

Role of Medical Students in Disseminating Scientific Knowledge - The First IJMS WCMSR

Purva Shah,¹ Cesare Mercalli,² Adnan Mujanovic,³ Vincent Kipkorir,⁴ Ciara Egan,⁵ Arkadeep Dhali,⁶ Camila Velandia,⁷ Mihnea-Alexandru Găman,⁸ Juan C. Puyana,⁹ Francisco J. Bonilla-Escobar.¹⁰

Introduction

Scientific conferences are an essential part of continuous education, regardless of the profession or the position one occupies on the academic ladder.¹ They play a vital role in a scientific ecosystem, present grounds where scientists discuss ideas, and are a place of social gathering and camaraderie with fellow peers. Academic conferences provide a platform to initiate collaborations, create new contacts, strengthen old ones, and witness medical advancements worldwide.² Early-career scientists and recently graduated physicians, therefore, can significantly benefit from attending scientific conferences since they can be used as positive accelerators for their careers and instruction.³

In most cases, medical students and early-career researchers lack adequate exposure or incentives to participate in scientific conferences. Lack of time due to an overly demanding study and/or work schedule, lack of proper information and communication inside and outside the scientific community, and unallocated funds for continuous medical education are just some of the causes for these restrictions.^{1,4} These barriers may have short- and long-term consequences on their career development. Not having exposure to conferences and similar events might hinder one's options in choosing an optimal career pathway due to the lack of information about specific fields of specialization and the newest developments in those fields. Similarly, this may also extinguish an individual's passion for research and scientific potential, making the global scientific community miss out on potential breakthroughs in the medical field.⁵

Inadequate access to conferences can only stagnate global scientific growth, and there can be no winners in such

environments.⁹ Therefore, it is vital that medical students and young clinician-researchers have proper chances and opportunities to participate in scientific conferences. Their participation will not only impact their professional development, but will also benefit their personal growth and scientific research.⁶

Seeing the potential hurdles, the numerous advantages, and the overall impact that conferences have on scientific progress, the International Journal of Medical Students (IJMS) decided to organize the first World Conference of Medical Student Research (WCMSR) on November 12, 2022.¹¹ The entire idea of the conference was centered around accessibility to medical innovation and diversity in representation of different medical branches.⁷ WCMSR offered complete access to medical students and recently graduated researchers to all the studies presented during the conference. IJMS WCMSR was hosted completely online, ensuring access to participants regardless of their location.^{8,10} This is the first time an International Journal has organized a conference behind which both the major workforce and primary target audience are ongoing or recently graduated medical students.

In accordance with the philosophy of the Journal's founders, the Conference Team had the responsibility of being as open as possible and helping medical students and young researchers even in the pre-submission phase. The conference, in fact, was the first experience of this kind for most of our participants, and the enthusiasm was palpable.

The globality of the event can be seen in the abstracts presented, as observed in the following pages of this supplementary issue, but also from the difficulties the team had to overcome. To give

¹ MBBS. Research Associate, Medical College, Baroda, India. Student Editor, IJMS.

² Medical Student. Humanitas Research Hospital, Milan, Italy. Layout Editor & Director of the first IJMS World Conference of Medical Student Research, IJMS.

³ MD, Ph.D. student. Department of Diagnostic and Interventional Neuroradiology, University Hospital Bern Inselspital, University of Bern, Bern, Switzerland. Associate Editor, IJMS.

⁴ BSc(H). The University of Nairobi, College of Health Sciences, Department of Human Anatomy and Physiology, Nairobi, Kenya. Associate Editor, IJMS.

⁵ Medical Student. Humanitas University, Humanitas Research Hospital, Milan, Italy. Deputy Editor, IJMS.

⁶ MBBS; Department of GI Surgery, Institute of Postgraduate Medical Education and Research, Kolkata, India. Student Editor, IJMS.

⁷ Fifth year Medical Student. Grupo de investigación ACEMED-UPTC. Universidad Pedagógica y Tecnológica de Colombia - UPTC. Tunja, Colombia. Logistics WCMSR, IJMS.

Correspondence: Francisco J. Bonilla-Escobar

Address: 4200 Fifth Ave, Pittsburgh, PA 15260, United States

Email: fjbonillaesobar@gmail.com

⁸ MD, Ph.D. student. Faculty of Medicine, "Carol Davila" University of Medicine and Pharmacy, 050474 Bucharest, Romania & Department of Hematology, Center of Hematology and Bone Marrow Transplantation, Fundeni Clinical Institute, 022328 Bucharest, Romania. Scientific Editor, IJMS.

⁹ MD, FRCS, FACS, FACC. School of Medicine, Department of Surgery, Professor of Surgery, Critical Care Medicine, and Clinical Translational Science, Director for Global Health-Surgery, University of Pittsburgh, Pittsburgh, PA, United States. Editorial Board Member, IJMS

¹⁰ MD, MSc, PhD(c). Researcher, Department of Ophthalmology; Institute for Clinical Research Education (ICRE), University of Pittsburgh, Pittsburgh, PA, United States. CEO, 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.

the reader some examples of these difficulties - there were multiple time zones participating in the event (the largest difference being from East Standard Time to Australian Western Standard Time, equal to fifteen hours), there were multiple internet connection problems from some of our authors, and there was the need to convert some presentations in a pre-recorded video.

The organizing team of the first WCMSR consisted of a Director, Cesare Mercalli, MS, a co-Director, Purva Shah, MD, a Director of Logistics, Camila Velandia, MS, and a Conference Host, Duha Shellah, MD, in collaboration with the IJMS Executive Editorial Committee and Director of Public Relations, Preeyati Chopra, MS. The first team meeting was held in June 2022 and was followed by monthly meetings. During these sessions, the team discussed the jury, the conference ambassadors, the marketing strategy, the communication campaign, the ranking system, and the awards. To spread information about the conference and instructions on how to participate, a conference handbook and an IJMS editorial (Volume 10 Issue 2) were shared with partner organizations and conference ambassadors to reach as many interested applicants as possible. The organizing team held an information session on YouTube to solve queries of potential participants on August 27, 2022, followed by a second information session in Spanish after numerous requests. The application fee was kept at 10 US Dollars, considered affordable for most early-career researchers participating in this conference and much less than the average fee of similar events, around 50 US Dollars.¹²

More than one hundred and ten submissions were received, consisting of original studies, case reports, and meta-analyses. The IJMS student editors selected 41 abstracts based on a pre-specified point system. These abstracts have been published in IJMS Volume 3 as a supplementary issue with a digital object identifier (DOI) allotted for each abstract. The selected participants were divided into four slots depending on their time zones and the topic of their papers. Two judges were allocated per slot and were provided a conference program with the list of participants and their abstracts in advance.

On the day of the conference, participants and judges were invited to the backstage of an online streaming platform called "Streamyard." The conference started at 8:00 am EST and continued until 5:00 pm EST, with four eight-minute breaks between all slots. Judges were provided with respective judge sheets in which they entered their scores in real-time.

Each presentation was followed by a 3-minutes question and answer session, during which both the judges and the public could participate. At the same time, the audience could vote via a QR code shared on the screen; these votes determined the "Most-Liked by the Public" abstract without influencing the judges, who had no access to this separate scoring system.

The awards given out were top-scored abstracts for Original Research and Case Reports by student-editor reviewers, top-scored presentations of Original Research and Case Reports by judges, and the highest-voted presentation by the audience.

These were the winners:

Awards for Best Research Presentation at the WCMSR Original Research based on judge score

- *1st place:* [Morphometry of Placentae of Anaemia and Non-anaemic Preeclamptic Patients](#). Mohamed Onyango. BSc. Human Anat (Hons), HMX. Kenya¹³
- *2nd place:* [Efficacy of Rectal Misoprostol versus Oxytocin on Reducing Blood Loss during Cesarean Section: A Meta-Analysis of Randomized Clinical Trials](#). Ahmed Soliman, Dr, Faculty of Medicine, Mansoura University, Mansoura, Egypt¹⁴
- *3rd place:* [Determining the ability of the vision, aphasia, and neglect \(VAN\) stroke scale to identify large vessel occlusion strokes within the prehospital setting: a prospective cohort study](#). Lydia Leavitt, a 4th-year medical student at the University of Illinois, USA¹⁵

Awards for Best Case Report presentation at the WCMSR based on judge scores

- *1st place:* [Hypercoagulability and Cavernous Sinus Thrombosis due to Protein C Deficiency. A Case Report](#). Wilson Sebastian Peñafiel Pallares, a medical student from Universidad de las Américas, Quito, Ecuador.¹⁶
- *2nd place:* [A Case Report of Rare Type of Chorea with Hypoxic-Ischemic Insult](#). Roohi Kolte, 6th-year MBBS student, O.O. Bogomolets national medical university, Kyiv, Ukraine.¹⁷

Highest score during the abstract revision process for Original Research

- *1st place.* [Correlation between Placental Histomorphology and Umbilical Cord Coiling Index in Preeclampsia](#). Cyrus Kimanthi. Fourth-year medical student, BSc Anat. Department of Human Anatomy, University of Nairobi, Kenya.¹⁸
Average score: 68
- *2nd place.* The Impact of COVID-19 on People's Access to Healthcare and Health Behavior in a sample of Indian Population: A Cross-sectional Study. Dr. Manisha Kanumuri, Intern, Mediciti Institute of Medical Sciences, India.¹⁹
Average score: 67
- *TIE: 3rd place.* [Health-care Seeking Pathways Of Psychiatry Patients In North Karnataka Of India - A Hospital-based: Exploratory Cross-sectional Study](#). Md Alinawaz Khan, Third-year MBBS student, S. N. Medical College & HSK Hospital, Bagalkot, Karnataka, India.²⁰
Average score: 65 (out of 70 points)
- *TIE: 3rd place.* [Gender Differences in Attitude and Barriers to Research by Medical Undergraduate Students in Nigeria](#). Okwunze Kenechukwu Franklin, Mr, College Research Innovation Hub, University of Ibadan, Nigeria.²¹
Average score: 65

Highest score during the abstract revision process for Case Reports

- *1st place.* [Peroneal Nerve Injury due to Hip Surgery Located at the Knee Level: A Case Report](#). Aleksa Mičić MD, Faculty of Medicine, University of Belgrade, Belgrade, Serbia, Department of Peripheral Nerve Surgery, Functional Neurosurgery and Pain Management Surgery, Clinic for Neurosurgery, University Clinical Centre of Serbia, Belgrade, Serbia.²²

Average score: 63

- *2nd place.* [Harlequin Color Change in a Neonate Positive to Covid-19: Case Report](#). Esther Pinel Guzmán, 5th-year medical student, School of Medicine, Universidad Católica de Honduras, Tegucigalpa. Honduras.²³

Average score: 60

Most-liked by the public

- [Medical Students' Attitudes and Influential Factors Towards Conducting Medical Research](#). Bassam AlRajhi, Junior Medical Student, King Saud bin Abdulaziz University for Health Sciences, Jeddah, Saudi Arabia.²⁴

The IJMS WCMSR is the first global research conference organized by a medical journal for medical students and healthcare trainees. With over one hundred submissions from over thirty countries worldwide, this research conference had 1200+ live audience members across the duration of the day. A Syrian participant presented their work via a recorded video. Weeks later, the number of viewers has increased to 2670+, making it clear that the interest in this event continues today.

From a small evaluation survey shared after the conference, we have discovered that more than two-thirds of the participants presented their work for the first time at a conference.

This conference aimed to promote the integration of medical students and young physicians in the medical research field. It also helped create contacts, interest, and motivation amongst the participants and the audience for conducting research and participating in scientific societies and conferences. With this the organizing team of the First IJMS World Conference of Medical Student Research signs off.

References

1. Sarabipour S, Khan A, Seah YFS, Mwakilili AD, Mumoki FN, Saez PJ, et al. Changing scientific meetings for the better. *Nat Hum Behav* 2021;5:296–300.
2. Hauss K. What are the social and scientific benefits of participating at academic conferences? Insights from a survey among doctoral students and postdocs in Germany. *Research Evaluation* Jan 2021;30(1):1–12.
3. Oester S, Cigliano JA, Hind-Ozan EJ, Parsons ECM. Why Conferences Matter—An Illustration from the International Marine Conservation Congress. *Frontiers in Marine Science* 2017;4:2296–7745.
4. Mair J, Lockstone-Binney L, Whitelaw PA. The motives and barriers of association conference attendance: Evidence from an Australasian tourism and hospitality academic conference. *Journal of Hospitality and Tourism Management* 2018;34:58–65.
5. Klemeš, J.J. Scientific conferences: organisation, participation and their future. *Clean Techn Environ Policy*. 2016;18:347–349.
6. Osiek BA, Xexeo G, Vivacqua AS, de Souza JM. Does conference participation lead to increased collaboration? A quantitative investigation. 2009 13th International Conference on Computer Supported Cooperative Work in Design. 2009;642–647. DOI:doi: 10.1109/CSCWD.2009.4968131.
7. Puccinelli E, Zeppilli D, Stefanoudis PV, Wittische-Helou A, Kermorgant M, Fuch S, et al. Hybrid conferences: opportunities, challenges and ways forward. *Front. Mar. Sci.* 2022. DOI: <https://doi.org/10.3389/fmars.2022.902772>.
8. Raby CL, Madden JR. Moving academic conferences online: Aids and barriers to delegate participation. *Ecol Evol*. 2021; 11: 3646– 3655.
9. Sarabipour S, Schwessinger B, Mumoki FN, Mwakilili AD, Khan A, Debat HJ, et al. Evaluating features of scientific conferences: A call for improvements. *bioRxiv*. 2020.04.02.022079
10. Nahian, A., Suteja, R. C., Shellah, D., Egan, C., Gäman, M.-A., & Bonilla-Escobar, F. J. (2022). The State of Learning Patterns within Medical Education in a Post-pandemic World: Reflection from IJMS Authors and an Overview of the IJMS Volume 10 Issue 3. *International Journal of Medical Students*, 10(3), 233–235.
11. Mujanovic, A., Kipkorir, V., Mercalli, C., Dhali, A., Shah, P., Velandia, C., Egan, C., Gäman, M.-A., Puyana, J. C., & Bonilla-Escobar, F. J. (2022). The IJMS World Conference of Medical Student Research and an Overview of the IJMS Volume 10 Issue 2. *International Journal of Medical Students*, 10(2), 115–118.
12. Veyg D, Gurevich R. Analyzing the cost of medical student virtual conference registration by specialty during the COVID-19 pandemic. *J Osteopath Med* 2021;121(11):843–48.
13. Otieno M, Ndung'u B, Kigera J, Kaisha W, Kimanathi C, Obimbo M. Morphometry of Placentae of Anemic and Non-anaemic Preeclamptic Patients. *IntJMedStud* 2022;10(Suppl1):S89.
14. Albazee E, Ahmed Soliman A, Albakri K, Elbanna M, Moussa NA, Faragalla HM. Efficacy of Rectal Misoprostol Versus Oxytocin on Reducing Blood Loss During Cesarean Section: A Meta-analysis of Randomized Clinical Trials. *IntJMedStud* 2022;10(Suppl1):S91.
15. Leavitt L. Determining the Ability of the Vision, Aphasia, and Neglect (VAN) Stroke Scale to Identify Large Vessel Occlusion Strokes within the Prehospital Setting: A Prospective Cohort Study. *IntJMedStud* 2022;10(Suppl1):S102.
16. Peñafiel-Pallares WS, Brito-Balanzategui C. Hypercoagulability and Cavernous Sinus Thrombosis due to Protein C Deficiency. A Case Report. *IntJMedStud* 2022;10(Suppl1):S96.
17. Kolte R, Gnyloskurenko G. A Case Report of Rare Type of Chorea with Hypoxic-Ischemic Insult. *IntJMedStud* 2022;10(Suppl1):S103.
18. Cyrus Kimanathi C, Moses Obimbo M, Kirsteen Awori K, Mohamed Otieno M, Talha Chaudhry T. Correlation between Placental Histomorphology and Umbilical Cord Coiling Index in Preeclampsia. *IntJMedStud* 2022;10(Suppl1):S122.
19. Dandge S, Kanumuri M, Eppalapally AK. The Impact of Covid-19 on People's Access to Healthcare and Health Behavior in a Sample of Indian Population: A Cross-sectional Study. *IntJMedStud* 2022;10(Suppl1):S124.
20. Khan A, Mutalik NR, Kulkarni H, Manjula R. Health-care Seeking Pathways of Psychiatry Patients in North Karnataka of India - A Hospital-based: Exploratory Cross-sectional Study. *IntJMedStud* 2022;10(Suppl1):S111.
21. Okwunze KF, Iyawe EP, Agughalam IP, Yahya A, Awoyomi P, Metajuwa-kuda E. Gender Differences in Attitude and Barriers to Research by Medical Undergraduate Students in Nigeria. *IntJMedStud* 2022;10(Suppl1):S105.
22. Mičić A, Radojević S, Rasulić L. Peroneal Nerve Injury due to Hip Surgery Located at the Knee Level: A Case Report. *IntJMedStud* 2022;10(Suppl1):S115.

23. Pinel-Guzmán E, Martínez-Fernandez J, Pinel-Dubón R, Gradis-Santos O1, Santamaría-Vasquez M. Harlequin Color Change in a Neonate Positive to Covid-19: Case Report. *IntJMedStud* 2022;10(Suppl1):S117.
24. AlRajhi B, Omer I, Abualnaja R, Alqahtani F, Hakami AY. Medical Students' Attitudes and Influential Factors Towards Conducting Medical Research. *IntJMedStud* 2022;10(Suppl1):S113.

Acknowledgments

To the IJMS Editorial Team that collaborated in the revision process of abstracts and the judges that helped us evaluating the presentations.

Conflict of Interest Statement & Funding

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

Cite as

Shah P, Mercalli C, Mujanovic A, Kipkorir V, Egan C, Dhali A, et al. Role of Medical Students in Disseminating Scientific Knowledge - The First IJMS WCMSR. *Int J Med Stud*. 2022;10(Suppl 1):S151-1554.

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](#)

Pitt Open
Library
Publishing