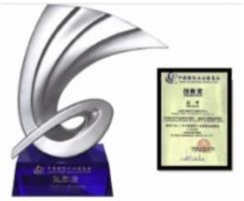
E) The World's First Head and Neck PET/CT System for Better Diagnosis and Treatment of Cancer Patients

1) The world's first Head and Neck PET/CT Device

Although PET/CT (positron emission tomography/computed tomography) has been used for decades to detect and locate the metabolic activities in the patients, there is still an unmet need of having a tailored PET/CT device with higher resolution and lower radiation specifically for detecting and monitoring the diseases in head and neck of the body.

In 2016, Dr. Chou, as the founder and president of the company, with his team, invented the first Head and Neck PET-CT scanner for head and neck cancer diagnosis and monitoring, marked by the award of 48 patents covering the scan's unique signaling system and design, and achieved twice the resolution with 70 percent less radiation than current full-body PET-CT scans. The innovative design affords real-time observation of surgical success in removing head and neck tumors. The device could also serve unmet needs for imaging diagnosis of Alzheimer's disease and monitoring the progress of its treatment. This scan is now slated for CFDA clinical trials.

The first Head and Neck PET/CT



Recognized by the World Expo Award

Dr. Chou and his team also developed a human full-body PET/CT device with enhanced resolution by 40% and reduced radiation by 70% compared to current market PET/CT. The device is now under CFDA inspection and multi-centered clinical trial and will soon formally enter the clinic field to benefit the public.

Human Full Body PET/CT

2) Advanced Animal PET/SPECT/CT Series

Molecular imaging devices, such as PET/CT, SPECT/CT and Micro CT are the critical tools for the mandatory evaluation and tests of bioefficacy and biosafety of drugs and biomedical products. There is an unmet need of high-resolution molecular imaging system for research institutes and pharmaceutical companies. With the technology invented in production of human Head and Neck PET/CT, Dr. Chou, as the founder and president of the PINGSENG company https://www.pingseng.com/en/about/, and his team also developed a series of animal PET/SPECT/CT devices with the following advanced features:

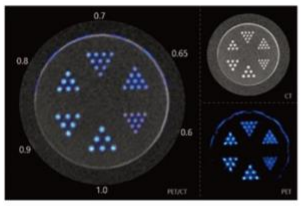
- Digital SiPM detection imaging technology
- Large axial field & high imaging sensitivity
- High throughput scanning & uniform and clear imaging in whole vision
- Dynamic imaging technique
- Accurate quantitative analysis
- Accurate registration
- A full set of experimental platform system
- Gating Technology and Physiological Information Monitoring System

The above pre-clinical imaging systems (PET/CT and CT) represent the best of its kind, and have been the top brand in the field within 3 years and distributed to the international market.

The below products are now distributed to research institutes, pharmaceutical companies and pet hospitals for research, drug development and animal cares:

a) Mira® Micro PET/CT with the highest resolution in the world

At the end of 2019, Dr. Chou and his team developed a small animal PET/CT, Mira® Micro PET/CT, with the highest resolution in the world.

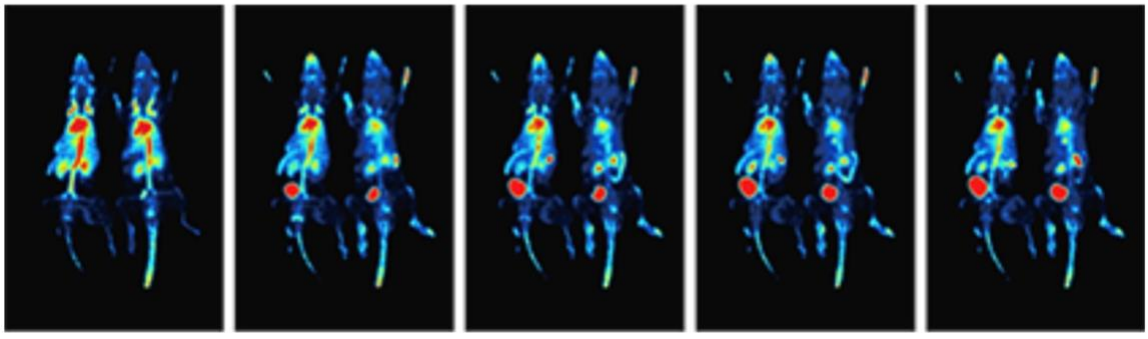


Provided the best special resolution and sensitivity in the world

Pre-clinical in-vivo imaging equipment for small animals - Mira® PET/CT

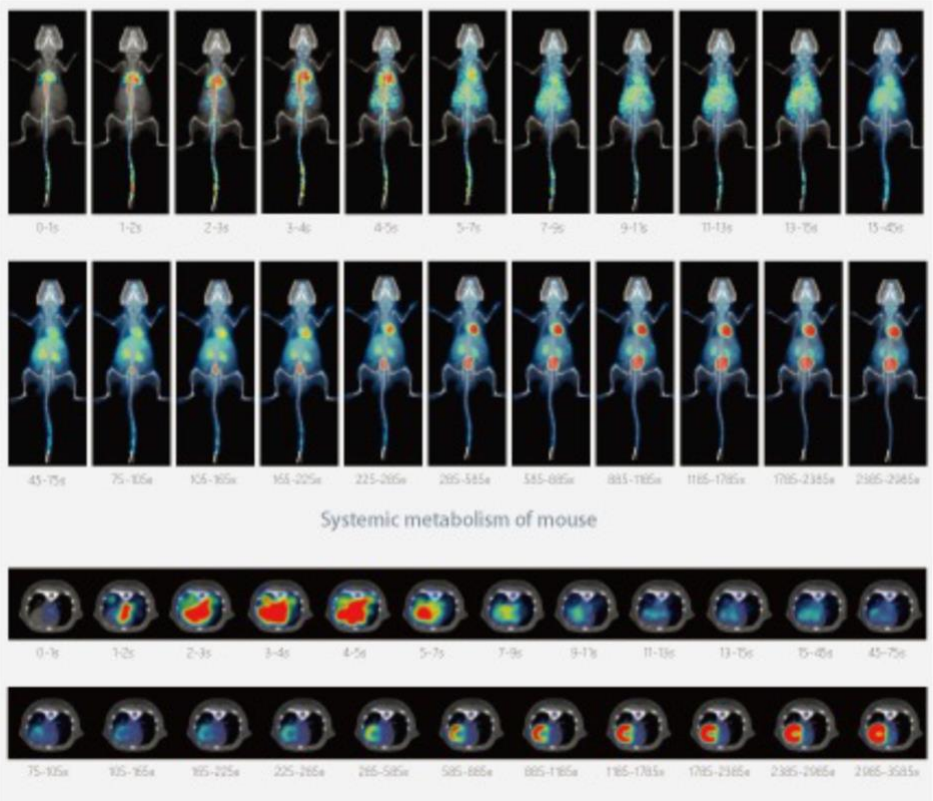
Advanced features of Mira® Micro PET/CT

- **Radial large field of vision (TFOV 90mm) and multichannel anesthesia pipeline design to support side-by-side scanning in 2 mice.**
- **High throughput characteristics combined with innovative 3D-PSF iterative reconstruction to support the pharmacokinetic studies.**

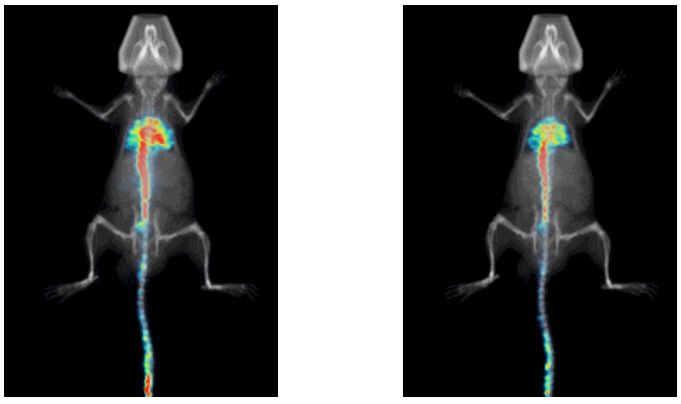


0-10 min | 10-20 min | 20-30 min | 30-40 min | 40-50 min

- **Dynamic imaging technique: Data is acquired concurrently while drug is being injected. By monitoring the dynamic distribution of radio tracers in the animal body, the metabolic process of drugs can be analyzed accurately.**



- **High sensitivity. With the unique fine crystal cutting and detection ring design, it can detect and capture more photon signals and improve the imaging sensitivity. Absolute sensitivity >12% (150~750 keV).**

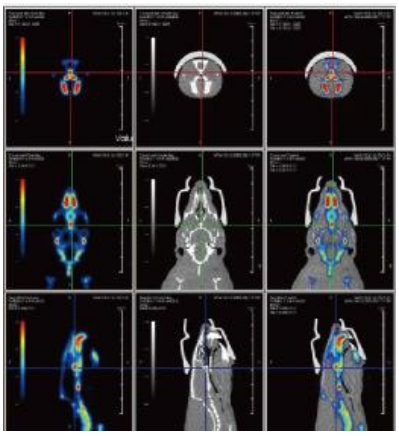


2-D PET/CT **3-D PET/CT**

Case Presentation:

- **Rat Bone PET/CT Scan**

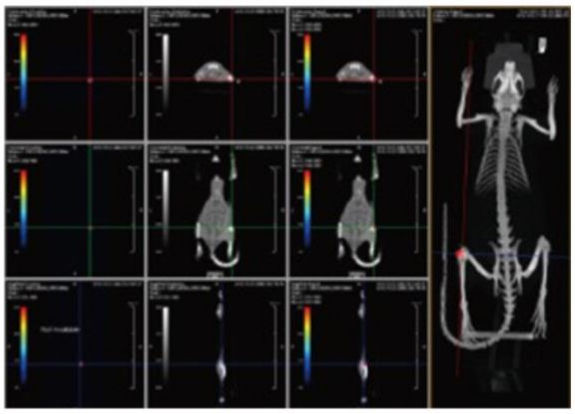
^{18}F-NaF PET imaging
of rat bone



PET/CT imaging of head bone

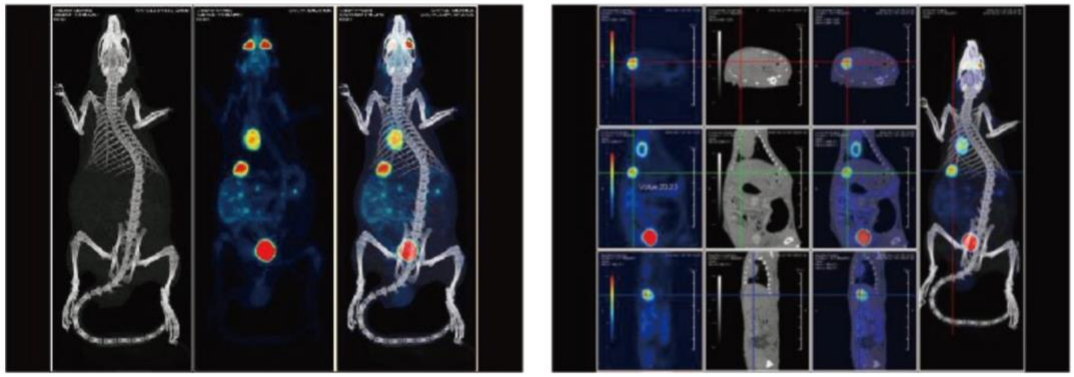
- **Arthritis PET/CT study**

^{89}Zr markers Stem cell, PET/CT experiment



^{89}Zr markers Stem cell, PET/CT experiment

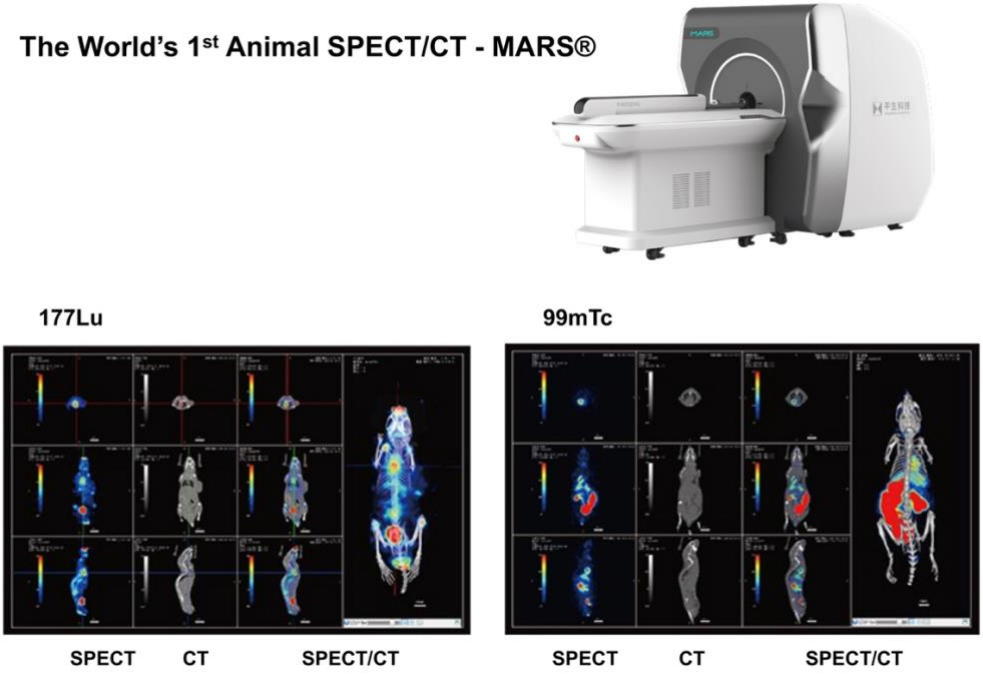
- **Primary liver cancer and metastases (PET/CT)**



CT PET ^{18}F-FDG PET/CT 3D display

b) Mars®, the first animal SPECT/CT

In 2022, Dr. Chou led his team developed the world's first animal SPECT/CT (single photon emission computed tomography/ computed tomography). This innovative device allows the use of multiple radioisotopes for multiple molecular probes, allowing the researchers to advance their studies in basic medicine and medical imaging.

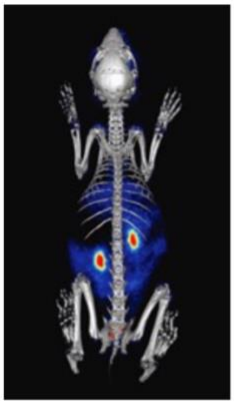


c) Sirius®, the first animal PET/SPECT/CT

In 2023, Dr. Chou and his team developed the world's first animal PET/SPECT/CT, **Sirius®**, to meet the unmet need in pharmaceutical research and development.

The World First Animal PET/SPECT/CT - Sirius®

d) Super Nova® pre-clinical in-vivo PET/CT (Generation III)



PET/CT imaging for whole body of a rabbit

PINGSENG has launched the first commercial small-animal PET/CT equipment with all intellectual property rights of the product.

3）Patents Covering the Invention and Production of Advanced Molecular Imaging System (PET/SPECT/CT):

The invention and production of human Head and Neck PET/CT and animal PET/CT, SPEC/CT, PET/SPEC/CT were covered by the following 42 patents:

An Integrated High-Energy Radiation Detection and Positioning Method. China. Patent Number: ZL200910083671.8, 2012.

A Device and Testing Method for PET Compliance System. China. Patent Number: ZL201110123488.3, 2014.

A Method for Obtaining Geometric Correction Parameters of PET System. China. Patent Number: ZL201110129632.4, 2015.

Integrated Detector for Positron Emission Tomography. China. Patent Number: ZL201110131435.6, 2014.

A Detection Device for Positron Emission Tomography Imaging Equipment. China. Patent Number: ZL201020298875.1, 2011.

A Signal Transmitter Used for Debugging and Calibration of Positron Emission Tomography Scanners. China. Patent Number： ZL201020577992.1, 2011.

A Monte Carlo Simulation Computing Cluster System for Tomography. China. Patent Number: ZL201020661889.5, 2011.

Measuring Instruments for Precise Positioning of CT Imaging System. China. Patent Number： ZL201120147446.9, 2011.

A Device for CT Geometric Correction. China. Patent Number： ZL201120147454.3, 2012.

Head and Neck PET Diagnostic Imaging System. China. Patent Number: ZL2010305333178.5, 2011.

Head and Neck PET Diagnostic Imaging System. China. Patent Number: ZL201030591010.x, 2011.

Combined Method for Detecting and Positioning High Energy Radiation. USA. Patent Number: US8692205B2, 2014.

A Scintillator Panel and Its Manufacturing Method. China. Patent Publication Number: CN104157320A, ZL201410415050.6. 2016.

An Anti-Glare Film-Encapsulated Radiation Detector Crystal Panel and Its Production Method. China. Publication Number: CN104020486B, Patent Number: ZL201410256381X. 2014.

A Packaging Method and Structure of a Deliquescent Radiation Crystal Panel. China. Patent Publication Number: CN1014022047B, Patent Number: ZL2014102555940. 2018.

Full-Body Positron Emission Computed Tomography Equipment for Medical Diagnostic Imaging. China. Patent Publication Number: CN303043396S. Patent Number: ZL2014300980443. 2014.

Radiation-Proof Animal Sample Delivery Device for Small Animal CT and PET/CT Equipment. China. Patent Publication Number: CN206114111U. Patent Number: ZL2016208279544. 2016.

A Radiation-Proof Animal Sample Delivery Device for Small Animal CT and PET/CT Equipment. China. Patent Publication Number: CN106239956A. Patent Number: zl2016106239956. 2017.

Dynamic DR Detector. China. Patent Publication Number: CN206576887U. Patent Number: ZL2616211832415. 2016.

Tomography Imaging Equipment. China. Patent Publication Number: CN304560907S. Patent Number: ZL2017304348225. 2017.

In-Vitro and In-Vivo Integrated Micro-CT Equipment. China. Patent Publication Number: CN305500109S. Patent Number: ZL2019300509566. 2019.

A PET-CT Integrated Equipment. China. Patent Publication Number: CN213189666U. Patent Number: ZL2020205920519. 2020.

An Integrated Flat Panel Detector. China. Patent Publication Number: CM211653641U. Patent Number: ZL2020205291574. 2020.

A Micro-CT Equipment. China. Patent Publication Number: CN2123321478U. Patent Number: ZL2020205851773. 2020.

A Miniaturized PET Equipment. China. Patent Publication Number: CN212853495U. Patent Number: ZL2020205997718. 2020.

A Miniaturized Animal Cabin Transport Mechanism in PET Equipment. China. Patent Publication Number: CN212939730U. Patent Number: ZL2020206046372. 2020.

Micro-CT Equipment with Lifting Function. China. Patent Publication Number: CN212134530U. Patent Number: ZL2020206079037. 2020.

Micro-CT Equipment with Heat Dissipation System. China. Patent Publication Number: CN212134529U. Patent Number: ZL2020205854127. 2020.

Desktop Micro-CT Equipment. China. Patent Publication Number: CN306191734S. Patent Number: ZL2020301745681. 2020.

Digital Positron Emission Computed Tomography Imaging System. China. Patent Publication Number: CN306205684S. Patent Number: ZL2020301779616. 2020.

Digital Positron Emission Computed Tomography Imaging Equipment. China. Patent Publication Number: CN306205683S. Patent Number: ZL2020301777540. 2020.

An X-Ray Imaging Device. China. Patent Publication Number: CN214174199U. Patent Number: ZL2020231462794. 2020.

A Scintillation Crystal Luminescence Detection System. China. Patent Publication Number: CN113510077B. Patent Number: 2020102793164. 2020.

A Positioning Mechanism and X-Ray Imaging Device. China. Patent Publication Number: CN214374405U. Patent Number: ZL2020231464018. 2020.

A Panoramic X-Ray Imaging Analyzer. Patent Publication Number: CN306934924S. Patent Number: ZL2021304655446. 2021.

An Image Compression Method and Device. China. Patent Publication Number: CN115118989B. Patent Number: ZL2022110375145. 2022.

Scanning Imaging System. China. Patent Publication Number: CN218998685U. Patent Number: ZL2022232329737. 2022.

Correctable X-Ray Imaging Device. China. Patent Publication Number: CN218762405U. Patent Number: ZL2022232834736. 2022.

Collection Method, Correction Method and Collection Device of Forward and Inversion Data for Cone Beam CT. China. Patent Publication Number: CN109875594A. Patent Number: pending. 2019.

Xial Correction Method, System, Medium and Device for Bed Position in Micro-CT. China. Patent Publication Number: CN114601489A. Patent Number: pending. 2020.

Method of Imaging and Storage. China. Patent Publication Number: CN114419175A. Patent Number: pending. 2021.

An Animal Medical Cabin. China. Patent Publication Number: CN114099053A. Patent Number: pending. 2021.

Method and Device for Image Reconstruction and Storage. China. Patent Publication Number: CN114896075A. Patent Number: pending. 2022.

An Experimental Cabin and Method for Image Segmentation and Storage. China. Patent Publication Number: CN115760877A. Patent Number: pending. 2023.

A Rapid Loading and Positioning Mechanism for Sample Cabins. China. Patent Publication Number: CN117017217A. Patent Number: pending. 2023.

Cell Irradiator. China. Patent Publication Number: CN308486089S. Patent Number: pending. 2023.

Afterimage Correction Method, Device, and Storage Medium. China. Patent Publication Number: CN116934631A. Patent Number: pending. 2023.

Centering and Fine-Tuning Mechanism and Scanning Imaging Machine. China. Patent Publication Number: CN220730085U. Patent Number: pending. 2023.

4）Independent Papers for Head and Neck PET/CT Device

	Published scientific articles with the studies using the devices of molecular imaging developed by Dr. Chou's company (PINGSENG INC) to generate the highest quality PET/CT & CT images and the metabolic activity data for publication	**Links to the original articles**	**Date of pub.**	**Devices used in this study to generate the data for publication**
86	nature communications Article https://doi.org/10.1038/s41467-023-36658-y **Noncanonical amino acids as doubly bio-orthogonal handles for one-pot preparation of protein multiconjugates**	https://pubmed.ncbi.nlm.nih.gov/36810592/ https://www.nature.com/articles/s41467-023-36658-y	2/21/2023	 Super Nova® Micro PET/CT（III）
85	Trends in Analytical Chemistry 170 (2024) 117470 Contents lists available at ScienceDirect Trends in Analytical Chemistry journal homepage: www.elsevier.com/locate/trac ELSEVIER TrAC Unique role of molecular imaging probes for viral infection Song Liu [a,b,1], Teli Liu [a,b,1], Wei Tian [c,1], Qian Zhang [a], Zilei Wang [a], Xingguo Hou [a], Yanan Ren [a], Wanpu Yan [d], Meng Xu [e,f,g], Hongbin Han [e,f,g,**], Hua Zhu [a,b,f,*]	https://www.sciencedirect.com/science/article/pii/S0165993623005575	9/29/2023	 Super Nova® Micro PET/CT（III）

84	封面文章 Journal of Pharmaceutical Analysis  Cover Page Article Journal of Pharmaceutical Analysis 13 (2023) 367–375 Contents lists available at ScienceDirect Journal of Pharmaceutical Analysis journal homepage: www.elsevier.com/locate/jpa ELSEVIER Original article Development of a CLDN18.2-targeting immuno-PET probe for non-invasive imaging in gastrointestinal tumors Yan Chen [a, b, 1], Xingguo Hou [b, 1], Dapeng Li [a, b, 1], Jin Ding [b], Jiayue Liu [b], Zilei Wang [b, c], Fei Teng [d], Hongjun Li [d], Fan Zhang [d], Yi Gu [d], Steven Yu [d], Xueming Qian [d, ***], Zhi Yang [a, b, e, **], Hua Zhu [a, b, e, *]	https://pubmed.ncbi.nlm.nih.gov/37181294/ https://www.sciencedirect.com/science/article/pii/S2095177923000357	2/28/2023	 Super Nova® Micro PET/CT（III）

83	ACS Pharmacology & Translational Science pubs.acs.org/ptsci Article **Screening, Construction, and Preliminary Evaluation of CLDN18.2-Specific Peptides for Noninvasive Molecular Imaging** Zilei Wang,▽ Chuanke Zhao,▽ Jin Ding, Yan Chen, Jiayue Liu, Xingguo Hou, XiangXing Kong, Bin Dong, Zhi Yang, and Hua Zhu*	https://pubs.acs.org/doi/abs/10.1021/acsptsci.3c00165	6/12/2023	 Super Nova® Micro PET/CT（III）
82	Journal of Medicinal Chemistry pubs.acs.org/jmc Article **Novel PET Imaging Probe for Quantitative Detection of Senescence In Vivo** Xin Xiang, Chuning Dong, Lianbo Zhou, Jun Liu, Zachary M. Rabinowitz, Yuzhao Zhang, Honghui Guo, Feng He, Xingdou Chen, Yunhua Wang, Lina Cui,* and Xiaowei Ma* Cite This: https://doi.org/10.1021/acs.jmedchem.4c00179 Read Online	https://pubs.acs.org/doi/abs/10.1021/acs.jmedchem.4c00179	3/20/2024	 Super Nova® Micro PET/CT（III）

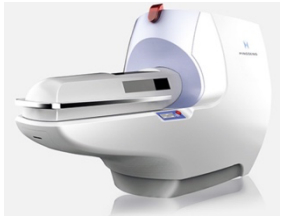
81	Chinese Journal of Cancer Research 2022 Impact Factor: 5.1 Journal Citation Reports™, Clarivate Analytics 2022 IMPACT FACTOR 5.1 **Inspired by novel radiopharmaceuticals: Rush hour of nuclear medicine** Yang Liu, Ya-nan Ren, Yan Cui, Song Liu, Zhi Yang, Hua Zhu, Nan Li **Citation:** Yang Liu, Ya-nan Ren, Yan Cui, Song Liu, Zhi Yang, Hua Zhu, Nan Li. Inspired by novel radiopharmaceuticals: Rush hour of nuclear medicine. *Chin J Cancer Res* 2023; 35(5): 470–482. doi: 10.21147/j.issn.1000–9604.2023.05.05 View online: http://article.cjcrcn.org/article/doi/10.21147/j.issn.1000–9604.2023.05.05	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10643344/	10/30/2023	 Super Nova® Micro PET/CT（III）
80	Acta Pharmacologica Sinica www.nature.com/aps **ARTICLE** ^{124}I-labeled anti-CD147 antibody for noninvasive detection of CD147-positive pan-cancers: construction and preclinical studies Xiao-kun Ma[1], Te-li Liu[1], Ya-nan Ren[1,2], Xiao-pan Ma[1,2], Yuan Yao[1], Xing-guo Hou[1], Jin Ding[1], Feng Wang[1], Hai-feng Huang[3], Hua Zhu[1✉] and Zhi Yang[1✉]	https://www.nature.com/articles/s41401-023-01162-y	9/25/2023	 Super Nova® Micro PET/CT（III）

79	Received: 6 May 2023 | Accepted: 30 October 2023 DOI: 10.1002/jmv.29221 RESEARCH ARTICLE JOURNAL OF MEDICAL VIROLOGY WILEY **Molecular PET/CT mapping of rhACE2 distribution and quantification in organs to aid in SARS-CoV-2 targeted therapy** Zilei Wang[1,2] | Chuanke Zhao[3] | Chuangui Li[4] | Song Liu[2] | Jin Ding[2] | Chengxue He[2] | Jiayue Liu[2] | Bin Dong[5] | Zhi Yang[2,6] | Qi Liu[6,7] | Hua Zhu[2,6] | Youping Liu[1]	https://pubmed.ncbi.nlm.nih.gov/38009705/	11/27/2023	 Super Nova® Micro PET/CT（III）
78	Biomedicine & Pharmacotherapy 168 (2023) 115602 Contents lists available at ScienceDirect Biomedicine & Pharmacotherapy journal homepage: www.elsevier.com/locate/biopha **Construction and preclinical evaluation of a zirconium-89 labelled monoclonal antibody targeting PD-L2 in lung cancer** Yuan Yao[a], Yanan Ren[b], Xingguo Hou[a], Jinyu Zhu[a], Xiaokun Ma[a], Song Liu[a], Teli Liu[a], Qian Zhang[b], Xiaopan Ma[b], Zhi Yang[a,*], Hua Zhu[a,*], Nan Li[a,*]	https://www.sciencedirect.com/science/article/pii/S0753332223014002	10/16/2023	 Super Nova® Micro PET/CT（III）

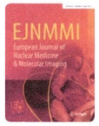
77	ACS OMEGA Open Access This article is licensed under CC-BY-NC-ND 4.0 http://pubs.acs.org/journal/acsodf Article **Iodine-Doped 3D Print Ti Alloy for Antibacterial Therapy on Orthopedic Implants** Xiaodong Hu, Jiaqi Zhong, Haiyong Ao, Xinhui Wu, Yujiong Chen, and Zhaoxiang Peng* Cite This: *ACS Omega* 2023, 8, 32990−32997 Read Online ACCESS | Metrics & More | Article Recommendations	https://pubs.acs.org/doi/full/10.1021/acsomega.3c04721	8/31/2023	 Micro CT（VENUS）
76	European Journal of Nuclear Medicine and Molecular Imaging (2023) 50:3838–3850 https://doi.org/10.1007/s00259-023-06373-3 ORIGINAL ARTICLE **Preclinical evaluation and pilot clinical study of [^{68}Ga]Ga-THP-APN09, a novel PD-L1 targeted nanobody radiotracer for rapid one-step radiolabeling and PET imaging** Xiaopan Ma[1,2] · Xin Zhou[2] · Biao Hu[3,4] · Xiaoda Li[3] · Meinan Yao[3] · Liqiang Li[2] · Xue Qin[2] · DaPeng Li[2] · Yuan Yao[2] · Xingguo Hou[2] · Song Liu[2] · Yan Chen[2] · Zilei Wang[2] · Wenyuan Zhou[2] · Nan Li[2] · Hua Zhu[2] · Bing Jia[3] · Zhi Yang[2]	https://pubmed.ncbi.nlm.nih.gov/37555904/	8/9/2023	 Super Nova® Micro PET/CT（III）

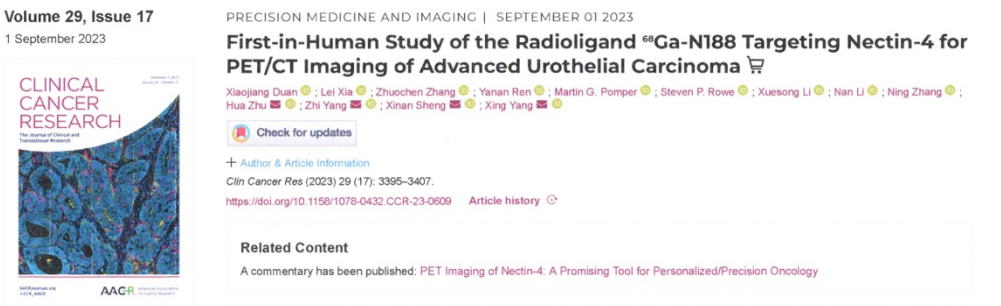
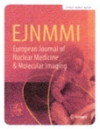
75	Bioactive Materials 26 (2023) 425–436 Contents lists available at ScienceDirect Bioactive Materials journal homepage: www.keaipublishing.com/en/journals/bioactive-materials **miR-204 ameliorates osteoarthritis pain by inhibiting SP1-LRP1 signaling and blocking neuro-cartilage interaction** Ke Lu[a,b,1], Qingyun Wang[a,b,1], Liuzhi Hao[c], Guizheng Wei[a,b], Tingyu Wang[d], William W. Lu[b,e], Guozhi Xiao[f], Liping Tong[a], Xiaoli Zhao[c,**], Di Chen[a,b,*] [a] Research Center for Computer-aided Drug Discovery, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, 518055, China [b] Faculty of Pharmaceutical Sciences, Shenzhen Institute of Advanced Technology, Shenzhen, 518055, China [c] Research Center for Human Tissues and Organs Degeneration, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, 518055, China [d] Department of Pharmacy, Shanghai Ninth People's Hospital, Shanghai Jiao-Tong University School of Medicine, Shanghai, 200011, China [e] Department of Orthopaedics and Traumatology, The University of Hong Kong, Hong Kong 999077, China [f] School of Medicine, Southern University of Science and Technology, Shenzhen, 518055, China	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10033455/	3/20/2023	 Micro CT（VENUS）
74	ACSNANO www.acsnano.org **Microenvironment-Responsive Metal-Phenolic Nanozyme Release Platform with Antibacterial, ROS Scavenging, and Osteogenesis for Periodontitis** Yingying Xu, Yifan Luo, Zhenzhen Weng, Haichang Xu, Wei Zhang, Qun Li, Huijie Liu, Lubing Liu, Yanmei Wang, Xuexia Liu,* Lan Liao,* and Xiaolei Wang*	https://pubs.acs.org/doi/abs/10.1021/acsnano.3c01940	9/28/2023	 Micro CT (NEMO) Software： Avatar

73	Redox Biology 67 (2023) 102900 Contents lists available at ScienceDirect Redox Biology journal homepage: www.elsevier.com/locate/redox **Clonal MDS/AML cells with enhanced TWIST1 expression reprogram the differentiation of bone marrow MSCs** Hongjiao Li[a,1], Yi Wang[b,1], Fenfang Yang[a], Shuang Feng[a], Kaijing Chang[a], Xinwen Yu[a], Feng Guan[a], Xiang Li[c,*] [a] Key Laboratory of Resource Biology and Biotechnology of Western China, Ministry of Education, Provincial Key Laboratory of Biotechnology, College of Life Sciences, Northwest University, Xi'an, China [b] Department of Hematology, Provincial People's Hospital, Xi'an, China [c] Institute of Hematology, School of Medicine, Northwest University, Xi'an, China	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10520935/	9/21/2023	 Micro CT (NEMO) Software： Avatar
72	Composites Part B 260 (2023) 110729 Contents lists available at ScienceDirect Composites Part B journal homepage: www.elsevier.com/locate/compositesb **In situ-formed micro silk fibroin composite sutures for pain management and anti-infection** Xiaoxiao Li[a,b,f,1], Ying Luo[a,c,1], Fengbo Yang[a,c,1], Guoping Chu[b,c], Lingqiao Li[b,d], Ling Diao[c], Xiaoli Jia[a,c], Chunjing Yu[e], Xiaozhuo Wu[f], Wen Zhong[g], Malcolm Xing[f,*], Guozhong Lyu[a,b,c,e,**]	https://www.sciencedirect.com/science/article/abs/pii/S1359836823002329	7/1/2023	 Super Nova® Micro PET/CT（III）

71	Received: 12 March 2023 | Accepted: 10 May 2023 DOI: 10.1111/imm.13671 ORIGINAL ARTICLE immunology **6-Mercaptopurine potently inhibits recruitment of SHP2 by phosphorylated PD-1 to inhibit PD-1 signalling and enhance T cell function** Lu Liu[1] | Yuxi Lei[1] | Zongyao Zheng[1] | Xingang Zhou[2] | Shuzhen Chen[1] | Guandi Zeng[1] | Lei Yu[3] | Peng Wang[2] | Liang Chen[1] [1]MOE Key Laboratory of Tumor Molecular Biology and Key Laboratory of Functional Protein Research of Guangdong Higher Education Institutes, Institute of Life and Health Engineering, College of Life Science and Technology, Jinan University, Guangzhou, China [2]Department of Pathlogy & Laboratory Medicine, Beijing Ditan Hospital, Capital Medical University, Beijing, China [3]Beijing Tongren Hospital, Capital Medical University, Beijing, China	https://onlinelibrary.wiley.com/doi/abs/10.1111/imm.13671 https://pubmed.ncbi.nlm.nih.gov/37259771/	6/1/2023	 Micro CT (Super Nova) Software: Avatar
70	ACSNANO www.acsnano.org ARTICLE **Radical-Scavenging and Subchondral Bone-Regenerating Nanomedicine for Osteoarthritis Treatment** Hengli Lu, Jihu Wei, Kaiyuan Liu, Zihua Li, Tianyang Xu, Dong Yang, Qiuming Gao, Huijing Xiang,* Guodong Li,* and Yu Chen* Cite This: ACS Nano 2023, 17, 6131–6146 Read Online ACCESS | Metrics & More | Article Recommendations | Supporting Information	https://pubs.acs.org/doi/10.1021/acsnano.3c01789 https://pubmed.ncbi.nlm.nih.gov/36920036/ https://pubmed-ncbi-nlm-nih-gov.ezproxy.bu.edu/36920036/	3/15/2023	 Micro CT (NEMO) Software： Avatar

69	European Journal of Nuclear Medicine and Molecular Imaging https://doi.org/10.1007/s00259-023-06234-z ORIGINAL ARTICLE **First-in-human CLDN18.2 functional diagnostic pet imaging of digestive system neoplasms enables whole-body target mapping and lesion detection** Shujing Wang[1] · Changsong Qi[2] · Jin Ding[1] · Dan Li[1] · Miao Zhang[2] · Congcong Ji[2] · Fangli Jiang[2] · Fei Teng[3] · Jie Yu[3] · Xueming Qian[3] · Feng Wang[1] · Lin Shen[2] · Jing Gao[4] · Zhi Yang[1] · Cheng Zhang[2] · Hua Zhu[1]	https://pubmed.ncbi.nlm.nih.gov/37099132/ https://link.springer.com/article/10.1007/s00259-023-06234-z	4/26/2023	 Super Nova® Micro PET/CT（III）
68	**RESEARCH ARTICLE** ADVANCED HEALTHCARE MATERIALS www.advhealthmat.de **3D Printed Chondrogenic Functionalized PGS Bioactive Scaffold for Cartilage Regeneration** *Sinan Wang, Bin Luo, Baoshuai Bai, Qianyi Wang, Hongying Chen, Xiaoyan Tan, Zhengya Tang, Sisi Shen, Hengxing Zhou,* Zhengwei You,* Guangdong Zhou,* and Dong Lei**	https://pubmed.ncbi.nlm.nih.gov/37286478/	6/7/2023	 Micro CT（VENUS）

67	 European Journal of Nuclear Medicine and Molecular Imaging Published: 29 June 2023 Volume 50, pages 3735–3749, (2023) ORIGINAL ARTICLE Immuno-PET of colorectal cancer with a CEA-targeted [68 Ga] Ga-nanobody: from bench to bedside Liqiang Li[1] · Xinfeng Lin[1] · Lin Wang[2] · Xiaopan Ma[1] · Ziqing Zeng[1] · Futao Liu[1] · Bing Jia[3] · Hua Zhu[1] · Aiwen Wu[2] · Zhi Yang[1]	https://link.springer.com/article/10.1007/s00259-023-06313-1 https://pubmed.ncbi.nlm.nih.gov/37382662/	6/29/2023	 Super Nova® Micro PET/CT（III）
66	ACS APPLIED MATERIALS & INTERFACES www.acsami.org Research Article Preparation and Application of a Bioorganic Nanoparticle-Enhanced PDL1-Targeted Small-Molecule Probe Lei Xia, Chengxue He, Yanhui Guo, Xiangxi Meng, Teli Liu, Xiaoxia Xu, Xiaoyi Guo, Feng Wang, Nan Li,* Hua Zhu,* and Zhi Yang* Cite This: ACS Appl. Mater. Interfaces 2023, 15, 30619–30629 Read Online	https://pubmed.ncbi.nlm.nih.gov/37310115/ https://pubs.acs.org/doi/10.1021/acsami.3c03931	6/13/2023	 Super Nova® Micro PET/CT（III）

65		https://pubmed.ncbi.nlm.nih.gov/37093191/ https://aacrjournals.org/clincancerres/article-abstract/29/17/3395/728558/First-in-Human-Study-of-the-Radioligand-68Ga-N188?redirectedFrom=fulltext	9/1/ 2023	 Super Nova® Micro PET/CT（III）
64	 European Journal of Nuclear Medicine and Molecular Imaging Published: 24 April 2023 Volume 50, pages 2775–2786, (2023) ORIGINAL ARTICLE Comparison of renal clearance of [18F]AlF-RESCA-HER2-BCH and [18F] AlF-NOTA-HER2-BCH in mice and breast cancer patients Jiayue Liu[1] · Xiaoyi Guo[1] · Li Wen[2] · Lixin Wang[3] · Futao Liu[1] · Guohong Song[4] · Hua Zhu[1] · Nina Zhou[1] · Zhi Yang[1] Received: 16 February 2023 / Accepted: 11 April 2023 © The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2023	https://pubmed.ncbi.nlm.nih.gov/37093312/ https://link.springer.com/article/10.1007/s00259-023-06232-1	4/24 /2023	 Super Nova® Micro PET/CT（III）

63	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Preclinical Evaluation of a Fibroblast Activation Protein and a Prostate-Specific Membrane Antigen Dual-Targeted Probe for Noninvasive Prostate Cancer Imaging** Pei Wang,§ Shuailiang Wang,§ Futao Liu,§ Ya'nan Ren, Qian Guo, Qian Zhang, XingGuo Hou, Yuan Yao, Hua Zhu,* and Zhi Yang*	https://pubmed.ncbi.nlm.nih.gov/36697367/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c01000	1/25/2023	 Super Nova® Micro PET/CT（III）
62	 Cover Page Article molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **One-Minute Iodine Isotope Labeling Technology Enables Noninvasive Tracking and Quantification of Extracellular Vesicles in Tumor Lesions and Intact Animals** *Published as part of the Molecular Pharmaceutics virtual special issue "Advances in Molecular Pharmaceutical Research from Asia".* Qian Guo,▽ Chuanke Zhao,▽ Xiangyu Gao,▽ Lixin Ding, Pei Wang, Ya'nan Ren, Xingguo Hou, Yuan Yao, Cheng Zhang,* Xianteng Yang,* Zhi Yang,* and Hua Zhu*	https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.3c00299	5/22/2023	 Super Nova® Micro PET/CT（III）

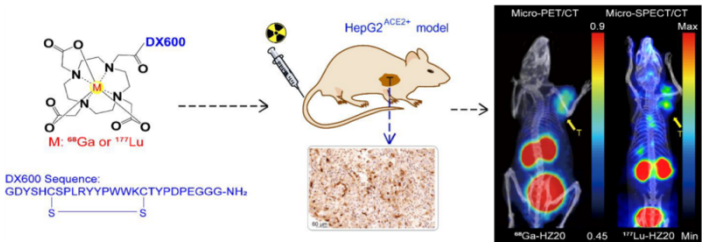
61	frontiers in Bioengineering and Biotechnology ORIGINAL RESEARCH published: 21 January 2022 doi: 10.3389/fbioe.2022.818191 Published online 2022 Jan 21. doi: 10.3389/fbioe.2022.818191 **BMSCs and Osteoblast-Engineered ECM Synergetically Promotes Osteogenesis and Angiogenesis in an Ectopic Bone Formation Model** OPEN ACCESS Edited by: Eric Farrell. *Chi Zhang[1,2†], Dongdong Xia[3†], Jiajing Li[1], Yanan Zheng[1], Bowen Weng[1], Haijiao Mao[4], Jing Mei[2], Tao Wu[5], Mei Li[1,6*] and Jiyuan Zhao[1*]*	https://pubmed.ncbi.nlm.nih.gov/35127662/ https://www.frontiersin.org/articles/10.3389/fbioe.2022.818191/full	1/21/2013	 Micro CT (NEMO) Software： Avatar
60	Journal of Pharmaceutical Analysis Available online 28 February 2023 In Press, Journal Pre-proof What's this? Original article **Development of a CLDN18.2-targeting Immuno-PET Probe for Non-invasive Imaging in Gastrointestinal Tumors**	https://pubmed.ncbi.nlm.nih.gov/37181294/ https://www.sciencedirect.com/science/article/pii/S2095177923000357	2/28/2023	 Super Nova® Micro PET/CT（III）

59	ACS APPLIED MATERIALS & INTERFACES www.acsami.org Research Article **Engineered Plant Virus Complexes with a RANK Motif Modulator and Bone Targeting for Osteoporosis Treatment** Yuyu Li,† Shuqin Cao,† Qiwen Li, Hanwen Li, Leixiao Yu, Bin Shao, Quan Yuan, Shujuan Zou,* and Chenchen Zhou* Cite This: *ACS Appl. Mater. Interfaces* 2023, 15, 11485−11495 Read Online	https://pubmed.ncbi.nlm.nih.gov/36821292/ https://pubs.acs.org/doi/10.1021/acsami.2c19632	2/23/2023	 Micro CT（VENUS）
58	ACS APPLIED MATERIALS & INTERFACES www.acsami.org Research Article **Self-Adaptive Antibacterial Scaffold with Programmed Delivery of Osteogenic Peptide and Lysozyme for Infected Bone Defect Treatment** Luxuan Shen,‖ Shuqin Cao,‖ Yuemin Wang, Pei Zhou, Shuaibing Wang, Yao Zhao, Lingzhuang Meng, Quan Zhang, Yanyan Li, Xinyuan Xu, Quan Yuan,* and Jianshu Li*	https://pubmed.ncbi.nlm.nih.gov/36541416/ https://pubs.acs.org/doi/10.1021/acsami.2c19026	12/21/2022	 Micro CT（VENUS）

57	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Construction of an Iodine-Labeled CS1001 Antibody for Targeting PD-L1 Detection and Comparison with Low-Molecular-Peptide Micro-PET Imaging** Dan Li,[⊥] Feng Wang,[⊥] Jinquan Jiang, Xingguo Hou, Jin Ding, Zilei Wang, Yan Chen, Teli Liu, Zhi Yang,* and Hua Zhu*	https://www.semanticscholar.org/paper/Construction-of-an-Iodine-Labeled-CS1001-Antibody-Li-Wang/466d5f73a7f23355640031ae99509dcff8dacfa7 https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c00789	10/21/2022	 Super Nova® Micro PET/CT（III）
56	Acta Biomaterialia 161 (2023) 184–200 Contents lists available at ScienceDirect Acta Biomaterialia journal homepage: www.elsevier.com/locate/actbio Full length article **Genetically engineered PD-1 displaying nanovesicles for synergistic checkpoint blockades and chemo-metabolic therapy against non-small cell lung cancer** Bo Li[a,b,1,**], Tong Yang[b,1], Jin Liu[b], Xixi Yu[b], Xinying Li[a], Fei Qin[a], Jiefei Zheng[b], Jinxia Liang[b], Youyan Zeng[a], Zhenhua Zhou[a], Lu Liu[b], Bin Zhang[a], Weiwei Yao[a], Zhuo Feng[b], Guandi Zeng[b], Qian Zhou[b,*], Liang Chen[b,*] [a] MOE Key Laboratory of Glucolipid Metabolic Disorder and Guangdong TCM Key Laboratory for Metabolic Diseases, Guangdong Metabolic Diseases Research Center of Integrated Chinese and Western Medicine, Institute of Chinese Medicine, Guangdong Pharmaceutical University, Guangzhou 510006, China [b] MOE Key Laboratory of Tumor Molecular Biology and Key Laboratory of Functional Protein Research of Guangdong Higher Education Institutes, Institute of Life and Health Engineering, College of Life Science and Technology, Jinan University, Guangzhou 510632, China	https://pubmed.ncbi.nlm.nih.gov/36893957/	3/1/2023	 Micro CT (Super Nova) Software: Avatar

55	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Construction and Preclinical Evaluation of a $^{124/125}$I-Labeled Specific Antibody Targeting PD-L2 in Lung Cancer** Yuan Yao, Xingguo Hou, Song Liu, Teli Liu, Yanan Ren, Xiaokun Ma, Qian Zhang, Pei Wang, Qian Guo, Xiaopan Ma, Zhi Yang,* Hua Zhu,* and Nan Li*	https://pubmed.ncbi.nlm.nih.gov/36579764/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c00958	12/29/2022	 Super Nova® Micro PET/CT（III）
54	Biomedicine & Pharmacotherapy 160 (2023) 114326 Contents lists available at ScienceDirect Biomedicine & Pharmacotherapy journal homepage: www.elsevier.com/locate/biopha **Enhanced efficiency of calcium-derived oleoyl serine on osteoporosis via Wnt/β-catenin pathway** Yujiong Chen[a,b,1], Chunhai Ke[a,1], Jiaqi Zhong[b], Wenqiang Cao[c], Xiaodong Hu[a,b], Mingming Hao[a], Jieyang Dong[a,b], Zhewei Zhang[a,b], Hangbin Weng[a,b], Botao Liu[a,b], Chunhua Jin[c,*], Zhaoxiang Peng[a,*] [a] Ningbo University affiliated Li Huili Hospital, Ningbo University, Ningbo, China [b] Ningbo University School of Medicine, Ningbo University, Ningbo, China [c] School of Biological and Chemical Engineering, NingboTech University, Ningbo, China	https://pubmed.ncbi.nlm.nih.gov/36736279/ https://www.sciencedirect.com/science/article/pii/S0753332223001142?via%3Dihub	2/1/2023	 Micro CT（VENUS）

53	frontiers | Frontiers in Oncology TYPE Original Research PUBLISHED 20 October 2022 DOI 10.3389/fonc.2022.1030187 Check for updates OPEN ACCESS EDITED BY Umang Swami, The University of Utah, United States REVIEWED BY Junwei Shi, University of Miami, United States Alexis Vrachimis, German Oncology Center, Cyprus *CORRESPONDENCE Xing Yang Yangxing2017@bjmu.edu.cn Peng Du dupeng9000@126.com Hua Zhu **Preclinical evaluation and first in human study of Al^{18}F radiolabeled ODAP-urea-based PSMA targeting ligand for PET imaging of prostate cancer** Ya'nan Ren[1,2], Chen Liu[2†], Teli Liu[2†], Xiaojiang Duan[3], Qian Zhang[1,2], Jiayue Liu[2], Pei Wang[1,2], Qian Guo[1,2], Xing Yang[3*], Peng Du[4*], Hua Zhu[1,2*] and Zhi Yang[1,2*]	https://pubmed.ncbi.nlm.nih.gov/36338719/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9633261/	10/20/2022	 Super Nova® Micro PET/CT（III）
52	European Journal of Nuclear Medicine and Molecular Imaging https://doi.org/10.1007/s00259-022-05967-7 ORIGINAL ARTICLE Check for updates **High in-vivo stability in preclinical and first-in-human experiments with [^{18}F]AlF-RESCA-MIRC213: a ^{18}F-labeled nanobody as PET radiotracer for diagnosis of HER2-positive cancers** Xue Qin[1,2] · Xiaoyi Guo[2] · Tianyu Liu[3] · Liqiang Li[2,3] · Nina Zhou[2] · Xiaopan Ma[1,2] · Xiangxi Meng[2] · Jiayue Liu[2] · Hua Zhu[1,2] · Bing Jia[3] · Zhi Yang[1,2]	https://pubmed.ncbi.nlm.nih.gov/36129493/ https://link.springer.com/article/10.1007/s00259-022-05967-7	9/21/2022	 Super Nova® Micro PET/CT（III）

51	**Evaluation of ^{68}Ga- and ^{177}Lu-Labeled HZ20 Angiotensin-Converting Enzyme 2-Targeting Peptides for Tumor-Specific Imaging** *Published as part of the Molecular Pharmaceutics virtual special issue "Advances in Molecular Pharmaceutical Research from Asia".* Qian Zhang,‖ Teli Liu,‖ Jin Ding, Nina Zhou, Ziyi Yu, Yanan Ren, Xue Qin, Peng Du,* Zhi Yang,* and Hua Zhu* Cite This: *Mol. Pharmaceutics* 2022, 19, 4149−4156 Read Online ACCESS | Metrics & More | Article Recommendations | Supporting Information 	https://pubmed.ncbi.nlm.nih.gov/36198565/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c00541	10/5/2022	 Super Nova® Micro PET/CT（III）
50	Nano Research 2022, 15(10): 9149−9159 ISSN 1998-0124 CN 11-5974/O4 https://doi.org/10.1007/s12274-022-4555-4 **Novel gold nanoparticles targeting somatostatin receptor subtype two with near-infrared light for neuroendocrine tumour therapy** Qichen Chen[1,2,§], Zilin Li[3,§], Jiangyuan Yu[4,§], Qing Xie[4,§], Haizhen Lu[5], Yiqiao Deng[1,2], Jinghua Chen[1,2], Wenjia Zhu[6], Li Huo[6], Yizhou Zhang[1,2], Wei Song[7], Jianqiang Lan[8], Jianqiang Cai[1,2] (✉), Zhen Huang[1,2] (✉), Zixi Wang[3] (✉),	https://link.springer.com/article/10.1007/s12274-022-4555-4 https://ui.adsabs.harvard.edu/abs/2022NaRes..15.9149C/abstract	7/15/2022	 Super Nova® Micro PET/CT（III）

49	145 (2023) 213252 Contents lists available at ScienceDirect Biomaterials Advances journal homepage: www.journals.elsevier.com/materials-science-and-engineering-c Positive space acquiring asymmetric membranes for guiding alveolar bone regeneration under infectious conditions Bing Wang[a,*], Chuanlan Qin[b], Yiming Liu[c], Yuqiu Zhang[b], Chengmin Feng[d], Fanglin Mi[c,*], Hong Zhu[c,*] [a] Department of Chemistry, School of Pharmacy, North Sichuan Medical College, Nanchong, China [b] Department of Stomatology, North Sichuan Medical College, Nanchong, China [c] Department of Stomatology, North Sichuan Medical College & Department of Stomatology, Affiliated Hospital of North Sichuan Medical College, Nanchong, China [d] Department of Otorhinolaryngology & Head Neck Surgery, Affiliated Hospital of North Sichuan Medical College, Nanchong, China [e] Department of Immunology, School of Basic and Forensic Medicine, North Sichuan Medical College, Nanchong, China	https://pubmed.ncbi.nlm.nih.gov/36563510/ https://www.sciencedirect.com/science/article/abs/pii/S2772950822005295	2/13/2022	 Super Nova® Micro PET/CT (II)
48	Liu et al. Cell & Bioscience (2022) 12:193 https://doi.org/10.1186/s13578-022-00933-0 Cell & Bioscience RESEARCH Open Access In vivo genome-wide CRISPR screening identifies ZNF24 as a negative NF-κB modulator in lung cancer Lu Liu[1†], Yuxi Lei[1†], Wensheng Chen[1†], Qian Zhou[1*†], Zongyao Zheng[1], Guandi Zeng[1], Wanting Liu[1], Pengju Feng[2], Zhiyi Zhang[1], Lei Yu[3*] and Liang Chen[1*]	https://pubmed.ncbi.nlm.nih.gov/36457047/ https://cellandbioscience.biomedcentral.com/articles/10.1186/s13578-022-00933-0	12/1/2022	 Super Nova® Micro CT

47	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Targeting Claudin 18.2 Using a Highly Specific Antibody Enables Cancer Diagnosis and Guided Surgery** Chuanke Zhao,[⊥] Zhuona Rong,[⊥] Jin Ding,[⊥] Lixin Wang, Bing Wang, Lei Ding, Lin Meng, Xiangxi Meng, Feng Wang, Zhi Yang, Chengchao Shou, and Hua Zhu* Cite This: https://doi.org/10.1021/acs.molpharmaceut.1c00947 Read Online	https://pubmed.ncbi.nlm.nih.gov/35344359/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.1c00947	3/28/2022	 Super Nova® Micro PET/CT（III）
46	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Construction of a ^{124}I-Labeled Specific Antibody for the Noninvasive Detection of Mesothelin-Overexpressing Tumors** Xingguo Hou,[∥] Feng Wang,[∥] Xiangxi Meng, Dan Li, Jin Ding, Yan Chen, Zilei Wang, Hua Zhu,* and Zhi Yang* Cite This: https://doi.org/10.1021/acs.molpharmaceut.2c00342 Read Online	https://pubmed.ncbi.nlm.nih.gov/35904514/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c00342	7/29/2022	 Super Nova® Micro PET/CT（III）

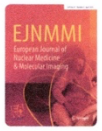
45	pharmaceuticals MDPI *Article* **An Albumin-Binding PSMA Ligand with Higher Tumor Accumulation for PET Imaging of Prostate Cancer** Ya'nan Ren [1,2,†], Teli Liu [1,†], Chen Liu [1], Xiaoyi Guo [1], Feng Wang [1], Hua Zhu [1,2,*] and Zhi Yang [1,2,*]	https://pubmed.ncbi.nlm.nih.gov/35631340/ https://www.researchgate.net/publication/360161421_An_Albumin-Binding_PSMA_Ligand_with_Higher_Tumor_Accumulation_for_PET_Imaging_of_Prostate_Cancer	4/22/2022	 Super Nova® Micro PET/CT（III）
44	AAAS Research Volume 2022, Article ID 9864089, 14 pages https://doi.org/10.34133/2022/9864089 Research A SCIENCE PARTNER JOURNAL *Research Article* **Evaluation of SARS-CoV-2-Neutralizing Nanobody Using Virus Receptor Binding Domain-Administered Model Mice** Song Liu,[1,2] Guanghui Li,[3] Lei Ding,[4] Jin Ding,[1] Qian Zhang,[1] Dan Li,[1] Xingguo Hou,[1] Xiangxing Kong,[1] Jing Zou,[5,6] Shiming Zhang,[5,6] Hongbin Han,[5,6,7] Yakun Wan,[3] Zhi Yang,[1,2,5] and Hua Zhu[1,2,5]	https://pubmed.ncbi.nlm.nih.gov/35958110/ https://jnm.snmjournals.org/content/63/supplement_2/2906	7/22/2022	 Super Nova® Micro PET/CT（III）

43	life MDPI Article **Noninvasive Mapping of Angiotensin Converting Enzyme-2 in Pigeons Using Micro Positron Emission Tomography** Zilei Wang [1,2,†], Ziyu Liu [2,3,†], Lanxin Yang [2,†], Jin Ding [2], Feng Wang [2], Teli Liu [2], Zhi Yang [2], Chao Wang [4,*], Hua Zhu [2,*] and Youping Liu [1,*]	https://www.mdpi.com/2075-1729/12/6/793 https://pubmed.ncbi.nlm.nih.gov/35743823/	5/26/2022	 Super Nova® Micro PET/CT（III）
42	RESEARCH ARTICLE small www.small-journal.com **Single Step Assembly of Janus Porous Biomaterial by Sub-Ambient Temperature Electrodeposition** *Miao Lei, Haitao Liao, Shijia Wang, Hang Zhou, Zhiling Zhao, Gregory F. Payne, Xue Qu,* and Changsheng Liu****	https://onlinelibrary.wiley.com/doi/full/10.1002/smll.202204837 https://pubmed.ncbi.nlm.nih.gov/36207286/	10/7/2022	 Micro CT（VENUS）

41	JCI The Journal of Clinical Investigation **Noninvasive interrogation of CD8⁺ T cell effector function for monitoring tumor early responses to immunotherapy** Haoyi Zhou, … , Zhi Yang, Zhaofei Liu	https://www.pingseng.com/news/detail_163.htm#item https://www.jci.org/articles/view/161065	7/5/2022	 Super Nova® Micro PET/CT（III）
40	ARTICLE IN PRESS Biomaterials xxx (xxxx) xxx Contents lists available at ScienceDirect Biomaterials journal homepage: www.elsevier.com/locate/biomaterials **Blood-brain barrier Permeable nanoparticles for Alzheimer's disease treatment by selective mitophagy of microglia** Gang Zhong[a,b,1], Huiping Long[a,1], Tian Zhou[c], Yisi Liu[b], Jianping Zhao[b], Jinyu Han[b], Xiaohu Yang[b], Yin Yu[b,**], Fei Chen[b,*], Shengliang Shi[a,***] [a] Department of Neurology, The Second Affiliated Hospital of Guangxi Medical University, Nanning, Guangxi, 530007, China [b] Center for Materials Synthetic Biology, CAS Key Laboratory of Quantitative Engineering Biology, Shenzhen Institute of Synthetic Biology, Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences, Shenzhen, 518055, China [c] Institute of Biomedical and Health Engineering, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, Shenzhen, 518055, China	https://pubmed.ncbi.nlm.nih.gov/35965114/ https://www.sciencedirect.com/science/article/abs/pii/S0142961222003301	8/12/2022	 Super Nova® Micro PET/CT（III）

39	Received: 8 February 2022 | Revised: 6 September 2022 | Accepted: 14 September 2022 DOI: 10.1002/jbm.b.35168 RESEARCH ARTICLE WILEY **Comprehensive reparative effects of bacteriostatic poly(L-lactide-co-glycolide)/poly(L-lactide-co-ε-caprolactone) electrospinning membrane on alveolar bone defects in progressive periodontitis** Yiming Liu[1] | Yun Zhao[1] | Wanchun Zhu[1] | Mei Han[1] | Fanglin Mi[1] | Bing Wang[2]	https://pubmed.ncbi.nlm.nih.gov/36196879/ https://onlinelibrary.wiley.com/doi/abs/10.1002/jbm.b.35168	10/5/2022	 Super Nova® Micro PET/CT (II)
38	Received: 9 February 2022 | Revised: 29 May 2022 | Accepted: 30 June 2022 DOI: 10.1111/jcpe.13705 ORIGINAL ARTICLE Journal of Clinical Periodontology WILEY **Comparative study of dedifferentiated fat cell and adipose-derived stromal cell sheets for periodontal tissue regeneration: In vivo and in vitro evidence** Guobin Huang[1,2] | Bin Xia[1,3] | Zichao Dai[1,2] | Rongqiang Yang[1,2] | Rui Chen[1,2] | Hefeng Yang[1,2]	https://pubmed.ncbi.nlm.nih.gov/35851962/ https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpe.13705	7/18/2022	 Micro CT (NEMO) Software： Avatar

37	Nano Today 45 (2022) 101558 Contents lists available at ScienceDirect Nano Today journal homepage: www.elsevier.com/locate/nanotoday **Multifunctional high boron content MOFs nano-co-crystals for precise boron neutron capture therapy for brain glioma *in situ*** Zhijie Wang[a], Ziteng Chen[a], Zizhu Zhang[b], Jiacheng Li[a], Kui Chen[a], Haojun Liang[a], Linwen Lv[a], Yannan Chang[a], Sen Liu[a], Wenjiang Yang[a], Zhi Yang[c], Hui Yuan[a], Xiangxi Meng[c], Tong Liu[d], Feng Wang[c,*], Juan Li[a,*], Gengmei Xing[a,*]	https://www.x-mol.net/paper/article/1548147370554978304	7/14/2022	 Super Nova® Micro PET/CT（III）
36	 RESEARCH ARTICLE *National Science Review* 9: nwac152, 2022 https://doi.org/10.1093/nsr/nwac152 Advance access publication 2 August 2022 MOLECULAR BIOLOGY & GENETICS **Single-cell transcriptomes and *runx2b*$^{-/-}$ mutants reveal the genetic signatures of intermuscular bone formation in zebrafish** [1]College of Fisheries, Key Lab of Freshwater Animal Breeding, Ministry of Agriculture and Rural Affairs/Key Lab of Agricultural Animal Genetics, Breeding and Reproduction of Ministry of Education/Engineering Research Center of Green Development for Conventional Aquatic Chun-Hong Nie[1,2,†], Shi-Ming Wan[1,2,3,†], Yu-Long Chen[1,2,†], Ann Huysseune[4], Ya-Ming Wu[1,2], Jia-Jia Zhou[1,2], Alexandre Wagner Silva Hilsdorf[5], Wei-Min Wang[1,2], Paul Eckhard Witten[4], Qiang Lin[3,*] and Ze-Xia Gao[1,2,6,*]	https://academic.oup.com/nsr/article/9/11/nwac152/6653242 https://pubmed.ncbi.nlm.nih.gov/36478733/	8/2/2022	 Micro CT (NEMO) Software： Avatar

35	 **European Journal of Nuclear Medicine and Molecular Imaging** European Journal of Nuclear Medicine and Molecular Imaging https://doi.org/10.1007/s00259-022-05711-1 ORIGINAL ARTICLE **Galectin expression detected by ^{68}Ga-galectracer PET as a predictive biomarker of radiotherapy resistance** Dehua Lu[1] · Haoyi Zhou[1] · Nan Li[2] · Yanpu Wang[1] · Ting Zhang[1] · Fei Wang[2] · Ning Liu[1] · Hua Zhu[2,3] · Jinming Zhang[4] · Zhi Yang[2,3] · Zhaofei Liu[1,3]	https://pubmed.ncbi.nlm.nih.gov/35106644/ https://europepmc.org/article/med/35106644	2/2/2022	 Super Nova® Micro PET/CT（III）
34	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **^{124}I Radiolabeled Basiliximab for CD25-Targeted Immuno-PET Imaging of Activated T Cells** Shuailiang Wang, Futao Liu, Pei Wang, Li Wen, Zilei Wang, Qian Guo, Hua Zhu, and Zhi Yang*	https://pubmed.ncbi.nlm.nih.gov/35704773/ https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.2c00330	6/15/2022	 Super Nova® Micro PET/CT（III）

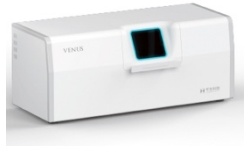
33	Article EMBO Molecular Medicine **Carfilzomib modulates tumor microenvironment to potentiate immune checkpoint therapy for cancer** Qian Zhou[1,*,†], Jinxia Liang[1,†], Tong Yang[1], Jin Liu[1], Bo Li[1,2], Yingchang Li[1], Zhenzhen Fan[1], Weida Wang[3], Wensheng Chen[1,4], Sujing Yuan[3], Meng Xu[4], Qigui Xu[5], Zhidong Luan[5], Zhongjun Xia[3], Penghui Zhou[3], Yadong Huang[6] & Liang Chen[4,6,**]	https://pubmed.ncbi.nlm.nih.gov/34898004/ https://www.embopress.org/doi/full/10.15252/emmm.202114502	12/13/2021	 Super Nova® Micro CT
32	139 (2022) 212977 Contents lists available at ScienceDirect Biomaterials Advances journal homepage: www.journals.elsevier.com/materials-science-and-engineering-c **Preparation of healing promotive alanyl-glutamine-poly(p-dioxanone) electrospun membrane integrated with gentamycin and its application for intestinal anastomosis in rats** Jun Dong[a,1], Chengmin Feng[b,1], Jiafeng Dang[c], Xiaomei Yang[d], Ting Zhang[d], Bing Wang[a,e,*] [a] Department of Chemistry, School of Pharmacy, North Sichuan Medical College, Nanchong, China [b] Department of Otolaryngology & Head and Neck Surgery, Affiliated Hospital of North Sichuan Medical College, Nanchong, China [c] Gynecology and Obstetrics, Department of Clinical Medicine, The Third Affiliated Hospital of Chengdu Medicine College, Pidu District People's Hospital, Chengdu, China [d] Department of Clinical Medicine, North Sichuan Medical College, Nanchong, China [e] Medical Imaging Key Laboratory of Sichuan Province, North Sichuan Medical College, Nanchong, China	https://pubmed.ncbi.nlm.nih.gov/35882134/ https://www.sciencedirect.com/science/article/pii/S2772950822002540	6/6/2022	 Super Nova® Micro PET/CT (II)

31	Diabetologia (2021) 64:1169–1183 https://doi.org/10.1007/s00125-021-05384-9 ARTICLE **Genetic ablation of C-reactive protein gene confers resistance to obesity and insulin resistance in rats** Mengliu Yang[1,2] · Sheng Qiu[1] · Yirui He[1] · Ling Li[3] · Tong Wu[1] · Ning Ding[4] · Fanghong Li[4] · Allan Z. Zhao[4] · Gangyi Yang[1] Received: 27 March 2020 / Accepted: 6 November 2020 / Published online: 5 February 2021 © The Author(s), under exclusive licence to Springer-Verlag GmbH, DE part of Springer Nature 2021	https://pubmed.ncbi.nlm.nih.gov/33544171/ https://europepmc.org/article/med/33544171	2/5/2021	 Super Nova® Micro PET/CT (II)
30	frontiers in Neuroscience ORIGINAL RESEARCH published: 18 March 2021 doi: 10.3389/fnins.2021.593723 OPEN ACCESS Edited by: Szilvia Anett Nagy, University of Pécs, Hungary Reviewed by: Arnold Tóth, **^{18}F-FDG PET Combined With MR Spectroscopy Elucidates the Progressive Metabolic Cerebral Alterations After Blast-Induced Mild Traumatic Brain Injury in Rats** *Yang Li[1,2,3†], Kaijun Liu[4†], Chang Li[2], Yu Guo[2], Jingqin Fang[2], Haipeng Tong[2], Yi Tang[1], Junfeng Zhang[2], Jinju Sun[1], Fangyang Jiao[1], Qianhui Zhang[5], Rongbing Jin[1,6*], Kunlin Xiong[2,6*] and Xiao Chen[1,6*]*	https://pubmed.ncbi.nlm.nih.gov/33815036/ https://www.readcube.com/articles/10.3389/fnins.2021.593723	3/18/2021	 Super Nova® Micro PET/CT (I)

29	*Theranostics* 2021, Vol. 11, Issue 13 6592 IVYSPRING INTERNATIONAL PUBLISHER Theranostics 2021; 11(13): 6592-6606. doi: 10.7150/thno.59816 Research Paper **Targeting hyperactive TGFBR2 for treating MYOCD deficient lung cancer** Qian Zhou[1⊠*], Wensheng Chen[1*], Zhenzhen Fan[1*], Zhipeng Chen[1*], Jinxia Liang[1*], Guandi Zeng[1], Lu Liu[1], Wanting Liu[1], Tong Yang[1], Xin Cao[2], Biao Yu[3], Meng Xu[4], Ye-Guang Chen[5,6⊠] and Liang Chen[1⊠]	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8120205/ https://www.thno.org/v11p6592	5/3/2021	 Super Nova® Micro CT
28	Ma *et al. Stem Cell Research & Therapy* (2022) 13:92 https://doi.org/10.1186/s13287-022-02767-6 Stem Cell Research & Therapy RESEARCH Open Access **Small extracellular vesicles from dental follicle stem cells provide biochemical cues for periodontal tissue regeneration** Liya Ma[1,2†], Nanquan Rao[1†], Hui Jiang[1], Yuzhe Dai[1], Songtao Yang[1], Hefeng Yang[1*] and Jiangtian Hu[2*]	https://pubmed.ncbi.nlm.nih.gov/35241181/ https://stemcellres.biomedcentral.com/articles/10.1186/s13287-022-02767-6	3/3/2022	 Micro CT（NEMO）

27	Bioactive Materials 6 (2021) 1255–1266 Contents lists available at ScienceDirect Bioactive Materials journal homepage: www.sciencedirect.com/journal/bioactive-materials **Synergistic anti-inflammatory and osteogenic n-HA/resveratrol/chitosan composite microspheres for osteoporotic bone regeneration** Limei Li [a,1], Mali Yu [a,1], Yao Li [b,1], Qing Li [a], Hongcai Yang [c], Meng Zheng [a], Yi Han [a], Di Lu [a], Sheng Lu [d,**], Li Gui [e,*] [a] Yunnan Key Laboratory of Stem Cell and Regenerative Medicine, Science and Technology Achievement Incubation Center, Kunming Medical University, Kunming, 650500, China [b] Department of Stomatology, The First People's Hospital of Yunnan Province, Kunming, 650032, China [c] Department of Neurology, The First Affiliated Hospital, Kunming Medical University, Kunming, 650000, China [d] Yunnan Key Laboratory of Digital Orthopaedics, Department of Orthopaedics, The First People's Hospital of Yunnan Province, Kunming, 650032, China [e] Department of Endocrinology, The Third People's Hospital of Yunnan Province, Kunming, 650011, China	https://pubmed.ncbi.nlm.nih.gov/33210023/ https://www.sciencedirect.com/science/article/pii/S2452199X2030270X	11/8/2020	 Micro CT（NEMO）
26	Biochemical and Biophysical Research Communications 582 (2021) 64–71 Contents lists available at ScienceDirect Biochemical and Biophysical Research Communications journal homepage: www.elsevier.com/locate/ybbrc **Mesenchymal stem cells prevent ovariectomy-induced osteoporosis formation in mice through intraosseous vascular remodeling** Weizhou Wang [a,b,1], Yanghao Wang [a,b,1], Zhihong Tang [e,1], Yongcheng Chen [a,b], Zhui Liu [a,b], Hao Duan [a], Zongyu Zhong [a], Fei He [a,c,d,*] [a] Department of Orthopedics, The First Affiliated Hospital of Kunming Medical University, Yunnan, China [b] Kunming Medical University, Yunnan, China [c] Yunnan Province Stem Cell Technology Application Research Center, Yunnan, China [d] Yunnan Provincial Clinical Medical Center for Bone and Joint Diseases, Yunnan, China [e] Department of orthopaedics, People's Hospital of Guang'an City, Sichuan, China	https://pubmed.ncbi.nlm.nih.gov/34689107/ https://europepmc.org/article/med/34689107	10/19/2021	 Micro CT（NEMO）

25	Check for updates Original Article **Untargeted Metabolomics Reveal the Protective Effect of Bone Marrow Mesenchymal Stem Cell Transplantation Against Ovariectomy-Induced Osteoporosis in Mice** Cell Transplantation Volume 31: 1–13 © The Author(s) 2022 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/09636897221079745 journals.sagepub.com/home/cll SAGE Weizhou Wang[1*], Yanghao Wang[1*], Jun Hu[2], Hao Duan[1], Zhihua Wang[1], Liang Yin[1], and Fei He[1,3,4]	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8891838/ https://journals.sagepub.com/doi/full/10.1177/09636897221079745	2/26/2022	 Micro CT（NEMO）
24	International Journal of Biochemistry and Cell Biology xxx (xxxx) 106112 Contents lists available at ScienceDirect International Journal of Biochemistry and Cell Biology journal homepage: www.elsevier.com/locate/biocel ELSEVIER **PRMT1 promotes extracellular matrix degradation and apoptosis of chondrocytes in temporomandibular joint osteoarthritis via the AKT/FOXO1 signaling pathway** Qinhao Shen[a,b,c,1], Yiwen Xiao[b,d,1], Bei Cheng[a,b], Zheyi Sun[b], Yu Hu[d], Hefeng Yang[b,*], Yingwei Luo[a,c,**] [a] Department of Periodontics, The Affiliated Stomatological Hospital of Kunming Medical University, Kunming 650031, Yunnan Province, China [b] Yunnan Key Laboratory of Stomatology, Kunming 650500, Yunnan Province, China [c] The First Affiliated Hospital of Kunming Medical University, Kunming 650032, Yunnan Province, China [d] Department of Orthodontics, The Affiliated Stomatological Hospital of Kunming Medical University, Kunming 650031, Yunnan Province, China [e] The First Dental Clinic of the Affiliated Stomatology Hospital of Kunming Medical University, Kunming 650221, Yunnan Province, China	https://pubmed.ncbi.nlm.nih.gov/34715362/ https://www.sciencedirect.com/science/article/pii/S135727252100193X	10/27/2021	 Micro CT（NEMO）

23	frontiers | Frontiers in Neurology ORIGINAL RESEARCH published: 18 April 2022 doi: 10.3389/fneur.2022.860541 **Modified Protocol for Establishment of Intracranial Arterial Dolichoectasia Model by Injection of Elastase Into Cerebellomedullary Cistern in Mice** *Fei Xiang Liu[1,2,3†], Yu Ge Niu[4†], Dao Pei Zhang[1,2,3*], Huai Liang Zhang[1,2,3], Zhen Qiang Zhang[4], Rui Qin Sun[5] and Yun Ke Zhang[6]*	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9062172/ https://www.pingseng.com/news/detail_145.htm#item	4/18/2022	 Micro CT（VENUS）
22	Yang et al. *Zool. Res.* 2022, 43(3): 391–403 https://doi.org/10.24272/j.issn.2095-8137.2021.291 ZR | Zoological Research Article Open Access ***BMPR-IB* gene disruption causes severe limb deformities in pigs** Qiang Yang[1,#], Chuan-Min Qiao[1,#], Wei-Wei Liu[1], Hao-Yun Jiang[1], Qi-Qi Jing[1], Ya-Ya Liao[1], Jun Ren[1], Yu-Yun Xing[1,*] [1] *State Key Laboratory of Pig Genetic Improvement and Production Technology, Jiangxi Agricultural University, Nanchang, Jiangxi 330045, China*	https://pubmed.ncbi.nlm.nih.gov/35362676/ https://www.proquest.com/docview/2718688451?sourcetype=Scholarly%20Journals	5/18/2022	 Micro CT（NEMO）

21	Am J Cancer Res 2022;12(1):381-395 www.ajcr.us /ISSN:2156-6976/ajcr0140822 *Original Article* **Trastuzumab aggravates radiation induced cardiotoxicity in mice** Peiqiang Yi[1*], Huan Li[1*], Jun Su[1], Jialin Cai[2], Cheng Xu[1], Jiayi Chen[1], Lu Cao[1], Min Li[1] [1]*Department of Radiation Oncology, Ruijin Hospital, Shanghai Jiaotong University School of Medicine, Shanghai, China;* [2]*Clinical Research Center, Ruijin Hospital, Shanghai Jiaotong University School of Medicine, Shanghai, China.* [*]*Equal contributors.* Received November 28, 2021; Accepted December 30, 2021; Epub January 15, 2022; Published January 30, 2022	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8822280/ https://www.researchgate.net/publication/358533317_Trastuzumab_aggravates_radiation_induced_cardiotoxicity_in_mice	1/15/2022	 Super Nova® Micro PET/CT（III）
20	frontiers in Oncology ORIGINAL RESEARCH published: 17 November 2021 doi: 10.3389/fonc.2021.778728 OPEN ACCESS *Edited by:* *Kyung Hyun Sung,* *UCLA Health System, United States* **Multimodal Imaging Technology Effectively Monitors HER2 Expression in Tumors Using Trastuzumab-Coupled Organic Nanoparticles in Patient-Derived Xenograft Mice Models**	https://pubmed.ncbi.nlm.nih.gov/34869025/ https://www.frontiersin.org/journals/oncology/articles/10.3389/fonc.2021.778728/full	11/16/2021	 Super Nova® Micro PET/CT（III）

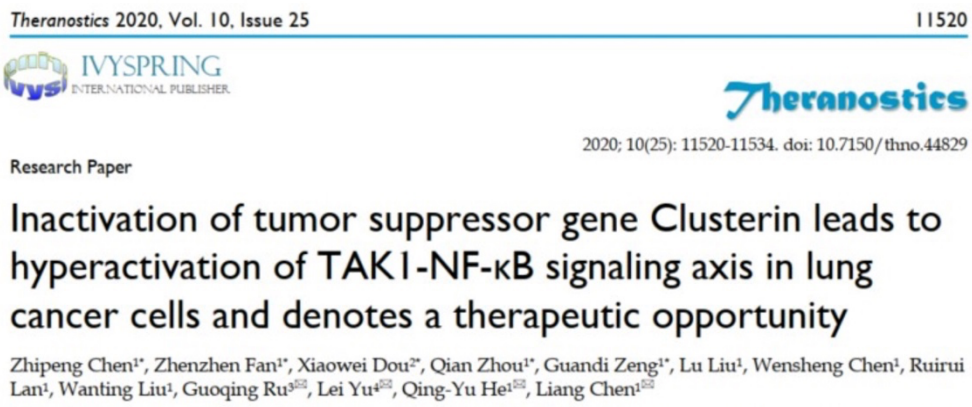
19	Acta Pharmacologica Sinica www.nature.com/aps ARTICLE **SARS-CoV-2 receptor binding domain radio-probe: a non-invasive approach for angiotensin-converting enzyme 2 mapping in mice** Dan Li[1], Jin Ding[1], Te-li Liu[1], Feng Wang[1], Xiang-xi Meng[1], Song Liu[1], Zhi Yang[1] and Hua Zhu[1] The spike protein of SARS-CoV-2 interacts with angiotensin-converting enzyme 2 (ACE2) of human respiratory epithelial cells, which leads to infection. Furthermore, low-dose radiation has been found to reduce inflammation and aid the curing of COVID-19. The receptor binding domain (RBD), a recombinant spike protein with a His tag at the C-terminus, binds to ACE2 in human body. We thus constructed a radioiodinated RBD as a molecule-targeted probe to non-invasively explore ACE2 expression in vivo, and to investigate radiotherapy pathway for inhibiting ACE2. RBD was labeled with [^{124}I]NaI using an N-bromosuccinimide (NBS)-mediated method, and ^{124}I-RBD was obtained after purification with a specific activity of 28.9 GBq/nmol. Its radiochemical purity was (RCP) over 90% in saline for 5 days. The dissociation constant of ^{124}I-RBD binding to hACE2 was 75.7 nM. The uptake of ^{124}I-RBD by HeLa^{ACE+} cells at 2 h was 2.96% ± 0.35%, which could be substantially blocked by an excessive amount of RBD, and drop to 1.71% ± 0.23%. In BALB/c mice, the biodistribution of ^{124}I-RBD after intravenous injection showed a moderate metabolism rate, and its 24 h-post injection (p.i.) organ distribution was similar to the expression profile in body. Micro-PET imaging of mice after intrapulmonary injection showed high uptake of lung at 1, 4, 24 h p.i.. In conclusion, the experimental results demonstrate the potential of ^{124}I-RBD as a novel targeted molecular probe for COVID-19. This probe may be used for non-invasive ACE2 mapping in mammals.	https://www.nature.com/articles/s41401-021-00809-y https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8812351/	2/3/2022	 Super Nova® Micro PET/CT（III）
18	Molecular Therapy **Methods & Clinical Development** Original Article **Evidence of Accumulated Endothelial Progenitor Cells in the Lungs of Rats with Pulmonary Arterial Hypertension by ^{89}Zr-oxine PET Imaging** Yimin Liu,[1,4] Xin Zhao,[2,4] Jie Ding,[1] Yanjiang Xing,[2] Meijun Zhou,[2] Xuezhu Wang,[1] Wenjia Zhu,[1] Li Huo,[1] and Jun Yang[2,3]	https://pubmed.ncbi.nlm.nih.gov/32490032/ https://www.cell.com/molecular-therapy-family/methods/fulltext/S2329-0501(20)30081-4	5/3/2020	 Super Nova® Micro PET/CT（III）

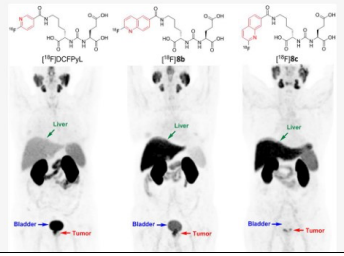
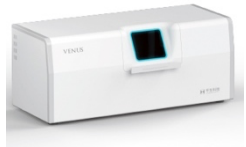
17	European Journal of Nuclear Medicine and Molecular Imaging https://doi.org/10.1007/s00259-021-05249-8 ORIGINAL ARTICLE **Synthesis, preclinical evaluation, and a pilot clinical imaging study of [^{18}F]AlF-NOTA-JR11 for neuroendocrine neoplasms compared with [^{68}Ga]Ga-DOTA-TATE** Qing Xie[1] · Teli Liu[1] · Jing Ding[1] · Nina Zhou[1] · Xiangxi Meng[1] · Hua Zhu[1] · Nan Li[1] · Jiangyuan Yu[1] · Zhi Yang[1] Received: 21 December 2020 / Accepted: 7 February 2021 © The Author(s), under exclusive licence to Springer-Verlag GmbH, DE part of Springer Nature 2021	https://pubmed.ncbi.nlm.nih.gov/33630145/ https://link.springer.com/article/10.1007/s00259-021-05249-8	2/25/2021	 Super Nova® Micro PET/CT（III）
16	EUROPEAN RESPIRATORY *journal* FLAGSHIP SCIENTIFIC JOURNAL OF ERS **Intracellular hydroxyproline imprinting following resolution of bleomycin-induced pulmonary fibrosis** Song, Zhenli Fu, Ruijuan Guan, Jie Zhao, Penghui Yang, Yang Li, Hang Yin, Yunxin Lai, Gencheng Gong, Simin Zhao, Jiangtian Yu, Xiaomin Peng, Ying He, Yumei Luo, Nanshan Zhong, Jin Su European Respiratory Journal 2022 59: 2100864; DOI: 10.1183/13993003.00864-2021	https://pubmed.ncbi.nlm.nih.gov/34561295/ https://erj.ersjournals.com/content/erj/59/5/2100864.full.pdf	9/14/2021	 Micro CT（VENUS）

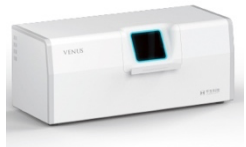
15	**PNAS** **ICAM-1 orchestrates the abscopal effect of tumor radiotherapy** Yang Zhao, Ting Zhang, Yabpu Wang, Zhaofeo Liu Edited by Rakesh K. Jain, Massachusetts General Hospital, Boston, MA, and approved February 16, 2021 (received for review May 22, 2020) March 30, 2021. 118 (14) e2010333118. https://doi.org/10.1073/pnas.2010333118	https://www.pnas.org/doi/suppl/10.1073/pnas.2010333118 https://pubmed.ncbi.nlm.nih.gov/33785590/	3/30/2021	 Super Nova® Micro PET/CT（III）
14	European Journal of Nuclear Medicine and Molecular Imaging https://doi.org/10.1007/s00259-021-05470-5 ORIGINAL ARTICLE **Clinical translational evaluation of Al^{18}F-NOTA-FAPI for fibroblast activation protein-targeted tumour imaging** Shuailiang Wang[1,2] · Xin Zhou[2] · Xiaoxia Xu[2] · Jin Ding[2] · Song Liu[2] · Xingguo Hou[2] · Nan Li[2] · Hua Zhu[2] · Zhi Yang[1,2] Received: 10 February 2021 / Accepted: 17 June 2021 © The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature 2021	https://pubmed.ncbi.nlm.nih.gov/34165601/ https://link.springer.com/article/10.1007/s00259-021-05470-5	6/24/2021	 Super Nova® Micro PET/CT（III）

13	Bioorg. Med. Chem. Lett. 40 (2021) 127901 Contents lists available at ScienceDirect Bioorganic & Medicinal Chemistry Letters journal homepage: www.elsevier.com/locate/bmcl Noninvasive evaluation of PD-L1 expression using Copper 64 labeled peptide WL12 by micro-PET imaging in *Chinese hamster ovary* cell tumor model Jinquan Jiang, Dan Li, Teli Liu, Lei Xia, Xiaoyi Guo, Xiangxi Meng, Futao Liu, Feng Wang, Zhi Yang, Hua Zhu *Key Laboratory of Carcinogenesis and Translational Research (Ministry of Education/Beijing), NMPA Key Laboratory for Research and Evaluation of Radiopharmaceuticals (National Medical Products Administration), Department of Nuclear Medicine, Peking University Cancer Hospital & Institute, Beijing 100142, China*	https://pubmed.ncbi.nlm.nih.gov/33705912/ https://www.sciencedirect.com/science/article/pii/S0960894X2100127X	3/8/2021	 Super Nova® CT
12	eLife RESEARCH ARTICLE **7,8-Dihydroxyflavone modulates bone formation and resorption and ameliorates ovariectomy-induced osteoporosis** **Fan Xue[1], Zhenlei Zhao[1], Yanpei Gu[1], Jianxin Han[1], Keqiang Ye[2]*, Ying Zhang[1]*** [1]Department of Food Science and Nutrition, College of Biosystems Engineering and Food Science, Zhejiang Key Laboratory for Agro-Food Processing; Zhejiang Engineering Center for Food Technology and Equipment, Zhejiang University, Hangzhou, China; [2]Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, United States	https://pubmed.ncbi.nlm.nih.gov/34227467/ https://elifesciences.org/articles/64872	6/6/2021	 Micro CT（NEMO）

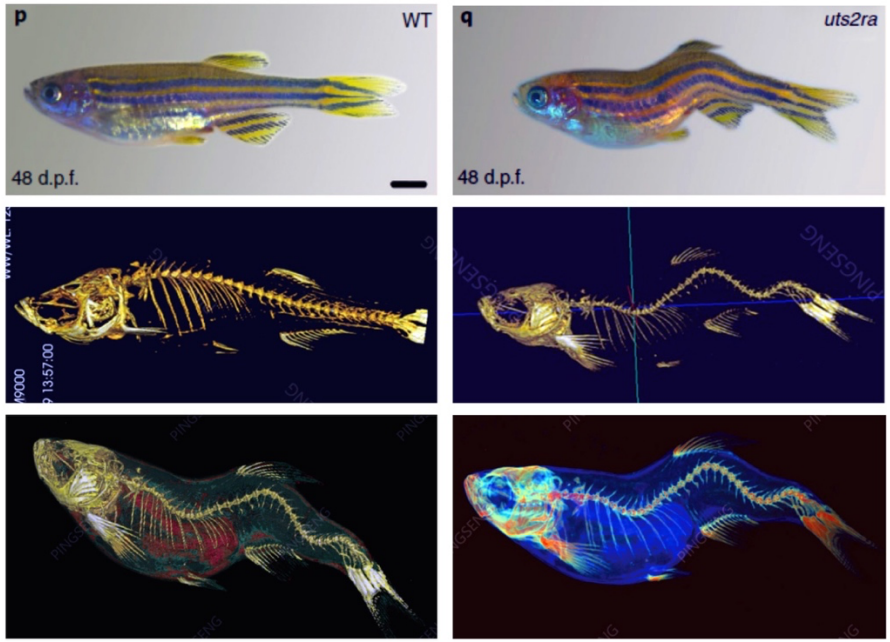
11	molecular pharmaceutics pubs.acs.org/molecularpharmaceutics Article **Synthesis and Evaluation of Fluorine-18 Labeled 2-Phenylquinoxaline Derivatives as Potential Tau Imaging Agents** Kaixiang Zhou, Fan Yang, Yuying Li, Yimin Chen, Xiaojun Zhang, Jinming Zhang, Junfeng Wang, Jiapei Dai, Lisheng Cai,* and Mengchao Cui* Cite This: *Mol. Pharmaceutics* 2021, 18, 1176−1195 Read Online ACCESS | Metrics & More | Article Recommendations | Supporting Information ABSTRACT: In this study, three pairs of optically pure ^{18}F-labeled 2-phenylquinoxaline derivatives were evaluated as Tau imaging agents for the diagnosis of Alzheimer's disease (AD). The chiral 2-fluoromethyl-1,2-ethylenediol side chain was attached to the 2-phenylquinoxaline backbone to increase hydrophilicity, thereby improving the binding affinity of the probe to tangles and their selectivity toward Tau tangles over β-amyloid plaques (Aβ). These probes displayed excellent fluorescent properties and high selectivity for tangles on brain sections from transgenic mice (rTg4510) and AD patients. Quantitative binding assays with AD homogenates showed that the probes (*R*)-**5** and (*S*)-**16** have a high affinity (K_i = 4.1 and 10.3 nM, respectively) and high selectivity (30.5-fold and 34.6-fold, respectively) for tangles over Aβ. The high affinity and selectivity of (*R*)-[^{18}F]**5** and (*S*)-[^{18}F]**16** for tangles were further confirmed with autoradiography on AD brain tissue in vitro. In addition, they displayed sufficient blood-brain barrier penetration (7.06% and 10.95% ID/g, respectively) and suitable brain kinetics ($brain_{2\ min}/brain_{60\ min}$ = 10.1, 6.5 respectively) in normal mice. Ex vivo metabolism studies and micro-positron emission computed tomography (PET) revealed high brain biostability, good brain kinetic properties, and low nonspecific binding for (*S*)-[^{18}F]**16**. Together, these results demonstrate that (*R*)-[^{18}F]**5** and (*S*)-[^{18}F]**16** are promising PET probes for Tau tangles imaging. K_i (Tau) = 10.3 nM. Selectivity : 34.6-fold KEYWORDS: *Alzheimer's disease, Tau tangles, PET imaging, quinoxaline*	https://pubs.acs.org/doi/10.1021/acs.molpharmaceut.0c01078 https://pubmed.ncbi.nlm.nih.gov/33475377/	1/21/2021	 Super Nova® Micro PET/CT (I)
10	Nano Today 36 (2020) 101054 Contents lists available at ScienceDirect Nano Today journal homepage: www.elsevier.com/locate/nanotoday **Peptide-based high-density lipoprotein promotes adipose tissue browning and restrains development of atherosclerosis and type 2 diabetes** Ruodan Xu[a,b], Shizhong Li[a,c], Mingfei Shi[a], Ziyun Li[a,d], Yin Wang[b], Jing Li[e], Qiang Li[b], Lasse H. Klausen[b], An Li[a], Haiyu Zhao[f], Menglin Chen[b], Jingqing Hu[a,*], Mingdong Dong[b,*], Ning Li[a,*]	https://www.sciencedirect.com/science/article/pii/S1748013220302243	12/18/2020	 Super Nova® Micro PET/CT（III）

9		https://pubmed.ncbi.nlm.nih.gov/33352311/ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7811170/	12/19/2020	 Micro CT（NEMO）
8		https://pubmed.ncbi.nlm.nih.gov/33052230/ https://www.semanticscholar.org/paper/Inactivation-of-tumor-suppressor-gene-Clusterin-to-Chen-Fan/926c58fd1268ac0d481f16034529ad8f82260124	9/16/2020	 Micro CT（VENUS）

7	Journal of Medicinal Chemistry pubs.acs.org/jmc Article **Synthesis, Preclinical Evaluation, and First-in-Human PET Study of Quinoline-Containing PSMA Tracers with Decreased Renal Excretion** Xiaojun Zhang, Yitian Wu, Qi Zeng, Tianxin Xie, Shulin Yao,* Jinming Zhang,* and Mengchao Cui* Cite This: https://doi.org/10.1021/acs.jmedchem.1c00117 Read Online ACCESS | Metrics & More | Article Recommendations | Supporting Information ABSTRACT: The prostate-specific membrane antigen (PSMA) is considered to be an excellent theranostic target of prostate cancer (PCa). In this study, three ^{18}F-labeled PSMA tracers with a more lipophilic quinoline functional spacer were designed, synthesized, and evaluated based on the Glu-Ureido-Lys binding motif. The effect of structure-related lipophilic difference on distribution and excretion of these tracers in vitro and in vivo (cells, rodent, primate, and human) was investigated by comparing with [^{18}F]DCFPyL. There is no significant correlation between the renal elimination and the lipophilicity of the tracers in all species. However, the higher the lipophilicity of tracer, the higher the radioactivity accumulation in the liver of primate and human, and the less radioactivity is to excrete to the bladder with urine. The screened tracer [^{18}F]**8c**, with a K_i value of 4.58 nM, displayed notable low bladder retention and demonstrated good imaging properties in patients with PCa. 	https://pubmed.ncbi.nlm.nih.gov/33783213/ https://pubs.acs.org/doi/10.1021/acs.jmedchem.1c00117	3/20/2021	 Super Nova® Micro PET/CT（III）
6	ACS APPLIED MATERIALS & INTERFACES www.acsami.org Research Article **Tremella-Like ZnO@Col-I-Decorated Titanium Surfaces with Dual-Light-Defined Broad-Spectrum Antibacterial and Triple Osteogenic Properties** Siyu Zhao, Yingying Xu, Wenying Xu, Zhenzhen Weng, Fei Cao, Xinyi Wan, Tongcan Cui, Yajun Yu, Lan Liao,* and Xiaolei Wang* Cite This: https://dx.doi.org/10.1021/acsami.0c05413 Read Online	https://pubmed.ncbi.nlm.nih.gov/32589010/ https://pubs.acs.org/doi/10.1021/acsami.0c05413	6/17/2020	 Micro CT（VENUS）

5	frontiers in Oncology ORIGINAL RESEARCH published: 12 June 2020 doi: 10.3389/fonc.2020.00824 **GATA6 Exerts Potent Lung Cancer Suppressive Function by Inducing Cell Senescence** *Wensheng Chen[†], Zhipeng Chen[†], Miaomiao Zhang[†], Yahui Tian[1], Lu Liu[1], Ruirui Lan[2], Guandi Zeng[1], Xiaolong Fu[3], Guoqing Ru[4*], Wanting Liu[1*], Liang Chen[1*] and Zhenzhen Fan[1*‡]*	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7304445/ https://pubmed.ncbi.nlm.nih.gov/32596145/	6/12/2020	 Micro CT（VENUS）
4	*Article* SOURCE DATA OPEN ACCESS EMBO Molecular Medicine **Blocking interaction between SHP2 and PD-1 denotes a novel opportunity for developing PD-1 inhibitors** Zhenzhen Fan[1,†], Yahui Tian[1,†], Zhipeng Chen[1], Lu Liu[1], Qian Zhou[1], Jingjing He[2], James Coleman[3], Changjiang Dong[3], Nan Li[1], Junqi Huang[1], Chenqi Xu[4], Zhimin Zhang[5], Song Gao[2], Penghui Zhou[2,*], Ke Ding[5,**] & Liang Chen[1,6,***]	https://pubmed.ncbi.nlm.nih.gov/32391629/ https://www.embopress.org/doi/full/10.15252/emmm.201911571	5/11/2020	 Micro CT（VENUS）

3	CELL CYCLE https://doi.org/10.1080/15384101.2019.1674053 Taylor & Francis Taylor & Francis Group RESEARCH PAPER Check for updates **IRF8 induces senescence of lung cancer cells to exert its tumor suppressive function** Jinxia Liang*, Feng Lu*, Bo Li*, Lu Liu, Guandi Zeng, Qian Zhou, and Liang Chen Institute of Life and Health Engineering, Jinan University, Guangzhou, China **ABSTRACT** Lung cancer is the leading cause of cancer-related deaths worldwide. However, tumor suppressor genes remain to be systemically determined for lung cancer. Here we report interferon regulatory factor 8 (*IRF8*), a member of the *IRF* family of transcription factors, as a potent lung tumor suppressor gene. Expression of IRF8 is frequently diminished in lung tumoral tissues and is associated with prognosis of non-small cell lung cancer (NSCLC) patients. Ectopic expression of IRF8 suppresses the NSCLC cells proliferation *in vitro* and tumorigenic potential *in vivo*. More importantly, forced expression of IRF8 through infection of recombinant virus inhibits lung tumorigenesis in genetically engineered mouse model (GEMM). Mechanistically, IRF8 inhibits AKT signaling and promotes accumulation of P27 protein, which results in senescence of lung cancer cells. Ectopic expression of IRF8 in tumor cells leads to regression of lung cancer tumor nodules in a xenograft tumor model. Our data, therefore, solidly shows IRF8 to be a lung cancer suppressor gene and may denote an opportunity for therapeutic intervention of NSCLC. **ARTICLE HISTORY** Received 3 April 2019 Revised 17 September 2019 Accepted 24 September 2019 **KEYWORDS** IRF8; NSCLC; tumor suppresser gene; cell senescence; cell cycle arrest	https://pubmed.ncbi.nlm.nih.gov/31594449/ https://www.tandfonline.com/doi/full/10.1080/15384101.2019.1674053	10/9/2019	 Super Nova® CT
2	RESEARCH ARTICLE small www.small-journal.com **A Highly Specific Multiple Enhancement Theranostic Nanoprobe for PET/MRI/PAI Image-Guided Radioisotope Combined Photothermal Therapy in Prostate Cancer** *Lei Xia, Xiangxi Meng, Li Wen, Nina Zhou, Teli Liu, Xiaoxia Xu, Feng Wang, Zhen Cheng, Zhi Yang,* and Hua Zhu** Check for updates	https://pubmed.ncbi.nlm.nih.gov/33870644/ https://onlinelibrary.wiley.com/doi/10.1002/smll.202100378	4/18/2021	 Super Nova® Micro PET/CT（III）

1	**nature genetics** **Cilia-driven cerebrospinal fluid directs expression of urotensin neuropeptides to straighten the vertebrate body axis** Xiaoli Zhang, Shuo Jia, Zhe Chen, Yan Ling Chong, Haibo Xie, Dong Feng, Xiaotong Wu, Don Zhu Song, Sudipto Boy & Chengtian Zhao Nature Genetics, 1666-1673 (2018)  **Images of a wild-type zebrafish and *uts2ra* mutant scanned with PINGSHENG's Micro CT (NEMO)**	https://pubmed.ncbi.nlm.nih.gov/30420648/ https://www.nature.com/articles/s41588-018-0260-3	11/12/2018	 Micro CT (NEMO) Software： Avatar