

- **Name:** Faisal Mahmood
- **Current Position & Affiliation:** Assistant Professor at Brigham and Women's Hospital
- **Country:** USA

• **Educational Background:**

- 2007-2011: BS, Electronic Engineering, GIK Institute of Engineering Sciences and Technology, Pakistan
- 2012-2017: Ph.D., Biomedical Imaging, Okinawa Institute of Science and Technology (OIST), Japan

• **Professional Experience:**

- 2009: Research Intern, Microsoft Research
- 2010: Intern Development Engineer, PalmChip Inc.
- 2011-2012: Research Engineer, Nanyang Technological University (NTU), Singapore
- 2019- Present: Assistant Professor, Pathology, Brigham and Women's Hospital
- 2019- Present: Associate Member, Cancer Program, Broad Institute of Harvard and MIT

• **Professional Organizations:**

2008-	Institute of Electrical and Electronic Engineers (IEEE)	
	2008-2011	Student Member
	2011	Vice President, GIK Institute Chapter
	2012-2017	Graduate Student Member
	2018-	Professional Member
2009-	IEEE Engineering in Medicine and Biology Society (EMBS)	
	2009-2011	Student Member
	2012-	Professional Member
	2017-	Member, Technical Committee on Biomedical Imaging and Image
	2018-	Processing Member, Technical Committee on Translational Engineering & Healthcare Innovations
2018-	Member, Abstract Review Committee	
2009-	IEEE Computer Society	
	2008-2011	Student Member
	2012-	Professional Member
	2018-	Member, Technical Committee on Computational Life Sciences
2011-	Association of Computing Machinery (ACM)	Member
2017-	Society of Photographic Instrumentation Engineers (SPIE)	Member

	2018-	Member, Abstract Review Committee (Medical Imaging) Member
2018-	Medical Image Computing and Computer Assisted Intervention Society	Member

• **Main Scientific Publications:**

1. Almalioglu, Y., Ozyoruk, K.B., Gokce, A., Incetan, K., Gokceler, G.I., Simsek, M.A., Ararat, K., Chen, R.J., Durr, N.J., Mahmood, F. and Turan, M., 2020. EndoL2H: Deep super-resolution for capsule endoscopy. *IEEE Transactions on Medical Imaging*, 39(12), pp.4297-4309. PMID: 32795966
2. Incetan, K., Celik, I.O., Obeid, A., Gokceler, G.I., Ozyoruk, K.B., Almalioglu, Y., Chen, R.J., Mahmood, F., Gilbert, H., Durr, N.J. and Turan, M., 2021. VR-Caps: a virtual environment for capsule endoscopy. *Medical image analysis*, 70, p.101990. PMID: 33609920
3. Ozyoruk, K.B., Gokceler, G.I., Bobrow, T.L., Coskun, G., Incetan, K., Almalioglu, Y., Mahmood, F., Curto, E., Perdigoto, L., Oliveira, M. and Sahin, H., 2021. EndoSLAM dataset and an unsupervised monocular visual odometry and depth estimation approach for endoscopic videos. *Medical image analysis*, 71, p.102058. PMID: 33930829
4. Chen, R.J., Lu, M.Y., Wang, J., Williamson, D.F., Rodig, S.J., Lindeman, N.I. and Mahmood, F.\*, 2021, Pathomic fusion: an integrated framework for fusing histopathology and genomic features for cancer diagnosis and prognosis. *IEEE Transactions on Medical Imaging*. PMID: 32881682
5. Lu, M.Y., Williamson, D.F., Chen, T.Y., Chen, R.J., Barbieri, M. and Mahmood, F.\*, 2021. Data- efficient and weakly supervised computational pathology on whole-slide images. *Nature Biomedical Engineering*, 5(6), pp.555-570. PMID: 33649564
6. Lu, M.Y., Chen, T.Y., Williamson, D.F., Zhao, M., Shady, M., Lipkova, J. and Mahmood, F.\*, 2021. AI-based pathology predicts origins for cancers of unknown primary. *Nature*, 594(7861), pp.106-110. PMID: 33953404
7. Chen, R.J., Lu, M.Y., Chen, T.Y., Williamson, D.F. and Mahmood, F.\*, 2021. Synthetic data in machine learning for medicine and healthcare. *Nature Biomedical Engineering*, 5(6), pp.493-497. PMID: 34131324
8. Lu, M.Y., Sater, H.A. and Mahmood, F.\*, 2021. Multiplex computational pathology for treatment response predication. *Cancer Cell*, 39(8), pp.1053-1055. PMID: 34375608
9. Chen, R.J., Kong, D., Lipkova, J., Singh, R., Williamson, D.F., Chen, T.Y. and Mahmood, F.\*, 2022. Federated learning for computational pathology on gigapixel whole slide images. *Medical image analysis*, 76, p.102298. PMID: 34911013
10. Lipkova, J., Chen, T.Y., Lu, M.Y., Chen, R.J., Shady, M., Williams, M., Wang, J., Noor, Z., Mitchell, R.N., Turan, M. and Coskun, G., Mahmood, F\*, 2022. Deep learning-enabled assessment of cardiac allograft rejection from endomyocardial biopsies. *Nature Medicine*, 28(3), pp.575-582. PMID: 35314822
11. Chen, R.J., Lu, M.Y., Williamson, D.F., Chen, T.Y., Lipkova, J., Shaban, M., Shady, M., Williams, M., Joo, B., Noor, Z. and Mahmood, F.\*, 2022. Pan-cancer integrative histology-genomic analysis via interpretable multimodal deep learning. *Cancer Cell* (Accepted, to appear).