Hyun Woo "John" Kim
Curriculum Vitae
June 6, 2019

10 Milledge Ct. Phone: (770) 375-5884
Athens, GA 30605 E-mail: hjk1708@uga.edu

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	B.A. in Music Education and Trombone Performance, Columbus State University (did not finish)

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

Publications

West C.M. & **Kim H.W.** (2019) Nucleocytoplasmic O-Glycosylation in Protists. *Curr. Opin. Struc. Biol.* ***56****:204-212*

Kadirvelraj R., Yang J.Y., **Kim H.W.,** Sanders, J.S., Moremen, K.W., Wood, Z.A. (2019) Human poly-N-acetyl-lactosamine synthase structure demonstrates a modular assembly of catalytic subsites for GT-A glycosyltransferases. PNAS. (submitted)

Rahman K., Mandalasi M., Zhao P., Sheik M.O., Taujale R., **Kim H.W.,** van der Wel H., Matta K., Kannan N., Glushka J.N., West C.M. (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.*

Manuscripts submitted or in preparation

Mandalasi, M., **Kim, H.W.**, Rahman, K., Zhao, P., Daniel, N., Sheikh, M.O., van der Wel, H., Thieker, D., Ichikawa, T.H., Glushka, J.N., Wells, L., Wood, Z.A., West, C.M. (2019) A glycogenin homolog controls *Toxoplasma gondii* growth via glycosylation of an E3 ubiquitin ligase. (manuscript in preparation)

Shrestha S., Katiyar S., Sans-Rodriguez C.E., Kemppinen N.R., **Kim H.W.**, Kadirvelraj R., Panagos C., Keyhaninejad N., Chopra P., Byrne D.P., Boons G.J., Knapp E.V., Eyers P.A., Edison A.S., Wood Z.A., Kannan N. (2019) Identification of a novel redox-active switch in Fructosamine-3-Kinases expands the regulatory repertoire of the protein kinase super-family. *Sci. Signal.* (submitted)

Kadirvelraj R., Yang J.Y., **Kim H.W.,** Sanders, J.S., Moremen, K.W., Wood, Z.A. (2019) Human poly-N-acetyl-lactosamine synthase structure demonstrates a modular assembly of catalytic subsites for GT-A glycosyltransferases. PNAS. (submitted)

Awards and Presentations

2019 The Protein Society Annual Symposium, Seattle (planned)
-"Structural Insights into the Evolution of the CFAZy GT8 Glycosyltransferase Glycogenin"
-"Cis-acting Glycan Drives Protein-Protein Interactions of Skp1 in Dictyostelium and Toxoplasma"

2018 Biochemistry departmental retreat – poster presentation
-"*How does glycosylation modulate Skp1 organization?"*

2018 Society for Glycobiology - travel grant

2018 Society for Glycobiology annual conference, New Orleans – poster presentation
-"*How does glycosylation modulate Skp1 organization?"*

2018 Biophysics workshop at NIH, Bethesda – poster presentation
-"Glycosylation modulates Skp1 self-association and its interaction with F-box proteins"

2016 UGA Biochemistry Undergraduate Symposium – 1st place poster presentation
-"The Crystal Sructure and Analysis of Human B3GNT2: a Major Polylactosamine Synthase"

Memberships

2019- The Protein Society
2018- Society for Glycobiology
2018- American Association for the Advancement of Science

Ongoing Projects

Kim H.W., Eletsky A. van Der Wel H., Prestegard J.H., West C.M. Solution structure of Skp1 reveals dimer interface that occupies F-box binding site.

Kim H.W., Mandalasi M., Wood Z.A., West C.M. *Toxoplasma* Skp1 glycosyltransferase Gat1 exhibits non-catalytic function through protein-protein interaction.

Kim H.W., van Der Wel H., Wood Z.A., West C.M. Skp1-GlcNAc transferase is distantly related to mucin-type GalNAc transferase from GT27 family.

PDB depositions

Skp1 α-D-galactosyltransferase (Gat1)
6MW5 - Pt heavy atom derivative
6MW8 - bound Mn^{2+} ion and UDP

β1,3-N-acetylglucosaminyltransferase 2 (B3GNT2)
6OLB - Selenomethionine derivative
6OLC - bound Mg^{2+} ion and UDP
6OLH - bound Mg^{2+} ion, UDP, and acceptor (LNnT)

T-synthase chaperone (Cosmc)
6OA2 - Cs heavy atom derivative
6OA4 – native protein
6OA5 – truncated protein

Scholastic performance

Undergraduate GPA (UGA) - 3.62
Graduate GPA (UGA) - 3.89

GRE scores:

Verbal reasoning	151 (52%)
Quantitative reasoning	156 (62%)
Analytical writing	2.5 (8%)

Graduate courses taken

Fall 2017
8000 – Research Techniques in ILS
8010 – Professional Development for ILS Students
8020 – Critical Reading of Primary Science Literature
8550 – Responsible Conduct in Research

Spring 2018
8060 – Student seminar
8070 – Research Discussion
8080 – Journal Club
9000 – Doctoral Research
8113 – Advanced Genetics Cell Biology BCMB
8114 – Advanced Genetics Cell Biology BCMB
8330 – Molecular Modeling

Summer 2018
8070 – Research Discussion
8080 – Journal Club
9000 – Doctoral Research

Fall 2018
8060 – Student seminar
8070 – Research Discussion
8080 – Journal Club
9000 – Doctoral Research
8213 – Advanced Genetic Cell Biology BCMB
8214 – Advanced Genetic Cell Biology BCMB

Spring 2019
8060 – Student seminar
8070 – Research Discussion
8080 – Journal Club
9000 – Doctoral Research
8110 – Protein Structure/Function
8990 – Grant Writing

Summer 2019
8070 – Research Discussion
8080 – Journal Club
9000 – Doctoral Research