

---

## REMOTE CONFERENCES IN PARASITOLOGY AND ENTOMOLOGY DURING THE PANDEMIC: ELIMINATE OR MAINTAIN IN A POST-PANDEMIC WORLD? THAT IS THE DILEMMA!

---

*Fernando Ariel Genta<sup>1,2</sup>, Martin Miguel Edreira<sup>3</sup> and Marcel Ivan Ramirez<sup>4</sup>*

### ABSTRACT

The COVID-19 pandemic brought enormous challenges for health, scientists and academic world two years ago. Social isolation and the inabilities of face-to-face activities generated the emergence of many educational and scientific initiatives. Remote activities gave information and brought company and affection to people which allowed students and professionals from different parts of the world to integrate. In this report we are showing the experience from three initiatives in South America of scientific dissemination in infectious diseases. We discuss the scope of having a permanent practice for access and integration in science using remote communication, which can give great benefits in unequal societies.

KEY WORDS: E- learning; conferences; seminars; pandemic; webinars; parasitology.

### INTRODUCTION

Scientific seminars are the approach to publicize results and ideas within a scientific group and to other groups of the same department or institution. At other times, a more general audience could be reached when seminars are part of presentations within scientific societies or activities within workshops or congresses. These scientific discussions are not only essential to spread the scientific work but more importantly, maximize collaborations, requests for funding, jobs opportunities, manuscripts publishing, and other opportunities. The dramatic advance of the pandemic in the last two years, with the sudden cessation of face-to-face activities and the imposition of

---

1. Instituto Oswaldo Cruz, Fiocruz, Rio de Janeiro, Brazil.

2. Instituto Nacional de Ciência e Tecnologia em Entomologia Molecular (INCT-EM), Rio de Janeiro, Brazil.

3. IQIBICEN, CONICET-Universidad de Buenos Aires, Ciudad de Buenos Aires, Argentina.

4. Instituto Carlos Chagas, Fiocruz PR, Curitiba, Brazil.

Corresponding author: Marcel Ivan Ramirez. E-mail: marcel.araya@fiocruz.br; marcel.ivan.ramirez@gmail.com

Martin Miguel Edreira ORCID: <https://orcid.org/0000-0002-9120-2649>; Fernando Ariel Genta ORCID: <https://orcid.org/0000-0001-9558-1116>; Marcel Ivan Ramirez ORCID: <https://orcid.org/0000-0002-6917-1954>

Received for publication: 27/5/2022. Reviewed: 25/10/2022. Accepted: 13/11/2022.

social isolation due to cases and deaths' increased from COVID-19, made the scientific community react new forms of communication and online activity rapidly emerged (Woodruff et al., 2021, Rossi et al., 2021).

One of the significant advantages of virtual seminars and conferences for remote learning is to integrate people from different locations worldwide through online meetings.

Global initiatives given by traditional scientific communities and societies were organized to maintain their activities remotely. Global ImmunoTalks, Immunometabolism Mini-Symposia series, the scientific organizers of the Transforming Vaccinology Keystone, EcoSeminars at the University of California, and others worldwide allowed the dissemination of science during the pandemic (Albéniz et al., 2021; Houston, 2020; Khan, 2021).

The scientific communities in parasitology and entomology, with a strong tradition in the southern cone of Latin America, also reacted spontaneously to lockdown and social isolation challenge and carried out different initiatives and activities as described below.

#### *Parasitology webinars series “Desde el living”*

Organized by Dr. Martin Edreira, “Desde el Living” (“From the living room”) was a two-season webinars personal initiative, with season one running every Friday from June to December 2020 and season 2 every other Friday from April to November 2021.

The first season, the series had 22 speakers (12 female, 9 male) from 8 different countries (Argentina, Brazil, England, France, Scotland, Switzerland, Uruguay, USA) and around 50 participants from different parts of the world per session.

In the second season, 14 speakers from 6 different countries (Argentina, Brazil, Scotland, Sweden, Uruguay, Venezuela) participate, but unfortunately less participants per session.

The idea of the series was to meet new people and old friends getting to know the work of scientists around the world in a relaxed and informal environment through the lockdown. To this end, a wide range of parasitology topics was covered in talks given by post-docs, young investigators, and established principal investigators.

#### *“Seminários internacionais em doenças crônicas e infecciosas”*

Seminars on chronic and infectious diseases were coordinated by Marcel I. Ramirez and organized through a doctoral program of the Federal University of Parana with the adhesion of various Brazilian institutions and allowed to integrate students from other countries of Latin America.

Outstanding international researchers from Brazil, North America, and Europe, from 18 different institutions, presented seminars characterized by the multidisciplinary topics and strategies on chronic and infectious diseases with immunological, pharmacological, biochemical, cellular, and molecular biology points of view. To energize the seminars, we had different moderators at each session.

The seminar proposed to give companionship and affection during the most challenging moment of the pandemic. It was a 90-120 minutes online meeting, longer than the usual ones. In addition to the scientific content around 60 minutes, we reserved one third of the seminar to deconstruct the researcher, humanizing his participation. Questions about hobbies, life trajectory, and positions regarding immigration and health policies allowed us to see the breadth of knowledge and experience of those selected.

To facilitate understanding, the seminars are available on the Youtube channel (EVAHPI Chanel at [https://www.youtube.com/channel/UCA-eOY6ZdlDMVzgpZDvBI\\_g](https://www.youtube.com/channel/UCA-eOY6ZdlDMVzgpZDvBI_g)), and weekly we have asked questions in digital questionnaires to the students about theoretical and motivational topics that emerged in the seminars. In this way, we manage to give hope and knowledge during the pandemic.

### *“Arthropodium”*

Professors Pedro Lagerblad Oliveira (UFRJ), Carlos Logullo (UFRJ), Itabajara da Silva Vaz Jr (UFRGS), and Fernando Ariel Genta (Fiocruz) coordinated the Arthropodium seminars series. Its main goal was to assemble the researchers and the students from the National Institute of Science and Technology for Molecular Entomology, a consortium of approximately 100 researchers, mainly from different regions of Brazil, with some collaborators from overseas. The seminars consisted of a presentation from the invited speaker, focused on state of the art in its speciality, followed by questions and discussion with the audience. The meetings were conducted on the platform Zoom and allow free conversation among the speaker and audience and later broadcasted on the YouTube channel of the Institute (<https://www.youtube.com/c/INCTemEntomologiaMolecularINCTEM>) after the speaker authorization. Some of the presentations were not posted, mainly due to the display of non-published data. The Institute used the seminar window to have internal meetings and to discuss internal initiatives, policies, and budgets in three opportunities. At least 65 seminars were performed and published online. Most of the presentations were from Brazilian researchers. Still, some speakers were also from the US, UK, Pakistan, Portugal, and the Czech Republic. The themes were mainly focused on arthropod vectors of diseases, including several research fields, like molecular biology, behaviour, physiology, structural biology, biochemistry, host-pathogen interaction, chemical control,

surveillance, and vaccines. However, discussions about teaching, public engagement, dissemination of science, and industrial property were also included. The live audience ranged from 30 to 150 people, and the lectures on YouTube have had 4,700 visualizations so far.

*“Brazilian Congress of Parasitology and Webinars of the Brazilian Society of Parasitology”*

Another 2 important remote events were promoted by the Brazilian Society of Parasitology (SBP), which had great repercussion among scientists and students working on parasitology. The first was the XVII Brazilian Congress of Parasitology that took place in May, 2021, completely virtual, with speakers from different parts of the world and with around 1,000 subscribers participation. The other event were the webinars promoted by the SBP that took place in 2020 and 2021, where 40 webinars were presented with approximately 80 presentations with an average of 100 participants per seminar and more than 4,000 views through the SBP You Tube channel. Data from these 2 activities can be found on the SBP website, and the webinars are available at [https://www.parasitologia.org.br/conteudo/view?ID\\_CONTEUDO=452](https://www.parasitologia.org.br/conteudo/view?ID_CONTEUDO=452).

## DISCUSSION

During the pandemic, there were moments of great uncertainty with social isolation, face-to-face activities suspension, and cases and deaths increase due to COVID 19. The academic world responded with the organization of seminars and webinars, which allowed to satisfy local communication need between students and researchers of the same groups, of the same department and university. The most exciting perspective was when initiatives allowed us to transcend barriers of the institution and contact researchers and students from other institutions, from different regions on the country, and other countries, some of them very distant.

Permissive accessibility, with the use of various platforms and technologies, was integrated to combat the pandemic, with an increase in the knowledge of remote transmissions, as an effervescent communication in science as never seen before. Local, regional, and international webinars emerged in different areas of expertise worldwide. Here, we are showing our experience in neglected diseases, with a greater focus on parasitology and insect-borne diseases in the Southern Cone of Latin America.

The connection with researchers from other continents and students scattered in different regions of South America was exciting. In addition to the free access and communication, researchers and students had direct connections, enabling new collaborations and job opportunities. Free seminars

and workshops as low-cost congresses appeared as alternatives for many people. Reduction in travel expenses and tuition facilitated the integration of students and researchers in regions of economic inequality and with lower purchasing power as most of Latin America.

The initiatives were valuable from the academic point of view since many webinars were recorded and available for later viewing on different platforms. Students received high-quality seminars, they were able to meet researchers, and even learned in detail using the advantages of technology. Besides that, the seminars were available for professors that have used these presentations in undergraduate and graduate courses, resulting in an important contribution to teaching of parasitology.

Difficulties encountered in the seminars were internet security issues with interference from hacker groups and other problems such as those related to the inconvenience of remote contact without being able to create the atmosphere of a face-to-face seminar.

## CONCLUSIONS

One of the difficulties that science encounters is identification with society. The pandemic brought many behavioral changes, some very positive in disseminating science, including the ability to access and integrate different groups in online seminars and workshops.

With the significant economic inequalities and the cuts in investments in education and science in Latin America, all kinds of scientific remote activity represent a hope of universal access, integrating large groups of students and researchers. Science has been the way out of the pandemic with various vaccines and research strategies aiming to control the global public health problem.

It is the time to defend the dissemination of science, access to quality education, and strengthen contacts between students and researchers. Even when interest in online seminars decreased after the relief of the lock down and social isolation around the globe, mainly because scientists returned to their labs, we think webinars should remain to give universal access to knowledge to large groups of scientists and students especially in Lower and Middle Income Countries.

Perspectives – online or hybrid meetings will probably be included as a tool for enlarging the scope of a group or institutional seminars, and permanent capacity for that should be built. Strategies for the participation of students or the general public must be developed with a good perspective to get people closer to the specialized scientific forums.

## ACKNOWLEDGMENTS

Authors would like to thank all speakers that kindly took part in the webinars. This study received support from Fiocruz, FAPERJ, UFPR, CNPq, and CAPES. M.I.R is currently fellow from CNPq-Brazil.

## CONFLICT OF INTEREST

The authors declare that there is no conflict of interest to disclose.

## REFERENCES

1. Albéniz E, Rosón P, Hernández-Villalba L, Enguita M. (2021) Stay Connected and Up To Date: GI Meetings and Seminars and the Coronavirus Disease 2019 Pandemic. *Tech Innov Gastrointest Endosc* 23: 207-211, 2021.
2. Houston S. Lessons of COVID-19: Virtual conferences. *J Exp Med* 217: e20201467, 2020.
3. Khan MA. COVID-19's Impact on Higher Education: A Rapid Review of Early Reactive Literature. *Educ Sci* 11: 421, 2021.
4. Rossi IV, de Lima JD, Sabatke B, Nunes MAF, Ramirez GE, Ramirez MI. Active learning tools improve the learning outcomes, scientific attitude, and critical thinking in higher education: Experiences in an online course during the COVID-19 pandemic. *Biochem Mol Biol Educ* 49: 888-903, 2021.
5. Woodruff P, Wallis C, Albers P, Klaassen Z. Virtual Conferences and the COVID-19 Pandemic: Are We Missing Out with an Online Only Platform? *Eur Urol* 80: 127-128, 2021.