

# Stanford

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## Gerlinde Wernig

Assistant Professor of Pathology at the Stanford University Medical Center

### CLINICAL OFFICES

- **Pathology**

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### Bio

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### CLINICAL FOCUS

- Anatomic Pathology
- Haematopathology

### ACADEMIC APPOINTMENTS

- Assistant Professor - Med Center Line, Pathology
- Member, Bio-X

### PROFESSIONAL EDUCATION

- Board Certification: Anatomic Pathology, American Board of Pathology (2013)
- Board Certification: Hematology, American Board of Pathology (2013)
- Residency: Stanford Hospital and Clinics (2013) CA
- Fellowship: Stanford Hospital and Clinics (2012) CA
- Residency: Stanford Hospital and Clinics (2011) CA
- Fellowship, Friedrich-Wilhelms-University Bonn, Germany , Hematology/Oncology (2004)
- Residency, Friedrich-Wilhelms-University Bonn, Germany , Internal Medicine (2001)
- Medical Education: Medical University of Vienna (1999) Austria

### Teaching

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### STANFORD ADVISEES

#### Postdoctoral Faculty Sponsor

Marc Francois Philippe Gastou, Tristan Lerbs

## Publications

### PUBLICATIONS

- **Selective hematopoietic stem cell ablation using CD117-antibody-drug-conjugates enables safe and effective transplantation with immunity preservation.** *Nature communications*  
Czechowicz, A., Palchaudhuri, R., Scheck, A., Hu, Y., Hoggatt, J., Saez, B., Pang, W. W., Mansour, M. K., Tate, T. A., Chan, Y. Y., Walck, E., Wernig, G., Shizuru, et al  
2019; 10 (1): 617
- **Doxycycline Reduces Scar Thickness and Improves Collagen Architecture.** *Annals of surgery*  
Moore, A. L., desJardins-Park, H. E., Duoto, B. A., Mascharak, S., Murphy, M. P., Irizarry, D. M., Foster, D. S., Jones, R. E., Barnes, L. A., Marshall, C. D., Ransom, R. C., Wernig, G., Longaker, et al  
2018
- **Surgical adhesions in mice are derived from mesothelial cells and can be targeted by antibodies against mesothelial markers.** *Science translational medicine*  
Tsai, J. M., Sinha, R., Seita, J., Fernhoff, N., Christ, S., Koopmans, T., Krampitz, G. W., McKenna, K. M., Xing, L., Sandholzer, M., Sales, J. H., Shoham, M., McCracken, et al  
2018; 10 (469)
- **Direct targeting of the mouse optic nerve for therapeutic delivery.** *Journal of neuroscience methods*  
Mesentier-Louro, L. A., Dodd, R., Domizi, P., Nobuta, H., Wernig, M., Wernig, G., Liao, Y. J.  
2018
- **Reduced Scar Thickness Achieved by Topical Doxycycline Is Mediated by Specific Skin Fibroblast Populations and Not Immune Cell Infiltrate**  
Moore, A. L., Murphy, M. P., Irizarry, D. M., Des Jardins-Park, H. E., Duoto, B. A., Mascharak, S., Foster, D. S., Jones, R., Wernig, G., Longaker, M. T.  
ELSEVIER SCIENCE INC.2018: S210–S211
- **Mouse Model with cJUN Over-Expression Eludes to Deep Dermal Fibroblast Expansion and Immune Cell Recruitment as the Biologic Mechanism of Hypertrophic Scarring**  
Moore, A. L., Duoto, B. A., Des Jardins-Park, H. E., Mascharak, S., Wernig, G., Longaker, M. T.  
ELSEVIER SCIENCE INC.2018: S208
- **Stem cell therapy for treatment of ischemic optic neuropathy**  
Mesentier-Louro, L., Yang, N., Shariati, A., Domizi, P., Dodd, R., Wernig, G., Wernig, M., Liao, Y.  
ASSOC RESEARCH VISION OPHTHALMOLOGY INC.2018
- **Unifying mechanism for different fibrotic diseases** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wernig, G., Chen, S., Cui, L., Van Neste, C., Tsai, J. M., Kambham, N., Vogel, H., Natkunam, Y., Gilliland, D. G., Nolan, G., Weissman, I. L.  
2017; 114 (18): 4757-4762
- **Unifying Mechanism of fibrotic diseases** *Proceedings of the National Academy of Science*  
Wernig, G., Weissman, I. L.  
2017; 114 (18): 4757-4762
- **Mapping the Pairwise Choices Leading from Pluripotency to Human Bone, Heart, and Other Mesoderm Cell Types** *CELL*  
Loh, K. M., Chen, A., Koh, P. W., Deng, T. Z., Sinha, R., Tsai, J. M., Barkal, A. A., Shen, K. Y., Jain, R., Morganti, R. M., Shyh-Chang, N., Fernhoff, N. B., George, et al  
2016; 166 (2): 451-467
- **Tuning Cytokine Receptor Signaling by Re-orienting Dimer Geometry with Surrogate Ligands** *CELL*  
Moraga, I., Wernig, G., Wilmes, S., Gryshkova, V., Richter, C. P., Hong, W., Sinha, R., Guo, F., Fabionar, H., Wehrman, T. S., Krutzik, P., Demharter, S., Plo, et al  
2015; 160 (6): 1196-1208
- **STAT5 Is Crucial to Maintain Leukemic Stem Cells in Acute Myelogenous Leukemias Induced by MOZ-TIF2** *CANCER RESEARCH*  
Tam, W. F., Haehnel, P. S., Schueler, A., Lee, B. H., Okabe, R., Zhu, N., Pante, S. V., Raffel, G., Mercher, T., Wernig, G., Bockamp, E., Sasca, D., Kreft, et al  
2013; 73 (1): 373-384
- **Anti-CD47 antibodies promote phagocytosis and inhibit the growth of human myeloma cells** *LEUKEMIA*  
Kim, D., Wang, J., Willingham, S. B., Martin, R., Wernig, G., Weissman, I. L.

2012; 26 (12): 2538-2545

- **EXEL-8232, a small-molecule JAK2 inhibitor, effectively treats thrombocytosis and extramedullary hematopoiesis in a murine model of myeloproliferative neoplasm induced by MPLW515L** *LEUKEMIA*  
Wernig, G., Kharas, M. G., Mullally, A., Leeman, D. S., Okabe, R., George, T., Clary, D. O., Gilliland, D. G.  
2012; 26 (4): 720-727
- **EXEL-8232, a Small Molecule JAK2 inhibitor, Effectively Treats Thrombocytosis and Extramedullary Hematopoiesis in a Murine Model of Myeloproliferative Disease Induced by MPLW515L**  
Wernig, G., Kharas, M., Clary, D., Gilliland, G., George, T.  
NATURE PUBLISHING GROUP.2011: 329A
- **Physiological Jak2V617F Expression Causes a Lethal Myeloproliferative Neoplasm with Differential Effects on Hematopoietic Stem and Progenitor Cells** *CANCER CELL*  
Mullally, A., Lane, S. W., Ball, B., Megerdichian, C., Okabe, R., Al-Shahrour, F., Paktinat, M., Haydu, J. E., Housman, E., Lord, A. M., Wernig, G., Kharas, M. G., Mercher, et al  
2010; 17 (6): 584-596
- **High-throughput sequence analysis of the tyrosine kinome in acute myeloid leukemia** *BLOOD*  
Loriaux, M. M., Levine, R. L., Tyner, J. W., Froehling, S., Scholl, C., Stoffregen, E. P., Wernig, G., Erickson, H., Eide, C. A., Berger, R., Bernard, O. A., Griffin, J. D., Stone, et al  
2008; 111 (9): 4788-4796
- **The Jak2V617F oncogene associated with myeloproliferative diseases requires a functional FERM domain for transformation and for expression of the Myc and Pim proto-oncogenes** *BLOOD*  
Wernig, G., Gonneville, J. R., Crowley, B. J., Rodrigues, M. S., Reddy, M. M., Hudon, H. E., Walz, C., Reiter, A., Podar, K., Royer, Y., Constantinescu, S. N., Tomasson, M. H., Griffin, et al  
2008; 111 (7): 3751-3759
- **Efficacy of TG101348, a selective JAK2 inhibitor, in treatment of a murine model of JAK2V617F-induced polycythemia vera** *CANCER CELL*  
Wernig, G., Kharas, M. G., Okabe, R., Moore, S. A., Leeman, D. S., Cullen, D. E., Gozo, M., McDowell, E. P., Levine, R. L., Doukas, J., Mak, C. C., Noronha, G., Martin, et al  
2008; 13 (4): 311-320
- **JAK2T875N is a novel activating mutation that results in myeloproliferative disease with features of megakaryoblastic leukemia in a murine bone marrow transplantation model** *BLOOD*  
Mercher, T., Wernig, G., Moore, S. A., Levine, R. L., Gu, T., Froehling, S., Cullen, D., Polakiewicz, R. D., Bernard, O. A., Boggon, T. J., Lee, B. H., Gilliland, D. G.  
2006; 108 (8): 2770-2779
- **MPLW515L is anovel somatic activating mutation in myelofibrosis with myeloid metaplasia** *PLOS MEDICINE*  
Pikman, Y., Lee, B. H., Mercher, T., McDowell, E., Ebert, B. L., Gozo, M., Cuker, A., Wernig, G., Moore, S., Galinsky, I., DeAngelo, D. J., Clark, J. J., Lee, et al  
2006; 3 (7): 1140-1151
- **Expression of Jak2V617F causes a polycythemia vera-like disease with associated myelofibrosis in a murine bone marrow transplant model** *BLOOD*  
Wernig, G., Mercher, T., Okabe, R., Levine, R. L., Lee, B. H., Gilliland, D. G.  
2006; 107 (11): 4274-4281
- **Role of JAK-STAT signaling in the pathogenesis of myeloproliferative disorders.** *Hematology / the Education Program of the American Society of Hematology. American Society of Hematology. Education Program*  
Levine, R. L., Wernig, G.  
2006: 233-?
- **Expression of a homodimeric type I cytokine receptor is required for JAK2V617F-mediated transformation** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Lu, X. H., Levine, R., Tong, W., Wernig, G., Pikman, Y., Zarnegar, S., Gilliland, D. G., Lodish, H.  
2005; 102 (52): 18962-18967
- **The vast majority of bone-marrow-derived cells integrated into mdx muscle fibers are silent despite long-term engraftment** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Wernig, G., Janzen, V., SCHAFFER, R., Zweyer, M., Knauf, U., Hoegemeier, O., Mundegar, R. R., Garbe, S., Stier, S., Franz, T., Wernig, M., Wernig, A.  
2005; 102 (33): 11852-11857

- **Activating mutation in the tyrosine kinase JAK2 in polycythemia vera, essential thrombocythemia, and myeloid metaplasia with myelofibrosis** *CANCER CELL*  
Levine, R. L., Wadleigh, M., Cools, J., Ebert, B. L., Wernig, G., Huntly, B. J., Boggon, T. J., Wlodarska, L., Clark, J. J., Moore, S., Adelsperger, J., Koo, S., Lee, et al  
2005; 7 (4): 387-397
- **Correction of CFTR malfunction and stimulation of Ca<sup>2+</sup>- activated Cl<sup>-</sup> channels restore HCO<sub>3</sub><sup>-</sup> secretion in cystic fibrosis bile ductular cells** *HEPATOLOGY*  
Zsembery, A., Jessner, W., Sitter, G., Spirli, C., Strazzabosco, M., Graf, J.  
2002; 35 (1): 95-104