

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

Fortis Gaba<sup>1</sup>, Qassi Q Gaba<sup>2</sup>, Dilini Fernando<sup>3</sup>

<sup>1</sup>Department of Medicine, Queen Elizabeth University Hospital, NHS Greater Glasgow and Clyde, Glasgow, G51 4TF, UK; <sup>2</sup>University of Oxford, Medical Sciences, Oxford, OX1 3PL, UK; <sup>3</sup>Ninewells Hospital and Medical School, Dundee, DD1 9SY, UK

Correspondence: Fortis Gaba, Department of Medicine, Queen Elizabeth University Hospital, 1345 Govan Road, Glasgow, G51 4TF, UK, Email [Fortis.gaba@ggc.scot.nhs.uk](mailto:Fortis.gaba@ggc.scot.nhs.uk)

## 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.

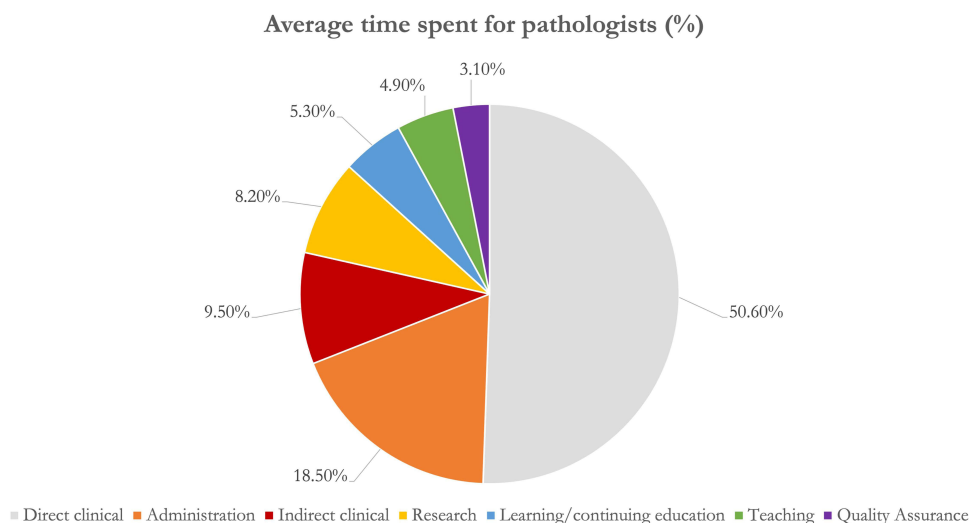
One key takeaway from this paper was that medical students have a favourable attitude towards histology, but are not wanting to join the field due to the lower chance of promotion and financial growth. Holland et al argues student engagement in pathology is based on three primary interests: 1) lifestyle, 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.



**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.

## References

1. Teshome D. Attitude and perception of medical students towards histology subject at Wollo University, Ethiopia. *Adv Med Edu Pract.* 2022;13:337–344. doi:10.2147/AMEPS359703
2. Holland L, Bosch B. Medical students' perceptions of pathology and the effect of the second-year pathology course. *Hum Pathol.* 2006;37(1):1–8. doi:10.1016/j.humpath.2005.10.004
3. Metter DM, Colgan TJ, Leung ST, Timmons CF, Park JY. Trends in the US and Canadian pathologist workforces from 2007 to 2017. *JAMA Netw Open.* 2019;2(5):e194337. doi:10.1001/jamanetworkopen.2019.4337
4. Maung R. Pathologists' workload and patient safety. *Diagn Histopathol.* 2016;22(8):283–287. doi:10.1016/j.mpdhp.2016.07.004
5. Wang D, Khosla A, Gargeya R, Irshad H. Deep learning for identifying metastatic breast cancer. *arXiv preprint arXiv.* 2016;4:e34.
6. 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):759–767. doi:10.1309/AJCP8SKO6BUJQXHD

Dove Medical Press encourages responsible, free and frank academic debate. The content of the *Advances in Medical Education and Practice* 'letters to the editor' section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the *Advances in Medical Education and Practice* editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

**Advances in Medical Education and Practice**

**Dovepress**

**Publish your work in this journal**

*Advances in Medical Education and Practice* is an international, peer-reviewed, open access journal that aims to present and publish research on Medical Education covering medical, dental, nursing and allied health care professional education. The journal covers undergraduate education, postgraduate training and continuing medical education including emerging trends and innovative models linking education, research, and health care services. The manuscript management system is completely online and includes a very quick and fair peer-review system. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/advances-in-medical-education-and-practice-journal>

<https://doi.org/10.2147/AMEPS372084>