

The International Debate on Scaling Human Expertise: What AI will bring to medicine in the near future, and why humans are here to stay

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The focus is to show how we fused Artificial Intelligence (AI) and human expertise to predicting cancer cellularity and why AI has the potential to transform the world of medicine in the near future. In our work, we demonstrated an approach for predicting cancer cellularity which uses a combination of weakly and strongly-labeled data to train a convolutional neural network, where the cellularity scores serve as weak labels and segmentation labels serve as strong labels. Our method won the BreastPathQ challenge, with our best submission earning an average F1 of .941. Our method is also extremely fast,

processing each patch in approximately 19ms, and a whole slide in a matter of minutes.

Biography:

Hakima Ibaroudene holds a B.S. and M.S. in Electrical Engineering from the University of Texas in San Antonio. She is a Group Leader of Research Development, a non-profit applied research organization. She has published more than five papers in reputed journals and served as session chair member for the International Telemetry Conference in 2017 and 2018.