**Hyun Woo “John” Kim**

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**Education**

2017 - Present Ph.D. training in Biochemistry and Molecular Biology, University of Georgia

2013 - 2016 B.S. in Biochemistry and Molecular Biology, *cum laude,* University of Georgia

2010 - 2012 Major in Music Education and Trombone Performance, Columbus State University

**Research Experience**

2017 - Present Graduate research assistant under Dr. Christopher M. West

2016 - 2017 Lab technician under Dr. Christopher M. West

2015 - 2016 Undergraduate research assistant under Dr. Zachary A. Wood

**Peer-reviewed publications** (\* designates co-first author)

1 Kadirvelraj R, Yang JY, **Kim HW,** Sanders JS., Moremen KW, Wood ZA (2020) Human poly-N-acetyl-lactosamine synthase structure demonstrates a modular assembly of catalytic subsites for GT-Aglycosyltransferases. *J. Biol. Chem.*

2. Bandini G, Agop-Nersesian C, van der Wel H, Mandalasi M, **Kim HW**, West CM, Samuelson J (2020) The nucleocytoplasmic *O-*fucosyltransferase *Spindly* affects protein expression and virulence in *Toxoplasma gondii*. *J. Biol. Chem.* Doi: 10.1074/jbc.RA120.015883

3. Shrestha S, Katiyar S, Sans-Rodriguez CE, Kemppinen NR, **Kim HW**, Kadirvelraj R, Panagos C, Keyhaninejad N, Chopra P, Byrne DP, Boons GJ, Knapp EV, Eyers PA, Edison AS, Wood ZA, Kannan N (2020) A redox-active switch in Fructosamine-3-kinases expands the regulatory repertoire of the protein kinase super-family. *Sci. Signal.* **13** (639) DOI: 10.1126/scisignal.aax6313

4. Mandalasi M\*, **Kim HW\***, Thieker D, Sheikh MO, Gas-Pascual E, Rahman K, Zhao P, Daniel NG, van der Wel H, Ichikawa TH, Glushka JN, Wells L, Woods RJ, Wood ZA, West CM (2020) A terminal α-galactose modification regulates an E3 ubiquitin ligase subunit in *Toxoplasma gondii*. *J. Biol. Chem*. doi: 10.1074/jbc.RA120.013792

5. **Kim HW\*,** Eletsky A\*, Gonzalez KJ van der Wel H, Strauch EM, Prestegard JH, West CM (2020) Skp1 dimerization conceals its F-box protein binding site. *Biochemistry.* **59**(15):1527-1536.

6. West CM & **Kim HW** (2019) Nucleocytoplasmic O-glycosylation in protists. *Curr. Opin. Struc. Biol.* **56**:204-212.

7. Rahman K, Mandalasi M, Zhao P, Sheik MO, Taujale R, **Kim HW,** van der Wel H, Matta K, Kannan N, Glushka JN, West CM (2017) Characterization of a cytoplasmic glucosyltransferase that extends the core trisaccharide of the *Toxoplasma* Skp1 E3 ubiquitin ligase subunit. *J.Biol.Chem*. **292**:18644-18659.

**Awards and Honors**

2020 Erikksson Scholarship

2019 - 2021 NIH T32 Glycobiology Training Program fellow

2019 UGA graduate school travel grant

2018 Society for Glycobiology travel grant

**Presentations**

2020 Erikksson Lecture series (Athens, GA) – Invited talk

2020 Research in Progress (RiP) CTEGD seminar (Athens, GA) – Talk

2020 Glycoscience Training Program retreat (Athens, GA) – poster presentation

2019 The Protein Science annual symposium (Seattle, WA) – poster presentation

2018 Biochemistry departmental research retreat (Helen, GA) – poster presentation

2018 Society for Glycobiology annual conference (New Orleans, LA)– poster presentation

2018 Biophysics Methods Boot Camp at NIH (Bethesda, MD) – poster presentation

**Memberships**

2019 - Present The Protein Society

2018 - Present Society for Glycobiology

2018 - Present American Association for the Advancement of Science

**PDB depositions**

*Dictyostelium discoideum Skp1A*

6V88 - *truncated protein NMR solution structure*

*Skp1 α-D-galactosyltransferase* (Gat1)

6MW5 - Pt heavy atom derivative

6MW8 - bound Mn2+ ion and UDP

*T-synthase chaperone* (Cosmc)

6OA2 - Cs heavy atom derivative

6OA4 - native protein

6OA5 - truncated protein

*β1,3-N-acetylglucosaminyltransferase 2* (B3GNT2)

6OLB - Selenomethionine derivative

6OLC - bound Mg2+ ion and UDP

6OLH - bound Mg2+ ion, UDP, and acceptor (LNnT)