

Won Ho Yang, PhD

Position: Assistant Professor
 Department: Systems Biology
 Affiliation: Yonsei University
 Office: Science Research Center Bldg. Rm SB146
 E-mail: bionicwono@yonsei.ac.kr
 Homepage:



Education

2003.03-2007.08	PhD	Department of Biology, Yonsei University
2001.03-2003.02	MSc	Department of Biology, Yonsei University
1994.03-2001.02	BSc	Department of Biology, Yonsei University

Professional Experience

2019.03-present	Assistant Professor	Department of Systems Biology, Yonsei University
2016.06-2019.02	Scientific Associate	SBP Medical Discovery Institute / UCSB
2009.07-2016.05	Postdoctoral Associate	SBP Medical Discovery Institute / UCSB
2008.10-2009.06	Postdoctoral Associate	HHMI / UCSD

Academic Society

2021.11- present	National Representative	International Glycoconjugate Organization
2019.03- present	Member	Korean Society for Molecular and Cellular Biology
2019.03- present	Member	Korean Society for Glycoscience
2019.03- present	Member	Society for Glycobiology

Publications

- Heithoff DM, Pimienta G, Mahan SP, Yang WH, Le DT, House JK, Marth JD, Smith JW, Mahan MJ. Coagulation factor protein abundance in the pre-septic state predicts coagulopathic activities that arise during late-stage murine sepsis. *EBioMedicine*. 2022 Mar; 78: 103965.
- Kim Y, Ko JY, Yang WH.* Remodeling of host glycoproteins during bacterial infection. *BMB Rep*. 2021 Nov; 54(11): 541-544.
- Gonzalez-Rellan MJ, Fondevila MF, Fernandez U, Rodríguez A, Varela-Rey M, Veyrat-Durebex C, Seoane S, Bernardo G, Lopitz-Otsoa F, Fernández-Ramos D, Bilbao J, Iglesias C, Novoa E, Ameneiro C, Senra A, Beiroa D, Cuñarro J, Dp Chantada-Vazquez M, Garcia-Vence M, Bravo SB, Da Silva Lima N, Porteiro B, Carneiro C, Vidal A, Tovar S, Müller TD, Ferno J, Guallar D, Fidalgo M, Sabio G, Herzog S, Yang WH, Cho JW, Martinez-Chantar ML, Perez-Fernandez R, López M, Dieguez C, Mato JM, Millet O, Coppari R, Woodhoo A, Fruhbeck G, Nogueiras R. O-GlcNAcylated p53 in the liver modulates hepatic glucose production. *Nat Commun*. 2021 Aug; 12(1): 5068.
- Yang WH.* Westman JS, Heithoff DM, Sperandio M, Cho JW, Mahan MJ, Marth JD.* Neu3 Neuraminidase Induction Triggers Intestinal Inflammation and Colitis in a Model of Recurrent Human Food Poisoning. *Proc Natl Acad Sci USA*. 2021 Jul; 118(29): e2100937118.
- Seo J, Park YS, Kweon TH, Kang J, Son S, Kim HB, Seo YR, Kang MJ, Yi EC, Lee YH, Kim JH, Park B, Yang WH, Cho JW. O-Linked N-Acetylglucosamine Modification of Mitochondrial

- Antiviral Signaling Protein Regulates Antiviral Signaling by Modulating Its Activity. *Front Immunol.* 2021 Feb; 11: 589259.
- Kim YJ, Kang MJ, Kim E, Kweon TH, Park YS, Ji S, Yang WH, Yi EC, Cho JW. O-GlcNAc stabilizes SMAD4 by inhibiting GSK-3 β -mediated proteasomal degradation. *Sci Rep.* 2020 Nov; 10(1): 19908.
- Seo HG, Kim HB, Yoon JY, Kweon TH, Park YS, Kang J, Jung J, Son S, Yi EC, Lee TH, Yang WH, Cho JW*. Mutual regulation between OGT and XIAP to control colon cancer cell growth and invasion. *Cell Death Dis.* 2020 Sep; 11(9): 815.
- Kim HB, Seo HG, Son S, Choi H, Kim BG, Kweon TH, Kim S, Pai J, Shin I, Yang WH, Cho JW. O-GlcNAcylation of Mef2c regulates myoblast differentiation. *Biochem Biophys Res Commun.* 2020 Aug; 529(3): 692-698.
- Kim E, Kang JG, Kang MJ, Park JH, Kim YJ, Kweon TH, Lee HW, Jho EH, Lee YH, Kim SI, Yi EC, Park HW, Yang WH, Cho JW. O-GlcNAcylation on LATS2 disrupts the Hippo pathway by inhibiting its activity. *Proc Natl Acad Sci USA.* 2020 Jun; 117(25): 14259-14269.
- Yang WH, Heithoff DM, Aziz PV, Haslund-Gourley B, Westman JS, Narisawa S, Pinkerton AB, Millán JL, Nizet V, Mahan MJ, Marth JD. Accelerated Aging and Clearance of Host Anti-inflammatory Enzymes by Discrete Pathogens Fuels Sepsis. *Cell Host Microbe.* 2018 Oct; 24(4): 500-513.
- Yang WH, Heithoff DM, Aziz PV, Sperandio M, Nizet V, Mahan MJ, Marth JD. Recurrent infection progressively disables host protection against intestinal inflammation. *Science.* 2017 Dec; 358(6370): eaao5610.
- Yang WH, Marth JD. Protein glycosylation energizes T cells. *Nat Immunol.* 2016 May; 17(6): 613-614.
- Yang WH, Aziz PV, Heithoff DM, Mahan MJ, Smith JW, Marth JD. An intrinsic mechanism of secreted protein aging and turnover. *Proc Natl Acad Sci USA.* 2015 Nov; 112(44): 13657-13662.
- Sturgill ER, Aoki K, Lopez PH, Colacurcio D, Vajn K, Lorenzini I, Majić S, Yang WH, Heffer M, Tiemeyer M, Marth JD, Schnaar RL. Biosynthesis of the major brain gangliosides GD1a and GT1b. *Glycobiology.* 2012 Oct; 22(10): 1289-1301.
- Yang WH, Nussbaum C, Grewal PK, Marth JD, Sperandio M. Coordinated roles of ST3Gal-VI and ST3Gal-IV sialyltransferases in the synthesis of selectin ligands. *Blood.* 2012 Aug; 120(5): 1015-1026.
- Park SY, Kim HS, Kim NH, Ji S, Cha SY, Kang JG, Ota I, Shimada K, Konishi N, Nam HW, Hong SW, Yang WH, Roth J, Yook JI, Cho JW. Snail is stabilized by O-GlcNAc modification in hyperglycemic condition. *EMBO J.* 2010 Nov; 29(22): 3787-3796.
- Yang WH, Park SY, Ji S, Kang JG, Kim JE, Song H, Mook-Jung I, Choe KM, Cho JW. O-GlcNAcylation regulates hyperglycemia-induced GPX1 activation. *Biochem Biophys Res Commun.* 2010 Jan; 391(1): 756-761.
- Yang WH, Park SY, Nam HW, Kim DH, Kang JG, Kang ES, Kim YS, Lee HC, Kim KS, Cho JW. NFKappaB activation is associated with its O-GlcNAcylation state under hyperglycemic conditions. *Proc Natl Acad Sci USA.* 2008 Nov; 105(45): 17345-17350.
- Yang WH, Kim JE, Nam HW, Ju JW, Kim HS, Kim YS, Cho JW. Modification of p53 with O-linked N-acetylglucosamine regulates p53 activity and stability. *Nat Cell Biol.* 2006 Oct; 8(10): 1074-1083.
- Kim HS, Kim EM, Lee J, Yang WH, Park TY, Kim YM, Cho JW. Heat shock protein 60 modified with O-linked N-acetylglucosamine is involved in pancreatic beta-cell death under hyperglycemic conditions. *FEBS Lett.* 2006 Apr; 580(9): 2311-2316.

