# BRANDIE M. WHITE

*CURRICULUM VITAE*

*(626) 898-2408* *bmwhite@sdsu.edu*

## RESEARCH INTERESTS

Microorganisms play a crucial role in the health and resilience of organisms and ecosystems.
My research asks how the bioenergetics of microorganisms shape the prevalence of pathogens in the human lung, coral reefs and the arctic circle.

## SAN DIEGO STATE UNIVERSITY CONTACT INFORMATION

Research Mentor: Forest Rowher, Ph.D., Professor, Department of Biology, San Diego State University
Research Mentor Email: frohwer@gmail.com
Research Mentor Phone: (619) 594-1366
Citizenship Status: United States of America
Laboratory Address: San Diego State University, 5500 Campanille Dr, San Diego, CA 92182

## EDUCATION

Ph.D., Cell & Molecular Biology, Joint Doctoral Program (2017 – 2022*)
San Diego State University & University of California, San Diego CA
(*Expected Graduation Date)

B.Sc., Ecology, Behavior and Evolution (2009 – 2011)
University of California, San Diego CA

Ecology Major (2006 – 2009)
Mt. San Antonio College, Walnut CA

## HONORS AND AWARDS

1st PLACE PRESENTATION (2018)
"Microbial Ecology: Vesicular Communication"
Science Glass, Viral Information Institute, San Diego State University
https://www.youtube.com/watch?v=mk-XjOnF5kY

JUNE & HAROLD GRANT MEMORIAL SCHOLARSHIP (2017)
San Diego State University

SHILEY LIFE SCIENCES SCHOLARSHIP IN BIOLOGY (2017)
San Diego State University

1ST PLACE POSTER PRESENTATION (2015)
"Single Cell Sequencing Validation and Application in Immunology"
Annual Retreat, La Jolla Institute for Allergy & Immunology

ASSOCIATED STUDENT BODY PRESIDENT (2009)
Mt. San Antonio College

STUDENT LEADER SCHOLARSHIP (2009)
Mt. San Antonio College

## POSTERS & PRESENTATIONS

GRADUATE STUDENT SEMINAR PRESENTATION (2018)
"Shifting Seas: Measuring Metabolic Shifts in Dynamic Microbial Communities"
Department of Biology, San Diego State University

STUDENT RESEARCH SYMPOSIUM (2018)
"Filtering Out the Bad from the Good: Sponge Effects on Coral Reef Microbes."
White B.*, Goodman A.Z.*, Johri. S., Morris M., Doane M., Pande D., de Wardt R., Lima L., Edwards R., de Goeij J., Dinsdale E. (* equal contribution)

## ASSOCIATION MEMBERSHIPS

AMERICAN ACADEMY OF UNDERWATER SCIENCES (2017 - )
SAN DIEGO STATE UNIVERSITY GREEN COMMISSION (2016 - 2017)

## PROFESSIONAL EXPERIENCE

RESEARCH TECHNICIAN II (2014 - 2016)
Lab of Vijay Pandurangan, M.D., Ph.D.; Division of Vaccine Discovery
La Jolla Institute for Allergy & Immunology
*Research Aims*: Single cell transcriptional profiling of immune cells from subjects with Asthma and Allergic Rhinitis. Characterization of molecular mechanisms that regulate inflammation in macrophages from subjects with Systemic Lupus Erythematosus.
*Relevant Skills*: Single-cell RNA isolation, library preparation, next-generation sequencing and gene expression analysis.

RESEARCH ASSOCIATE (2011 - 2014)
Lab of Diana Price, Ph.D.; Neurosciences & In Vivo Pharmacology Program
Neuropore Therapies, LLC
*Research Aims*: Effects of Novel Small Molecules on Oligomeric Alpha-synuclein in Murine Models of Parkinson's Disease.
*Relevant Skills*: Behavior testing of sensory, memory and motor abilities α-syn overexpressing mice, tissue harvesting and immunohistochemistry.

UNDERGRADUATE RESEARCHER (2009 - 2011)
Lab of Eliezer Masliah, M.D.; Department of Neurosciences
University of California, San Diego
*Research Aims*: Behavioral testing and characterization of Murine models of Neurodegenerative Disease.

FIELD RESEARCH ASSISTANT (2011, 2016)
Lab of David Holway, Ph.D.; Department of Biology
University of California, San Diego
*Research Aims*: Effects of the invasive Argentine ant on cotton crop yield. Climate change effects on nectar production and visitation by pollinators of squash.

FIELD ASSISTANT (2010)
Lab of Wakoli Wakesa, Ph.D.; Vector Ecology Laboratory
Department of Public Health, San Bernardino County, California
Screening for West Nile Virus and Zoonotic Disease.

VOLUNTEER ANIMAL KEEPER (2010)
Los Angeles Zoo and Botanical Garden
*Research Aims*: Alterations in corticosteroid levels in urine okapi males housed in proximity.
*Relevant Skills*: Enrichment, health and behavioral assessment of primates and ungulates.

## PUBLICATIONS

Schmiedel BJ, Singh D, Madrigal A, Valdovino-Gonzalez AG, White BM, Zapardiel-Gonzalo J,1 Ha B, Altay G, Greenbaum JS, McVicker G, Seumois G, Rao A, Kronenberg M, Peters B, Vijayanand P. Impact of Genetic Polymorphisms on Human Immune Cell Gene Expression. *Cell*. 2018:1701-1715. doi:10.1016/j.cell.2018.10.022.

Seumois G, Zapardiel JM, White B, Dillon M, Hinz D, Sette A, Peters B, Vijayanand P. Transcriptional profiling of T cells identifies distinct features associated with asthma and allergic rhinitis. *Journal of Immunology* 2016 Jul15;197(2):655-64.

Engel I, Seumois G, Chavez L, Chawla A, White B, Mock D, Vijayanand P, Kronenberg M. Innate-like functions of natural killer T cell subsets result from highly divergent gene programs. *Nature Immunology* 2016 Jun;17(6):728-39.

Hinz D, Seumois G, White B, Gholami A, Lane A, Broide DH, Grey H, Schulten V, Sidney J, Bahkru P, Oseroff C, Wambre E, Kwok B, Peters B, Vijayanand P, Sette A. Lack of allergy to timothy grass pollen is not a passive phenomenon but is associated with allergen specific modulation of immune reactivity. *Clinical & Experimental Allergy* 2016 May;46(5):705-19.