

THE FLATZ LAB

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SUMMARY & MISSION STATEMENT

Our laboratory is working at the crossroads of clinical research and basic tumor immunology. Our goal is to gain new knowledge on the mechanisms leading to effective responses to immunotherapy, such as with checkpoint inhibitors and cancer vaccines.

OVERVIEW

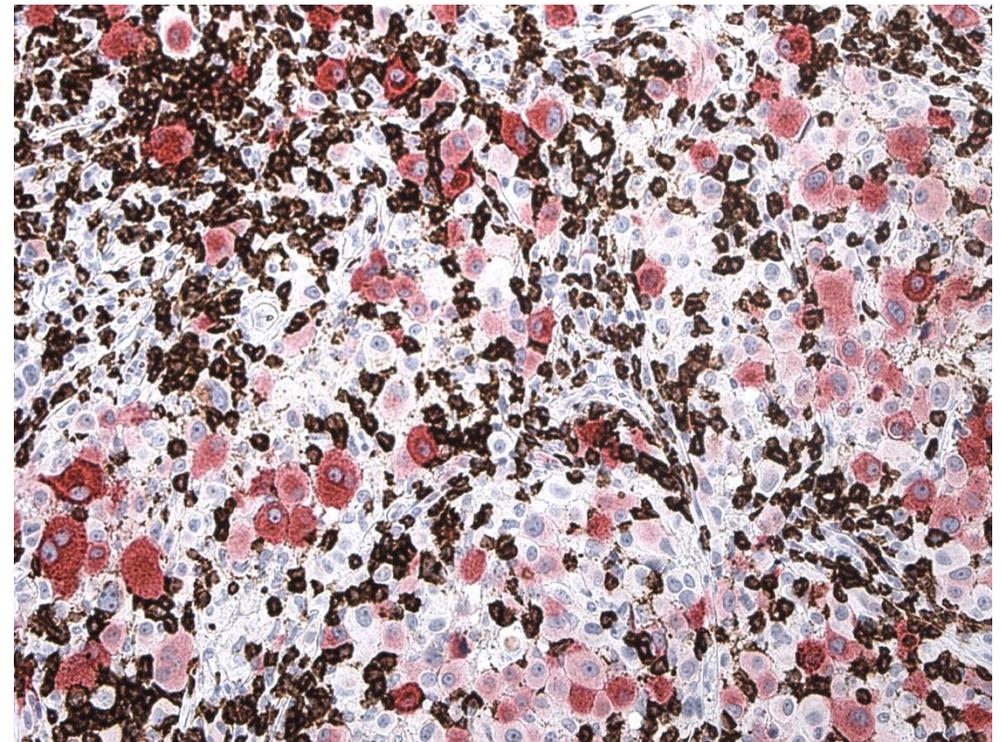
Our team is an interdisciplinary group consisting of molecular biologists, MDs and bioinformaticians. We are part of the Institute of Immunobiology at the Kantonsspital St. Gallen, the leading hospital in Eastern Switzerland, and academically we are affiliated to the University of Zürich.

Our research focuses on deciphering the mechanisms leading to effective responses to immunotherapy and on investigating novel cancer treatments. The arrival of immunotherapy, such as checkpoint inhibitors, has significantly improved patient survival, however response rates among patients show inexplicable variation. Our IMIT-project (**I**mmune-**M**onitoring of **I**mmuno**T**herapy) consists of a large cohort of NSCLC and melanoma patients and aims at identifying changes in patients receiving checkpoint inhibitors. In the future, this will help to tailor individualized therapies for patients. We are also investigating novel anti-tumor vaccines against melanoma-associated self-antigens. Preliminary data show that immunization of tumor-bearing mice with recombinant vectors expressing these antigens can initiate potent innate and adaptive immune responses resulting in significantly delayed tumor growth and increased survival.

SELECTED PUBLICATIONS

Characterization of nivolumab-associated skin reactions in patients with metastatic non-small cell lung cancer. Hasan Ali O, Diem S, Markert E, Jochum W, Kerl K, French LE, Speiser DE, Früh M, [Flatz L](#). **Oncoimmunology**. 2016 Sep 19; 5(11)

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Tumor infiltrating lymphocytes in lymph node metastases of stage III melanoma correspond to response and survival in nine patients treated with ipilimumab at the end of stage IV disease. Diem S, Hasan Ali O, Ackermann CJ, Bomze D, Koelzer VH, Jochum W, Speiser DE, Mertz KD, Flatz L. **Cancer Immunol Immunother**. 2018 Jan; 67(1):39-45. www.ncbi.nlm.nih.gov/pubmed/28894934