

**Curriculum Vitae
Part I**

PERSONAL DATA

Name: Sijung Yun

Office
address:

Phone: 1-240-672-3937

Fax:

Email: sijungyun@gmail.com

EDUCATION

Year	Degree	Institution	Location
2007	Ph.D.	Boston University	Boston, MA
2002	M.A.	Boston University	Boston, MA
1999	B.S.	Seoul National University	Seoul, Korea

CURRENT LICENSE AND CERTIFICATION

Year	Source	Type
N/A		

PROFESSIONAL EXPERIENCE

Year	Position	Institution	Location
2017 ~	Lecturer	Advanced Academic Programs, Krieger School of Arts and Sciences, Johns Hopkins University	Baltimore, MD
2020 ~	President	Predictiv Care, Inc.	Bethesda, MD
2013 ~ 2020	Sole member	Yotta Biomed, LLC.	Bethesda, MD
2013 ~ 2023	Contractor	NIH/NIDDK	Bethesda, MD

HONORS AND AWARDS

2017 NIDDK "You Make a Difference Award"

RESEARCH

Sponsored Projects

2015-2019 NIH/NINR, HHSN263201600257A
2019-2023 NIH/NIDDK, GS35F267GA

SCHOLARSHIP

Publications

Peer Reviewed Journal Articles (*data-based)

Wang L, Xu Y, **Yun S**, Yuan Q, Satpute-Krishnan P, Ye Y. SAYSD1 senses UFMylated ribosome to safeguard co-translational protein translocation at the endoplasmic reticulum. **Cell Rep.** 2023 Jan 31;42(1):112028. doi: 10.1016/j.celrep.2023.112028. Epub 2023 Jan 23. PMID: 36848233.

Doty M, **Yun S**, Wang Y, Hu M, Cassidy M, Hall B, Kulkarni AB. Integrative multiomic analyses of dorsal root ganglia in diabetic neuropathic pain using proteomics, phospho-proteomics, and metabolomics. **Sci Rep.** 2022 Oct 11;12(1):17012. doi: 10.1038/s41598-022-21394-y. PMID: 36220867.

Vorn R, Mithani S, Devoto C, Meier TB, Lai C, **Yun S**, Broglio SP, McAllister TW, Giza CC, Kim HS, Huber D, Harezlak J, Cameron KL, McGinty G, Jackson J, Guskiewicz KM, Mihalik JP, Brooks A, Duma S, Rowson S, Nelson LD, Pasquina P, McCrea MA, Gill JM. Proteomic Profiling of Plasma Biomarkers Associated With Return to Sport Following Concussion: Findings From the NCAA and Department of Defense CARE Consortium. **Front Neurol.** 2022 Jul 19;13:901238. doi: 10.3389/fneur.2022.901238. PMID: 35928129; PMCID: PMC9343581.

Logan JG, **Yun S**, Teachman BA, Bao Y, Farber E, Farber CR. Genome-Wide mRNA Expression Analysis of Acute Psychological Stress Responses. **MEDICC Rev.** 2022 May 16;24(2):35-42. doi: 10.37757/mr2022.v24.n2.6. PMID: 35648061.

Jofré DM, Hoffman DK, Cervino AS, Hahn GM, Grundy M, **Yun S**, Amrit FRG, Stolz DB, Godoy LF, Salvatore E, Rossi FA, Ghazi A, Cirio MC, Yanowitz JL, Hochbaum D. The CHARGE syndrome ortholog CHD-7 regulates TGF- β pathways in *Caenorhabditis elegans*. **Proc Natl Acad Sci U S A.** 2022 Apr 12;119(15):e2109508119. doi: 10.1073/pnas.2109508119. Epub 2022 Apr 8. PMID: 35394881.

Hall BE, Macdonald E, Cassidy M, **Yun S**, Sapio MR, Ray P, Doty M, Nara P, Burton MD, Shiers S, Ray-Chaudhury A, Mannes AJ, Price TJ, Iadarola MJ, Kulkarni AB. Transcriptomic analysis of human sensory neurons in painful diabetic neuropathy reveals inflammation and neuronal loss. **Sci Rep.** 2022 Mar 18;12(1):4729. doi: 10.1038/s41598-022-08100-8. PMID: 35304484; PMCID: PMC8933403.

Vorn R, Edwards KA, Hentig J, **Yun S**, Kim HS, Lai C, Devoto C, Yarnell AM, Polejaeva E, Dell KC, LoPresti ML, Walker P, Carr W, Stone JR, Ahlers ST, Gill JM. A Pilot Study of Whole-Blood Transcriptomic Analysis to Identify Genes Associated with Repetitive Low-Level Blast Exposure in Career Breachers. **Biomedicines**. **2022** Mar 17;10(3):690. doi: 10.3390/biomedicines10030690. PMID: 35327492; PMCID: PMC8945695.

Cho YE, Lee H, Bae HR, Kim H, **Yun S**, Vorn R, Cashion A, Rucker MJ, Afzal M, Latour L, Gill J. Circulating immune cell landscape in patients who had mild ischaemic stroke. **Stroke Vasc Neurol**. **2022** Mar 9;svn-2021-001224. doi: 10.1136/svn-2021-001224. Epub ahead of print. PMID: 35264400.

Vorn R, Suarez M, White JC, Martin CA, Kim HS, Lai C, **Yun SJ**, Gill JM, Lee H. Exosomal microRNA Differential Expression in Plasma of Young Adults with Chronic Mild Traumatic Brain Injury and Healthy Control. **Biomedicines**. **2021** Dec 24;10(1):36. doi: 10.3390/biomedicines10010036. PMID: 35052715.

Martin CA, Vorn R, Schrieber M, Lai C, **Yun S**, Kim HS, Gill J. Identification of DNA Methylation Changes That Predict Onset of Post-traumatic Stress Disorder and Depression Following Physical Trauma. **Front Neurosci**. **2021** Sep 24;15:738347. doi: 10.3389/fnins.2021.738347. PMID: 34630024; PMCID: PMC8498101.

Kwon YJ, Cho YE, Cho AR, Choi WJ, **Yun S**, Park H, Kim HS, Cashion AK, Gill J, Lee H, Lee JW. The Possible Influence of Mediterranean Diet on Extracellular Vesicle miRNA Expression in Breast Cancer Survivors. **Cancers** (Basel). **2020** May 26;12(6):1355. doi: 10.3390/cancers12061355. PMID: 32466456; PMCID: PMC7352167.

Mithani S, **Yun S**, Leete JJ, Guedes VA, Fink AM, Pattinson CL, Kim HS, Weljie A, Gill JM, Gehrman P. Whole blood transcriptome analysis using RNA sequencing in individuals with insomnia disorder and good sleepers: a pilot study. **Sleep Med**. **2021** Apr;80:1-8. doi: 10.1016/j.sleep.2021.01.013. Epub 2021 Jan 18. PMID: 33530007.

Logan JG, **Yun S**, Bao Y, Farber E, Farber CR. RNA-sequencing analysis of differential gene expression associated with arterial stiffness. **Vascular**. **2020** Oct;28(5):655-663. doi: 10.1177/1708538120922650. Epub 2020 May 6. PMID: 32375599; PMCID: PMC8846553.

Pattinson CL, Guedes VA, Edwards K, Mithani S, **Yun S**, Taylor P, Dunbar K, Kim HS, Lai C, Roy MJ, Gill JM. Excessive daytime sleepiness is associated with altered gene expression in military personnel and veterans with posttraumatic stress disorder: an RNA sequencing study. **Sleep**. **2020** Sep 14;43(9):zsaa036. doi: 10.1093/sleep/zsaa036. PMID: 32191323; PMCID: PMC7749187.

Abete-Luzi P, Fukushige T, **Yun S**, Krause MW, Eisenmann DM. New Roles for the Heterochronic Transcription Factor LIN-29 in Cuticle Maintenance and Lipid Metabolism at the Larval-to-Adult Transition in *Caenorhabditis elegans*. **Genetics**. **2020** Mar;214(3):669-690. doi: 10.1534/genetics.119.302860. Epub 2020 Jan 23. PMID: 31974205; PMCID: PMC7054012.

Rusch HL, Robinson J, **Yun S**, et al., “Gene expression differences in PTSD are uniquely related to the intrusion symptom cluster: A transcriptome-wide analysis in military service members”, *Brain Behav Immun*. 80:904-908. doi:10.1016/j.bbi.2019.04.039, 2019 PMID: 31039430

Krause MW, Love DC, Ghosh SK, Wang P, **Yun S**, Fukushige T, Hanover JA, “Nutrient-Driven O-GlcNAcylation at Promoters Impacts Genome-Wide RNA Pol II Distribution”, **Front Endocrinol**, 9:521, 2018 PMID: 30250452

Zhang J, Chambers I, **Yun S**, Phillips J, Krause M, Hamza I, “Hrg1 promotes heme-iron recycling during hemolysis in the zebrafish kidney”, **PLoS Genet**, 14(9), 2018 PMID: 30248094

Martin C, Cho YE, Kim H, **Yun S**, Kanefsky R, Lee H, Mysliwiec V, Cashion A, and Gill J, “Altered DNA Methylation Patterns Associated With Clinically Relevant Increases in PTSD Symptoms and PTSD Symptom Profiles in Military Personnel”, **Biol. Res. Nurs.**, 20 (3), 2018 PMID: 29514460

Sinclair J, et al., “Inter-organ signaling by HRG-7 promotes systemic heme homeostasis”, **Nature Cell Biol.**, 19 (7) (2017)

Smith HE, **Yun S**, “Evaluating alignment and variant-calling software for mutation identification in *C. elegans* by whole-genome sequencing”, **PLoS One**, 12(3) (2017)

Martin CG, Kim H, **Yun S**, Livingston W, Fetta J, Mysliwiec V, Baxter T, Gill JM, “Circulating miRNA associated with posttraumatic stress disorder in a cohort of military combat veterans”, **Psychiatry Res.**, 251 (2017)

Lee H, Gill J, Barr T, **Yun S**, Kim H, “Primer in Genetics and Genomics, Article 2: Advancing nursing research with Genomic approaches: A review of methodological considerations”, **Biol. Res. for Nursing**, 1(11) (2017)

Gill J, Cashion A, Osier N, Arcurio L, Motamedi V, Dell KC, Carr W, Kim HS, **Yun S**, Walker P, Ahlers S, LoPresti M, Yarnell A. Moderate blast exposure alters gene expression and levels of amyloid precursor protein. **Neurol Genet.** 3(5) (2017)

Bulger DA, Fukushige T, **Yun S**, Semple RK, Hanover JA, Krause MW, “*C. elegans* DAF-2 as a Model for Human Insulin Receptoropathies”, **G3**, 7(1) (2017)

Lejbman N, Olivera A, Heinzelmann M, Feng R, **Yun S**, Kim HS, and Gill J, “Active duty service members who sustain a traumatic brain injury have chronically elevated peripheral concentrations of A β 40 and lower ratios of A β 42/40”, **Brain Injury**, 30(12) (2016)

McEwen TJ, Yao Q, **Yun S**, Lee CY, and Bennett KL, “Small RNA in situ hybridization in *Caenorhabditis elegans*, combined with RNA-seq, identifies germline-enriched microRNAs”, **Developmental Biology**, 148(2) (2016)

Liu Z, Shi H, Szymczak LC, Aydin T, **Yun S**, et al., “Promotion of bone morphogenetic protein signaling by tetraspanins and glycosphingolipid”, **PLOS Genetics**, 11(5) (2015)

Yun S, **Yun S**, “Masking as an effective quality control method for next-generation sequencing data analysis”, **BMC Bioinformatics** 15:382 (2014)

Yun S, Yun S, Guy H. R., “Analysis of the stabilities of hexameric amyloid- β (1-42) models using Discrete Molecular Dynamics simulations”, **Journal of Molecular Graphics and Modelling** 29: 657-662 (2011)

Yun S, Guy H. R., “Stability tests on proteins of known and misfolded structures with discrete and all atom molecular dynamics simulations”, **Journal of Molecular Graphics and Modelling** 29: 663-675 (2011)

Yun S, Urbanc B, Cruz L, Bitan G, Teplow DB, Stanley HE, “Role of electrostatic interactions in amyloid β -protein (A β) oligomer formation: a discrete molecular dynamics study”, **Biophys J.** 92(11):4064-77 (2007)

Urbanc B, Cruz L, **Yun S**, Buldyrev SV, Bitan G, Teplow DB, Stanley HE, “In silico study of amyloid β folding and aggregation”, **Proc Natl Acad Sci U S A.** 101(50):17345-50 (2004)

EDITORIAL ACTIVITIES

Editorial Board Memberships

2022 ~ Lead topic editor in Frontiers in Endocrinology and Systems Endocrinology

CURRICULUM VITAE
Part II

EDUCATIONAL ACTIVITIES

Classroom Instruction (Teaching)

Johns Hopkins University Krieger School of Arts and Sciences

2017 ~ 2023 AS.410.635.81 Bioinformatics: Tools for Genome Analysis, a graduate course for bioinformatics majoring masters students

Precepting

Fall 2023 1 MS student

Summer 2023 1 MS student

2022 2 MS students

MENTORING AND ADVISEMENT

Student Advisement

2023 2 MS

2022 1 MS

Mentoring

2023 Somatic Mutation Profiling Using DNA-Based Digital Twins in Tongue Cancer: Identification of Canonical Oncodrivens, MS student.

Dissertation Committee Member

Johns Hopkins University

Veena Ghorakavi. Title: Endu: Secure Management of Endometriosis Diagnostic Data Utilizing Anonymization, Distributed Ledger Technology and Wearable Monitoring. Dissertation Committee Member. December 12, 2023