

Stanford



Travis Shaffer

Postdoctoral Research Fellow, Radiology

Bio

HONORS AND AWARDS

- Top Immunology Poster, World Molecular Imaging Conference (September 2019)
- Cancer-Translational Nanotechnology Training (Cancer-TNT) Program, Stanford (August 2016-August 2019)
- Pacificchem Travel Award, Department of Energy (December 2015)
- Poster Award, World Molecular Imaging Congress (September 2015)
- Student Travel Award, World Molecular Imaging Congress (September 2015)
- STEM Professional Development on Teaching Program, CUNY (Summer 2014)
- Doctoral student travel grant, CUNY (2014)
- Med Chem Sci-mix presenter, American Chemical Society (September 2013)
- Med Chem Travel Grant, American Chemical Society (September 2013)
- Poster Presenter Award Finalist, World Molecular Imaging Congress (September 2013)
- NIH Clinical Center's Clinical and Translational Program, National Institutes of Health (Summer 2013)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, CUNY Graduate School and University Center (2016)
- Bachelor of Science, Gannon University (2011)
- Master of Philosophy, CUNY Graduate School and University Center (2013)

STANFORD ADVISORS

- Jianghong Rao, Postdoctoral Faculty Sponsor
- Sanjiv Gambhir, Postdoctoral Research Mentor

PATENTS

- Travis Shaffer, Edwin Pratt, Jan Grimm. "United States Enhanced Cerenkov Luminescence Using High Refractive Index Nanoparticles.", MSKCC
- Matthew Wall, Travis Shaffer, Stefan Harmsen, Jan Grimm, Moritz Kircher. "United States METAL(LOID) CHALCOGEN NANOPARTICLES AS UNIVERSAL BINDERS FOR MEDICAL ISOTOPES.", MSKCC
- Charalambos Kaittanis, Jan Grimm, Travis Shaffer. "United States COMPOSITIONS AND METHODS FOR NANOPARTICLE-BASED DRUG DELIVERY AND IMAGING.", MSKCC

Research & Scholarship

LAB AFFILIATIONS

- Sanjiv Gambhir (8/1/2016)

Publications

PUBLICATIONS

- **Viral Delivery of CAR Targets to Solid Tumors Enables Effective Cell Therapy.** *Molecular therapy oncolytics*
Aalipour, A., Le Boeuf, F., Tang, M., Murty, S., Simonetta, F., Lozano, A. X., Shaffer, T. M., Bell, J. C., Gambhir, S. S.
2020; 17: 232–40
- **Positron emission tomography (PET) imaging of the natural killer (NK) cell activation receptor NKP30.**
Shaffer, T. M., Aalipour, A., Gambhir, S. S.
AMER ASSOC CANCER RESEARCH.2020: 102–3
- **Continuous-Wave Coherent Raman Spectroscopy via Plasmonic Enhancement.** *Scientific reports*
Monfared, Y. E., Shaffer, T. M., Gambhir, S. S., Hewitt, K. C.
2019; 9 (1): 12092
- **Nanoparticles as multimodal photon transducers of ionizing radiation** *Nature Nanotechnology*
Pratt, E., Shaffer, T. M., Qize, Z., Drain, C., Grimm, J.
2018: 418–26
- **Nanoparticles as multimodal photon transducers of ionizing radiation.** *Nature nanotechnology*
Pratt, E. C., Shaffer, T. M., Zhang, Q., Drain, C. M., Grimm, J.
2018; 13 (5): 418–26
- **Utilizing the power of Cerenkov light with nanotechnology** *Nature Nanotechnology*
Shaffer, T. M., Pratt, E. C., Grimm, J.
2017: 106–117
- **Chelator-Free Radiolabeling of SERRS Nanoparticles for Whole-Body PET and Intraoperative Raman Imaging.** *Theranostics*
Wall, M., Shaffer, T. M.
2017: 3068–77
- **Radiation Responsive Esculin-derived Molecular Gels as Signal Enhancers for Optical Imaging.** *ACS Appl Mater Interfaces*
Julian, S., Zhang, Q., Pramanik, N., Samateh, M., Shaffer, T. M., Sagiri, S., Grimm, J., John, G.
2017
- **Near-Infrared Intraoperative Chemiluminescence Imaging.** *ChemMedChem*
Büchel, G. E., Carney, B., Shaffer, T. M., Tang, J., Austin, C., Arora, M., Zeglis, B. M., Grimm, J., Eppinger, J., Reiner, T.
2016
- **Near-infrared quantum dot and (89)Zr dual-labeled nanoparticles for in vivo Cerenkov imaging.** *Bioconjugate chemistry*
Zhao, Y., Shaffer, T., Das, S., Perez-Medina, C., Mulder, W. J., Grimm, J.
2016
- **Optical imaging of ionizing radiation from clinical sources.** *Journal of Nuclear Medicine*
Shaffer, T. M., Drain, C. M., Grimm, J.
2016
- **Stable radiolabeling of sulfur-functionalized silica nanoparticles with copper-64.** *Nano Letters*
Shaffer, T. M., Harmsen, S., Khwaja, E., Kircher, M. F., Drain, C. M., Grimm, J.
2016
- **Nanoparticles and radiotracers: advances toward radionanomedicine.** *Wiley Interdiscip Rev Nanomed Nanobiotechnol.*
Pratt, E. C., Shaffer, T. M., Grimm, J.

2016

- **Multifunctional MRI/PET Nanobeacons Derived from the in Situ Self-Assembly of Translational Polymers and Clinical Cargo through Coalescent Intermolecular Forces** *NANO LETTERS*
Kaittanis, C., Shaffer, T. M., Bolaender, A., Appelbaum, Z., Appelbaum, J., Chiosis, G., Grimm, J.
2015; 15 (12): 8032-8043
- **Silica Nanoparticles as Substrates for Chelator-free Labeling of Oxophilic Radioisotopes** *NANO LETTERS*
Shaffer, T. M., Wall, M. A., Harmsen, S., Longo, V. A., Drain, C. M., Kircher, M. F., Grimm, J.
2015; 15 (2): 864-868
- **Environment-responsive nanophores for therapy and treatment monitoring via molecular MRI quenching** *NATURE COMMUNICATIONS*
Kaittanis, C., Shaffer, T. M., Ogirala, A., Santra, S., Perez, J. M., Chiosis, G., Li, Y., Josephson, L., Grimm, J.
2014; 5
- **Dawn of advanced molecular medicine: nanotechnological advancements in cancer imaging and therapy.** *Critical reviews in oncogenesis*
Kaittanis, C., Shaffer, T. M., Thorek, D. L., Grimm, J.
2014; 19 (3-4): 143-176