

# Back to the Future: Medicine Beyond the COVID-19 Pandemic

Madeleine J. Cox,<sup>1</sup> Leah Komer,<sup>2</sup> Ciara Egan,<sup>3</sup> Purva C. Shah,<sup>4</sup> Nikoleta Tellios,<sup>5</sup> Annora A. Kumar.<sup>6</sup>

It has been over a year, and the unforeseen consequences of the SARS-CoV-2 outbreak (COVID-19) continue to impact all domains of our lives. This global phenomenon has meant that medical professionals, students, and scientists have had to adapt to changes in policy, practice, and education to withstand challenging environments and uncertainty. In the face of the incomprehensible pain and suffering caused by COVID-19, we are humbled by the sacrifices made by all healthcare workers around the world, and together we must manifest their resilience and unity in order to guide the era of medicine beyond the COVID-19 pandemic. Research efforts towards COVID-19 have been tremendous, yielding important insights into the biopsychosocial impacts of the virus. The contributions of the *International Journal of Medical Students (IJMS)* towards the growing scientific field of COVID-19 research have been twofold. *IJMS* has provided a platform for medical students to share their research, experiences, and training during these unprecedented times. *IJMS* has also helped to foster an interest in research at the student level by training new generations of editors and reviewers, and thus shaping the next generation of physician-scientists.<sup>1</sup> While it is important to reflect on current events to better understand the situation at hand and prepare for the future, we need to remember that there is medicine beyond the pandemic. Although articles unrelated to COVID-19 seem to have moved out of the spotlight, they are more important than ever. We hope this issue of the *IJMS* can be a “passing of the baton” from COVID-19 centered experiences to a new era of excellence in research by medical students.

We are grateful and humbled to be a space of reflection for many students during this pandemic, and we have all learnt from the shared experiences of our peers. Many have addressed the challenges of online learning,<sup>2,3</sup> and practicing clinical procedures remotely.<sup>4</sup> Others have utilized online platforms to provide teaching to the youth,<sup>5</sup> becoming more connected with friends, family, and current events.<sup>6</sup> With clinical placements cancelled or taught remotely, students have volunteered in their communities through telemedicine services,<sup>7</sup> assisting community hospitals,<sup>8</sup> and providing mental health services.<sup>9</sup> Some students have been challenged by unfair working conditions,<sup>10</sup> inadequate patient exposure, and clinical skill development.<sup>11</sup> We have seen diverse COVID-19 experiences from around the globe, from Brazil to the Philippines, to Nigeria, and more. Seeing the resourcefulness of medical students during a pandemic is a reminder that although medical training can take a toll on our mental health, we are resilient and we are the protagonists of our learning and training.

In his editorial one year ago, Editor-in-Chief Dr. Francisco J. Bonilla-Escobar reminded all of us during the first wave of the pandemic that “Nevertheless, we need to be sure that we are moving forward”.<sup>12</sup> We continue to do this, and in this issue we have published original articles, short communications, a review, and case study unrelated to the pandemic. We learn of the importance of medical students identifying serious clinical conditions earlier than their senior counterparts,<sup>13</sup> peer-to-peer tutoring that reduces the dependence of expert training and instills leadership and communication skills in students.<sup>14</sup> Furthermore, Rondilla et al. describes patient rationale for

folk medicine, which enables medical professionals to strengthen relationships with patients and thus, provide effective healthcare.<sup>15</sup>

In this issue we are introduced to automated hematological analyzers for the potential screening and diagnosis of malaria<sup>16</sup> and neuronal interconnections observed in adversely affected children for predictive diagnoses and prevention of paediatric mental health conditions.<sup>17</sup> Huang et al. provide a possible public health solution of establishing eyeglass donations to serve vision impaired low socioeconomic populations.<sup>18</sup> Additionally, Nahian et al. demonstrate the importance of surgical adaptations in the setting of an eight year old with a cerebral palsy neuromuscular hip disorder.<sup>19</sup> We are also made aware that we are living in the technological era of social media dominance. The benefits of telehealth<sup>20</sup> and easily accessible, comprehensible medical resources<sup>21</sup> are discussed, however, we are also reminded about the risks of breaking patient confidentiality,<sup>20</sup> and providing misguided and potentially dangerous information through social media networks.<sup>22</sup>

The foundation of a strong patient-doctor relationship is based on the respect of a patient’s background. Good communication skills are an important part of this, as seen in the experience of Jayawardana with a deaf patient.<sup>23</sup> The experience by Rector et al. reinforces this by highlighting the importance of intercultural communication and describing their insights into Hispanic gender roles and culture.<sup>24</sup> We are also positioned to appreciate the benefits of working and learning overseas and in remote locations,<sup>25,26</sup> which can test the resilience of medical students especially if language or cultural barriers are involved. It is also great to see communication within the *IJMS* community. In this issue, we see the response of Yamamoto-Moreno<sup>27</sup> to Patricia Garcia-Espinosa,<sup>28</sup> a leader in neurology, reiterating the importance of hypertension awareness in controlling the risk of stroke in Mexico

Finally, in the experience article *The Vigil of Medicine* written by Kelly, she utilizes her hiking trip as an analogy of the journey of medicine;<sup>29</sup> fraught with challenges of physical demands and mental exhaustion, which is also well described by Young.<sup>30</sup> She brings all medical professionals together, be it a pandemic or not, to remind us we are never alone. The *IJMS* agree with this underlying message of unity, and proves this by bringing together medical students from around the world to write this issue. It is a reminder that as medical students, junior doctors or senior consultants, we are never alone.

Although COVID-19 has taken away our opportunities for clinical clerkships and in-person learning,<sup>31</sup> it has given us an insight into the responsibilities that we will face in as future doctors. In the same way that exposure to stress in previous generations can trigger genetic changes that are passed down to children and grandchildren,<sup>32</sup> the pandemic is a stark reminder that we will one day inherit the responsibilities of caring for the health of society. However, our genetic makeup also provides us the ability to heal from trauma and stress in multiple ways. The human body’s healing process replaces the damaged tissue with the same type as before, or, when it is unable to, forms a scar. Similarly, for some of us, there is no returning to the

<sup>1</sup> BMedSc, BSc(Hons), MD student, MScMed (SRH) student. University of New South Wales, Sydney, Australia. University of Sydney, Sydney, Australia. Student Editor *IJMS*.

<sup>2</sup> BSc (Hons), Medical Student, School of Medicine University College Cork, Cork, Ireland. Student Editor *IJMS*.

<sup>3</sup> BSc, Medical Student, Humanitas University, Humanitas Research Hospital, Milan, Italy. Student Editor *IJMS*.

<sup>4</sup> Baroda Medical College and SSG Hospital, Vadodara, India

<sup>5</sup> BMedSc, MSc, Medical Student, School of Medicine University College Cork, Cork, Ireland. Student Editor *IJMS*.

<sup>6</sup> Medical Student, The University of Western Australia, Perth, Australia

## Correspondence:

Madeleine J. Cox

Address: Wallace Wurth Building, Botany St,

Kensington, NSW 2052, Australia

Email: madeleine.cox@unsw.edu.au

training we had pre-pandemic, as we will be graduating and starting in the front-line work force. For others, the future of clinical training is less certain as teaching has shifted to online learning and some programs have been prolonged. As we progress, and recover, let this

scar remind us of our resiliency, unity, and let us return to our passion for research, discovery, and learning.

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