



Julio Altamirano Barrera, Ph.D.

Associate Professor.

School of Medicine,

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Research Areas:

- Physiology and Biophysics of excitable cells.
- Calcium signaling dysregulation and its role in altered metabolism, arrhythmias and contractile dysfunction of the heart.
- Ion channels and cell electrophysiology.
- Molecular markers of cancer.

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Dr. Julio Altamirano Barrera obtained, with honors, his bachelor's degree in Biology, at the Faculty of Sciences of the National Autonomous University of Mexico in 1993. He obtained his Ph.D. degree in Cell and Molecular Physiology at the Department of Biophysics of Loyola University Chicago, United States in 2004. He performed postdoctoral studies at the department of Biophysics of Loyola University Chicago, United State, from 2004 to 2005. The American Heart Association awarded him a fellowship to perform postdoctoral training at the Institute of Biotechnology from the University of Maryland at Baltimore, from 2005 to 2009. In 2009 he was hired as assistant professor at the School of Medicine, Tecnológico de Monterrey.

He has published 19 articles in specialized journals and has graduated five Master in Sciences and one Doctor in Sciences. His research at the Tecnológico de Monterrey is focused in the study of the molecular mechanisms of the alterations in calcium signaling that underlie important pathologies, such as cardiac failure and ventricular arrhythmias. His research develops in animal models of chronic-degenerative diseases that affect the heart and applies state of the art biophysical and molecular techniques, including confocal microscopy and cellular electrophysiology.

Dr. Altamirano is a member of the Biophysical Society of the United States, since 1994, and is a member of the National System of Researchers (Level 1) of the National Council of Science and Technology.

Most recent publications:

1. 2016;Cancer cell specific cytotoxic effect of Rhoeo discolor extracts and solvent fractions. ISSN: 0378-8741,García-Varela R, Ramírez OR, Serna-Saldivar SO, **Altamirano J**, Cardineau GA., Journal of Ethnopharmacology, Vol.190, Pag.46-58, Revistas Arbitradas ,
2. 2016;Role of SERCA and the Sarcoplasmic Reticulum Calcium Content on Calcium Waves Propagation in RatVentricular Myocytes. ISSN: 0003-9861, Ayleen Salazar-Cantú, Perla Pérez-Treviño, Dolores Montalvo-Parra,Jaime Balderas-Villalobos, Norma. L. Gómez-Viquez, Noemí García and **Julio Altamirano**, Archives of Biochemistry and Biophysics, Vol.604, Pag.11-19, Revistas Arbitradas ,
3. 2015;Changes in T-Tubules and Sarcoplasmic Reticulum in Ventricular Myocytes in Early CardiacHypertrophy in a Pressure Overload Rat Model. ISSN: 1015-8987, Perla Pérez-Treviño, Jorge Pérez-Treviño,Cuauhtémoc Borja-Villa, Noemí García and **Julio Altamirano**, Cellular Physiology and Biochemistry, Vol.37,Pag.1329-1344, Revistas Arbitradas ,

Webpage: https://www.researchgate.net/profile/Julio_Altamirano3