

JLASC
Journal of Latin American
Sciences and Culture

“JLASC promotes the Science Culture Construction (SCC), and the exchange of knowledge. It fosters the sharing of information that echoes on the construction of a community of shared future for mankind.”

Editorial TeamJournal of Latin American Sciences and Culture (JLASC)

“JLASC is open to the world. It crosses the geographic, cultural and linguistic barriers. Popularizing science can contribute to the development of society and improve the well-being and well living of people in harmony with nature.”

Prof. Dr. Marco A. Cabero Z.Editor-in-ChiefJournal of Latin American Sciences and Culture (JLASC)

JLASC
Journal of Latin American
Sciences and Culture
《拉丁美洲科学与文化》



ISSN 2788-8991

Editor-in-Chief:

Marco A. Cabero Z. – Andean Road Countries for Science and Technology (ARCST).

Associate Editors:

Sylvain Eimer – Beihang University (BUAA), China.

Javier Ibanez-Guzman – Renault Research Division, France.

Eduardo Vega A. – Instituto Politécnico Nacional (IPN), Mexico.

Edgar Ramos S. – Universidad Privada del Valle (UNIVALLE), Bolivia.

Wang Xinsheng – Beihang University, China.

Jasivia Gonzales Rocabado – Museum of National History, Bolivia.

International Advisory Board Member:

Linda Wong – Deputy Secretary-General of China Biodiversity Conservation and Green Development Foundation (CBCGDF)

Zhou Jinfeng – Secretary-General of China Biodiversity Conservation and Green Development Foundation (CBCGDF)

Li Yan – Renmin University of ChinaVioletta Bushanova – Beihang University (BUAA), Kazakhstan.

Luan Henrique – Geospace Technology, Brazil.Rodrigo Gantier – Shang Jia Tong University, China.

Jose A. Aponte – Universidad Pedagogica Experimental Libertador (UPEL). Venezuela.

Grisel Jimenez – Universiti Teknologi PETRONAS (UTP), Malaysia.

Gabriela Conde S. – Max Schreier Planetarium of Universidad Mayor de San Andrés (UMSA), Bolivia.

Elyka Abello – Innova Space, Venezuela.

Gabriel Xiao-Guang Yue, China.

Managing Editor Latin America:

Ivonne Rojas -Universidad, Privada del Valle (UNIVALLE), Bolivia.

Graphic Arts:

Luis Marco Fernandez Sandoval Universidad, Privada del Valle (UNIVALLE), Bolivia.

Assistant Editors:

Rafaela M. Molina V. – Coordinator of the Southern Cone Conservation Chapter of the Society for Conservation Biology (SCB), Bolivia.

Shantel Guillaume – Andean Road Countries for Science and Technology, France.

Clara Zhang – University of the Chinese Academy of Sciences, China.

Kornikova Miroslava – Andean Road Countries for Science and Technology, Russia.

Paola Guañuna – Beijing Normal University, China.Reviewer's committeeMoises Tejocote Perez, Universidad Autonoma del Estado de Mexico (UNAM).

Pierre Vallobra, Beihang University, China. Julián David Salcedo Mosquera, Unidad Central del Valle del Cauca (UCEVA), Colombia.

José Guadalupe Chan Quijano, Universidad Autónoma de Guadalajara, Mexico.

María Stephania Aponte García, Unidad Central del Valle del Cauca (UCEVA), Colombia.

Israel Molina Romero, Hospital Universitari Vall d'Hebron, Spain.

Yuan Juhua, South China Agricultural University, China. Byron Galarza, Consultoria empresarial, Ecuador.

Jasivia Gonzales, Consultant in Natural Sciences-Biology: botany, conservation and management of natural resources, Ecuador.

Ojeda S. Mary L., Universidad Central del Valle del Cauca – Tuluá. Perez C. Jose G., Universidad Central del Valle del Cauca – Tuluá .

Nora Lizarro Guzman, Universidad Privada del Valle (UNIVALLE), Bolivia.

Journal of Latin American Sciences and Culture,

Li Yan, Renmin University, China.

Claire BillotMedico, Fundación CEADES, Bolivia.

Juan Manuel Balderrama, Universidad Privada del Valle (UNIVALLE), Bolivia.

Abrahan Matias Arnez, Tropical Medicine & Medical Entomology BMES, Guatemala.

Wang Teng – Beijing Changfeng Information Technology Industry Alliance International Department, China.

Jose A. Aponte – Universidad Pedagogica Experimental Libertador (UPEL). Venezuela.

Guo Jiayun – Capital University of Economics and Business, China. Gerson Cuba – Beihang University.

Sherry Xu – University of New South Wales, Australia.

Luan Henrique – Geospace Technology, Brazil.

Oscar A. Nalvarte Cuadros Q., Natural English, Bolivia.

Elyka Abello – Innova Space, Venezuela.

Shasha Liu – China LEYA Cultural Communication Center/Could., Ltd.

Martin I. Valenzuela P. – Industrias Belen SRL, Bolivia.

University authorities

M.Sc. Gonzalo Ruiz Ostría
Presidente

Diego Villegas Zamora, Ph.D.
Academic Vice President

M.Sc. Sandra Ruiz Ostría
Vice-President for Social Interaction

M.Sc. Franklin Nestor Rada
Academic Vice President of the La Paz Branch

M.Sc. Antonio Carvalho Suarez
Academic Vice President Santa Cruz Branch

MBA Carlos Torricos Merida
Academic Vice President Sucre Branch

M.Sc. René Monk Morant Academic Vice President Trinidad Branch

M.Sc. Jorge Ruiz de la Quintana
National Research Director

Lic. Daniela Zambrana Grandy
General Secretary

The content of the articles published in this edition are sole responsibility of the authors.

The views don't necessarily reflect those of the Publisher or the Journal.

Publisher Information

<https://revistas.univalle.edu/index.php/jlsc>

Universidad Privada del Valle (UNIVALLE).
Tel: (591) 4 – 4318800. Fax: (591) 4 - 4318886.
Tiquipaya University Campus.
Guillermina Martínez Street, w / n, Tiquipaya.
P.O. Box 4742.Cochabamba, Bolivia