Note

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WITH STRONG PRESENCE AT THE SECOND SOUTHERN SCIENCE CONFERENCE: A HISTORY OF EXCELLENCE IN EDUCATION AND RESEARCH

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ABSTRACT

Background: The Second Southern Science Conference (SSCON 2024) represents a significant milestone in international scientific collaboration, bringing together researchers from twelve nations across multiple continents. The conference, held in Mendoza, Argentina, and co-hosted by the University of Vassouras in Brazil, marked both the 64th anniversary of Universidad de Mendoza and the 20th anniversary of Periódico Tchê Química, demonstrating the growing importance of cross-border academic partnerships. Aim: This study aimed to document and analyze the outcomes and impact of the Second Southern Science Conference, focusing on participation metrics, collaborative patterns, and institutional contributions while highlighting the significance of the hybrid format in facilitating global scientific dialogue. **Methods**: The analysis involved quantitative assessment of conference participation metrics, including the number of approved papers, author distributions, and institutional representation. The study examined participation patterns across countries and institutions, analyzing collaboration trends through statistical data visualization and comparative analysis of submission rates. Results: The conference achieved significant participation metrics with 66 approved papers and 247 contributing authors, averaging 4 authors per paper. The Universidad Nacional de Córdoba emerged as the leading institution, showcasing its 4 centuries legacy of academic excellence. The analysis revealed strong representation from Latin American institutions, with Brazil and Argentina leading in submissions. Most papers involved 2-5 collaborators, indicating effective research collaboration patterns. Over 500 people participated in the event through both inperson and virtual attendance options. Discussion: The hybrid format successfully facilitated broader international participation and knowledge exchange, which is particularly beneficial for addressing contemporary global challenges. The strong showing from Latin American institutions highlights the region's growing influence in international scientific discourse. The conference's interdisciplinary nature fostered new collaborative initiatives and research partnerships. Conclusions: The conference demonstrated the effectiveness of hybrid international scientific events in fostering global collaboration and knowledge exchange. Areas for improvement were identified, including extended submission timelines and establishment of a permanent management committee. The success of this edition supports the planning of future iterations, with the next edition scheduled to be held in Vassouras, Rio de Janeiro.

Keywords: Scientific conference, international collaboration, hybrid events, academic research, Latin American science.

1. INTRODUCTION

The Second Southern Science Conference (SSCON 2024) was held in Mendoza, Argentina, from November 7th to 9th, 2024, with co-hosting in Brazil by the University of Vassouras. This hybrid event brought together researchers from twelve nations across multiple continents. The conference marked both the 64th anniversary of Universidad de Mendoza and the 20th anniversary of Periódico Tchê Química, a publication dedicated to promoting scientific and technological advancements.



Figure 1: Participating Countries in the SSCON 2024 - Argentina, Brazil, Georgia, India, Iraq, Ireland, Mexico, Nigeria, Portugal, Russia, Spain, United States, and France.

2. Conference Committees

The Second Southern Science Conference (SSCON 2024) was led by a distinguished group of researchers and professionals from multiple countries, bringing together an exceptional team of academic leaders to organize and guide this international scientific event.

International Organizing Committee

A diverse and accomplished group of academics and researchers led the conference organization:

1. Conference Chairs:

- Dr. Cristián Andrés Quintero (Argentina, Universidad de Mendoza/Universidad Juan Agustín Maza)
- o Dr. Cristiane de Souza Siqueira Pereira (Brazil, University of Vassouras)

2. Co-Chairs and Key Organizers:

- o Dr. Walter José Peláez (Argentina, INFIQC-CONICET-FCQ-UNC)
- o Dr. Ketevan Kupatadze (Georgia, ISU)
- o M. Sc. Shaima R. Banoon (Iraq, University of Misan)
- Dr. Luis Alcides Brandini De Boni (Brazil, A.S.A. General Secretary and Event Treasurer)

3. Additional Key Organizers:

- o Dr. Paulo Roberto Barros Gomes (Brazil)
- o Dr. Olubunmi Atolani (Nigeria)
- o Dr. Joan Josep Solaz-Portolés (Spain)
- o Dra. Yolanda Echegoyen-Sanz (Spain)

Local Organizing Staff

Mendoza Host City

- Dr. Noelia Ceballos
- Dr. Patricia Camargo
- Lic. Federico Velazco Montagna
- Dr. Luis Alcides Brandini De Boni
- Paula Cambuli Bianchi
- Agostina Perlbach
- Agustina Quiroga
- Bioq. Andrés González
- Micaela Cabrini
- Abril Videla
- Paloma Rosas

Vassouras Host City

- Dr. Cristiane de Souza Sigueira Pereira
- Dr. Paloma Martins Mendonçais
- M.Sc. Leonardo Feijó Silvestre Mattos
- Larissa Funayama Morra
- Rafael Cardoso
- Sergio Gurito de Carvalho
- Ana Beatriz de Andrade Pereira
- M.Sc. Renata Costa Albuquerque

Scientific Committee

The scientific committee comprised over 60 distinguished researchers from various countries, representing institutions such as:

- University of Kerbala, Iraq
- I. M. Sechenov First Moscow State Medical University, Russia
- Federal Rural University of Rio de Janeiro, Brazil
- University of Vassouras, Brazil
- Nuclear and Energy Research Institute, Brazil
- National University of Córdoba, Argentina
- University of Valencia, Spain
- Ilia State University, Georgia
- And many more international institutions

The conference brought together experts from diverse fields, including environmental sciences, medical research, chemical engineering, biotechnology, and science education, truly embodying the spirit of international academic collaboration.

3. Main Themes and Speakers

The conference covered a comprehensive range of topics, including:

- Food Production and Security
- Energy Production and Sustainability
- Environmental Sciences and Resource Management
- Drug Production and Development
- Production Without Waste
- One Health Approach
- Science Education

Distinguished speakers at this significant international event included, among other eminent researchers and scholars:

- Dr. Mayná Coutinho (Brazil) Environmental Engineering and Sustainability
- Dr. Miguel Walter Fornes (Argentina) Reproductive Health Research
- Dr. Bhavna Ambudkar (India) Electronics and Telecommunications
- Dr. Juliana Gracieli Rezende (Brazil) Water Resource Management
- Dr. Élcio Jeronimo de Oliveira (Brazil) Engineering and Space Technology
- Dr. Nancy Fabiana Ferreyra (Argentina) Nanomaterials and Biosensors
- Dr. Peter Andrew McCullough (USA) Medical Sciences

The complete list of speakers is available in the book Proceedings of the II Southern Science Conference - Book A



Figure 2: Cover page of the Proceedings of the II Southern Science Conference - Book A

Authors per Paper Distribution

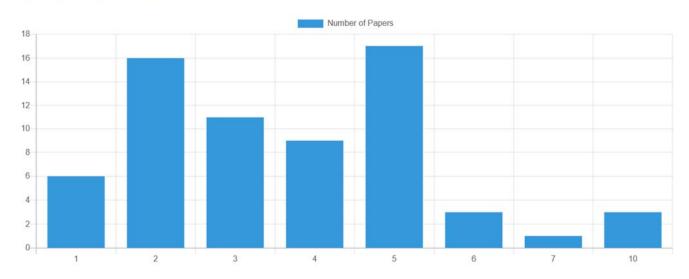


Figure 3: Distribution of Authors per Paper



Figure 4: Cerro de la Gloria monument located in Mendoza, Argentina.

The event at Universidad de Mendoza provided an excellent opportunity for professionals from diverse fields to meet and exchange experiences. The combination of in-person and virtual attendance options created a dynamic environment for knowledge sharing and networking. The historical setting of Mendoza, coupled with the university's modern facilities, provided an ideal backdrop for meaningful scientific discussions and collaboration building. Participants particularly valued the interdisciplinary nature of the interactions, which led to several new collaborative initiatives being proposed during the conference.

4. Results and Participation Analysis

Top 10 Countries

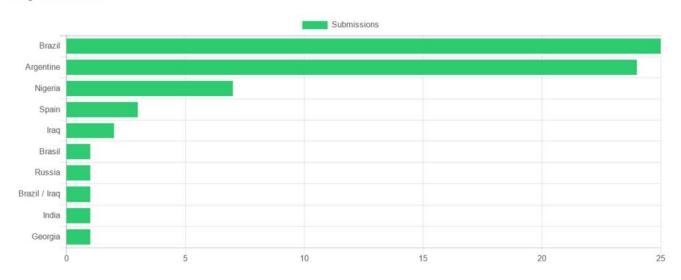


Figure 5: Top 10 Countries by Number of Approved papers

Top 10 Institutions

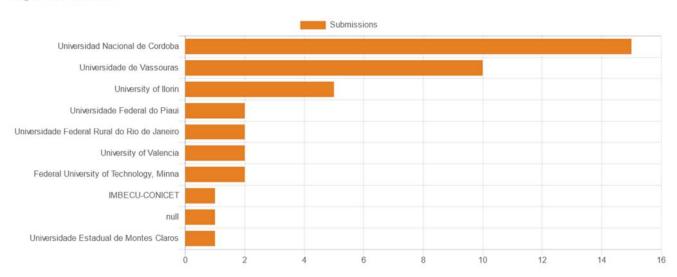


Figure 6: Top 10 Institutions by Number of Submissions

A notable highlight was the participation of the Universidad Nacional de Córdoba (UNC), which showcased its more than 400-year tradition in education and research. As Argentina's oldest university and one of the first established in the Americas, UNC emerged as the leading institution with the highest number of accepted papers, demonstrating its longstanding commitment to academic excellence.

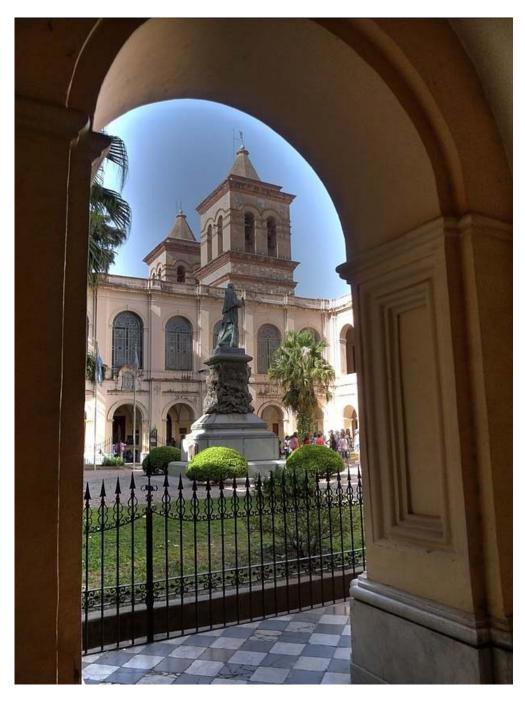


Figure 7: Universidad Nacional de Córdoba (UNC).

Source: Charliemoon ar. (2012, September 6). Compañia de Jesús vista desde el patio del Rectorado de la Universidad Nacional de Córdoba [Photograph]. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Compañia_de_Jesús_vista_desde_el_patio_del __Rectorado_de_la_Universidad_Nacional_de_Córdoba.jpg

The conference achieved significant participation metrics:

- 66 approved papers
- 247 total contributing authors
- Average of 3.7 authors per paper
- Most papers involved 2-5 collaborators
- Strong representation from Latin American institutions
- Over 500 people were involved in the event

5. Conference Program Details

Venue Details

- Main Location: Universidad de Mendoza
- Address: Boulogne Sur Mer 683, CP 5500, Mendoza, Argentina
- Main Conference Room: Facultad de Ciencias Médicas-Aula Magna "Dr. René Favaloro"

Conference Format

The event was conducted in hybrid mode with both in-person and virtual sessions:

Virtual Access

- Room A: (Virtual)
- Room B: (Virtual)
- Physical venue: Aula Magna Dr. René Favaloro

Program Overview

The conference spanned three days (November 7-9, 2024) featuring:

Day 1 (November 7th)

- Opening Ceremony (09:30-10:00)
- Technical Sessions:
 - o Intracellular transport to environmental science
 - Chemical Engineering Lab Tour in Vassouras Univesity (in-person only)
 - o Institutional Journals Summit
 - International Relations meetings
- Parallel Sessions (Rooms A & B):
 - o Bioengineering and materials science
 - Medical research and biotechnology
 - Environmental sustainability
 - o Chemical processes and development

Day 2 (November 8th)

- Environmental and water resource management
- Medical and biological research presentations
- Scientific writing and publishing workshop
- Extended programs:
 - Biotechnology
 - Health Sciences
 - Regional development and sustainability

Day 3 (November 9th)

- Academic entrepreneurship session
- Medical research presentations
- Closing ceremony and future announcements
- Networking sessions



Figure 8: Cultivating new ties of friendship between Brazil and Argentina.

The conference not only featured the expertise of seasoned researchers, but also demonstrated a strong focus on the future of science. As evidenced by the Figure 8, the organizing team included both experienced academics and enthusiastic young assistants, such as Luisa and Vera, who were actively involved in the conference.

The presence of these energetic young participants, who seemed to balance their excitement for learning and playing, underscores the conference's commitment to fostering the growth and development of the next generation of scientists. By engaging children and students in the proceedings, the organizers ensured that the event cultivated an inclusive and collaborative atmosphere, one that will inspire the future leaders of the scientific community. The intergenerational teamwork showcased in this image exemplifies the conference's holistic approach to advancing scientific progress.

Program Statistics

Format: Multiple simultaneous tracks

Rooms: 3 concurrent virtual rooms (A, B, and C)

Languages: EN, PT, ES

Speakers: Over 30 expert presentersSessions: 30-minute average duration

Networking: Extended breaks between sessions

6. Conference Impact and Future Directions

The conference successfully combined in-person and virtual attendance options, enabling broader international participation and knowledge exchange. This hybrid format proved effective in facilitating global scientific collaboration while addressing critical contemporary challenges.

Areas identified for improvement include:

- Extending the timeline between submission deadlines and event start
- Establishing a permanent event management committee
- Planning the next edition to be held in Vassouras, Rio de Janeiro

The event demonstrated the growing importance of international scientific collaboration in addressing global challenges while highlighting the significant contributions of Latin American institutions to various fields of research.

7. Contact Information

For additional details of the conference:

E-mail: information@sscon.orgWebsite: www.sscon.org

8. DECLARATIONS

8.1. Study Limitations

The note is limited to its content.

8.2. Acknowledgements

The author is highly grateful for the opportunity to participate in the conference and to the organizing institutions for their dedication and hard work.

8.3. Funding source

The author funded this note.

8.4. Competing Interests

The author participated in the conference and was extremely well-received in Argentina. Therefore, this amazing impression may have limited his judgment.

8.5. Open Access

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8.6. Al Usage Declaration

This manuscript was developed with the assistance of artificial intelligence tools. Specifically, Claude AI (Anthropic) was used to help organize and structure the content. All information and data presented are accurate and were verified by the author, with the AI serving only as a writing and organization aid. The final content, analysis, and conclusions were reviewed and validated by the author to ensure the accuracy and integrity of the scientific reporting.

8.9. Image Consent Statement

I hereby declare that consent for the use of children's images, in Figure 8, has been obtained from their legal guardians, in compliance with the Brazilian Children and Adolescent Act. The guardians have been duly informed about the use, purpose, and distribution of the images, and have expressed their agreement through formal signed authorization.

Name of project/research coordinators: Dr. Luis A. B. De Boni; Dr. Noelia Ceballos.