J. Edward van Veen, Ph.D.
Assistant Project Scientist. University of California, Los Angeles
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Degrees Awarded

Ph.D. Molecular Biology, MIT 2012

B.S. Applied Mathematics and Genetics double major. University of California, Davis, 2001

Research Experience

Assistant project scientist with Stephanie Correa, PhD 2016 – Present
Using single cell RNA sequencing and stereotaxic surgery to dissect neuronal function.
University of California, Los Angeles

Post-Doctoral fellow with Martin McMahon, PhD 2012 – 2016
Cancer genetics of lung adenocarcinoma progression.
University of California, San Francisco and Huntsman Cancer Institute, University of Utah.

PhD candidate with Frank Gertler, PhD 2005 – 2012
The role of Slit/Robo and filopodia formation in repulsive axon guidance.
Koch Institute for Integrative Cancer Research, MIT

Graduate student with Leonard Guarente, PhD 2004 – 2005
Function of SIRT1 during calorie restriction mediated longevity.
Department of Biology, MIT

Undergraduate researcher and technician with R. Scott Hawley, PhD 2000 – 2003
Synapsis and recombination in *Drosophila melanogaster* meiosis.
Spindle formation during *Danio rerio* meiosis.
University of California, Davis and Stowers Institute for Medical Research

Fellowships and Research Support

Iris Cantor Women's Health Pilot Research Project 2019
NCI NRSA Postdoctoral Fellowship 2014 – 2015
SASS Foundation Post-Doctoral Fellowship 2012 – 2014
Program for Breakthrough Biomedical Research Grant, UCSF 2013
Core Exploratory Grant, UCSF 2012
Ludwig Institute Graduate Fellowship, MIT. 2008 – 2009

Manuscripts in review

Zhang, Z., Park, J. W., Ahn, I. S., Diamante, G., Sivakumar, N., Arneson, D. V., Yang, X., **van Veen, J. E.**[#] and Correa, S. M.[#] **#: Corresponding authors**. Hypothalamic estrogen receptor alpha mediates key side effects of tamoxifen therapy in mice. Preprint: https://bit.ly/2S1Tvya

Peer Reviewed Publications

Zhang, Z., Reis, F. M. C. V., He, Y., Park, J. W., DiVittorio, J. R., Sivakumar,N., **van Veen, J. E.**, Pereira, S., Shum, M., Anderson, S., Nichols, I., Paul, K. N., Liesa, M., Ajijola, O. A., Xu, Y, Adhikari, A., and Correa, S. M. Estrogen-Sensitive Medial Preoptic Area Neurons Coordinate Torpor in Mice, revised manuscript accepted at *Nature Communications*

Prokop, J. W., Chhetri, S., **van Veen, J. E.**, Chen, X., Underwood, A. C., Uhl, K., Dwinell, M. R., Geurts, A. M., Correa, S. M., and Arnold, A. P. Transcriptional analysis of the multiple *Sry* genes and developmental program at the onset of testis differentiation in the rat, *Biology of Sex Differences **11**, Article number: 28 (2020).*

van Veen, J. E., Kammel, L. G., Bunda, P. C., Shum, M., Reid, M. S., Massa, M. G., Arneson, D., Park, J. W., Zhang, Z., Joseph, A. M., Hrncir, H., Liesa, M., Arnold, A. P., Yang, X. and Correa, S. M. "Estrogen receptor alpha signaling in the ventromedial hypothalamus establishes a sexually dimorphic regulatory node of energy expenditure", *Nature Metabolism*, 2020.

- Selected for journal cover: https://www.nature.com/natmetab/volumes/2/issues/4
- 2020 UCLA Life Science Excellence Award for Outstanding Research Publication

van Veen, JE., Scherzer M., Boshuizen, J., Chu, M., Liu, A., Landman, A., Green, S., Trejo, C., and McMahon M. "Mutationally-activated PI3'-kinase-α promotes de-differentiation of lung tumors initiated by the $BRAF^{V600E}$ oncoprotein kinase" *eLife* 2019;8:e43668

- Selected for eLife digest: https://elifesciences.org/digests/43668/

Lee, S. D., Priest, C., Bjursell., M., Gao, J., Arneson, D. V., Ahn, I. S., Diamante, G., **van Veen, J. E**., Massa, M. G., Calkin, A. C., Kim, J., Andersén, H., Porritt, M., Carreras, A., Ahnmark, A., Seeliger, F., Maxvall, I., Eliasson, P., Althage, M., Åkerblad, P., Lindén, D., Cole, T. A., Lee, R., Boyd, H., Bohlooly-Y, M., Correa, S. M., Yang, X., Tontonoz, P., and Hong, C. "IDOL regulates systemic energy balance through control of CNS VLDLR expression." *Nature Metabolism*, October 28, 2019.

van Veen JE, Pringle DR, McMahon M "P2A-Fluorophore Tagging of BRAF Tightly Links Expression to Fluorescence *In Vivo*." *PLoS ONE*. 2016 11(6): e0157661.

McConnell, R., **van Veen, JE**., Vidaki, M., Kwiatkowski, A., Meyer, A., Gertler, F. A requirement for filopodia extension toward Slit during Robo-mediated axon repulsion. *The Journal of Cell Biology.* 2016*, 213*(2), 261-274.

Peterson TR, Laplante M, **van Veen JE**, van Vugt M, Thoreen CC, Sabatini DM. "mTORC1

regulates cytokinesis through activation of Rho-ROCK signaling." 2015, arXiv:1506.04437

Ma CH, Omura T, Cobos EJ, Latrémolière A, Ghasemlou N, Brenner GJ, **van Veen E**, Barrett L, Sawada T, Gao F, Coppola G, Gertler F, Costigan M, Geschwind D, Woolf CJ. "Accelerating axonal growth promotes motor recovery after peripheral nerve injury in mice." *J Clin Invest* 2011 Oct 3.

Kothapalli CR, **van Veen JE**, de Valence S, Chung S, Zervantonakis Y, Gertler FB, Kamm RD. "A High-throughput Microfluidic Assay to Study Axonal Response to Growth Factor Gradients." *Lab on a Chip.* 2010 Nov 25

Dent EW, Kwiatkowski AV, Mebane LM, Philippar U, Barzik M, Rubinson DA, Gupton S, **van Veen JE**, Furman C, Zhang J, Alberts AS, Mori S, Gertler FB. "Filopodia are required for cortical neurite initiation." *Nat Cell Biol.* 2007 Dec 9(12):1347-59.

Kwiatkowski AV, Rubinson DA, Dent EW, **Edward van Veen J**, Leslie JD, Zhang J, Mebane LM, Philippar U, Pinheiro EM, Burds AA, Bronson RT, Mori S, Fässler R, Gertler FB. "Ena/VASP Is Required for neuritogenesis in the developing cortex." *Neuron*. 2007 Nov 8;56(3):441-55.

Bordone L, Cohen D, Robinson A, Motta MC, **van Veen E**, Czopik A, Steele AD, Crowe H, Marmor S, Luo J, Gu W, Guarente L. "SIRT1 transgenic mice show phenotypes resembling calorie restriction." *Aging Cell.* 2007 Dec 6(6):759-67.

van Veen JE, Hawley RS. "Meiosis: When Even Two Is a Crowd." *Current Biology.* 2003 Oct 28(13);R831-833.

Teaching and Mentoring

Teaching assistant and lecturer. 7.24 - The protein folding problem, MIT.	2006
Teaching assistant, 7.013 - Introductory Biology, MIT.	2004
Teaching assistant, Drosophila Genetics and Genomics, Cold Spring Harbor.	2002
Teaching assistant, MCB 164 - Advanced Eukaryotic Genetics, UC Davis.	2001
Teaching assistant, MCB 162 - Human Genetics, UC Davis	2000

Mentees:
(# denotes student is from a group underrepresented in science. ‡ denotes that student earned authorship on a submitted publication while under my supervision)

Kathleen Leon #, CSULB student in the SPUR-LABS program at UCLA.	2019
Jose Mendez #, Psychobiology major at UCLA.	2019
Chiara Rebagliati, Integrative Biology and Physiology Major at UCLA.	2018 – 2019
Patricia Bunda #‡, Molecular Cell and Developmental Biology major at UCLA	2018

Audrey Magsig, computational and systems biology major at UCLA. 2017 – 2018
Ph.D. student at UC San Francisco starting fall 2020.

Michelle Reid #‡, laboratory technician. Current Ph.D. student at UC Berkeley. 2016 – 2017

Julia Boshuizen ‡, M.Sc. Current Ph.D. Candidate, NKI, Amsterdam. 2014 – 2015

Mollee Chu ‡, High school student 2012 – 2013

Outreach and Service

Member, UCSF Society for Advancement of Chicanos & Native Americans in Science (SACNAS). Activities included: 2012 – 2014

- Invited by City College of San Francisco SACNAS chapter to give research and career trajectory seminar.
- Advising early undergraduate and high school students regarding college admissions, major declarations, and careers in science.
- Co-developed a grant finding and writing workshop for UCSF graduate students and postdocs. This workshop was hosted by SACNAS and attended by UCSF trainees. The workshop was extremely successful and has become a yearly event.

Reviewer:

Undergraduate Poster Day, Dept. of Integrative Biology and Physiology, UCLA 2019

Application reviewer – Undergraduate Research Scholars Program, UCLA. 2018 – 2020

Other:

Creator and host of "Biologue." Radio program broadcasting to 4.5 million potential listeners in greater Boston on WMBR 88.1 FM. Biologue made biomedical research entertaining and accessible to a lay audience. 2005 – 2007

References

Martin McMahon, Ph.D. (Post-Doctoral Advisor)
Cumming-Presidential Professor of Cancer Biology &
Senior Director for Preclinical Translation,
Huntsman Cancer Institute & Dept. of Dermatology.
University of Utah, Salt Lake City
martin.mcmahon@hci.utah.edu

Frank B. Gertler, Ph.D. (Doctoral Thesis Advisor)
Professor Emeritus, Koch Institute for Integrative Cancer Research
Department of Biology
MIT, Cambridge MA
fgertler@mit.edu

Stephanie Correa (UCLA Advisor – not providing letters per personal conflict)
Assistant Professor, Dept. Integrative Biology & Physiology
University of California, Los Angeles
stephaniecorrea@ucla.edu

Xia Yang, Ph.D. (UCLA Collaborator: scRNA-Seq and analysis)
Associate Professor, Dept. Integrative Biology & Physiology
University of California, Los Angeles
xyang123@ucla.edu

A. Jake Lusis, Ph.D. (UCLA Collaborator: Genetics of diet induced obesity)
Professor, Medicine, Human Genetics, Microbiology, Immunology & Molecular Genetics
Vice Chair, Human Genetics
University of California, Los Angeles
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Michael Hemann, Ph.D. (Doctoral Thesis Chair)
Associate Professor, Department of Biology
Director of Graduate Program in Biology
MIT
hemann@mit.edu