

Curriculum Vitae of Alexandra Whiteley (Greer)

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Education

Ph.D., Biomedical Sciences Ph.D. Graduate Program, University of California, San Francisco
2008-2013
B.S. Biology, *Cum Laude, Phi Beta Kappa*, Davidson College, Davidson NC
2004-2008

Academic Appointment

Jan 2020 - Assistant Professor, Department of Biochemistry, University of Colorado Boulder

Postdoctoral Research

Harvard Medical School, Boston, 2016-2019

- Advisor Dr. Daniel Finley PhD, Professor of Cell Biology
- Identified new clients of Ubqln2 in mouse models of ALS-FTD and developed Dendra2 assay

Genentech, Inc., South San Francisco, 2014-2016

- Advisor Dr. Eric Brown MD, Vice President of Infectious Disease and Immunology
- Discovered a new role for Ubqln1 in B cell proliferation and identified mislocalized mitochondrial proteins as dominant client proteins of Ubqln1

Graduate Research

University of California, San Francisco, 2008-2013

- Advisor Dr. Jeoung-Sook Shin PhD, Associate Professor of Microbiology and Immunology
- Thesis Title: REGULATION AND FUNCTION OF FC ϵ RI ON HUMAN DENDRITIC CELLS

Awards, Fellowships, and Grants

Harvard Medical School Hearst Fund Award (2016)
Cancer Research Institute Irvington Postdoctoral Fellowship (2016-2019)
UCSF Graduate Student Research Award (2012)
UCSF HHMI Graduate Education in Medical Sciences (GEMS) Training Program Fellowship (2011-12)
NIH T-32 AI007334 Molecular and Cellular Immunology Predoctoral Fellowship NIAID (2009-2011)

Professional Memberships and Activities

2020 – present Member, *American Society for Cell Biology (ASCB)*

Honors

National Science Foundation Graduate Research Fellowship Program Honorable Mention (2009-2011)
Phi Beta Kappa (2008)
Davidson College Sigma Xi Biology Research Award (2008)

Teaching Experience

2021 BCHM-5781 Advanced General Biochemistry II
2020 BCHM-5781 Advanced General Biochemistry II

Publications

Whiteley, A.M.*, Prado, M.A.*, de Poot, S.A.H., Paulo, J.A., Ashton, M., Dominguez, S., Weber, M., Syzpyt, J. Jedrychowski, M.P., Easton, A., Hegde, R.S., Gygi, S., Kurz, T., Monteiro, M.J.,

- Brown, E.J., Finley, D. (2020) Global proteomics of Ubqln2-based murine models of ALS. *Journal of Biological Chemistry* (accepted 12/4/2020).
- Wu, J.J., Cai, A., Greenslade, J.E., Higgins, N.R., Fan, C., Le, N.T.T., Tatman, M., **Whiteley, A.M.**, Prado, M.A., Dieriks, B.V., Curtis, M.A., Shaw, C.E., Siddique, T., Faull, R.L.M., Scotter, E.L., Finley, D., Monteiro, M.J. (2020) ALS/FTD mutations in UBQLN2 impede autophagy by reducing autophagosome acidification through loss of function. *PNAS* 117 (26): 15230-15241.
- Whiteley, A.M.**, Prado, M.A., Peng, I., Abbas, A.R., Haley, B., Paulo, J.A., Reichelt, M., Katakam, A., Sagolla, M., Modrusan, Z., Lee, D-Y., Roose-Girma, M., Kirkpatrick, D. S., McKenzie, B.S., Gygi, S.P., Finley, D., Brown, E.J. (2017) Ubiquilin1 promotes antigen-receptor mediated proliferation by eliminating mislocalized mitochondrial proteins. *eLife* 6: e26435.
- Shin, J.S., and **Greer, A.M.** (2015) The Role of FcεRI expressed in dendritic cells and monocytes. *Cellular and Molecular Life Sciences* 72 (12): 2349-2360. (REVIEW)
- Greer, A.M.**, Matthay, M.A., Kukreja, J., Bhakta, N.R., Nguyen, C.P., Wolters, P.M., Fahy, J.P., Woodruff, P., Fahy, J.V., Shin, J.S. (2014) Accumulation of myeloid DCs in inflammatory diseases of the lung. *PLoS One* 9 (6):e99084.
- Greer, A.M.**, Wu, N., Putnam, A., Woodruff, P.W., Kinet, J.P., Shin, J.S. (2014) FcεRI expressed in human dendritic cells and monocytes mediates cellular entry of circulating IgE contributing to serum IgE clearance. *The Journal of Clinical Investigation* 124 (3): 1187-1198.
- Baravalle, G., **Greer, A.M.**, LaFlam, T., Shin, J.S. (2014) Antigen-conjugated human IgE induces antigen-specific T cell tolerance in a humanized mouse model. *The Journal of Immunology* 192 (7): 3280-3288.
- Waterfield, M., Khan, I.S., Cortez, J.T., Fan, U., Metzger, T., **Greer, A.M.**, Fasano, K., Martinez-Llordella, M., Pollack, J.L., Erle, D.J., Su, M., Anderson, M.S. (2014) The transcriptional regulator Aire coopts the repressive ATF7ip-MBD1 complex for the induction of immunotolerance. *Nature Immunology* 15 (3): 258-265.
- Greer, A.M.**, Huang, Z., Oriakhi, A., Lu, Y., Lou, J., Matthews, K.S., and Bondos, S.E. (2009) "The *Drosophila* transcription factor Ultrabithorax self-assembles into protein-based biomaterials with multiple morphologies". *Biomacromolecules* 10(4):829-37.

Invited Seminars

- 2019 Johns Hopkins SOM, Dept of Molecular Biology and Genetics, Baltimore MD
Vanderbilt University Medical Center, Depts of Pathology, Microbiology and Immunology and VI4, Nashville TN
University of Colorado Boulder, Depts of Biochemistry and MCDB, Boulder CO
Medical Research Council, Protein Phosphorylation and Ubiquitination Unit, Dundee UK
University of California Los Angeles SOM, Dept of Biological Chemistry, LA CA
University of Massachusetts Amherst, Dept of Biochem and Molecular Bio, Amherst MA
- 2018 Medical Research Council, Protein Phosphorylation and Ubiquitination Unit, Dundee UK

Meetings - oral presentations

- Whiteley, A.M.**, Prado, M.A., Paulo, J.A., Gygi, S.P., Hegde, R.S., Kurz, T., Monteiro, M.J., Brown, E.J., Finley, D. "Correlating proteomic and RNASeq datasets from human ALS samples to identify targets uniquely altered at the protein level." *New York Genome Center Symposium*, New York (2018).
- Greer, A.M.**, Abbas, A., Peng, I., Roose-Girma, M., Brown, E.J. "Ubiquilin 1 is uniquely required for cell cycle entry and proliferation downstream of B-cell receptor signaling." *Keystone Ubiquitin Conference*, Whistler Canada (2016).
- Greer, A.M.**, Wu, N., Putnam, A.L., Woodruff, P.W., Shin, J.S. "Constitutive IgE endocytosis via human trimeric high affinity IgE receptor and its implication in serum IgE clearance." **UCSF Immunology Retreat*, Asilomar CA (2010), and *International Symposium on Dendritic Cells*, Daegu South Korea (2012).