# Uniting for Peace Through Science: A Call to Action from the IJMS and the 4th WCMSR

Chloe Carrington,<sup>1</sup> Hana Kabil,<sup>1</sup> Moses Stefanus,<sup>2</sup> Elaine Liang,<sup>3</sup> Sohil Aryal,<sup>4</sup> Sahil Aryal,<sup>4</sup> Sajjad Ahmed Khan,<sup>5</sup> Mihnea-Alexandru Găman,<sup>6</sup> Francisco J. Bonilla-Escobar.<sup>7</sup>

## Introduction

"Peace cannot be kept by force, it can only be achieved by understanding" - Albert Einstein

In a year marred by economic turmoil and conflict, health crises are exacerbated by lack of access to healthy food, water, basic sanitation, and essential health services. According to the World Health Organization's (WHO) Health Emergency Appeal of 2025, an estimated 305 million people are in acute need of emergency humanitarian medical care, many in crisis zones like the Democratic Republic of the Congo, Myanmar, Haiti, Gaza, Ukraine, Iran, Israel, Sudan, and Syria.¹ Beyond these emergencies, over 1.6 billion people live amid displacement and conflict—the highest number in recorded history. Conflicts and displacement fracture the foundation of community stability, leaving populations vulnerable to disease outbreaks and prolonged health crises due to collapsed health systems. Without peace, health cannot thrive whether it be in its physical, mental, social or economic aspect.

To face these global health challenges, the International Journal of Medical Students (IJMS) aims to unite medical students around the globe to serve as catalysts for peace through research. Scientific research is a universal language that transcends cultural and political barriers through the shared pursuit of advancing human health. From our smartphones that we use to view this editorial to medications that have been our allies in defeating illnesses, these innovations all can be traced directly or indirectly to scientific research and discovery. At IJMS, we advocate the transformative power of science for the advancement of humanity and improving lives. Our goal is twofold: to serve as a global platform for medical students to share and grow scientific knowledge, and to cultivate peace by recognizing our shared

humanity across borders, cultures, and beliefs. Our mission is to empower the next generation of globally conscious physicians to dream boldly, tackle urgent medical challenges with creativity, and champion global solidarity through science and health.

However, realizing this mission requires confronting unique challenges that medical students face around the globe. Medical students living in conflict-affected regions face major disruptions to their daily lives including losing access to essential resources which severely restrict their movement. They face constraints on their ability to engage in focused study as survival takes precedence over academic pursuits like research. In Sudan, 59% of medical schools in conflict zones were attacked and looted resulting in a complete halt on curriculum delivery. Despite this, 60% of these attacked schools eventually restored their educational processes through online methods, relocating medical students to safer locations, or collaborating with other medical universities in Sudan and abroad.<sup>2</sup> Meanwhile in Syria, medical students face additional hurdles in contributing to research due to very limited Internet access, lack of funding for conducting their studies, lack of consistent and reliable patient data due to constant patient displacement, and limited training in research. 3 In Lebanon, the constant fear of being victimized, grief, and concerns about deportation forced many students to forfeit their classes.4

Conflict generates turmoil and displacement that jeopardizes diversity in the medical profession as the destruction of medical infrastructure cripples preventing students of vulnerable communities from completing rigorous medical training. Additionally, after the completion of training, many physicians flee to safer and economically stable countries leading to medical brain drain.<sup>5</sup> Patients tend to have higher trust in physicians who

#### Correspondence:

Francisco J. Bonilla-Escobar, editor.in.chief@ijms.info

MD Student, Faculty of Medicine, University of Queensland-Ochsner Clinical School, Brisbane, Australia and LA, USA.

<sup>2</sup> MD Student, Clinical Health Sciences, Health Natural Resources & Applied Sciences, Namibia University of Science and Technology, Windhoek, Namibia.

<sup>3</sup> MD Student, Kaiser Permanente School of Medicine, Pasadena, CA, USA

<sup>4</sup> MD Student, B.P.Koirala Institute of Health Sciences, Dharan, Nepal

 $_{5}\,\mathrm{MBBS},$  Birat Medical College Teaching Hospital, Morang, Nepal. Deputy Editor, IJMS

<sup>6</sup> MD, PhD(c) Faculty of Medicine, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania & Department of Hematology, Centre of Hematology and Bone Marrow Transplantation, Bucharest, Romania. Scientific Editor, IJMS.

<sup>7</sup> MD, MSc, PhD, Department of Ophtalmology; University of Colorado, Anschutz, CO, USA, USA. Fundación Somos Ciencia al Servicio de la Comunidad, Fundación SCISCO/Science to Serve the Community Foundation, SCISCO Foundation, Cali Colombia. Grupo de investigación en Visión y Salud Ocular, VISOC, Universidad del Valle, Cali, Colombia. Editor in Chief, IJMS.

come from similar backgrounds, so decreased physician representation from these diverse communities compounds existing health inequities. <sup>6,7</sup>

Beyond conflict, the global COVID-19 pandemic significantly restricted opportunities for medical students worldwide to meaningfully contribute to medical research. Studies conducted in Turkey, Poland, France, Switzerland, Saudi Arabia, and China demonstrated a concerning trend of medical students suffering from worsening mental health largely due to isolation and economic instability during the pandemic.<sup>8,9,10,11,12</sup> discouraged extracurricular pursuits like research volunteering as hospitals were inundated with patients, in-person opportunities were halted, and basic needs were difficult to attain. The pandemic emphasized the pre-existing deficits prevalent in access to care within communities and across borders. Much of the deficits were alleviated by global collaboration among scientists, physicians, and public health specialists eager to resolve the outbreak. Development of effective vaccination measures and methods of prevention involving social distancing were implemented reducing patient cases.

A shift in focus towards the promotion of public health and medical advancement brought to light the decline of physician scientists and the lack of safe spaces to pursue research. Research done by medical students, physicians, and scientists with the help of international collaboration saves millions of lives, especially in times of disease outbreak. Scientific accomplishments and public health successes such as the eradication of Polio, creation of pacemakers, and the development of Malaria and COVID vaccines are all examples of international collaborative efforts to advance global health.

Similarly, medical students have contributed a fair share of their discoveries through research conducted early on in their careers despite the occasional lack of resources or security throughout history. Among them, Jay Mclean, a second-year medical student at Johns Hopkins University who first discovered heparin, a common medication for thrombosis while in his second year of medical school in 1916. Another medical student from France, Augusta Klumpke, would be the first to diagnose what is now dubbed Klumpke paralysis associated with Horner's syndrome near the brachial plexus in 1885. <sup>13</sup> These contributions to peace and medicine would not be possible without the space to enable creativity, collaboration, and research among budding clinicians on an international scale.

With few journals tailored to medical students, the IJMS was born out of the need to foster medical research literacy, encourage the development of presentation and peer review skills, and promote mutual understanding among the international medical student community. The journal provides a space to present research, engage with experts from various specialties, and publish innovative solutions to current medical issues. We train medical

students to analyze, edit, and review research conducted by their fellow peers. We support medical students' early exposure to different cultures, perspectives, methodologies, and research aiding in the development of evidence-based medicine that is grounded in empathy and cultural humility. Medical students who engage with global peers and research early in their training are better equipped to think critically and approach patient care with nuance drawing on a broader understanding of both scientific evidence and human experience. <sup>14</sup>

Thus far, we have brought together medical students from over 30 countries and counting. In 2022, we hosted the first of our annual World Conference of Medical Student Research (WCMSR), a virtual conference inviting medical students from around the world to present and collaborate with each other in all aspects of medical research. The JJMS has enabled researchers since then to connect and exchange scientific ideas bringing unity and peace amid tumultuous times. <sup>15,16</sup> Our growing impact and engagement are illustrated in *Table 1*.

**Table 1.** The Diversity and Impact of the IJMS Conference of World Student Research from 2022 to 2024.

Year	Number of Countries	Number of Authors Presenting	Website engagement on the day of conference	Youtube Views
2022	22	40	N/A	3,754
2023	17	38	604	2,196
2024	19	35	1,073	1,993

**Legend:** The journal and conference committee hopes to continue fostering a sense of unity and provide even more innovative ways for students to engage with their global peers.

We are excited to announce the upcoming fourth annual WCMSR to be held virtually on November 15th and 16th, from 8 AM to 5 PM EST. Viewers of the conference can expect two days of groundbreaking medical student research featuring global presenters and judges with diverse expertise. Abstract topics that are encouraged for submission include but are not limited to: clinical medicine and its subspecialties, surgery and its subspecialties, public health and epidemiology, basic science in medicine, medical ethics, medical education, and other interdisciplinary medical fields.

The first day of the conference will feature forty oral research presentations, followed by a second day dedicated to presenting digital posters. This is our first year expanding the WCMSR to include a second day for poster presentations reflecting our ongoing commitment to broadening research and presentation opportunities for global medical students.

Abstracts may be submitted to the following submission link: https://ijms.info/IJMS/submission/wizard until the deadline of September 30th, 11:59 PM EST. The results of the submissions will be released on October 20th.

Carrington C, et al.

The submission fee per abstract is based on the World Bank's country income classifications:

- Low-Income Countries (LICs): \$10
- Lower-Middle-Income Countries (LMICs): \$20
- Upper-Middle-Income Countries (UMICs): \$30
- High-Income Countries (HICs): \$40

IJMS Student Editors are eligible for a 50% fee reduction and fee waivers or reductions may be requested with proper justification.

Further information regarding the submission process and guidelines are available at the conference section of the IJMS webpage: <a href="https://ijms.info/IJMS/Conference/welcome">https://ijms.info/IJMS/Conference/welcome</a>. If authors have further questions, the conference team can be contacted by email at <a href="mailto:conference@ijms.info">conference@ijms.info</a>.

You can follow us as we prepare for the upcoming conference by connecting with us on our socials. We are on LinkedIn @International Journal of Medical Students (IJMS), X @TheIJMS, YouTube @IJMS, Instagram @Ijms.official, and Facebook @ijms.official.

#### Conclusion

In a world stricken with prolonged conflict, division, and health crises, medical students are uniquely positioned to lead transformative, peace-building efforts through global health research. The IJMS is dedicated to empowering medical students to become global agents of peace and future leaders of global health. By creating an international platform for medical students of all backgrounds to share, learn, and connect with fellow peers, the IJMS aims to bring about a more peaceful, compassionate, and healthy future.

Our fourth annual WCMSR reaffirms science as not only a tool for exploration, but also a powerful bridge between cultures and ideologies. As we will unpack during our conference, we aim to emphasize how research conducted by medical students and early career physicians advances global health equity, peace, and

unity. This theme will be explored through presentations ranging from clinical medicine to medical educational research highlighting an urgent need for global collaboration and interventions. The core values of the IJMS to promote the research of medical students and early career physicians worldwide and empower their emerging voices will be ever present at this year's conference. We strive to continue fostering this sense of unity and explore innovative ways for students to engage with their global peers.

#### In This Issue

This issue showcases trailblazing medical student research in the domains of editorial, original research, short communications, reviews, case reports, and experience, many of which are the product of international collaboration. Within the editorials featured, we discuss several topics including how the power of medical student research can bring about peace and our commitment to support this aim through the announcement of our fourth annual World Conference of Medical Student Research. The original research in this issue covers many topics in various fields of medicine including using sculpting to advance medical education, the evaluation of U.S. geriatric fellowship websites for information availability, and the prevalence of imposter syndrome in medical students compared to nonmedical students in a community in Pakistan. 17,18,19 Our short communications section addresses the impact of predisposing conditions on the outcomes of hypoglossal nerve stimulation for patients with obstructive sleep apnea. 20 One of the systemic reviews uncovers effects of blood pressure variability and the connection with dementia and cognitive impairment while one of the featured case reports poses how a positive rapid strep test could muddy the waters in the diagnosis of serum sickness-like reaction. 21,22 Finally, we conclude with two experience-based essays regarding gender-based disparities and challenges faced by female, Pakistani surgeons and a medical student's experience teaching at a government school. 23,24 The culmination of this diverse research highlights our call to action that the global medical student community unites, collaborates, and engages in scientific discovery to bring about peace.

#### References

- World Health Organization. WHO health emergency appeal 2025: Snapshot. Available from: https://cdn.who.int/media/docs/default-source/documents/emergencies/2025-appeals/who-health-emergency-appeal-2025-snapshot.pdf. Cited Jun 26, 2025.
- Mahgoub EAA, Khairy A, Osman S, Haga MB, Osman SHM, Hassan AMA, et al. War and education: the attacks on medical schools amidst ongoing armed conflict. Sudan 2023. Confl Health. 2024:18(23).
- Saadi TA, Abbas F, Turk T, Alkhatib M, Hanafi I, Alahdab F. Medical research in war-torn Syria: medical students' perspective. Lancet. 2018;391(10139),2497-2498.
- Zgheib NK, Sabra R. How a sudden war affected our medical school: reflections and lessons learned on adaptability and equity while preserving academic standards. BMC Med Educ. 2025 May 30;25(1).

- Kollar E, Buyx A. Ethics and policy of medical brain drain: a review. Swiss Med Wkly. 2013;124:w13845.
- Cao W, Fang Z, Hou G, Han M, Xu X, Dong J, et al. The psychological impact of the COVID-19 epidemic on college students in China. Psychiatry Res. 2020 Mar 20;287(112934).
- Street R, O'Malley KJ, Cooper LA, Haidet P. Understanding concordance in patient-physician relationships: personal and ethnic dimensions of shared identity. The Annals of Fam Med. 2008;6(3):198-205.
- Aslan I, Ochnik D, Çınar O. Exploring Perceived Stress among Students in Turkey during the COVID-19 Pandemic. Int J Environ Res Public Health. 2020 Dec 2;17(23):8961.
- Rogowska AM, Kuśnierz C, Bokszczanin A. Examining Anxiety, Life Satisfaction, General Health, Stress and Coping Styles During COVID-19 Pandemic in Polish Sample of University Students. Psychol Res Behav Manag. 2020 Sep 28;13(1):797–811.

- Husky MM, Kovess-Masfety V, Swendsen JD. Stress and anxiety among university students in France during Covid-19 mandatory confinement. Compr Psychiatry. 2020 Oct;102(152191):152191.
- AlAteeq DA, Aljhani S, Altheyabi I, Majzoub S. Mental Health among Healthcare Providers during Coronavirus Disease (COVID-19) Outbreak in Saudi Arabia. J Infect Public Health. 2020 Sep;13(10).
- Elmer T. Students under lockdown: Comparisons of students' social networks and mental health before and during the COVID-19 crisis in Switzerland. PLoS ONE. 2020 Jul 23;15(7):e0236337.
- Dawadi P, Khadka S. Research and Medical Students: Some Notable Contributions Made in History. JNMA J Nepal Med Assoc. 2021;59(233):94-97.
- Charnell AM, Dennis CA. Enhancing diversity in medical education: Bridging gaps and building inclusive curricula. Med Educ. 2025; 59(5): 460-462.
- Mujanovic, A., Kipkorir, V., Mercalli, C., Dhali, A., Shah, P., Velandia, C, et al. The IJMS World Conference of Medical Student Research and an Overview of the IJMS Volume 10 Issue 2. Intl J Med Stud. 2025 June 30;13(2), 115–118.
- Liblik K, Garcia-Espinosa P, Nahian A, Chatterjee S, Găman MA, Egan C, et al. Medical Student Research Journals: The International Journal of Medical Students (IJMS) Legacy. Intl J Med Stud. 2020;10(1):9-14.
- Toni Chiappini, Janine C. Correia, Adam M. Taylor, Jan van der Merwe, Quenton Wessels. Sculpting the Science: Teaching Anatomy of the Facial Muscles to Medical Students. Int J Med Stud. 2025; 13(2):126-132.

- Courtois E, Lahti J, Varkey T, Agarwal N. A Nationwide Evaluation of U.S. Geriatric Fellowship Websites: Assessing Program Information Availability. Int J Med Stud. 2022; 13(2):154-161.
- Raashed L, Liaqat A, Nasir M, Tariq M, Omer Z. A Comparative Cross-Sectional Study on the Prevalence of Impostor Phenomenon in Medical and Non-Medical Students of Lahore City, Pakistan. Int J Med Stud. 2025; 13(2):162-168
- Adwer L, Nelson T, Carlson K, Samson K, Schmoker S, Thomas S. V, et al. Evaluating Hypoglossal Nerve Stimulation Outcomes in Obstructive Sleep Apnea: Impact of Predisposing Conditions in a Retrospective Cohort. Int J Med Stud. 2025; 13(2):182-186.
- Pitliya A, Jaimalani A, Patel M, Parulkar A, Kumar M, Batra V, et al. Effects of Blood Pressure Variability and Its Association With Dementia and Cognitive Impairment: A Systematic Review. Int J Med Stud. 2025; 13(2):192-202
- Chatzigrigoriadis C, Eleftherakis G, Gyftopoulos K, Assimakopoulos S. F.
  To Test or Not to Test? How a Positive Rapid Strep Test May Perplex the
  Diagnosis of Serum Sickness-Like Reaction in a Case Report. Int J Med
  Stud. 2025; 13(2):208-212.
- Akhtar A, Gillani M, Shariff Y, Inayat A, Bahrawar M. Challenges and Gender Disparities Faced by Women in Surgery in Pakistan. Int J Med Stud. 2025; 13(2):213-215.
- Haritha A. Integrating Health and Education: A Medical Student's Teaching Experience in a Government School. Int J Med Stud. 2025; 13(2):216-218.

## Acknowledgments

None.

### **Conflict of Interest Statement & Funding**

The Authors have no funding, financial relationships or conflicts of interest to disclose.

#### **Author Contributions**

Writing: C.C., H,K, M.S, E.L, S.A, S.A, S.A.K, M.A.G, F.J.B.E. .

#### Cite as

Carrington C, Kabil H, Stefanus M, Liang E, Aryal S, Aryal S. Uniting for Peace Through Science: A Call to Action from the IJMS and the 4th WCMSR. Int J Med Stud. 2025 Apr-Jun; 13(2):118-122

This work is licensed under a Creative Commons Attribution 4.0 International License

ISSN 2076-6327

This journal is published by Pitt Open Library Publishing

