

Stanford



Zhen Cheng

Associate Professor (Research) of Radiology (Molecular Imaging)
Radiology - Rad/Molecular Imaging Program at Stanford

CONTACT INFORMATION

- **Alternate Contact**

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Bio

ACADEMIC APPOINTMENTS

- Associate Professor (Research), Radiology - Rad/Molecular Imaging Program at Stanford
- Member, Bio-X
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Member, Molecular Imaging Program at Stanford (MIPS), (2007- present)
- Member, Bio-X Program, (2007- present)
- Member, Stanford Cancer Center, (2007- present)
- Member, Canary Center at Stanford for Cancer Early Detection, (2009- present)

HONORS AND AWARDS

- IDEA Award, California Breast Cancer Research Program (2008)
- Young Investigator Award, Melanoma Research Alliance (2009)
- New Investigator Award, Department of Defense (2009)
- Best Basic Science Paper Published in 2009, Journal of Nuclear Medicine (2010)

PROFESSIONAL EDUCATION

- B.S., Sichuan University , Chemistry (1994)
- M.S., China Institute of Atomic Energy , Radiopharmaceutical Chemistry (1997)
- Ph.D., University of Missouri-Columbia , Chemistry (2001)

LINKS

- Cancer Molecular Imaging Chemistry Laboratory: <http://mips.stanford.edu/research/lab?lab%5fid=3557>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The overall objective of my laboratory is to develop novel molecular imaging probes and techniques for non-invasive detection of cancer and its metastasis at the earliest stage, so that cancer can be cured or transformed into a chronic, manageable disease. The techniques developed in my research will allow a close examination of the molecular, metabolic and physiological characteristics of cancers and their responses to therapy. In order to achieve this goal, my lab is aimed to identify novel cancer biomarkers with significant clinical relevance, develop new chemistry for probes preparation, and validate new strategies for probes high-throughput screening.

Publications

PUBLICATIONS

- **Evaluation of integrin alphavbeta6 cystine knot PET tracers to detect cancer and idiopathic pulmonary fibrosis.** *Nature communications*
Kimura, R. H., Wang, L., Shen, B., Huo, L., Tummers, W., Filipp, F. V., Guo, H. H., Haywood, T., Abou-Elkacem, L., Baratto, L., Habte, F., Devulapally, R., Witney, et al
2019; 10 (1): 4673
- **Multimodality Hyperpolarized C-13 MRS/PET/Multiparametric MR Imaging for Detection and Image-Guided Biopsy of Prostate Cancer: First Experience in a Canine Prostate Cancer Model** *MOLECULAR IMAGING AND BIOLOGY*
Bachawal, S. V., Park, J., Valluru, K. S., Loft, M., Felt, S. A., Vilches-Moure, J. G., Saenz, Y. F., Daniel, B., Iagaru, A., Sonn, G., Cheng, Z., Spielman, D. M., Willmann, et al
2019; 21 (5): 861–70
- **PET Imaging of HER2-Positive Tumors with Cu-64-Labeled Affibody Molecules** *MOLECULAR IMAGING AND BIOLOGY*
Qi, S., Hoppmann, S., Xu, Y., Cheng, Z.
2019; 21 (5): 907–16
- **Mitochondria-targeting fluorescent molecules for high efficiency cancer growth inhibition and imaging** *CHEMICAL SCIENCE*
Chen, H., Wang, J., Feng, X., Zhu, M., Hoffmann, S., Hsu, A., Qian, K., Huang, D., Zhao, F., Liu, W., Zhang, H., Cheng, Z.
2019; 10 (34): 7946–51
- **A proof-of-concept application of water-soluble ytterbium(III) molecular probes in in vivo NIR-II whole body bioimaging** *INORGANIC CHEMISTRY FRONTIERS*
Ning, Y., Chen, S., Chen, H., Wang, J., He, S., Liu, Y., Cheng, Z., Zhang, J.
2019; 6 (8): 1962–67
- **Quaternary Ammonium Salt Based NIR-II Probes for In Vivo Imaging** *ADVANCED OPTICAL MATERIALS*
Qu, C., Xiao, Y., Zhou, H., Ding, B., Li, A., Lin, J., Zeng, X., Chen, H., Qian, K., Zhang, X., Fang, W., Wu, J., Deng, et al
2019; 7 (15)
- **Multimodality imaging of naturally active melanin nanoparticles targeting somatostatin receptor subtype 2 in human small-cell lung cancer.** *Nanoscale*
Xia, L., Guo, X., Liu, T., Xu, X., Jiang, J., Wang, F., Cheng, Z., Zhu, H., Yang, Z.
2019
- **Development of a Novel Histone Deacetylase-Targeted Near-Infrared Probe for Hepatocellular Carcinoma Imaging and Fluorescence Image-Guided Surgery.** *Molecular imaging and biology : MIB : the official publication of the Academy of Molecular Imaging*
Tang, C., Du, Y., Liang, Q., Cheng, Z., Tian, J.
2019
- **A selenium- containing selective histone deacetylase 6 inhibitor for targeted in vivo breast tumor imaging and therapy** *JOURNAL OF MATERIALS CHEMISTRY B*
Tang, C., Du, Y., Liang, Q., Cheng, Z., Tian, J.
2019; 7 (22): 3528–36
- **Enhancing Photoacoustic Intensity of Upconversion Nanoparticles by Photoswitchable Azobenzene-Containing Polymers for Dual NIR-II and Photoacoustic Imaging In Vivo** *ADVANCED OPTICAL MATERIALS*
He, S., Song, J., Liu, J., Liu, L., Qu, J., Cheng, Z.

2019; 7 (12)

- **High Affinity to Skeleton Rare Earth Doped Nanoparticles for Near-Infrared II Imaging** *NANO LETTERS*
He, S., Chen, S., Li, D., Wu, Y., Zhang, X., Liu, J., Song, J., Liu, L., Qu, J., Cheng, Z.
2019; 19 (5): 2985–92
- **High Affinity to Skeleton Rare Earth Doped Nanoparticles for Near-Infrared II Imaging.** *Nano letters*
He, S., Chen, S., Li, D., Wu, Y., Zhang, X., Liu, J., Song, J., Liu, L., Qu, J., Cheng, Z.
2019
- **Synthesis, anticancer activity and mechanism of iron chelator derived from 2,6-diacetylpyridine bis(acylhydrazones)** *JOURNAL OF INORGANIC BIOCHEMISTRY*
Yao, Q., Qi, J., Zheng, Y., Qian, K., Wei, L., Maimaitiyiming, M., Cheng, Z., Wang, Y.
2019; 193: 1–8
- **Detecting Vulnerable Atherosclerotic Plaques by Ga-68-Labeled Divalent Cystine Knot Peptide** *MOLECULAR PHARMACEUTICS*
Jiang, L., Zhu, H., Li, Y., Wu, X., Wang, H., Cheng, Z.
2019; 16 (3): 1350–57
- **Polymethine Thiopyrylium Fluorophores with Absorption beyond 1000 nm for Biological Imaging in the Second Near-Infrared Subwindow** *JOURNAL OF MEDICINAL CHEMISTRY*
Ding, B., Xiao, Y., Zhou, H., Zhang, X., Qu, C., Xu, F., Deng, Z., Cheng, Z., Hong, X.
2019; 62 (4): 2049–59
- **Multimodality Hyperpolarized C-13 MRS/PET/Multiparametric MR Imaging for Detection and Image-Guided Biopsy of Prostate Cancer: First Experience in a Canine Prostate Cancer Model.** *Molecular imaging and biology : MIB : the official publication of the Academy of Molecular Imaging*
Bachawal, S. V., Park, J. M., Valluru, K. S., Loft, M. D., Felt, S. A., Vilches-Moure, J. G., Saenz, Y. F., Daniel, B., Iagaru, A., Sonn, G., Cheng, Z., Spielman, D. M., Willmann, et al
2019
- **Preparation and Preliminary Molecular Imaging Study of I-124 in-situ Labeled Organic Melanin Nanoparticles** *ACTA CHIMICA SINICA*
Xia Lei, Cheng Zhen, Zhu Hua, Yang Zhi
2019; 77 (2): 172–78
- **Controlled Nano-Bio Interface of Functional Nanoprobes for in Vivo Monitoring Enzyme Activity in Tumors** *ACS NANO*
Sun, Z., Cheng, K., Yao, Y., Wu, F., Fung, J., Chen, H., Ma, X., Tu, Y., Xing, L., Xia, L., Cheng, Z.
2019; 13 (2): 1153–67
- **Radionuclide-Labeled Peptides for Imaging and Treatment of CXCR4-Overexpressing Malignant Tumors.** *Current topics in medicinal chemistry*
Liu, N., Wan, Q., Cheng, Z., Chen, Y.
2019
- **PET Imaging of HER2-Positive Tumors with Cu-64-Labeled Affibody Molecules.** *Molecular imaging and biology : MIB : the official publication of the Academy of Molecular Imaging*
Qi, S., Hoppmann, S., Xu, Y., Cheng, Z.
2019
- **Biodistribution, Radiation Dosimetry, and Clinical Application of a Melanin-Targeted PET Probe, F-18-P3BZA, in Patients** *JOURNAL OF NUCLEAR MEDICINE*
Ma, X., Wang, S., Wang, S., Liu, D., Zhao, X., Chen, H., Kang, F., Yang, W., Wang, J., Cheng, Z.
2019; 60 (1): 16–22
- **Evaluation of a novel monoclonal antibody mAb109 by immuno-PET/fluorescent imaging for noninvasive lung adenocarcinoma diagnosis.** *Acta pharmacologica Sinica*
Zhu, H., Liu, T. L., Liu, C. H., Wang, J., Zhang, H., Dong, B., Shen, J., Zhao, C. K., Li, Z. F., Cheng, Z., Yang, Z.
2019
- **Dysregulated integrin α V β 3 and CD47 signaling promotes joint inflammation, cartilage breakdown, and progression of osteoarthritis.** *JCI insight*
Wang, Q., Onuma, K., Liu, C., Wong, H., Bloom, M. S., Elliott, E. E., Cao, R. R., Hu, N., Lingampalli, N., Sharpe, O., Zhao, X., Sohn, D. H., Lepus, et al
2019; 4 (18)

- **Mitochondria-targeted delocalized lipophilic cation complexed with human serum albumin for tumor cell imaging and treatment.** *Nanomedicine : nanotechnology, biology, and medicine*
Qian, K., Chen, H., Qu, C., Qi, J., Du, B., Ko, T., Xiang, Z., Kandawa-Schulz, M., Wang, Y., Cheng, Z.
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- **Hierarchically Nanostructured Hybrid Platform for Tumor Delineation and Image-Guided Surgery via NIR-II Fluorescence and PET Bimodal Imaging.** *Small (Weinheim an der Bergstrasse, Germany)*
Zhang, Q., Zhou, H., Chen, H., Zhang, X., He, S., Ma, L., Qu, C., Fang, W., Han, Y., Wang, D., Huang, Y., Sun, Y., Fan, et al
2019: e1903382
- **Structure-activity relationships of 2-quinolinecarboxaldehyde thiosemicarbazone gallium(III) complexes with potent and selective anticancer activity.** *Journal of inorganic biochemistry*
Cao, W., Qi, J., Qian, K., Tian, L., Cheng, Z., Wang, Y.
2018; 191: 174–82
- **Molecular Targeted NIR-II Probe for Image-Guided Brain Tumor Surgery.** *Bioconjugate chemistry*
Kurbegovic, S., Juhl, K., Chen, H., Qu, C., Ding, B., Leth, J. M., Drzewiecki, K. T., Kjaer, A., Cheng, Z.
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- **Study of Vesicular Monoamine Transporter 2 in Myopic Retina Using [F-18]FP-(+)-DTBZ** *MOLECULAR IMAGING AND BIOLOGY*
Sun, Y., Zhao, N., Liu, W., Liu, M., Ju, Z., Li, J., Cheng, Z., Liu, X.
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- **A Novel Estrogen Receptor alpha-Targeted Near-Infrared Fluorescent Probe for in Vivo Detection of Breast Tumor** *MOLECULAR PHARMACEUTICS*
Tang, C., Du, Y., Liang, Q., Cheng, Z., Tian, J.
2018; 15 (10): 4702–9
- **Affibody-functionalized Ag₂S quantum dots for photoacoustic imaging of epidermal growth factor receptor overexpressed tumors** *NANOSCALE*
Zhang, Y., Zhao, N., Qin, Y., Wu, F., Xu, Z., Lan, T., Cheng, Z., Zhao, P., Liu, H.
2018; 10 (35): 16581–90
- **Gallium(III) complexes of alpha-N-heterocyclic piperidylthiosemicarbazones: Synthesis, structure-activity relationship, cellular uptake and activation of caspases-3/7/9**
Qi, J., Yao, Q., Qian, K., Tian, L., Cheng, Z., Wang, Y.
ELSEVIER SCIENCE INC.2018: 42–50
- **Development of a Novel Ferrocenyl Histone Deacetylase Inhibitor for Triple-Negative Breast Cancer Therapy** *ORGANOMETALLICS*
Tang, C., Du, Y., Liang, Q., Cheng, Z., Tian, J.
2018; 37 (14): 2368–75
- **Acid-Promoted D-A-D Type Far-Red Fluorescent Probe with High Photostability for Lysosomal Nitric Oxide Imaging** *ANALYTICAL CHEMISTRY*
Wang, F., Yu, S., Xu, Z., Li, L., Dang, Y., Xu, X., Luo, Y., Cheng, Z., Yu, H., Zhang, W., Zhang, A., Ding, C.
2018; 90 (13): 7953–62
- **Synthesis, antiproliferative activity and mechanism of gallium(III)-thiosemicarbazone complexes as potential anti-breast cancer agents** *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*
Qi, J., Yao, Q., Qian, K., Tian, L., Cheng, Z., Yang, D., Wang, Y.
2018; 154: 91–100
- **Gallium(III)-2-benzoylpyridine-thiosemicarbazone complexes promote apoptosis through Ca²⁺ signaling and ROS-mediated mitochondrial pathways** *NEW JOURNAL OF CHEMISTRY*
Qi, J., Qian, K., Tian, L., Cheng, Z., Wang, Y.
2018; 42 (12): 10226–33
- **Ligand-promoted ruthenium-catalyzed meta C-H chlorination of arenes using N-chloro-2,10-camphorsultam** *CHEMICAL COMMUNICATIONS*
Fan, Z., Lu, H., Cheng, Z., Zhang, A.
2018; 54 (47): 6008–11
- **Crucial breakthrough of second near-infrared biological window fluorophores: design and synthesis toward multimodal imaging and theranostics.** *Chemical Society reviews*
He, S., Song, J., Qu, J., Cheng, Z.

2018

- **Synergistically Enhancing the Therapeutic Effect of Radiation Therapy with Radiation Activatable and Reactive Oxygen Species-Releasing Nanostructures** *ACS NANO*
Cheng, K., Sano, M., Jenkins, C. H., Zhang, G., Vernekohl, D., Zhao, W., Wei, C., Zhang, Y., Zhang, Z., Liu, Y., Cheng, Z., Xing, L.
2018; 12 (5): 4946–58
- **Novel Cu-64 Labeled RGD(2)-BBN Heterotrimers for PET Imaging of Prostate Cancer** *BIOCONJUGATE CHEMISTRY*
Lucente, E., Liu, H., Liu, Y., Hu, X., Lacivita, E., Leopoldo, M., Cheng, Z.
2018; 29 (5): 1595–1604
- **Dual T1 and T2 weighted magnetic resonance imaging based on Gd3+ loaded bioinspired melanin dots.** *Nanomedicine : nanotechnology, biology, and medicine*
Xu, L., Hong, S. H., Sun, Y., Sun, Z., Shou, K., Cheng, K., Chen, H., Huang, D., Xu, H., Cheng, Z.
2018
- **Diketopyrrolopyrrole-based semiconducting polymer nanoparticles for in vivo second near-infrared window imaging and image-guided tumor surgery** *CHEMICAL SCIENCE*
Shou, K., Tang, Y., Chen, H., Chen, S., Zhang, L., Zhang, A., Fan, Q., Yu, A., Cheng, Z.
2018; 9 (12): 3105–10
- **A PET imaging approach for determining EGFR mutation status for improved lung cancer patient management** *SCIENCE TRANSLATIONAL MEDICINE*
Sun, X., Xiao, Z., Chen, G., Han, Z., Liu, Y., Zhang, C., Sun, Y., Song, Y., Wang, K., Fang, F., Wang, X., Lin, Y., Xu, et al
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- **Gadolinium-chelate functionalized bismuth nanotheranostic agent for in vivo MRI/CT/PAI imaging-guided photothermal cancer therapy** *BIOMATERIALS*
Wu, B., Lu, S., Yu, H., Liao, R., Li, H., Zafitatisimo, B., Li, Y., Zhang, Y., Zhu, X., Liu, H., Xu, H., Huang, S., Cheng, et al
2018; 159: 37–47
- **Novel dual-function near-infrared II fluorescence and PET probe for tumor delineation and image-guided surgery** *CHEMICAL SCIENCE*
Sun, Y., Zeng, X., Xiao, Y., Liu, C., Zhu, H., Zhou, H., Chen, Z., Xu, F., Wang, J., Zhu, M., Wu, J., Tian, M., Zhang, et al
2018; 9 (8): 2092–97
- **Epitope-specific monoclonal antibodies to FSH beta increase bone mass** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Ji, Y., Liu, P., Yuen, T., Haider, S., He, J., Romero, R., Chen, H., Bloch, M., Kim, S., Lizneva, D., Munshi, L., Zhou, C., Lu, et al
2018; 115 (9): 2192–97
- **Pilot Study of (CuCl2)-Cu-64 for PET Imaging of Inflammation** *MOLECULES*
Jiang, L., Song, D., Chen, H., Zhang, A., Wang, H., Cheng, Z.
2018; 23 (2)
- **Molecular Imaging in Targeted Therapeutics** *CONTRAST MEDIA & MOLECULAR IMAGING*
Wang, Y., Cheng, Z., Liu, S., Shao, G.
2018: 3236829
- **Multimodality Molecular Imaging of Cardiovascular Disease Based on Nanoprobes** *CELLULAR PHYSIOLOGY AND BIOCHEMISTRY*
Tu, Y., Sun, Y., Fan, Y., Cheng, Z., Yu, B.
2018; 48 (4): 1401–15
- **Macrophages as a potential tumor-microenvironment target for noninvasive imaging of early response to anticancer therapy** *BIOMATERIALS*
Cao, Q., Yan, X., Chen, K., Huang, Q., Melancon, M. P., Lopez, G., Cheng, Z., Li, C.
2018; 152: 63–76
- **Synthesis, Characterization, and Biomedical Applications of a Targeted Dual-Modal Near-Infrared-II Fluorescence and Photoacoustic Imaging Nanoprobe** *ACS NANO*
Cheng, K., Chen, H., Jenkins, C. H., Zhang, G., Zhao, W., Zhang, Z., Han, F., Fung, J., Yang, M., Jiang, Y., Xing, L., Cheng, Z.
2017; 11 (12): 12276–91
- **Analysis of progress and challenges for various patterns of c-MET-targeted molecular imaging: a systematic review.** *EJNMMI research*
Han, Z., Wu, Y., Wang, K., Xiao, Y., Cheng, Z., Sun, X., Shen, B.

2017; 7 (1): 41-?

- **Synthesis, crystal structure and antiproliferative mechanisms of 2-acetylpyridine-thiosemicarbazones Ga(III) with a greater selectivity against tumor cells** *JOURNAL OF INORGANIC BIOCHEMISTRY*
Qi, J., Zheng, Y., Qian, K., Tian, L., Zhang, G., Cheng, Z., Wang, Y.
2017; 177: 110–17
- **Novel 2-pyridinecarboxaldehyde thiosemicarbazones Ga(III) complexes with a high antiproliferative activity by promoting apoptosis and inhibiting cell cycle** *EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY*
Qi, J., Deng, J., Qian, K., Tian, L., Li, J., He, K., Huang, X., Cheng, Z., Zheng, Y., Wang, Y.
2017; 134: 34–42
- **Chelator-Free and Biocompatible Melanin Nanoplatfom with Facile Loading Gadolinium and Copper-64 for Bioimaging** *BIOCONJUGATE CHEMISTRY*
Hong, S., Sun, Y., Tang, C., Cheng, K., Zhang, R., Fan, Q., Huang, D., Zhao, A., Cheng, Z.
2017; 28 (7): 1925–30
- **Multifunctional Biomedical Imaging in Physiological and Pathological Conditions Using a NIR-II Probe** *ADVANCED FUNCTIONAL MATERIALS*
Shou, K., Qu, C., Sun, Y., Chen, H., Chen, S., Zhang, L., Xu, H., Hong, X., Yu, A., Cheng, Z.
2017; 27 (23)
- **Cu(I) for PET Imaging of Melanoma.** *Scientific reports*
Jiang, L., Tu, Y., Hu, X., Bao, A., Chen, H., Ma, X., Doyle, T., Shi, H., Cheng, Z.
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- **A high quantum yield molecule-protein complex fluorophore for near-infrared II imaging** *NATURE COMMUNICATIONS*
Antaris, A. L., Chen, H., Diao, S., Ma, Z., Zhang, Z., Zhu, S., Wang, J., Lozano, A. X., Fan, Q., Chew, L., Zhu, M., Cheng, K., Hong, et al
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- **Live imaging of follicle stimulating hormone receptors in gonads and bones using near infrared II fluorophore** *CHEMICAL SCIENCE*
Feng, Y., Zhu, S., Antaris, A. L., Chen, H., Xiao, Y., Lu, X., Jiang, L., Diao, S., Yu, K., Wang, Y., Herraiz, S., Yue, J., Hong, et al
2017; 8 (5): 3703-3711
- **PSSMHCpan: a novel PSSM-based software for predicting class I peptide-HLA binding affinity.** *GigaScience*
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- **Tumor-targeting peptides: ligands for molecular imaging and therapy.** *Anti-cancer agents in medicinal chemistry*
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Pelaz, B., Alexiou, C., Alvarez -Puebla, R. A., Alves, F., Andrews, A. M., Ashraf, S., Balogh, L. P., Ballerini, L., Bestetti, A., Brendel, C., Bosi, S., Carril, M., Chan, et al
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- **Targeted Chemo-Photodynamic Combination Platform Based on the DOX Prodrug Nanoparticles for Enhanced Cancer Therapy.** *ACS applied materials & interfaces*
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2017; 9 (15): 13016–28
- **Zwitterionic Manganese and Gadolinium Metal-Organic Frameworks as Efficient Contrast Agents for in Vivo Magnetic Resonance Imaging.** *ACS applied materials & interfaces*
Qin, L., Sun, Z. Y., Cheng, K., Liu, S. W., Pang, J. X., Xia, L. M., Chen, W. H., Cheng, Z., Chen, J. X.
2017; 9 (47): 41378–86
- **In vivo biodistribution and toxicity of intravesical administration of quantum dots for optical molecular imaging of bladder cancer.** *Scientific reports*
Pan, Y., Chang, T., Marcq, G., Liu, C., Kiss, B., Rouse, R., Mach, K. E., Cheng, Z., Liao, J. C.
2017; 7 (1): 9309
- **Improved positron emission tomography imaging of glioblastoma cancer using novel 68Ga-labeled peptides targeting the urokinase-type plasminogen activator receptor (uPAR).** *Amino acids*

- Loft, M. D., Sun, Y., Liu, C., Christensen, C., Huang, D., Kjaer, A., Cheng, Z.
2017; 49 (6): 1089–1100
- **Novel bright-emission small-molecule NIR-II fluorophores for in vivo tumor imaging and image-guided surgery.** *Chemical science*
Sun, Y., Ding, M., Zeng, X., Xiao, Y., Wu, H., Zhou, H., Ding, B., Qu, C., Hou, W., Er-Bu, A., Zhang, Y., Cheng, Z., Hong, et al
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 - **Smart Self-Assembled Organic Nanoprobe for Protein-Specific Detection: Design, Synthesis, Application, and Mechanism Studies.** *Analytical chemistry*
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 - **Effective tracking of bone mesenchymal stem cells in vivo by magnetic resonance imaging using melanin-based gadolinium(3+) nanoparticles** *JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A*
Cai, W., Wang, L., Li, S., Zhang, X., Li, T., Wang, Y., Yang, X., Xie, J., Li, J., Liu, S., Xu, W., He, S., Cheng, et al
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 - **FRET-enabled monitoring of the thermosensitive nanoscale assembly of polymeric micelles into macroscale hydrogel and sequential cognate micelles release.** *Biomaterials*
Huang, P., Song, H., Zhang, Y., Liu, J., Cheng, Z., Liang, X. J., Wang, W., Kong, D., Liu, J.
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Zhang, R., Cheng, K., Antaris, A. L., Ma, X., Yang, M., Ramakrishnan, S., Liu, G., Lu, A., Dai, H., Tian, M., Cheng, Z.
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 - **Flexible radioluminescence imaging for FDG-guided surgery** *MEDICAL PHYSICS*
King, M. T., Jenkins, C. H., Sun, C., Carpenter, C. M., Ma, X., Cheng, K., Quynh-Thu Le, Q. T., Sunwoo, J. B., Cheng, Z., Prax, G., Xing, L.
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 - **Dual-Modality Activity-Based Probes as Molecular Imaging Agents for Vascular Inflammation** *JOURNAL OF NUCLEAR MEDICINE*
Withana, N. P., Saito, T., Ma, X., Garland, M., Liu, C., Kosuge, H., Amsallem, M., Verdoes, M., Ofori, L. O., Fischbein, M., Arakawa, M., Cheng, Z., McConnell, et al
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2016
 - **Hexametaphosphate-capped quantum dots as fluorescent probes for detection of calcium ion and fluoride** *SENSORS AND ACTUATORS B-CHEMICAL*
Liu, S., Wang, H., Cheng, Z., Liu, H.
2016; 232: 306-312
 - **Preclinical Study on GRPR-Targeted Ga-68-Probes for PET Imaging of Prostate Cancer** *BIOCONJUGATE CHEMISTRY*
Sung, Y., Ma, X., Zhang, Z., Sun, Z., Loft, M., Ding, B., Liu, C., Xu, L., Yang, M., Jiang, Y., Liu, J., Xiao, Y., Cheng, et al
2016; 27 (8): 1857-1864
 - **Small-Protein-Stabilized Semiconductor Nanoprobe for Targeted Imaging of Cancer Cells** *CHEMBIOCHEM*
Zhao, N., Liu, S., Jiang, Q., Lan, T., Cheng, Z., Liu, H.
2016; 17 (13): 1202-1206
 - **Gold nanoparticles for cancer theranostics: A brief update** *JOURNAL OF INNOVATIVE OPTICAL HEALTH SCIENCES*
Zhao, N., Pan, Y., Cheng, Z., Liu, H.
2016; 9 (4)
 - **Lasso peptide, a highly stable structure and designable multifunctional backbone** *AMINO ACIDS*
Zhao, N., Pan, Y., Cheng, Z., Liu, H.
2016; 48 (6): 1347-1356
 - **Enhanced immunotherapy of SM5-1 in hepatocellular carcinoma by conjugating with gold nanoparticles and its in vivo bioluminescence tomographic evaluation** *BIOMATERIALS*
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Antaris, A. L., Chen, H., Cheng, K., Sun, Y., Hong, G., Qu, C., Diao, S., Deng, Z., Hu, X., Zhang, B., Zhang, X., Yaghi, O. K., Alamparambil, et al
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Withana, N. P., Ma, X., McGuire, H. M., Verdoes, M., van der Linden, W. A., Ofori, L. O., Zhang, R., Li, H., Sanman, L. E., Wei, K., Yao, S., Wu, P., Li, et al
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- **Isothiocyanate-Functionalized Bifunctional Chelates and fac-[M(I)(CO)3](+) (M = Re, (99m)Tc) Complexes for Targeting uPAR in Prostate Cancer.** *Bioconjugate chemistry*
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