KIRK D. C. JENSEN, Ph.D.
Associate Professor
Department of Molecular and Cell Biology, School of Natural Sciences
University of California, Merced

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Merced, California

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Postdoctoral Fellow, Department of Biology, 2014

STANFORD UNIVERSITY SCHOOL OF MEDICINE
Ph.D. Department of Microbiology and Immunology, 2008

LA JOLLA INSTITUTE OF ALLERGY AND IMMUNOLOGY
M.S. University of California, San Diego, 2000

UNIVERSITY OF CALIFORNIA, SAN DIEGO
B.S. Department of Biology, **Magna Cum Laude**, 1999

RESEARCH

Associate Professor **2021-Present**
UNIVERSITY OF CALIFORNIA, MERCED, Merced, CA
Research focus: Host immunity to *Toxoplasma gondii*, and how *Toxoplasma* virulence factors manipulate host immune responses

- For the first time in a parasite, the GPI sidechain synthetic pathway was defined, called "PIGE" and "PIGJ", these *Toxoplasma* glycosyl-transferases build the Glc+GalNAc sidechain and discovered that the GPI sidechain regulates and prevents parasite virulence.
- Identified two distinct loci in the Collaborative Cross that regulate vaccine-induced immunity to *Toxoplasma* and cyst burden during chronic infection (unpublished).

Assistant Professor **2014-2021**
UNIVERSITY OF CALIFORNIA, MERCED, Merced, CA
Research focus: Host immunity to *Toxoplasma gondii*, and how *Toxoplasma* virulence factors manipulate host immune responses

- Discovered that *Nfkbid* is required for host immunity and B cell antibody responses to secondary infections with *Toxoplasma* using a genetic screen.
- Identified an NLRP3-dependent, inflammasome-independent pathway that promotes CD8 T cell IFNγ responses to *Toxoplasma*.

Post-Doctorate Work **2008-2014**
MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Cambridge, MA
Advisor: Dr. Jeroen Saeij, Department of Biology (Currently UC Davis)
Research focus: Host immunity to *Toxoplasma*, and how *Toxoplasma* virulence factors manipulate host immune responses

- Demonstrated that most parasite strains actively evade the immunological memory response elicited by chronic infection or vaccination and this requires parasite expression of the ROP5 pseudokinase.
- Elucidated how two polymorphic parasite effector proteins, GRA15 and ROP16, determine macrophage activation, M1 vs. M2.
- Determined that the parasite ROP16 effector kinase dampens intestinal inflammation and promotes host resistance after oral infection.
- Explored the genetic basis for different macrophage responses to cytokine stimulation and parasite infection.

Graduate Thesis **2001-2008**
STANFORD UNIVERSITY SCHOOL OF MEDICINE, Stanford, CA
Advisor: Dr. Yueh-hsiu Chien, Department of Microbiology & Immunology
Title: "*How Self Non-Self Discrimination Determines Two Pro-inflammatory Subsets of Lymphoid γδ T cells: T γδ -IFNγs and T γδ -IL-17s*"

- First description of how TCR- ligand engagement in the thymus generates two populations of cytokine producing γδ T cells- an "antigen-experienced" IFNγ- and an "antigen-naïve" IL-17-producing γδ T cell population.
- Determined that positive selection was not required for γδ T cell thymic development by analyzing non-classical MHC1b T22/T10-specific γδ T cells.
- Demonstrated that IL-17 producing γδ T cells respond days earlier than Th17 cells, thereby exacerbating disease in the mouse model of multiple sclerosis.

Master's Thesis **1998-2000**
UNIVERSITY OF CALIFORNIA, SAN DIEGO, La Jolla, CA
Advisors: Dr. Eli Sercarz, Dr. Raja-Gabaglia, La Jolla Institute for Allergy and Immunology (LIAI)
Title: "*In Search of a Peptide to Modify the Th2 Response Induced by LACK in the Model of Murine Leishmaniasis*"

- Elucidated the MHCII IA^d LACK 161-175 peptide register.
- Inferred that altered TCR-peptide contacts significantly change IFNγ and IL-4 production by *Leishmania*-specific CD4 T cells.

AWARDS

2022	School of Natural Sciences **Faculty Award for Undergraduate Research Mentoring**
2020	**Academic Senate Award for Distinguished Early Career Research**, UC Merced
2020	**Young Investigator Award** for Outstanding Oral Presentation, 59th Midwinter Conference of Immunologists
2017	**Hellman Fellow**
2015	"Best overall talk" Quantitative Systems Biology, Spring Retreat
2012-2014	Charles A. King Trust Postdoctoral Research Fellowship
2009-2012	**Postdoctoral Fellowship of the Cancer Research Institute** (Irvington)
2003-2006	NRSA Institutional Pre-doctoral Training Grant
2001-2003	Stanford Graduate Fellowship, Smith Fellow
1999	Phi Beta Kappa Society

FUNDING

2025-2027	**R21** AI188278 (**PI - Jensen**) *"Interrogating NFKBID dependent humoral immunity to Toxoplasma gondii"*
2025-2027	**R21** AI182890 (**PI - Jensen**) *"Defining novel susceptibility mechanisms to low virulence Toxoplasma gondii strains using the Collaborative Cross and parasite genetics"*
2024-2026	**R21** AI176186 (**PI - Jensen**) *"Targeting Conserved Molecular and Structural Features of Apicomplexans Towards a Rational Vaccine Design"*
2021-2022	3R01 AI137126-04S1 (**Supplement** to support diversity in biomedical research Ms. Posada) *"New requirements for immunity to parasitic pathogens - when vaccines work and why they fail"*
2019-2021	**R21** AI145403 (**PI - Jensen**) *"Using the Collaborative Cross to Discover New Requirements for Vaccine-Induced Immunity to T. gondii"*
2018-2024	**R01** AI137126 (**PI - Jensen**) *"New requirements for immunity to parasitic pathogens - when vaccines work and why they fail"*
2019-2020	R15 AI131027-01A1S1 (**Supplement** to support diversity in biomedical research - Mr. Rodriguez) *"Masters of immunology- how Toxoplasma gondii directly manipulates T cell activation"*
2019	Senate Committee On Research (COR) Faculty Research Award (UC Merced) (**Co-PI Jensen**)
2018-2021	**R15** AI131027 (**PI - Jensen**) *"Masters of immunology- how Toxoplasma gondii directly manipulates T cell activation"*
2017	Molecular and Cell Biology (MCB) seed grant (UC Merced) (**PI - Jensen**)
2017	Hellman Fellowship (**PI - Jensen**)
2015	Senate Committee On Research (COR) Faculty Research Award (UC Merced) (**PI - Jensen**)

PUBLICATIONS Julia A. Alvarez, Elisabet Gas-Pascual, Sahil Malhi, Juan C. Sánchez-Arcila, Ferdinand N. Njume, Hanke van der Wel, Yanlin Zhao, Laura García-López, Gabriela Ceron, Jasmine Posada, Scott P. Souza, George S. Yap, Christopher M. West, **Kirk D. C. Jensen**. The GPI sidechain of *Toxoplasma gondii* prevents parasite

pathogenesis. mBio, Published online Sep 20, 2024. doi:10.1128/mbio.00527-24. **Selected as Editor's Pick. See commentary in mBio Nov 13:e0274024; 2024.**

Diego A. López*, Kelly S. Otsuka*, April C. Apostol*, Jasmine Posada, Juan C. Sánchez-Arcila, **Kirk D. C. Jensen**, Anna E. Beaudin. Both maternal IFNγ exposure and acute prenatal infection with *Toxoplasma gondii* activate fetal hematopoietic stem cells. The EMBO Journal, e112693; 2023. *Co-first authors.

Angel K. Kongsomboonvech*, Laura García-López*, Ferdinand Njume, Felipe Rodriguez, Scott P. Souza, Alex Rosenberg, **Kirk D. C. Jensen.** Variation in CD8 T cell IFNγ differentiation to strains of *Toxoplasma gondii* is characterized by small effect QTLs with contribution from ROP16. Frontiers in Cellular and Infection Microbiology, 13:1130965; 2023. *Co-first authors.

Juan C. Sánchez-Arcila, **Kirk D. C. Jensen.** Forward genetics in Apicomplexa biology: the host side of the story. Frontiers in Cellular and Infection Microbiology, 12:878475; 2022.

Juan C. Sánchez-Arcila, **Kirk D. C. Jensen.** Parasites: Eviction notice served on *Toxoplasma*. eLife 2022; 11:e7624.

Scott P. Souza, Samantha D. Splitt, Juan C. Sánchez-Arcila, Julia A. Alvarez, Safuwra Wizzard, Jessica N. Wilson, Zheng Luo, Nicole Baumgarth, **Kirk D. C. Jensen**. Genetic mapping reveals *Nfkbid* as a central regulator of humoral immunity to *Toxoplasma gondii.* PLOS Pathogens, 17(12): e1010081; 2021. **See Research Spotlight in Trends in Parasitology, 38(4) 272-73; 2022.**

Genevieve N. Mullins, Kristen M. Valentine, Mufadhal Al-Kuhlani, Dan Davini, **Kirk D. C. Jensen**, Katrina K Hoyer. T cell signaling and Treg dysfunction correlate to disease kinetics in IL-2Rα-KO autoimmune mice. Scientific Reports. 2020 Dec 15;10(1):21994.

Angel K. Kongsomboonvech, Felipe Rodriguez, Anh L. Diep, Brandon M. Justice, Brayan E. Castellanos, Ana Camejo, Debanjan Mukhopadhyay, Gregory A. Taylor, Masahiro Yamamoto, Jeroen P. J. Saeij, Michael L. Reese, **Kirk D. C. Jensen.** Naïve CD8 T cell IFNγ responses to a vacuolar antigen are regulated by an inflammasome-independent NLRP3 pathway and *Toxoplasma gondii* ROP5. PLOS Pathogens;16(8):e1008327; 2020.

April C. Apostol, **Kirk D. C. Jensen,** Anna E. Beaudin. Training the Fetal Immune System Through Maternal Inflammation—A Layered Hygiene Hypothesis. Frontiers in Immunology, 11(123), 2020.

Samantha D. Splitt, Scott P. Souza, Kristen M Valentine, Brayan E. Castellanos, Andrew B Curd, Katrina K Hoyer, **Kirk D. Jensen.** PD-L1, TIM-3, and CTLA-4 blockade fail to promote resistance to secondary infection with virulent strains of *Toxoplasma gondii*. Infection and Immunity, 86(9): e00459-18; 2018. **Selected by the editors to be a Research Spotlight**: Infection and Immunity, DOI: 10.1128/IAI.00548-18.

Kirk D. Jensen. Antigen Presentation of Vacuolated Apicomplexans - Two Gateways to a Vaccine Antigen. Trends in Parasitology, 32(2):88-90; 2016.

Musa A. Hassan, **Kirk D. Jensen**, Vincent Butty, Kenneth Hu, Erwan Boedec, Pjotr Prins, Jeroen P. J. Saeij. Transcriptional and Linkage Analyses Identify Loci that Mediate the Differential Macrophage Response to Inflammatory Stimuli and Infection. PLOS Genetics, 11(10):e1005619; 2015.

Kirk D. C. Jensen*, Ana Camejo*, Mariane B. Melo, Cynthia Cordeiro, Lindsay Julien, Gijsbert M. Grotenbreg, Eva-Maria Frickel, Hidde L. Ploegh, Lucy Young, Jeroen J. P. Saeij. *Toxoplasma gondii* Superinfection and Virulence during Secondary Infection Correlate with the Exact ROP5/ROP18 Allelic Combination. mBio 24;6(2); 2015. *Co-first authors.

Musa A. Hassan, Vincent Butty, **Kirk D. C. Jensen**, and Jeroen P. J. Saeij. The genetic basis for individual differences in mRNA splicing and APOBEC1 editing activity in murine macrophages. Genome Research, 24(3):377-89; 2014.

Ana Camejo, Daniel A. Gold, Diana Lu, Kiva McFetridge, Lindsay Julien, Ninghan Yang, **Kirk D. C. Jensen**, Jeroen P. J. Saeij. Identification of three novel *Toxoplasma gondii* rhoptry proteins. International Journal for Parasitology, 44(2):147-60; 2014.

Kirk D. C. Jensen, Kenneth Hu, Ryan J. Whitmarsh, Musa A. Hassan, Lindsay Julien, Diana Lu, Lieping Chen, Christopher A. Hunter, Jeroen P. J. Saeij. *Toxoplasma* rhoptry kinase ROP16 promotes host resistance to oral infection and intestinal inflammation only in the context of the dense granule protein GRA15. Infection and immunity, 81(6): 2156-2167. **'Article of significant interest' selected by the editors, see Research Spotlight: Infection and Immunity, 81(6): 1859; 2013.**

Mussa A. Hassan, Mariane B. Melo, Brian Haas, **Kirk D. C. Jensen**, Jeroen P. J. Saeij. De novo reconstruction of the *Toxoplasma gondii* transcriptome improves on the current genome annotation and reveals alternatively spliced transcripts and putative long non-coding RNAs. BMC Genomics: 13:696; 2012.

Sebastian V. Winter, Wendy Niedelman, **Kirk D. Jensen**, Emily E. Rosowski, Lindsay Julien, Eric Spooner, Kacey Caradonna, Barbara A. Burleigh, Jeroen P. J. Saeij, Hidde L. Ploegh, Eva-Maria Frickel. Determinants of GBP Recruitment to *Toxoplasma gondii* Vacuoles and the Parasitic Factors That Control It. PLOS One 6(9): e24434; 2011.

Mariane B. Melo*, **Kirk D. C. Jensen***, and Jeroen P. J. Saeij. *Toxoplasma gondii* effectors are master regulators of the inflammatory response. Trends in Parasitology, 27(11):487-95; 2011. *Co-first authors.

Kirk D. C. Jensen, Yiding Wang, Elia D. Tait Wojno, Anjali J. Shastri, Kenneth Hu, Lara Cornel, Erwan Boedec, Yi-Ching Ong, Yueh-hsiu Chien, Chris A. Hunter, John C. Boothroyd, and Jeroen P. J. Saeij. *Toxoplasma* Polymorphic Effectors Determine Macrophage Polarization and Intestinal Inflammation. Cell Host & Microbe 9(6): 472-483; 2011**. Comments in: Cell Host & Microbe 9(6): 445-447; 2011**.

Emily E. Rosowski, Diana Lu, Lindsay Julien, Lauren Rodda, Rogier A. Gaiser, **Kirk D. C. Jensen**, Jeroen P.J. Saeij. Strain-specific activation of the NF-kappaB pathway by GRA15, a novel *Toxoplasma gondii* dense granule protein. Journal of Experimental Medicine 208(1):195-212; 2011.

Michael S. Kuhns, Andrew T. Girvin, Lawrence O. Klein, Rebecca Chen, **Kirk D. C. Jensen**, Evan W. Newell, Johannes B. Huppa, Björn F. Lillemeier, Morgan Huse, Yueh-hsiu Chien, K. Christopher Garcia, and Mark M. Davis. Evidence for a functional sidedness to the αβTCR. Proceedings of the National Academy of Sciences 107(11): 5094-5099; 2010.

Kirk D. C. Jensen*, Sunny Shin*, Yueh-hsiu Chien. γδ Intraepithelial lymphocytes of the small intestine are not biased toward thymic antigens. Journal of Immunology, **Cutting Edge,** 182(12): 7348-7351; 2009. *Co-first authors.

Kirk D. C. Jensen and Yueh-hsiu Chien. Thymic maturation determines γδ T cell function, but not their antigen specificities. Current Opinions in Immunology, 21(2):140-145, 2009.

Kirk D. C. Jensen, Eli Sercarz, Cluadia Raja-Gabaglia. Altered peptide ligands can modify the Th2 T cell response to the immunodominant 161-175 peptide of LACK (Leishmania homolog for the receptor of activated C kinase). Molecular Immunology 46(3): 366-374; 2009.

Kirk D. C. Jensen, Xiaoqin Su, Sunny Shin, Luke Li, Sawsan Youssef, Sho Yamasaki, Lawrence Steinman, Takashi Saito, Richard M. Locksley, Mark M. Davis, Nicole Baumgarth and Yueh-hsiu Chien. Thymic Selection Determines γδ T Cell Effector Fate: Antigen-Naive Cells Make Interleukin-17 and Antigen-Experienced Cells Make Interferon γ. Immunity 29(1): 90-100; 2008. **Comments in: Immunity 29(1): 3-5; 2008; Research Highlights: Nature Reviews Immunology 8, 574-575, 2008.**

ORAL PRESENTATIONS

Upcoming - **Kirk D. C. Jensen.** *Genetic Screens for Vaccines to Toxoplasma gondii.* INTERNATIONAL CONGRESS OF PARASITOLOGY (ICOPA), August 2026, Montreal, Canada.

Kirk D. C. Jensen. *Type II strains of Toxoplasma gondii are virulent in all subspecies of Mus musculus – What drives strain diversity?* 18TH INTERNATIONAL CONGRESS ON TOXOPLASMOSIS, June 2026, Búzios, Brazil.

Kirk D. C. Jensen. *mRNA Therapeutics to Protect Against Parasites and Other Threats.* LAWERENCE LIVERMORE NATIONAL LABS (LLNL), UC MERCED – LLNL BIOSCIENCES COLLABORATION WORKSHOP. February 2026, Livermore, CA.

Kirk D. C. Jensen. *Two-part lecture: #1 Toxoplasma gondii – A master regulator of our immune system; #2 The Host Fights Back - Genetic Screens for Vaccines Against Toxoplasma gondii.* MARINE BIOLOGICAL LABORATORY (MBL), Biology of Parasitism (BoP) summer course, July 2025, Woods Hole, MA.

Kirk D. C. Jensen. *Leveraging genetic screens and mRNA vaccines to protect against Toxoplasma gondii.* UNIVERSITY OF CALIFORNIA, MERCED, Quantitative Systems Biology (QSB) graduate program seminar series, October 2024, Merced, CA. Invited.

Kirk D. C. Jensen. *Genetic screens for vaccines against Toxoplasma gondii.* BRAZILIAN SOCIETY OF IMMUNOLOGY SPONSORED GRADUATE PROGRAM SEMINAR SERIES FOR THE UNIVERSITY OF SÃO PAULO (USP), FEDERAL UNIVERSITY OF RIO DE JANEIRO (UFRJ) AND FEDERAL UNIVERSITY OF UBERLÂNDIA (UFU), August 2024. *Virtual Speaker, Invited.

Kirk D. C. Jensen. The role of the GPI in *Toxoplasma gondii* pathogenesis and mRNA vaccines. 17TH INTERNATIONAL CONGRESS ON TOXOPLASMOSIS, May 2024, Berlin, Germany.

Kirk D. C. Jensen. *Genetic Screens for Vaccines against Toxoplasma gondii.* UNIVERSITY OF VIRGINIA SCHOOL OF MEDICINE, Division of Infectious Diseases & International Health, Infectious Disease and Global Biothreats Seminar Series, October 2023, Charlottesville, VA.

Kirk D. C. Jensen. *Regulation of Immunological Memory to Toxoplasma gondii.* XXXVIII ANNUAL MEETING OF THE BRAZILIAN SOCIETY OF PROTOZOOLOGY, September 2023, Caxambu, Brazil. *Panel Speaker, Invited.

Kirk D. C. Jensen. *Murine Genetic Screens for Vaccines Against Toxoplasma gondii.* FIOCRUZ, Seminar Series, August 2023, Rio De Janeiro, Brazil.

Kirk D. C. Jensen. *Forward Genetic Screens for Vaccines Against Toxoplasma gondii.* UNIVERSITY OF CALIFORNIA, IRVINE, Molecular Biology and Biochemistry Seminar Series, May 2023, Irvine, CA.

Kirk D. C. Jensen. *Regulation of Humoral Immunity to Toxoplasma gondii.* 106th ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF IMMUNOLOGISTS, May 2023, Washington D.C. Invited.

Kirk D. C. Jensen. *What Mouse Genetics Tell Us About Adaptive Immunity to Toxoplasma gondii.* 3RD GLOBAL VIRTUAL SYMPOSIUM ON TOXOPLASMOSIS, January 2023.

Kirk D. C. Jensen. *Acquired Immunity to Toxoplasma gondii as Revealed by Forward Genetics.* UNIVERSITY OF ARIZONA, COLLEGE OF MEDICINE, Immunobiology Seminar Series, September 2022, Tucson, AZ.

Kirk D. C. Jensen*. *Nfkbid-dependent B cell responses to Toxoplasma gondii -new interactions revealed by a genetic screen.* 59TH MIDWINTER CONFERENCE OF IMMUNOLOGISTS, January 2020, Asilomar, Pacific Grove, CA. ***Awarded a Young Investigator Award for Outstanding Oral Presentation.**

Kirk D. C. Jensen. *The naïve CD8 T cell IFNγ response is intersected by multiple T. gondii effectors and the host's inflammasome.* 15TH INTERNATIONAL CONGRESS ON TOXOPLASMOSIS & T. GONDII BIOLOGY, June 2019, Decameron Panaca, Quindío, Columbia.

Kirk D. C. Jensen. *Immunity to Toxoplasma gondii - new interactions revealed by genetic screens.* UNIVERSITY OF PENNSYLVANIA, SCHOOL OF VETERINARY MEDICINE, Parasitology Seminar Series. June 2019, Philadelphia, PA.

Kirk D. C. Jensen. *Immunity to Toxoplasma gondii - A Host-Parasite Perspective.* UNIVERSITY OF CALIFORNIA, DAVIS, HOST-PATHOGENESIS, Seminar Series. February 2019, UC Davis, Davis, CA.

Kirk D. C. Jensen. *Immunity to Toxoplasma gondii - A Host-Parasite Perspective.* UNIVERSITY OF CALIFORNIA, DAVIS, CENTER FOR COMPARATIVE MEDICINE, Seminar Series. December 2018, UC Davis, Davis, CA.

Kirk D. C. Jensen. *How to Hack the Immune System - A Parasite's Perspective.* SAINT EDWARDS UNIVERSITY, DEPARTMENT OF BIOLOGICAL SCIENCES, Seminar Series. March 2018, Austin, TX.

Kirk D. C. Jensen. *When vaccines work and why they fail - How Toxoplasma gondii virulence factors and host genetics intersect cells of the adaptive immune system.* AMERICAN SOCIETY OF PARASITOLOGISTS, Northern California Chapter, Yearly Meeting. December 2017, UC Davis, Davis, CA.

Kirk D. C. Jensen. *Toxoplasma gondii - A Parasite's Understanding of Adaptive Immunity*. CALIFORNIA STATE, FRESNO, DEPARTMENT OF BIOLOGY, Seminar Series. October 2016, Fresno, CA.

Kirk D. C. Jensen. *Toxoplasma* superinfection through *ROP5/ROP18* and its potential impact on strain diversity. 13TH INTERNATIONAL CONGRESS ON TOXOPLASMOSIS & T. GONDII BIOLOGY, June 2015, Gettysburg, PA.

Kirk D. C. Jensen. *Toxoplasma Gondii* a Master Regulator of Host Immunity. UNIVERSITY OF HAWAII, SCHOOL OF NATURAL SCIENCES, Department of Microbiology Seminar Series, May 2014, Honolulu, HI.

Kirk D. C. Jensen. *Toxoplasma Gondii* a Master Regulator of Host Immunity. UNIVERSITY OF CALIFORNIA, MERCED, SCHOOL OF NATURAL SCIENCES, Division of Molecular & Cell Biology Seminar Series, March 2014, Merced, CA.

Kirk D. C. Jensen. *Toxoplasma Gondii* a Master Regulator of Host Immunity. HARVARD UNIVERSITY SCHOOL OF MEDICINE, Department of Microbiology and Immunobiology Seminar Series, October 2013, Boston, MA.

Kirk D. C. Jensen. *Toxoplasma Gondii* a Master Regulator of Host Immunity. LOMA LINDA UNIVERSITY SCHOOL OF MEDICINE, Department of Biological Science Seminar Series, October 2013, Loma Linda, CA.

Kirk D. C. Jensen, Ana Camejo, Mariane B. Melo, Cynthia Cordeiro, Gijs M. Grotenbreg, Lucy Young, Jeroen P. J. Saeij. Atypical Strains of *Toxoplasma Gondii* Can Evade the Immunological Memory Response. MOLECULAR PARASITOLOGY MEETING XXIV, September 2013, Marine Biological Laboratory, Woods Hole, MA.

Kirk D. C. Jensen, Ana Camejo, Mariane B. Melo, Cynthia Cordeiro, Gijs M. Grotenbreg, Lucy Young, Jeroen P. J. Saeij. Atypical Strains of *Toxoplasma Gondii* Can Evade the Immunological Memory Response. WOODS HOLE IMMUNO-PARASITOLOGY (WHIP) 17th ANNUAL MEETING, April 2013. Marine Biological Laboratory, Woods Hole, MA.

Kirk D. C. Jensen, Emily E. Rosowski, Diana Lu, Lindsay Julien, Lauren Rodda, Rogier A. Gaiser, Jeroen Saeij. Two Polymorhpic *Toxoplasma* Proteins Determine Strain-Specific Modulation of the Host Inflammatory Response. MOLECULAR PARASITOLOGY MEETING XXI, September 2010, Marine Biological Laboratory, Woods Hole, MA.

Kirk D. C. Jensen. The Misunderstood Lymphocyte, How 'Self Non-Self Discrimination' Determines the Pro-Inflammatory Response of γδ T Cells. TORREY PINES INSTITUTE FOR MOLECULAR STUDIES Seminar Series, June 2008, La Jolla, CA.

Kirk D. C. Jensen. The Shaping of the γδ TCR Repertoire. 2006 γδ T CELL CONFERENCE, March 2006, Salk Institute, San Diego, CA.

PUBLICITY

UC Merced Newsroom, "B Cell Study Indicates Promising Direction for Anti-parasitic Vaccines", February 1, 2022.
https://news.ucmerced.edu/news/2022/b-cell-study-indicates-promising-direction-anti-parasitic-vaccines

UC Merced Magazine, "Having Coffee with Kirk Jensen", pg. 15, Spring 2016.

https://issuu.com/ucmerced/docs/uc_merced_magazine__spring_2016

Merced Sun Star, Fresno Bee, Modesto Bee, Central Valley Business Times, "UC Merced research discovers increased dangers from parasite", February 24, 2015.
http://www.mercedsunstar.com/living/health-fitness/article11118875.html
http://www.fresnobee.com/2015/02/24/4396020_uc-merced-research-discovers-increased.html?rh=1
http://www.modbee.com/news/article11126027.html
http://www.centralvalleybusinesstimes.com/stories/001/?ID=27822

"Top of Mind" with Julie Rose, live interview on BYU radio originally aired April 2, 2015.
http://www.byuradio.org/episode/2cc69e79-38ee-496b-bda1-b4aad17278cd?playhead=2383&autoplay=true

TEACHING

Instructor of Record
UNIVERSITY CALIFORNIA, MERCED
Molecular Immunology (BIO 151) Fall 2016, 2018*, 2021*, 2022*, 2023*, 2024, 2025, 2026, Spring 2016, 2018*, 2019, 2021*, Summer 2021*, 2023 (advisor)
Molecular Immunology Lab (BIO 151L) Fall 2016, 2018, 2022, 2023, 2024, 2025, Spring 2018, 2019, Summer 2023
Human Parasitology (BIO 123) Spring 2015, 2016, 2017, Fall 2019, 2020
Introduction to Molecular Biology (BIO 2) Spring 2023*
Upper Division Undergraduate Research (BIO 195) Fall 2017, 2019, Spring 2016, 2017, 2019, 2021, 2025, 2026, Summer 2023
Topics in Immunology (QSB 298) Spring 2022
**Co-taught courses*

Guest Lecturer
UNIVERSITY CALIFORNIA, MERCED
Spring 2015, 2017 ***Microbial Pathogenesis*** (BIO 122)
Spring 2016 ***Advanced Molecular Immunology*** (QSB 295)

MENTORSHIP

Current Research Mentor, role PI
UNIVERSITY CALIFORNIA, MERCED, School of Natural Sciences
August 2019 – Current: **Project Staff Scientist**, Juan Camilo Sánchez-Arcila, Ph.D.
August 2021 – Current: **Ph.D. candidate**, Laura García-López
March 2026 – Current: **Ph.D. pre-candidate** Jamila Situ
July 2026 – Current: **Master's program,** Jose Arce Lopez
June 2025 – Current: **Undergraduate researcher**, Aades Dhillon
June 2025 – Current: **Undergraduate researcher**, Marissa Lopez

Past Research Mentor, role PI
UNIVERSITY CALIFORNIA, MERCED, School of Natural Sciences
2025 – 2026: Ph.D. program, Jake Velen
Current: **Pepperdine Law School**
2026: Undergraduate researcher, Hannah Bautista
Current: Applying to medical laboratory scientist programs
2024 – 2025: Undergraduate researcher, Christina Bui-Thach
Current: **Medical assistant**, applying to medical schools
2023 – 2024: Undergraduate researcher, Siraj Tej
Current: Undergraduate student, UC Merced
2022 – 2024: Undergraduate researcher, Sahil Malhi
Current: **UCSF Medical School**
2022 – 2024: Undergraduate researcher, Neel Kaushik
Current: Applying to medical schools
2024: Undergraduate researcher, Opportunities Fellowship Program, Suri Garcia
Current: **UC Merced, Undergraduate**
2018 – 2023: Ph.D. Graduate, Dr. Julia Alvarez

Current: **Assistant Teaching Professor, Medical Education Department, UC Merced**
2021 – 2023: Undergraduate researcher, Arlon Wizzard
Current: **Ph.D. candidate, University of Pennsylvania, Immunology Program**
2021 – 2023: Undergraduate researcher, Gabriela Ceron
Current: **Alivamab**
2020 – 2023: Postdoctoral Scientist, Ferdinand Njume, Ph.D.
Current: **Staff scientist, University of Liverpool**
2022 – 2023: Undergraduate researcher, Ahmadzakaria Arjmand
Current: Applying to Medical School
2021 – 2023: Undergraduate Researcher, Rachel Szymanski
Current: **Research Associate I, Metagenomi**
2022 – 2023: Undergraduate Researcher, Litzy Lemus
Current: **Phlebotomist**, applying to clinical laboratory scientist programs
2022: High school student researcher, Essey Afewerki
Current: **Undergraduate BS/MS Student, Yale University**
2020 – 2022: Undergraduate Researcher, Senior Research Associate 1, Jasmine Posada
Current: **Ph.D. candidate, UC Irvine**
2020 – 2022: Co-advised Ph.D. Graduate, Dr. April Apostol (co-mentored, Dr. Beaudin)
Current: **Custom Application Scientist, Becton and Dickinson**
2020 – 2022: Undergraduate researcher, Mary (Mindy) Fernandez
Current: **Ph.D. candidate, UC Davis**
2020 – 2021: Undergraduate researcher, Cieanna Vongsa
Current: **MPH Candidate at Brown University**
2020 – 2021: Undergraduate researcher, Alex Jeronimo
Current: **Manufacturing Associate, BioMarin Pharmaceutical Inc.**
2016 – 2021: Ph.D. Graduate, Dr. Scott Souza
Current: **Research Analysist, Becton and Dickinson**
2019 – 2021: Undergraduate researcher, Brooke Wilson
Current: Applying to medical school
2019 – 2021: Undergraduate researcher, Jennifer Eggleston
Current: **Scientific Manager, Curia**
2015 – 2020: Ph.D. Graduate, Dr. Angel Kongsomboonvech
Current: **Research Scientist, Stanford University, School of Medicine**
2017 – 2020: Undergraduate researcher, Senior Research Associate 1, Dr. Felipe Rodriguez
Current: **US Department of Agriculture (USDA), Agriculture Research Service (ARS)**
2019 –2020: Undergraduate researcher, Safuwra Wizzard
Current: **Ph.D. candidate, UT Southwestern**
2019 –2020: Undergraduate researcher, Darian Galvez
Current: **Emergency Trauma Tech**
2017 – 2019: Masters Graduate, Dr. Jessica Wilson
Current: **Chemometec**
2015 – 2017: Masters Graduate, Samantha Splitt
Current: **Scientist Flow Cytometry, Precision For Medicine**
2015 – 2017: Undergraduate researcher, Brandon Justice
Current: **Research Associate II, Metagenomi**
2015 – 2017: Undergraduate researcher, Brayan Castellanos
Current: **Research and Development Scientist (advanced), Agilent Technologies**
2015 – 2017: Undergraduate researcher, Dr. Anh Diep
Current: **California's National Resources Agency, Science Fellow**
2016 – 2017: Undergraduate researcher, Andrew Curd
Current: **Acubed**
2015 – 2016: Laboratory Assistant 1, Dr. Tina Truong
Current: **Medical Science Liaison, Bristol Myers Squibb**
2014 – 2015: Senior Research Associate 1, Marie True
Current: **Laboratory Director, FESA Labs**

Past Research Mentor, role Postdoctoral Investigator

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Department of Biology
2010 Master's candidate, Erwan Boedec
Current: **Technical Manager INSERM, University of Paris Diderot**
2009-2011 Undergraduate researcher, Kenneth Hu
Current: **Assistant Professor, Department of Immunology, MD Anderson**

Past Research Mentor, role Graduate Student Researcher
STANFORD UNIVERSITY SCHOOL OF MEDICINE
2003-2007 High school and undergraduate researcher, Luke Li
Current: **Physician in Psychiatry, US Air Force**
2005 Undergraduate researcher, Neal Vora
Current: **Product Manager, Carvana, CA**
2005 Undergraduate researcher, Ramy El-Diwany
Current: **Transplant and Hepatobiliary Surgeon, University of Iowa**

Current Thesis Committee Member
Seth Durant, Ph.D. candidate
Jazmin Reyes Servin, Ph.D. candidate
Adeola Fagbayibo, Ph.D. candidate
Den Lipata, Ph.D. candidate

Past Thesis Committee Member
Bailey-J Sanchez, Ph.D. 2025
Christian Burns, Ph.D. 2025
Taylor-J Sanchez, Ph.D. program 2019-2024
Ambarish Varadan, Ph.D. 2024
Nadia Delgadillo Miranda, Ph.D. 2024
Susana Tejeda-Garibay, Ph.D. 2024
Christi Waer, Ph.D. 2023
Oscar Davalos, Ph.D. 2023
Nimra Khurram, Masters 2023
Morgan Quail, Ph.D. 2022
Craig Ennis, Ph.D. 2021
Ashley Valle Arevalo, Ph.D. 2021
Thaddeus Seher, Ph.D. program 2015 - 2021
Genevieve Mullins, Ph.D. 2021
Clement Laksana, Masters 2021
Diego Lopez, Ph.D. program 2018 - 2020
Kathryn Fischer, Ph.D. 2020
Kristen Valentine, Ph.D. 2019
Manish Thiruvalluvan, Ph.D. 2018
Seung Bum Park, Ph.D. 2015
Su-Chen Hung, Ph.D. 2016
Phuong Bui, Masters 2016
Shahrukh Syed, Masters program 2017

TRAINEE AWARDS

Laura García-López	"**Dr. Donald and Effie Godbold Fellowship**" UC Merced, 2026.
Laura García-López	"**Graduate Dean's Dissertation Fellowship"** spring 2026 (1 per semester, per QSB graduate program), Graduate Division, UC Merced.
Juan Sánchez-Arcila	**"Molecular Cell Biology (MCB) Award for Excellence in Postdoctoral Research"**, University of California, Merced, Department of Molecular and Cell Biology, 2025
Laura García-López	"**Molecular Cell Biology (MCB) Award for Excellence in Graduate Research"** University of California, Merced, Department of Molecular and Cell Biology, 2024
Laura García-López	"**BioLegend Young Investigator Travel Award for Poster Presentations"** (4 out of 127), Midwinter Conference of Immunologists, Asilomar, CA, 2024
Laura García-López	"**AAI Oral Presentation Award for Second Best Talk"** (out of 38), Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2023

Juan Sánchez-Arcila	**"Travel Award for Selected Abstracts for Oral Presentation"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2023
Juan Sánchez-Arcila	**"Young Investigator Award"** for outstanding oral presentation, BioLegend. Midwinter Conference of Immunologists, Asilomar, CA, 2023
Julia Alvarez	**"Burroughs Wellcome Travel and Registration Award for Selected Abstracts"** American Society for Tropical Medicine and Hygiene (ASTMH), Invited Talk, Seattle, WA, 2022
Julia Alvarez	**"Best Poster Award",** 16th International Toxoplasma Congress, Riverside, CA, 2022
Laura García-López	**"Miguel Velez Fellowship"**, University of California, Merced, 2022-23
Julia Alvarez	**"AAI Oral Presentation Award for Second Best Talk"** (out of 39). Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2022
Juan Sánchez-Arcila	"**Burroughs Wellcome Travel and Registration Award for Selected Abstracts"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2022
Julia Alvarez	**"Burroughs Wellcome Travel and Registration Award for Selected Abstracts"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2022
Laura García-López	**"International Cytokine & Interferon Society (ICIS) Young Investigator Travel Award"**, Midwinter Conference of Immunologists, 2022
Juan Sánchez-Arcila	**"Molecular Cell Biology (MCB) Award for Excellence in Postdoctoral Research"**, University of California, Merced, Department of Molecular and Cell Biology, 2021
Julia Alvarez	**"Burroughs Wellcome Travel and Registration Award for Selected Abstracts"** American Society for Tropical Medicine and Hygiene (ASTMH), 2020
Angel Kongsomboonvech	**"Presidents Dissertation Year Fellowship"** from UC Merced, 2020-2021
Julia Alvarez	**"Travel Award for Selected Abstracts for Oral Presentation"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2020
Julia Alvarez	**"Honorable Mention"** NSF Predoctoral Fellowship (GRFP), 2019
Scott Souza	**"Travel Award for Selected Abstracts for Oral Presentation"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2019
Angel Kongsomboonvech	**"Distinguished Graduate Student Fellowship"** from the School of Natural Sciences, 2017-2018
Angel Kongsomboonvech	**"AAI Young Investigators Award for Outstanding Oral Presentation"** Woods hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2018
Scott Souza	**"AAI Young Investigators Award for Outstanding Poster Presentation"** Woods Hole Immuno-Parasitology Meeting (WHIP), Woods Hole, MA, 2018
Felipe Rodriguez	**"Honorable Mention"** Poster Presentation in the Immunology section at the 43rd Annual West Coast Biological Sciences Undergraduate Research Conference, St. Mary's College, 2018
Felipe Rodriguez	**"High Honors"** Poster Presentation, UC Leads Conference, UC Santa Barbara, 2018
Julia Alvarez	**"Best Poster"** UC Merced Research Week, 2018
Felipe Rodriguez	**"Best Poster"** UC Merced Research Week, 2018
Brandon Justice	**"2nd Place Poster Presentation"** 18th Annual Microbiology Student Symposium, UC Berkeley, 2017
Anh Diep	**"Best Talk"** Microbiology and Immunology section, 42nd Annual West Coast Biological Sciences Undergraduate Research Conference, Santa Clara University, 2017
Samantha Splitt	**"Honorable Mention"** NSF Predoctoral Fellowship (GRFP), 2016

UNIVERSITY SERVICE

School of Natural Sciences (SNS) and Molecular & Cell Biology (MCB) Departmental Service

MCB Department Chair, 2023 - 2026
Natural Science Executive Committee, 2023-2024
MCB Budget Committee, **Chair** (inaugural chair), 2022-2023
MCB Awards Committee 2015 - 2023, **Chair** 2017 - 2023
Faculty Search Committee Full Professor in Immunology 2020-2022
Faculty Search Committee Infectious Disease 2019
Faculty Search Committee Immunology 2016
Faculty Search Committee Infectious Disease 2016
Molecular and Cell Biology Case analyses 2020, 2021, 2022

Guest speaker to raise support for the "Faculty Research Fund" 2015
Biology Major Assessment Committee (PLO5) 2015

Quantitative Systems Biology (QSB) Graduate Program
Chair of Admissions (inaugural chair) and QSB Executive Committee Member 2015-2018

University
Advisory Committee Stem Cell Instrumentation Foundry (SCIF) 2015 - Present
Health Sciences Research Institute (HSRI), Executive Committee, 2020 - 2023
Faculty Review Panel - Graduate Division's 2023 Adelante Hispanic Serving Institutions (HSI) Future Faculty Bootcamp
Faculty Panel - Academic Workshop Series, Graduate Division, "How to write a research statement", 2020
Faculty Panel - Advice on Graduate School Admissions, Undergraduate Research Opportunity Center (UROC), UC Merced, June 2018
Lab tours and ad hoc speaking for the Board of Trustees, UC Merced 2015, 2016
Fiat Lux - Faculty reception and roundtable with Fiat Lux scholars, UC Merced 2018, 2023
HHMI-sponsored student-faculty dinner "What's your story", UC Merced 2019

PROFESSIONAL SERVICE

Journal Editor
Editor, Infection and Immunity, Minireview editor, 2024 - 2029
Associate Editor, Frontiers in Cellular and Infection Microbiology, Host-Parasite section, 2018 – 2025

Council Member
Elected, Council of the Midwinter Conference of Immunologists, 2020 – Present

NIH Review Panel
ZRG1 CDB-M (02) M 2023
(IDM) Integrated Review Group (IRG), ZRG1 IDM-S (83) 2020

Journal Editor, *special collection, invited*
Editorial Board, Frontiers in Cellular and Infection Microbiology, Host-Parasite section, special collection, "*Toxoplasma gondii*-Host Interactions: A Story of Immune Attack and Parasite Counterattack", 2018-2019

Journal Referee, *ad hoc*
mSphere 2026
Nature Communications 2023
eLife 2021, 2022
Cell Reports 2015
Scientific Reports 2015, 2025
PLOS Genetics 2016
European Journal of Immunology 2016
PLOS Pathogens 2019, 2020, 2021, 2022, 2024
Trends in Parasitology 2019
iScience 2019
Frontiers in Immunology 2019, 2021
Frontiers in Microbiology 2023
Infection and Immunity 2020, 2021, 2022
mBio 2020, 2023
Parasite Immunology 2021
Microbial Pathogenesis 2021

Conferences
Woods Hole Immunoparasitology **(WHIP) Lead-organizer, 2025**
Co-chair (Session, Immunology of Acute & Chronic Infection), 17th International Toxoplasma Congress, Berlin, Germany, 2024
Woods Hole Immunoparasitology **(WHIP) Co-organizer, 2024**
Co-chair (5th Session), Woods Hole Immunoparasitology (WHIP) Meeting, Woods Hole, MA, 2023

Woods Hole Immunoparasitology (WHIP) Webinar Selection Committee, 2023
Co-chair (Session, Innate Immunity) 16th International Toxoplasma Congress, Riverside, CA, 2022
Co-chair (3rd Session), Woods Hole Immunoparasitology (WHIP) Meeting, Woods Hole, MA, 2022
Moderator (Oral Poster Presentation Session), Midwinter Conference of Immunologists, Asilomar, CA, 2020
Chair (7th Session, Host-Pathogen), 15th International Toxoplasma Congress, Decameron Panaca, Quindío, Columbia, 2019
Chair (7th Session), Woods Hole Immunoparasitology (WHIP) Meeting, Woods Hole, MA, 2018

Courses
Biology of Parasitism (BoP) summer course, Faculty Participant (Lecturer), Marine Biology Laboratory (MBL), Woods Hole, MA, 2025

COMMUNITY ENGAGEMENT AND OUTREARCH

Modesto Area Partners in Science (MAPS) lecture, "Vaccines for Parasites – can we do it?" March 20, 2026
Class lecture "How I got into science" and lab tours, 5th and 6th grade, St. Paul's, 2025
Lecture for the **Annual Academic Decathlon Lecture Day**, Madera Unified School District 2017
Dinner With A Scientist (DWAS), Merced City School District 2017
Lab Tours, Peterson Elementary School 2017
Basketball Head Coach (Upwards, Merced), 3rd - 4th grade 2017, 2020; 5th - 6th grade 2018, 2019

ARTISTIC CONTRIBUTIONS

Guest Musician - **Violinist**, Songs of Spring, GLOBAL ARTS STUDIES PROGRAM, UC MERCED, SPRING RECITAL, April 2018, Merced Multicultural Arts Center (MAC), Merced, CA