

Stanford

Elizabeth Tong

Clinical Assistant Professor, Radiology - Pediatric Radiology

CLINICAL OFFICE (PRIMARY)

- **Pediatric Radiology Clinic**

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Bio

CLINICAL FOCUS

- Neuroradiology

ACADEMIC APPOINTMENTS

- Clinical Assistant Professor, Radiology - Pediatric Radiology
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

PROFESSIONAL EDUCATION

- Fellowship: UCSF Dept of Radiology (2018) CA
- Fellowship: Stanford University Neuroradiology Fellowship (2019) CA
- Board Certification: Diagnostic Radiology, American Board of Radiology (2018)
- Residency: University of Virginia School of Medicine (2016) VA
- Internship: Wake Forest Baptist Medical Center (2012)
- Medical Education: University of California, San Diego (2011) CA

Publications

PUBLICATIONS

- **Erratum: "MRI pulse sequence integration for deep-learning-based brain metastases segmentation".** *Medical physics*
Yi, D., Grøvik, E., Tong, E., Iv, M., Emblem, K. E., Nilsen, L. B., Saxhaug, C., Latysheva, A., Jacobsen, K. D., Helland, Å., Zaharchuk, G., Rubin, D. 2023; 50 (8): 5294
- **Short- and Long-Term MRI Assessed Hemodynamic Changes in Pediatric Moyamoya Patients After Revascularization.** *Journal of magnetic resonance imaging : JMRI*
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- **Spinal Neurofibromatosis (NF): A Variant Phenotype of NF1.** *The Journal of pediatrics*
Rogawski, D. S., Tong, E., Campen, C.
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- **Measuring Quantitative Cerebral Blood Flow in Healthy Children: A Systematic Review of Neuroimaging Techniques.** *Journal of magnetic resonance imaging : JMRI*

Zhao, M. Y., Tong, E., Duarte Armindo, R., Woodward, A., Yeom, K. W., Moseley, M. E., Zaharchuk, G.
2023

● **Human habit neural circuitry may be perturbed in eating disorders.** *Science translational medicine*

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● **Revascularization improves vascular hemodynamics - a study assessing cerebrovascular reserve and transit time in Moyamoya patients using MRI.** *Journal of cerebral blood flow and metabolism : official journal of the International Society of Cerebral Blood Flow and Metabolism*

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● **Intracranial Artery Morphology in Pediatric Moya Moya Disease and Moya Moya Syndrome.** *Neurosurgery*

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2022

● **Stemming the Tide of Gastrointestinal Chronic Granulomatous Disease.** *Digestive diseases and sciences*

Cagil, Y., Tong, E., Guimaraes, C., Andrews, J., Abu El Haija, M., Triadafilopoulos, G., Yeh, A. M., Shah, A.
2022

● **2.5D and 3D segmentation of brain metastases with deep learning on multinational MRI data.** *Frontiers in neuroinformatics*

Ottesen, J. A., Yi, D., Tong, E., Iv, M., Latysheva, A., Saxhaug, C., Jacobsen, K. D., Helland, Å., Emblem, K. E., Rubin, D. L., Bjørnerud, A., Zaharchuk, G., Grøvik, et al
2022; 16: 1056068

● **Early Onset Diffusion Abnormalities in Refractory Headache Disorders.** *Frontiers in neurology*

Santoro, J. D., Moon, P. K., Han, M., McKenna, E. S., Tong, E., MacEachern, S. J., Forkert, N. D., Yeom, K. W.
2022; 13: 898219

● **A Case-Based Review of Cerebral Venous Infarcts With Perfusion Imaging and Comparison to Arterial Ischemic Stroke.** *Frontiers in radiology*

Li, A. Y., Tong, E., Yedavalli, V. S.
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● **Machine Learning Approach to Differentiation of Peripheral Schwannomas and Neurofibromas: A Multi-Center Study.** *Neuro-oncology*

Zhang, M., Tong, E., Wong, S., Hamrick, F., Mohammadzadeh, M., Rao, V., Pendleton, C., Smith, B. W., Hug, N. F., Biswal, S., Seekins, J., Napel, S., Spinner, et al
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● **Machine-learning Approach to Differentiation of Benign and Malignant Peripheral Nerve Sheath Tumors: A Multicenter Study**

Zhang, M., Tong, E., Hamrick, F., Pendleton, C., Smith, B., Hug, N., Mattonen, S., Napel, S., Spinner, R., Yeom, K., Wilson, T., Mahan, M.
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● **Machine-Learning Approach to Differentiation of Benign and Malignant Peripheral Nerve Sheath Tumors: A Multicenter Study.** *Neurosurgery*

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● **Dopamine-Related Alterations of Frontostriatal Habit Circuitry Underlie Stimulus-Response Binge Eating**

Wang, A., Kuijper, F. M., Barbosa, D., Hagan, K., Lee, E., Tong, E., Bohon, C., Halpern, C. H.
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● **Maximizing the use of batch production of 18F-FDOPA for imaging of brain tumors to increase availability of hybrid PET/MR imaging in clinical setting.** *Neuro-oncology practice*

Aboian, M., Barajas, R., Shatalov, J., Ravanfar, V., Bahroos, E., Tong, E., Taylor, J. W., Bush, N. O., Snead, P., Seo, Y., Cha, S., Hernandez-Pampaloni, M.
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● **High-resolution Structural Magnetic Resonance Imaging and Quantitative Susceptibility Mapping.** *Magnetic resonance imaging clinics of North America*

Yedavalli, V., DiGiacomo, P., Tong, E., Zeineh, M.
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● **Handling missing MRI sequences in deep learning segmentation of brain metastases: a multicenter study.** *NPJ digital medicine*

- Grøvik, E. n., Yi, D. n., Iv, M. n., Tong, E. n., Nilsen, L. B., Latysheva, A. n., Saxhaug, C. n., Jacobsen, K. D., Helland, Å. n., Emblem, K. E., Rubin, D. L., Zaharchuk, G. n.
2021; 4 (1): 33
- **MRI pulse sequence integration for deep-learning-based brain metastases segmentation.** *Medical physics*
Yi, D., Grøvik, E., Tong, E., Iv, M., Emblem, K. E., Nilsen, L. B., Saxhaug, C., Latysheva, A., Jacobsen, K. D., Helland, Å., Zaharchuk, G., Rubin, D.
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 - **Non-contrast dual-energy CT virtual ischemia maps accurately estimate ischemic core size in large-vessel occlusive stroke.** *Scientific reports*
Wolman, D. N., van Ommen, F. n., Tong, E. n., Kauw, F. n., Dankbaar, J. W., Bennink, E. n., de Jong, H. W., Molvin, L. n., Wintermark, M. n., Heit, J. J.
2021; 11 (1): 6745
 - **GENOME ASSOCIATIONS WITH NEUROCOGNITIVE OUTCOMES, CEREBRAL MICROBLEEDS (CMBS), AND BRAIN VOLUME AND WHITE MATTER (WM) CHANGES IN PEDIATRIC BRAIN TUMOR SURVIVORS**
Kline, C., Stoller, S., Byer, L., Edwards, C., Prasad, R., Torkildson, J., Gauvain, K., Samuel, D., Lupo, J., Morrison, M., Tong, E., Savchuk, S., Valencia, et al
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 - **GENOME ASSOCIATIONS WITH NEUROCOGNITIVE OUTCOMES, CEREBRAL MICROBLEEDS (CMBS), AND BRAIN VOLUME AND WHITE MATTER (WM) CHANGES IN PEDIATRIC BRAIN TUMOR SURVIVORS**
Kline, C., Stoller, S., Byer, L., Edwards, C., Prasad, R., Torkildson, J., Gauvain, K., Samuel, D., Lupo, J., Morrison, M., Tong, E., Savchuk, S., Valencia, et al
OXFORD UNIV PRESS INC.2020: 145
 - **Synthesize High-Quality Multi-Contrast Magnetic Resonance Imaging From Multi-Echo Acquisition Using Multi-Task Deep Generative Model** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Wang, G., Gong, E., Banerjee, S., Martin, D., Tong, E., Choi, J., Chen, H., Wintermark, M., Pauly, J. M., Zaharchuk, G.
2020; 39 (10): 3089–99
 - **Artificial intelligence in stroke imaging: Current and future perspectives.** *Clinical imaging*
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 - **Deep Learning Enables Automatic Detection and Segmentation of Brain Metastases on Multisequence MRI** *JOURNAL OF MAGNETIC RESONANCE IMAGING*
Grovik, E., Yi, D., Iv, M., Tong, E., Rubin, D., Zaharchuk, G.
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 - **Advanced Imaging of Brain Metastases: From Augmenting Visualization and Improving Diagnosis to Evaluating Treatment Response.** *Frontiers in neurology*
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 - **A within-coil optical prospective motion-correction system for brain imaging at 7T.** *Magnetic resonance in medicine*
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 - **The Potential Utility of Arterial Spin Labeling in Detecting and Localizing Posterior Circulation Occlusions in Every Day Practice: A Clinical Report of Selected Cases.** *Journal of clinical imaging science*
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 - **Deep learning enables automatic detection and segmentation of brain metastases on multisequence MRI.** *Journal of magnetic resonance imaging : JMRI*
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 - **Time-resolved CT assessment of collaterals as imaging biomarkers to predict clinical outcomes in acute ischemic stroke** *NEURORADIOLOGY*
Tong, E., Patrie, J., Tong, S., Evans, A., Michel, P., Eskandari, A., Wintermark, M.

2017; 59 (11): 1101-1109

● **Understanding the Neurophysiology and Quantification of Brain Perfusion.** *Topics in magnetic resonance imaging*

Tong, E., Sugrue, L., Wintermark, M.
2017; 26 (2): 57-65

● **One-stop-shop stroke imaging with functional CT** *EUROPEAN JOURNAL OF RADIOLOGY*

Tong, E., Komlosi, P., Wintermark, M.
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● **One-stop-shop stroke imaging with functional CT.** *European journal of radiology*

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