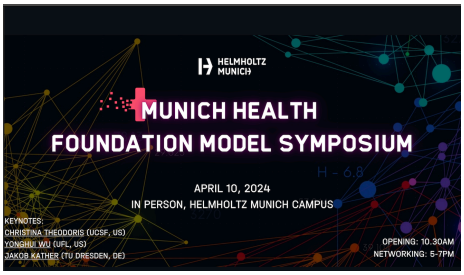

Contribution ID: **4** Type: **Talk**

Generating highly accurate pathology reports from gigapixel whole slide images with HistoGPT

Histopathology is considered the gold standard for determining the presence and nature of disease, particularly cancer. However, the process of analyzing tissue samples and producing a final pathology report is time-consuming, labor-intensive, and non-standardized. Therefore, new technological solutions are being sought to reduce the workload of pathologists. In this work, we present HistoGPT, a vision language model that takes digitized slides as input and generates reports that match the quality of human-written reports, as confirmed by natural language processing metrics and domain expert evaluations. We show that HistoGPT generalizes to five international cohorts and can predict tumor subtypes and tumor thickness in a zero-shot fashion. Our work represents an important step toward integrating AI into the medical workflow. We publish both the model code and weights so that the scientific community can apply and improve HistoGPT to advance the field of computational pathology.

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