Stanford



Jianghong Rao

Professor of Radiology (Molecular Imaging Program at Stanford) and, by courtesy, of Chemistry

Radiology - Rad/Molecular Imaging Program at Stanford

NIH Biosketch available Online

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Professor, Radiology - Rad/Molecular Imaging Program at Stanford
- Professor (By courtesy), Chemistry
- Member, Bio-X
- Faculty Fellow, Sarafan ChEM-H
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Human Frontier Science Program Young Investigator, Human Frontier Science Program (2007-2010)
- Career Award at the Scientific Interface, Burroughs Wellcome (2002-2007)
- Merck Fellow, Damon Runyon Cancer Research Fund (1999-2001)

PROFESSIONAL EDUCATION

- Ph.D., Harvard University , Chemistry (1999)

LINKS

- http://raolab.stanford.edu: http://raolab.stanford.edu

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Probe chemistry and nanotechnology for molecular imaging and diagnostics

CLINICAL TRIALS

- Biodistribution & Pharmacokinetic of Position Emission Tomography (PET) Radiopharmaceutical 18F C SNAT4, Not Recruiting

Teaching

COURSES

2026-27

- Seeing the Invisible: CHEM 23N, RAD 23N (Spr)

2025-26

- Seeing the Invisible: CHEM 23N, RAD 23N (Spr)

2024-25

- Seeing the Invisible: CHEM 23N, RAD 23N (Spr)

2023-24

- Seeing the Invisible: CHEM 23N, RAD 23N (Spr)

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Sheng-Yao Dai, Qunfeng Fu, Ting Wang, Lintong Wu, Zhen Xiao, Jiyao Yu

Doctoral Dissertation Advisor (AC)

Edison Zhou

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biophysics (PhD Program)
- Cancer Biology (PhD Program)

Publications

PUBLICATIONS

- **Multiparameter Longitudinal Imaging of Immune Cell Activity in Chimeric Antigen Receptor T Cell and Checkpoint Blockade Therapies.** *ACS central science*
  Xie, J., El Rami, F., Zhou, K., Simonetta, F., Chen, Z., Zheng, X., Chen, M., Balakrishnan, P. B., Dai, S., Murty, S., Alam, I. S., Baker, J., Negrin, et al
  2022; 8 (5): 590-602

- **Mitochondrial copper depletion suppresses triple-negative breast cancer in mice.** *Nature biotechnology*
  Cui, L., Gouw, A. M., LaGory, E. L., Guo, S., Attarwala, N., Tang, Y., Qi, J., Chen, Y., Gao, Z., Casey, K. M., Bazhin, A. A., Chen, M., Hu, et al
  2020

- **Carbon-coated FeCo nanoparticles as sensitive magnetic-particle-imaging tracers with photothermal and magnetothermal properties.** *Nature biomedical engineering*
  Song, G. n., Kenney, M. n., Chen, Y. S., Zheng, X. n., Deng, Y. n., Chen, Z. n., Wang, S. X., Gambhir, S. S., Dai, H. n., Rao, J. n.
  2020

- **A Fluorogenic Trehalose Probe for Tracking Phagocytosed Mycobacterium tuberculosis.** *Journal of the American Chemical Society*
  Dai, T. n., Xie, J. n., Zhu, Q. n., Kamariza, M. n., Jiang, K. n., Bertozzi, C. R., Rao, J. n.
  2020

- **Pre-targeted Imaging of Protease Activity Via In Situ Assembly of Nanoparticles.** *Angewandte Chemie (International ed. in English)*
  Rao, J. n., Chen, Z. n., Chen, M. n., Zhou, K. n.
  2020

- **A near-infrared phosphorescent nanoprobe enables quantitative, longitudinal imaging of tumor hypoxia dynamics during radiotherapy.** *Cancer research*

Zheng, X., Cui, L., Chen, M., Soto, L. A., Graves, E. E., Rao, J.
2019

- **Rapid and specific labeling of single live Mycobacterium tuberculosis with a dual-targeting fluorogenic probe** *SCIENCE TRANSLATIONAL MEDICINE*
  Cheng, Y., Xie, J., Lee, K., Gaur, R. L., Song, A., Dai, T., Ren, H., Wu, J., Sun, Z., Banaei, N., Akin, D., Rao, J.
  2018; 10 (454)
- **Bioorthogonal cyclization-mediated in situ self-assembly of small-molecule probes for imaging caspase activity in vivo.** *Nature chemistry*
  Ye, D., Shuhendler, A. J., Cui, L., Tong, L., Tee, S. S., Tikhomirov, G., Felsher, D. W., Rao, J.
  2014; 6 (6): 519-526
- **Real-time imaging of oxidative and nitrosative stress in the liver of live animals for drug-toxicity testing.** *Nature biotechnology*
  Shuhendler, A. J., Pu, K., Cui, L., Uetrecht, J. P., Rao, J.
  2014; 32 (4): 373-380
- **Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes in living mice.** *Nature nanotechnology*
  Pu, K., Shuhendler, A. J., Jokerst, J. V., Mei, J., Gambhir, S. S., Bao, Z., Rao, J.
  2014; 9 (3): 233-239
- **A biocompatible condensation reaction for controlled assembly of nanostructures in living cells** *Nature Chemistry*
  Liang G, Ren H, Rao J
  2010; 2 (1): 54-60
- **Site-Specific Labeling of PD-L1 Fab through Disulfide Rebridging for ImmunoPET Imaging.** *Chemical & biomedical imaging*
  Yu, J., Yen, C., Fu, Q., Dai, S. Y., Cheng, M., Rao, J.
  2026; 4 (8): 1816-1826
- **Imaging of Staphylococcus aureus Infections and Biofilms Using a Selective Covalent Probe for the Unique Serine Hydrolase FphE.** *Angewandte Chemie (International ed. in English)*
  Woods, E. C., Upadhyay, T., Park, K. W., Su, S. P., Xiao, Z., Rao, J., Valdez, T. A., Jo, J., Bogyo, M.
  2026: e9575966
- **Site-Specific Labeling of PD-L1 Fab through Disulfide Rebridging for ImmunoPET Imaging** *CHEMICAL & BIOMEDICAL IMAGING*
  Yu, J., Yen, C., Fu, Q., Dai, S., Cheng, M., Rao, J.
  2026
- **Imaging of Staphylococcus aureus infections and biofilms using a selective covalent probe for the unique serine hydrolase FphE.** *bioRxiv : the preprint server for biology*
  Woods, E. C., Upadhyay, T., Park, K. W., Su, S. P., Xiao, Z., Rao, J., Valdez, T. A., Jo, J., Bogyo, M.
  2026
- **Leakage at the Donor Level Reshapes Aging Predictability Across Tissues in Single-Cell Atlases** *IEEE ACCESS*
  Liu, Z., Lu, A., Wang, W., Rao, J., Yang, Y.
  2026; 14: 125763-125774
- **Mycobacteriophage Functionalized Magnetic Nanocrystal Clusters for Highly Sensitive and Rapid Detection of Mycobacterium tuberculosis.** *JACS Au*
  Xiao, Z., Yen, C., Wang, T., Ibrahim, J., Fu, Q., Dai, S. Y., Hajfathalian, M., Murugesan, K., Banaei, N., Bogyo, M., Rao, J.
  2025; 5 (12): 6100-6111
- **Mechanistic Insight into Disturbed Flow-Induced Mitochondrial Copper Overload and Cuproptosis in Atherosclerosis**
  Varadarajan, S., Xiao, Z., Das, A., Ash, D., Yadav, S., Spears, S., Lee, J., Jo, H., Chang, C., Rao, J., Kaplan, J., Ushio-Fukai, M., Fukai, et al
  LIPPINCOTT WILLIAMS & WILKINS.2025
- **B7-H4 ImmunoPET Imaging Tracks Tumor-Associated Macrophage Changes in Prostate Cancer.** *Molecular pharmaceutics*
  Kumar, M., Singh, S. B., Vasyliv, I., Habte, F., Kalita, M., Alam, I. S., Koladiya, A., Dai, S. Y., James, M., Rao, J., Beziere, N., Daldrup-Link, H. E.
  2025
- **Augmentation of [18F]-C-SNAT4 PET imaging of apoptosis after radiotherapy using a cold mixing strategy.** *EJNMMI research*
  Qiu, J., Chen, M., Chen, Z., Beinat, C., Melemenidis, S., Graves, E., Rao, J.

2025; 15 (1): 65

- **Copper Chelation Induces Morphology Change in Mitochondria of Triple-Negative Breast Cancer.** *JACS Au*
  Lee, C., Xiao, Z., Lim, I., Wang, T., Aghaei, P., Burke, P. J., Rao, J.
  2025; 5 (5): 2102-2113

- **Comparison of 5-aminolevulinic acid and MMP-14 targeted peptide probes in preclinical models of GBM.** *Theranostics*
  Kasten, B. B., Dai, T., Jiang, K., Clements, J. C., Zhou, K., Gallegos, C. A., Lee, S. N., Sorace, A. G., Houson, H. A., Stone, L. D., Markert, J. M., Rao, J., Warram, et al
  2025; 15 (8): 3517-3531

- **Endothelial Cu Uptake Transporter CTR1 Senses Disturbed Flow to Promote Atherosclerosis through Cuproptosis.** *bioRxiv : the preprint server for biology*
  Sudhahar, V., Xiao, Z., Das, A., Ash, D., Yadav, S., Matier, C. D., Pezacki, A. T., Chatterjee, B., Antipova, O. A., Vogt, S., McMenamin, M., Kelley, S., Csanyi, et al
  2025

- **Light-Controlled Intracellular Synthesis of Poly(luciferin) Polymers Induces Cell Paraptosis.** *Journal of the American Chemical Society*
  Dai, S., Xiao, Z., Shen, F., Lim, I., Rao, J.
  2025

- **QUANTITATIVE IMAGING OF ⁵⁵CO AND ¹⁸F-LABELED TRACERS IN A SINGLE "MULTIPLEXED" PET IMAGING SESSION**
  Zou, S. J., Lim, I., Foster, J. W., Chinn, G., Houson, H. A., Lapi, S. E., Rao, J., Levin, C. S., IEEE
  IEEE.2025

- **Magnetic-susceptibility-dependent ratiometric probes for enhancing quantitative MRI.** *Nature biomedical engineering*
  Zhang, C., Nan, B., Xu, J., Yang, T., Xu, L., Lu, C., Zhang, X. B., Rao, J., Song, G.
  2024

- **Gold-siRNA supraclusters enhance the anti-tumor immune response of stereotactic ablative radiotherapy at primary and metastatic tumors.** *Nature biotechnology*
  Jiang, Y., Cao, H., Deng, H., Guan, L., Langthasa, J., Colburg, D. R., Melemenidis, S., Cotton, R. M., Aleman, J., Wang, X. J., Graves, E. E., Kalbasi, A., Pu, et al
  2024

- **Chaperone-Derived Copper(I)-Binding Peptide Nanofibers Disrupt Copper Homeostasis in Cancer Cells.** *Angewandte Chemie (International ed. in English)*
  Jeena, M. T., Link, J., Zhang, J., Harley, I., Turunen, P., Graf, R., Wagner, M., Baptista, L. A., Jonker, H. R., Cui, L., Lieberwirth, I., Landfester, K., Rao, et al
  2024: e202412477

- **Culture-Independent Multiplexed Detection of Drug-Resistant Bacteria Using Surface-Enhanced Raman Scattering.** *ACS sensors*
  Dai, T., Xiao, Z., Shan, D., Moreno, A., Li, H., Prakash, M., Banaei, N., Rao, J.
  2023

- **Bioluminogenic Probe for Rapid, Ultrasensitive Detection of β-Lactam-Resistant Bacteria.** *Analytical chemistry*
  Dai, T., Xie, J., Buonomo, J. A., Moreno, A., Banaei, N., Bertozzi, C. R., Rao, J.
  2023

- **A TLR7-nanoparticle adjuvant promotes a broad immune response against heterologous strains of influenza and SARS-CoV-2.** *Nature materials*
  Yin, Q., Luo, W., Mallajosyula, V., Bo, Y., Guo, J., Xie, J., Sun, M., Verma, R., Li, C., Constantz, C. M., Wagar, L. E., Li, J., Sola, et al
  2023

- **Highly Excretable Gold Supraclusters for Translatable In Vivo Raman Imaging of Tumors.** *ACS nano*
  Yu, J. H., Jeong, M. S., Cruz, E. O., Alam, I. S., Tumbale, S. K., Zlitni, A., Lee, S. Y., Park, Y. I., Ferrara, K., Kwon, S., Gambhir, S. S., Rao, J.
  2023

- **Uniform and Length-Tunable, Paramagnetic Self-Assembled Nitroxide-Based Nanofibers for Magnetic Resonance Imaging** *MACROMOLECULES*
  Zhao, C., Chen, Q., Garcia-Hernandez, J., Watanabe, L. K., Rawson, J. M., Rao, J., Manners, I.

2022

- **Invivo bioluminescence imaging of granzyme B activity in tumor response to cancer immunotherapy.** *Cell chemical biology*
  Chen, M., Zhou, K., Dai, S., Tadepalli, S., Balakrishnan, P. B., Xie, J., Rami, F. E., Dai, T., Cui, L., Idoyaga, J., Rao, J.
  2022

- **Real-time optical oximetry during FLASH radiotherapy using a phosphorescent nanoprobe.** *Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology*
  Ha, B., Liang, K., Liu, C., Melemenidis, S., Manjappa, R., Viswanathan, V., Das, N., Ashraf, R., Lau, B., Soto, L., Graves, E. E., Rao, J., Loo, et al
  2022

- **Reversibly Photoswitching Upconversion Nanoparticles for Super-sensitive Photoacoustic Molecular Imaging.** *Angewandte Chemie (International ed. in English)*
  Rao, J., Liu, C., Zheng, X., Dai, T., Wang, H., Chen, X., Chen, B., Sun, T., Wang, F., Chu, S.
  2022

- **A dual-caged resorufin probe for rapid screening of infections resistant to lactam antibiotics.** *Chemical science*
  Xie, J., Mu, R., Fang, M., Cheng, Y., Senchyna, F., Moreno, A., Banaei, N., Rao, J.
  2021; 12 (26): 9153-9161

- **Evaluation of a procaspase-3 activator with hydroxyurea or temozolomide against high-grade meningioma in cell culture and canine cancer patients.** *Neuro-oncology*
  Tonogai, E. J., Huang, S., Botham, R. C., Berry, M. R., Joslyn, S. K., Daniel, G. B., Chen, Z., Rao, J., Zhang, X., Basuli, F., Rossmeisl, J. H., Riggins, G. J., LeBlanc, et al
  2021

- **Visualizing the dynamics of tuberculosis pathology using molecular imaging.** *The Journal of clinical investigation*
  Ordonez, A. A., Tucker, E. W., Anderson, C. J., Carter, C. L., Ganatra, S., Kaushal, D., Kramnik, I., Lin, P. L., Madigan, C. A., Mendez, S., Rao, J., Savic, R. M., Tobin, et al
  2021; 131 (5)

- **[18F]-C-SNAT4: an improved caspase-3-sensitive nanoaggregation PET tracer for imaging of tumor responses to chemo- and immunotherapies.** *European journal of nuclear medicine and molecular imaging*
  Chen, M. n., Chen, Z. n., Castillo, J. B., Cui, L. n., Zhou, K. n., Shen, B. n., Xie, J. n., Chin, F. T., Rao, J. n.
  2021

- **Engineering of magnetic nanoparticles as magnetic particle imaging tracers.** *Chemical Society reviews*
  Lu, C., Han, L., Wang, J., Wan, J., Song, G., Rao, J.
  2021

- **A dual-caged resorufin probe for rapid screening of infections resistant to lactam antibiotics** *Chemical Science*
  Xie, J., Mu, R., Fang, M., Cheng, Y., Senchyna, F., Moreno, A., Banaei, N., Rao, J.
  2021

- **In vivo imaging of methionine aminopeptidase II for prostate cancer risk stratification.** *Cancer research*
  Xie, J. n., Rice, M. A., Chen, Z. n., Cheng, Y. n., Hsu, E. C., Chen, M. n., Song, G. n., Cui, L. n., Zhou, K. n., Castillo, J. B., Zhang, C. A., Shen, B. n., Chin, et al
  2021

- **Engineered algae: A novel oxygen-generating system for effective treatment of hypoxic cancer.** *Science advances*
  Qiao, Y., Yang, F., Xie, T., Du, Z., Zhong, D., Qi, Y., Li, Y., Li, W., Lu, Z., Rao, J., Sun, Y., Zhou, M.
  2020; 6 (21): eaba5996

- **Engineered algae: A novel oxygen-generating system for effective treatment of hypoxic cancer.** *Science advances*
  Qiao, Y., Yang, F., Xie, T., Du, Z., Zhong, D., Qi, Y., Li, Y., Li, W., Lu, Z., Rao, J., Sun, Y., Zhou, M.
  2020; 6 (21)

- **Imaging of tumour acidosis with PET.** *Nature biomedical engineering*
  Rao, J.
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- **Different PEG-PLGA Matrices Influence In Vivo Optical/Photoacoustic Imaging Performance and Biodistribution of NIR-Emitting π-Conjugated Polymer Contrast Agents.** *Advanced healthcare materials*
  Neumann, P. R., Erdmann, F. n., Holthof, J. n., Hädrich, G. n., Green, M. n., Rao, J. n., Dailey, L. A.
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- **Reduction Triggered In Situ Polymerization in Living Mice.** *Journal of the American Chemical Society*
  Cui, L. n., Vivona, S. n., Smith, B. R., Kothapalli, S. R., Liu, J. n., Ma, X. n., Chen, Z. n., Taylor, M. n., Kierstead, P. H., Fréchet, J. M., Gambhir, S. S., Rao, J. n.
  2020

- **In Vivo Optical Performance of a New Class of Near-Infrared-Emitting Conjugated Polymers: Borylated PF8-BT.** *ACS applied materials & interfaces*
  Neumann, P. R., Crossley, D. L., Turner, M., Ingleson, M., Green, M., Rao, J., Dailey, L. A.
  2019

- **Targeting MMP-14 for dual PET and fluorescence imaging of glioma in preclinical models.** *European journal of nuclear medicine and molecular imaging*
  Kasten, B. B., Jiang, K., Cole, D., Jani, A., Udayakumar, N., Gillespie, G. Y., Lu, G., Dai, T., Rosenthal, E. L., Markert, J. M., Rao, J., Warram, J. M.
  2019

- **Nanoparticle probes for multimodality molecular imaging in living subjects**
  Rao, J.
  AMER CHEMICAL SOC.2019

- **Fluorescent probes for imaging enzyme activity**
  Rao, J.
  AMER CHEMICAL SOC.2019

- **A Magneto-Optical Nanoplatform for Multimodality Imaging of Tumors in Mice.** *ACS nano*
  Song, G., Zheng, X., Wang, Y., Xia, X., Chu, S., Rao, J.
  2019

- **MMP-14 as a noninvasive marker for PET and NIRF imaging of glioblastoma multiforme**
  Houson, H., Kasten, B., Jiang, K., Rao, J., Warram, J.
  SOC NUCLEAR MEDICINE INC.2019

- **Magnetic Particle Imaging in Neurosurgery** *WORLD NEUROSURGERY*
  Meola, A., Rao, J., Chaudhary, N., Song, G., Zheng, X., Chang, S. D.
  2019; 125: 261–70

- **Synthesis and evaluation of [F-18]SuPAR for PET Imaging of DNA damage-dependent PARP activity**
  Shuhendler, A. J., Shen, B., Cui, L., Chen, Z., Rao, J., Chin, F. T.
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- **Bright sub-20-nm cathodoluminescent nanoprobes for electron microscopy** *NATURE NANOTECHNOLOGY*
  Prigozhin, M. B., Maurer, P. C., Courtis, A. M., Liu, N., Wisser, M. D., Siefe, C., Tian, B., Chan, E., Song, G., Fischer, S., Aloni, S., Ogletree, D., Barnard, et al
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- **[F-18]-SuPAR: A Radiofluorinated Probe for Noninvasive Imaging of DNA Damage-Dependent Poly(ADP-ribose) Polymerase Activity** *BIOCONJUGATE CHEMISTRY*
  Shuhendler, A. J., Cui, L., Chen, Z., Shen, B., Chen, M., James, M. L., Witney, T. H., Bazalova-Carter, M., Gambhir, S. S., Chin, F. T., Graves, E. E., Rao, J.
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- **"Magnetic Particle Imaging (MPI) in Neurosurgery".** *World neurosurgery*
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  2019

- **Theranostic nanoparticles enhance the response of glioblastomas to radiation** *Nanotheranostics*
  Wu, W., Klockow, J. L., Mohanty, S., Ku, K. S., Daldrup-Link, H. E.

2019; 3(4) (299-310)

- **Exploring condensation reaction between aromatic nitriles and amnio thiols to form nanoparticles in cells for imaging the activity of protease and glycosidase.** *Angewandte Chemie (International ed. in English)*
  Rao, J. n., Chen, Z. n., Chen, M. n., Cheng, Y. n., Kowada, T. n., Xie, J. n., Zheng, X. n.
  2019
- **Methionine aminopeptidase II (MetAP2) activated in situ self-assembly of small-molecule probes for imaging prostate cancer.**
  Xie, J., Rice, M., Cheng, Y., Song, G., Kunder, C., Brooks, J. D., Stoyanova, T., Rao, J.
  AMER ASSOC CANCER RESEARCH.2018: 115–16
- **Editorial Overview: Non-invasive molecular imaging: dedicated to the memory of Professor Roger Tsien** *CURRENT OPINION IN CHEMICAL BIOLOGY*
  Adams, S., Rao, J.
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- **A novel theranostic strategy for MMP-14 expressing glioblastomas impacts survival**
  Mohanty, S., Chen, Z., Li, K., Morais, G., Klockow, J., Yerneni, K., Pisani, L., Chin, F., Mitra, S., Cheshier, S., Chang, E., Gambhir, S., Rao, et al
  AMER ASSOC CANCER RESEARCH.2018
- **Gold Nanoparticles for Brain tumor imaging: a Systematic Review** *FRONTIERS IN NEUROLOGY*
  Meola, A., Rao, J., Chaudhary, N., Sharma, M., Chang, S. D.
  2018; 9: 328
- **Recent progress on semiconducting polymer nanoparticles for molecular imaging and cancer phototherapy** *BIOMATERIALS*
  Li, J., Rao, J., Pu, K.
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- **Positron Emission Tomography Imaging of Tumor Apoptosis with a Caspase-Sensitive Nano-Aggregation Tracer [18F]C-SNAT.** *Methods in molecular biology (Clifton, N.J.)*
  Chen, Z., Rao, J.
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- **Janus Iron Oxides @ Semiconducting Polymer Nanoparticle Tracer for Cell Tracking by Magnetic Particle Imaging** *NANO LETTERS*
  Song, G., Chen, M., Zhang, Y., Cui, L., Qu, H., Zheng, X., Wintermark, M., Liu, Z., Rao, J.
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- **Nanotechnology Strategies To Advance Outcomes in Clinical Cancer Care** *ACS NANO*
  Hartshorn, C. M., Bradbury, M. S., Lanza, G. M., Nel, A. E., Rao, J., Wang, A. Z., Wiesner, U. B., Yang, L., Grodzinski, P.
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- **Intramolecular substitution uncages fluorogenic probes for detection of metallo-carbapenemase-expressing bacteria.** *Chemical science*
  Song, A., Cheng, Y., Xie, J., Banaei, N., Rao, J.
  2017; 8 (11): 7669-7674
- **A Tumor-Specific Cascade Amplification Drug Release Nanoparticle for Overcoming Multidrug Resistance in Cancers** *ADVANCED MATERIALS*
  Ye, M., Han, Y., Tang, J., Piao, Y., Liu, X., Zhou, Z., Gao, J., Rao, J., Shen, Y.
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- **Intravital excitation increases detection sensitivity for pulmonary tuberculosis by whole-body imaging with -lactamase reporter enzyme fluorescence** *JOURNAL OF BIOPHOTONICS*
  Nooshabadi, F., Yang, H., Cheng, Y., Durkee, M. S., Xie, H., Rao, J., Cirillo, J. D., Maitland, K. C.
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- **Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes** *WILEY INTERDISCIPLINARY REVIEWS-NANOMEDICINE AND NANOBIOTECHNOLOGY*
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  2017; 7 (6): 1422-1436

- **A novel theranostic strategy for MMP-14 expressing glioblastomas impacts survival.** *Molecular cancer therapeutics*
  Mohanty, S. n., Chen, Z. n., Li, K. n., Morais, G. R., Klockow, J. n., Yerneni, K. n., Pisani, L. n., Chin, F. T., Mitra, S. n., Cheshier, S. n., Chang, E. n., Gambhir, S. S., Rao, et al
  2017

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  Song, A., Cheng, Y., Xie, J., Banaei, N., Rao, J.
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- **Semiconducting polymer nanoparticles as photoacoustic molecular imaging probes.** *Wiley interdisciplinary reviews. Nanomedicine and nanobiotechnology*
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  2016

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  Chen, Y., Xianyu, Y., Wu, J., Zheng, W., Rao, J., Jiang, X.
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  Witney, T. H., James, M. L., Shen, B., Chang, E., Pohling, C., Arksey, N., Hoehne, A., Shuhendler, A., Park, J., Bodapati, D., Weber, J., Gowrishankar, G., Rao, et al
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  Shuhendler, A. J., Ye, D., Brewer, K. D., Bazalova-Carter, M., Lee, K., Kempen, P., Wittrup, K. D., Graves, E. E., Rutt, B., Rao, J.
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