



## Mechthild Lütge

### Contact

Mechthild Lütge  
Switzerland

### Units

Institute of Immunobiology

## Publications (19)

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

Wyss N, Berner F, Walter V, Jochum A, Purde M, Abdou M, Sinnberg T, Hofmeister K, Pop O, Hasan A, Bauer J, Cheng H, Lütge M, Klümper N, Diem S, Kosaloglu-Yalcin Z, Zhang Y, Sellmer L, Macek B, Karbach J, König D, Läubli H, Zender L, Meyer B, Driessen C, Schürch C, Jochum W, Amaral T, Heinzerling L, Cozzio A, Hegazy A, Schneider T, Brutsche M, Sette A, Lenz T, Walz J, Rammensee H, Früh M, Jäger E, Becher B, Tufman A, Núñez N, Jörgler M, Flatz L. Autoimmunity Against Surfactant Protein B Is Associated with Pneumonitis During Checkpoint Blockade. *Am J Respir Crit Care Med* 2024; 210:919-930.

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, Sonesson C, Robinson M, Stöckli S, Ludewig B, Pikor N. Conserved stromal-immune cell circuits secure B cell homeostasis and function. *Nat Immunol* 2023

De Martin A, Stanossek Y, Lütge M, Cadosch N, Onder L, Cheng H, Brandstadter J, Maillard I, Stöckli S, Pikor N, Ludewig B. PI16 reticular cells in human palatine tonsils govern T cell activity in distinct subepithelial niches. *Nat Immunol* 2023; 24:1138-1148.

Grabherr S, Waltenspühl A, Büchler L, Lütge M, Cheng H, Caviezel-Firner S, Ludewig B, Krebs P, Pikor N. An Innate Checkpoint Determines Immune Dysregulation and Immunopathology during Pulmonary Murine Coronavirus Infection. *J Immunol* 2023; 210:774-785.

Brandstadter J, De Martin A, Lütge M, Ferreira A, Gaudette B, Stanossek Y, Wang S, Gonzalez M, Camiolo E, Wertheim G, Austin B, Allman D, Salim M, Fajgenbaum D, Aster J, Ludewig B, Maillard I. A novel cryopreservation and biobanking strategy to study lymphoid tissue stromal cells in human disease. *bioRxiv* 2023

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.

De Martin A, Lütge M, Stanossek Y, Engetschwiler C, Cupovic J, Brown K, Demmer I, Broglie M, Geuking M, Jochum W, McCoy K, Stöckli S, Ludewig B. Distinct microbial communities colonize tonsillar squamous cell carcinoma. *Oncoimmunology* 2021; 10:1945202.

Cupovic J, Klenerman P, Engeler D, Krebs P, Scandella E, Oxenius A, Flatz L, Provine N, De Martin A, Cheng H, Lütge M, Colston J, Onder L, Ring S, Ludewig B. Adenovirus vector vaccination reprograms pulmonary fibroblastic niches to support protective inflating memory CD8 T cells. *Nat Immunol* 2021; 22:1042-1051.

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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.

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.

Cheng H, Hehlhans T, Rülcke T, Pfeffer K, Sorg U, Tersteegen A, Miyazaki J, Robinson M, Scandella E, Pikor N, Lütge M, Sonesson C, Novkovic M, Onder L, Ludewig B. Origin and differentiation trajectories of fibroblastic reticular cells in the splenic white pulp. *Nat Commun* 2019; 10:1739.

## Projects (4)

### **Deciphering the molecular landscape of the stromal cells in human lymph nodes at the single-cell level**

*Fundamental Research - Sep 1, 2019 - Mar 31, 2025*

*Ongoing*

### **Stromal Cell Niches at the Nexus of the Innate Lymphoid Cell Interactome**

*Fundamental Research - Jan 1, 2019 - Dec 31, 2022*

*Automatically Closed*

### **Deciphering the transcriptomic landscape of cancer-associated fibroblasts in pancreatic cancer / Oncological Research**

*Fundamental Research - Jan 1, 2019 - Dec 31, 2021*

*Automatically Closed*

### **Deciphering the transcriptomic landscape of cancer-associated fibroblasts in pancreatic cancer – an exploratory clinical study**

*Fundamental Research - Jul 1, 2018 - Dec 31, 2018*

*Completed*