



Sabine Heitzeneder

Assistant Professor of Pediatrics (Hematology/Oncology)

Pediatrics - Hematology & Oncology

Bio

ACADEMIC APPOINTMENTS

- Assistant Professor, Pediatrics - Hematology & Oncology
- Member, Maternal & Child Health Research Institute (MCHRI)

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Maximilian Koch, Natalia Plewa Juraszek

Publications

PUBLICATIONS

- **Antigen density quantification of cell-surface immunotherapy targets by flow cytometry: Multi-antigen assay of neuroblastoma bone marrow metastasis.** *STAR protocols*
Radosevich, M. T., Bornheimer, S. J., Mehrpouryan, M., Sahaf, B., Oak, J. S., Mackall, C. L., Heitzeneder, S.
2023; 4 (4): 102709
- **Identifying tumor-restricted target antigens for adoptive cellular immunotherapy to treat Ewing Sarcoma using multiomic discovery platforms**
Heitzeneder, S.
AMER ASSOC CANCER RESEARCH.2022
- **Enhanced safety and efficacy of protease-regulated CAR-T cell receptors.** *Cell*
Labanieh, L., Majzner, R. G., Klysz, D., Sotillo, E., Fisher, C. J., Vilches-Moure, J. G., Pacheco, K. Z., Malipatlolla, M., Xu, P., Hui, J. H., Murty, T., Theruvath, J., Mehta, et al
2022
- **Anti-GD2 synergizes with CD47 blockade to mediate tumor eradication.** *Nature medicine*
Theruvath, J., Menard, M., Smith, B. A., Linde, M. H., Coles, G. L., Dalton, G. N., Wu, W., Kiru, L., Delaidelli, A., Sotillo, E., Silberstein, J. L., Geraghty, A. C., Banuelos, et al
1800
- **GPC2-CAR T cells tuned for low antigen density mediate potent activity against neuroblastoma without toxicity** *CANCER CELL*
Heitzeneder, S., Bosse, K. R., Zhu, Z., Zhelev, D., Majzner, R. G., Radosevich, M. T., Dhingra, S., Sotillo, E., Buongervino, S., Pascual-Pasto, G., Garrigan, E., Xu, P., Huang, et al
2022; 40 (1): 53-+
- **GPC2-CAR T cells tuned for low antigen density mediate potent activity against neuroblastoma without toxicity.** *Cancer cell*

- Heitzeneder, S., Bosse, K. R., Zhu, Z., Zhelev, D., Majzner, R. G., Radosevich, M. T., Dhingra, S., Sotillo, E., Buongervino, S., Pascual-Pasto, G., Garrigan, E., Xu, P., Huang, et al
1800
- **Potent activity of CAR T cells targeting the oncofetal protein GPC2 engineered to recognize low antigen density in neuroblastoma.**
Heitzeneder, S., Bosse, K. R., Zhu, Z., Jelev, D., Dhingra, S., Majzner, R., Sotillo-Pineiro, E., Buongervino, S., Xu, P., Huang, J., Delaidelli, A., Hasselblatt, M., Parker, et al
AMER ASSOC CANCER RESEARCH.2021
 - **Transient rest restores functionality in exhausted CAR-T cells through epigenetic remodeling.** *Science (New York, N.Y.)*
Weber, E. W., Parker, K. R., Sotillo, E., Lynn, R. C., Anbunathan, H., Lattin, J., Good, Z., Belk, J. A., Daniel, B., Klysz, D., Malipatlolla, M., Xu, P., Bashti, et al
2021; 372 (6537)
 - **Glypican-2 targeted CAR T cells designed to effectively eradicate endogenous site density solid tumors in the absence of toxicity**
Heitzeneder, S., Bosse, K. R., Zhu, Z., Majzner, R. G., Theruvath, J., Xu, P., Dhingra, S., Anbunathan, H., Alag, A., Dimitrov, D. S., Maris, J. M., Mackall, C. L.
AMER ASSOC CANCER RESEARCH.2020: 46
 - **Locoregionally administered B7H3-targeting CAR T cells mediate potent antitumor effects in atypical teratoid/rhabdoid tumor**
Theruvath, J., Sotillo, E., Graef, C., Heitzeneder, S., Labanieh, L., Majzner, R., Mackall, C.
AMER ASSOC CANCER RESEARCH.2020: 33
 - **GD2 is a macrophage checkpoint molecule and combined GD2/CD47 blockade results in synergistic effects and tumor clearance in xenograft models of neuroblastoma and osteosarcoma**
Theruvath, J., Smith, B., Linde, M. H., Sotillo, E., Heitzeneder, S., Marjon, K., Tousley, A., Lattin, J., Banuelos, A., Dhingra, S., Murty, S., Mackall, C. L., Majzner, et al
AMER ASSOC CANCER RESEARCH.2020: 35
 - **Tuning the Antigen Density Requirement for CAR T Cell Activity.** *Cancer discovery*
Majzner, R. G., Rietberg, S. P., Sotillo, E. n., Dong, R. n., Vachharajani, V. T., Labanieh, L. n., Myklebust, J. H., Kadapakkam, M. n., Weber, E. W., Tousley, A. M., Richards, R. M., Heitzeneder, S. n., Nguyen, et al
2020
 - **Locoregionally administered B7-H3-targeted CAR T cells for treatment of atypical teratoid/rhabdoid tumors.** *Nature medicine*
Theruvath, J. n., Sotillo, E. n., Mount, C. W., Graef, C. M., Delaidelli, A. n., Heitzeneder, S. n., Labanieh, L. n., Dhingra, S. n., Leruste, A. n., Majzner, R. G., Xu, P. n., Mueller, S. n., Yecies, et al
2020
 - **CAR T Cells Targeting B7-H3, a Pan-Cancer Antigen, Demonstrate Potent Preclinical Activity Against Pediatric Solid Tumors and Brain Tumors** *CLINICAL CANCER RESEARCH*
Majzner, R. G., Theruvath, J. L., Nellan, A., Heitzeneder, S., Cui, Y., Mount, C. W., Rietberg, S. P., Linde, M. H., Xu, P., Rota, C., Sotillo, E., Labanieh, L., Lee, et al
2019; 25 (8): 2560–74
 - **LOCALLY ADMINISTERED CART CELLS DEMONSTRATE MOST FAVORABLE ROUTE OF ADMINISTRATION IN A MODEL OF ATRT**
Theruvath, J., Graef, C., Heitzeneder, S., Majzner, R., Labanieh, L., Mackall, C.
OXFORD UNIV PRESS INC.2019: 94–95
 - **CAR T cells targeting B7-H3, a Pan-Cancer Antigen, Demonstrate Potent Preclinical Activity Against Pediatric Solid Tumors and Brain Tumors.** *Clinical cancer research : an official journal of the American Association for Cancer Research*
Majzner, R. G., Theruvath, J. L., Nellan, A., Heitzeneder, S., Cui, Y., Mount, C. W., Rietberg, S. P., Linde, M. H., Xu, P., Rota, C., Sotillo, E., Labanieh, L., Lee, et al
2019
 - **Pregnancy-Associated Plasma Protein-A (PAPP-A) in Ewing Sarcoma: Role in Tumor Growth and Immune Evasion.** *Journal of the National Cancer Institute*
Heitzeneder, S. n., Sotillo, E. n., Shern, J. F., Sindiri, S. n., Xu, P. n., Jones, R. n., Pollak, M. n., Noer, P. R., Lorette, J. n., Fazli, L. n., Alag, A. n., Meltzer, P. n., Lau, et al
2019

- **CHECKPOINT MOLECULE B7-H3 IS HIGHLY EXPRESSED ON ATYPICAL RHABDOID TERATOID TUMOR (ATRT) AND IS A PROMISING CANDIDATE FOR CAR T CELL THERAPY**
Theruvath, J., Graef, C., Heitzeneder, S., Majzner, B., Mitra, S., Cheshier, S. H., Mackall, C.
OXFORD UNIV PRESS INC.2018: 33
- **CAR T CELLS TARGETING B7-H3, A PAN-CANCER ANTIGEN, DEMONSTRATE POTENT PRECLINICAL ACTIVITY AGAINST PEDIATRIC SOLID TUMORS AND BRAIN TUMORS**
Majzner, R., Nellan, A., Heitzeneder, S., Theruvath, J., Mackall, C.
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- **Harnessing the Immunotherapy Revolution for the Treatment of Childhood Cancers** *CANCER CELL*
Majzner, R. G., Heitzeneder, S., Mackall, C. L.
2017; 31 (4): 476-485
- **Identification of GPC2 as an Oncoprotein and Candidate Immunotherapeutic Target in High-Risk Neuroblastoma.** *Cancer cell*
Bosse, K. R., Raman, P. n., Zhu, Z. n., Lane, M. n., Martinez, D. n., Heitzeneder, S. n., Rathi, K. S., Kendsersky, N. M., Randall, M. n., Donovan, L. n., Morrissy, S. n., Sussman, R. T., Zhelev, et al
2017; 32 (3): 295–309.e12