

Yu-San Huoh, Ph.D.

Program in Cellular and Molecular Medicine
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EDUCATION

- 2006-2013 Ph.D. in Biochemistry and Molecular Biophysics, University of Pennsylvania
Thesis title: "*The molecular basis of substrate recognition by the Pellino E3 Ub ligases*"
- 2002-2006 BA in Molecular and Cell Biology, University of California, Berkeley
Senior Honors thesis: "*Characterization of the Xanthomonas campestris pv. vesicatoria bacterial effector gene avrBs2*"

RESEARCH POSITIONS

- 2020-present Instructor of Pediatrics, Boston Children's Hospital; laboratory of Sun Hur, Ph.D.,
Program in Cellular and Molecular Medicine (PCMM)
- 2014-2020 Postdoctoral fellow, Boston Children's Hospital; laboratory of Sun Hur, Ph.D., Program
in Cellular and Molecular Medicine (PCMM)
- 2006-2013 Graduate student, University of Pennsylvania; laboratory of Kathryn M. Ferguson, Ph.D.,
Department of Physiology
- 2004-2006 Undergraduate research assistant, University of California, Berkeley; laboratory of Brian
J. Staskawicz, Ph.D., Department of Plant & Microbial Biology

FELLOWSHIPS

- 2019-2021 Jeffrey Modell Award, Jeffrey Modell Foundation, Boston Children's Hospital
(\$150,000 total costs for two years)
- 2017-2020 NIH T32 Postdoctoral Fellowship (AI007512), Boston Children's Hospital
- 2012 Juan Grana Graduate Teaching Assistantship, University of Pennsylvania
- 2011-2013 American Heart Association Predoctoral Fellowship
- 2008-2010 NIH Structural Biology Training Predoctoral Fellowship, University of Pennsylvania

HONORS AND PRIZES

- 2018 Poster Prize, PCMM Scientific Retreat, Boston Children's Hospital
- 2015 Poster Prize, PCMM Scientific Retreat, Boston Children's Hospital

- 2009 American Society of Biochem. & Mol. Biology Annual Meeting Travel Award
- 2006 Kazuo Gerald Yanaba and Ting Jung Memorial Fund Prize, University of California, Berkeley—for outstanding honors thesis and oral presentation of research

PUBLICATIONS

1. **Huoh Y.-S.**, Wu, B. Park, S., Yang, D., Bansal, K. Greenwald, E., Wong, W.P., Mathis, D., Hur, S. (2020). Dual functions of Aire multimerization in the transcriptional regulation of T cell tolerance. *Nat. Commun.* 11, 1625.
2. Abbott J.K. *, **Huoh, Y.-S.***, Reynolds, P., Yu, L., Rewers, M. Reddy, M. Anderson, M.S., Hur. S., Gelfand, E.W. (2018). Dominant-negative loss of function arises from a second, more frequent variant within the SAND domain of autoimmune regulator (AIRE). *J. Autoimmun.* 288, 114-120
**equal author contribution*
3. Wu, B., **Huoh, Y.-S.**, Hur, S. (2016). Measuring Monomer-to-Filament Transition of MAVS as an In Vitro Activity Assay for RIG-I-Like Receptors. *Methods Mol. Biol.* 1390, 131-142.
4. **Huoh, Y.-S.**, Ferguson, K.M. (2014). The Pellino E3 ubiquitin ligases recognize specific phosphothreonine-peptide sequences and have distinct substrate specificities. *Biochemistry* 53, 4946-4955.
5. Wood, C.S., Hung, C.S., **Huoh, Y.-S.**, Mousley, C.J., Stefan, C.J., Bankaitis, V., Ferguson, K.M., Burd, C.G. (2012). Local control of PtdIns4P signaling in the Golgi apparatus by Vps74 and Sac1 phosphoinositide phosphatase. *Mol. Biol. Cell.* 23, 2527-2536
6. Lin, C.-C., **Huoh, Y.-S.**, Schmitz, K.R., Jensen, L.E., Ferguson, K.M. (2008). Pellino proteins contain a cryptic FHA domain that mediates interaction with phosphorylated IRAK1. *Structure* 16, 1806-1816.

SELECTED PRESENTATIONS

1. “Dual functions of Aire multimerization in the transcriptional regulation of T cell tolerance” Jeffrey Modell Award Lecture, PCMM Scientific Retreat 2019, Boston Children’s Hospital
2. “Molecular basis of substrate recognition by the E3 Ub-ligase Pellino,” Selected poster abstract presented at Gordon Research Conference on Mechanisms of Cell Signaling, Lewiston, ME, July 31-August 5, 2011.

TEACHING EXPERIENCE

- 2012 Current Biochemical Topics (BMB650), University of Pennsylvania
Teaching assistant for Ph.D. graduate students
- 2011 Molecular Biology of Life Laboratory (BIOL12), University of Pennsylvania
Teaching assistant for undergraduates
- 2009 Ethics and Professional Responsibility for Engineers (BE303)
“Conflicts of Interest” guest lecturer for undergraduates

2005 General Biology Laboratory (Bio1A), University of California, Berkeley
Teaching assistant for undergraduates

SERVICE TO THE COMMUNITY

2011 Penn Upward Bound Math and Science Summer Program
Lecturer and mentor for underrepresented Philadelphia high school students

2005-2006 UC Berkeley Molecular and Cellular Biology Department
Peer mentor, held weekly office hours to help undergraduates make decisions on
coursework, choose potential career paths and apply for research positions

2003-2004 Youth Impact After School Program
Volunteer instructor encouraging Berkeley elementary school students to become
proactive citizens within the community

REFERENCES

Sun Hur, Ph.D.

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James Shorter, Ph.D.

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