Stanford

Kip E. Guja, MD PhD

Clinical Assistant Professor, Radiology - Rad/Nuclear Medicine

CLINICAL OFFICE (PRIMARY)

- **Nuclear Medicine**

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ACADEMIC CONTACT INFORMATION

- **Administrative Contact**

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Bio

BIO

Kip E. Guja, MSc, MD, PhD, is a Clinical Assistant Professor in the Department of Radiology, specializing in Nuclear Medicine and Molecular Imaging. As a physician-scientist, Dr. Guja's dual expertise in medicine as well as molecular structural biology and pharmacology allows him to bridge the gap between bench-top discovery and bedside application. His clinical work is centered on theragnostics—the integration of targeted molecular imaging and precision therapy—with a particular focus on improving patient outcomes through the use of novel radiopharmaceuticals. Dr. Guja is also a leader in Radiology Informatics, where he serves as the Co-Director of Structured Reporting and an EPIC Optimization Champion for the nuclear medicine division. In these roles, he drives institutional efforts to enhance diagnostic clarity and streamline clinical workflows through data-driven technology solutions. His research interests encompass the development of "smart" molecular probes and the optimization of healthcare IT systems to support clinician wellness and patient safety. Dr. Guja is a recipient of numerous honors, including the SNMMI "One to Watch" award, reflecting his commitment to shaping the future of molecular imaging and personalized medicine.

CLINICAL FOCUS

- PET Imaging
- Theragnostics
- Diagnostic Radiology
- Pediatric Radiology
- Nuclear Radiology

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Radiology - Rad/Nuclear Medicine
- Member, Cardiovascular Institute
- Member, Maternal & Child Health Research Institute (MCHRI)

ADMINISTRATIVE APPOINTMENTS

- Associate Program Director, Nuclear Medicine Residency Program, (2026- present)
- Co-director, Structured Reporting for Nuclear Medicine and Molecular Imaging, Department of Radiology, (2024- present)
- Wellness Champion, Nuclear Medicine and Molecular Imaging, Department of Radiology, (2024- present)
- Member, Molecular Imaging Program at Stanford (MIPS), (2023- present)
- IT Representative and EPIC Optimization Champion for Nuclear Medicine, Radiology IT Operations Committee, Stanford University Hospital, (2019-present)
- Chief Resident, Nuclear Medicine and Diagnostic Radiology (NM/DR), Stanford University School of Medicine, (2022-2023)
- Clinical Administrator, Outpatient MRI Clinic Injection Shifts, 732 Welch Road, Stanford Children's Health, (2023-2023)
- Project Leader, Contrast Extravasation Workflows, 52-in-52 Quality Improvement Initiative, (2021-2022)
- Chief Resident, Nuclear Medicine and Diagnostic Radiology (NM/DR), Stanford University School of Medicine, (2019-2020)

HONORS AND AWARDS

- First Place Poster Award, General Clinical Specialties Track, SNMMI Annual Meeting (2025)
- One to Watch Award, Society of Nuclear Medicine and Molecular Imaging (2023)
- Resident Researcher Award, Nuclear Medicine and Molecular Imaging, Stanford University Hospital (2023)
- Intern of the Year Award, Department of Medicine, Stony Brook University Hospital (2018)
- Julian David Baumert PhD Thesis Award, Brookhaven National Laboratory (2016)
- Student Travel Stipend Award, Radiological Society of North America (2016)
- Ruth L. Kirschstein National Research Service Award, National Institutes of Health (2013-2015)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Nuclear Medicine Practice Parameters Writing Committee, American College of Radiology (2023 - present)
- Member, Review Committee, World Molecular Imaging Congress (2023 - 2023)
- Intern, Pediatric Imaging Council, Society of Nuclear Medicine and Molecular Imaging (2023 - present)
- Member, Nuclear Medicine Committee, Society of Pediatric Radiology (2023 - present)
- Editorial Board Member, Frontiers in Oncology: Cancer Imaging and Image-directed Interventions (2023 - present)
- Resident Representative for Nuclear Medicine, Radiological Society of North America (2021 - 2022)
- Member, Stanford Medicine Abilities Coalition (2019 - present)
- Member, American Society of Nuclear Cardiology (2018 - present)
- Member, American College of Nuclear Medicine (2018 - present)
- Fellow, Medical Scientist Training Program, National Institutes of Health (2008 - 2017)

PROFESSIONAL EDUCATION

- Board Certification: Nuclear Medicine, American Board of Nuclear Medicine (2023)
- Board Certification: Diagnostic Radiology, American Board of Radiology (2024)
- Fellowship, Stanford University School of Medicine , Nuclear Medicine (2019)
- Fellowship, Stanford University School of Medicine , Pediatric Radiology (2023)
- Residency: Stanford University Radiology Residency (2023) CA
- Internship: Stony Brook University Dept of Medicine (2018) NY
- Medical Education: Stony Brook University School of Medicine (2017) NY

- M.D., Stony Brook University School of Medicine (2017)
- Ph.D., Stony Brook University Department of Pharmacology , Biochemistry and Structural Biology (2015)
- M.S., Johns Hopkins University , Molecular and Cellular Biology (2007)
- B.S., Johns Hopkins University , Molecular and Cellular Biology (2006)

LINKS

- Protein Data Bank Entries: https://tinyurl.com/kipguja-pdb-entries
- ResearchGate Profile: https://www.researchgate.net/profile/Kip-Guja
- Stanford Nuclear Medicine and Molecular Imaging: https://med.stanford.edu/nuclearmedicine.html
- Molecular Imaging Program at Stanford (MIPS): https://med.stanford.edu/mips

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My current research interests include:

1) PET/MR and PET/CT imaging in children and adults, for oncologic and non-oncologic indications

2) Targeted radionuclide therapy and theragnostics

3) Pre-clinical development and clinical translation of novel radiopharmaceuticals

CLINICAL TRIALS

- ALS PET-MRI, Recruiting
- Pediatric PET/MR Image Registry, Recruiting
- Phase I Perioperative PRRT in Metastatic, WHO Grade 1 or2, SSTR Positive, Gastroenteropancreatic NET, Recruiting
- SPECT/CT F18 Fluorocholine, Recruiting
- Zanubrutinib, Recruiting
- Development of Radiation Free Whole Body MR Imaging Technique for Staging of Children with Cancer, Not Recruiting
- Perfusion Study, Not Recruiting
- Phase I Study of [177Lu]Lu-NNS309 in Patients With Pancreatic, Lung, Breast and Colorectal Cancers, Not Recruiting
- Phase I/IIa 177Lu-NeoB in AdvancedSolid Tumors Known to Overexpress Gastrin-ReleasingPeptideReceptor, Not Recruiting
- Phase III 177Lu-PSMA-617 +/- Standard of Care in Metastatic Hormone Sensitive Prostate Cancer(mHSPC), Not Recruiting
- Phase 1 of safety, tolerability, dosimetry of [177 Lu]Lu-EVS459 in ovarian and lung cancers, Not Specified

Publications

PUBLICATIONS

- **Adverse Events in Targeted Radionuclide Therapy.** *Radiographics : a review publication of the Radiological Society of North America, Inc*
  Guja, K. E., Wu, J., Agordzo, H. L., Kwofie, J., Samaan, D., Nadel, H. R., Grady, E., Shah, J.
  2025; 45 (9): e240143
- **Response to Gao and Chen, "Comments on Akaike et al.'s 'Circulating tumor DNA level is associated with time to clinical recurrence in Merkel cell carcinoma: Implications for patient management'".** *Journal of the American Academy of Dermatology*
  Akaike, T., Thakuria, M., Silk, A. W., Hippe, D. S., Ch'en, P. Y., Guja, K. E., Youn Park, S., Tsai, K., Yom, S. S., Yu, S. S., Choi, J., Chandra, S., Nghiem, et al
  2026
- **Pseudomyogenic Hemangioendothelioma Treated with Zoledronic Acid: A Case Report.** *JBJS case connector*
  McGovern, A. G., Bui, N. Q., Charville, G. W., Guja, K. E., Steffner, R. J.

2025; 15 (4)

- **A Phase II, Single-site, Open-label Study of Zanubrutinib in Patients with igg4-related Disease**
  Baker, M., Horomanski, A., Fairchild, R., Liu, Y., Deluna, M., Lanz, T., Gawde, S., Khalighi, M., Franc, B., Penta, M., Pham, N., Guja, K.
  WILEY.2025: 2286-2288
- **Amyloid PET Radiomics: Correlations with Clinical Features and Neurodegenerative Disease Types**
  Otani, T., Vossler, H., Guja, K., Song, H., Mormino, E., Moradi, F., Davidzon, G.
  SOC NUCLEAR MEDICINE INC.2025
- **Evaluation of Patients with Suspected Parathyroid Adenoma and Negative or Equivocal Tc99m-Sestamibi SPECT/CT Using F18-Fluorocholine PET/CT: Preliminary Results** *Journal of Nuclear Medicine*
  Guja, K., Patel, H., Kebebew, E., Cisco, R., Lin, D., Grady, E., Shah, J., Moradi, F., Song, H., Iagaru, A.
  2025; 66 (1)
- **Molecular Imaging in Soft-tissue Sarcoma: Evolving Role of FDG PET.** *Seminars in nuclear medicine*
  Guja, K. E., Ganjoo, K. N., Iagaru, A.
  2024
- **Molecular Imaging with PET/CT and PET/MRI in Pediatric Musculoskeletal Diseases** *Seminars in Nuclear Medicine*
  Guja, K. E., Behr, G., Bedmutha, A., Kuhn, M., Nadel, H. R., Pandit-Taskar, N.
  2024
- **Overview and Recent Advances in 18F-FDG PET/CT for Evaluation of Pediatric Lymphoma** *Seminars in Nuclear Medicine*
  Guja, K. E., Nadel, H., Iagaru, A.
  2023; 53 (3): 400-412
- **Radiation Safety in Theragnostics: Educational Simulated Real-life Scenarios** *Radiological Society of North America*
  Guja, K., Wu, J., Samaan, D., Grady, E., Shah, J.
  2023
- **Dynamic Multi-phase 18F-NaF PET/MRI in Pediatrics** *Radiological Society of North America*
  Guja, K. E., Nevo, E., Sandberg, J., Nadel, H. R.
  2023
- **Adverse Events in Targeted Radiopharmaceutical Therapy: Educational Simulated Real-life Scenarios** *Radiological Society of North America*
  Guja, K. E., Wu, J., Agordzo, H. L., Kwofie, J., Samaan, D., Nadel, H. R., Grady, E., Shah, J.
  2023
- **Flip-flop: Two tracers are better than one in pediatric PET/MRI for neuroendocrine neoplasms** *Journal of Nuclear Medicine*
  Guja, K. E., Nadel, H. R.
  2023; 64 (1)
- **Test Yourself: 7-month-old female with an enlarging left axillary mass.** *Skeletal radiology*
  Guja, K. E., Hazard, F. K., Fadell, M.
  2022
- **PSMA theragnostics for metastatic castration resistant prostate cancer.** *Translational oncology*
  Song, H., Guja, K. E., Iagaru, A.
  2022; 22: 101438
- **Phantom study of SPECT/CT augmented reality for intraoperative localization of sentinel lymph nodes in head and neck melanoma.** *Oral oncology*
  Nakamoto, R., Zhuo, J., Guja, K. E., Duan, H., Perkins, S. L., Leuze, C., Daniel, B. L., Franc, B. L.
  1800; 125: 105702
- **64Cu-DOTATATE Uptake in a Pulmonary Hamartoma** *Clinical Nuclear Medicine*
  Song, H., Guja, K. E., Yang, E. J., Guo, H. H.
  2022; 48 (1): 58-60
- **18F-FDG PET/CT for Evaluation of Post-Transplant Lymphoproliferative Disorder (PTLD).** *Seminars in nuclear medicine*

Song, H., Guja, K. E., Iagaru, A.
2021

- **The Clinical Utility of 18F-Fluciclovine PET/CT in Biochemically Recurrent Prostate Cancer: an Academic Center Experience Post FDA Approval.** *Molecular imaging and biology*
  Nakamoto, R. n., Harrison, C. n., Song, H. n., Guja, K. E., Hatami, N. n., Nguyen, J. n., Moradi, F. n., Franc, B. L., Aparici, C. M., Davidzon, G. n., Iagaru, A. n.
  2021

- **Prospective evaluation of F-18-DCFPyL PET/CT in biochemically recurrent prostate cancer: Analysis of lesion localization and distribution.**
  Song, H., Duan, H., Harrison, C., Guja, K., Hatami, N., Franc, B., Moradi, F., Aparici, C., Davidzon, G., Srinivas, S., Iagaru, A.
  AMER SOC CLINICAL ONCOLOGY.2020

- **Peptide receptor radionuclide therapy (PRRT) for neuroendocrine tumors (NET): A two-year single institution experience**
  Duan, H., Ninatti, G., Girod, B., Ferri, V., Guja, K., Song, H., Kunz, P., Fisher, G., Iagaru, A., Aparici, C.
  SOC NUCLEAR MEDICINE INC.2020

- **Fungal endocarditis resembling primary cardiac malignancy in a patient with B-cell ALL with culture confirmation.** *Radiology case reports*
  Girod, B. J., Guja, K. E., Davidzon, G., Chan, F., Zucker, E., Franc, B. L., Moradi, F., Iagaru, A., Aparici, C. M.
  2020; 15 (2): 117–19

- **An unusual presentation of recurrent T cell lymphoma: angiocentric pattern of cutaneous uptake on [18F]FDG PET/CT.** *European journal of nuclear medicine and molecular imaging*
  Guja, K. E., Brown, R. n., Girod, B. n., Song, H. n., Harrison, C. n., Franc, B. L., Moradi, F. n., Davidzon, G. n., Iagaru, A. n., Aparici, C. M.
  2020

- **Prospective Evaluation in an Academic Center of 18F-DCFPyL PET/CT in Biochemically Recurrent Prostate Cancer: A Focus on Localizing Disease and Changes in Management.** *Journal of nuclear medicine : official publication, Society of Nuclear Medicine*
  Song, H., Harrison, C., Duan, H., Guja, K., Hatami, N., Franc, B., Moradi, F., Mari Aparici, C., Davidzon, G., Iagaru, A.
  2019

- **HnRNPA2 is a novel histone acetyltransferase that mediates mitochondrial stress-induced nuclear gene expression (vol 2, 16045, 2016)** *CELL DISCOVERY*
  Guha, M., Srinivasan, S., Guja, K., Mejia, E., Garcia-Diaz, M., Johnson, F., Ruthel, G., Kaufman, B. A., Rappaport, E. F., Glineburg, M., Fang, J., Klein-Szanto, A. J., Nakagawa, et al
  2019; 5: 28

- **Prospective Evaluation of F-18-DCFPyL PET/CT and Conventional Imaging in Patients with Biochemically Recurrent Prostate Cancer**
  Song, H., Harrison, C., Guja, K., Franc, B., Moradi, F., Davidzon, G., Aparici, C., Iagaru, A.
  SOC NUCLEAR MEDICINE INC.2019

- **Quantification of uptake in Ga-68-DOTATATE PET: Correlation between standardized uptake values and patient factors**
  Moradi, F., Guja, K., Aparici, C., Iagaru, A.
  SOC NUCLEAR MEDICINE INC.2019

- **Prospective evaluation of F-18- DCFPyL in Patients with Biochemically Recurrent Prostate Cancer: Positivity Rate and Correlation with PSA levels**
  Harrison, C., Song, H., Franc, B. L., Guja, K., Moradi, F., Davidzon, G., Aparici, C., Iagaru, A.
  SOC NUCLEAR MEDICINE INC.2019

- **hnRNPA2 mediated acetylation reduces telomere length in response to mitochondrial dysfunction.** *PloS one*
  Guha, M., Srinivasan, S., Johnson, F. B., Ruthel, G., Guja, K., Garcia-Diaz, M., Kaufman, B. A., Glineburg, M. R., Fang, J., Nakagawa, H., Basha, J., Kundu, T., Avadhani, et al
  2018; 13 (11): e0206897

- **Response to Nazarian et al regarding: "Cost-effectiveness of magnetic resonance imaging versus ultrasound for the detection of symptomatic full-thickness supraspinatus tendon tears"** *JOURNAL OF SHOULDER AND ELBOW SURGERY*
  Gyftopoulos, S., Guja, K. E., Subhas, N., Virk, M. S., Gold, H. T.
  2018; 27 (10): E320-E321

- **Cost-effectiveness of magnetic resonance imaging versus ultrasound for the detection of symptomatic full-thickness supraspinatus tendon tears.** *Journal of shoulder and elbow surgery*

Gyftopoulos, S., Guja, K. E., Subhas, N., Virk, M. S., Gold, H. T.
2017; 26 (12): 2067-2077

- **Structure of human nSMase2 reveals an interdomain allosteric activation mechanism for ceramide generation.** *Proceedings of the National Academy of Sciences of the United States of America*
  Airola, M. V., Shanbhogue, P., Shamseddine, A. A., Guja, K. E., Senkal, C. E., Maini, R., Bartke, N., Wu, B. X., Obeid, L. M., Garcia-Diaz, M., Hannun, Y. A.
  2017; 114 (28): E5549-E5558
- **HnRNPA2 is a novel histone acetyltransferase that mediates mitochondrial stress-induced nuclear gene expression.** *Cell discovery*
  Guha, M., Srinivasan, S., Guja, K., Mejia, E., Garcia-Diaz, M., Johnson, F. B., Ruthel, G., Kaufman, B. A., Rappaport, E. F., Glineburg, M. R., Fang, J. K., Klein-Szanto, A. J., Klein Szanto, et al
  2016; 2: 16045
- **Structural and Biochemical Basis for Intracellular Kinase Inhibition by Src-specific Peptidic Macrocycles.** *Cell chemical biology*
  Aleem, S., Georghiou, G., Kleiner, R. E., Guja, K., Craddock, B. P., Lyczek, A., Chan, A. I., Garcia-Diaz, M., Miller, W. T., Liu, D. R., Seeliger, M. A.
  2016; 23 (9): 1103-1112
- **A fidelity mechanism in DNA polymerase lambda promotes error-free bypass of 8-oxo-dG.** *The EMBO journal*
  Burak, M. J., Guja, K. E., Hambardjieva, E., Derkunt, B., Garcia-Diaz, M.
  2016; 35 (18): 2045-59
- **Reviewing the Reviewers: The Timeliness of Peer Review in Radiology Journals**
  Guja, K. E., Janardhanan, A., Stavro, J., Castillo, M., Schweitzer, M. E.
  Radiological Society of North America.2016
- **Nucleotide binding interactions modulate dNTP selectivity and facilitate 8-oxo-dGTP incorporation by DNA polymerase lambda.** *Nucleic acids research*
  Burak, M. J., Guja, K. E., Garcia-Diaz, M.
  2015; 43 (16): 8089-99
- **Completing the specificity swap: Single-stranded DNA recognition by F and R100 TraI relaxase domains.** *Plasmid*
  Guja, K. E., Schildbach, J. F.
  2015; 80: 1-7
- **Unraveling Cholesterol Catabolism in Mycobacterium tuberculosis: ChsE4-ChsE5 α2β2 Acyl-CoA Dehydrogenase Initiates β-Oxidation of 3-Oxo-cholest-4-en-26-oyl CoA.** *ACS infectious diseases*
  Yang, M., Lu, R., Guja, K. E., Wipperman, M. F., St Clair, J. R., Bonds, A. C., Garcia-Diaz, M., Sampson, N. S.
  2015; 1 (2): 110-125
- **A distinct MaoC-like enoyl-CoA hydratase architecture mediates cholesterol catabolism in Mycobacterium tuberculosis.** *ACS chemical biology*
  Yang, M., Guja, K. E., Thomas, S. T., Garcia-Diaz, M., Sampson, N. S.
  2014; 9 (11): 2632-45
- **Organization of the human mitochondrial transcription initiation complex.** *Nucleic acids research*
  Yakubovskaya, E., Guja, K. E., Eng, E. T., Choi, W. S., Mejia, E., Beglov, D., Lukin, M., Kozakov, D., Garcia-Diaz, M.
  2014; 42 (6): 4100-12
- **Non-stop mRNA decay: a special attribute of trans-translation mediated ribosome rescue.** *Frontiers in microbiology*
  Venkataraman, K., Guja, K. E., Garcia-Diaz, M., Karzai, A. W.
  2014; 5: 93
- **A remote palm domain residue of RB69 DNA polymerase is critical for enzyme activity and influences the conformation of the active site.** *PloS one*
  Jacewicz, A., Trzemecka, A., Guja, K. E., Plochocka, D., Yakubovskaya, E., Bebenek, A., Garcia-Diaz, M.
  2013; 8 (10): e76700
- **Structural basis for S-adenosylmethionine binding and methyltransferase activity by mitochondrial transcription factor B1.** *Nucleic acids research*
  Guja, K. E., Venkataraman, K., Yakubovskaya, E., Shi, H., Mejia, E., Hambardjieva, E., Karzai, A. W., Garcia-Diaz, M.

2013; 41 (16): 7947-59

- **Structure of the essential MTERF4:NSUN4 protein complex reveals how an MTERF protein collaborates to facilitate rRNA modification.** *Structure (London, England : 1993)*
  Yakubovskaya, E., Guja, K. E., Mejia, E., Castano, S., Hambardjieva, E., Choi, W. S., Garcia-Diaz, M.
  2012; 20 (11): 1940-7
- **Hitting the brakes: termination of mitochondrial transcription.** *Biochimica et biophysica acta*
  Guja, K. E., Garcia-Diaz, M.
  2011; 1819 (9-10): 939-47
- **An intrastrand three-DNA-base interaction is a key specificity determinant of F transfer initiation and of F TraI relaxase DNA recognition and cleavage.** *Nucleic acids research*
  Hekman, K., Guja, K., Larkin, C., Schildbach, J. F.
  2008; 36 (14): 4565-72
- **Using fluorophore-labeled oligonucleotides to measure affinities of protein-DNA interactions.** *Methods in enzymology*
  Anderson, B. J., Larkin, C., Guja, K., Schildbach, J. F.
  2008; 450: 253-72

PRESENTATIONS

- Pediatric PET MR: Oncologic and Non-oncologic Applications, GE HealthCare SIGNA Masters PET MR Summit 2025
- Imaging Alzheimer's with Amyloid PET: Visual and Quantitative Interpretation. Society of Nuclear Medicine and Molecular Imaging, Northern California Chapter Annual Meeting 2025. - Northern California Chapter Society of Nuclear Medicine and Molecular Imaging
- Pediatric PET MR: Oncology and Beyond, GE HealthCare SIGNA Masters PET MR Summit 2023 (6/29/2023)