

Xu Yang

(She/her) PhD Student

Complex Carbohydrate Research Center, University of Georgia

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EDUCATION

Current University of Georgia (*January 2021-Present*)
Doctor of Philosophy in Analytical Chemistry (pursuing)

2019 Xiamen University (*September 2016-June 2019*)
Master of Science in Chemical Biology

2014 Xiamen University (*September 2010-July 2014*)
Bachelor of Science in Chemical Biology

CURRENT APPOINTMENTS

Analytical Services & Training, Complex Carbohydrate Research Center, Graduate Research Assistant

August 2021-present

PREVIOUS APPOINTMENTS

Tianjin Rohto Herbal Medicine Co., Ltd, Tianjin, China, Quality Control Chemist

May 2015-August 2016

RESEARCH INTERESTS

Comprehensive glycomics-guided glycoproteomics on challenging analytes

Dry-lab oriented wet-lab experimental design for glycomaterials

Glycoprotein and polysaccharide mass spectrometry

PUBLICATIONS

- 2026 Liyanage Devthilini Fernando, **Xu Yang**, Stephanie Archer-Hartmann, Lubana Shahin, Liang Zhang, Breeanna R. Urbanowicz, Christian Heiss, Parastoo Azadi. Mass Spectrometric Determination of Site-Specific O-Acetylation in Rhamnogalacturonan I Oligomers. *Journal of the American Society for Mass Spectrometry*, 37 (5), 1160-1172.
- 2025 Belen Sotomayor, Thomas C Donahue, Sai Pooja Mahajan, May N Taw, Sophia W Hulbert, Erik J Bidstrup, D Natasha Owitipana, Alexandra Pang, **Xu Yang**, Souvik Ghosal, Christopher A Alabi, Parastoo Azadi, Jeffrey J Gray, Michael C Jewett, Lai-Xi Wang, and Matthew P DeLisa. Discovery of a single-subunit oligosaccharyltransferase that enables glycosylation of full-length IgG antibodies in bacteria. *Nature Communications*, 16 (1), 6152.
- 2025 Erik J Bidstrup, Kyle Hill, Chandra K Bandi, D Natasha Owitipana, Alina Chisti, Rochelle Aw, **Xu Yang**, Parastoo Azadi, Michael C Jewett, Lai-Xi Wang, Weston Kightlinger, and Matthew P DeLisa. Glycosylation of Structured Protein Domains in Cell-Free Reaction Environments. *ACS Synthetic Biology*, 14 (6), 2354-2367.
- 2024 Savanna Skeeters, Kamal Bagale, Galina Stepanyuk, David Thieker, Aaron Aguhob, Kui K. Chan, Benjamin Dutzar, Sergei Shalygin, Asif Shajahan, **Xu Yang**, Paul A DaRosa, Emily Frazier, Maximilian M Sauer, Lisa Bogatzki, Kelly A Byrnes-Blake, Yifan Song, Parastoo Azadi, Eric Tarcha, Lianghai Zhang, and Erik Procko. Modulation of the pharmacokinetics of soluble ACE2 decoy receptors through glycosylation. *Molecular Therapy - Methods & Clinical Development*, 32 (3), 101301.
- 2023 Antonio R Cerullo, Maxwell B McDermott, Lauren E Pepi, Zhi-Lun Liu, Diariou Barry, Sheng Zhang, **Xu Yang**, Xi Chen, Parastoo Azadi, Mande Holford, and Adam B Braunschweig. Comparative mucomic analysis of three functionally distinct *Cornu aspersum* Secretions. *Nature Communications*, 14, 5361.
- 2022 Qianru Ma, Wentao Wang, **Xu Yang**, Yunhong Chen, Yan Liu, Hongxu Chen, and Yufen Zhao. Development and application of a sensitive phosphonium-hydrazide oligosaccharide labelling reagent in capillary electrophoresis-electrospray ionization-mass spectrometry. *Journal of Chromatography A*, 1680, 463409.
- 2019 Jianxi Ying, Peng Chen, Yile Wu, **Xu Yang**, Kaili Yan, Pengxiang Xu, and Yufen Zhao. Effect of high hydrostatic pressure on prebiotic peptide synthesis. *Chinese Chemical Letters*, 30 (2), 367-370.

- 2018 Hang Yuan, **Xu Yang**, Peng Chen, Yan Liu, Guo Tang, and Yufen Zhao. Appraisal of an oligomerization behavior of unprotected carbohydrates induced by phosphorus reagent. *Science China Chemistry*, 61, 243-250.
- 2017 **Xu Yang**, Jiepeng Gan, Hang Yuan, Peng Chen, Yan Liu, Yuyang Jiang, Hongxia Liu, and Yufen Zhao. MALDI MS-based analysis of oligosaccharides using 4-(diphenylphosphinyl) benzenamine as non-reductive amination derivatization reagent. *International Journal of Mass Spectrometry*, 417, 76-82.

PEER REVIEW ACTIVITIES (ACCEPTED/REVISED/REJECTED/TOTAL)

Nature Communications 2/1/0/3

Journal of Chromatography A 2/0/1/3

CONFERENCE

2026 American Chemical Society Spring Meeting (ACS Spring 2026), Atlanta, GA, *Dry Lab Oriented Wet Lab Design to Enable Mannuronic/Guluronic Acid Ratio Quantification by Mass Spectrometry*, speaker & SciMix poster presentation.

2025 Society for Glycobiology Annual Meeting (SfG 2025), San Diego, CA, *Dry Lab Oriented Wet Lab Design to Enable Mannuronic/Guluronic Acid Ratio Quantification by Mass Spectrometry*, speaker & poster presentation.

2025 The 38th Southern Section Association of Official Analytical Collaboration International Annual Conference (SSAOAC 2025), Atlanta, GA, *Direct & Automatic Alginate Oligosaccharide Mannuronic/Guluronic Acid Ratio Quantification from HCD-MS² Using Machine Learning*, speaker.

2024 Society for Glycobiology Annual Meeting (SfG 2024), Amelia Island, FL, *Direct & Automatic Alginate Oligosaccharide Mannuronic/Guluronic Acid Ratio Quantification from HCD-MS² Using Machine Learning*, poster presentation.

2023 Society for Glycobiology Annual Meeting (SfG 2023), Waikoloa, HI, *Enhancing N-Glycopeptide Enrichment with Phosphorylcholine ZIC-HILIC Resins as a Complement to iSPE®-HILIC*, poster presentation.

2023 Atlanta-Athens Mass Spectrometry Discussion Group Symposium (2023 AAMSDG Symposium), Atlanta, GA, *Enhancing N-Glycopeptide Enrichment with Phosphorylcholine ZIC-HILIC Resins as a Complement to iSPE®-HILIC*, poster presentation.

VOLUNTEERSHIPS

2023 American Society for Virology Annual Meeting (ASV 2023), Athens, GA

2012 International Symposia on Advancing the Chemical Sciences: Challenges in Nanoscience (ISACS9), Xiamen, China

HONORS

Spring 2023 Graduate School Dean's Awards of University of Georgia

2017 Xiamen University Scholarship, third class