IJMS INTERNATIONAL JOURNAL of MEDICAL STUDENTS

Year 2023 | Months Jan-Mar | Volume 11 | Issue 1

EDITORIAL

 Global Needs and Barriers for Medical Research Education: Initiatives to Solve the Physician-Scientist Shortage

ORIGINAL ARTICLE

- De-Epithelialization Protocol with Tapered Sodium Dodecyl Sulfate Concentrations Enhances Short-Term Chondrocyte Survival in Porcine Chimeric Tracheal Allografts
- The Association of Blood Banks per City with Mortality Due to Traumatic Hemorrhagic Shock in Colombia: A Population-Based Analysis
- Accuracy and Precision of Actigraphy and SMARTwheels for Measuring Push Counts Across a Series of Wheelchair Propulsion Trials in Non-disabled Young Adults

- Beck's Depression Inventory II Suicidal Ideation in Medical Students – Prevalence and Associated Factors
- Medical Students' Attitudes and Influential Factors Towards Conducting Medical Research

SHORT COMUNICATION

 Contamination of Clinical White Coats with Potential Pathogens and their Antibiotic Resistant Phenotypes Among a Group of Sri Lankan Medical Students

REVIEW

 Leadership Training in Undergraduate Medical Education: A Systematic Review

CASE REPORT

- Myasthenia Gravis Exacerbation
 Following COVID-19 Vaccine: A Case
 Report
- Windswept Deformity from Pseudogout: A Diagnostic Challenge of an Extreme Presentation, A Case Report

 Hypercoagulability and Cavernous Sinus Thrombosis due to Protein C Deficiency. A Case Report

EXPERIENCE

- Women on Science: A Student Workshop
- Acquiring Medical Statistical Competencies in a Demanding Evidence-Based World: Thoughts and Experience from a Student Statistical Team in a Mexican Academic Center
- Passengers, May I Have Your Attention Please..." – The Airport Diaries of Young Covid-19 Warriors

LETTER TO THE EDITOR

 Navigating Research Enthusiasm in Medical Students Towards Clinically Impactful Articles

ERRATA

• Errata: Volume 10; Issue 4, 2022

www.ijms.info

IJMS INTERNATIONAL JOURNAL of MEDICAL STUDENTS

International Journal of Medical Students

The International Journal of Medical Students (IJMS) is a peer-reviewed open-access journal (ISSN 2076-6327) created to share the scientific production and experiences of medical students and recently graduated physicians worldwide.

EDITORIAL STAFF

EDITOR IN CHIEF

Francisco Javier Bonilla-Escobar, MD, MSc, PhD(c) University of Pittsburgh, USA. University of Valle, Colombia **DEPUTY EDITOR**

EDITORIAL BOARD

Abdel Kareem Azab, PhD University of Texas Southwestern Medical Center, TX, USA

Abdelrahman I. Abushouk, MD rd Medical School Boston MA LIS

Abhishekh Hulegar Ashok, MD Cambridge University Hospitals NHS Foundation Trust, UK

Adrian Baranchuk, MD, FACC, FRCPC Queen's University, Kingston, ON, Canada

Amelia Maria Găman, MD, PhD University of Medicine and Pharmacy of Craiova, Craiova, Romania

Americo Peña, MD IRCCS San Raffaele Hospital, Milan, Italy

ASSOCIATE EDITORS

Adnan Mujanovic, MD University of Bern, Bern, Switzerland André Yvan Zolo Ossou, MD, MSc University of Cape Town, South Africa Kiera Liblik, BSc, MSc, Medical Student 's University, Kingston, Canada Lorraine Arabang Sebopelo University of Botswana, Faculty of Medicne, Gaborone, Bot

STUDENT EDITORS

Abdul Basith KM te Medical Education and Research India Ahmed Nahian California Baptist University-Lake Erie College of Osteopathic Medicine, USA Alisha Poppen ersity College Cork, Ireland Amaan Javed University College of Medical Sciences (University of Delhi), India Arkadeep Dhali, MD School of Digestive and Liver Diseases, Kolkata, India

Ashwini Ramesh Patankar r. D Y Patil Medical College and Hospital, Navi Mumbai, India Avanthika Chaithanya

Karnataka Institute of Medical Sciences, Bangalore, India Bahadar Singh Srichawla, MS University of Massachusetts Medical School, Boston, USA

Cesare Mercalli Humanitas University, Milan, Italy David Ulrich Dalle North Ossetia State Medical Academy, Russia Dawin Sichimba Copperbelt University, School of Medicine, Ndola, Zambia James Cook University, Queensland, Australia Eugenia M. Ramos-Dávila, MD o Tecnológico y de Estudios Superiores de Monterrey, Mexico Johnmark Boachie University of Cape Coast, Ghana Joseph Tonge

Unit of Medical Education, The University of Sheffield, UK Khabab A. Hussien Mohamed Ahmed University of Khartoum, Faculty of Medicine, Sudar Lakshmi V. Simhachalam Kutikuppala

Leah Komer, BSc, MB BCh BAO Candidate iversity of Toronto, Cana

Lorraine Arabang Sebopelo University of Botswana, Faculty of Medicne, Gaborone, Botswana Lourdes Adriana Medina Gaona Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico Manas Pustake

Grant Government Medical College, Mumbai, India Marcel Lucas Chee Monash University, Melbourne, Australia

Marina Shatskikh Royal College of Surgeons in Ireland, Irvine, USA Michael Tavolieri

University College Cork, School of Medicine, Ireland

Jorge E. Gomez-Marin, MD, MSc. PhD iversity of Quindío, Armenia, Colomb Juan C. Puyana, MD, FRCSC, FACS, FACCP

University of Pittsburgh, Pittsburgh, PA, US/ Juliana Bonilla-Velez, MD

University of Washington, Seattle, WA, USA Mark Zafereo, MD, FACS MD Anderson Cancer Center, TX, US

Matouš Hrdinka, MSc, PhD University Hospital Ostrava, Ostrava, Czech Republic

Mhairi Copland, MD, PhD, FRCP, FRCPath (UK), MRCP (UK) University Hospital Ostrava, Ostrava, Czech Republic

Vincent Kipkorir, BSc(H) University of Nairobi, Kenia

STUDENT EDITOR IN CHIEF

Duha Shellah, MD Palestine Academy for Science & Technology, Palestine

> Mohamed M Gad MD nent of Internal Medicine, Cleveland Clinic, OH, USA

Paul MacDaragh Ryan, MD, BCh, PhD Hospital for Sick Child

Rahul Kashyap, MD Mayo Clinic, Rochester, MN, USA

Srinivas Vinod Saladi, MD achusetts Eye and Ear Infirmary, Ha Medical School, MA, USA William C. Cho, PhD Queen Elizabeth Hospital, Kowloon, Hong Kong, China

JUNIOR ASSOCIATE EDITORS

Madeleine J. Cox. MD University of New South Wales, Sydney, Australia Sushil Dahal, MBBS Kathmandu University Hospital, Nepa

Moez Mohammed Ibrahim Bashir niversity of Khartoum, Faculty of Medicine, Khartoum, Sudar

Mohamed Hoosen Suleman University of KwaZulu-Natal, Durban, South Africa

Muhammad Romail Manan University of Health Sciences, Lahore, Pakistar

Nguyen Tran Minh Duc University of Medicine and Pharmacy, HCM, Vietnam

Nikoleta Tellios University College Cork, Cork, Ireland

Patricio Guillermo Garcia Espinosa

Pranjal Garg All India Institute of Medical Sciences, Rishikesh, India Purva Shah dical College, Baroda, India

Rahul Regi Abraham LSUHSC Shreveport, LA, USA

Randa Ahmed Abdalrheem University of Khartoum, Faculty of Medicine, Khartoum, Sudan

Rebecca Ndumba Murerva Richard Christian Suteja

Udayana University, Indones

Ron Hang-Long Li The University of Hong Kong, Hong Kong, China

Sebastian Diebel

Northern Ontario School of Medicine, Nairn Centre, Canada

Shuo-Yan Gau School of Medicine, Chung Shan Medical University, Taiwan Surobhi Chatterjee

King George's Medical University, Lucknow, India

Wah Praise Senyuy Faculty of Health Sciences-University of Buea, Cameroon.

Yusuff Adebayo Adebisi rsity of Ibadan. Ibadan. Nigeria

ANCILLARY POSITIONS

IN HOUSE WRITER

Diego Carrion Alvarez

ad de Monterrey, Mexico

Laeeqa S. Manji. China Medical University, China

EDITORIAL ASSISTANT MANAGERS

Ana Maria Morales. University of Valle, Colombia Natalia Galindo. Universidad Santiago de Cali, Colombia

SUPPORT COMMITTEE OF PUBLIC RELATIONS AND COMMUNICATIONS

DIRECTOR Preeyati Chopra. Government Medical College, Patiala, Punjab, India

GRAPHIC DESIGNER Mahfuza Anan. Bangladesh Medical College, Bangladesh

SOCIAL MEDIA MANAGERS LINKEDIN: Ahmed Nahian. INSTAGRAM: Purva Shah. TWITTER: Sajjad Ali. YOUTUBE: Rita Campo

PARTNERS

APSA NERC. American Physician Scientist Association, USA COIMAMA. International Academic Medical Congress of Maranhão, Brazil

COMAPI. Academic Medical Congress of Piaui, Brazil COMAU. Congress of Medical Students of Unicamp, Brazil

COMUMC. Congresso Médico Universitário De Mogi Das Cruzes, Brazi Connect MSC. Connect Medical Students' Congress, Brazil CSurgeries. USA

IMSCB. International Medical Students' Congress of Bucharest, Romania $YiiRs. \ {\it Yorkshire Imaging and Interventional Radiology Symposium}$ International

SaMED. International Medical Students' Congress Sarajevo

SCIENTIFIC EDITOR

Mihnea-Alexandru Găman, MD, PhD student "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

Ciara Egan, BSc Humanitas University, Milan, Italy

Atanas G Atanasov PhD h Academy of Sciences. University of Vienna, Austria

Bogdan Socea, MD, PhD

acy, Rom Cain C. T. Clark, BSc, MSc, PhD University Hospitals Coventry & Warwickshire, UK Camelia C. Diaconu, MD, PhD "Carol Davila" University of Medicine and Pharmacy, Romania Eshetu Girma, MPH, PhD Addis Ababa University, Ethiopia

Mohamed Fahmy Doheim, MBBCh(c)

Mohammad A. Khazeei Tabari, Medical student

University of Maryland School of Medicine, Baltimore, MD, USA

ndaran University of Medical Sciences, Ira Naidat Bazarbashi, MD

Alexandria University, Alexandria, Egyp

Sohaib Haseeb, BSc, MD(c)

Herney A. García-Perdomo, MD, MSc, EdD, PhD, FACS University of Valle, Cali, Colombia

IJMS INTERNATIONAL JOURNAL of MEDICAL STUDENTS

The International Journal of Medical Students (IJMS)

is an open-access, peer-reviewed scientific journal (ISSN <u>2076-6327</u>) that publishes original research in all fields of medicine. The Journal was created in 2009 to share the scientific production and experiences of medical students (*i.e.*, MBBS students, MD students, DO students, MD/MSc students, MD/PhD students, etc.) and recently graduated physicians from all over the world. Our objective is to be the primary diffusion platform for early-career scientists, using standards that follow the process of scientific publication.

The *IJMS* receives submissions where there is at least one author enrolled as a medical student in any medical school in the world or a recently graduated physician worldwide. For research articles, early-career scientists must be accompanied by a senior researcher that must be also responsible for the research, guaranteeing the quality of the work. We publish Original Articles, Short Communications, Reviews, Case Reports, Interviews, Experiences, and Letters, which follow an <u>innovative and unique two-step</u>, double-masked peer-review process, in brief:

The first step of revisions is carried out by two Student Editors (medical students with publications indexed in the US National Library of Medicine (NLM) with the supervision of an Associate Editor. The aim of this step is to improve the quality of articles and identify those that can proceed to external peer-reviews. The second step of revisions is carried out by external peer-reviewers who are researchers with publications indexed in the NLM related to the topic of the submission.

The time between submission and final publication in most cases has been two to four months depending on the diligence of Peer-Reviewers and Authors.

The *International Journal of Medical Students* is published online quarterly (March, June, October, December) by the <u>University of Pittsburgh Library System</u>, a member of the <u>Open Access Scholarly</u> <u>Publishers Association</u>, as part of its Pitt Open Library Publishing imprint.

The journal main office is located in the United States of America (USA). Any publication, dissemination or distribution of the information included in the Journal is permitted if the source is cited (*Int J Med Stud*).

The International Journal of Medical Students is indexed or abstracted in: Bielefeld Academic Search Engine (BASE), Dialnet Foundation (Dialnet), Directory of Open Access Journals (DOAJ), Directory of Research Journals Indexing, Elektronische Zeitschriftenbibliothek (EZB), e-Revistas, Geneva Foundation for Medical Education and Research, Google Scholar, Health InterNetwork (HINARI), Journal Seek Database, List of Publications that follow the International Committee of Medical Journal Editors (ICMJE), Mexican Index of LatinAmerican Biomedical Journals (IMBIOMED), NewJour, Open Academic Journals Index (OAJI), Online Computer Library Center (OCLC) WorldCat, Pubshub, Research Bible, Rubriq, SHERPA/RoMEO, Scientific Indexing Services (SIS), The e-Journal Gateway (J Gate), The Open Access Digital Library, Ulrich's International Periodical Directory/Summon by Serial Solutions.

The *JJMS* acceptance rate is 18% of the almost 350 annual submissions. Published articles in 2021 came from 32 different countries. The average days to a first decision is 14 days, 143 for acceptance, and 31 to decline a submission. The time between submission and final publication in most cases has been three to four months depending on the diligence of Peer-Reviewers and Authors.

The journal's website got over 75 thousand visits only in 2021. The *JJMS*'s reach includes a growing social media presence (more than 19,000 followers on <u>Twitter</u>, <u>Facebook</u>, <u>Instagram</u>, <u>YouTube</u>, and <u>LinkedIn</u>). Only in the last 2 years, the Journal has been visited from nearly every place in the world (+190 countries). You can find more of the *JJMS* statistics here.

The Journal and the Editorial Board are not responsible for the opinions expressed by the Authors of all materials published, nor do these represent the Official Policy or medical opinion of the Journal or the institutions with which they are affiliated unless otherwise stated.

Open Access Policy

This journal provides immediate open access to its content. Our publisher, the University Library System at the University of Pittsburgh, abides by the Budapest Open Access Initiative definition of Open Access to open access to peer-reviewed research literature as "(...) free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited."

Furthermore, we encourage authors to post their pre-publication manuscript in institutional repositories or on their websites prior to and during the submission process, and to post the Publisher's final formatted PDF version after publication. These practices benefit authors with productive exchanges as well as earlier and greater citation of published work.

There are no article processing charges, submissions fees, or any other costs required of authors to submit, review or publish articles in the IJMS.

Peer Review Process

All papers submitted to the International Journal of Medical Students will undergo a two steps peer-reviewers process. The first step of revisions is carried by two anonymous Student Editors who will work together with one Associate Editor. In the second step, the manuscript will be reviewed by two anonymous reviewers (Editorial Board members, Associate Editors and/or invited reviewers with expertise in the subject matter). Authors will remain anonymous to all the referees.

The *UMS* review process guarantees and supports the quality and validity of the work published at the *UMS*. Reviewers are given three weeks to complete their tasks.

Reviewers and editors are obliged to retain the contents as privileged and confidential until publication. The Editor in Chief and the Editorial Board will have final authority over an article's suitability for publication.

The *UMS* also strive towards the training of a new generation of Editors and Peer-reviewers promoting different training strategies among our Editorial Team that includes the <u>Web of Science</u> <u>Academy courses</u> and the <u>Committee on Publication Ethics (COPE)</u> courses available to its members (*UMS* is a member of COPE).

Archiving

This journal utilizes the LOCKSS system to create a distributed archiving system among participating libraries and permits those libraries to create permanent archives of the journal for purposes of preservation and restoration.

License



New articles in this journal are licensed under a Creative Commons Attribution 4.0 International License.

Editorial Office: 1400 Locust Street Suite 3103 Pittsburgh, PA 15219. United States of America (USA) Tel.: 413-232-7884 Fax: 412-232-8966

All full-text articles are available at: <u>www.ijms.info</u> e-ISSN 2076-6327 (Online)

The International Journal of Medical Students is licensed under a Creative Commons Attribution 4.0 International License. Issued in Pittsburgh, PA, USA.

International Journal of Medical Students

Year 2023 • Months Jan-Mar • Volume 11 • Issue 1

Int J Med Stud. 2023 Jan-Mar; 11(1)

	Page
Editorial	
Global Needs and Barriers for Medical Research Education: Initiatives to Solve the Physician- Scientist Shortage	9
Marc R. Schneider, Abdelrahman M. Makram, Esther Bassey, Mihnea-Alexandru Găman, Ciara Egan, Juan C. Puyana, Francisco J. Bonilla-Escobar.	
Original Article	
De-Epithelialization Protocol with Tapered Sodium Dodecyl Sulfate Concentrations Enhances Short-Term Chondrocyte Survival in Porcine Chimeric Tracheal Allografts Kevin Xiang Zhou, Fabio Gava Aoki, Alba Marin, Golnaz Karoubi, Siba Haykal, Thomas K. Waddell.	13
The Association of Blood Banks per City with Mortality Due to Traumatic Hemorrhagic Shock in Colombia: A Population-Based Analysis Alejandro Munoz-Valencia, Francisco J. Bonilla-Escobar, Juan C. Puyana.	22
Accuracy and Precision of Actigraphy and SMARTwheels for Measuring Push Counts Across a Series of Wheelchair Propulsion Trials in Non-disabled Young Adults Hunter Soleymani, Brenda Jeng, Beshoy Abdelmessih, Rachel Cowan, Robert W. Motl.	29
Beck's Depression Inventory II Suicidal Ideation in Medical Students – Prevalence and Associated Factors Lea Keuch, Lilith Pukas, Nadja Rabkow, Emilia Ehring, Tordis Kindt, Carolin Rehnisch, Angelina Pelzer, Patricia Lamlé, Stefan Watzke.	38
Medical Students' Attitudes and Influential Factors Towards Conducting Medical Research Bassam AlRajhi, Ibrahim Omer, Reema Abualnaja, Faisal Alqahtani, Alqassem Y. Hakami.	45
Short Comunication	
Contamination of Clinical White Coats with Potential Pathogens and their Antibiotic Resistant Phenotypes Among a Group of Sri Lankan Medical Students	52
Harshana Daraniyagala, Omesh Dahanayake, Amila Dasanayake, Pramod Dayarathna, Sevwandi Dayarathna, Kusal Dayasiri, Devmini De Silva, Sachie De Silva, Nipuni De Silva, Dinushi De Silva, Dinushika De Zoysa, Rasadani Dissanayake,	

Table of Contents

International Journal of Medical Students

Year 2023 • Months Jan-Mar • Volume 11 • Issue 1 Int J Med Stud. 2023 Jan-Mar 11(1)

Review	
Leadership Training in Undergraduate Medical Education: A Systematic Review	58
Mallory A. Evans, Eric J. James, Misa Mi.	
Case Report	
Myasthenia Gravis Exacerbation Following COVID-19 Vaccine: A Case Report Thoybah Yousif Ibrahim Gabralla, Hayat Abdoallah Ahmed Bashir, Omaima Abdalla Hajahmed Mohamed.	67
Windswept Deformity from Pseudogout: A Diagnostic Challenge of an Extreme Presentation, A Case Report	71
Yuki Julius Ng, Kauseliya Velanthren.	
Hypercoagulability and Cavernous Sinus Thrombosis due to Protein C Deficiency. A Case Report	76
Wilson S. Peñafiel-Pallares, Camila Brito-Balanzátegui, Jaime David Acosta-España.	
Experience	
Women in Science: A Student Workshop	80
Daniela C. Gonzalez-Cruz, Sofia Jezzini-Martinez, Paloma C. Leyva-Camacho, Ilse Janeth De la Rosa-Rodriguez, Andrea Flores-Rodriguez, Karina Raygoza-Cortez, Mariana Garcia-Leal.	
Acquiring Medical Statistical Competencies in a Demanding Evidence-Based World: Thoughts and Experience from a Student Statistical Team in a Mexican Academic Center	85
Carlos de la Cruz-de la Cruz, Humberto de León-Gutiérrez, Juan Manuel Millán-Alanís, Andrea Judith Bautista-Gómez, Braulio Hernán Velasco-Sepúlveda, Adrián González-Martínez, Neri Alejandro Álvarez-Villalobos.	
<i>"Passengers, May I Have Your Attention Please"</i> – The Airport Diaries of Young Covid-19 Warriors	88
Shweta Gajare, Alhad Mulkalwar.	
Letter to the Editor	
Navigating Research Enthusiasm in Medical Students Towards Clinically Impactful Articles	91
Muhammad Abdul-Qadeer, Danish Ramesh, Samar Mahmood.	
Errata	
Errata: Volume 10; Issue 4, 2022	93
Executive Committee of the International Journal of Medical Students.	