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## LICENSURE AND CERTIFICATIONS

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2022	<b>American Board of Internal Medicine</b> <i>Infectious Diseases</i> Subspecialty Certification
2020	<b>American Board of Internal Medicine</b> <i>Internal Medicine</i> Certification
2018 - present	<b>Medical Board of California</b> Physician and Surgeon A License A 159271
2018 - present	<b>DEA Registered Practitioner</b>

## EMPLOYMENT

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July 2023 – present	<b>Associate Physician</b> University of California San Diego Health Department of Medicine Division of Infectious Diseases and Global Public Health San Diego, California
February 2024 – present	<b>Instructor</b> Crotty Lab La Jolla Institute for Immunology La Jolla, California
March 2020 – February 2024	<b>Postdoctoral Fellow</b> Crotty Lab La Jolla Institute for Immunology La Jolla, California

## EDUCATION

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July 2019 – June 2023	<b>University of California San Diego</b> San Diego, California Infectious Diseases Fellowship Physician Scientist Training Program
June 2017 - June 2019	<b>University of California San Diego</b> San Diego, California Internal Medicine Residency

	Physician Scientist Training Program
August 2008 - June 2017	<b>University of Texas Medical Branch</b> Galveston, Texas Doctor of Medicine Doctor of Philosophy MD-PhD Combined Degree Program
August 2002 - May 2008	<b>California State University Sacramento</b> Sacramento, California Bachelor of Science, Biological Sciences Microbiology and Molecular Biology concentrations Chemistry minor <i>Summa cum laude</i>

## SELECTED HONORS & AWARDS

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2024	<b>Burroughs Wellcome Fund Career Award for Medical Scientists</b> A highly competitive career development award for physician-scientists dedicated to an academic career (\$700,000 over five years); 115 applicants and 13 awardees for 2024
2024	<b>NIAID Physician Scientist K99/R00 Pathway to Independence Award (Declined)</b> Related to antigen-specific human upper airway immunity. Declined due to simultaneous receipt of BWF CAMS award and BWF stipulation that I could not hold both awards.
2023	<b>Physician Scientist Training Program Pilot Award</b> \$20,000 award to fund single cell RNA sequencing experiments
2021-2024	<b>A.P. Giannini Postdoctoral Research Fellowship and Leadership Award</b> A highly competitive fellowship awarded to up to 8 applicants annually to fund innovative research that advances the translation of biomedical sciences (up to \$175,000 in salary support over 3 years)
2020-2023	<b>NIH NIAID T32 CHARM Training Grant</b> Post-doctoral support for work investigating adaptive immunity to SARS-CoV-2 in the laboratory of Shane Crotty, PhD at the La Jolla Institute for Immunology PI: Victor Nizet, MD
2015-2016	<b>Blocker Scholar Fellowship in Biomedical Research</b> Academic scholarship awarded for scholastic performance and potential for future achievement in biomedical research
2014-2015	<b>School of Medicine Joseph Ferrell York and Mary Belle York Memorial Scholarship</b> Academic scholarship awarded for scholastic performance
2014-2015	<b>School of Medicine Harry and Margaret Kelso Endowed Blocker Scholarship</b> Academic scholarship awarded for scholastic performance and potential for future achievement in biomedical research.
2014	<b>American Society for Virology (ASV) Student Travel Grant</b> Competitive travel award for oral presentation at annual ASV meeting
2013	<b>Edward S. Reynold's Award</b>

- Awarded for poster presentation at Department of Pathology's 19<sup>th</sup> Annual Research Day
- 2012 **Edward S. Reynold's Award**  
Awarded for poster presentation at Department of Pathology's 18<sup>th</sup> Annual Research Day
- 2010-2012 **NIH NIAID T32 Biodefense Training Grant**  
Competitive research grant for Rift Valley fever vaccine research  
PI: Scott Weaver, PhD
- 2009 **School of Medicine Truman Graves Blocker Jr. Research Scholarship**  
Academic scholarship awarded for scholastic performance, with travel funds
- 2009 **Fogarty International Research Fellowship Award, UTMB**  
Competitive award to conduct basic science research abroad—conducted research on TB/HIV co-infection at the Alexander von Humboldt Tropical Medicine Institute at the Peruvian University Cayetano Heredia (Instituto de Medicina Tropical, Universidad Peruana Cayetano Heredia), Lima, Peru

## NIH GRANT WRITING EXPERIENCE

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- 2025 **K08 Mentored Clinical Scientist Research Career Development Award, NIAID**  
**Project Title:** Human upper airway immune memory kinetics and durability against respiratory pathogens  
**PI:** Sydney I. Ramirez, MD, PhD; Instructor, Crotty Lab, La Jolla Institute for Immunology; Associate Physician, UCSD, Department of Medicine, Division of Infectious Diseases  
**Faculty Advisor:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**First submission Impact Score: 25**
- 2025 **Cooperative Centers for Human Immunology (CCHI) IOF, NIAID - Awarded**  
**Project Title:** Implications of alterations in human upper airway mucosal immunity in inflammatory disease  
**PI:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**Key Personnel:** Sydney I. Ramirez, Farhoud Faraji, Carolyn Rydyznski Moderbacher  
**Description:** The application was co-written by the key personnel who will lead this one-year project. This one-year funding opportunity will be utilized to examine human mucosal immunity in the context of localized (chronic rhinosinusitis) and systemic (systemic lupus erythematosus) inflammatory disorders to evaluate whether mucosal sampling may translate into improved clinical diagnosis and management. This proposal received the best score for all CCHI IOF submissions.
- 2024 **Cooperative Centers for Human Immunology (CCHI) U19, NIAID - Awarded**  
**Project Title:** Human immune memory to COVID-19, vaccines, and respiratory pathogens  
**PI:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**Project 1 Title (Crotty Lab):** Implications of long germinal centers (GC) for T and B cell memory and mucosal immunity  
**Description:** Wrote significant portions of Project 1 and provided preliminary data focused on studying adaptive immunity, mucosal immunity, and the impact of long germinal centers on

immune memory. Also contributed to other key components of the collaborative portion of this grant proposal. Project 1 received the best score for all CCHI projects. The overall score for the proposal was the best for all 2024 CCHI grant submissions.

- 2024 **R01, NIAID - Awarded and Declined**  
**Project Title:** Implications of long germinal centers for T and B cell memory and upper airway immunity  
**First submission Impact Score: 20, Percentile: 4**  
**PI:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**Description:** Co-wrote and contributed preliminary data for this R01 focused on human upper airway immune memory, which was declined due to overlap with CCHI U19.
- 2024 **K99/R00 Physician-Scientist Pathway to Independence Award, NIAID - Declined**  
**Project Title:** Upper airways adaptive immune memory in humans against respiratory pathogens  
**PI:** Sydney I. Ramirez, MD, PhD; Instructor, Crotty Lab, La Jolla Institute for Immunology; Assistant Physician, UCSD, Department of Medicine, Division of Infectious Diseases  
**Faculty Advisor:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**First submission Impact Score: 22**  
**Description:** NIAID offered to fund this award, but I was required to decline due to being unable to hold both a BWF CAMS and K99/R00 per a BWF stipulation.

## SELECTED RESEARCH

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- 2020-Present **Post-Doctoral/Instructor Research Projects:**  
**PI:** Shane Crotty, PhD; Professor, La Jolla Institute for Immunology; Adjunct Professor, UCSD, Department of Medicine  
**Project Title:** Human adaptive immune memory to SARS-CoV-2 in COVID-19  
**Project Description:** Research examining human adaptive immune memory to SARS-CoV-2/COVID-19 with an emphasis on the generation and maintenance of antigen-specific T cells in multiple distinct immunologic contexts including (i) acute COVID-19 including breakthrough infection, (ii) convalescent COVID-19, (iii) monoclonal antibodies or other immunomodulatory therapies, with examination of mucosal versus circulating immunity.
- Project Title:** Immunological memory diversity in the human upper airway  
**Project Description:** Human subjects research examining upper airway cell populations with minimally invasive, longitudinal swab sampling to (i) phenotype and (ii) track upper airway populations including antigen-specific T and B cells to explore (a) population stability, (b) generation and kinetics of local immune memory, including durability of immune memory. This project has expanded beyond the initial goal of sampling and characterization of upper airway immune cells populations in healthy adult subjects to examine mucosal immunity in diverse immunologic contexts and disease states, including cancer, immune checkpoint inhibitor therapy, sinonasal inflammatory disease, and systemic autoimmune disorders.
- 2010-2015 **PhD Research Projects:**  
**Faculty Advisor:** Shinji Makino, DVM, PhD; Professor, Departments of Microbiology and Immunology and Pathology, UTMB

(2012-2014) **Project Title:** Mechanism of transmissible gastroenteritis virus nsp1-mediated translation inhibition

**Project Description:** PhD dissertation research investigating how the viral nsp1 protein of TGEV inhibits host cell protein synthesis while maintaining viral protein synthesis and replication.

(2012-2014) **Project Title:** Middle East Respiratory Syndrome Coronavirus nsp1 inhibits host gene expression by selectively targeting mRNAs transcribed in the nucleus while sparing mRNAs of cytoplasmic origin

**Project Description:** Contributed to development of research protocols and conducted research investigating the mechanism of translation inhibition of the MERS-CoV nsp1 protein, and the similarity and differences in the MERS-CoV nsp1 versus the nsp1 of other coronaviruses, e.g. SARS-CoV and TGEV.

**Project Title:** An approach to prevent RNA reassortment in Rift Valley fever virus

Faculty Advisor: Shinji Makino, DVM, PhD; Professor, Departments of Microbiology and Immunology and Pathology, UTMB

**Project Description:** Designed and conducted research, and assisted with ongoing research, to prevent reassortment of different strains of Rift Valley fever virus by studying viral mutations that affected viral packaging and replication.

**Project Title:** Development of a novel, single-cycle replicable Rift Valley fever vaccine

Faculty Advisor: Shinji Makino, DVM, PhD; Professor, Departments of Microbiology and Immunology and Pathology, UTMB

**Project Description:** Assisted in animal testing of a Rift Valley fever vaccine candidates designed to undergo only a single cycle of replication to improve vaccine safety and efficacy.

(2010-2012) **Project Title:** A microRNA-based approach to improving Rift Valley fever virus vaccine safety

Faculty Advisor: Shinji Makino, DVM, PhD; Professor, Departments of Microbiology and Immunology and Pathology, UTMB

**Project Description:** Designed and conducted research, including *in vitro* and animal studies, on using endogenous host microRNAs to limit the tissue tropism of Rift Valley fever virus vaccine candidates to improve vaccine safety.

2009 **Fogarty International Research Fellowship:**

Faculty Advisor: A. Clinton White, Jr, MD; Professor and Chief, Department of Internal Medicine, Division of Infectious Diseases, UTMB

**Project Description:** Assisted with enrolling patients, developing research protocols, and conducting research studying immune reconstitution syndrome (IRIS) in TB/HIV co-infected patients in Lima, Peru.

2008 **MD-PhD Program Summer Laboratory Rotation:**

Faculty Advisor: A. Clinton White, Jr, MD; Professor and Chief, Department of Internal Medicine, Division of Infectious Diseases, UTMB

**Project Description:** Assisted with conducting ongoing research on *Cryptosporidium* infection and the role of HLA in the susceptibility of human subjects to infection and the clearance of infection.

## PUBLICATIONS

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### PEER-REVIEWED PUBLICATIONS

Lubrano S, Cervantes-Villagrana RD, Faraji F, **Ramirez S**, Sato K, Adame-Garcia SR, Officer A, Arang A, Rigracciolo DC, Anguiano Quiroz PY, Martini C, Wang YY, Ferguson FM, Bacchiocchi A, Halaban R, Coma S, Holmen SL, Pachter JA, Aplin AE, Gutkind JS. FAK inhibition combined with the RAF-MEK clamp avotemetinib overcomes resistance to targeted and immune therapies in *BRAFV600E* melanoma. **Cancer Cell**. 2025 Feb 27; DOI: 10.1016/j.ccell.2025.02.001.

Faraji F, **Ramirez S**, Clubb L, Sato K, Quiroz PA, Galloway W, Mikulski Z, Hoang T, Medetgul-Ernar K, Marangoni P, Jones K, Officer A, Molinolo A, Kim K, Sakaguchi K, Califano J, Smith Q, Klein O, Tamayo P, Gutkind JS. YAP-Driven Malignant Reprogramming of Epithelial Stem Cells at Single Cell Resolution. **Nature Communications**. 2025 Jan 8; 16(498). DOI: 10.1038/s41467-024-55660-6. PubMed PMID: 39779672; PubMed Central PMCID: PMC11711616.

**Ramirez SI**, Lopez PG, Faraji F, Parikh UM, Heaps A, Ritz J, Moser C, Eron JJ, Wohl DA, Currier JS, Daar ES, Greninger AL, Klekotka P, Grifoni A, Weiskopf D, Sette A, Peters B, Hughes MD, Chew KW, Smith DM, Crotty S. Early antiviral CD4 and CD8 T cell responses are associated with upper respiratory tract clearance of SARS-CoV-2. **JCI Insight**. 2024;9(24):e186078. <https://doi.org/10.1172/jci.insight.186078>. PubMed PMID: 39704169; PubMed Central PMCID: PMC11665554.

**Ramirez SI**, Faraji F, Hills LB, Lopez PG, Goodwin B, Stacey H, Sutton HJ, Hastie KM, Sapphire EO, Kim HJ, Mashoof S, Yan CH, DeConde A, Levi G, Crotty S. Immunological memory diversity in the human upper airway. **Nature**. Epub 2024 Jul 31; 632, 630–636. doi: 10.1038/s41586-024-07748-8. PubMed PMID: 39085605.

Bloom N, **Ramirez SI**, Cohn H, Parikh UM, Heaps A, Sieg SF, Greninger A, Ritz J, Moser C, Eron JJ, Currier JS, Klekotka P, Wohl DA, Daar ES, Li J, Hughes MD, Chew KW, Smith DM, Crotty S, Coehlo C. SARS-CoV-2 monoclonal antibody treatment followed by vaccination shifts human memory B cell epitope recognition suggesting antibody feedback. **The Journal of Infectious Diseases**. 2024 July 22; doi:10.1093/infdis/jiae371. PubMed PMID: 39036987.

Arang N, Lubrano S, Ceribelli M, Rigracciolo DC, Saddawi-Konefka R, Faraji F, **Ramirez SI**, Kim D, Tosto FA, Stevenson E, Zhou Y, Wang Z, Bogomolovas J, Molinolo AA, Swaney DL, Krogan NJ, Yang J, Coma S, Pachter JA, Aplin AE, Alessi DR, Thomas CJ, Gutkind JS. High-throughput chemogenetic drug screening reveals PKC-RhoA/PKN as a targetable signaling vulnerability in GNAQ-driven uveal melanoma. **Cell Rep Med**. 2023 Nov 21;4(11):101244. doi: 10.1016/j.xcrm.2023.101244. Epub 2023 Oct 18. PubMed PMID: 37858338; PubMed Central PMCID: PMC10694608.

Lam MTY, Duttke SH, Odish MF, Le HD, Hansen EA, Nguyen CT, Trescott S, Kim R, Deota S, Chang MW, Patel A, Hepokoski M, Alotaibi M, Rolfsen M, Perofsky K, Warden AS, Foley J, **Ramirez SI**, Dan JM, Abbott RK, Crotty S, Crotty Alexander LE, Malhotra A, Panda S, Benner CW, Coufal NG. Dynamic activity in cis-regulatory elements of leukocytes identifies transcription factor activation and stratifies COVID-19 severity in ICU patients. **Cell Rep Med**. 2023 Jan 25:100935. doi: 10.1016/j.xcrm.2023.100935. PMID: 36758547.

**Ramirez SI**, Grifoni A, Weiskopf D, Parikh UM, Heaps A, Faraji F, Sieg SF, Ritz J, Moser C, Eron JJ, Currier JS, Klekotka P, Sette A, Wohl DA, Daar ES, Hughes MD, Chew KW, Smith DM, Crotty S; Accelerating COVID-19 Therapeutic Interventions and Vaccines–2/A5401 (ACTIV-2/A5401) Study Team. Bamlanivimab therapy for acute COVID-19 does not blunt SARS-CoV-2-specific memory T cell responses. **JCI Insight**. 2022 Dec 22;7(24):e163471. doi: 10.1172/jci.insight.163471.PMID: 36378539.

Faraji F, **Ramirez SI**, Anguiano Quiroz PY, Mendez-Molina AN, Gutkind JS. Genomic Hippo Pathway Alterations and Persistent YAP/TAZ Activation: New Hallmarks in Head and Neck Cancer. **Cells**. 2022 Apr 18;11(8):1370. doi: 10.3390/cells11081370. PMID: 35456049.

Yu ED, Wang E, Garrigan E, Goodwin B, Sutherland A, Tarke A, Chang J, Gálvez RI, Mateus J, **Ramirez SI**, Rawlings SA, Smith DM, Filaci G, Frazier A, Weiskopf D, Dan JM, Crotty S, Grifoni A, Sette A, da Silva Antunes R. Development of a T cell-based immunodiagnostic system to effectively distinguish SARS-CoV-2 infection and COVID-19 vaccination status. **Cell Host Microbe**. 2022 Mar 9;30(3):388-399.e3. doi: 10.1016/j.chom.2022.02.003. Epub 2022 Feb 8. PMID: 35172129.

Tarke A, Sidney J, Methot N, Yu ED, Zhang Y, Dan JM, Goodwin B, Rubiro P, Sutherland A, Wang E, Frazier A, **Ramirez SI**, Rawlings SA, Smith DM, da Silva Antunes R, Peters B, Scheuermann RH, Weiskopf D, Crotty S, Grifoni A, Sette A. Impact of SARS-CoV-2 variants on the total CD4+ and CD8+ T cell reactivity in infected or vaccinated individuals. **Cell Rep Med**. 2021 Jul 20;2(7):100355. doi: 10.1016/j.xcrm.2021.100355. Epub 2021 Jul 2. PMID: 34230917.

Sahoo D, Katkar GD, Khandelwal S, Behroozikhah M, Claire A, Castillo V, Tindle C, Fuller M, Taheri S, Rogers TF, Beutler N, **Ramirez SI**, Rawlings SA, Pretorius V, Smith DM, Burton DR, Alexander LEC, Duran J, Crotty S, Dan JM, Das S, Ghosh P. AI-guided discovery of the invariant host response to viral pandemics. **EBioMedicine**. 2021 Jun;68:103390. doi: 10.1016/j.ebiom.2021.103390. Epub 2021 Jun 11. PMID: 34127431.

Tarke A, Sidney J, Kidd CK, Dan JM, **Ramirez SI**, Yu ED, Mateus J, da Silva Antunes R, Moore E, Rubiro P, Methot N, Phillips E, Mallal S, Frazier A, Rawlings SA, Greenbaum JA, Peters B, Smith DM, Crotty S, Weiskopf D, Grifoni A, Sette A. Comprehensive analysis of T cell immunodominance and immunoprevalence of SARS-CoV-2 epitopes in COVID-19 cases. **Cell Rep Med**. 2021 Feb 16;2(2):100204. doi: 10.1016/j.xcrm.2021.100204. Epub 2021 Jan 26. PMID: 33521695.

Dan JM, Mateus J, Kato Y, Hastie KM, Yu ED, Faliti CE, Grifoni A, **Ramirez SI**, Haupt S, Frazier A, Nakao C, Rayaprolu V, Rawlings SA, Peters B, Krammer F, Simon V, Saphire EO, Smith DM, Weiskopf D, Sette A, Crotty S. Immunological memory to SARS-CoV-2 assessed for up to 8 months after infection. **Science**. 2021 Feb 5;371(6529):eabf4063. doi: 10.1126/science.abf4063. Epub 2021 Jan 6. PMID: 33408181. Citations (as per Google Scholar) = 3,186.

\*Rydyznski Moderbacher C, **Ramirez SI\***, \*Dan JM, Grifoni A, Hastie KM, Weiskopf D, Belanger S, Abbott RK, Kim C, Choi J, Kato Y, Crotty EG, Kim C, Rawlings SA, Mateus J, Tse LPV, Frazier A, Baric R, Peters B, Greenbaum J, Ollmann Saphire E, Smith DM, Sette A, Crotty S. Antigen-Specific Adaptive Immunity to SARS-CoV-2 in Acute COVID-19 and Associations with Age and Disease Severity. **Cell**. 2020 Nov 12;183(4):996-1012.e19. doi: 10.1016/j.cell.2020.09.038. Epub 2020 Sep 16. PMID: 33010815. *\*Equal contribution.* Citations (as per Google Scholar) = 2,022.

Mateus J, Grifoni A, Tarke A, Sidney J, Ramirez SI, Dan JM, Burger ZC, Rawlings SA, Smith DM, Phillips E, Mallal S, Lammers M, Rubiro P, Quiambao L, Sutherland A, Yu ED, da Silva Antunes R, Greenbaum J, Frazier A, Markmann AJ, Premkumar L, de Silva A, Peters B, Crotty S, Sette A, Weiskopf D. Selective and cross-reactive SARS-CoV-2 T cell epitopes in unexposed humans. **Science**. 2020 Oct 2;370(6512):89-94. doi: 10.1126/science.abd3871. Epub 2020 Aug 4. PMID: 32753554. Citations (as per Google Scholar) = 1,288.

Prakash K, Ramirez-Sanchez C, **Ramirez SI**, Logan C, Law N, Mekeel K, Pretorius V, Aslam S. Post-transplant survey to assess patient experiences with donor-derived HCV infection. **Transpl Infect Dis**. 2020 Dec;22(6):e13402. doi: 10.1111/tid.13402. Epub 2020 Jul 23. PMID: 32634289.

Grifoni A, Weiskopf D, **Ramirez SI**, Mateus J, Dan JM, Moderbacher CR, Rawlings SA, Sutherland A, Premkumar L, Jadi RS, Marrama D, de Silva AM, Frazier A, Carlin AF, Greenbaum JA, Peters B, Krammer F, Smith DM, Crotty S, Sette A. Targets of T Cell Responses to SARS-CoV-2 Coronavirus in Humans with COVID-19 Disease and Unexposed Individuals. **Cell**. 2020 Jun 25;181(7):1489-1501.e15. doi: 10.1016/j.cell.2020.05.015. Epub 2020 May 20. PMID: 32473127. Citations (as per Google Scholar) = 4,349.

Terasaki K, **Ramirez SI**, Makino S. Mechanistic insight into the host transcription inhibition function of Rift Valley fever virus NSs and its importance in virulence. **PLoS Negl Trop Dis**. 2016 Oct 6;10(10):e0005047. doi: 10.1371/journal.pntd.0005047. eCollection 2016. PMID: 27711108; PMCID: PMC5053439.

Lokugamage KG, Narayanan K, Nakagawa K, Terasaki K, **Ramirez SI**, Tseng CT, Makino S. Middle East Respiratory Syndrome Coronavirus nsp1 Inhibits Host Gene Expression by Selectively Targeting mRNAs Transcribed in the Nucleus while Sparing mRNAs of Cytoplasmic Origin. **J Virol**. 2015 Nov 1; 89(21): 10970-81. PubMed PMID: 26311885; PubMed Central PMCID: PMC4621111.

\*Narayanan K, \***Ramirez SI**, Lokugamage KG, Makino S. Coronavirus nonstructural protein 1: Common and distinct functions in the regulation of host and viral gene expression. **Virus Res**. 2015 Apr 16; 202:89-100. PubMed PMID: 25432065; PubMed Central PMCID: PMC4444399. \*These authors contributed equally to this study. *\*Equal contribution*

Murakami S, Terasaki K, **Ramirez SI**, Morrill JC, Makino S. Development of a novel, single-cycle replicable Rift Valley fever vaccine. **PLOS Negl Trop Dis**. 2014 Mar;8(3): e2746. PubMed PMID: 24651859; PubMed Central PMCID: PMC3961198.

## SELECTED ORAL AND POSTER PRESENTATIONS

**2025 cSIMVa-KIC-LJI-UCSD Strategic International Joint Symposium: Human Immunology for Vaccines** (oral presentation). Human upper airway immune memory diversity and durability. La Jolla, CA, USA. June 5, 2025.

**2025 American Academy of Allergy, Asthma & Immunology (AAAAI) / World Allergy Organization (WAO) Joint Congress** (oral presentation). Human Upper Airway Immune Memory. San Diego, CA, USA. February 27, 2025.

**Keystone Symposia T Cell Differentiation in Tissue Microenvironments** (oral presentation), Longitudinal Tracking of Human Upper Airway T cells, Vancouver, Canada, February 2-5, 2025.

**American Thoracic Society (ATS) 2024** (oral presentation). Multiple T Cell Responses are Associated with Protection Against COVID-19 Disease and Lung Injury. San Diego, CA, USA. May 20, 2024.

**Keystone Symposia Conference T and B Cell Collaboration in Germinal Centers and Beyond** (oral presentation), Longitudinal Tracking of Upper Respiratory Tract Germinal Center Populations, Whistler, Canada, October 1-5, 2023.

**Keystone Symposia Conference T and B Cell Collaboration in Germinal Centers and Beyond** (poster presentation), Longitudinal Tracking of Upper Respiratory Tract Germinal Center Populations, Sydney I. Ramirez<sup>1,2</sup>, Paul Lopez<sup>1</sup>, Farhoud Faraji<sup>3</sup>, Carol H. Yan<sup>3</sup>, Shane Crotty<sup>1, 2</sup>, <sup>1</sup>Center for Infectious Disease and Vaccine Research, La Jolla Institute for Immunology, <sup>2</sup>Department of Medicine, University of California, San Diego (UCSD), <sup>3</sup>Department of Otolaryngology-Head and Neck Surgery, UCSD; Whistler, Canada, October 1-5, 2023.



**American Society for Virology 33<sup>rd</sup> Annual Meeting** (oral presentation), Mechanism of Transmissible Gastroenteritis Virus Nsp1-Mediated Translation Inhibition. Ramirez, S.I., Lokugamage, K., and Makino, S., Colorado State University, Fort Collins, CO, 2014.

**19<sup>th</sup> Annual Pathology Department Trainee Research Day** (poster presentation), Transmissible gastroenteritis virus (TGEV) p9, a model for studying alphacoronavirus non-structural protein 1-mediated suppression of host gene expression, SI Ramirez<sup>1,2</sup>, K Lokugamage<sup>2</sup>, and S Makino<sup>1,2</sup>, Departments of Pathology<sup>1</sup> and Microbiology & Immunology<sup>2</sup>, UTMB, Galveston, TX, 2013.

**18<sup>th</sup> Annual Pathology Department Trainee Research Day** (poster presentation), A microRNA-based approach to improving Rift Valley fever virus vaccine safety, SI Ramirez<sup>1,2</sup>, K Terasaki<sup>2</sup>, S Murakami<sup>2</sup>, and S Makino<sup>1,2</sup>, Departments of Pathology<sup>1</sup> and Microbiology & Immunology<sup>2</sup>, UTMB, Galveston, TX, 2012.

**2012 Annual IHII/McLaughlin Colloquium** (poster presentation), Mutant Rift Valley fever MP-12 viruses containing target sequence(s) for endogenous microRNA enhance vaccine safety, SI Ramirez<sup>1,2</sup>, K Terasaki<sup>1</sup>, S Murakami<sup>1</sup>, and S Makino<sup>1,2</sup>, Departments of Microbiology & Immunology<sup>1</sup> and Pathology<sup>2</sup>, UTMB, Galveston, TX, 2012.

**17<sup>th</sup> Annual Pathology Department Trainee Research Day** (poster presentation), Using CNS-specific microRNAs to limit tissue tropism and decrease neurovirulence of Rift Valley Fever Virus, SI Ramirez<sup>1,2</sup>, K Terasaki<sup>2</sup>, S Murakami<sup>2</sup>, John Morrill<sup>2</sup>, CJ Peters<sup>1,2</sup>, and S Makino<sup>1,2</sup>, Departments of Pathology<sup>1</sup> and Microbiology & Immunology<sup>2</sup>, UTMB, Galveston, TX, 2011.

**2011 Annual IHII/McLaughlin Colloquium** (poster presentation), Using CNS-specific microRNAs to limit tissue tropism and decrease neurovirulence of Rift Valley Fever Virus, SI Ramirez<sup>1,2</sup>, K Terasaki<sup>1</sup>, S Murakami<sup>1</sup>, and S Makino<sup>1,2</sup>, Departments of Microbiology & Immunology<sup>1</sup> and Pathology<sup>2</sup>, UTMB, Galveston, TX, 2011.

**2011 Annual IHII/McLaughlin Colloquium** (poster presentation), An approach to prevent RNA reassortment in Rift Valley fever virus, K Terasaki<sup>1</sup>, SI Ramirez<sup>1,2</sup>, S Murakami<sup>1</sup>, and S Makino<sup>1,2</sup>, Departments of Microbiology & Immunology and Pathology, UTMB, Galveston, TX, 2011.

## ABSTRACTS

**Keystone Symposia T Cell Differentiation in Tissue Microenvironments** (poster presentation), Longitudinal Tracking of Human Upper Airway T cells, Vancouver, Canada, February 2-5, 2025.

**Keystone Symposia Conference T and B Cell Collaboration in Germinal Centers and Beyond** (poster presentation), Longitudinal Tracking of Upper Respiratory Tract Germinal Center Populations, Abstract for oral and poster presentation, Whistler, Canada, October 1-5, 2023.

**2020 American Transplant Congress** - Experiences and challenges faced by organ transplant recipients with donor-derived Hepatitis C virus infection. Prakash K., Ramirez-Sanchez C., Ramirez S.I., Logan C., Law N., Mekeel K., Pretorius V., Aslam S. Abstract for oral presentation, Pennsylvania Convention Center, Philadelphia, PA. 2020.

**2020 American Transplant Congress** - Hyperammonemia syndrome in a heart-kidney transplant recipient successfully managed with CRRT and antibiotic therapy. Keehner J., Jabbour M., Ramirez S.I., Logan C., Khan A., Aslam S. Abstract for oral presentation, Pennsylvania Convention Center, Philadelphia, PA. 2020.

**XIII<sup>th</sup> International Nidovirus Symposium** - MERS-CoV and SARS-CoV nsp1 proteins use disparate mechanisms to inhibit host gene expression. Lokugamage, K.G., Narayanan, K., Nakagawa, K., Ramirez, S.I., Tseng, C.K., and Makino, S. Abstract for oral presentation, Salamanca, Spain, 2014.

**American Society for Virology 32<sup>nd</sup> Annual Meeting** - Human coronavirus EMC and SARS coronavirus nsp1 proteins share a common biological function to inhibit host gene expression but use disparate mechanisms. Lokugamage, K.G., Ramirez, S.I., Narayanan, K., and Makino, S. Abstract for oral presentation, Penn State, University Park, PA, 2013.

**American Society for Virology 32<sup>nd</sup> Annual Meeting** - Development of a novel pseudo-infectious Rift Valley fever virus vaccine. Terasaki, K., Murakami, S., Ramirez, S.I., Morrill, J.C., and Makino, S. Abstract for oral presentation, Penn State, University Park, PA, 2013.

**American Society for Virology 33<sup>rd</sup> Annual Meeting** - Mechanism of Transmissible Gastroenteritis Virus Nsp1-Mediated Translation Inhibition. Ramirez, S.I., Lokugamage, K., and Makino, S. Abstract for oral presentation (published online), Colorado State University, Fort Collins, CO, 2014.

## **PROFESSIONAL ORGANIZATION MEMBERSHIPS**

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2023-Present The American Association of Immunologists (AAI)  
2019-Present Infectious Diseases Society of America (IDSA)  
2016-Present American College of Physicians (ACP)  
2012-Present American Society for Tropical Medicine & Hygiene (ASTMH)  
2011-Present American Society for Microbiology (ASM)  
2011- Present American Society for Virology (ASV)  
2011-2017 ASM Texas Branch  
2008-2023 American Medical Association (AMA)  
2008-2013 Texas Medical Association (TMA)

## **LANGUAGES**

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English

Spanish: Advanced