Stanford

# Thomas Guenther

Postdoctoral Scholar, Molecular Imaging Program at Stanford

## Bio

### STANFORD ADVISORS

- Corinne Beinat, Postdoctoral Faculty Sponsor

## Research & Scholarship

### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Current research projects include the development of:

1) Gastrin-releasing peptide receptor (GRPR) targeted radiotheranostics (Cu-64, Ga-68, Tb-161, Lu-177, amongst others)

2) Radiohybrid-based cholecystokinin-2 receptor (CCK-2R) targeted radiotheranostics (F-18, Lu-177)

3) Radiotherapeutics for targeted alpha-particle therapy

4) Radiotheranostics for novel targets

All projects have a strong focus on clinical translation

## Publications

### PUBLICATIONS

- **Significant reduction of activity retention in the kidneys via optimized linker sequences in radiohybrid-based minigastrin analogs.** *EJNMMI research*
  Holzleitner, N., Fischer, S., Maniyankerikalam, I., Beck, R., Lapa, C., Wester, H. J., Günther, T.
  2024; 14 (1): 23
- **Preclinical Evaluation of Minigastrin Analogs and Proof-of-Concept [68Ga]Ga-DOTA-CCK-66 PET/CT in 2 Patients with Medullary Thyroid Cancer.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  Günther, T., Holzleitner, N., Viering, O., Beck, R., Wienand, G., Dierks, A., Pfob, C. H., Bundschuh, R. A., Kircher, M., Lapa, C., Wester, H. J.
  2023
- **CCK2 Receptor-Targeted PET/CT in Medullary Thyroid Cancer Using [68Ga]Ga-DOTA-CCK-66.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  Viering, O., Günther, T., Holzleitner, N., Dierks, A., Wienand, G., Pfob, C. H., Bundschuh, R. A., Wester, H. J., Enke, J. S., Kircher, M., Lapa, C.
  2023
- **Synthesis of 177Lu-Labeled, Somatostatin-2 Receptor-Targeted Metalla-Assemblies: Challenges in the Design of Supramolecular Radiotherapeutics.** *Inorganic chemistry*
  Deiser, S., Drexler, M., Moreno-Alcántar, G., Irl, M., Schmidt, C., Günther, T., Casini, A.
  2023
- **Preclinical Comparison of the 64Cu- and 68Ga-Labeled GRPR-Targeted Compounds RM2 and AMTG, as Well as First-in-Humans [68Ga]Ga-AMTG PET/CT.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  Koller, L., Joksch, M., Schwarzenböck, S., Kurth, J., Heuschkel, M., Holzleitner, N., Beck, R., von Amsberg, G., Wester, H. J., Krause, B. J., Günther, T.

2023

- **Investigation of the structure-activity relationship at the N-terminal part of minigastrin analogs.** *EJNMMI research*
  Holzleitner, N., Günther, T., Daoud-Gadieh, A., Lapa, C., Wester, H. J.
  2023; 13 (1): 65
- **Development of the First 18F-Labeled Radiohybrid-Based Minigastrin Derivative with High Target Affinity and Tumor Accumulation by Substitution of the Chelating Moiety.** *Pharmaceutics*
  Günther, T., Holzleitner, N., Di Carlo, D., Urtz-Urban, N., Lapa, C., Wester, H. J.
  2023; 15 (3)
- **Synthesis and preclinical evaluation of novel Tc-99m-labeled PSMA ligands for radioguided surgery of prostate cancer** *EJNMMI RESEARCH*
  Kunert, J., Mueller, M., Guenther, T., Stopper, L., Urtz-Urban, N., Beck, R., Wester, H.
  2023; 13 (1): 2
- **Introduction of a SiFA Moiety into the D-Glutamate Chain of DOTA-PP-F11N Results in Radiohybrid-Based CCK-2R-Targeted Compounds with Improved Pharmacokinetics In Vivo** *PHARMACEUTICALS*
  Holzleitner, N., Guenther, T., Beck, R., Lapa, C., Wester, H.
  2022; 15 (12)
- **Substitution of L-Tryptophan by a-Methyl-L-Tryptophan in 177Lu-RM2 Results in 177Lu-AMTG, a High-Affinity Gastrin-Releasing Peptide Receptor Ligand with Improved In Vivo Stability** *JOURNAL OF NUCLEAR MEDICINE*
  Guenther, T., Deiser, S., Felber, V., Beck, R., Wester, H.
  2022; 63 (9): 1364-1370
- **Optimization of the Pharmacokinetic Profile of [(99)mTc]Tc-N-4-Bombesin Derivatives by Modification of the Pharmacophoric Gln-Trp Sequence** *PHARMACEUTICALS*
  Guenther, T., Konrad, M., Stopper, L., Kunert, J., Fischer, S., Beck, R., Casini, A., Wester, H.
  2022; 15 (9)
- **Preclinical comparison of four [F-18, Ga-nat]rhPSMA-7 isomers: influence of the stereoconfiguration on pharmacokinetics** *EJNMMI RESEARCH*
  Wurzer, A., Parzinger, M., Konrad, M., Beck, R., Guenther, T., Felber, V., Faerber, S., Di Carlo, D., Wester, H.
  2020; 10 (1): 149
- **Synthesis and in vitro and in vivo evaluation of urea-based PSMA inhibitors with increased lipophilicity** *EJNMMI RESEARCH*
  Wirtz, M., Schmidt, A., Schottelius, M., Robu, S., Guenther, T., Schwaiger, M., Wester, H.
  2018; 8: 84
- **Synthesis and preclinical evaluation of novel F-18-labeled Glu-urea-Glu-based PSMA inhibitors for prostate cancer imaging: a comparison with F-18-DCFPyl and F-18-PSMA1007** *EJNMMI RESEARCH*
  Robu, S., Schmidt, A., Eiber, M., Schottelius, M., Guenther, T., Yousefi, B., Schwaiger, M., Wester, H.
  2018; 8: 30