Global Cooperation to Support Undergraduate Student Research in the Health Sciences.

Magdalena Harakalova

Final Year Medical Student,
Pavol Jozef Safarik University in Kosice,
Faculty of Medicine,
Kosice, SLOVAKIA.

Viren Kaul

MBBS, Intern, Karnataka Institute of Medical Sciences, Karnataka, INDIA.

Noon Sharif

Graduate Medical Student, The Ahfad University for Women, Khartoum, SUDAN.

Please cite this paper as: Harakalova M, Kaul V, Sharif N. Global Cooperation to Support Undergraduate Student Research in the Health Sciences. AMJ, 2009, 1, 3, 1-8. Doi 10.4066/AMJ.2009.53

Society owes a great debt to medical researchers. Largely through the efforts of a small elite band of scientists, often working in difficult circumstances and sometimes making great personal sacrifices we have taken great strides in the battle against many common human ailments. The aetiology of peptic ulcers, Helicobacter pylori was discovered in Perth, Western Australia, the home of the *AMJ*. The work of a member of our editorial board, Ian Frazer, may lead to the eradication of cervical cancer. ^{1, 2} However the best known discoveries have been made by clinicians with few if any students involved in the research

project and yet there is a strong evidence that being research active as an undergraduate student is strongly correlated with remaining in research as a postgraduate. ^{3 -5} Therefore it is encouraging that in recent times, there has been growing interest among students in the laboratory and clinical disciplines to participate in robust scientific research and many of them are successfully publishing high quality papers as first authors. ⁶⁻¹¹ Students are also keen to have a voice in policy and decision making on health care issues and many are working to establish original programs of work. ¹² However there are still significant barriers to participation in medical research including the lack of support, mentorship and of course suitable forums to present and debate our work. ¹³

Therefore the burgeoning of 'Student Congresses' is to be welcomed. For the past few years students have been presenting their original work, nurtured by encouragement from peers and seniors. These conferences have also played a role in encouraging students to take up research by offering a supportive and encouraging environment. Most senior researchers build their careers on a long history of presentation and publication in peer reviewed forums. Reflecting on the 1990s one might be able to cite only a handful of international conferences where medical students had an opportunity to present their research projects in a bespoke forum. Today, dozens of high profile medical students' conferences are being held all across the globe, and nearly all share the goal of fostering research ideas and innovation with resonance across the globe. 14-28 Several platforms on the World Wide Web facilitate effective communication among students and delegates with unprecedented speed and efficiency .29-33 Thanks to these developments students have an excellent opportunity to interact with colleagues across continents.

But even in the face of this fantastic growth of opportunities, several pitfalls are apparent. The obvious is the increasing confusion amongst the student community about where to present their best work. Unlike the plethora of conferences dedicated to doctors, medical student conferences are not themed by specialty. ³⁴ Choice is therefore driven by the popularity of an event. This may help to drive the establishment of 'leading' conferences but it may simultaneously stifle local and smaller forums. The primary purpose of a conference is to promote a research culture at the grass roots level yet the burgeoning of larger and ever more popular conferences might extinguish this activity in a particular locality.

Some conferences are held in close proximity to others such that students are forced to choose the one that would best serve their needs. This issue is of ever increasing importance as we witness an exponential growth in the number of conferences on offer.

One important response might be to space the conferences throughout the year so that presenters can attend more than one in their locality. A critical problem therefore is the lack of co-ordination between the various conferences. Hope resides in the numbers of conferences that are now coordinating their programs with others. The impact of cooperation between organisers is that students are able to coordinate their diaries and plan their presentations more effectively with reference to interest, distance, finances, etc.

Unfortunately, competition still precludes significant cooperation and a turf war exists between some organisers.

The conferences have facilitated cooperation and fostered a shared sense of purpose among medical students internationally. Better organization has given the conferences a professional edge with highly successful researchers now rubbing shoulders with their junior colleagues. The students have been able to learn from experts in high quality workshops but also from one another. Above all conferences now contribute very significantly to goodwill and understanding across national borders. We therefore emphasize the need for even greater cooperation and call for an end to unhealthy competition. As conference leaders we can reflect on our own experience of competitive attitudes which might ultimately damage prospects for all students. ¹⁴⁻¹⁶ Our response is to foster partnership and remove the basis for mistrust and suspicion. We also propose the establishment of the ICU – International Conferences United. The ICU could foster collaboration between the conference organisers and promote the value of the increasing choices available to students across the globe.

As conference organisers we contacted each other regarding our respective conferences with a sense of unease, competition, and sometimes a tendency to one-upmanship. ¹⁴⁻¹⁶

However we quickly recognized that we had a lot of resources at our disposal that might be deployed to promote our respective causes but also leverage our networks to support each other. What started out with just two conference leaders getting together to co-ordinate public relations soon snow balled into a concerted effort with setting up of ambassadorships to various conferences, helping each other search for partners and assisting students across the world with the logistics to attend a conference abroad. Over the past few months, this approach has united the organizers of at least a dozen conferences, student associations and journals. Presently, the various conferences support each other in terms of not only

logistical support but also technical help such as website developing, and database management and brokering partnerships with journals such as the *AMJ* which is committed to supporting student work. ^{35,36} We believe that in a small way our efforts have made prospects brighter for all students in the health sciences. We maintain a stand against giving in to protectionism that may ultimately result in low delegate numbers threatening the viability of many conferences. It is a challenge for fledgling student ventures to succeed despite the lure of established annual events. We remain committed to fostering a 'can do' attitude because the prize includes a more effective student voice and growing interest in research.

References

- Marshall BJ and J. Robin Warren JR. Unidentified curved bacilli in hte stomach of patients with gastritis and peptic ulceration. The Lancet, 1984, 323, 1311-1315
- Frazer IH.HPV immunisation: a significant advance in cancer control. Gynecol Oncol.
 2007 Nov;107 (2 Suppl 1):S1. No
- Banting F.G. and Best C.H. The Internal Secretion of the Pancreas Journal of Laboratory and Clinical Medicine, 1922, 7 (5), 465-480
- Reinders J.J., Kropmans T.J. and Cohen-Schotanus J. Extracurricular research
 experience of medical students and their scientific output after graduation. Med
 Educ, 2005, 39, 237
- 5. Segal S., Lloyd T., Houts P.S., Stillman P.L., Jungas R.L., et al. The association between students' research involvement in medical school and their postgraduate medical activities. Acad Med, 1990, 65, 530–533.



- Cursiefen C and Altunbas A. Contribution of medical student research to the Medline-indexed publications of a German medical faculty. Med Educ , 1998, 32, 439–440.
- Lloyd, L. Bowel Symptoms: a survey at pharmacies in Western Australia. AMJ, 2009,
 1, 2, 1-15. doi10.4066/AMJ.2009.44
- 8. Mokry M., Joppa P., Slaba E., Zidzik J., Habalova V., Kluchova Z., Micietova L., Rozborilova E., Salagovic J., Tkacova R. Beta2-adrenergic receptor haplotype and bronchodilator response to salbutamol in patients with acute exacerbations of COPD. Med Sci Monit. 2008 Aug;14(8):CR392-8.
- Janssen SF, Twickler TB, Jublanc C, Cramer MJ and Bruckert E. Patients with the metabolic syndrome and a disturbed cortisol balance display more microalbuminuria. Diab Vasc Dis Res, 2008, 5 (1): 54-8
- 10. Mraz M., Malinova K., Kotaskova J., Pavlova S., Tichy B., Malcikova J., Stano Kozubik K., Smardova J., Brychtova Y., Doubek M., Trbusek M., Mayer J., Pospisilova S. miR-34a, miR-29c and miR-17-5p are downregulated in CLL patients with TP53 abnormalities. Leukemia. 2009 Jan 22. [Epub ahead of print]
- 11. Gál P., Toporcer T., Vidinský B., Mokrý M., Grendel T., Novotný M., Sokolský J., Bobrov N., Toporcerová S., Sabo J. and Mozes S. Postsurgical administration of estradiol benzoate decreases tensile strength of healing skin wounds in ovariectomized rats. J Surg Res. 2008, 147(1), 117-22.
- 12. Winnington A., Wyber R., Yang C. and Al Awami M. Medical students at an IPPNW World Congress: a growing force. Med Confl Surviv. 2007, 23(2):132-6
- 13. Aslam F., Shakir M. and Qayyum M.A. Why Medical Students Are Crucial to the Future of Research in South Asia. PLoS Med, 2005, 2(11): e322

- 14. International Student Medical Congress Kosice ISMCK, www.upjs.sk/ismck
- 15. Medicon, <u>www.informer.org.in</u>
- 16. International Online Medical Conference IOMC, www.iomc.ioksp.com
- 17. European Students' Conference ESC, <u>www.esc-berlin.com</u>
- 18. International Medical Students' Research Congress IMSRC, <u>www.imsrc.org</u>
- 19. National Student Research Forum NSRF (Texas), www.utmb.edu/nsrf/
- 20. Medicalis, <u>www.medicalis.ro</u>
- 21. International Student Congress Of Medical Sciences ISCOMS, <u>www.iscoms.nl</u>
- 22. International Medical Students' Congress Novi Sad IMSCNS, www.imscns.com
- 23. Zagreb International Medical Summit ZIMS, <u>www.zims.hr</u>
- 24. Shanghai International Nursing Conference, www.shinc.cn
- 25. Students' International Conference on Biomedical and Interdisciplinary Research, www.sicobair.com
- 26. Leiden International Medical Student Conference LIMSC, www.limsc.nl
- 27. Young European Scientist Meeting YES Meeting, www.yesmeeting.org
- 28. International Conference of Medical Students in Sudan, www.icoms09.com
- 29. Facebook, <u>www.facebook.com</u>
- 30. ResearchGate, www.researchgate.net
- 31. Google Groups, <u>www.groups.google.com</u>
- 32. Ning, <u>www.ning.com</u>
- 33. PBwiki, www.pbwiki.com
- 34. AllConferences.com, <u>www.allconferences.com</u>
- 35. Jiwa M. and Millet S. Do we need a new forum for researchers? AMJ 2008, 1, 1-6. Doi 10.4066./amj.2008.22

36. Rhodes J, Sargant S. Introducing the Student Advisory Board. AMJ, 2009,1,2,1-4. Doi 10.4066/AMJ.2009.45