

CURRICULUM VITAE

January, 2021

NAME: Jesús García-Martínez

OFFICE ADDRESS:



DEGREES:

- 1984: M. D., Medical School, Universidad Autónoma de Coahuila, México.
Dissertation: Cross-sectional study of lung carcinoma incidence in smokers and non-smokers.
- 1986: M. Sc. in Physiology and Biophysics, Centro de Investigación y Estudios Avanzados del IPN, México.
Thesis: Calcium currents in amphibian skeletal muscle: kinetics and modulation.
- 1990: Ph. D. in Physiology, Centro de Investigación y Estudios Avanzados del IPN, México.
Dissertation: Relationship between charge movement, calcium current, and calcium transients in frog skeletal muscle. Involvement in the excitation-contraction coupling mechanism.

POSITIONS:

- 8/2016-Present Associate Dean for Research, Doisy College of Health Sciences, Saint Louis University
- 8/2016-Present Professor with tenure, Department of Clinical Health Sciences, Doisy College of Health Sciences, Saint Louis University
- 8/2015-8/2016 Director of Academic Programs, Department of Physiology and Biophysics, UIC

6/2010-8/2016	Faculty Fellow, Honors College, University of Illinois at Chicago
8/2006-8/2016	Affiliate Associate Professor, Department of Bioengineering, UIC
8/2005-7/2015	Director of Graduate Studies, Department of Physiology and Biophysics, UIC
8/2002-8/2016	Associate Professor with tenure, Department of Physiology and Biophysics, College of Medicine, University of Illinois at Chicago
8/1996-7/2002	Assistant Professor, Department of Physiology and Biophysics, College of Medicine, University of Illinois at Chicago
9/1994-7/1996	Research Assistant Professor, Department of Physiology, Colorado State University, Fort Collins, CO.
4/1991-8/1994	Postdoctoral Fellow. (Advisor Dr. Kurt Beam), Department of Physiology, Colorado State University, Fort Collins, CO.
12/1990-4/1991	Postdoctoral Fellow. (Advisor Dr. Martin Schneider), Department of Biological Chemistry, University of Maryland School of Medicine, Baltimore, MD.
1/1989-11/1990	Postdoctoral Fellow. (Advisor Dr. Enrico Stefani), Department of Molecular Physiology and Biophysics, Baylor College of Medicine, Houston, TX.
10/1987-12/1988	Research Associate. Department of Molecular Physiology and Biophysics, Baylor College of Medicine, Houston, TX.
9/1978-6/1982	Instructor of Anatomy. Medical School, Universidad Autónoma de Coahuila, México.

ACCOMPLISHMENTS:

At SLU, I serve as the Associate Dean for Research in the Doisy College of Health Sciences. However, my role is much broader and not limited to research.

- I am responsible for supporting 88 full-time faculty identify the most appropriate source of funding for their projects.
- I oversee all grants activity including all pre- and post-award processing, monitoring, and compliance.
- I have established new research groups and promoted interdisciplinary research

efforts within Doisy College and across campus.

- I have promoted faculty development by providing workshops on grant preparation, salary recovery for faculty from grants, biosketch preparation, and training on Institutional Review Board policies and Clinical Trials.
- I chair the Scholarship and Research Committee, which facilitates the continued growth, maturation, and visibility of scholarship-research in Doisy College of Health Sciences.
- During my tenure as Associate Dean for Research, the total dollar amount awarded has increased by about 200%, with an increase in total direct costs of 224% and indirect costs by almost 54%. The number of grant submissions has increased by about 17%.
- I chair the newly created Committee for Diversity and Inclusion Efforts, a group of faculty and staff to develop a summer program in the health sciences for underrepresented high school students. As a first step, we hosted a group of students from Harris-Stowe State University, a historically black-serving institution, in July 2019 to introduce them to the health science disciplines. This was an unofficial group I led in this effort and is now recognized as a college committee. The new summer program for high school students was scheduled to start on June 7, 2020, but was postponed due to the pandemic.
- I am leading the creation of a PhD program in the health sciences with the goal of preparing students to function as interdisciplinary scholars and researchers within academic and clinical settings. The program will be established in collaboration with the College of Arts and Sciences.
- Developed guidelines and policies to ensure the safe return of students to various programs and activities in compliance with federal and local government guidelines for COVID-19, and continue monitoring compliance.
- Developed the policy for the re-entering/entering of students into clinical sites after rotations were suspended due to the pandemic; continue monitoring compliance.
- Led faculty during the re-opening of their research labs.
- Coordinated the risk mitigation plans for re-opening the teaching labs in our college at the beginning of the 2020 fall semester and 2021 spring semester.
- I serve as a coach for a group of 5 junior faculty as part of a new program called “Building Integrated Learning and Coaching Networks for Research” (BILCN-Research). This is a 6-9 month, cohort-based program that will develop SLU’s faculty’s network and skills needed to advance research agendas and effectively compete for external funding.

I have also served in the Rank and Tenure ad-hoc Review Committee in Doisy College of Health

Sciences, as a member of the Research Technology and Computing Committee (campus wide), and as a member of the Research Council from the Office of the Vice President for Research. I am currently serving in other committees in Doisy College and as the Faculty Senate Representative to the Graduate Academic Advising Committee, which oversees the development, improvement, and quality assurance of post-baccalaureate studies in liberal arts, STEM, health education, etc. at SLU.

While at UIC, I served as the Director of Graduate Studies for the Department of Physiology and Biophysics PhD and MSc programs at the University of Illinois at Chicago for ten years and was later appointed Director of Academic Programs in charge of graduate *and* medical education.

- I developed a new master's degree and was the main force behind the creation of the new program. I met with a number of people in the College of Medicine and UIC administration to identify space and approval requirements. I developed the financial plan and the curriculum. The application for the new program was approved at several levels and ultimately by the Illinois Board of Higher Education. The net income to the department was about \$150,000.00 for the first year and projected to be about \$310,711.00 for subsequent years. The projected total net revenue for UIC was \$2,362,800.00 for the first five years considering in-state students only.
- I was able to identify gaps in educational programs at UIC and addressed those gaps. For instance, I proposed and helped start the Concentration in Cardiovascular Science for PhD students in UIC to address a need for a formal program in cardiovascular disease. This is the only formal program in the State of Illinois. With my advice and guidance, the proposal for the establishment of the concentration was ultimately approved by the Illinois Board of Higher Education.
- I have successfully worked with a broad range of individuals across a wide geographic range to develop a common curriculum. As part of the College of Medicine Curriculum Transformation Task Force, I participated as a member of a committee charged with restructuring the whole curriculum for medical students.
- I was responsible for the overall function of the graduate programs and supervised the work of the Graduate Education Committee, which was comprised of five other faculty members, a graduate student, and one assistant.
- Under my leadership, we helped students across several disciplines secure a record number of fellowships from internal sources (University Fellowship, Dean's Scholar, Abraham Lincoln Scholar, Provost/Deiss Award, and Chancellor's Award). Specifically, these students obtained more fellowships than the other five basic science departments *combined*. We also helped the students obtain funding from external sources, such as the American Heart Association, National Institutes of Health, Porter Fellowship, and multiple travel awards.
- I worked diligently and successfully to *increase the diversity* of our graduate program,

other programs in the College of Medicine, *and* throughout UIC. To accomplish this goal, I traveled to the Society for the Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS) Conference and the Annual Biomedical Research Conference for Minority Students. I also visited numerous special programs designed to enhance diversity such as McNair, MARC, RISE, etc. at the campuses of the University of Puerto Rico, Universidad del Este Puerto Rico, and University of Arizona Tucson, AZ.

- With the creation of the umbrella program, Graduate Education in Medical Sciences (GEMS), in the College of Medicine, I was responsible for restructuring and modernizing our curriculum to match the goals of GEMS and afford flexibility for PhD students to explore research opportunities in the six basic science departments.
- To strengthen our academic department, I prepared self-evaluations of our programs for review by external advisors and prepared outcome assessments for review by UIC's Office of Programs and Academic Assessment and subsequently accreditation by the Higher Learning Commission.
- I also represented the Department of Physiology and Biophysics during the Liaison Committee on Medical Education's accreditation visit to our College of Medicine in 2009.

I was a member of the *campus-wide* Graduate College Executive Committee for 4 years. I was first appointed to the Executive Committee by the Dean of the Graduate College, and in 2014 I was *elected by UIC faculty* to a second 2-year term. In my capacity as a member of this crucial institution-wide committee, I worked hard to

- Maintain the integrity of research and set uniform standards across disciplines,
- Revise and update the bylaws of the College and develop campus-wide policies,
- Advocate for the rights of students,
- Provide insight and recommendations to improve the curriculum of multiple graduate programs in liberal arts, STEM, health sciences, etc.,
- Facilitated new program development and review.

I was also a member of the Graduate College's Advisory Committee for the Summer Research Opportunities Program for minorities. I worked with the Office of Admissions and the Office of International Services to establish admission requirements and acceptable documentation for international applicants to our graduate programs.

In the College of Medicine, I was a member of several committees including the

- Admissions and Advisory Committees for the MD/PhD program,
- College Committee on Instruction and Appraisal (*elected position*),
- Search Committee for the Chief of the Section of Cardiology,
- Chicago Student Promotions Committee (*elected position*),
- M1-M2 Curriculum Committee,

- Curriculum Transformation Task Force (developing new curriculum for medical students),
- Scholarship and Awards Committee (*elected position*). As a member of the College of Medicine Scholarship Committee since 2010 and chair since 2014, I worked to revitalize the scholarship program and increase diversity in the incoming class of medical students. The committee consisted of eleven other faculty members, four students, and two staff members.

As part of the *campus-wide Honors College*, I was a member of the Diversity Committee and previously I was a member of the Diversity Strategic Planning Committee, whose function was to develop ideas and narrow them down to goals that could be achieved by the College. In addition, I

- Participated in multiple workshops for undergraduate students majoring in *any* subject at UIC,
- Supervised students' research in my laboratory for which some of them received awards, and
- Served as faculty advisor to 14 undergraduate students.

I was a member of the Advisory Committee in the Department of Physiology and Biophysics for 13 of my last 15 years there. Members of the Advisory Committee were *elected* by secret ballot each year by all faculty members. The two years I did not serve in this committee were because of a rotation off mandated by our bylaws. As a member of the Advisory Committee, I

- Advised the Head on implementation of departmental policy, including budget (~\$5 million), operations, space, faculty workload, priorities, and other faculty concerns,
- Made recommendations to the Head on appointments of all new regular faculty including joint or affiliate appointments,
- Made recommendations on hiring, promotion and tenure, and
- Mediated grievance and conflict resolutions.

I was part of UIC's Student Success Initiative, which worked during 2013 on developing a strategic plan for increasing undergraduate success. The initiative was divided into eight task forces that provided recommendations to the Chancellor's office for campus consideration and action. I was a member of the Data Analysis and Assessment task force, whose charge was to (1) provide data-related support to the other task forces; (2) coordinate the assessment efforts across campus, such that efforts to understand student success with data were not duplicated across units on campus; (3) develop an initial student survey and (4) an exit student survey to fill identified gaps in our knowledge of student success, after reviewing literature on cognitive, metacognitive, and social-emotional factors affecting college student success. I was also the link

between my task force and the task force on Targeted First-Year Curriculum and provided them with results to perform their function as we were obtaining them. The recommendations made by the task forces were consolidated into four larger programs: Instruction and Curriculum, Student Learning, Campus life, and Managing College Costs.

At SLU, I am a coach for a group of 5 junior faculty as part of the new program called "Building Integrated Learning and Coaching Networks for Research" (BILCN-Research). This is a 6-9 month, cohort-based research program that will develop SLU faculty's network and skills needed to advance research agendas and effectively compete for external funding.

At the national level, working with the Leadership Committee of the Association of Schools Advancing Health Professions (ASAHP), I will serve as a coach for faculty at any university who are interested to become chairs or Associate Deans. This is also a new program being developed by our ASAHP Leadership Committee.

OTHER TRAINING:

- 2015-2016 UIC - Scholars for Teaching Excellence Faculty Fellowship
- 2017 Leadership in Higher Education Conference, Baltimore, MD
- 2018 Leading with Feedback Workshop, Saint Louis University

HONORS AND AWARDS:

- 2012 Teaching Recognition Award, Center for Excellence in Teaching and Learning
UIC
- 2010, 2011 Nominated by the College of Medicine for an Award for Excellence in Teaching
- 2001 Philip L. Hawley Distinguished Faculty Award. Given by the graduate students of the Department of Physiology and Biophysics at UIC to a faculty in recognition of his/her "Constant Support, Enthusiasm, and Sincerity".
- 1993-1994 American Heart Association of Colorado, Inc., postdoctoral fellowship.
- 1989-1990 Muscular Dystrophy Association, postdoctoral fellowship.

FUNDING:

Past

- 1984-1986 Consejo Nacional de Ciencia y Tecnología (CONACYT), México
Fellowship, M. Sc.
- 1986-1988 Consejo Nacional de Ciencia y Tecnología (CONACYT), México
Fellowship, Ph. D.
- 1989-1990 Muscular Dystrophy Association,

Postdoctoral Fellowship.

- 1993-1994 American Heart Association of Colorado, Inc.,
Postdoctoral Fellowship.
- 1/97-12/97 Principal Investigator, University of Illinois at Chicago Campus Research Board
“Function of DHPR subunits in cardiac and skeletal muscle”
Total costs: \$13,575.
- 7/96-6/99 Principal Investigator, Muscular Dystrophy Association Research Grant
“Regulation of Excitation-Contraction Coupling by the DHP Receptor Subunits”
Total costs: \$132,191.
- 4/99-3/03 Collaborator, National Institutes of Health, (R01HL52322 P.I. Pieter de Tombe).
Total costs: \$16,904 as 5% collaborator. Grant relinquished for PPG below.
- 7/98-6/00 Trainer, National Institutes of Health, (T32 DK07739 P.I. Peter G.W. Gettins).
“Signal Transduction and Cellular Endocrinology”.
\$26,184 per year, support for Kris Alden, an MD/PhD student in my lab.
- 1/00-12/00 Principal Investigator, University of Illinois at Chicago Campus Research Board
“Control of cell function by the calcium channel α_2/δ ”
Total costs: \$14,856.
- 4/98-3/04 Principal Investigator, National Science Foundation CAREER Award
“Function of the α_2/δ Subunit in Muscle Physiology”
Total costs: \$498,158.
- 5/01-3/03 Principal Investigator, National Science Foundation
“A Confocal Microscope for Biological Research and Education”
Total direct costs: \$196,952 from NSF + \$99,800 from UIC=\$296,752.
- 6/00-5/05 Collaborator, National Institutes of Health, “Integrated Mechanisms of Cardiac
Maladaptation” (P01HL62426 R. John Solaro, Program Director)
Collaborator in projects 2, 3, and 4 from PIs Brenda Russell, Peter Buttrick, and
Pieter de Tombe, respectively. 5% each. Total costs: \$ 82,590.
- 7/06-6/09 Principal Investigator, Muscular Dystrophy Association
“Function of the Alpha2/Delta1 Subunit in Skeletal Muscle”
Total costs: \$376,507.
- 7/09-12/12 Principal Investigator, Muscular Dystrophy Association
“Function of the Alpha2/Delta1 Subunit in Dystrophic Skeletal Muscle”
Total costs: \$334,948.

- 7/01-12/15 Trainer, National Institutes of Health, (T32 HL07692 P.I. R. John Solaro).
“Cellular Signaling in the Cardiovascular System”. Support for Tammy Tamayo,
MD/PhD student in my lab.
- 04/03-08/16 Trainer, Steering Committee, National Institutes of Health, (T32 HL07692 P.I.
Mark Rasenick). “Training in the Neuroscience of Mental Health”.
- 07/16-06/19 Principal Investigator, National Institutes of Health, “PAK1 activation reduces
muscular dystrophy-mediated fibrosis” (R21 AR069196-01A1 Ahlke
Heydemann/Jesús García-Martínez, Multiple PI).
Total costs: \$ 439,725.
- 03/19-05/19 Principal Investigator, Office of the Vice President for Research, Saint Louis
University, “Identification of student awareness of health professions and
incorporation of technology-enhanced workspace in the DCHS” (Spark
microgrant). Total costs: \$ 1,000.
- Current
- 07/18-06/21 Co-Investigator, Department of Defense, “Pre-clinical evaluation of laminin-11
and electrical stimulation therapies for muscle regeneration and rehabilitation
following volumetric muscle loss” (Grant12486755 PI Koyal Garg).
Total costs: \$ 739,873.

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

- 1985-present Biophysical Society
- 1986-2011 Society of General Physiology
- 1988-present Sociedad de Biofísicos Latinoamericanos (Society of Latinamerican
Biophysicists)
- 1999-2015 American Heart Association, Basic Research Council
- 2016-present Association of Schools of Allied Health Professions

INVITED PRESENTATIONS:

- 1991 Speaker at Gordon Conference on Excitation-Contraction Coupling
- 1997 Seminar at Department of Physiology, Loyola University Medical Center, Chicago, IL
- 1997 Seminar at Department of Biology, Marquette University, Milwaukee, WI
- 1998 Seminar at Department of Physiology and Biophysics, University of Texas Medical
Branch, Galveston, TX
- 1998 Seminar at Department of Molecular Physiology and Biophysics, Baylor College of
Medicine, Houston, TX
- 1999 Seminar at Department of Physiology and Biophysics, UIC College of Medicine

- 1999 Workshop Summer Research Opportunities Program for Minorities, UIC. Writing Papers in the Life Sciences
- 1999 Seminar at Department of Pharmacology, UIC College of Medicine
- 2000 Workshop Summer Research Opportunities Program for Minorities, UIC
- 2001 Workshop Summer Research Opportunities Program for Minorities, UIC
- 2003 Seminar at Department of Physiology, Loyola University Medical Center, Chicago, IL
- 2005 Seminar at University of Chicago, Committee on Cell Physiology. Chicago, IL
- 2006 Seminar at Department of Bioengineering, University of Illinois at Chicago.
- 2007 Seminar at Instituto de Neurobiología, Universidad Nacional Autónoma de México, Campus Juriquilla, Querétaro, Qro.
- 2013 Seminar at Department of Chemistry and Biochemistry, MARC Program, University of Arizona, Tucson, AZ.
- 2013 Seminar at Department of Biology, MARC Program, Universidad del Este, San Juan, Puerto Rico.
- 2015 Workshop PASSAGE/Bridge to the Doctorate Programs for Minorities, UIC
- 2016 Seminar at Department of Biology, Texas Woman's University, Denton, TX
- 2018 Seminar at Parks College of Engineering, Aviation, and Technology, Saint Louis University, St. Louis, MO
- 2019 Panelist, *Research and Faculty Panel Discussion*, Association of Schools Advancing Health Professions (ASAHP), Midwest Dean's Summer Summit, College of Allied Health Sciences, University of Cincinnati, Cincinnati, OH.
- 2021 Panelist, Webinar in Spanish for the Hispanic community, "Mi Familia y la Vacuna de COVID-19". International audience from USA, México, Central and South América.

TEACHING RELATED ACTIVITIES

Ph.D. Advisees

- Kris Alden, M.D./Ph.D. Dissertation defense 7/18/00, graduated 5/3/02. "Calcium Channel Regulation: Roles of Alpha2/Delta Subunit and Protein Kinase C-Beta II". Orthopedic Surgeon, Joint Replacement Specialist, Hinsdale Orthopaedics, Elmhurst, IL.
- Thomas Nabhani, M.D./Ph.D. Dissertation defense 10/14/02, graduated 6/15/04. "Control of Calcium Release in Developing Skeletal Muscle". Radiation Oncologist, Cochise Oncology, Sierra Vista, AZ.
- Tammy Tamayo, M.D/Ph.D. Dissertation defense 7/22/13, graduated 5/8/15. "Early Expression of CACNA2D1 in Satellite Cells Promotes Myogenicity and Repair of Dystrophic Muscle". Psychiatry resident, University of Illinois at Chicago.

Student Advisor

Graduate Student Rotations

Roli Prasad, PhD, Fall 1997

Steven Wu, PhD, Fall 2002

Evangelos Mavrommatis, PhD, Fall 2004

Santipongse Chatchavalvanich, PhD, Spring 2007

Tanganyika Wilder, PhD, Fall 2007

Ying-Hsi (Alvin) Lin, PhD, Fall 2009

Tarunmeet Gujral, MS, Spring 2012

Postdoctoral Trainees

Stuart Ruch, M.D., Ph.D. Currently in private practice in Boston, MA.

Liliana Grajales, MSc., Ph.D. Currently at John Deere.

Professional Students

Woosuk Park, C. M. Craig Fellow, Summer medical student and Research Assistant 97-98.

Tanvi Shah, C. M. Craig Fellow, Summer medical student and Research Assistant 2001-2004.

Dorian F. Guerra, fellow Hispanic Center of Excellence Summer Research 2002.

Tiffani Shu, Summer medical student and Research Assistant 2004-2006.

Jacob Choi, MD/PhD student. Rotation Summer 2007.

Christian Grant, C. M. Craig Fellow, Summer medical student and Research Assistant 2008.

Terrance Grant, C. M. Craig Fellow, Summer medical student and Research Assistant 2008.

Luis Grau, M1 student. Research Assistant 2010-2011.

Anthony Pantoja, M1 student. Research Assistant 2010-2011.

Peter LoPresti, MD/PhD student. Rotation Summer 2011.

Eben Eno, C. M. Craig Fellow, Summer medical student and Research Assistant 2011-2014.

Undergraduate

- The purpose of the **Summer Research Opportunities Program** is to increase minority participation in graduate education and their presence in faculty positions at institutions of higher education.

Michael J. Smith, fellow Summer Research Opportunities Program for Minorities 1998.

John Henry-Sánchez, fellow Summer Research Opportunities Program for Minorities 1999.

Latoya Hannon, fellow Summer Research Opportunities Program for Minorities 2001.

Viviana Fajardo, fellow Summer Research Opportunities Program for Minorities 2004.

Gryssel Montagner, fellow Summer Research Opportunities Program for Minorities 2006.

Marcela Alvarado, fellow Summer Research Opportunities Program for Minorities 2010.

- In the **Guaranteed Professional Program Admissions (GPPA)**, entering freshmen are admitted to UIC with admission guaranteed to one of several professional degree programs, if undergraduate course and performance criteria are met.
The Honors College offers academic challenge and support to well-prepared undergraduates through a wide range of honors programs and activities. Students complete an honors activity each term in addition to maintaining a minimum 3.50/4.00 grade point average.

Honors College students working in my laboratory:

Tanvi Shah, 1999-2001. GPPA/Honors College Student. Honors College thesis work.

Renuka Malik, GPPA/Honors College student. 2000-2001.

Tariq Abdulkarim, GPPA/Honors College student. 2001-2003.

Tiffani Shu, GPPA/Honors College student. 2003-2004.

Ravi Garg, Honors College student. 2006-2009.

Hemanth Sirandas, Honors College student. 2009-2010.

Faculty Advisor for Honors College students:

Varvara Vassiliev

Nancy Garcia

Rahul Kamath

Chaitra Kishore

Alexander Yeung

Hinjal Jha,

Mitali Patel

Jay Patel

Patricia Radon

Jannie Bolotnikov

Hugo Hidrogo

Nader Sadi

Tirth Patel

Vanessa Jerger

- The purpose of the **Hispanic Center of Excellence** is to assist in the matriculation and graduation of Latino physicians from the UIC College of Medicine.

Henry Torres, fellow Hispanic Center of Excellence Summer Research 2001.

Other Programs

Cynthia Gómez, Temple University Minority Access to Research Careers, summer 2000.

Michelle Ma, 2004-2005.

Joseph Vanchieri, summer research 2008.

At Saint Louis University

Reid Colliander, 2017 – 2018

Nigel Maglasang, 2018 – 2019

Awards Received by Students for their Research in my laboratory

- Kris J. Alden, Awarded first place for best presentation in the 2001 M.D./Ph.D. Research Day.
Michael and Kate Bárány Award, graduating medical student with exceptional research, 2002.
Outstanding Thesis Award in the Life Sciences from the Graduate College at UIC, 2002. All-campus competition.
- Tanvi Shah, Awarded the 2001 Edward G. Rietz and Stanley K. Shipiro award for an outstanding graduating senior in biochemistry with research experience (Honors College Thesis work).
C. M. Craig Fellow, summer medical student and Research Assistant 2002.
- Tiffany Shu, Awarded the Sarah Madonna Kabbes Scholarship for Undergraduate Research 2003-2004.
- Gryssel Montagner, awarded fellowships from the Society for the Advancement of Chicanos and Native Americans for undergraduate research, 2006, and Fiesta del Sol Scholarship, 2006.
- Ravi Garg, awarded first place in the Sigma Xi Undergraduate Student Research Symposium, 2007.
- Anthony Pantoja, Awarded the James Ferguson summer fellowship, 2010.

Member of Graduate Student Thesis/Dissertation Committees (* Chair of Committee)

Sunghoe Chang, PhD, graduated 12/10/99. “Neurotransmitter secretion and dynamics of axonal cytoskeleton in developing neurons”.

Keith Baar, PhD, graduated 12/17/99. “Translational control of skeletal muscle hypertrophy”.

Christian Evans, PhD, graduated 1/5/00. “The effects of a familial hypertrophic cardiomyopathy-linked mutation in alpha-tropomyosin on cardiac function”.

Maria Heidkamp, PhD, graduated 4/20/00. “Mechanisms for control of alpha-myosin heavy chain mRNA translation and localization in cardiac myocytes”.

* Delara Motlagh, PhD, graduated 10/4/02. “Surface topography affects cell shape, microenvironmental remodeling and gene expression in cardiac myocytes”.

* Andrew Germanovich, MSc program, graduated 7/8/03.

* Haytham Mansour, PhD, graduated 3/1/04. “Mechanism of cardiac remodeling using a three-dimensional culture model”.

Yitao Ma, PhD, graduated 12/17/2004. “Regulation of microtubule dynamics in nerve processes”.

Roli Prasad, PhD, graduated 3/11/05. “Regulation of chloride transport in the mammalian colon: The role of tyrosine kinase cascades”.

Beth Conlon, PhD, graduated 6/30/06. “Regulation of macrophage TNFA: Are the adenosine receptors and adenosine deaminase working together?”.

* Jixiang Zheng, MSc program, graduated 12/6/07.

* Olga Chernaya, PhD, graduated 6/26/08. “The role of the actomyosin based cytoskeleton in the

regulation of physiological cell responses”.

Rosalba Satta, PhD, graduated 4/4/07. “Nicotine targets epigenetic mechanisms in selected populations of telencephalic GABAergic neurons”.

* Rahul Dave, MD/PhD defended thesis on 7/31/08, graduated 5/5/10. “Molecular mechanisms of functional G α -tubulin interactions”.

Evangelos Mavrommatis, PhD, graduated 4/8/08. “The behavior and function of the MGF E-domain, a splice-variant of IGF-1”.

Amika Singla, PhD, graduated 4/20/10. “Mechanisms underlying upregulation of intestinal apical chloride/hydroxyl radical exchange activity by LPA”.

* Amin Rmeileh, MSc program, graduated 5/27/10.

* Sudarat Nimitvilai, PhD, graduated 6/28/11. “Mechanisms Underlying Biphasic Effects of Dopamine on Dopaminergic Ventral Tegmental Area Neurons”.

* Domenico Taglieri, PhD, graduated 10/21/11. “P21-Activated Kinase-1 Signaling in Myocardial Hypertrophy, Ischemic Heart Disease and Remodeling”.

* Brandi Butler, MSc program, graduated 6/22/2012. “Transcriptional Regulation of Insulin-like Growth Factor Binding Protein 2 in Rat Granulosa Cells”.

Tarunmet Gujral, MSc Program, graduated 04/09/2014. “Trafficking of SLC26A3 in intestinal epithelial cells: effect of enteropathogenic E. coli infection”.

Cody Rutledge, MD/PhD defended thesis on 6/05/14. “Regulation of Cardiac Connexin43 by Reactive Oxygen Species”.

Tanganyika Wilder, PhD, graduated 07/03/14. “The role of phosphorylation and oxidative stress in hypertrophic cardiomyopathy”.

* Ryan Lahey, MD/PhD defended thesis on 07/25/14. “Long chain fatty acid storage dynamics and nuclear receptor activation in failing hearts”.

* Nathan Roberts, MSc Program, graduated 07/16/2015. “Mouse models of muscular dystrophy and Type 2 diabetes”.

Ellen Shamansky, MSc Program, defended 12/01/2015. “Lipid dynamics in a mouse model of cardiac-specific overexpression of the fatty acid transporter, FATP1”.

Member of Graduate Student Preliminary Examination Committee (* Chair of Committee)

Ninfang Chen

Kris J. Alden

Sunghoe Chang

Kimberly Chaney

Delara Motlagh

Jonna Frasor

Thomas Nabhani

Roli Prasad

Lei Bao

* Rashad Belin

Andrey Tsvetkov

* Patti Engel

Steven Wu

Beth Conlon

* Leann Vrabel

* Olga Chernaya

Aurora Shehu

* Ajay Nemani

Adam Perry
* Roberto Agis-Balboa
Sarah Kiser
Witchuda Saengsawang
* Rosalba Satta
* Evangelos Mavrommatis
Jamie Le
Kittipong Tachampa
Kristine Ansenberg
Amika Singla
* Sudarat Nimitvilai

Santipongse Chatchavalvanich
Aditya Vaidya
* Ying-Hsi Lin
Jada Domingue
Ryan Lahey
* Sarah Baumgarten
* Nathan Roberts
* Leonid Serebryanny
* Tarunmet Gujral
* Manuel Alvarez
* Scott Convissar

Teaching:

Undergraduate course

2017-2018 HSI 3300 Anatomy and Physiology I - SLU

Graduate courses

1996-2006 PHYB 341 Human Physiology; Section: Special Senses. Course changed to GCLS 500.

1996-2016 PHYB 586 Cell Physiology; Section: Physiology of Ion Channels. **Course coordinator** 1997-2006.

1997-2003 PHYB 585 Cell Biology; Section: Membrane Physiology and Mechanism of Transport.

1996-2002 PHYB 592 Tactics and Strategies; Section: Calcium channels and excitation-contraction coupling.

1999-2016 PHYB 516 Physiology and Biochemistry of Muscle Contraction; Section: Excitation-contraction coupling in skeletal muscle.

2000-2016 PHYB 518 Molecular, Cellular, and Integrative Cardiovascular Physiology; Sections: Excitation-contraction coupling- From Action potential to Calcium release. Cardiac Ion Channels.

2001-2002 PHYB 569 Methods in Experimental Physiology; Section: Confocal Microscopy.

2003-2005 GCSL 504 Research Methods; **Course Coordinator** 2003-2004, Section IV: Methods for Studying Biological Membranes.

2003-2006 PHYB 551 Human Physiology; Section: Striated Muscle.

2004-2016 PHYB 540 Ion Channels: Structure, Physiology, Pharmacology, and Channelopathies. **Course Coordinator** 2008-2016.

2007 Structure and Function of Membrane Proteins and Molecular Physiology of the Synapsis, Instituto de Neurobiología, Universidad Nacional Autónoma de México, Campus Juriquilla, Querétaro, Qro.

2007-2010 GCLS 500 Human Physiology; Section: Special Senses.

- 2007-2016 PHYB 552 Translational and Applied Physiology; Section: LQT mutations and implications in cardiovascular and hearing function.
- 2015 GCLS 503 Cell Biology; Section: Structure-Function of Ion Channels.
- 2019 PAED 5211 Pulmonary Fundamentals I; Section: Lung and Bronchus Cancer
- 2020- PAED 5221 Cardiovascular Medicine I; Section: Electrocardiography. Online.

Professional Courses

- 1978-1982 Gross Anatomy – medical students
- 1997-2004 BMS 653 Human Physiology; Section: Nerve-Muscle – medical students
- 1998-2003 Core Curriculum, UIC Cardiology Residents, Cardiac Action Potential
- 2013-2014 Core Curriculum, UIC Cardiology Residents, Basic Electrophysiology
- 2002-2016 BMS 653 Human Physiology; Section: Heart and Circulation – medical students

Development of Graduate Programs:

- 2014 I proposed and helped start the **Concentration in Cardiovascular Science** for PhD students in UIC to address a need for a formal program in cardiovascular disease. This is the only formal program in the State of Illinois to date. After the proposal was approved by the Illinois Board of Higher Education I remained as an advisor.
- 2016 Developed the **Master of Science in Medical Physiology** in the Department of Physiology and Biophysics at UIC. In collaboration with administrators from the College of Medicine and UIC, we identified space and approval requirements. I performed the needs assessment and developed the financial plan and the curriculum.
- 2018-Present Chair of working group to start a traditional face-to-face and an on-line **PhD in Health Sciences** in Doisy College of Health Sciences at SLU. The traditional PhD concentration in Health Sciences was approved to begin in Fall of 2021 and established in collaboration with the College of Arts and Sciences.

UNIVERSITY OF ILLINOIS AT CHICAGO SERVICE AND COMMITTEES

- 1996-2012 **Member**, Advisory Committee for Summer Research Opportunities Program for Minorities.
- 1998 **Member**, Search Committee for Assistant Dean in the Graduate College.
- 1999-2004 Department of Physiology and Biophysics, **Associate Director of Graduate Studies**.
- 2005-2015 Department of Physiology and Biophysics, **Director of Graduate Studies**.
- 2015-2016 Department of Physiology and Biophysics, **Director of Medical and Graduate Education**.
- 1999-2001 Department of Physiology and Biophysics, **Chair** of Preliminary Examination for

- Graduate students.
- 1999-2004 MD/PhD Program, **Member**, Admissions Committee.
- 1999 Campus Research Board, **ad hoc reviewer**.
- 2001 **Panel Member**, Intercampus Research Initiative in Biotechnology. Involves the Chicago and Urbana-Champaign campuses of the University of Illinois.
- 2001-2003 **Coordinator**, Sigma Xi Graduate Student Research Forum. Campus-wide event designed for the presentation of research performed by graduate students.
- 2002-2003 MD/PhD Program, **Member**, Advisory Committee
- 2002-2008, Department of Physiology and Biophysics, **Elected Member, Advisory Committee**.
- 2010-2011, Department of Physiology and Biophysics, **Elected Member, Advisory Committee**.
- 2013-2016 Department of Physiology and Biophysics, **Elected Member, Advisory Committee**.
- 2002-2012 Department of Biochemistry, Signal Transduction Training Program, **Member, Advisory Committee**.
- 2002-2005 College of Medicine, **Elected Member**, College Committee on Instruction and Appraisal.
- 2005-2016 Neuroscience Program, **Member, Steering Committee**
- 2006 College of Medicine, Search Committee Section of Cardiology Chief.
- 2009 College of Medicine/Graduate College, Committee to Evaluate Graduate Programs in the College of Medicine
- 2010 Provost's Committee to Review the Functions of the Graduate College
- 2010-2011 International Graduate Student Admissions Committee
- 2010-2016 College of Medicine, Scholarships and Awards Committee, **Elected Member, Chair** since 2014
- 2011 Search Committee for Dean of the Graduate College
- 2011-2016 Honors College, Diversity Strategic Planning Committee
- 2012-2016 College of Medicine, Chicago Student Promotions Committee, **Elected Member**.
- 2012-2016 Graduate College, **Elected Member**, Executive Committee.
- 2013 Provost's Student Success Plan Task Force, Data Analysis and Assessment
- 2015-2016 College of Medicine, M1-M2 Curriculum Subcommittee
- 2015-2016 College of Medicine, Curriculum Transformation Task Force
- 2015-2016 **Member**, Advisory Board for Summer Research Opportunities Program for Minorities.
- 2016 College of Medicine, Dean's five-year review committee to evaluate the performance of the Head of Psychiatry.
- 2016 **Elected Member**, UIC Faculty Senate.

SAINT LOUIS UNIVERSITY SERVICE AND COMMITTEES

- 2016-present Dean's Coordinating Council, Doisy College of Health Sciences.
- 2016-present **Chair**, Scholarship and Research Committee, Doisy College of Health Sciences.
- 2016-2017 Research Technology and Computing Committee (campus wide).
- 2016-2017 Research Council (Office of the Vice President for Research).
- 2017 Rank and Tenure ad-hoc Review Committee, Doisy College of Health Sciences.
- 2017-present **Chair**, PhD program working group, Doisy College of Health Sciences.
- 2017-present Faculty Senate Representative to the Graduate Academic Advising Committee.
- 2018-present Applied Health Research Council (campus wide).
- 2018-present Medical Laboratory Sciences Scholarship Award Committee, Doisy College of Health Sciences.
- 2019-present Strategic Map Implementation Team, Doisy College of Health Sciences.
- 2019-present **Chair**, Committee for Diversity and Inclusion Efforts, Doisy College of Health Sciences.
- 2020 Rapid Response COVID-19 Seed Fund Grant Reviewer.
- 2021 **Coach** for junior faculty and in the program "Building Integrated Learning and Coaching Networks for Research" (BILCN-Research) and Lead between BILCN-Research and the Applied Health Research Council.

NATIONAL AND INTERNATIONAL SERVICE AND COMMITTEES

- 1999 VA, **ad hoc reviewer**, Merit Award Review.
- 1999-2002 NSF, **Member**, Physiology and Ethology Grant Review Panel (Integrative Animal Biology).
- 1999 Research Corporation, **ad hoc reviewer**.
- 2000 NSF, **ad hoc reviewer**, Neuronal and Glial Mechanisms.
- 2001 NSF, **ad hoc reviewer**, BE: Genome-Enabled Environmental Sciences and Engineering.
- 2004 The Israel Science Foundation, **ad hoc reviewer**.
- 2004 NSF, **Member**, Multi-user Equipment and Instrumentation Resources Panel.
- 2004 NASA HHS, **ad hoc reviewer**, Muscle Biology Panel
- 2005 NSF, **ad hoc reviewer**, Signal Transduction and Cellular Regulation Panel.
- 2006 NIH, **temporary member**, Cardiac Contractility and Heart Failure Study Section.
- 2006 NIH, **temporary member**, Molecular, Cellular and Developmental Neuroscience Study Section.
- 2007 NIH, **temporary member**, Neurotransmitters, Receptors, Channels, and Calcium Signaling Study Section.
- 2007 NIH, **member**, Special Emphasis Panel MOSS- SMEP Study Section.
- 2008 NIH, **member**, Special Emphasis Panel MOSS- SMEP Study Section.
- 2008 Austrian Science Fund (FWF), **International ad hoc reviewer**

- 2010-2015 Oak Ridge Associated Universities. **Reviewer.**
- 2012 **Guest Editor**, *Journal of Signal Transduction*
- 2017-present Washington University in St. Louis, Institute of Clinical and Translational Sciences, **member**, Clinical and Translational Research Funding Program (NCATS/CTSA).
- 2019 Oak Ridge Associated Universities Ralph E. Powe Junior Faculty Enhancement Awards. **Reviewer.**
- 2020-present Association of Schools Advancing Health Professions (ASAHP), **member**, Leadership Committee.
- 2020-present ASAHP, **member**, Research, Discovery, and Innovation Committee.
- 2020-present ASAHP, **member**, Communication, Public Relations, and Marketing Committee.
- 2021- ASAHP, **Coach/mentor** for faculty interested in becoming Chairs or Associate Deans in U.S. universities.

Manuscripts periodically reviewed for the following Journals:

American Journal of Physiology – Cell Physiology
American Journal of Physiology – Heart and Circulatory Physiology
Biochemical Pharmacology
Biophysical Journal
Cell and Tissue Research
Gene
European Journal of Physiology Pflügers Arch
Journal of Biological Chemistry
Journal of Molecular and Cellular Cardiology
Journal of General Physiology
Journal of Pharmacology and Experimental Therapeutics
Journal of Physiology (London)
Muscle & Nerve
Nature
Physiological Reports

PUBLICATIONS

A. Peer-reviewed Articles:

1. Avila-Sakar, A.J., Cota, G., Gamboa-Aldeco, R., **García M., J**, Huerta, M., Muñiz, J. & Stefani, E. (1986). Skeletal Muscle Ca⁺⁺ Channels. *Journal of Muscle Research and Cell Motility*. **7**:291-298.
2. **García, J.** & Stefani, E. (1987). Appropriate Conditions to Record Activation of Fast Ca⁺⁺ Channels in Frog Skeletal Muscle (*Rana pipiens*). *Pflügers Archiv*. **408**:646-648.
3. **García, J.**, Amador, M. & Stefani, E. (1989). Relationship between myoplasmic calcium transients and calcium currents in frog skeletal muscle. *Journal of General Physiology*. **94**:973-

986.

4. **García, J.**, Avila-Sakar, A.J. & Stefani, E. (1990). Repetitive stimulation increases the activation rate of skeletal muscle Ca^{2+} currents. *Pflügers Archiv*. **416**:210-212.
5. **García, J.**, Engelhardt, J.I., Appel, S.H. & Stefani, E. (1990). Increased MEPP frequency as an early sign of experimental immune-mediated motor neuron disease. *Annals of Neurology*. **28**:329-334. PMID: 2241116
6. **García, J.**, Gamboa-Aldeco, R. & Stefani, E. (1990). Charge movement and calcium currents in skeletal muscle fibers are enhanced by $GTP\gamma S$. *Pflügers Archiv*. **417**:114-116.
7. **García, J.**, Fill, M., Toro, L. & Stefani, E. (1990). Functional studies of Ca^{2+} channels from plasmalemma and sarcoplasmic reticulum membranes in muscle cells. *Seminars in Cell Biology*. **1**:255-264.
8. Appel, S.H. Engelhardt, J.I., **García, J.** & Stefani, E. (1991). Immunoglobulins from animal models of motor neuron disease and from human Amyotrophic Lateral Sclerosis patients passively transfer physiological abnormalities to the neuromuscular junction. *Proceedings of the National Academy of Sciences, USA*. **88**:647-651.
9. Engelhardt, J.I., Appel, S.H., Jakab, K., **García, J.** & Stefani, E. (1991). Immune-mediated models of motoneuron destruction in the guinea pig. In: Amyotrophic Lateral Sclerosis and other Motor Neuron Diseases. L.P. Rowland, ed., Raven Press. *Advances in Neurology*. **56**:369-379.
10. Appel, S.H., Engelhardt, J.I., **García, J.** & Stefani, E. (1991). Autoimmunity and ALS: a comparison of animal models of immune-mediated motoneuron destruction and human ALS. In: Amyotrophic Lateral Sclerosis and other Motor Neuron Diseases. L.P. Rowland, ed., Raven Press. *Advances in Neurology*. **56**:405-412.
11. **García, J.**, Pizarro, G., Ríos, E. & Stefani, E. (1991). Effect of the calcium buffer EGTA on the delayed charge movement of skeletal muscle. *Journal of General Physiology*. **97**:885-896.
12. **García, J.**, Avila-Sakar, A.J. & Stefani, E. (1991). Differential effects of ryanodine and tetracaine on charge movement and calcium transients in frog skeletal muscle. *Journal of Physiology (London)*. **440**:403-417.
13. Delbono, O., **García, J.**, Appel, S. H. & Stefani, E. (1991). IgG from amyotrophic lateral sclerosis affects tubular calcium channels of skeletal muscle. *American Journal of Physiology*. **260**:C1347-C1351.
14. Delbono, O., **García, J.**, Appel, S. H. & Stefani, E. (1991). Calcium current and charge movement of mammalian muscle: action of amyotrophic lateral sclerosis immunoglobulins. *Journal of Physiology (London)*. **444**:723-742.

15. **García, J.**, McKinley, K., Appel, S.H. & Stefani, E. (1992). Ca^{2+} current and charge movement in adult single human skeletal muscle fibres. *Journal of Physiology (London)*. **454**:183-196.
16. Csernoch, L., Pizarro, G., **García, J.**, Szücs, G., Stefani, E. & Ríos, E. (1992). Effects of calcium release from the sarcoplasmic reticulum on intramembrane charge movement in skeletal muscle. In: *Excitation-contraction coupling in skeletal, cardiac and smooth muscle*. G. B. Frank, ed., Plenum Press Co., New York, 137-148.
17. **García, J.** & Schneider, M. F. (1993). Calcium transients and calcium release in rat fast-twitch skeletal muscle fibres. *Journal of Physiology (London)*. **463**:709-728.
18. **García, J.** & Beam, K. G. (1994). Measurement of calcium transients and slow calcium current in myotubes. *Journal of General Physiology*. **103**:107-123.
19. **García, J.**, Tanabe, T. & Beam, K. G. (1994). Relationship of calcium transients to calcium currents and charge movement in myotubes expressing skeletal and cardiac DHP receptors. *Journal of General Physiology*. **103**:125-147. PMID: PMC2216852
20. **García, J.** & Beam, K. G. (1994). Calcium transients associated with the T type calcium current in myotubes. *Journal of General Physiology*. **104**:1113-1128.
21. **García, J.** & Schneider, M. F. (1995). Suppression of calcium release by calcium or procaine in voltage clamped rat skeletal muscle fibres. *Journal of Physiology (London)*. **485.2**:437-445. PMID: PMC1158003.
22. Shirokova, N., **García, J.**, Pizarro, G. & Ríos, E. (1996). Ca^{2+} release from the sarcoplasmic reticulum compared in amphibian and mammalian skeletal muscle. *Journal of General Physiology*. **107**:1-18.
23. **García, J.**, Nakai, J., Imoto, K. & Beam, K.G. (1997). Role of S4 segments and the leucine heptad motif in the activation of an L-type calcium channel. *Biophysical Journal*. **72**:2515-2523. PMID: PMC1184450
24. Shirokova, N., **García, J.**, & Ríos, E. (1998). Local calcium release in mammalian skeletal muscle. *Journal of Physiology (London)*. **512.2**:377-384. PMID: PMC2231212.
25. Shirokova, N., Shirokov, R., Rossi, D., González, A., Kirsch, W.G., **García, J.**, Sorrentino, V., & Ríos, E. (1999). Spatially segregated control of Ca^{2+} release in developing skeletal muscle of mice. *Journal of Physiology (London)*. **521.2**:483-495. PMID: PMC2269670.
26. Alden, K.J. & **García, J.** (2001). Differential effect of gabapentin on neuronal and muscle calcium currents. *Journal of Pharmacology and Experimental Therapeutics*. **297**:727-735. PMID: 11303064.

27. Simeoni, I., Rossi, D., Zhu, X., **García, J.**, Valdivia, H.H., & Sorrentino, V. (2001). Imperatoxin A (IpTx_a) from *Pandinus imperator* stimulates [³H]ryanodine binding to RyR3 channels. *FEBS Letters*. **508**:5-10. PMID: 11707258.
28. Alden, K.J., Goldspink, P.H., Ruch, S., Buttrick, P.M., & **García, J.** (2002). Enhancement of L-type Ca²⁺ current from neonatal mouse ventricular myocytes by constitutively active PKC-βII. *American Journal of Physiology Cell Physiology*. **282**:C768-C774. PMID:11880265.
29. Nabhani, T., Zhu, X., Simeoni, I., Sorrentino, V., Valdivia, H.H. & **García, J.** (2002). Imperatoxin A enhances Ca²⁺ release in developing skeletal muscle containing ryanodine receptor type 3. *Biophysical Journal*. **82**:1319-1328. PMC1301934.
30. Motlagh, D., Alden, K.J., Russell, B., & **García, J.** (2002). Sodium current modulation by a tubulin/GTP coupled process in neonatal cardiac myocytes. *Journal of Physiology (London)*. **540.1**:93-103. PMC2290223.
31. Alden, K.J. & **García, J.** (2002). Dissociation of charge movement from calcium release and calcium current in skeletal myotubes by gabapentin. *American Journal of Physiology Cell Physiology*. **283**:C941-C949.
32. García, K. D., Shah, T. & **García, J.** (2004). Immunolocalization of Type 2 Inositol 1,4,5-Trisphosphate Receptors in Cardiac Myocytes from Newborn Mice. *American Journal of Physiology Cell Physiology*. **287**:C1048-C1057.
33. Nabhani, T., Shah, T. & **García, J.** (2005). Skeletal Muscle Cells Express Different Isoforms of the Calcium Channel α2/δ Subunit. *Cell Biochemistry and Biophysics*. **42**:13-20. PMID: 15673925.
34. Zhou, J., Yi, J., Royer, L., Launikonis, B., Gonzalez, A., **García, J.** & Ríos, E. (2006). A probable role of dhydropyridine receptors in repression of Ca²⁺ sparks, demonstrated in cultured mammalian muscle. *American Journal of Physiology Cell Physiology*. **290**:C539-C553.
35. Goldspink, P., Ruch, S., Los, T., Buttrick, P. & **García, J.** (2008). Maladaptation of Calcium Homeostasis in Aging Cardiac Myocytes. *Pflügers Archiv – European Journal of Physiology*. **456**: 479-487. DOI: 10.1007/s00424-007-0420-2. PMID: 18172603
36. García, K., Nabhani, T. & **García, J.** (2008). The Calcium Channel α2/δ1 Subunit is Involved in Extracellular Signaling. *Journal of Physiology (London)*. **586.3**:727-738. DOI: 10.1113/jphysiol.2007.147959. PMCID: PMC2375616.
37. Grajales, L., **García, J.**, Banach, K. & Geenen, D. (2010). Delayed enrichment of mesenchymal cells promotes cardiac lineage and calcium transient development. *Journal of Molecular and Cellular Cardiology*. doi:10.1016/j.yjmcc.2009.12.022. **48**:735-745. PMC2837799.

38. **García, J.** (2011). The Calcium Channel α_2/δ_1 Subunit Interacts with ATP5b in the Plasma Membrane of Developing Muscle Cells. *American Journal of Physiology Cell Physiology*. doi:10.1152/ajpcell.00405.2010.
39. Thompson, W.R., Majid, A.S., Czymmek, K.J., Ruff, A.L., **García, J.**, Duncan, R.L. & Farach-Carson, M.C. (2011). Mechanically induced ATP release is regulated by $\alpha_2\delta_1$ subunit-enhanced $Ca_v3.2$ calcium channel plasma membrane expression in MLO-Y4 osteocytes. *Journal of Bone and Mineral Research*. doi:10.1002/jbmr.437.
40. Grajales, L., **García, J.*** & Geenen, D.L.* (2012). Induction of cardiac myogenic lineage development differs between mesenchymal and satellite cells and is accelerated by bone morphogenetic protein-4. *Journal of Molecular and Cellular Cardiology*. **53**:382-391. doi:10.1016/j.yjmcc.2012.06.003. PMCID: PMC3426454 *Co-senior authors.
41. **García, J.** (2012). Satellite cells and their potential for therapy in muscular dystrophies. Editorial in *Journal of Physical and Chemical Biophysics*. doi: 10.4172/2161-0398.1000e109.
42. Tamayo, T., Grajales, L. & **García, J.** (2012). Commitment of satellite cells expressing the calcium channel $\alpha_2\delta_1$ subunit to the muscle lineage. *Journal of Signal Transduction*. doi:10.1155/2012/460842. PMCID: PMC3517858.
43. Grajales, L., Lach, L., Janisch, P., Geenen, D.* & **García, J.*** (2014). Temporal expression of calcium channel subunits in satellite cells and bone marrow mesenchymal cells. *Stem Cell Reviews and Reports*. 11:408-422. doi:10.1007/s12015-014-9566-4. *Co-senior authors.
44. Cantuti-Castelvetri, L., Maravilla, E., Tamayo, T., Monge, J., Jeffries, J., Lopez- Rosas, A., Li, G., Garcia, K., van Bremmen, R., Vite, C., Sural-Fehr, T., **García, J.** & Bongarzone, E.R. (2015). Mechanism of neuromuscular dysfunction in Krabbe disease. *Journal of Neuroscience*. 35(4):1606 –1616. doi:10.1523/jneurosci.2431-14.2015.
45. Tamayo, T., Eno, E., Madrigal, C., Heydemann, A., Garcia, K. & **García J.** (2015). Functional *in situ* assessment of muscle contraction in wild type and *mdx* mice. *Muscle & Nerve*. doi: 10.1002/mus.24714.
46. Roberts, N.W., González-Vega, M., Berhanu, T.K., Mull, A., **García, J.** & Heydemann, A. (2015). Successful metabolic adaptations leading to the prevention of high fat diet-induced murine cardiac remodeling. *Cardiovascular Diabetology*. 14:127. <https://doi.org/10.1186/s12933-015-0286-0>.
47. Urao, N., Mirza, R.E., Heydemann, A., **García, J.** & Koh, T.J. (2016). Thrombospondin-1 levels correlate with macrophage activity and disease progression in dysferlin deficient mice. *Neuromuscular Disorders*. **26**:240-251. <http://dx.doi.org/doi: 10.1016/j.nmd.2016.01.002>.
48. Siemionow, M., Cwykiel, J., Heydemann, A., **García, J.**, Siemionow, K. & Szilagyi, E. (2018). Creation of dystrophin expressing chimeric cells of myoblast origin as a novel stem cell

based therapy for Duchenne muscular dystrophy. *Stem Cell Reviews and Reports*. **14**:189-199. <https://doi.org/10.1007/s12015-017-9792-7>.

49. Siemionow, M., Cwykiel, J., Heydemann, A., **García, J.**, Marchese, E., Siemionow, K. & Szilagyi, E. (2018). Dystrophin expressing chimeric cells provide a potential therapy for Duchenne muscular dystrophy. *Stem Cell Reviews and Reports*. **14**:370-384. <https://link.springer.com/article/10.1007%2Fs12015-018-9807-z>.

50. Siemionow, M., Szilagyi, E., Cwykiel, J., Domaszewska-Szostek, A., Heydemann, A., **García, J.**, Siemionow, K. (2020). Transplantation of Dystrophin Expressing Chimeric (DEC) Human Cells of Myoblast/MSC Origin Improves Function in Duchenne Muscular Dystrophy Model. *Stem Cells and Development*. DOI: 10.1089/scd.2020.0161.

B. Book Chapters:

García, J. & Beam, K. G. (1994). Physiological and molecular insights into excitation-contraction coupling in cardiac and skeletal muscle. In: *Ion channels in the cardiovascular system: Function and Dysfunction*. P. M. Spooner, A. M. Brown, W. A. Catterall, G. J. Kaczorowski, and H. C. Strauss, eds., Futura Publishing Co., New York, 355-368.

García, K., Grajales, L., Tamayo, T. & **García, J.** (2011). The $\alpha 2/\delta$ subunit of calcium channels – A multitasking protein. Nova Science Publishers. ISBN, 978-1-62100-532-2

García, J. (2012). Unraveling the multiple functions of the $\alpha 2/\delta$ subunits of calcium channels. In: *Calcium Channels: Properties, Function and Regulation*. Chapter 4, pp109-120. Ed. Mark R. Figgins, Nova Publishers.

C. Abstracts/Meeting Presentations:

1. **García M., J.**, Cota, G., Toro, L. & Stefani, E. (1984). Potenciales de acción de Ba^{2+} bifásicos en el músculo esquelético de rana: evidencia para dos poblaciones de canales de calcio en condiciones isotónicas. Abstracts of the XXVII Congreso Nacional de Ciencias Fisiológicas, Morelia, Mich., México, 177.

2. Stefani, E. & **García, J.** (1986). Modulación de las corrientes de Ca^{++} , rápida y lenta, de músculo esquelético de anfibio. Abstracts of the XXIX Congreso Nacional de Ciencias Fisiológicas, Guanajuato, Gto., México, 31.

3. **García, J.** & Stefani, E. (1986). Propiedades cinéticas de la corriente rápida de Ca^{++} en músculo esquelético de anfibio. Abstracts of the XXIX Congreso Nacional de Ciencias Fisiológicas, Guanajuato, Gto., México, 130.

4. Avila-Sakar, A.J., **García, J.** & Stefani, E. (1986). Efecto de la ausencia de Ca^{2+} extracelular sobre la sacudida simple de fibras musculares esqueléticas de anfibio. Abstracts of the XXIX Congreso Nacional de Ciencias Fisiológicas, Guanajuato, Gto., México, 131.
5. **García, J.**, Cota, G. & Stefani, E. (1986). Modulation of fast and slow calcium currents in frog skeletal muscle fibers. 16th Meeting of the Society for Neuroscience, Washington, D. C., USA, part 2, 992a.
6. Jacoby, J., **García, J.**, Navarrete-Alonso, A. & Stefani, E. (1986). Demonstration of Na currents in cells cultured from adult rat extraocular muscle. 16th Meeting of the Society for Neuroscience, Washington, D. C., USA, part 1, 42a.
7. **García, J.** & Stefani, E. (1987). Calcium currents in tail muscle of tadpole. *Biophysical Journal*. **51**: 426a.
8. Stefani, E., Toro, L. & **García, J.** (1987). Alpha- and beta-adrenergic stimulation of fast and slow Ca^{++} channels in frog skeletal muscle. *Biophysical Journal*. **51**: 425a.
9. **García M., J.** & Stefani, E. (1987). Desarrollo de las corrientes de calcio en músculo estriado de anfibio durante la metamorfosis. Abstracts of the XXX Congreso Nacional de Ciencias Fisiológicas, Jalapa, Ver., México, 083.
10. Avila-Sakar, A. J., **García, J.**, Toro, L. & Stefani, E. (1987). Registro de transitorios de Ca^{2+} en fibras musculares esqueléticas con Antipirilazo III. Abstracts of the XXX Congreso Nacional de Ciencias Fisiológicas, Jalapa, Ver., México, 171.
11. **García, J.**, Stefani, E. & Toro, L. (1987). Ca^{2+} current potentiation by previous Ca^{2+} entry in twitch and tonic muscle fibers of the frog. Abstracts of the 9th International Biophysics Congress, Jerusalem, Israel, p193.
12. Toro, L., **García, J.** & Stefani, E. (1987). Fast and slow Ca^{2+} currents are enhanced by α - and β -adrenergic agents and dibutyryl-cAMP of frog skeletal muscle. Abstracts of the 9th International Biophysics Congress, Jerusalem, Israel, p157.
13. **García M., J.** & Stefani, E. (1988). Corrientes de calcio en músculo estriado de renacuajo. Terceras Jornadas de Biología del Desarrollo. México, D.F. Bull. Med. Hosp. Infant. Mex. **45**:61.
14. **García, J.** & Stefani, E. (1988). Changes in calcium currents of striated muscle during tadpole metamorphosis. *Biophysical Journal*. **53**: 553a.
15. **García, J.**, Gamboa-Aldeco, R. & Stefani, E. (1988). Demostración de dos corrientes de calcio de bajo y alto umbral de activación en músculo esquelético de mamífero. Abstracts of the XXXI Congreso Nacional de Ciencias Fisiológicas, Querétaro, Qro., México, M3.

16. Gamboa-Aldeco, R., **García, J.** & Stefani, E. (1988). Efecto de la nifedipina sobre el movimiento de carga intramembranal en el músculo esquelético de mamífero. Abstracts of the XXXI Congreso Nacional de Ciencias Fisiológicas, Querétaro, Qro., México, O14.
17. Stefani, E., Amador, M., Gamboa-Aldeco, R. & **García, J.** (1988). Transitorios de calcio en el músculo esquelético de mamífero. Abstracts of the XXXI Congreso Nacional de Ciencias Fisiológicas, Querétaro, Qro., México, O13.
18. Amador, M., **García, J.** & Stefani, E. (1988). La corriente entrante de calcio contribuye a los cambios de concentración de calcio en el mioplasma. Abstracts of the XXXI Congreso Nacional de Ciencias Fisiológicas, Querétaro, Qro., México, O103.
19. Mejía-Alvarez, R., Gamboa-Aldeco, R., **García, J.**, Hamilton, S. & Stefani, E. (1988). Bloqueo de canales de Ca^{2+} por ATP en músculo esquelético de mamífero. Abstracts of the XXXI Congreso Nacional de Ciencias Fisiológicas, Querétaro, Qro., México, C235.
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