins", 3rd Beilstein Symposium on Glycoinformatics, Potsdam, Germany, June 12, 2013.
- Sing, A., Coombe, D., **Woods, R.J.** (Keynote Lecture) "Computational analysis of glycosaminoglycan binding to chemokine CCL5", 5th Baltic Meeting on Microbial Carbohydrates, Suzdal, Russia, September 5, 2012.
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- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** "Leveraging Glycan Array Data with Computational Carbohydrate Grafting to Define the 3D Structure of an Anti-Tumor Antibody in Complex with Carbohydrate Antigen", Frontiers in Glycostructure and Membrane Biology, Borstel, Germany, September 15, 2011.
- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** (Plenary Lecture) "Leveraging Glycan Array Data with Computational Carbohydrate Grafting to Define the 3D Structure of an Anti-Tumor Antibody in Complex with Carbohydrate Antigen", Euroglycoscience Forum Crystallography & Modeling Workshop, Vienna, Austria, August 24, 2011.
- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** "Computational Carbohydrate Screening Identifies Novel Ligand Binding Specificities for a Diagnostic Protein", 16th European Carbohydrate Symposium, Sorrento, Italy, July 5, 2011.
- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** "Leveraging Glycan Array Data with Computational Carbohydrate Grafting to Define the 3D Structure of an Anti-Tumor Antibody in Complex with Carbohydrate Antigen", 2nd Beilstein Symposium on Glyco-Bioinformatics, Potsdam, Germany, June 30, 2011.
- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** "Combining Computational Carbohydrate Threading with Glycan Array Data to Define the 3D Epitope of an Antitumor Antibody", 241st ACS Spring Meeting, Anaheim, CA, March 30, 2011.
- Woods, R.J.** "Combining Computational Methods with Glycan Array Data to Define the 3D Epitope of an Anti-tumor Antibody", Gordon Research Conference (Glycobiology), Lucca, Italy, May 12, 2011.
- Tessier, M.B., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olson, K., **Woods, R.J.** "Computational Carbohydrate Threading Identifies Novel Ligand Binding Specificities for a Diagnostic Protein", 5th Glycan Forum, Berlin, Germany, March 10, 2011.
- Woods, R.J.** "Characterizing Antibody Specificity: Leveraging Glycan Array Data and Computational Simulations", 3rd Annual Meeting of Glycoscience Ireland, Galway, Ireland, September 1, 2010.
- Woods, R.J.** "Predicting Influenza Species Specificity: A Case for Computational Glycoscience", ICI Annual Conference: High Performance Computing at the Chemistry/Biochemistry Interface, National University of Ireland, Galway, Ireland., May 20, 2010.
- Woods, R.J.** "Computational Prediction of Influenza Receptor Specificity", AICCS 6th National Carbohydrate Symposium, Banff, Alberta, May 7, 2010.
- Woods, R.J.** "Defining Influenza Species Specificity: A Case for Computational Glycoscience", Biophysical Society 54th Annual Meeting. San Francisco, CA, February 20, 2010.
- Woods, R.J.** "Computational Prediction of Influenza Receptor Specificity", 20th International Symposium on Glycoconjugates. San Juan, Puerto Rico, November 30, 2009.
- Woods, R.J.** "Leveraging Glycan Array Data with Computational Carbohydrate Threading to Define 3D Glycan Binding Epitopes", Beilstein Symposium on Glyco-Bioinformatics. Potsdam, Germany, October 7, 2009.

- Woods, R.J.** "Leveraging Glycan Array Data with Computational Carbohydrate Threading to Define 3D Glycan Binding Epitopes", EUROCarbDB. Dublin, Ireland, September 23, 2009.
- Woods, R.J.** "Combining Mass Spectrometry and Molecular Dynamics Simulation to Characterize Biomolecular Interactions", Gordon Research Conference on Biological Molecules in the Gas Phase. Tilton, NH, July 9, 2009.
- Woods, R.J.** "Computationally-Guided Glycoscience: Toward the Rational Development of Carbohydrate-Based Anti-Viral Therapeutics", Carbohydrates as Organic Raw Materials V. Lisbon, Portugal, January 23, 2009.
- Woods, R.J.** "Computational Prediction of Influenza Receptor Specificity", Virtual Discovery Europe, Amsterdam, Netherlands, June 20, 2008.
- Woods, R.J.** (Plenary) "Characterizing Carbohydrate-Protein Interactions from the Protein Perspective", AICCS 4th National Carbohydrate Symposium, Banff, Alberta, May 1-3, 2008.
- Woods, R.J.** "GLYCAM06, a Generalizable Biomolecular Force Field: Carbohydrates, Lipids, Lipid Bilayers and Glycolipids", 235th ACS Spring Meeting, New Orleans, LA, April 6-11, 2008.
- Woods, R.J.** "Computational Simulations in Glycoscience: Predicting Affinities and Carbohydrate-Protein Structures", Computational Biophysics with Chemical Accuracy, Antigua, January 14-17 2008.
- Woods, R.J.** "Computational Simulations in Glycoscience: Predicting Carbohydrate Affinities and Carbohydrate-Protein Structures", Annual Glycobiology Society Meeting, Boston, November 11-14, 2007.
- Woods, R.J.** "Computational Docking and Free Energy Calculations applied to Carbohydrate-Protein Interactions", Frontiers in Macromolecular Simulation, Atlanta, Georgia, November 8-9, 2007.
- Woods, R.J.** "Computational Docking and Free Energy Calculations applied to Carbohydrate-Protein Interactions", Frontiers in Macromolecular Simulation, Tilton, New Hampshire, June 17-22, 2007.
- Woods, R.J.** "Computational Simulations in Glycoscience: Predicting Carbohydrate Affinity and Antigenicity", Emerson Center Lectureship Award Symposium, Emory University, April 6, 2007.
- Woods, R.J.** "Computational Glycoscience: Probing Structure-Function Relationships", 10th Annual San Diego Glycobiology Symposium, San Diego, CA, January 19-20, 2007
- Woods, R.J.** "Understanding Carbohydrate Antigenicity: Group B *Streptococcus* type III versus *S. pneumoniae* type 14", IBC's 17th Annual International Conference Antibody Engineering, San Diego, CA, December 10-14, 2006.
- Woods, R.J.** "Evolution of a Polarizable TIP5P-Consistent Force Field", International Conference of Computational Methods in Sciences and Engineering, Chania, Crete, October 27-November 1, 2006.
- Woods, R.J.** "Evolution of a Polarizable TIP5P-Consistent Force Field", Gordon Research Conference (Carbohydrates), Les Diablarets, Switzerland, October 8-13, 2006.
- Woods, R.J.** "Structure and Dynamics of Polysaccharides and Polysaccharide-Protein Complexes", FASEB Meeting on Microbial Polysaccharides of Medical, Agricultural and Industrial Importance, June 17-22, 2006, Tucson, Arizona.
- Woods, R.J.** "Probing 3D Structure-Function Relationships in Glycobiology", Interdisciplinary Translational Glycobiology, Biodesign Center, Arizona State University, Tucson, Arizona, May 11-12, 2006.
- Woods, R.J.** "Molecular Dynamics Simulations of the Endopolygalacturonase II – Octagalacturonate Complex", ACS Spring Meeting, Atlanta, Georgia, March 26-30, 2006.
- Woods, R.J.** "Computational Simulations in Glycobiology: Linking Structure and Function", ACS Spring Meeting, Atlanta, Georgia, March 26-30, 2006.
- Woods, R.J.** "Integrating Computation and Experiment in Determining Carbohydrate Structure-Function Relationships", National University of Ireland, Galway, Ireland, November 30-December 4, 2005.

- Woods, R.J.** "Computational Tools for Understanding Carbohydrate Antigenicity: Streptococcus agalactiae (Group B Streptococcus) versus S. pneumoniae", Annual Society for Glycobiology Meeting, Boston, MA, November 9-12, 2005.
- Woods, R.J.** "A Structural Model for the Antigenicity of Group B Streptococcus Type III: The Influence of Sialylation on Antigen Conformation and Affinity", 13th European Carbohydrate Symposium, Bratislava, Slovakia, August 21-26, 2005.
- Woods, R.J.** "A Structural Model for the Antigenicity of Type III Group B Streptococcus", Gordon Research Conference (Carbohydrates), Tilton, NH, June 19-25, 2005.
- Woods, R.J.** "Computational Carbohydrate Chemistry: The Interface Between Theory and Experiment", ACS Spring Meeting, Anaheim, California March 28-April 1, 2004.
- Woods, R.J.** "Computational Carbohydrate Chemistry: Water, Water, Everywhere.", Gordon Research Conference (Carbohydrates), Tilton, New Hampshire, June 22-26, 2003.
- Woods, R.J.,** K. N. Kirschner and Jorge Gonzales-Outeriño, "Computational Carbohydrate Chemistry: Water, Water, Everywhere.", 43rd Sanibel Symposium, St. Augustine, Florida, February 22 – March 1, 2003.
- Woods, R.J.,** "Computational Carbohydrate Chemistry: Strengths, Weaknesses and Future Prospects", 223rd American Chemical Society National Meeting, Orlando, Florida, April 7-11, 2002.

Invited Presentations at Seminars and Workshops (since 2002)

- Woods, R.J.,** Moremen, K.W., Wells, L., Montgomery, D., Ito, K., Grant, O.C. **(Invited)** "The Role of Spike Protein Glycosylation in Modulating SARS-CoV-2 Antigenicity and Adhesion", Jaroslav Koča Memorial Colloquium on Computational and Structural Biology, Brno, Czech Republic, November 30, 2021.
- Woods, R.J. (Invited)** "Glycomimetics to Inhibit Influenza Infection", PBS Seminar Series, University of Georgia, Athens, GA, November 17, 2021.
- Woods, R.J. (Invited)** "Carbohydrate Modeling" GlycoBootcamp 2021, University of California, San Diego, San Diego, CA, July 30, 2021.
- Woods, R.J.,** Grant, O.C., Foley, B.L., Montgomery, D., "Tools for Finding Glycans in the PDB & Modeling 3D Structures of Glycans", Common Fund Glycoscience Program: All-Hands Meeting, Held Virtually, July 6, 2021.
- Woods, R.J. (Invited)** "Computational Methods for Glycomaterials" GlycoMIP Summer School, Virtual, June 10, 2021.
- Woods, R.J. (Invited)** "Carbohydrate-Protein Binding Assays" GlycoMIP Summer School, Virtual, June 9, 2021.
- Woods, R.J.,** Grant, O.C., Peng, W., McBride, R., Paulson, J. C., Hendel, J., Smith, H., Murphy, P. V., Tompkins, S. M., Xiao, T., Ji, Y. **(Invited)** "Glycomimetics to Inhibit Influenza Infection", University of Guelph, Ontario, Canada, March 24, 2021.
- Woods, R.J.,** Grant, O.C., Peng, W., McBride, R., Paulson, J. C., Hendel, J., Smith, H., Murphy, P. V., Tompkins, S. M., Xiao, T., Ji, Y. **(Invited)** "Glycomimetics to Inhibit Influenza Infection", Johns Hopkins University, Baltimore, MD, February 24, 2021.
- Woods, R.J. (Invited)** "Modeling Glycoproteins and Carbohydrate-protein Binding", University of Buenos Aires, Buenos Aires, Argentina, May 6, 2019.
- Hendel, J., Ji, Y., Smith, H., Glushka, J., Wu, N., Wilson, I.A., Tompkins, S.M., Murphy, P., **Woods, R.J. (Invited)** "Glycomimetics to Inhibit Influenza Infection", University of Delaware, Newark, DE, November 27, 2018.

- Woods, R.J., (Invited)** "Factors Affecting Carbohydrate-Protein Binding: Understanding Influenza A Specificity" University of Maryland, College Park, MD, November 1, 2018.
- Woods, R.J.,** Schnaar, R., Moremen, K., Westerlind, U. **(Invited)** "Defining the Role of Keratan Sulfate Recognition in Alzheimer's Disease Progression". Understanding the Role of Glycosylation in Alzheimer's Disease (NIA Workshop), Bethesda, MD, September 19, 2018.
- Woods, R.J., (Invited)** "Computational and Biophysical Data provide New Insights into Carbohydrate Recognition" 7th Charles Warren Workshop, Boston, MA, August 17, 2018.
- Grant, O.C., Chalmers, G.R., **Woods, R.J.** "Rapid Methods for Generating 3D Structures of Glycoproteins" **(Invited)** Master Class in Glyco-Informatics, Lisbon, Portugal, July 15, 2018.
- Grant, O.C., **Woods, R.J.** "Predicting N-glycan Processing Based on Enzyme – Glycan Accessibility", **(Invited)** 12th Georgia Glycoscience Symposium, Atlanta, GA, April 23, 2018.
- Wu, S., Cooper, J.C., Paul, M.K., Cummings, A.L., Eletr, Z.M., Ben-Arye, S.L., Padler-Karavan, V., Samli, K.N., **Woods, R.J.,** Yang, L. "Novel Sialoglycan Lectenz® Reagents" Glycoprotein Technologies Satellite Meeting, Portland, OR, November 5, 2017.
- Woods, R.J.** "Introducing the Computational Glycosciences Portal: A Question-Driven Interface for Glyco-modeling" Glyco-Bioinformatics Satellite Meeting, Portland, OR, November 5, 2017.
- Woods, R.J.** "3D modeling and glycomics" Basel Bioinformatics Workshop, Basel, Switzerland, September 12, 2017.
- Young, J.Y., **Woods, R.J.** "GlyProbit: tools to curate glycan structure pre and post deposition in the PDB" NIH Common Fund Glycoscience Program: Participating Investigators Meeting, Bethesda, MD, August 31, 2017.
- Foley, B.L., **Woods, R.J.** "Tools to Enable Non-specialists to Model Glycoconjugates and Glycan-protein Interactions" NIH Common Fund Glycoscience Program: Participating Investigators Meeting, Bethesda, MD, August 30, 2017.
- Grant, O.C., **Woods, R.J.** "Predicting N-glycan processing based on enzyme-glycan accessibility" IBBR, Baltimore, MD, March 27, 2017.
- Grant, O.C., Xue, X., Ra, D., Khatamian, A., Foley, B.L., **Woods, R.J.** "Gly-Spec: Glycan 3D Structure and Specificity Prediction", SFG, New Orleans, LA Nov 19, 2016.
- Grant, O.C., Hadden, J.A., Ye, J., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", International Carbohydrate Symposium, New Orleans, LA Jul 18, 2016.
- Grant, O.C., Hadden, J.A., Ye, J., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", 99th Canadian Chemistry Conference, Halifax, Nova Scotia, Jun 8, 2016.
- Grant, O.C., Hadden, J.A., Ye, J., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", EB 2016 /2016 ASBMB, San Diego Convention Center, San Diego, CA, Apr 3, 2016.
- Grant, O.C., **Woods, R.J.** "Latest Advances in 3D GlycoStructure Prediction Tools: Glycam-Web", Transformational Informatics for Glycoscience Meeting, San Francisco, CA, December 1, 2015.
- Woods, R.J.** "Predicting N-glycan processing based on enzyme-glycan accessibility", Society for Glycobiology Annual Meeting, Foggy Bottom, Washington, D.C. October 6-9, 2015
- Grant, O.C., **Woods, R.J.** "Combining 3D Structure with Glycan Array Data Provides Insight into the Origin of Glycan Specificity", Univeristy of Notre Dame, Notre Dame, IN, October 1, 2015.
- Woods, R.J.** "Understanding Bacterial Polysaccharide Antigenicity: Shape versus Dynamics", National Institutes of Health, Bethesda, MD, August 26, 2015.
- Grant, O.C., Hadden, J.A., Ye, J., Smith, H.M.K., Peng, W., DeVries, R., McBride, R., Paulson, J.C., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", Eurocarb18, Moscow, Russia, Aug 3, 2015.

- Grant, O.C., Hadden, J.A., Ye, J., Smith, H.M.K., Peng, W., DeVries, R., McBride, R., Paulson, J.C., **Woods, R.J.** "A Role for Underlying Glycan Structure in Influenza Binding: Extending the Species Specificity Paradigm", NIH & FDA Glycoscience Research Day, National Institutes of Health, Bethesda, MD, May 28, 2015.
- Woods, R.J.** "Computational Analysis of Polysaccharide Antigenicity", Pfizer Pearl River 2015, Pearl River, NY, Jun 24, 2015.
- Woods, R.J.** "Computationally-Guided Design of Reagents for Glycoscience", GlycoCon 2015, Banff, Alberta, May 5, 2015.
- Singh, A., Warren, C.K., Severin, I.C., Agyekum, I., Duan, J., Amster, J., Proudfoot, A.E.I., Coombe, D.R., **Woods, R.J.** "The Interaction of Heparin Tetrasaccharides with Chemokine CCL5 is modulated by Sulfation Pattern and pH", 1st Southeast Glycoscience Symposium, Atlanta, GA, April 18, 2015.
- Woods, R.J.** "Computational Analysis of Polysaccharide Antigenicity", Pfizer Internal Speaker Series, St. Louis, MO, Apr 8, 2015.
- Woods, R.J.** "Advancing the Structural Paradigm of Influenza Host Recognition", Michigan State University, East Lansing, MI, Feb 19, 2015.
- Woods, R.J.** "Computational Analysis of Polysaccharide Antigenicity", Pfizer, WRD – Bio-Therapeutics Pharmaceutical Sciences, St. Louis, MO, April 8, 2015.
- Woods, R.J.** "Advancing the Structural Paradigm of Influenza Host Recognition", Michigan State University, East Lansing, MI, February 19, 2015.
- Singh, A., Coombe, D., **Woods, R.J.** "Computational Simulations Applied to Chemokine – Glycosaminoglycan Interactions", University of Potsdam, Potsdam, Germany, December 12, 2013.
- Grant, O.C., Firsova, D., **Woods, R.J.** "Combining Computational Carbohydrate Grafting with Glycan Array Data to Define the 3D Epitope of Carbohydrate Binding Proteins", University of Tel Aviv, Tel Aviv, Israel, July 6, 2013.
- Woods, R.J.** "The structural basis of binding, non-binding, and false-negative binding in glycan array data", National Institutes of Health, Bethesda, MD, April 25, 2013.
- Tessier, M.B., Grant, O.C., Heimburg-Molinaro, J., Jadey, S., Gulick, A., Glushka, J., Rittenhouse-Olsen, K., **Woods, R.J.** "Computational Carbohydrate Grafting Leads to the Discovery of Novel Glycan-Binding Specificities for an Anti-tumor Antibody", Oak Ridge National Laboratory, Oak Ridge, TN, February 22, 2013.
- Woods, R.J.** "Computational Analysis of Glycosaminoglycan Binding to Chemokine CCL5", Department of Chemistry, University of Alberta, Edmonton, Alberta, September 21, 2012.
- Woods, R.J.** (Plenary) "Computational Screening of the Human Glycome: Predicting Carbohydrate Binding Specificity", Computational Chemical Biology – Probing Biology with In Silico Tools, Manchester, United Kingdom, September 13, 2012.
- Grant, O.C., Tessier, M.B., Davis, R.T., Foley, B.L., **Woods, R.J.** "Virtual Glycan Array Screening for Specificity Prediction: Application to Glycosidases and Glycosyltransferases", 4th Warren Workshop, Athens, GA, August 10, 2012.
- Woods, R.J.** "The Importance of Including Conformational Properties of Carbohydrates in Automated Docking", NCRP Principal Investigators Meeting, Bethesda, MD, March 29, 2012.
- Tessier, M.B., Heimburg-Molinaro, J., Jadey, S., Gulick, A., Rittenhouse-Olsen, K., **Woods, R.J.** "Computational Carbohydrate Grafting Leads to the Discovery of Novel Glycan-Binding Specificities for an Anti-tumor Antibody", Soka University, Hachioji, Japan, October 11, 2011.
- Tessier, M.B., Grant, O.C., Heimburg-Molinaro, J., Jadey, S., Gulick, A., Glushka, J., Rittenhouse-Olsen, K., **Woods, R.J.** "Leveraging Glycan Array Data with Computational Carbohydrate Grafting to Define the 3D Structure of an Anti-tumor Antibody in Complex with Carbohydrate Antigen",

Consortium for Functional Glycomics Participating Investigators Meeting, The Natcher Conference Center, Bethesda, MD, July 29, 2011.

Woods, R.J. (Plenary) "Combining Computational Carbohydrate Screening with Glycan Array Data to Define the 3D Epitope of an Anti-tumor Antibody", Conformational Analysis of Carbohydrates & Protein/Carbohydrate Interactions (CAC-PCI), Partenope Conference Centre, Naples, Italy, July 2, 2011.

Woods, R.J. "Employing Computational Simulations to Guide Experiment", Albanova University Center, Stockholm University, Stockholm, Sweden, May 30, 2011.

Woods, R.J., "Glycam and Glycam-Web Development", AMBER Developers Meeting, Athens, GA, March 3-5, 2011.

Tessier, M.B., Makeneni, S., Heimbürg-Molinario, J., Jadey, S., Gulick, A., Rittenhouse-Olsen, K., **Woods, R.J.** "Combining Computational Carbohydrate Threading with Glycan Array Data to Define the 3D Epitope of an Anti-tumor Antibody", Center for Non Linear Studies, Los Alamos, NM, February 8, 2011.

Woods, R.J. "Computational Methods Applied to the Design of Glycodiagnostics and Therapeutics", School of Chemistry, Trinity College, Dublin, Ireland, October 2, 2010.

Woods, R.J. "Combining Computational Carbohydrate Threading with Glycan Array Data to Define the 3D Epitope of an Anti-tumor Antibody", Royal Society of Chemistry, University of Dundee, Dundee, United Kingdom, August 30, 2010.

Woods, R.J. "Combining Computational Carbohydrate Threading with Glycan Array Data to Define the 3D Epitope of an Anti-tumor Antibody", Charles Warren III Workshop, Hindais, Sweden, August 29, 2010.

Woods, R.J. "Computationally-Guided Glycoscience: the Conversion of Glycosidases into Carbohydrate-Affinity Reagents", Green Seminar Series, BIOTEC Center, Dresden, Germany, June 18, 2010.

Woods, R.J. "Computationally-Guided Glycoscience", University of Oslo, Oslo, Norway, June 7, 2010.

Woods, R.J. "Computational Glycoscience: Using Simulation to Guide Experimental Design", Molecular Cell Biology Colloquium, University of Luebeck, Luebeck, Germany, May 26, 2010.

Woods, R.J. "The Role of Computing in Protein Design: The Conversion of Glycosidases into Carbohydrate-affinity Reagents", Society for General Microbiology, Galway, Ireland, April 15, 2010.

Woods, R.J., "Carbohydrate Threading Applied to 3D Motif Detection in Glycan Array Data", NIH Workshop on Leveraging Glycan Array Screens with Biological, Computational and Structural Data, Bethesda, Maryland, October 23, 2009.

Woods, R.J., "Understanding Bacterial Polysaccharide Antigenicity: All Epitopes are Conformational", University of Georgia, Athens, GA, October 15, 2009.

Woods, R.J. "Understanding Carbohydrate Antigenicity: All Epitopes are Conformational", Scripps Research Institute, La Jolla, CA, April 2, 2009.

Woods, R.J. "Computationally-Guided Protein Engineering: How to Make a Better Receptor", An Cumann Ceimice, NUI Galway, Ireland, March 12, 2009.

Woods, R.J., "Interpreting Glycan Array Data in Terms of 3D Interactions", CFG-Sponsored Meeting on Glycan Arrays, La Jolla, CA, March 15, 2009.

Woods, R.J., "Virtual High-throughput Screening and Carbohydrates: Application to the Design of Anti-bacterial and Anti-viral Agents", Center for Drug Discovery, Athens, Georgia, February 2, 2009.

Woods, R.J., "Issues in Modeling Carbohydrate-protein Interactions: Toward Virtual High-throughput Glycan Array Screening", NIH Workshop, "Glycan Array Data: What does it tell us and how do we interpret it?", Bethesda, Maryland, December 8, 2008.

Woods, R.J., "Creation and Implementation of Virtual 3D Glycan Arrays" Consortium for Functional

Glycomics Advisory Committee Meeting, Ft. Worth, TX, November 11, 2008.

- Woods, R.J.**, "Computationally-guided Glycoscience: Predicting the Structures and Energies of Carbohydrate-Protein Interactions", Workshop & Ph.D. course: Biomolecular Interactions by Computational Chemistry Tools, National Centre for Biomolecular Research. Brno, Czech Republic. November 6, 2008.
- Woods, R.J.**, "Understanding Carbohydrate Antigenicity: All Epitopes are Conformational", Case Western Reserve University School of Medicine, Cleveland, Ohio, February 19, 2008.
- Woods, R.J.**, "Computational Docking and Free Energy Calculations applied to Carbohydrate-Protein Interactions", Center for Theoretical and Biological Physics, San Diego, California, November 30, 2007.
- Woods, R.J.**, "Computational Simulations in Glycoscience: Predicting Carbohydrate Affinities and Carbohydrate-Protein Structures", I2CAM Exploratory Workshop Glycome: Structure to Disease, Paris, France, September 14-18, 2007.
- Yongye, A., **Woods, R.J.**, "Computational tools employed in carbohydrate vaccine design", NIH Workshop on carbohydrate moieties as vaccine antigens, Bethesda, MD, September 10-11, 2007.
- Woods, R.J.**, "Combining X-ray and Computational Data to Model Prokaryotic N-Glycoproteins", National Research Council of Canada, Ottawa, Canada, July 2, 2007.
- Woods, R.J.**, "Understanding Bacterial Polysaccharide Antigenicity- What Makes Sugar Stick?", Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, March 18-25, 2007.
- Woods, R.J.**, "Quantum-Derived Force Fields for Classical Dynamics Simulations of Biomolecules", Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, March 18-25, 2007.
- Woods, R.J.**, "Computational Simulation: Applied to Structure-Affinity Predictions", La Jolla Biotechnology Institute, San Diego, CA, February 14-18, 2007.
- Woods, R.J.**, "3D Structure Prediction Tools for Glycoscience: From Monosaccharides to Glycoproteins", Frontiers in Glycomics, NIH, Bethesda, MD, September 11-15, 2006.
- Woods, R.J.**, "Glycam Web Development and Glycoprotein Force Field", AMBER Developers Meeting, Salt Lake City, UT, October 26-29, 2005.
- Woods, R.J.**, "Understanding Antigenicity: *Streptococcus agalactiae* (Group B *Streptococcus*) versus *S. pneumoniae*", Wyeth Pharmaceuticals, Pearl River, NJ., July 26-27, 2005.
- Woods, R.J.**, "Understanding Antigenicity: *Streptococcus agalactiae* (Group B *Streptococcus*) versus *S. pneumoniae*", NIH, Bethesda, MD, June 8-9, 2005.
- Woods, R.J.**, "A Structural Model for the Antigenicity of Type III Group B *Streptococcus*", University of Toronto, Toronto, Canada, May 4-6, 2005.
- Woods, R.J.**, "Linux in the Life Sciences", Linux World Convention, Boston, MA, February 14-15, 2005
- Woods, R.J.**, "Glycam Web Development and Glycoprotein Force Field", AMBER Developers Meeting, Port Jefferson, NY, October 21-22, 2004.
- Woods, R.J.**, "A structural Model for the Antigenicity of Group B *Streptococcus* Type III", Carbohydrate Moieties as Vaccine Candidates Meeting, NIH, Bethesda, MD, October 6-7, 2004.
- Woods, R.J.**, "Enhancing Computational Modeling and Simulation with Itanium Technology" HP Itanium Webcast, Los Angeles, California, March 31, 2004.
- Woods, R.J.** "Modeling Carbohydrates with the GLYCAM Force Field." AMBER/CHARMM Developers Meeting, San Diego, California, Fall 2003.
- Woods, R.J.**, "Computational Carbohydrate Chemistry: Water, Water, Everywhere." University of Alberta, Department of Chemistry, June 2-4, 2003.

Symposia and Conferences Chaired or Organized

Co-Organizer (with Darón Freedberg): "Advances in Glycan Structure and Dynamics", 254th ACS Spring Meeting, Washington D.C., August 22-23, 2017.

Co-Organizer (with Pauline Rudd): 5th Charles Warren Workshop, Galway, Ireland, August 6-9, 2014.
Chair: Session on “Computational Glycoscience”, 5th Charles Warren Workshop, Galway, Ireland, August 7, 2014.

Co-Chair (with David Clemmer): 2013 Gordon Research Conference “Molecules in the Gas-Phase and in Solution”, Andover, NH, July 31-August 5.

Chair: 2012 Biophysical Society: Molecular Biophysics Subgroup, San Diego, CA, February 26, 2012.

Co-chair (with Nicola Pohl): Gordon Research Conference “Carbohydrates”, Waterville, ME, June 19-24, 2011.

Organizer: Annual “AMBER Developers Meeting”, Athens, GA, March 3-5, 2011.

Co-chair (with Dr. A. French): “Bioenergy and Carbohydrate Structure: Modeling and Experiment”, 235th ACS Spring Meeting, New Orleans, LA, April 6-11 2008.

Co-chair (with Dr. A. Laederach): “Modeling of Plant Biopolymers”, 231st ACS Spring Meeting, Atlanta, GA, March 26-30 2006.

Chair: “Computational Chemistry of Carbohydrates Symposium”, 227th ACS National Meeting, Anaheim, CA, March 28 – Apr 1, 2004.

Services as Journal Reviewer

Biochemistry, Bioinformatics, Biophysical Journal, Biopolymers, Canadian Journal of Chemistry, Carbohydrate Research, Chemical Physics Letters, Glycobiology, European Journal of Organic Chemistry, Folia Parasitologica, International Journal of Quantum Chemistry, Journal of Molecular Graphics and Modeling, Journal of the American Chemical Society, Journal of Biological Chemistry, Journal of Computational Chemistry, Journal of Molecular Biology, Journal of Physical Chemistry, Nucleic Acids Research, Nature Chemical Biology, Nature, Nature Scientific Reports, Proceedings of the National Academy of Sciences, Proteins

Service in Mentoring, Supervising and Teaching

Postdoctoral Research Associates in the Woods Group

Current

Foley, B. Lachele, PhD, UGA (2005 –)
Grant, Oliver PhD, NUIG (2014 –)
Wang, Xiacong, PhD, UGA (2015 –)

Previous

Cooney, Mike PhD, Princeton	(1999 – 2000)	Kirschner, Karl PhD, UGA	(2000 – 2004)
DeMarco, Mari L., PhD, WUSL	(2006 – 2011)	Makeneni, Spandana PhD UGA	(2011 – 2016)
Dyekjaer, Jane PhD, DTU	(2003 – 2005)	Pathiaseril, Ahamed PhD, UGA	(1995 – 2014)
Weisser, Nina PhD, NUIG	(2008 – 2013)	Renders, Marleen PhD, NUIG	(2010 – 2011)
Fadda, Elisa PhD, NUIG	(2008 – 2013)	Seyfried, Nick D. PhD, Oxford	(2004 – 2006)
Gonzales, Jorge Ph.D., UCL UK	(2002 – 2005)	Sood, Amika, PhD, UGA	(2017 – 2019)
Ji, Ye “Mia”, PhD, UGA	(2018 – 2021)	Temple, Wolfram PhD, Salford	(1998 – 2000)
Ito, Keigo PhD, UGA	(2011 – 2014)	Xue, Xingran PhD, UGA	(2015 – 2018)
Kadirvelraj, Renu PhD, IIT	(2001 – 2008)	Yang, Lori PhD, NUIG	(2008 – 2011)

Post-Graduate Students in the Woods Group

Current

Wright, Alyssa – Chemistry	2022 –)
Yang, Zhe	2022 –)
Dakhal, Sachi – BINF	2020 –)
LaMore, Paige – BCMB	2020 –)
Montgomery, David – BINF	2018 –)
Xiao, Yao – BCMB	2017 –)

Previous

Barnes, Jarrod – BCMB, M.S.	(2005)	Kawatkar, Sameer – CHEM, Ph.D.	(2006)
Bunn, Haden – CHEM	(2013)	Samli, Kausar – BCMB, Ph.D.	(2013)
Charvatova, Olga – BCMB, M.S.	(2010)	Singh, Arunima – BINF, Ph.D.	(2015)
Kim, Joo L. Esther – BCMB, M.S	(2017)	Nivedha, Anita – BINF, Ph.D.	(2015)
Makeneni, Spandana – BINF, Ph.D.	(2015)	Sood, Amika – BINF, Ph.D.	(2016)
Martin, Joanne – NUIG/CHEM, Ph.D	(2013)	Smith, Hannah – NUIG/CHEM, Ph.D.	(2014)
Murphy, Valerie – NUIG/CHEM, Ph.D	(2014)	Tessier, Matthew – CHEM, Ph.D.	(2013)
Ding, Liren – CS, M.S.	(2008)	Thieker, David – BCMB, Ph.D.	(2012 – 2017)
Elking, Denny – CHEM, Ph.D.	(2007)	Walsh, Niall – NUIG/CHEM, Ph.D.	(2014)
Ford, Michael – BCMB, Ph.D.	(2004)	Wittkopp-Tschampel, Sarah – CHEM, Ph.D.	(2005)
Oliver Grant – NUIG/CHEM Ph.D.	(2013)	Wang, Xiacong – CHEM, Ph.D.	(2015)
Hadden, Jodi – CHEM, Ph.D.	(2008 – 2014)	Yongye, Austin – CHEM, Ph.D.	(2008)
Hu, Huimin – CHEM, M.S.	(2015)	Zhang, Jie – CHEM	(2019 – 2020)
Ji, Ye – CHEM, PhD.	(2017)		

Post-Graduate Research Assistants

Current

Talekar, Rutuja Dhananjay	(2021 –)
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Previous

Aggeles, James Christian CSCI	(2015 – 2016)	Li, Qi CSCI, M.S.	(2009 – 2010)
Akella, Venkatasriam CSCI	(2011 – 2012)	Man Chon U, CSCI, Ph.D.	(2009)
Calvird, Audrey ILS	(2017)	Mehta, Raj Jayesh CSCI	(2020 – 2021)
Chalmers, Gordon CSCI	(2013 – 2019)	Patel, Chatali CSCI	(2016 – 2017)
Davis, Robert CSCI	(2011 – 2012)	Rahbarinia, Delaram CSCI , M.S.	(2016)
Jaiswal, Ayush CSCI	(2017 – 2019)	Wang, Yiping CSCI, Ph.D.	(2010 – 2011)
Khatamian, Alireza CSCI	(2013 – 2016)	Xue, Xingran CSCI	(2013 – 2015)

Undergraduate Students in the Woods Group

Current

Chamala, Raghuveer	(2022 –)
Reddy, FINA	
Brown, Izabelle	(2021 –)
Dutta, Priti, BCMB	(2021 –)
Gazaway, Eliza, BCMB	(2021 –)

Previous

Acheampong, Afua CSCI	(2018)	Miller, Brett Alexander	(2015 – 2016)
Anderson, William Ray BCMB	(2002 – 2003)	Murphy, Nathalie	(2017 – 2018)
Ang, Yik Wei MIS	(2017 – 2018)	Nesbitt, Daniel BCMB	(2008 – 2009)
Argo, Jackson MATH	(2012 – 2014)	O'Brien, Deirdre NUIG/UREKA	(2009)
Bare, John	(2019 – 2020)	O'Connell, Carol NUIG/ UREKA	(2008)
Barnes, Jarrod BCMB	(2000 – 2002)	Parikh, Akshita BCMB	(2011 – 2012)
Blackmon, Bret CHEM	(2011)	Peng, Emily BCMB	(2010 – 2011)
Blake, Nathan BCMB	(2004 – 2005)	Peddineni, Manasa	(2016 – 2017)
Brenner, Michael BCMB	(2004)	Powers, Forrest BCMB	(2009 – 2010)
Butler, Brittany BCMB	(2007 – 2008)	Qadri, Hussain	(2016 – 2017)
Byrne, Noel NUIG/ UREKA	(2008)	Rios, Alexandra, JOUR	(2018 – 2018)
Cassidy, Juliana	(2000)	Roh, Jaehyeok	(2014 – 2016)
Strathclyde, U. UK			
Chang, Michael BCMB	(2005 – 2006)	Santos, Matthew Alex CSCI	(2015)
Chappelle, Ryan BCMB	(1997 – 1999)	Shaw, Rachana BCMB	(2007)
Cleveland, Curtis BCMB	(2009 – 2010)	Shin, Aimee BCMB	(2010)
Collins, Kevin BCMB	(1996 – 1997)	Smith, Hannah NUIG/UREKA	(2010)
Cook, Brittney, CSCI		Solyen, Helyne, ENGR	(2017 – 2019)
Deal, Josh BCMB	(2009 – 2010)	Stringfellow, Stephen BCMB	(2010 – 2011)
Duffy, Fiona NUIG/UREKA	(2009)	Sumner, Emily BCMB	(2004 – 2006)
Ellis, Whitney BCMB	(2006 – 2007)	Sundara, Sompathana BCMB	(2000 – 2002)
Enriquez, Ervin	(2019 – 2020)	Templeton, J. Davis, CSCI	(2016 – 2019)
Felix, Thomas, BCMB	(2017 – 2018)	Tran, Doannie BCMB	(2000 – 2002)
Fitzgerald, Edward NUIG	(2012)	Thompson, Stephen CHEM	(2008 – 2010)
Gallagher, Thomas NUIG/UREKA	(2009)	Thomas, Alicia BCMB	(2002 – 2003)
Gamble, John BCMB	(2005 – 2006)	Turnipseed, Wendi BCMB	(1998)
Hill, Clare, CHEM	(2018 – 2020)	Wah, Stefan ENGR	(2014 – 2017)
Kalagara, Swetha	(2016 – 2017)	Yang, Abraham BCMB	(1998 – 2000)
Kizzard, Thomas	(2017)		
Kohler, Thomas, CHEM	(2018 – 2019)		

Visiting Scientists in the Woods Group

Alix, Marion, Åbo Akademi University, Turku, Western Finland	(January – April 2022)
Mahmoud, Sawsan, Volunteer	(March 2021 – May 2017)
Tang, Ming, Queensland U. of Tech., Brisbane, Australia	(March – April 2015)
Hsieh, Po-Hung, UNC—Chapel Hill, NC	(September 2014)
Amon, Ron, Tel Aviv U., Israel	(April – May 2014)
Panagos, Charalampos, U. Edinburgh, Scotland	(May – August 2013)
Hu, Xiao, NUIG	(May – July 2012)
Fitzgerald, Edward, NUIG	(March 2011)
Pikoula, Maria, Pembroke College, UK	(March – May 2011)
García, Juan Carlos Muñoz, University of Seville, Spain	(January – September 2009)
Kenny, Diarmuid, NUIG, Ireland	(January – December 2009)
Abshiru, Nebiyu Ali, U. Oslo, Norway	(April 2006)
Almond, Andrew, Man. U., UK	(March 2006)
Bryce, Richard, Man. U., UK	(2002 – 2003)
DeNisco, Mauro, U. di Napoli, Italy	(October 2005 – May 2006)
French, Alfred, USDA, LA	(August 2007)
Hand, Christine, NRC, Canada	(October 2005 – May 2006)
Johnson, Glenn USDA, LA	(June 2006)
Seo, Mikyung U. Alberta, Canada	(December 2005 – March 2006)
Siriwardena, Aloysius U. Picardie, FR	

Service on Advisory, Examining, and Reading Committees

Current

Arachchige, Sameera S., CHEM	Cameron, Delroy M.S., CS
Berardinelli, Steven J., PhD, BCMB	Cato, David PhD, CHEM
Feng, Yuan, PhD, BINF	Chinoy, Zoeisha PhD, CHEM
Kim, John Hyunwoo, PhD, BCMB	Cowart, Darin PhD, CHEM
Tseng, Po-Sen, PhD, CHEM	Crippen, Clay S., PhD, MBIO
Yeung, Wayland, PhD, BINF	Ding, Liren M.S., CSCI
	Ehlers, Tedman J. PhD, CHEM
	Embers, Brian PhD, CHEM
	Goldstein, Jason PhD, BCMB
	Gu, Yi, PhD, CHEM
	Park, Younghee PhD, BCMB
	Purvis, Leslie M.S., CHEM
	Quirke, Jonathan, PhD, CHEM
	Ramanathan, Chandu PhD, PHRM
	Renfrew, Matthew PhD, BCMB
	Roy, Debjani PhD, CHEM
	Roychowdhury, Abhijit PhD, CHEM
	Santhanam, Balaji PhD, CHEM
	Sharma, Amrita, PhD (2021), CELL
	Simon, Paul PhD, BCMB

Previous

Ambre, Shailesh G. PhD, CHEM
Astronomo, Rena PhD BCMB
Bahrainwala, Tasneem PhD, CHEM
Hammond, Dorothy PhD, IOB
Horanyi, Peter PhD, BCMB
Ingale, Sampat PhD, CHEM
Kalelkar, Sandeep PhD, CHEM
King, Daniel PhD, CHEM
King, Rollin PhD, CHEM
Li, Yanhong PhD, CHEM
Lu, Jianyun PhD, CHEM

Lycknert, Kristiina PhD, CHEM (U. of Stockholm, Sweden)
 Majumdar, Debatosh, PhD, CHEM
 Chad McKee, PhD, CHEM
 Nagelkerke, Ruby, PhD, CHEM (Queen's U., Canada)
 Bordas, Leslie, MS, CHEM
 Calhoun, John PhD, BCMB

Tracy, Alex PhD, BCMB
 Wang, Xiao PhD, CHEM
 Wantuch, Paeton PhD, BCMB
 Wodrich, Matthew PhD, CHEM
 Wu, Judy PhD, CHEM
 Zheng, Ruan, PhD, BCMB
 Zhou, Yan, PhD, CHEM

Courses Taught

Year	Semester	Title of course
2021—Present	Spring	CHEM/BCMB/BINF 8330 (Macromolecular Simulations)
2017 — 2019	Spring	CHEM/BCMB/BINF 8330 (Macromolecular Simulations)
2015 — 2006	Spring	CHEM/BCMB/BINF 8330 (Molecular Modeling and Structure Computations)
2012 — 2011	Spring	BCMB 4970 (Laboratory Research in Biochemistry and Molecular Biology II)
2006 — 2010	Spring Fall	CHEM/BCMB/BINF 8330 (Molecular Modeling and Structure Computations)
2003 — 2005	Spring Fall	BCMB 8210 (Computational Methods in Bioinformatics) CHEM/BCMB/BINF 8330 (Molecular Modeling and Structure Computations) BCMB 4110 (Physical Biochemistry)
2002 — 2010	Spring Fall	BCMB 8210 (Computational Methods in Bioinformatics) BCMB 4970 (Laboratory Research in Biochemistry and Molecular Biology II) CHEM 8330/BCMB 8200, BCMB 4110, BCMB 4970
2001	Spring Fall	BCMB 4970 CHEM 8200/BCMB 8200 (Molecular Modeling and Structure Computations)
2000	Spring Fall	BCMB 4110, BCMB 4970, BCMB 8010 (Advanced Biochemistry) BCMB 4970, CHEM 8200/BCMB 8200, GENE 8910 (DNA Modeling) BCMB 4970, BCMB 4110
1999	Fall	BCMB 4110, BCMB 4970, CHEM 8200/BCMB 8200, BCMB 8130 (Advanced Topics in Glycobiology)
1998	Spring Fall	BCMB 8020 BCMB 8010, BCMB 4110, CHEM 8200/BCMB 8200
1997	Fall	BCMB 8010
1996	Winter Spring Fall	BCMB 8020 BCMB 8110 (Advanced Topics in Protein Structure-Function Relationships) BCMB 8010
1995	Winter Fall	CHEM 8340 (Organic Spectroscopic Analysis) BCMB 8010