

Collaboration with Students

Publications Involving SMU Students and Faculty Collaboration

1. https://pubmed.ncbi.nlm.nih.gov/36766660/

Title: Virtual Versus Light Microscopy Usage among Students: A Systematic Review and Meta-Analytic Evidence in Medical Education

Students involved: Andrew Spruce and Nikole Okpara

The goal was to gain insight into the usage of whole-slide images in medical education, training, and diagnosis.

The first objective of the current study was to compare academic performance on virtual microscopy (VM) and light microscopy (LM) for learning pathology, anatomy, and histology in medical and dental students during the COVID-19 period. The second objective was to gather insight into various applications and usage of such technology for medical education. The results of qualitative and quantitative analyses showed that VM technology and digitization of glass slides enhance the teaching and learning of microscopic aspects of disease. Additionally, the COVID-19 global health crisis has produced many challenges to overcome from a macroscopic to microscopic scale, for which modern virtual technology is the solution. Therefore, medical educators worldwide should incorporate newer teaching technologies in the curriculum for the success of the coming generation of health-care professionals.

2. https://pubmed.ncbi.nlm.nih.gov/35382213/

Title: Human Epidermal Growth Factor Receptor 2 (HER2) Expression in Colorectal Carcinoma: A Potential Area of Focus for Future Diagnostics

Students involved: Chandni Patel and Kamal Hamdan

In this study, we aimed to explore the potential diagnostic utility of human epidermal growth factor receptor 2 (HER2) expression in colorectal carcinoma. We investigated the association of HER2 expression with the type and grade of the tumor along with the pattern, staining intensity, and the percentage of cells stained. Methods This was an observational study involving 50 cases of colorectal carcinoma that underwent immunohistochemistry to analyze the HER2 expression. Results The positive expression of HER2 was seen in 16 (32%) cases. The majority of the study population was between the fifth-seventh decades of life. The most commonly diagnosed tumor was conventional adenocarcinoma

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with grade II, cytoplasmic pattern, +2 positivity, and moderate intensity. The maximum positivity for HER2 was seen in tumors of the rectum in eight (16%) cases. Conclusion A substantial rate of HER2 overexpression paves the way for it to become a potential future target in cancer therapeutics.

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