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# Response: Attitude and Perception of Medical Students Towards Histology Subject at Wollo University, Ethiopia [Letter]

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# **Dear editor**

We read with great interest the article by Teshome<sup>1</sup> which provides a unique insight into the perceptions and attitudes of medical students towards histology. We appreciate the authors' efforts and would like to offer our comments.

One key takeaway from this paper was that medical students have a favourable attitude towards histology, but are not wanting to join the field due to the lower chance of promotion and financial growth. Holland et al argues student engagement in pathology is based on three primary interests: 1) lifestyle, 2) intellectual challenge and 3) patient contact.<sup>2</sup> In the presented survey, neither of these options were provided as reasons for students to select pathology as a potential career choice. We also suggest including additional variables such as the length of training, the difficulty of training, and prestige.

Furthermore, the article concludes the majority of students chose less chance of promotion (35%) and less financial growth (22%). In a survey from 2011 to 2017, the average salary of pathologists had in fact increased by 29%.<sup>3</sup> In another study, patient safety is shown to be affected when pathologists work more than 39 hours per week.<sup>4</sup> To avoid fatigue, and burnout, pathologists are bound to a strict work-life balance, another important benefit of choosing the field.

Studying histology in the laboratory is arguably different to shadowing a pathologist on duty. Rotations in pathology will provide a deeper understanding of the breadth and depth of the specialty. Firstly, it will be useful for the study to include a question on how well students understand the duties of a pathologist. Understanding the true practice - including total hours worked, frequency of specimen examination, call schedule, research opportunities, quality assurance, procedural biopsies, communications with family members - is essential (Figure 1). Secondly, it would be worthwhile to include shadowing opportunities for an integrated curriculum.

The field of histology finds itself at an exciting crossroad where artificial intelligence meets day-to-day practice. Wang et al demonstrate using an automated system to identify metastatic breast cancer with improved accuracy.<sup>5</sup> The exposure to new technology like artificial intelligence may provide additional insight and a new perspective.

The findings of this study are important, and the implementation of an integrative pathology course can provide additional insights. One can look at work published by Trotter et al for inspiration on the promotion/diversity in the field of pathology. The conclusion that medical students are unable to join the field due to a lower chance of promotion and financial growth seems premature and misleading. We hope this letter will inspire future research in this important area of medical education.

#### Average time spent for pathologists (%)

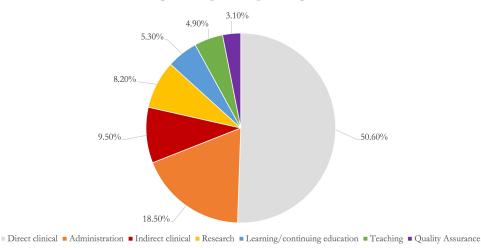


Figure 1 Breakdown of typical activities engaged by pathologists in proportion to the average time spent on each activity - Adapted from Trotter MJ, Larsen ET, Tait N, Wright JR. Time study of clinical and nonclinical workload in pathology and laboratory medicine. Am J Clin Pathol. 2009;131(6):759–76, by permission of Oxford University Press or the sponsoring society if the journal is a society journal.<sup>6</sup>

# Disclosure

The authors report no conflicts of interest in this communication.

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