



Dr. Christian Ivan Pérez Shibayama

**Post Doctoral fellow
scientist (post doc)**

Medizinisches Forschungszentrum · Management

Contact

Dr. Christian Ivan Pérez Shibayama
Rorschacherstrasse 95
9007 St. Gallen
Switzerland

T +41 71 494 7156
ChristianIvan.PerezShibayama@kssg.ch

Units

Medizinisches Forschungszentrum

Position

Post Doctoral fellow

Profile Function

scientist (post doc)

Publications (32)

Onder L, Papadopoulou C, Lütge A, Cheng H, Lütge M, Pérez Shibayama C, Gil Cruz C, De Martin A, Kurz L, Cadosch N, Pikor N, Rodriguez R, Born D, Jochum W, Leskow P, Dutly A, Robinson M, Ludewig B. Fibroblastic reticular cells generate protective intratumoral T cell environments in lung cancer. *Cell* 2024

Cadosch N, Gil Cruz C, Pérez Shibayama C, Ludewig B. Cardiac Fibroblastic Niches in Homeostasis and Inflammation. *Circ Res* 2024; 134:1703-1717.

Pérez Shibayama C, Gil Cruz C, Cadosch N, Lütge M, Cheng H, De Martin A, Frischmann K, Joachimbauer A, Onder L, Papadopoulou I, Papadopoulou C, Ring S, Krebs P, P. Vu V, P. Nägele M, Rosi V, Parianos D, Zsilavec V, Cooper L, Flammer A, Ruschitzka F, Reiner P, Schmidt D, Ludewig B. Bone morphogenic protein-4 availability in the cardiac microenvironment controls inflammation and fibrosis in autoimmune myocarditis. *Nature Cardiovascular Research* 2024; volume 3:301-316.

Pérez Shibayama C, Gil Cruz C, Cadosch N, Lütge M, Cheng H, De Martin A, Frischmann K, Joachimbauer A, Onder L, Papadopoulou I, Papadopoulou C, Ring S, Krebs P, P. Vu V, P. Nägele M, Rossi V, Parianos D, Zsilavec V, Cooper L, Flammer A, Ruschitzka F, Rainer P, Schmidt D, Ludewig B. Bone morphogenic protein-4 availability in the cardiac microenvironment controls inflammation and fibrosis in autoimmune myocarditis. *Nat Cardiovasc Res* 2024; 3:301-316.

D'Rozario J, Knoblich K, Lütge M, Pérez Shibayama C, Cheng H, Alexandre Y, Roberts D, Campos J, Dutton E, Suliman M, Denton A, Turley S, Boyd R, Mueller S, Ludewig B, Heng T, Fletcher A. Fibroblastic reticular cells provide a supportive niche for lymph node-resident macrophages. *Eur J Immunol* 2023; 53:e2250355.

Lütge M, De Martin A, Gil Cruz C, Pérez Shibayama C, Stanossek Y, Onder L, Cheng H, Kurz L, Cadosch N, Soneson C, Robinson M, Stöckli S, Ludewig B, Pikor N. Conserved stromal-immune cell circuits secure B cell homeostasis and function. *Nat Immunol* 2023

Pérez Shibayama C, Gil Cruz C, Ludewig B. Fibroblasts tune myocardial inflammation and remodeling. *Nature Cardiovascular Research* 2022; 1:694-695.

Cheng H, Scandella E, Hehlhans T, Pérez Shibayama C, Gil Cruz C, Novkovic M, Onder L, Engetschwiler C, Lütge M, Mörbe U, Ludewig B. Intestinal fibroblastic reticular cell niches control innate lymphoid cell homeostasis and function. *Nat Commun* 2022; 13:2027.

Ring S, Spiegl M, Besse A, Bonilla W, Stemeseder F, Schmidt S, Orlinger K, Krebs P, Ludewig B, Wenger R, Hartmann F, Cupovic J, Onder L, Lütge M, Pérez Shibayama C, Gil Cruz C, Scandella E, De Martin A, Mörbe U, Flatz L. Viral vector-mediated reprogramming of the fibroblastic tumor stroma sustains curative melanoma treatment. *Nat Commun* 2021; 12:4734.

Prados A, Ludewig B, Koliaraki V, Pérez Shibayama C, Gil Cruz C, Lütge M, Mörbe U, Cheng H, Onder L, Kollias G. Fibroblastic reticular cell lineage convergence in Peyer's patches governs intestinal immunity. *Nat Immunol* 2021; 22:510-519.

Pérez Shibayama C, Gil Cruz C, Colston J, Novkovic M, De Martin A, Ring S, Onder L, Cheng H, Lütge M, Islander U, Ludewig B. Type I interferon signaling in fibroblastic reticular cells prevents exhaustive activation of antiviral CD8 T cells. *Sci Immunol* 2020; 5

Pikor N, Onder L, Linterman M, Nagasawa T, Nombela-Arrieta C, Cheng H, Novkovic M, Pérez Shibayama C, Gil Cruz C, Lütge M, Mörbe U, Ludewig B. Remodeling of light and dark zone follicular dendritic cells governs germinal center responses. *Nat Immunol* 2020; 21:649–659.

Valero-Pacheco N, Klenerman P, Reyes-Sandoval A, Isibasi A, Pastelin-Palacios R, Sánchez-Torres L, Gil Cruz C, Pérez Shibayama C, Kurioka A, Wong-Baeza I, Pérez-Toledo M, Kemlo P, Aldapa-Vega G, Blight J, López-Macías C. Conservation of the OmpC Porin Among Typhoidal and Non-Typhoidal Serovars. *Front Immunol* 2020; 10:2966.

Li C, Ludewig B, Martin A, Liao S, He H, Navarre W, Sun T, Rojas O, Korneev K, Brownlie E, Ahmed M, Nguyen A, Lee D, Zhang J, Ward L, Pérez Shibayama C, Lam E, Gommerman J. Early-life programming of mesenteric lymph node stromal cell identity by the lymphotoxin pathway regulates adult mucosal immunity. *Sci Immunol* 2019; 4

Brenig R, Antoniadou C, Wendon J, Heim M, Ludewig B, Weston C, Duong F, Semela D, Brand S, Boldanova T, Künzler-Heule P, Cupovic J, Besse L, Pérez Shibayama C, Singanayagam A, Geng A, Triantafyllou E, Pop O, Bernsmeier C. Expression of AXL receptor tyrosine kinase relates to monocyte dysfunction and severity of cirrhosis. *Life Sci Alliance* 2019; 3

Gil Cruz C, Jahns R, Wyss M, Mooser C, Lambrecht B, Maeder M, Rickli H, Flatz L, Eriksson U, Geuking M, McCoy K, Boivin-Jahns V, Slack E, Arnoldini M, Pérez Shibayama C, De Martin A, Ronchi F, Van der Borgh K, Niederer R, Onder L, Lütge M, Novkovic M, Nindl V, Ramos G, Ludewig B. Microbiota-derived peptide mimics drive lethal inflammatory cardiomyopathy. *Science* 2019; 366:881–886.

Colston J, Hutchings C, Chinnakannan S, Highton A, Pérez Shibayama C, Ludewig B, Klenerman P. Divergent memory responses driven by adenoviral vectors are impacted by epitope competition. *Eur J Immunol* 2019

Pérez Shibayama C, Gil Cruz C, Ludewig B. Fibroblastic reticular cells at the nexus of innate and adaptive immune responses. *Immunol Rev* 2019; 289:31–41.

Fässler M, Jörger M, Recher M, Risch L, Gusewell S, Risch M, Speiser D, Ludewig B, Levesque M, Dummer R, Siano M, Krolik M, Diem S, Mangana J, Hasan Ali O, Berner F, Bomze D, Ring S, Niederer R, Gil Cruz C, Pérez Shibayama C, Flatz L. Antibodies as biomarker candidates for response and survival to checkpoint inhibitors in melanoma patients. *J Immunother Cancer* 2019; 7:50.

Pérez Shibayama C, Gommerman J, Scandella E, Robinson M, Sonesson C, Mack M, Turley S, Buechler M, López-Macías C, Li C, Novkovic M, Mörbe U, Printz A, Onder L, Cheng H, Gil Cruz C, Ludewig B. Fibroblastic reticular cells initiate immune responses in visceral adipose tissues and secure peritoneal immunity. *Sci Immunol* 2018; 3

Carreño J, Pérez Shibayama C, Gil Cruz C, López-Macías C, Vernazza P, Ludewig B, Albrich W. Evolution of Salmonella Typhi outer membrane protein-specific T and B cell responses in humans following oral Ty21a vaccination: A randomized clinical trial. *PloS one* 2017; 12:e0178669.

Pérez-Toledo M, Bonifaz L, Isibasi A, Cunningham A, Arriaga-Pizano L, Pérez-Tapia S, Becker I, Moreno-Eutimio M, Pérez Shibayama C, Gil Cruz C, Pastelin-Palacios R, Valero-Pacheco N, López-Macías C. Salmonella Typhi Porins OmpC and OmpF Are Potent Adjuvants for T-Dependent and T-Independent Antigens. *Front Immunol* 2017; 8:230.

Gil Cruz C, Scandella E, Ikuta K, Cui G, Abe S, McCoy K, Geuking M, Lang P, Novkovic M, Cheng H, Cupovic J, Chai Q, Onder L, Pérez Shibayama C, Ludewig B. Fibroblastic reticular cells regulate intestinal inflammation via IL-15-mediated control of group 1 ILCs. *Nat Immunol* 2016; 17:1388–1396.

Carreño J, Gander B, López-Macías C, Tanoue Y, Chariatte D, Isibasi A, Pastelin R, Printz A, Gil Cruz C, Pérez Shibayama C, Ludewig B. PLGA-microencapsulation protects *Salmonella typhi* outer membrane proteins from acidic degradation and increases their mucosal immunogenicity. *Vaccine* 2016; 34:4263-9.

Cupovic J, Onder L, Gil Cruz C, Weiler E, Caviezel-Firner S, Pérez Shibayama C, Rüllicke T, Bechmann I, Ludewig B. Central Nervous System Stromal Cells Control Local CD8(+) T Cell Responses during Virus-Induced Neuroinflammation. *Immunity* 2016; 44:622-33.

Pérez Shibayama C, Ludewig B. Tuning up FALCs: immunological shielding in the body cavities. *Nat Immunol* 2015; 16:796-8.

Pérez Shibayama C, Gil Cruz C, Ludewig B. Plasticity and complexity of B cell responses against persisting pathogens. *Immunol Lett* 2014; 162:53-8.

Pérez Shibayama C, López-Macías C, Isibasi A, Waisman A, Regen T, Scandella E, Onder L, Chai Q, Hisaki E, Cervantes-Barragan L, Pastelin-Palacios R, Gil Cruz C, Ludewig B. IFN- γ -producing CD4+ T cells promote generation of protective germinal center-derived IgM+ B cell memory against *Salmonella Typhi*. *J Immunol* 2014; 192:5192-200.

Pérez Shibayama C, Gil Cruz C, Nussbacher M, Allgäuer E, Cervantes-Barragan L, Züst R, Ludewig B. Dendritic cell-specific delivery of Flt3L by coronavirus vectors secures induction of therapeutic antitumor immunity. *PLoS one* 2013; 8:e81442.

Chai Q, Hehlhans T, Stein J, Rüllicke T, Thiel V, Luther S, Sparwasser T, Danuser R, Cupovic J, Pérez Shibayama C, Gil Cruz C, Scandella E, Onder L, Ludewig B. Maturation of lymph node fibroblastic reticular cells from myofibroblastic precursors is critical for antiviral immunity. *Immunity* 2013; 38:1013-24.

Adan M, Edmundo C, Isibasi A, Cecilia B, Marcos F, Isabel B, Rubén L, Gil Cruz C, Pérez Shibayama C, Pastelin-Palacios R, Alejandra T, López-Macías C. *Salmonella Typhi* OmpS1 and OmpS2 porins are potent protective immunogens with adjuvant properties. *Immunology* 2013

Pastelin-Palacios R, Isibasi A, Gunn J, Bonifaz L, Alpuche-Aranda C, Becker I, García-Zepeda E, Cunningham A, Ludewig B, Arriaga-Pizano L, Cervantes-Barragan L, Moreno-Eutimio M, Pérez Shibayama C, Gil Cruz C, López-Macías C. Subversion of innate and adaptive immune activation induced by structurally modified lipopolysaccharide from *Salmonella typhimurium*. *Immunology* 2011; 133:469-81.

Projects (6)

Defining the origin of lymph node and Peyer's patch fibroblastic reticular cells at single cell resolution

Fundamental Research - Apr 1, 2016 - Mar 31, 2019

Automatically Closed

Impact of omental fibroblastic stromal cells on the induction of anti-bacterial immunity

Fundamental Research - Oct 1, 2015 - Sep 30, 2016

Automatically Closed

"Mechanisms of Evasive Resistance in Cancer (MERiC)"

Clinical Studies - Nov 1, 2014 - Nov 1, 2020

Automatically Closed

Selection and education of heart-specific Th cells by thymic and lymph node stromal cells

Fundamental Research - Apr 1, 2013 - Mar 31, 2016

Completed

Systems immunological analysis of lymph node structure and function in viral infection

Fundamental Research - Aug 1, 2012 - Jul 31, 2016

Completed

Polyvalent vaccine against Salmonellosis

Fundamental Research - Nov 1, 2011 - Apr 30, 2013

Completed