**丁忠祥博士**

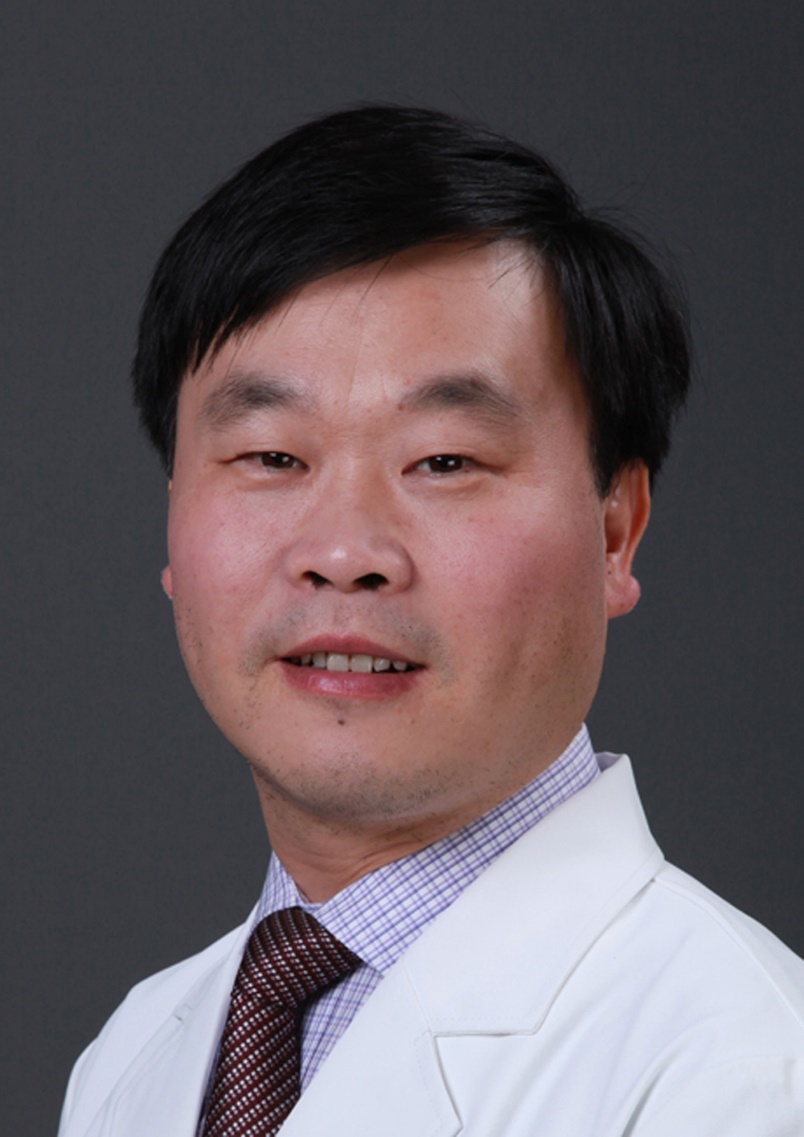
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**个人简介**

丁忠祥，主任医师/教授，西湖大学博士生导师，浙江大学博士生导师，博士后合作导师，浙江中医药大学硕士生导师，西湖大学医学院附属杭州市第一人民医院放射科主任。2005年毕业于中山大学，浙江大学、北卡罗莱纳大学双博士后经历。浙江省卫生创新人才，浙江省医学重点备案学科带头人（分子与功能影像学），科技部重大专项评审专家，中华放射学会头颈委员会委员，浙江省放射学会副主任委员，浙江省放射医师分会副会长，浙江省医师协会放射学分会人工智能委员会主任委员。多次赴新加坡、美国学习、交流。

**研究方向**

     长期从事影像诊断的临床、科研与教学工作，尤其是中枢神经系统疾病诊断，十分熟悉磁共振脑功能成像及医学人工智能技术，对分子影像学也有一定的涉足。主持国家级、省部级课题9项，编撰/翻译专业书籍6本。

**近年来代表论文**

1. Li X, Ye J, Zhong D, Xie J, **Ding Z\***, Zhou M**\***. Microalgae-MOF integrated drug delivery system for cranial radiotherapy and chemotherapy-induced brain injury. Biomaterials. 2026 Apr;327:123767. doi: 10.1016/j.biomaterials.2025.123767. Epub 2025 Oct 9. PMID: 41108968. 共同通讯作者，IF: 12.8, 1区TOP
2. Sammad A, **Ding Z**\*. Harnessing Multi-Omics: Integrating Radiomics and Pathomics for Predicting Microsatellite Instability in Rectal Cancer. Acad Radiol. 2025 Apr;32(4):1946-1948. doi: 10.1016/j.acra.2025.02.015. Epub 2025 Feb 14. PMID: 39955254. 通讯作者，IF: 3.9, 11区
3. Wang T, Jiang C, Ding W, Chen Q, Shen D, **Ding Z\***. Deep-Learning Generated Synthetic Material Decomposition Images Based on Single-Energy CT to Differentiate Intracranial Hemorrhage and Contrast Staining Within 24 Hours After Endovascular Thrombectomy. CNS Neurosci Ther. 2025 Jan;31(1):e70235. doi: 10.1111/cns.70235. PMID: 39853936; PMCID: PMC11758448. 末位通讯作者，IF: 5, Ⅱ区
4. Xiuhong Ge, Luoyu Wang, Lei Pan, Haiqi Ye, Xiaofen Zhu, Sandra Fan, Qi Feng, Wenhua Yu, **Zhongxiang Ding\***. Amplitude of low-frequency fluctuation after a single-trigger pain in patients with classical trigeminal neuralgia. Journal of Headache and Pain, 2022, 23: 117. 共同通讯作者, 医学Ⅰ区，TOP期刊.
5. Xiuhong Ge, Luoyu Wang, Lei Pan, Haiqi Ye, Xiaofen Zhu, Sandra Fan, Qi Feng, Quan Du\*, Wenhua Yu\*, **Zhongxiang Ding\***. Alteration of the cortical morphology in classical trigeminal neuralgia: voxel-, deformation-, and surface-based analysis. Journal of Headache and Pain, 2023, 24: 17. 共同通讯作者，医学Ⅰ区，TOP期刊.
6. **Zhongxiang Ding**#, Han Zhang#, Xiaofei Lv#, Fei Xie, Lichi Liu, Li Li, Dinggang Shen. Radiation-induced brain structural and functional abnormalities in presymptomatic phase and outcome prediction. Human Brain Mapping, 2018, 39: 407–427. 共同第一作者，医学Ⅱ区，TOP期刊
7. Xiuhong Ge, Luoyu Wang, Juncheng Yan, Lei Pan, Haiqi Ye, Xiaofen Zhu, Qi Feng, Bing Chen, Quan Du\*, Wenhua Yu\*, **Zhongxiang Ding\***. Altered brain function in classical trigeminal neuralgia patients: ALFF, ReHo, and DC static- and dynamic-frequency study. Cerebral Cortex, 2023, 11. 共同通讯作者，医学Ⅱ区，TOP期刊.
8. Xiuhong Ge, Luoyu Wang, Mengze Wang, Lei Pan, Haiqi Ye, Xiaofen Zhu, Sandra Fan, Qi Feng, Quan Du\*, Yu Wenhua\*, **Zhongxiang Ding\***. Alteration of brain network centrality in CTN patients after a single triggering pain. Frontiers in Neuroscience. 2023, 17: 1109684. 共同通讯作者, 医学Ⅱ区，TOP期刊.
9. Zhiming Cui#, Yu Fang#, Lanzhuju Mei#, Bojun Zhang, Bo Yu, Jiameng Liu, Caiwen Jiang, Yuhang Sun, Lei Ma, Jiawei Huang, Yang Liu, Yue Zhao, Chunfeng Lian\*, **Zhongxiang Ding\***, Min Zhu\*, Dinggang Shen\*. A fully automatic AI system for tooth and alveolar bone segmentation from cone-beam CT images. Nature Communications, 2022, 13: 2096. 共同通讯作者, 综合Ⅰ区，TOP期刊.
10. Li X, Ding Z. Cognitive dysfunction induced by cranial radiotherapy: mechanisms and therapeutic methods. Brain Res Bull. 2024 Nov;218:111106. doi: 10.1016/j.brainresbull.2024.111106. Epub 2024 Oct 22. PMID: 39447765. 通讯作者，IF: 3.7, Ⅲ区
11. Biying Lin, Yuzhu Mu, **Zhongxiang Ding\***. Assessing the causal association between biological aging biomarkers and the development of cerebral small vessel disease: a Mendelian randomization study. [Biology](http://www.letpub.com.cn/index.php/list/index.php?page=journalapp&view=detail&journalid=10942), 2023, 12(5): 660. doi: 10.3390/biology12050660. 通讯作者
12. Xin Tang, Fan Wu, Xiaofen Chen, Shengli Ye\*, **Zhongxiang Ding\***. Current status and prospect of PET-related imaging radiomics in lung cancer. Frontiers in Oncology, 2023, 12:1-9. 共同通讯作者
13. Jiadong Zhang#, Zhiming Cui#, Zhenwei Shi, Yingjia Jiang, Zhiliang Zhang, Xiaoting Dai, Zhenlu Yang, Yuning Gu, Lei Zhou, Chu Han, Xiaomei Huang, Chenglu Ke, Suyun Li, Zeyan Xu, Fei Gao, Luping Zhou, Rongpin Wang\*, Jun Liu\*, Jiayin Zhang\*, **Zhongxiang Ding\***, Kun Sun\*, Zhenhui Li\*, Zaiyi Liu\*, Dinggang Shen\*. A robust and efficient AI assistant for breast tumor segmentation from DCE-MRI via a spatial-temporal Framework. Patterns, 2023. 共同通讯作者
14. [JuRong Ding](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Ding+JR&cauthor_id=37394224)\*, [Yihong Liu](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Liu+Y&cauthor_id=37394224), [Qiang Chen](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Chen+Q&cauthor_id=37394224), [Chenyu Feng](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Feng+C&cauthor_id=37394224), [Zhiling Tang](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Tang+Z&cauthor_id=37394224), [Hui Zhang](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Zhang+H&cauthor_id=37394224), [Bo Hua](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Hua+B&cauthor_id=37394224), [Xin Ding](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Ding+X&cauthor_id=37394224), [Mei Wang](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Wang+M&cauthor_id=37394224), [**Zhongxiang Ding**](https://pubmed.ncbi.nlm.nih.gov/?sort=date&term=Ding+Z&cauthor_id=37394224)**\*.** Frequency dependent changes of regional homogeneity in children with growth hormone deficiency. [Neuroscience](https://www.researchgate.net/journal/Neuroscience-0306-4522), June 2023. 共同通讯作者
15. Qi Feng, Jiangtao Liang, Luoyu Wang, Xiuhong Ge, **Zhongxiang Ding\***, Haihong Wu\*. A diagnosis model in nasopharyngeal carcinoma based on PET/MRI radiomics and semiquantitative parameters. BMC Medical Imaging, 2022, 22(1): 150. 共同通讯作者
16. Luoyu Wang, Qi Feng, Xiuhong Ge, Fenyang Chen, Bo Yu, Bing Chen, Zhengluan Liao, Biying Lin, Yating Lv\*, **Zhongxiang Ding\***. Textural features reflecting local activity of the hippocampus improve the diagnosis of Alzheimer’s disease and amnestic mild cognitive impairment: A radiomics study based on functional magnetic resonance imaging. Frontiers in Neuroscience, 2022, 8: 1-12. 共同通讯作者
17. Zehong Cao#, Jiaona Xu#, Bin Song#, Lizhou Chen, Tianyang Sun, Yichu He, Ying Wei, Guozhong Niu, Yu Zhang, Qianjin Feng, **Zhongxiang Ding\***, Feng Shi\*, Dinggang Shen\*. Deep learning derived automated ASPECTS on non‐contrast CT scans of acute ischemic. Human Brain Mapping, 2022, 1-14. 共同通讯作者
18. Luoyu Wang, Qi Feng, Mei Wang, Tingting Zhu, Enyan Yu, Jialing Niu, Xiuhong Ge, Dewang Mao, Yating Lv\*, **Zhongxiang Ding\***. An Effective Brain Imaging Biomarker for AD and aMCI: ALFF in Slow-5 Frequency Band. Current Alzheimer Research, 2021, 18, 45-55. 共同通讯作者
19. Geng-Xin Xu#, Chen Liu#, Jun Liu#, Zhongxiang Ding#, Feng Shi#, Man Guo, Wei Zhao, Xiaoming Li, Ying Wei, Yaozong Gao, Chuan-Xian Ren, Dinggang Shen, Fellow, IEEE. Cross-Site Severity Assessment of COVID-19. from CT Images via Domain Adaptation. IEEE TRANSACTIONS ON MEDICAL IMAGING, 2020. 共同第一作者
20. Qi Feng, Jialing Niu, Luoyu Wang, Peipei Pang, Mei Wang, Zhengluan Liao, Qiaowei Song, Hongyang Jiang, **Zhongxiang Ding\***. Comprehensive classification models based on amygdala radiomic features for Alzheimer’s disease and mild cognitive impairment. Brain Imaging and Behavior, 2021, 15(5): 2377-2386. 通讯作者
21. Qi Feng, **Zhongxiang Ding\***. MRI Radiomics Classification and Prediction in Alzheimer's Disease and Mild. Current Alzheimer Research, 2020, 17: 297-309. 通讯作者
22. Liang Sun#, Zhanhao Mo#, Fuhua Yan#, Liming Xia#, Fei Shan#, Zhongxiang Ding#, Bin Song#, Wanchun Gao#, Wei Shao#, Feng Shi, Huan Yuan, Huiting Jiang, Dijia Wu, Ying Wei, Yaozong Gao, He Sui, Daoqiang Zhang, Dinggang Shen. Adaptive Feature Selection Guided Deep Forest for COVID-19 Classification with Chest CT. IEEE Journal of Biomedical and Health Informatics, 2020, 1-8. 共同第一作者
23. Donglin Di#, Feng Shi#, Fuhua Yan#, Liming Xia#, Zhanhao Mo#, Zhongxiang Ding#, Fei Shan#, Shengrui Li, Ying Wei, Ying Shao, Miaofei Han, Yaozong Gao, He Sui, Yue Gao, Dinggang Shen. Hypergraph Learning for Identification of COVID-19 with CT Imaging. Medical Image Analysis, 25: 1-9. 共同第一作者
24. Xi Ouyang#, Jiayu Huo#, Liming Xia#, Fei Shan#, Jun Liu#, Zhanhao Mo#, Fuhua Yan#, Zhongxiang Ding#, Qi Yang#, Bin Song#, Feng Shi, Huan Yuan, Ying Wei, Xiaohuan Cao, Yaozong Gao, Dijia Wu, Qian Wang, Dinggang Shen. Dual-Sampling Attention Network for Diagnosis of COVID-19 from Community Acquired Pneumonia. IEEE Transactions on Medical Imaging, 2020, PP(99): 1-11. 共同第一作者
25. Xiuhong Ge, Zhengluan Liao, Jianhua Yuan, Dewang Mao, Yumei Li, Enyan Yu, Xunheng Wang, **Zhongxiang Ding\***. Radiotherapy-related quality of life in patients with head and neck cancers: a meta-analysis. Supportive Care in Cancer, 2019, 通讯作者
26. Jurong Ding\*, Fangmei Zhu, Bo Hua, Xingzhong Xiong, Yuqiao Wen, **Zhongxiang Ding**\*, Paul M Thompson\*. Presurgical localization and spatial shift of resting state networks in patients with brain metastases. Brain imaging and behavier, 2019, 13(2): 408-420. 共同通讯作者
27. Jurong Ding\*, Qiang Chen, Yihong Liu, Zhiling Tang, Chenyu Feng, Mei Wang, **Zhongxiang Ding\***. Dynamic analysis of amplitude of low-frequency fluctuation in children with growth hormone deficiency. Behavioural Brain Research, 2023. 共同通讯作者