***CURRICULUM VITAE***

**Lilian I. Plotkin, PhD**

**EDUCATION**

UNDERGRADUATE

School of Pharmacy and Biochemistry, BS/MS (Biochemistry) 1981-1987

National University of Buenos Aires

GRADUATE

School of Pharmacy and Biochemistry, PhD (Immunology) 1991-1996

National University of Buenos Aires

POSTDOCTORAL

University of Arkansas for Medical Sciences Postdoctoral fellow 1998-2002

#### APPOINTMENTS

ACADEMIC

National University of Buenos Aires 1987-2001

Immunology leave of absence, 1998-2001

Teaching Assistant

National University of Buenos Aires 1991-1993

Immunology and Immunochemistry and Monoclonal Antibodies

Teaching Assistant

University of Arkansas for Medical Sciences 2002-2005

Division of Endocrinology and Metabolism and UAMS Center for Osteoporosis and Metabolic Bone Diseases, Department of Internal Medicine

Research Instructor

University of Arkansas for Medical Sciences 2005-2008

Division of Endocrinology and Metabolism and UAMS Center for Osteoporosis and Metabolic Bone Diseases, Department of Internal Medicine

Research Assistant Professor

Indiana University School of Medicine 2008-2014

Department of Anatomy and Cell Biology

Assistant Professor

Indiana University School of Medicine 2014-2020

Department of Anatomy, Cell Biology & Physiology

Associate Professor

Indiana University School of Medicine 2020-present

Department of Anatomy, Cell Biology & Physiology

Professor

**NON-ACADEMIC**

Juan A. Fernández General Hospital 1987-1988

Dept. of Hemotherapy, Laboratory of Serology

Assistant Biochemist

Instituto de Estudios de la Inmunidad Humoral 1989-2000

National Research Council of Argentina leave of absence 1998-2000

(CONICET)

Professional Research Assistant

## PROFESSIONAL ORGANIZATION MEMBERSHIP

Organization Argentinean Immunology Society

Years 1989-1997 .

 American Society for Bone and Mineral Research

 1998-present

 American Association for the Advancement of Science

 1999-2001

 American Association for the Advancement of Science.

 2009-present

 Endocrine Society

 2010-2012

 International Bone and Mineral Society

 2011-2016

 Argentinean Association for Osteology and Mineral Metabolism

 2016-present

 American Association of Anatomists

 2019-present

 Fibrous Dysplasia Foundation

 2020-present

**PROFESSIONAL HONORS AND AWARDS:**

RESEARCH

AWARS Travel Award

SOCIETY American Society for Bone and Mineral Research-International Bone and Mineral Society joint Meeting

YEAR 1998

 Second Best 1998 Scientific Paper Award.

 Argentinean Journal of Endocrinology and Metabolism

 1999

 Alice L. Jee Memorial Young Investigator Award

 International Sun Valley Hard Tissue Workshop

 2001

 Young Investigator Award,

 American Society for Bone and Mineral Research

 2002

 Overseas Conference Grant Award

 Office of the Vice President for International Affairs (OVPIA) at Indiana University

 2010

 Overseas Conference Grant Award

 Office of the Vice President for International Affairs (OVPIA) at Indiana University

 2012

 Overseas Conference Grant Award

 Office of the Vice President for International Affairs (OVPIA) at Indiana University

 2015

 Fellow

 American Society for Bone and Mineral Research

 2019-present

SERVICE

Outstanding Contribution in Reviewing

Bone Reports Journal

2017

Outstanding Contribution in Reviewing

Bone Journal

2017

Outstanding Contribution in Reviewing

European Journal of Pharmacology

2017

Outstanding Contribution in Reviewing

Molecular and Cellular Endocrinology Journal

2017

Commitment to Diversity Award

IUSM Office of Diversity Affairs

2018

## TEACHING:

Course: Immunology

Dept. of Immunology, School of Pharmacy and Biochemistry, National University of Buenos Aires

Role: Lecturer and Laboratory instructor

Term: Fall semester 1987-1998

 Immunochemistry and Monoclonal Antibodies,

Dept. of Immunology, School of Pharmacy and Biochemistry, National University of Buenos Aires.

 Lecturer and Laboratory instructor

Spring semester 1991-1998

 Graduate Cellular Endocrinology

Department of Physiology, University of Arkansas for Medical Sciences

 Lecturer

Fall semester 2004-2006

 Medical Physiology Endocrine Case Conference for first year medical students

 Department of Physiology, University of Arkansas for Medical Sciences

 Lecturer

 Spring semester 2005-2007

 Basic Science Tutorial for Endocrinology Clinical Fellows

 Division of Endocrinology, Department of Internal Medicine, University of Arkansas for Medical Sciences

Lecturer

Fall semester, 2006

 D504/D815 Medical/Graduate Histology

 Lecturer and Laboratory instructor

 Spring 2009-2016

 G819 Basic Bone Biology

 Lecturer

 Fall (every other year) 2009-2015, Spring 2018-present

Frontiers in Translational Medicine Course for medical students, School of Medicine, University San Pablo CEU, Madrid, Spain

 Lecturer

 Summer 2012

 G751 Advanced concepts in cytosolic and nuclear signal transduction

 Lecturer

 Spring 2013-present, Module 3

 MED-X620 Human Structure

 Lecturer and Laboratory instructor

 Fall 2016-present

 MED-X630 Molecules to Cells and Tissues

 Lecturer and Laboratory instructor

 Fall 2016

 G801 Neuromusculoskeletal Cell Biology

 Course Director and Lecturer

 Summer 2020

**MENTORING**

**Thesis committees**

Takeisha Farmer IUSM MS committee member 2010-2011

Rafael Pacheco da Costa University of Sao Paolo PhD committee member 2011-2015

*- Scholarship from the CAPES Foundation (Ministry of Education, Brazil) to conduct part of his doctoral thesis at Indiana University 2011-2013*

*- Award for best basic abstract - 4th BRADOO Meeting 2013*

 *- Young Investigator Travel Award - Annual ASBMR Meeting 2013/2017*

Abdullah Ben-Awadh IUSM MS committee member 2011-2012

Ling Li IUSM PhD committee member 2011-2014

Amy Sato IUSM PhD committee member 2012-2017

Sara Rachles, IUSM MS committee member 2012-2014

Whitney Bullock IUSM PhD committee member 2014-2019

Krishanthi Gunaratnam Examiner for PhD Thesis, University of Sydney

 Australia 2015

 Hannah M. Davis IUSM PhD advisor/committee chair 2015-2019

*- Young Investigator Travel Award from ASBMR - 2015, 2017, and 2018.*

*- Fellowship to attend and present a poster at the Endocrinology Fellows Foundation Ninth Annual Fellows Forum on Metabolic Bone Disease - 2015.*

*- Graduate Training Fellowship T32-AR065971 2017-2018*

*- Graduate and Professional Educational Grant award (IUSM) 2018*

*- Charles H. Turner Young Investigator Award for the Advances*

*in Mineral Metabolism (AIMM) Meeting 2018*

*- F31 fellowship grant (relinquished) - 2018*

*- Erica M. Daniel Kepner Award for Scientific Achievement from IUSM 2018*

*- Cagiantas Scholarship from the IUSM - 2018.*

*- Graduate & Professional Student Grant (IUPUI) - ASCB/EMBO Meeting 2018*

Madeline Totten MU-COM MS Committee member 2018-2019

Alyson L. Essex IUSM PhD advisor/committee chair 2018-present

- *Graduate Training Fellowship T32-AR065971 2018-2021*

*- Graduate & Professional Student Grant (IUPUI) - ASBMR Meeting 2018*

*- Extraction Chemistry Award – Beckman Coulter 2019*

*- Young investigator award to attend the 2020 ECTS Digital Masterclass for PhD Students 2020*

*- Travel Grant, IUSM Graduate Student Representatives 2020*

Ting Hsiao MU-COM MS Committee member 2019-2020

Anika Shimonty IUSM PhD committee Chair 2019-present

Emily Atkinson IUSM PhD committee member 2020-present

Nipuni Barupala IUSM PhD committee member 2020-present

Natasha Sanz Graduate Student co-mentor, CONICET, Argentina 2021-present

**Research rotations**

High school students

Yovanie Biggerstaff IUSM Project SEED mentor 2010

Delfina Sánchez-Pernisola IUSM Project SEED mentor 2014

Zuleima Sánchez IUSM Project SEED mentor 2015

Alejandro Marcial IUSM Project SEED mentor 2016/2017

Manuel Senrra IUSM Project SEED mentor 2017

Daniel Ogunmoyero IUSM Project SEED mentor 2018

Giancarlo Irizarry IUSM Project SEED mentor 2018

José Moreno IUSM Project SEED mentor 2019

Gabriela Calvo IUSM Project STEM mentor 2020

Kevin Olivares IUSM Project STEM mentor 2020

Javier Cordova Jr IUSM Project STEM mentor 2020

Undergraduate students

Iraj Hassan IUPUI, Work Study Program 2010-2014

*Recipient of awards to attend to the following conferences:*

- Annual Biomedical Research Conference for Minority Students, San Jose, CA 2012

- National Council for Undergraduate Research Conference, LaCrosse, Wisconsin 2013

 UROP mentor 2011

 Ronald E. McNair Post-baccalaureate Achievement

 Program from the U.S. Department of Education

 mentor 2012

 CTSI Award mentor 2013

Julia Harris Women in Science Internship mentor

 IUPUI Women in Science and IBMG 2014

Emily Atkinson LHSI mentor 2014-2015

 CTSI mentor 2015

Christian Porter LHSI mentor 2015-2016

Arwa Mohammad CTSI award mentor 2016

Carmen Herrera-Sandoval LHSI mentor 2016-2017

Sinai Valdez CTSI mentor 2017

 IN LSAMP mentor 2018

Leland Gomez LHSI mentor 2017-2018

Alejandro Marcial IUPUI work study program mentor 2017-2018

 DSRP mentor 2017-2019

 CTSI mentor 2018

 IUPUI work-study program mentor 2018-2019

 DS-UROP mentor 2019

Melanie Martinez undergraduate student mentor 2018

Nicole Ramos-Solís IPREP rotation mentor 2018

Haarmandeep Sidhu LHSI mentor 2018-2019

Wilyaret Rodríguez Mercado SUREBS mentor 2019

Raquel Ciprian Diaz. IN LSAMP mentor 2019

 IUPUI Senior Capstone Project mentor 2020

Allison Wagner LHSI mentor 2019-2020

Joungyoon Choi IUPUI Senior Capstone Project mentor 2020

Sylvia Robertson volunteer – Purdue graduate 2020

Sandra Padilla volunteer – IUPUI Senior student 2020

Cierra Isom rotation – IPREP fellowship mentor 2020

Azaria Davis APSA - Virtual Summer Research Program (VSRP) 2020

Laura Morales volunteer – IUPUI Senior student 2020-2021

Dua Tariq IUPUI - UROP scholar 2020-2021

Graduate students

Alyson Essex IBMG rotation mentor 2018

Alia Jamison IUSM Master Student Research mentor 2020

Medical students

Nathan Farlow IUSM SRPinAM mentor 2010

Thomas Murphy IUSM SRPinAM mentor 2011

Surajudeen Bolarinwa IUSM SRPinAM mentor 2012

Chad Sorenson 3rd year medical school rotation mentor 2013

Mary Catherine Hon IUSM SRPinAM mentor 2014

David A. Lopez IUSM SRPinAM mentor 2015

Julian Dilley IUSM SRPinAM mentor 2016

Kimberly Allen IUSM SRPinAM mentor 2017

Andrew Sickbert IMPRS mentor 2019

Austin Magley volunteer, MU-COM 2019

Nicholas Momeni volunteer, MU-COM 2021

CTSI - Clinical and Transitional Sciences Institute

LHSI - Life-Health Sciences Internship Program

DS-UROP - Diversity Summer Undergraduate Research Opportunity

UROP - Undergraduate Research Opportunity

SRPinAM - MSA Student Research Program in Academic Medicine

IPREP - IUPUI Post-Baccalaureate Research Program

MU-COM - Osteopathic Medical School, Marian University

SEED - Science Experience for the Economically Disadvantaged

IMPRS - **Indiana University Medical Student Program for Research and Scholarship**

IN LSAMP – Indiana Louis Stokes Alliances for Minority Participation

SUREBS **–** Summer Undergraduate Research Experience in Biomedical Sciences

APSA – American Physician Scientists Association

CONICET – National Research and Technology Council, Argentina

**Postdoctoral fellows**

Nicoletta Bivi, PhD Postdoctoral fellow 2008-2011

* *ASBMR Young Investigator Award* 2009
* *Alice L. Jee Memorial Young Investigator Award and*

*ASBMR/Harold M. Frost Young Investigator Award –*

*International Bone and Mineral Society*

*Sun Valley Workshop: Musculoskeletal Biology* 2010

* *Young Investigator ASBMR Travel Grant* 2011

Lucas Brun, M.D., PhD Visiting post-doctoral fellow *2011*

* *Pre-selected - Best Scientific Basic Abstract*

*Annual Meeting of the Argentinean Society for Osteology*

*and Mineral Metabolism* 2011

Rafael Pacheco da Costa, PhD Postdoctoral fellow 2015-2017

* *Scholarship from Conselho Nacional de Desenvolvimento*

*Científico e Tecnológico, of the Ministry of Science,*

*Technology and Innovation of Brazil*  2015-2016

* *Fellowship -Endocrinology Fellows Foundation*

*Ninth Annual Fellows Forum on Metabolic Bone Disease* 2016

* *2nd place Maria Odete Ribeiro Leite award, 7th BRADOO – Brazilian Densitometry, Osteoporosis and Osteometabolism Meeting* 2016
* *Young Investigator ASBMR Travel Award* 2017

Alexandra Aguilar-Perez, PhD Postdoctoral fellow 2017-2018

* *NIH Diversity Supplement Award* 2017-2020
* *Fellowship - Endocrinology Fellows Foundation*

*Tenth Annual Fellows Forum on Metabolic Bone Disease* 2017

* *ASBMR travel award - Network for Minority Health*

*Research Investigators (NMRI) Annual Workshop, NIDDK* 2018

Ursula Heilmeier, MD Postdoctoral fellow, University Hospital Zürich and University of Zürich, Switzerland – mentee through the ASBMR-National Research Mentoring Network (NRMN) virtual mentoring pilot program 2018

Mamidi Mamidi, PhD Postdoctoral fellow, Case Western Reserve University, Cleveland OH – mentee through the ASBMR mentoring program. 2019

Corinne Metzger, PhD Postdoctoral fellow mentoring team member

 F32 fellowship 2019-present

**Faculty mentoring**

Nicoletta Bivi, Ph.D. Research Assistant Professor mentor 2011-2012

Joseph Wallace K25 AR067221 award co-mentor 2015-2018

Yukiko Kitase Research Assistant Professor Advisory Committee member, IUSM 2018-present

Ann Carol Kimble-Hill Advisor, Programs to Launch URM Success

 (PLUS) Advisory Council (PAC) 2019-present

Erica Clinkenbeard Leadership in Academic Medicine Program 2021

**Other mentoring activities**

Co-host for the Career Development Webinar Series (Membership Engagement and Education Committee) – “Successful mentoring relationship and the benefits of mentoring from the mentor’s perspective”, ASBMR 2019

Advisor for the Thesis Reports Committee of

IFMRS HubLE learning environment 2019-present

ASBMR - American Society for Bone and Mineral Research

IFMRS - International Federation of Musculoskeletal Research Societies

**GRANTS/FELLOWSHIPS IN RESEARCH:**

**ACTIVE GRANTS**

Agency: NIH/NIAMS R01-AR072609 (Joseph Wallace)

Title: Targeting collagen as an interventional approach to improve bone material properties

Role: Co-Investigator (5% effort)

Costs: $220,000 direct costs/year

Dates: 07/01/2018 – 06/30/2023

 Indiana CTSI (Lilian I. Plotkin)

 IUSM Core Equipment Grant Program

Request for a tissue processor for the ICMH Histology and Histomorphometry Core

 Principal Investigator (no salary listed)

 $20,000

 5/12/2019

NIH/NIAMS R01-AR46477 (Uma Sankar)

 CaMKK2 Signaling in Osteoarthritis

Co-Investigator (4% effort)

 $412,496 direct costs

 02/01/2020 – 01/31/2025

Indiana CTSI

Sex divergent role of osteocytic miR21 and osteocyte viability and bone turnover

Principal Investigator (no salary listed)

$2,158 direct costs

08/1/2018 – 07/31/2021

IUPUI Office of the Vice Chancellor for Research

Bridge funds program

FGF10 and the skeletal muscle consequences of osteocytic miR21 deletion.

 Principal Investigator (no salary listed)

 $45,000

07/01/2020 – 06/30/2021

 IIMR Grants Assistance Fund

 TREM2-RAGE interactions

 Principal Investigator (no salary listed)

 $2,500

 02/10/2020

Veterans Administration Research 1I0 1BX005154

Skeletal complications of a TREM2 variant associated with Alzheimer’s disease.

Principal Investigator

$160,000 total costs/year

04/01/2021-03/31/2025

**COMPLETED GRANTS**

Agency: NIH/NIDDK (Teresita Bellido)

Title: Osteocyte control of bone formation via Sost.

Role: Co-Investigator

Costs: $343,714 total costs/year

Dates: 07/01/2007 to 06/30/2012

NIH/NIAMS R01 – AR053643

 Connexin43 hemichannels and signaling in bone

 Principal Investigator

 $1,624,724 total costs

 07/01/2008 - 06/30/2013

 Procter & Gamble

Influence of bone turnover rate and binding affinity on bisphosphonate skeletal distribution

 Co-Principal Investigator (with Matthew Allen)

 $59,099 total costs

 06/01/2009 - 12/31/2010

 Procter & Gamble

Prevention of osteoblast and osteocyte apoptosis in the absence of anti-resorptive effects by bisphosphonates

 Co-Principal Investigator (with Teresita Bellido)

 $74,000 total costs

06/01/2009 - 06/30/2011

IUPUI Office of the Vice Chancellor for Research (Stuart Warden)

Indiana Center for Translational Musculoskeletal Research

Center Faculty

$100,000 total costs/year

07/01/2010 - 06/30/2013

NIH/NIAMS R01 – AR059357 (Teresita Bellido)

FAK/Pyk2 signaling pathway and bone formation

Co-Investigator

$ 1,732,500 total costs

09/01/2011 - 08/31/2015

 Ralph W. and Grace M. Showalter Research Trust Fund, IUPUI Office of the Vice Chancellor for Research

Opposing actions of mechanical forces and glucocorticoids in bone

 Principal Investigator

$60,000 total costs/year

07/01/2011 to 06/30/2012

 NIH T35 – HL110845 (Nadia Carlesso)

 Short-term training program in biomedical sciences.

 Mentor

 $169,983 total costs year one

 03/01/2012 - 02/28/2016

 CTSI PDT Grant TR000006

 Role of osteoblastic Cx37 on bone resorption in bone.

 Co-Principal Investigator (with Matthew Allen)

 $ 10,000 total costs

 11/01/2012 - 10/31/2013

Department of Veterans Affairs (Teresita Bellido)

**Osteocyte control of bone remodeling through the PTH receptor**

Co-Investigator

$649,982 total costs

04/01/2013 to 03/31/2017

Indiana University School of Medicine – Biomedical Research Grant

Control of IGF1-induced osteocyte survival by Cx43 and miRNAs

Principal Investigator

$40,000 total costs/year

03/01/2013 to 02/28/2014

Indiana University School of Medicine – Office of the Vice Chancellor for research

Developing Diverse Researchers with InVestigative Expertise (DRIVE) grant

HMGB1 and osteoclast recruitment and differentiation induced by deletion of Cx43 in osteocytes

Principal Investigator

$10,000 total cost/year

04/01/2013 to 03/31/2014

Indiana Center for Musculoskeletal Health, ICMH Pilot Project

 Pannexin 1 in bone and muscle crosstalk

Co-Principal Investigator (with Angela Bruzzaniti and Teresa Zimmers)

$50,000 direct costs

07/01/2017-06/30/2018

NIH/NCI R01-CA209882 (G. David Roodman, Teresita Bellido)

Contribution of Osteocytes to the Musculoskeletal Effects of Multiple Myeloma

Co-Investigator

$324,865 direct costs/year

 04/01/2017-03/31/2019

Veterans Administration Research I01 BX002104-05A1 (Teresita Bellido)

 PTH receptor Signaling and Diabetes-induced Bone Disease

Co-Investigator

$150,000 direct costs/year

01/04/2018-03/31/2019

 NIH/NIAMS R01-AR059357 (Teresita Bellido)

 Glucocorticoid-induced Atrophy in Bone and Muscle

Co-Investigator

$220,000 direct costs/year

07/01/2018-06/30/2019

 NIH R13-AG063480 (Lynda Bonewald)

 Bone and Muscle Interaction: the Mechanical and Beyond

 Member of the organizing committee (no salary listed)

$75,000 direct costs

08/16/2019

Indiana Center for Musculoskeletal Health

 Consequences of TREM2 mutations in bone and muscle

Co-Principal Investigator (with Andrea Bonetto)

$20,000 direct costs

07/01/2018 – 06/30/2019

IUPUI Office of the Vice Chancellor for Research (Lilian I. Plotkin)

 Mitochondria defects in the absence of osteocytic miR21

 Principal Investigator (no salary listed)

 $35,000 06/01/2019 – 05/31/2020

 NIH/NIAMS R01-AR067210

 Osteocyte apoptosis and regulation of bone resorption with aging

 Principal Investigator (20% effort)

$212,653 direct costs/year

03/01/2015 – 02/28/2021

**INVITED PRESENTATIONS IN RESEARCH**

**LOCAL PRESENTATIONS**

Venue: Seminars of the Department of Microbiology, Immunology and Biotechnology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina

Title: Analysis of the humoral immune response of patients with psoriasis

Year: 1994

Seminars of the Department of Microbiology, Immunology and Biotechnology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina

Analysis of the lipolytic system of *P. ovale*: its potential participation in the inflammatory manifestations of psoriasis

1995

Seminars of the Department of Microbiology, Immunology and Biotechnology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina

Mechanism that mediate inflammation

1995

Seminars of the Department of Microbiology, Immunology and Biotechnology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina

Epithelial cells release arachidonic acid as a consequence of the action of phospholipase A2 produced by *Malassezia furfur*: a potential pathophysiological mechanism.

Seminars of the Instituto de Estudios de la Inmunidad Humoral (IDEHU), Immunology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina

Analysis of the relationship between the immune system and the bone system

1997

Endocrinology Grand Rounds, UAMS, Little Rock, AR, USA

Survival signals induced by bisphosphonates in osteocytes

2000

Endocrinology Grand Rounds, UAMS, Little Rock, AR, USA

CRM1/Exportin1-mediated nuclear export is required for the pro-survival effect of bisphosphonates on osteocytes: evidence for cytoplasmic-restricted signaling by ERKs

2002

Endocrinology Grand Rounds, UAMS, Little Rock, AR, USA

Transcription-independent inhibition of caspases by C/EBPβ in osteocytes: an anti-apoptotic signaling cascade uniquely activated by bisphosphonates

2003

 Invited lecture. School of Dentistry, Dept. of Oral Biology and Dept. of Biological Sciences, University of Missouri at Kansas City, Kansas City, MO, USA

Prevention of osteocyte apoptosis by bisphosphonates: a mechanism mediated by Cx43 hemichannels and transcription independent functions of ERKs

2005

Department of Internal Medicine Research Conference, UAMS, Little Rock, AR, USA Glucocorticoid excess disrupts the canalicular circulation: potential mechanism of the disparity between bone density and strength in glucocorticoid induced osteoporosis and osteonecrosis

2005

Invited lecture. Eli Lilly and Company, Indianapolis, IN, USA

Why keep osteocytes alive and how?

2009

Invited lecture.Medical & Molecular Genetics Research Club, Indiana University School of Medicine, Indianapolis, IN, USA.

Prevention of osteocyte and osteoblast apoptosis by bisphosphonates: unraveling a new paradigm of signal transduction mediated by Cx43

2009.

Invited lecture. Endocrine Research Conference, Indiana University School of Medicine, Indianapolis, IN, USA

Connexin43 and osteocyte viability

2010

Invited lecture. Biomedical Engineering Seminar Series, Purdue University, Indianapolis, IN, USA

Connexins, Osteocyte Survival and Regulation of Osteoclastogenesis: Novel pathways with Therapeutic Potential

2013

Invited lecture, VA Research Seminar, Richard L. Roudebush VA Medical Center, Indianapolis, IN, USA.

Connexins in bone: gap junctions, hemichannels, and more

2015

**NATIONAL PRESENTATIONS**

Venue: Invited lecture. Boston Area DiscoveRx Technology Symposium, Cambridge, MA, USA

Title: Cx43-β-arrestin association and the activation of cAMP-mediated survival signaling by parathyroid hormone in osteoblasts

Year: 2009

 Invited lecture. Children’s Research Institute Osteoclast Center, Medical University of South Carolina, Charleston, SC, USA

 Regulation of bone mass by Cx37, a new connexin expressed in bone cells, via cell-autonomous control of osteoclast differentiation and fusion

 2013

Invited speaker, MCBP Seminar, Medical University of South Carolina, SC, USA.

Connexins and Pannexins: membrane channels that modulate the generation, survival and activity of bone cells

2018

Invited speaker, American Association of Anatomists Annual Meeting, held in conjunction with Experimental Biology, EB 2019, Orlando, FL

Triggering Receptor Expressed on Myeloid Cells 2 (TREM2) Mutations: a Potential Common Cause of Alzheimer’s Disease and Musculoskeletal Disorders

2019

**INTERNATIONAL PRESENTATIONS**

Venue: VI International Symposium of Osteoporosis (SIO 2003) & III Symposium of Mercosur Metabolic Bone and Mineral Disease**, Mar del Plata, Buenos Aires, Argentina**

Title: **Comparative analysis of the mechanism of action of: PTH - Angels – Estrogens and Molecular basis for the action of bisphosphonates on osteocytes**

Year: 2003

 Invited lecture. Fundación Jiménez Díaz, Madrid, Spain

Molecular mechanism of action of bisphosphonates on osteocytes

2007

 Invited lecture. 36th European Symposium on Calcified Tissues, Vienna, Austria. Workshop 4

 New roles for estrogen receptors: New insights into sex hormones and bone

 2009

 Invited lecture. XXVI Annual Reunion of the Argentinean Society for Osteology and Mineral Metabolism (AAOMM), Buenos Aires, Argentina

 Bisphosphonates, connexins and apoptosis: novel mechanism of action with therapeutic potential and Effect of glucocorticoids on osteocytes

 2009

 Invited speaker, Plenary Symposium III: 40th Anniversary of Bisphosphonates - Yesterday, Today and Tomorrow. 31st Annual Meeting of the American Society for Bone and Mineral Research, Denver, CO, USA

Novel bisphosphonate actions on bone: preservation of osteocyte and osteoblast viability

2009

 Invited speaker, 1st Latin American Symposium on the molecular mechanisms of skeletal mineralization and XXXIX Annual Meeting of the Brazilian Society for Biochemistry and Molecular Biology (SBBq). Foz do Iguassu, Brazil.

 Role of Connexin 43 expression in osteoblastic cells on cell viability and bone material properties

 2010

 Invited speaker, Seminars of the Instituto de Estudios de la Inmunidad Humoral (IDEHU), Immunology, School of Pharmacy and Biochemistry, University of Buenos Aires, Buenos Aires, Argentina.

 Connexin 43 and apoptosis of osteoblastic cells

2010

 Invitedspeaker, 5th International Workshop on Advances in the Molecular Pharmacology and Therapeutics of Bone Disease, Oxford, United Kingdom. Bisphosphonates, connexins and anti-apoptosis: a novel pathway with therapeutic potential

 2012

 Invitedspeaker, Seminar series at the Center for Applied Medical Research, University of Navarra, Pamplona, Spain.

 Cx43, osteocyte apoptosis and bone remodeling

 2012

Invited speaker, XVIII Meeting of the Spanish Society for Bone and Mineral Metabolism Research, Tarragona, Spain.

Connexins and bone: regulation of cell viability, regulation of mechanical responses or coordination of bone remodeling?

2013

Invited speaker, Federal University of São Paulo School of Medicine. São Paulo, Brazil

Control of bone resorption by apoptotic osteocytes

2014

Invited speaker, 1er Congreso Argentino de Osteología, organized by Asociación Argentina de Osteología y Metabolismo Mineral (AAOMM) and Sociedad Argentina de Osteoporosis (SAO), Buenos Aires, Argentina

Connexins and pannexins, membrane channels that modulate the generation and activity of bone cells

2016

Invited speaker, Fisiopatología, diagnóstico y tratamiento de las enfermedades metabólicas óseas (Physiopathology, diagnostic and treatment of bone metabolic diseases) course, Universidad Nacional de Rosario, Rosario, Argentina

Aspectos generales de la biología del tejido óseo (General aspects of bone tissue biology)

2018

Invited speaker, Centro de Ejercicio, Metabolismo y Cáncer (CEMC, Facultad de Medicina, Universidad de Chile) and Instituto de Investigación en Ciencias Odontológicas (Facultad de Odontología, Universidad de Chile), Santiago, Chile

Efectos de los bisfosfonatos en células osteoblásticas dependientes de los canales de conexina 43 (Effects of bisphosphonates on osteoblastic cells dependent on connexin 43 channels)

2019

Invited speaker, Instituto de Diagnostico e Investigaciones Metabólicas, Buenos Aires, Argentina

Nuevo mecanismo de acción de los bifosfonatos (Novel mechanisms of bisphosphonate actions)

2019

Invited speaker, Bisphosphonates 2019: Celebrating 50 years meeting, Sheffield, United Kingdom

Non-classical bisphosphonate actions

2019

Invited speaker, Bone and Muscle Interactions: the Mechanical and Beyond meeting, Indianapolis, IN

Bone and muscle interactions with aging

2019

Invited speaker, ASBMR Diversity Subcommittee Research Interest Meeting, zoom presentation.

2020

Invited speaker, Argentinean Society of Osteology and Mineral Metabolism (AAOMM) Webinar Series, zoom presentation.

*microRNA-21 en osteocitos y el control del remodelado óseo* (microRNA-21 in osteocytes and the control of bone remodeling).

2020

Invited speaker, Argentinean Society of Osteology and Mineral Metabolism (AAOMM) *Jornadas "Metodologías Multiescala de Aplicación en Osteología"* (multiscale methods applied to osteology), zoom presentation.

Métodos de biología molecular aplicada a tejido óseo-cartilaginoso

2020

Invited speaker, Musculoskeletal Lecture Series (virtual conference series – Chile-Colombia), zoom presentation.

Remoción del microRNA-21 de osteocitos: efectos dependientes e independientes del sexo de los animales (removal of osteocytic microRNA-21: effects dependent and independent of the sex of the animals).

2020

**SERVICE:**

**UNIVERSITY SERVICE:**

**DEPARTMENT – Anatomy, Cell Biology & Physiology**

Committee: Graduate Studies Committee

Role: Member

Year: 2009-2021

 Bone Journal Club

 Co-Coordinator

 2012-2017

 Social media outreach committee

 Member

 2016-2018

 Graduate program review committee

 Member

 2018

 ACBP Steering Committee

 Member

 2018-2020

 Space Committee

 Member

 2019

 DEI Task Force

 Chair

 2021-present

**SCHOOL – Indiana University School of Medicine**

Committee: Electron Microscopy Advisory Committee

Role: Member (Chair since 2020)

Year: 2009-2021

 Graduate Oversight Committee

 Member – representative of the Department of Anatomy and Cell Biology

 2015-2018

 Institutional Animal Care and Use Committee (IACUC)

 Member

 2015-2020

 Vice-Chair

 2021-present

 IACUC Subcommittee aiming to improve the breeding section of the animal protocols

 Member

 2018-2019

 Bylaws Subcommittee in charge of drafting the bylaws to govern the Graduate Oversight Committee function

 Member

 2018

 Academic Program Review – Department of Microbiology and Immunology at IUSM

 Representatives of Related Programs within IUSM

 2018

 Indiana University School of Medicine Diversity Council

 Member

 2018-present

 IUSM Student Research Symposium

 Judge

1.

 Multi-Center grant applications IUSM

 Reviewer (1 grant)

 2019

 IUSM

 Programs to Launch URM Success (PLUS) Advisory Council member

2019-present

 IUPUI

Indiana University-Purdue University Post-Baccalaureate Research Education Program (IPREP) Advisory Board

2018-present

IUSM

Promotion & Tenure Committee

2020-present

IUSM

 Lecturers and Clinical Rank Faculty Promotion Committee

2020-present

 IUSM

 Member Data and Climate Task Force

* Cultural Climate Data Subcommittee
* DEI Dashboards Subcommittee

 2020-present

**IUSM - Indiana Center for Musculoskeletal Health**

 Director, ICMH Histology and Histomorphometry Core

 Member, ICMH Core Committee

 Coordinator, ICMH journal club

 Coordinator, ASBMR practice presentations and highlights review

 2018-presnt

 Co-organizer, ICMH Research Club

 Co-organizer, external grant review sessions

 2018-2020

 Member, ICMH Pilot Project Committee

 2019-present

**UNIVERSITY – Indiana University Purdue University Indianapolis**

Program: IUPUI Life Health Science Internship (LHSI)

Role: Research Mentor

Years: 2014-present

 IUPUI RSFG

 Reviewer (2015 – 5 grants, 2016 – 2 grants, 2017 – 1 grant)

 Indiana CTSI

 Grant reviewer

 2016 (2 grants) and 2018 (3 grants)

 Academic Program Review – Department of Health Sciences at IUPUI Representative of Related Departments Outside the School

 2018

 IUPUI Release Time for Research

 Reviewer for 1 grant

 2018

**Indiana CTSI - Purdue University**

 Bone and Body Composition Core

 Co-Deputy Director

 2018-2019

 Temporary Director

 2019-2020

 Histology and Histomorphometry Core

 Director

 2020-present

**PROFESSIONAL SERVICE**

**Editorial Boards**

Journal: Actualizaciones en Osteología. (Argentinean Society for Osteology and Mineral Metabolism)

Role: Member Editorial Board

Year: 2011-2015

Bone

Editorial Board member

2011-2018

Cell Biology: Research & Therapy

Member Editorial Board

2012-2015

Endocrinology and Metabolism

 Editorial Board member

 2013-present

Revista de Osteoporosis y Metabolismo Mineral

Editorial Board member

2014-present

Bone Reports

Editorial Board member

2015-2018

 Journal of Bone and Mineral Metabolism (Japanese Society for Bone and Mineral Research).

 Associate Editor

 2015-2020

 Actualizaciones en Osteología. (Argentinean Society for Osteology and Mineral Metabolism)

 Associate Editor

 2015-present

 Bone

 Associate Editor

 2018-present

 Bone Reports

 Associate Editor

 2018-present

Heliyon

 Associate Editor

 2018-2020

Journal of Bone and Mineral Research Plus

 Editorial Board member

2018-2019

Journal of Bone and Mineral Research

Editorial Board member

2018-present

FASEB Journal

Associate Editor

2019-present

Calcified Tissue International

Editorial Board Member

2020-present

Frontiers in Endocrinology,

Guest Associate Editor in Bone Research

2020-present

**Journal review**

*Ad Hoc* Reviewer since 2003 for:

Journal of Bone and Mineral Research/JBMR Plus

Bone/Bone Reports

Calcified Tissue International

Biochimica et Biophysica Acta – Biomembranes

Biochemical Pharmacology

Metabolism Clinical and Experimental

European Journal of Pharmacology

Cellular and Molecular Life Sciences

BMC Musculoskeletal Disorders

Clinical & Experimental Metastasis

Journal of Proteome Research

European Journal of Endocrinology

Arthritis Research & Therapy

Cancer Science

Osteoporosis International

The Journal of Obstetrics and Gynaecology Research

PLosONE

The American Journal of Physiology – Cell Physiology

Journal of Clinical & Experimental Cardiology

Biotechniques

Journal of Orthopaedic Research

British Journal of Pharmaceutical Research

Journal of Biological chemistry

Aging Cell

FASEB Journal

Bone Research

Nature Scientific Reports

Nature Communications

Oncogene

**EXTRAMURAL GRANT REVIEW (National and International)**

Agency: National Agency for the Advancement of Science and Technology, **Argentina**

Panel: National Grant Competition

Role: 2 grants

## Year: 2004

National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 1 grant

 2005

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 3 grants

 2006

 National Agency for the Advancement of Science and Technology, **Argentina**.

 National Grant Competition

 1 grant

 2008

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH)

 Young investigator grants

 7 grants

 2009

##  US Army Medical Research and Materiel Command (USAMRMC)

##  Peer Reviewed Medical Research Program (PRMRP) - Osteoporosis and Related Bone Diseases-O study section

##  Regular Member: Primary reviewer for 3 grants and secondary reviewer for 3 grants

 2009

##  Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, Italy (contacted through the NIH)

National Grant Competition

Primary reviewer for 6 grants and secondary reviewer for 6 grants

##  2010

 National Agency for the Advancement of Science and Technology, **Argentina**

##  National Grant Competition

##  1 grant

 2010

 US Army Medical Research and Materiel Command (USAMRMC)

2010 Peer Reviewed Medical Research Program (PRMRP) - Osteoporosis and Related Bone Diseases-O study section

##  Regular Member: Primary reviewer for 4 grants and secondary reviewer for 3 grants

##  2010

 Pennsylvania Department of Health (PA DOH). Research projects funded by the PA DOH Master Tobacco Settlement.

 2010

 Pennsylvania Final Performance Review, 09-10 Cycle B

 Reviewer for 2 grants

 2010

 US Army Medical Research and Materiel Command (USAMRMC).

 Pre-proposals for the Investigator-Initiated Research Awards (IIRAs), 2010 Peer Reviewed Medical Research Program (PRMRP). Osteoporosis and Related Bone Disease study section.

 Regular Member: Primary reviewer for 3 grants, secondary reviewer for 7 grants and tertiary reviewer for 3 grants.

 2010

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy**

National Grant Competition

 Reviewer for 7 grants

 2011

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 5 grants

 2011

 National Commission for Scientific and Technological Development (CONICYT) and the Superior Council of the National Fund for Scientific & Technological Development (FONDECYT), **Chile**

 2012 National Research Funding Competition,

 Reviewer for 1 grant

 2011

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH).

 National Grant Competition

##  Reviewer for 22 grants

##  US Army Medical Research and Materiel Command (USAMRMC).

##  2012 Peer Reviewed Medical Research Program (PRMRP) - Osteoporosis and Related Bone Disease, Discovery Award competition

 Regular Member: Reviewer for 6 grants

 2012

 Pennsylvania Department of Health (PA DOH). Research projects funded by the PA DOH Master Tobacco Settlement

 2012 Pennsylvania Final Performance Review, 09-10 Cycle B

 Reviewer for 2 grants

 2012

 NIH

 October 2012 Skeletal Biology Structure & Regeneration (SBSR) Study Section

 *Ad hoc* primary reviewer for 3 grants, secondary for 2 grants, and tertiary for 3 grants

 2012

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 2 grants

 2012

 Pennsylvania Department of Health (PA DOH). Research projects funded by the PA DOH Master Tobacco Settlement

 2012 Pennsylvania Final Performance Review, 09-10 Cycle B

 Reviewer for 1 grant

 2013

National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 1 grant

 2013

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH).

 National Grant Competition

 Reviewer for 10 grants

 2013

 Diabetes UK, **United Kingdom**

 Project Grant

 Reviewer for 1 application

 2014

 NASA

 International Life Sciences Research Announcement (ILSRA)

 Reviewer for 7 applications

 2014

 ASBMR

 Grants in Aid Program

 Reviewer for 1 application

 2014

 Arthritis Research UK, **United Kingdom**

 Foundation Fellowship Award

 Reviewer for 1 application

 2014

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH).

 National Grant Competition

 Reviewer for 10 grants

 2014

 Arthritis Research UK

 Foundation Fellowship Award

 Reviewer for 1 application

 2015

 ASBMR

 Rising Star Awards

 Reviewer for 2 applications

 2015

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 2 grants

 2015

 Russian Science Foundation

 Research and Technical Program and Projects, **Russia**

 Reviewer for 1 application

 2015

 KY Science and Engineering Foundation

 R&D Excellence Awards

 Reviewer for 1 application

 2015

 NIH

 Special Emphasis Panel/Scientific Review Group P01 application

Reviewer for 2 projects within the P01 application

 2016

 Department of Veterans Affairs, Rehabilitation Research and Development Service

 Small Projects Panel

 Reviewer for 1 project

 2016

 ASBMR

 Rising Star Awards

 Reviewer for 4 applications

 2016

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 4 grants

 2016

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH).

 National Grant Competition

 Reviewer for 15 grants

 2016

 Russian Science Foundation

 Research and Technical Program and Projects, **Russia**

 Reviewer for 2 applications

 2016

 NIH

 October 2017 Skeletal Biology Development and Disease Study Section (SBDD)

 *Ad hoc* primary reviewer for 1 grant, secondary for 1 grant, tertiary for 5 grants, and forth reviewer for 1 grant

 2017

 ASBMR

 Rising Star Awards

 Reviewer for 2 applications

 2017

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 1 grant

 2017

 Swiss National Science Foundation

 International Translation Research Projects, **Switzerland**

 Reviewer for 1 grant

 2018

 ASBMR

 Rising Star Awards

 Reviewer for 2 applications

 2018

 French National Research Agency (ANR)

 CE14 - Physiologie et physiopathologie, **France**

 Reviewer for 1 application

 2018

 International Federation of Musculoskeletal Research Societies

 Fellowship Grants

 Reviewer for 8 applications

 2018

 Ministry of Labor, Health and Social Policies, Department of Innovation, General Directorate for Health and Technologies Research, **Italy** (contacted through the NIH).

 National Grant Competition

 Reviewer for 5 grants

 2018

 ASBMR

 Rising Star Awards

 Reviewer for 2 applications

 2019

 BioNexus Kansas City

 Patton Trust Research Grants

 Reviewer for 1 application

 2019

 Research Foundation Flanders (FWO)

 Call for Junior and Senior Research Projects, **The Netherlands**

 Reviewer for 1 application

 2019

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 1 grants

 2019

 French National Research Agency (ANR)

 CE14 - Physiologie et physiopathologie, **France**

 Reviewer for 1 application

 2019

 NIH

 October 2019 Special Emphasis Panel/Scientific Review Group 2020/01 ZAG1 ZIJ-P (J5)

 Primary reviewer for 1 grant, secondary for 3 grant, tertiary for 3 grants

2019

Austrian Academy of Sciences, **Austria**

 Doctoral fellowship (DOC)

 Reviewer for 1 application

 2019

Natural Sciences and Engineering Research Council of **Canada**

Discovery Grant proposal

 Reviewer for 1 application

 2020

 Department of Defense

Peer Reviewed Medical Research Program PRE-MSH-1 peer review panel

Reviewer for 9 pre-applications

2020

Department of Defense

Discovery-Musculoskeletal Health -1 (DIS-MSH-1) panel

Reviewer for 14 applications

2020

Department of Defense

Peer Reviewed Medical Research Program Musculoskeletal Health (PRMRP MSH-1)

Reviewer for 1 application

2020

Department of Defense

Peer Reviewed Medical Research Program, Focused Program - Fibrous Dysplasia, FP-FD

Reviewer for 4 applications within the program project-like application

2020

 National Agency for the Advancement of Science and Technology, **Argentina**

 National Grant Competition

 Reviewer for 2 grants

 2020

 Austrian Academy of Sciences, **Austria**

 Doctoral fellowship (DOC)

 Reviewer for 1 application

 2020

 ASBMR

 Rising Star Awards

 Reviewer for 2 applications

 2020

**ABSTRACT REVIEW**

Agency: European Calcified Tissues Society

Panel: 37th European Symposium on Calcified Tissues - Cell Biology: osteocytes

Number: 6 abstracts

Year: 2010

 European Calcified Tissues Society

 3rd Joint Meeting of the European Calcified Tissue Society and the International Bone and Mineral Society - Cell Biology: osteocytes

 6 abstracts

 2011

 Asociación Argentina de Osteología y Metabolismo Mineral (AAOMM)

##  2011 Annual Meeting

 4 abstracts

 2011

 The Endocrine Society

 94th Annual Meeting of The Endocrine Society, ENDO 2012

 50 abstracts

 2012

 Asociación Argentina de Osteología y Metabolismo Mineral (AAOMM)

##  2012 Annual Meeting

 3 abstracts

 2012

European Calcified Tissues Society

 39thEuropean Calcified Tissue Society - Cell Biology: osteocytes

 4 abstracts

 2012

International Bone and Mineral Society and the Japanese Society for

 Bone and Mineral Research

 2013 IBMS-JSBMR Joint meeting - Osteocytes

 13 abstracts

 2013

 American Society for Bone and Mineral Research

 2013 Annual Meeting- Osteocytes

 47 abstracts

 2013

 American Society for Bone and Mineral Research

 2015 Annual Meeting – Osteocytes

 2015

1st Argentinean Osteology Meeting Argentinean Society for Osteology and Mineral Metabolism –Argentinean Osteoporosis Society

 2016

 American Society for Bone and Mineral Research

 2017 Annual Meeting - Muscle Biology and Bone-Muscle Crosstalk

 2017

XXXIV Annual Meeting Argentinean Society for Osteology and Mineral Metabolism

 2017

 Council for Undergraduate Research Posters on the Hill Meeting

 2017-2018

 World Council for Undergraduate Research (CUR) 2019 Meeting

 2018

 American Society for Bone and Mineral Research

 2018 Annual Meeting Reviewer- Osteoblasts and Category Chair - Osteoporosis - Pathophysiology

 2018

 American Society for Bone and Mineral Research

 2019 Annual Meeting - Bone Interactions with Muscle and other Tissues

 2019

XXXVI Annual Meeting Argentinean Society for Osteology and Mineral Metabolism

 2019

 American Society for Bone and Mineral Research

 2020 Annual Meeting - Bone Interactions with Other Tissues

 2020

**SESSION REVIEW**

American Society for the Advancement of the Science

2021 AAAS Annual Meeting - 90 Minute Symposium Format

 2020

**NATIONAL SERVICE ACTIVITY**

Agency: American Society for Bone and Mineral Research

Activity: Advocacy Committee

Role: Member

Year: 2005-2008

 American Society for Bone and Mineral Research 31st Annual Meeting

 Concurrent Oral Session 42: Osteocytes II: Wnt Pathway

 Moderator

 2009

 American Society for Bone and Mineral Research

 Membership Development Committee

##  Member

 2011-2014

 American Society for Bone and Mineral Research

Focus group that will assist in the implementation of initiatives related to its 2011-2014 Strategic Priorities

 Member

2011-2014

 93rd Annual Meeting of the Endocrine Society

Symposium session: Mechanotransduction in Bone

Chair

2011

 American Society for Bone and Mineral Research 33rd Annual Meeting

 Concurrent Oral Session 40: Skeletal Loading and Bone Quality

 Moderator

 2011

 American Society for Bone and Mineral Research

ASBMR/Harold M Frost Young Investigator Awards

Application review

2011-2012

American Society for Bone and Mineral Research

Diversity in Bone and Mineral Research Subcommittee

Member

2002

International Gap Junction Conference

Platform session 10: Connexins in inherited and acquired diseases

Moderator

2015

Argentinean Society for Osteoporosis and Mineral Metabolism

AAOMM basic science awards

 Coordinator and member of the selection committee

 2016

American Society for Bone and Mineral Research 39th Annual Meeting, Plenary Oral II Session – Translational

Moderator

2017

American Society for Bone and Mineral Research 39th Annual Meeting

ASBMR 2017 Grant Writing Workshop: What to Choose and How to Fund It

Table discussion leader: Choosing Appropriate Grant and/or Funding Agency: VA, DOD, NSF

2017

American Society for Bone and Mineral Research 40th Annual Meeting

Plenary Oral Session – Osteoblast and Osteocyte Biology

Moderator

2018

Indiana Center for Musculoskeletal Health (ICMH)

Bone and Muscle Interactions: Beyond the Mechanical Meeting

Member, organizing committee

Moderator

2018-2019

American Society for Bone and Mineral Research

Women in Bone and Mineral Research Committee

Member

2018-2021

American Society for Bone and Mineral Research

U.S. Bone and Joint Ambassador

2021-present

**PUBLICATIONS IN RESEARCH:**

**REFEREED PUBLICATIONS**

1. Morelli L, **Plotkin LI**, Leoni J, Fossati CA, Margni RA. Analysis of oligosaccharides involved in the asymmetrical glycosylation of IgG monoclonal antibodies. **Molecular Immunology** 30:695-700, 1993.
2. Squiquera L, Galimberti R, Morelli L, **Plotkin LI,** Leoni J. Antibodies to protein from *Pityrosporum* *ovale* in the sera from patients with psoriasis. **Clinical and Experimental Dermatology** 19:289-293, 1994.
3. Mathov I, **Plotkin LI**, Squiquera L, Fossatti CA, Margni R, Leoni J. N-Glycanase treatment of F(ab')2 derived from asymmetric murine IgG3 mAb determines the acquisition of precipitating activity. **Molecular Immunology** 32:1123-1130, 1995.
4. Abatangelo C, **Plotkin LI**, Mathov I, Squiquera L, Leoni J. The frequent mutation Gly/Asp in CDR1 may determine a cross-reactive idiotope in anti-I cold agglutinins. **Clinical and Experimental Immunology** 104:185-190, 1996.
5. **Plotkin** **LI**, Squiquera L, Mathov I, Galimberti R, Leoni J. Characterization of the lipase activity of *Pityrosporum ovale*. **Journal of Medical and Veterinary Mycology** 34:43-48, 1996.
6. Squiquera L, **Plotkin LI**, Mathov I, Galimberti R, Leoni J. Analysis of the antifungal activity of Ketoconazole, Zinc Pyrithione, and Ciclopirox-olamine against P*ityrosporum ovale*. A diffusion assay for cultures in solid media. **Journal of the European Academy of Dermatology and Veneorology** 7:26-29, 1996.
7. Mathov I, **Plotkin** **LI,** Abatangelo C, Galimberti R, Squiquera L, Leoni J. Antibodies from patients with psoriasis recognize N-acetylglucosamine terminals in glycoproteins from *Pityrosporum ovale.* **Clinical and Experimental Immunology** 105:79-83, 1996.
8. **Plotkin** **LI**, Mathov I, Squiquera L, Leoni J. Arachidonic acid released from epithelial cells by *Malassezia furfur* phospholipase A2: a potential pathophysiologic mechanism. **Mycologia** 90: 163-169, 1998.
9. Cauerhff A, Polikarpov I, Mathov I, Abatangelo C, **Plotkin LI**, Goldbaum FA, Leoni J. Crystallization and preliminary diffraction studies of a human Fabμ with anti-I activity***.*****Protein and Peptide Letters** 5:177-180, 1998.
10. **Plotkin LI**, Sarli M, Sgarlata C, Zanchetta RJ, Plotkin H, Leoni J, Mathov I. Niveles séricos de la proteína transportadora del factor de crecimiento insulino-símil-3 (IGFBP-3) y del factor de crecimiento insulino-símil-I (IGF-I) en pacientes osteoporóticas. (Serum levels of insulin-like growth factor binding protein-3 (IGBP-3) and insulin-like growth factor-1 (IGF-1) in osteoporotic patients). **Revista Argentina de Endocrinología y Metabolismo** 35: 67-75, 1998.
11. **Plotkin LI,** Weinstein RS, Parfitt AM, Roberson P, Manolagas SC, Bellido T. Prevention of osteocyte and osteoblast apoptosis by bisphosphonates and calcitonin. **Journal of Clinical Investigation** 104: 1363-1374, 1999. A photomicrograph from this paper was selected for the cover.
12. Kousteni S, Bellido T, **Plotkin LI**, O'Brien CA, Bodenner DL, Han L, Han K, DiGregorio GB, Katzenellenbogen JA, Katzenellenbogen BS, Roberson PK, Weinstein RS, Jilka RL, Manolagas SC. Non-genotropic, sex-nonspecific signaling through the estrogen or androgen receptors: dissociation from transcriptional activity. **Cell** 104:719-730, 2001.
13. Mathov I, **Plotkin LI**, Sgarlata C, Leoni J, Bellido T. ERKs and calcium channels are involved in the proliferative effect of bisphosphonates on osteoblastic cells *in vitro*. **Journal of Bone and Mineral Research**16:2050-2056, 2001.
14. **Plotkin LI**, Bellido T. Bisphosphonate-induced, hemichannel-mediated, anti-apoptosis through the Src/ERK pathway: a gap junction-independent action of connexin43. **Cell Adhesion and Communication** 8:377-382, 2001.
15. **Plotkin LI**, Manolagas SC, Bellido T. Transduction of cell survival signals by connexin43 hemichannels. **Journal of Biological Chemistry** 277:8648-8657, 2002.
16. Kousteni S, Chen J-R, Bellido T, Han L, Ali AA, O’Brien CA, **Plotkin LI**, Fu Q, Mancino AT, Wen Y, Vertino AM, Powers CC, Stewart SA, Ebert R, Parfitt AM, Weinstein RS, Jilka RL, Manolagas SC. Dissociation of skeletal from reproductive effects of sex steroids by activation of non-genotropic signals. **Science** 298:843-846, 2002.
17. Kousteni S, Han L, Chen JR, Almeida M, **Plotkin LI**, Bellido T, Manolagas SC. Kinase-mediated regulation of common transcription factors accounts for the bone protective effect of sex steroids. **Journal of Clinical Investigation** 111:1651-1664, 2003.
18. Ahuja SS, Zhao S, Bellido T, **Plotkin LI**, Sato N, Bonewald L. CD40Ligand blocks apoptosis induced by tumor necrosis factor α, glucocorticoid and etoposide in the osteocyte-like cell line MLO-Y4. **Endocrinology**144:1761-1769, 2003.
19. Bellido T, Ali AA, **Plotkin LI**, Fu Q, Gubrij I, Roberson PK, Weinstein RS, O'Brien CA, Manolagas SC, Jilka RL.Proteasomal degradation of Runx2 shortens PTH-induced anti-apoptotic signaling in osteoblasts: a putative explanation for why intermittent administration is needed for bone anabolism*.* **Journal of Biological Chemistry**278:50259-50272, 2003.
20. O'Brien CA, Jia D, **Plotkin LI**, Bellido T, Powers CC, Stewart SA, Manolagas SC, Weinstein RS. Glucocorticoids act directly on osteoblasts and osteocytes to induce their apoptosis and reduce bone formation and strength. **Endocrinology** 145:1835-1843, 2004.
21. Manolagas SC, Kousteni S, Chen JR, Schuller M, **Plotkin LI,** Bellido T. Kinase-mediated transcription, activators of nongenotropic estrogen-like signaling (ANGELS), and osteoporosis: a different perspective on the HRT dilemma. **Kidney International Supplement** S41-49, 2004.
22. Chen J-R, **Plotkin LI**, Aguirre JI, Han L, Jilka RL, Kousteni S, Bellido T, Manolagas S. Transient versus sustained phosphorylation and nuclear accumulation of ERKs underlie anti- versus pro-apoptotic effects of estrogens. **Journal of Biological Chemistry** 280:4632-4638, 2005.
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25. Bellido T, Ali AA, Gubrij I, **Plotkin LI**, Fu Q, O’Brien CA, Manolagas SC, Jilka RL. Chronic elevation of PTH in mice reduces expression of sclerostin by osteocytes: a novel mechanism for hormonal control of osteoblastogenesis. **Endocrinology** 146:4577-4583, 2005.
26. Aguirre JI, **Plotkin LI**, Stewart SA, Weinstein RS, Parfitt AM, Manolagas SC, Bellido T. Osteocyte apoptosis is induced by weightlessness in mice and precedes osteoclast recruitment and bone loss. **Journal of Bone and Mineral Research** 21:605-615, 2006 (**TITLE ON COVER**).
27. **Plotkin LI**, Manolagas SC, Bellido T. Dissociation of the pro-apoptotic effects of bisphosphonates on osteoclasts from their anti-apoptotic effects on osteoblasts/osteocytes with novel analogs. **Bone**39:443-452, 2006 (**TITLE ON COVER**).
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39. Tu X, Rhee Y, Condon K, Bivi N, Allen MR, Dwyer D, Stolina M, Turner CH, Robling AG, **Plotkin LI**, Bellido T. *Sost* downregulation and local Wnt signaling are required for the osteogenic response to mechanical loading. **Bone** 50:209-217, 2012.
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41. Lezcano V, Bellido T, **Plotkin LI**, Boland R, Morelli S. Role of connexin 43 in the mechanism of action of alendronate: dissociation of anti-apoptotic and proliferative signaling pathways. **Archives of Biochemistry and Biophysics** 518: 95-102, 2012.
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**SPECIAL CONTRIBUTIONS**

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101. Pacheco Da Costa R, Hassan I, Tu X, Reginato RD, Katchburian E, Bellido T, **Plotkin LI**. Cx43 Scaffolding Cytoplasmic Domain Restrains Bone Resorption but is Dispensable for the Anabolic Action of Intermittent PTH Administration. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S57 2013. Plenary Poster.
102. Hasan I, Pacheco Da Costa R, Kim W, Reginato RD, Bellido T, **Plotkin LI**. Deletion of Cx43 in osteocytic cells increases autophagy: a potential mechanism for accumulation of empty lacunae in mice lacking Cx43 in osteoblastic cells. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S412 2013.
103. Delgado-Calle J, Tu X, Sato A, Cregor M, McAndrews K, **Plotkin LI**, Bellido T. PTH upregulates RANKL and MMP13 expression through direct actions on osteocytes, but MMP13 is derived from non-osteocytic cells. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S61 2013. Plenary Poster.
104. Tu X, McAndrews K, Cregor M, Peacock M, Taketo MM, **Plotkin LI**, Bellido, T. Bone gain with unexpected elevated bone resorption by activating canonical Wnt/bcatenin signaling in osteocytes. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S20 2013.\*
105. Tu X, McAndrews K, Delgado-Calle J, Olivos N, Ben-Awadh A, Kim W, Pacheco-Costa R, Richardson D, Peacock M, **Plotkin LI**, Bellido, T. Osteocytic PTH receptor is required for bone anabolism induced by intermittent PTH administration, but is dispensable for bone resorption and the loss of bone induced by chronic PTH elevation. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S233 2013. Oral Poster.
106. Sato A, **Plotkin LI**, Bellido T. Prevention of glucocorticoid induced-apoptosis of osteoblasts and osteocytes by protecting against endoplasmic reticulum (ER) stress. 35th Annual Meeting of the American Society for Bone and Mineral Research. Minneapolis, MN, USA. *Journal of Bone and Mineral Research* 28 (Supl. 1):S403 2013.
107. Pacheco-Costa R, Katchburian E, Davis H, **Plotkin LI**, Reginato R. Absence of Cx37 leads to bone matrix modifications in mice: a potential explanation for why reduced cortical thickness is not followed by decreased mechanical strength. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S69 2014.
108. Gortazar A, Portoles MT, Matesanz MC, Linares J, Feito MJ, Arcos D, Vallet M, **Plotkin LI**, Esbrit, P. Mechanical loading and high glucose modify the chemokine secretion profile of osteocytes affecting osteoclast differentiation and activity. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S172 2014.
109. Pacheco-Costa R, Hassan I, Sorenson C, Davis HM, Hammond MM, Reginato RD, Katchburian E, Wallace JA, Bellido T, **Plotkin LI**. Cx43 scaffolding c-terminus intracellular domain is required for achieving proper bone architecture and strength, but it does not mediate the effect of osteocytic Cx43 on cortical bone. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S221 2014.
110. Delgado-Calle J, Anderson J, **Plotkin LI**, Roodman GD, Bellido T. Cell-to-cell crosstalk between multiple myeloma cells and osteocytes activates notch signaling and triggers osteocyte apoptosis. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S230 2014.
111. **Plotkin LI**, Gortazar A, Condon K, Gabilondo H, Maycas M, Bellido T. Prevention of osteocyte apoptosis and the increase in osteocytic RANKL are not sufficient to restrain osteoclastic bone resorption and stop bone loss induced by reduced mechanical forces. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S289 2014.
112. Delgado-Calle J, **Plotkin LI**, Bellido T, Roodman GD. Interactions between multiple myeloma cells and osteocytes alter osteocytic gene expression: evidence for osteocyte-driven dysregulation of bone remodeling in multiple myeloma. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S374 2014.
113. Pacheco-Costa R, Hassan I, Katchburian E, Davis H, **Plotkin LI**, Reginato R. Deletion of Connexin 43 in osteocytes blunts the response to intermittent PTH administration in the bone matrix. 36th Annual Meeting of the American Society for Bone and Mineral Research. Houston, TX, USA. *Journal of Bone and Mineral Research* 29 (Supl. 1):S378 2014.
114. Pacheco-Costa R, Sorenson C, Hon MC, Davis HM, Hassan I, Reginato RD, Katchburian E, Allen MR, Bellido T, **Plotkin LI**. Cx43 scaffolding CT intracellular domain is required for achieving proper bone architecture and for some, but not all, anabolic actions of intermittent PTH administration. 2015 International Gap Junction Meeting. Valparaiso, Chile.\*
115. Davis HM, Atkinson E, Harris J, Pacheco-Costa R, Gortazar AR, Ivan M, Bruzzaniti A, Bellido T, **Plotkin LI**. Reduction in microRNA21 promotes apoptosis and increases RANKL in osteocytes: a mechanism for enhanced resorption in the absence of Cx43 in osteoblastic cells and with aging. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S101, 2015.
116. Sato AY, Au E, Richardson D, Bivi N, Cregor M, McAndrews K, Davis HM, Zimmers T, **Plotkin LI**, Bellido T. Glucocorticoids induce bone and muscle atrophy by distinct mechanisms upstream of atrogin1 and MuRF1. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S1, 2015*.*\*
117. Sato AY, Cregor M, Tzeggai J, McAndrews K, Delgado-Calle J, Robling AG, **Plotkin LI**, Bellido T. Sost/sclerostin deficiency protects the murine skeleton from glucocorticoid-induced bone loss by inhibiting bone resorption. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S107, 2015.
118. Delgado-Calle J, Anderson J, Cregor MD, Mohammad KS, **Plotkin LI**, Bellido T, and Roodman GD. Bidirectional Notch signaling activated by interactions between multiple myeloma cells and osteocytes drives tumor cell proliferation and osteoclast recruitment. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S269, 2015*.*
119. Pellegrini GG, Cregor M, McAndrews K, Delgado-Calle J, Sato AY, Davis HM, **Plotkin LI**, Burr D, Weaver C, Bellido T.Nrf2 mediates gender specific mechanisms on bone accrual and maintenance. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S298, 2015*.*
120. Maycas M, McAndrews KA, Sato AY, Pellegrini GG, Brown DM, Allen MR, **Plotkin LI**, Esbrit P, Gortazar A, Bellido T. PTHrP-derived Peptides Restore Bone Mass and Strength in Diabetic Mice: Additive Effect of Mechanical Loading. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S67, 2015.
121. Hiasa M, Okui T, Nagata Y, Allette YM, Ripsch MS, Delgado-Calle J, Bellido T, Roodman GD, Plotkin LI, White F. Yoneda T. Osteocytes are an Important Mediator of Bone Pain in Myeloma. 37th Annual Meeting of the American Society for Bone and Mineral Research. Seattle, WA, USA. *Journal of Bone and Mineral Research* 30 (Supl. 1):S354, 2015.
122. Pacheco-Costa P, Hassan I, **Plotkin LI**. Increased Wnt/β-catenin Signaling and Decreased Osteoclastogenic Potential of Osteocytic Cells Lacking Cx37. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S86, 2016.
123. Pacheco-Costa R, Atkinson E, Davis H, Byiringiro I, Thompson R, Bellido T, **Plotkin LI**. Pharmacological Inhibition of ATP Release Through Pannexin-1 Channels Increases Bone Mass and Reduces Bone Resorption in Aging Mice. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S375, 2016.
124. Atkinson E, Sanchez Z, Porter C, Bellido T, **Plotkin LI**. MLO-Y4 Osteocytic Cell Sub-clones Express Distinct Gene Expression Patterns Characteristic of Different Stages of Osteocyte Differentiation. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S349, 2016.
125. Davis H, Atkinson E, Pacheco-Costa R, Lopez D, Aref M, Brown D, Harris M, Harris S, Allen MR, Bellido T, **Plotkin LI**. Osteocyte Specific Cx43 Overexpression Improves Cortical Bone Mass and Strength, but Reduces Cancellous Bone in old Mice. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S318, 2016.
126. Davis H, Pacheco-Costa R, Atkinson E, Ivan M, Bruzzaniti A, Bellido T, **Plotkin LI**. Reduced microRNA21 and Enhanced HMGB1 Release: a Mechanistic Explanation for Increased Osteocyte Apoptosis and Resorption in the Absence of Cx43 and with Aging. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S270, 2016.
127. Pellegrini GG, Morales CC, Wallace TC, **Plotkin LI**, Bellido T.Antioxidant Avenanthramides Prevent Osteoblast and Osteocyte Apoptosis and Induce Osteoclast Apoptosis by Nrf2-Independent Mechanisms. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S271, 2016.
128. Pellegrini GG, Cregor M, Morales CC, McAndrews K, **Plotkin LI**, Burr D, Weaver CM, Bellido T. The antioxidant endogenous response in bone is regulated by Nrf2 in a gender specific manner. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S37, 2016.\*
129. Lezcano V, **Plotkin LI**, Morelli S. Beneficial effects of low doses of the phytoestrogen quercetin on osteoblastic cells. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S223, 2016.
130. Delgado-Calle J, Hancock B, McAndrews K, **Plotkin LI**, Bellido T. Blockade of the activity of the osteocytic PTH receptor target gene MMP14: a therapeutic tool to prevent bone loss and potentiate bone gain induced by PTH. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S46, 2016.\*
131. Delgado-Calle J, Anderson J, Cregor MD, Zhou D, **Plotkin LI**, Bellido T, Roodman GD. Genetic Sost deletion or pharmacological inhibition of sclerostin prevents bone loss and decreases osteolytic lesions in immunodeficient and immunocompetent mice. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S30, 2016.\*
132. Delgado-Calle J, Pacheco-Costa R, Tu X, McAndrews K, **Plotkin LI**, Bellido T. The bone anabolic effects of intermittent administration of PTH are independent of Sost/Sclerostin downregulation. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S6, 2016.\*
133. Sato A, Cregor M, Condon KW, **Plotkin LI**, Bellido T. Pyk2 deficiency protects from glucocorticoid-induced bone resorption and osteoblast and osteocyte apoptosis, but not from the decrease in bone formation. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S37, 2016.\*
134. Hiasa M, Okui T, Delgado-Calle J, Bellido T, Roodman GD, White F, **Plotkin LI**, Yoneda T. Osteocytes mediate bone pain through cell-cell communication with sensory neurons via connexin 43. 38th Annual Meeting of the American Society for Bone and Mineral Research. Atlanta, GA, USA. *Journal of Bone and Mineral Research* 31 (Supl. 1):S40, 2016.\*
135. Pacheco-Costa R, Atkinson EG, Dilley JE, Davis HM, Herrera C, Byringiro I, Thompson RJ, Bellido T, **Plotkin LI**. Distinct cellular and age-related mechanisms of genetic and pharmacologic pannexin1 inhibition resulting in high bone mass. 2017 International Gap Junction Meeting Glasgow, UK.\*
136. Pacheco-Costa R, Atkinson E, Dilley J, Davis H, Herrera C, Thompson R, Bellido T, **Plotkin LI**. Absence of pannexin-1 in osteocytes leads to high bone mass due to distinct cellular mechanisms in cancellous versus cortical bone, and in young versus old mice. 39th Annual Meeting of the American Society for Bone and Mineral Research. Denver, CA, USA. *Journal of Bone and Mineral Research* 32 (Supl. 2):S3, 2017.\*
137. Davis HM, Pacheco-Costa R, Aguilar-Perez A, Herrera C, Smith G, Lugo J, **Plotkin LI**. Similar increase in bone resorption and decrease in bone mass but opposite effects in osteocytic gene expression in female versus male mice with FMR1 deletion, a model of fragile X syndrome. 39th Annual Meeting of the American Society for Bone and Mineral Research. Denver, CA, USA. *Journal of Bone and Mineral Research* 32 (Supl. 2):S70, 2017. Plenary Poster.
138. Pacheco-Costa R, Davis HM, Atkinson EG, Dilley J, Herrera C, Condon KW, Ivan M, Bellido T, **Plotkin LI**. Unexpected decrease in osteoclast number and bone resorption with increased osteocyte apoptosis in the absence of osteocytic miR21. 39th Annual Meeting of the American Society for Bone and Mineral Research. Denver, CA, USA. *Journal of Bone and Mineral Research* 32 (Supl. 2):S90, 2017.
139. Davis HM, Schartz ND, Herrera C, Pacheco-Costa R, Wyatt SK, Brewster AL, Plotkin LI. Low bone mass and strength in juvenile rats with acquired epilepsy. 39th Annual Meeting of the American Society for Bone and Mineral Research. Denver, CA, USA. *Journal of Bone and Mineral Research* 32 (Supl. 2):S261, 2017.
140. Sato AY, Cregor M, McAndrews K, Condon KW, **Plotkin LI**, Bellido T. Life-long genetic Pyk2 deletion or short-term pharmacologic inhibition of Pyk2 prevents the increase in resorption by glucocorticoids and preserves bone mass and strength by promoting osteoclast apoptosis. 39th Annual Meeting of the American Society for Bone and Mineral Research. Denver, CA, USA. *Journal of Bone and Mineral Research* 32 (Supl. 2):S9, 2017.\*
141. Davis HM, Aref MW, Aguilar-Perez A, Pacheco-Costa R, Allen K, Valdez S, Herrera C, Atkinson EG, Mohammad A, Lopez D, Harris MA, Harris SE, Alen M, Bellido T, **Plotkin LI.** Cx43 overexpression in osteocytes prevents osteocyte apoptosis and preserves cortical bone quality in aging mice. Oral presentation at the Advances in Mineral Metabolism meeting, Snowmass, CO, April, 2018.\*
142. Essex A, Davis HM, Valdez S, Pin F, **Plotkin LI**, Davus A. Rescuing age-associated decline in muscle mass by inhibition of the receptor for advanced glycosylation end products, RAGE. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S188, 2018*.* Late Breaking Abstract.
143. Davis HM, Valdez S, Aguilar-Perez A, Aref MW, Deosthale PJ,Essex A, Allen MR, White F, Windle J, **Plotkin LI**. Short-term pharmacologic inhibition of RAGE suppresses bone turnover and muscle atrophy in aging. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S83, 2018*.* Plenary Poster.
144. Davis HM,Pacheco-Costa R, Aref MW, Valdez S, Essex A,Atkinson EG, Dilley JE, Herrera C, Deosthale P,Ivan M,Allen MR, Bellido T, Plotkin LI. Sex divergent role of osteocytic miR21 in the maintenance of osteocyte viability and regulation of bone turnover. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S98, 2018*.* Plenary Poster.
145. Davis HM, Valdez S, Gomez LJ, Bruzzaniti A, **Plotkin LI**. Autocrine actions of high mobility group box1 protein (HMGB1) on osteocytes and osteoclasts regulate osteoclastogenesis. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research 33* (Suppl. 2):S95 2018*.* Plenary Poster.
146. Nelson JH, Davis HM, McAndrews K, Cregor MD, Thompson WR, **Plotkin LI**, Robling AG, Bellido T, Delgado-Calle J. Sclerostin regulates adipocyte fate and mediates paracrine and endocrine signaling between osteocytes and fat. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S260, 2018*.*
147. Aguilar-Perez A,Pacheco-Costa R, Atkinson EG, Deosthale P, Gomez LJ,Dilley JE,Davis HM, Herrera C, Thompson R, Allen MR, Liu Z, Bruzzaniti A, Zimmers T, **Plotkin LI**. Critical sex- and age-dependent role of osteocytic pannexin1 on bone and muscle mass and strength. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S334, 2018*.*
148. Buvinic S, Balanta-Melo J, Toro-Ibacache V, Torres-Quintana MA, Kupczik K, **Plotkin LI**. The osteocyte apoptosis inhibitor IG9402 prevents bone loss of the mouse mandibular condyle during masseter muscleatrophy. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33 (Suppl. 2):S335, 2018*.*
149. Sato AY, Plotkin, LI, Bellido T Interference with atrophy signaling prevents GC actions on bone and muscle *in vitro* and *ex vivo*. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33(Suppl. 2):S355, 2018*.*
150. Sato AY, Pellegrini GG, Cregor M, McAndrews K, Atkinson E,Choi RB, Maiz M, **Plotkin LI**, McCabe LD, McCabe GP, Peacock M, Weaver CM, Burr D, Bellido T.Distinct mechanisms regulate the response of female and male skeletons to sex steroid deficiency and to the bone protective effects of blueberry containing diets. 40th Annual Meeting of the American Society for Bone and Mineral Research. Montreal, Quebec, Canada. *Journal of Bone and Mineral Research* 33 (Suppl. 2):S296, 2018*.*
151. **Plotkin LI**, Deosthale P, Hong JM, Sidhu H, Essex AL, Bruzzaniti A. Pannexin1 deletion from TRAP-expressing cells results in increased osteoclast differentiation and function, and reduced bone mass only in female mice. 2019 International Gap Junction Meeting Victoria, British Columbia, Canada, 2019.\*
152. Essex A, Davis H, Deosthale P, Bonetto A, **Plotkin LI**. Lack of osteocytic-miR21 promotes skeletal muscle mass growth in a sex-specific manner. 41st Annual Meeting of the American Society for Bone and Mineral Research. Orlando, Florida. *Journal of Bone and Mineral Research* 34 (Suppl. 2):S194, 2019.
153. **Plotkin LI**, Deosthale P, Hong JM, Sidhu H, Essex A, Bruzzaniti A. Sex-specific increases in osteoclast differentiation and function by Pannexin1 channel deletion in TRAP-expressing cells. 41st Annual Meeting of the American Society for Bone and Mineral Research. Orlando, Florida. *Journal of Bone and Mineral Research* 34 (Suppl. 2):S236, 2019.
154. Hong JM, Godfrey D, Holland R, Kim S-K, Deosthale P, **Plotkin LI**, Allen MR, Bruzzaniti A. Kalirin regulates bone mass through effects on osteoblast activity, osteocyte morphology and intercellular communication. 41st Annual Meeting of the American Society for Bone and Mineral Research. Orlando, Florida. *Journal of Bone and Mineral Research* 34 (Suppl. 2):S330, 2019.
155. Essex AL, Davis HM, Plotkin LI, **Bonetto A.** Rescuing age-associated decline in muscle mass by inhibition of the receptor for advanced glycosylation end products, RAGE. Advances in Skeletal Muscle Biology in Health and Disease, Gainesville, FL, 2019.\*
156. Essex AL, Deosthale PJ, Wagner A, Damrath J, Wallace J, Willis M, Bonetto A, **Plotkin LI**. Beyond the Brain: Neurodegeneration risk-factor TREM2 R47H mutation causes distinct sex-dependent bone and cardiovascular phenotype in the absence of neuropathology. 42nd Annual Meeting of the American Society for Bone and Mineral Research. Virtual meeting. *Journal of Bone and Mineral Research,* 35 (Suppl 1): S41, 2020*.*\*
157. Jerez S, Dudakovic A, Denbeigh JM, Deosthale PJ, Paradise SR, Gluscevic M, Zan P, Pichurin O, Khani F, Thaler R, **Plotkin LI**, Wijnen AJ. MicroRNA-101, which Inhibits the Epigenetic Suppressor Ezh2, Increases Trabecular Bone Volume in Male Mice. 42nd Annual Meeting of the American Society for Bone and Mineral Research. Virtual meeting. *Journal of Bone and Mineral Research, in press*,35 (Suppl 1): S177, 2020*.*
158. D’Andrea F. Sanz N, Lombarte M, Rico MJ, Rozados VR, Scharovsky OG, Di Loreto VE, **Plotkin LI**, Brun LR. Effect of Yerba Mate (*Ilex paraguariensis*) on Osteocytic Cells. 42nd Annual Meeting of the American Society for Bone and Mineral Research. Virtual meeting. *Journal of Bone and Mineral Research,* 35 (Suppl 1): S196, 2020*.*
159. Davis A, EssexAL, DeosthaleP, WallaceJ, Bonetto A, **Plotkin LI**.Genetic Mutations in TREM2 as a Link Between Neurodegeneration and Bone. Annual Biomedical Research Conference for Minority Students (ABRCMS) 2020: The Virtual Experience, 2020.
160. Davis A, EssexAL, DeosthaleP, WallaceJ, Bonetto A, **Plotkin LI**.Genetic Mutations in TREM2 as a Link Between Neurodegeneration and Bone. Advocates for Inclusion in Medicine and Science - American Physician Scientists Association (AIMS-APSA) South Atlantic Meeting, 2020.\*