

Adolfo Garcia-Ocana, Ph.D.

Professor and Chair
Department of Molecular and Cellular Endocrinology
Arthur Riggs Diabetes Research Institute
City of Hope, Duarte, CA
agarciaocana@coh.org
626-218-7939
March 17, 2022

CITIZENSHIP: US citizen

APPOINTMENTS/EMPLOYMENT:

2001-2007 Assistant Professor of Medicine, Division of Endocrinology, University of Pittsburgh, Pittsburgh, PA

2003-2007 Assistant Professor of Cell Biology and Physiology, Dept. of Cell Biology and Physiology, University of Pittsburgh, Pittsburgh, PA

2007-2012 Associate Professor of Medicine with Tenure, Division of Endocrinology, University of Pittsburgh, Pittsburgh, PA

2007-2012 Associate Professor of Cell Biology and Physiology, Dept. of Cell Biology and Physiology, University of Pittsburgh, Pittsburgh, PA

2012-2023 Professor of Medicine with Tenure, Division of Endocrinology and Bone Diseases, Diabetes Obesity and Metabolism Institute, Icahn School of Medicine at Mount Sinai, NY
<https://icahn.mssm.edu/profiles/adolfo-garcia-ocana>

2012-2023 Professor of Medicine, The Mindich Child Health & Development Institute at Mount Sinai Medical Center, NY

2015-2023 Director of the Human Islet & Adenovirus Core (HIAC), Einstein-Sinai Diabetes Research Center (ES-DRC). <https://www.einstein.yu.edu/centers/diabetes-research/human-islet-and-adenovirus-core/>

2023- Adjunct Professor, Diabetes Obesity and Metabolism Institute, Icahn School of Medicine at Mount Sinai, NY.

2023- Adjunct Professor, The Mindich Child Health & Development Institute, Icahn School of Medicine at Mount Sinai, NY.

2023- Chair and Professor, Department of Molecular & Cellular Endocrinology, Ruth B. and Robert K. Lanman Endowed Chair in Gene Regulation and Drug Discovery Research. Arthur Riggs Diabetes and Metabolism Research Institute. City of Hope, Duarte, CA.

GAPS IN EMPLOYMENT: None

EDUCATION

1982-87 B.S. Universidad Autonoma of Madrid, Madrid, Spain

1989-94 Ph.D. Student, Metabolic Research Lab, Jimenez Diaz Hospital, Universidad Autonoma of Madrid, Madrid, Spain; and, Dept. of Renal Physiology, Faculté de Medecine Xavier Bichat, Université Paris VII, Paris, France

1994 Ph.D. Dept. of Biochemistry and Molecular Biology, Universidad Autonoma of Madrid, Madrid, Spain

1994-96 Postdoctoral Fellow, Metabolic Research Lab, Jimenez Diaz Hospital, Universidad Autonoma of Madrid, Madrid, Spain

1995-96 Master's in Computing Analysis and Programing: Methodology, Structured Analysis, Operative Systems and Programming Languages. Tajamar Innovative Technologies Institute, Madrid, Spain.

1996-98 Postdoctoral Fellow, Division of Endocrinology, Yale University, New Haven, CT

1998-01 Research Associate, Division of Endocrinology, University of Pittsburgh, Pittsburgh, PA

LICENSURES AND CERTIFICATIONS: N/A

HONORS & AWARDS

Fellowships:

- 1989-92 Graduate Student Research Fellowship from Jimenez Diaz Foundation, Universidad Autonoma of Madrid, Madrid, Spain
- 1993-94 Research Fellowship for Studies Abroad from Jimenez Diaz Foundation, Universidad Autonoma of Madrid, Madrid, Spain. Host Academic Institution: Unité de Recherche Inserm 251 "Physiologie du tube rénal", Bichat Hospital, Paris VII University, Paris, France
- 1995-96 Fellowship from the Alfonso Martin Escudero Foundation, Madrid, Spain, Master in Computing Analysis and Programming.
- 1996-98 Postdoctoral Fellowship from the North Atlantic Treaty Organization (NATO), Brussels, Belgium

Recognition (Awards/Thesis/Tenure):

- 1991 Young Investigator Award, European Renal Association-Dialysis and Transplant Association
- 1994 Thesis Dissertation: Summa cum Laude
- 1997 FAES Award on Mineral Metabolic Research, Spanish Society of Bone and Mineral Research
- 2002 Junior Faculty Award, American Diabetes Association
- 2004 Senior Vice Chancellor's Research Conference Award at the University of Pittsburgh
- 2009 Tenure, University of Pittsburgh
- 2012 Tenure, Icahn School of Medicine at Mount Sinai
- 2015 Best Mentor Award, Center for Excellence in Youth Education (CEYE) at Icahn School of Medicine at Mount Sinai
- 2017 Distinguished Reviewer Award for the American Diabetes Associations' Scholarly Journals
- 2022 World expert on insulin-producing cells as indicated in <https://expertscape.com/ex/insulin-secreting+cells>. Currently #41 out of 31,022 researchers publishing on this research topic world wide.

Invited Symposium Speaker:

- 2005 Invited Symposium Speaker, 6th Rachmiel Levine Symposium, City of Hope National Medical Center, City of Hope, CA
- 2006 Invited Symposium Speaker, 48th Meeting of the Spanish Society of Endocrinology and Nutrition. Seville, Spain
- 2006 Invited Symposium Speaker, 1st European Renal Association-Dialysis and Transplant Association, Spanish Research Council and Queen Sofia Institute for Renal Research Symposium. Madrid, Spain
- 2008 Invited Symposium Speaker, 8th Rachmiel Levine Symposium, City of Hope National Medical Center, City of Hope, CA
- 2009 Invited Symposium Speaker, 20th Spanish Society of Diabetes Annual Meeting, Tenerife, Spain
- 2010 Invited Symposium Speaker, The Endocrine Society Annual Meeting, San Diego, CA
- 2010 Invited Symposium Speaker, American Diabetes Association 70th Meeting, Orlando, FL
- 2010 Invited Symposium Speaker, JDRF-Broad-Sanofi-Aventis, Broad Institute-Harvard University, Cambridge, MA
- 2011 Invited Symposium Speaker, 2nd Annual Sanford Health Type 1 Diabetes Symposium, Sanford Health, Sanford USD Medical Center, Sioux Falls, SD
- 2014 Invited Symposium Speaker, Keystone Symposium on Emerging Concepts and Targets in Islet Biology, Keystone, CO
- 2020 Invited Symposium Speaker, 80th American Diabetes Association Annual Meeting, Chicago, IL, 2020.
- 2020 Invited Symposium Speaker, 20th Rachmiel Levine-Arthur Riggs Diabetes Research Symposium, City of Hope National Medical Center, City of Hope, CA, 2020.
- 2022 Invited Symposium Speaker, 2nd Congress Diabetes Zero Foundation, Granada, Spain.
- 2022 Invited Symposium Speaker, Congress Diabetes Evolution, La Coruña, Spain.
- 2023 Inaugural Conference, XXXIV Annual Meeting of the Spanish Society of Diabetes, Valencia, Spain.

Chair of Symposium/Session at Conferences:

- 2009 Chair of the Session "Islet β -Cell Growth"; 2nd Midwest Islet Club Meeting (St. Louis, MO).
- 2009 Chair of the Session "Recent Advances in the Regulation of Beta Cell Mass" of the American Diabetes Association 69th Meeting in New Orleans, LA.
- 2009 Chair of the Symposium "Novel Insights into Islet Cell Dysfunction" of The Endocrine Society Meeting in Washington, DC.
- 2010 Chair of the Session "Islet β -Cell Growth"; 3rd Midwest Islet Club Meeting, Indianapolis, IN.
- 2010 Chair of the Symposium "Beta Cell Failure-The Key to Unlocking Type 2 Diabetes Mellitus" of the American Diabetes Association 70th Meeting in Orlando, FL.
- 2016 Chair of the Session "Impact of Intrauterine Environment on Beta Cell Dysfunction and Diabetes" of the American Diabetes Association 76th Scientific Sessions in New Orleans, LA.
- 2017 Chair of the Session "Milestones in the life of a beta cell" of the American Diabetes Association 77th Scientific Sessions in San Diego, CA.
- 2018 Chair of the Symposium "Roads to Beta Cell Failure in Type 2 Diabetes" of The Endocrine Society Meeting in Chicago, IL
- 2018 Chair of the Session "Beta-Cell Development and Postnatal Growth" of the American Diabetes Association 78th Scientific Sessions in Orlando, FL.
- 2023 Chair of the Symposium "Glucagon: Past, Present and Future" of The Endocrine Society Meeting in Chicago, IL.

Organizing Committees:

- 2012 Chair Organizing Committee of the 5th MIC Annual Meeting, Midwest Islet Club, Pittsburgh.
- 2013-15 Organizing Subcommittee on Islet Biology, American Diabetes Association Annual Meetings.
- 2015- Admissions Committee for the Master's in Biomedical Sciences Program and the MD/PhD Program at Icahn School of Medicine at Mount Sinai.
- 2016 Chair Organizing Committee of the 5th Annual NYC Regional Diabetes Meeting, NY.
- 2016-18 Co-Chair of the American Diabetes Association's Scientific Sessions Meeting Planning Committee in the area of Islet Biology/Insulin Secretion.
- 2017 Child Health Research Day Steering Committee, The Mindich Institute, Icahn School of Medicine at Mount Sinai, April 2017.
- 2019 Co-Chair Organizing Committee of the Boston-Ithaca Islet Club, Icahn School of Medicine at Mount Sinai.
- 2019 Mindich Child Health and Development Institute Retreat Day Steering Committee, The Mindich Institute, Icahn School of Medicine at Mount Sinai, November 2019.

PATENTS:

- Patent: **Kinase inhibitor compounds and compositions and methods of use.** Publication Number WO/2019/183245. Publication Date 26.09.2019. International Application No. PCT/US2019/023206. Inventors: DeVita, Stewart, Kumar, Wang, Sanchez, and Garcia-Ocana.
- Technology Disclosure: **Advanced In Vivo Imaging for Human Beta Cell Mass.** Docket No. 200421G. Inventors: DeVita, Stewart, Stanley, Wang, Rosselot, Alvarsson, Kumar and Garcia-Ocana. 2020.
- Patent Application: **Combination Therapy with Immunomodulators, DYRK1A inhibitors and GLP1R agonists for Type 1 Diabetes Treatment.** Docket No. 220112G. Inventors: DeVita, Stewart, Wang, Lu and Garcia-Ocana. 2022.

OTHER PROFESSIONAL APPOINTMENTS

Memberships:

- 1997- Member, The Endocrine Society
- 1999- Member, American Diabetes Association
- 1997- Member, American Physiological Society
- 2010- Member, American Association for the Advancement of Science
- 2010-12 Member of the Midwest Islet Club

2013-23 Member of the Boston-Ithaca Islet Club

Study Sections and Consultancy:

2007-15 Research Grant Review Committee Member, American Diabetes Association
 2008 Ad Hoc Member, Beta Cell Regeneration and Beta Cell Imaging Study Sections, JDRF
 2009-18 Ad Hoc Member, Cellular Aspects of Diabetes and Obesity Study Section, NIH
 2013-18 Ad Hoc Member, Small Business and Technology Transfer (SBIR/STTR) Study Section, NIH
 2013-14 Grant Reviewer for the Helmsley Trust Breakthrough Therapeutics Initiative
 2013- Scientific Review Committee of the Diabetes Research Connection (DRC) Funding Agency
 2019- Scientific Advisory Committee of the Diabetes Zero Foundation, Spain
 2018-22 Standing Member, Cell Signaling and Molecular Endocrinology (CSME) Study Section, NIH.
 2019- Scientific Consultant, Sun Pharmaceuticals, Mumbai, India.
 2022- Scientific Advisory Committee of the Diabetes Program, Ministry of Science and Innovation, Spain.

Editorial Boards:

Endocrinology, 2001-2004
American Journal of Physiology, Endocrinology & Metabolism, 2012-2017
Journal of Biological Chemistry, 2014-2019
Journal of Diabetes and its Complication, 2016-2020
Cardiovascular Drugs and Therapy, 2017-2022
Diabetes, 2019-2022
American Journal of Physiology, Endocrinology & Metabolism, 2018-
Journal of Biological Chemistry, 2020-

RESEARCH PROFILE

Dr. Garcia-Ocana's research interest has focused over the years on regeneration, growth factors and intracellular signaling. After coming to the United States with a NATO postdoctoral fellowship in 1996, he studied, under the guidance of his mentor, Dr. Andrew F. Stewart, the therapeutic potential of growth factors for pancreatic beta cell regeneration in diabetes. Together, they described for the first time that expression of hepatocyte growth factor (HGF) *in vivo* in beta cells markedly increases beta cell proliferation, mass, and function in transgenic mice. In addition, the team Stewart/Garcia-Ocana also demonstrated, for the first time, the beneficial effects of HGF on improving islet transplant outcomes. These novel results highlighted the potential of growth factors, and in particular HGF, for beta cell regeneration and islet transplantation in diabetes.

As an independent and NIH/DoD/ADA/JDRF funded investigator, he went on identifying the intracellular signaling pathways involved in the beneficial effects of HGF in beta cells. He found that the Akt signaling pathway was required for the anti-apoptotic effects of HGF and that activation of this pathway was sufficient to improve long-term human islet transplantation in mice without adverse effects. He also found a key and novel signaling pathway involved in growth factor- and nutrient-induced beta cell replication: the atypical protein kinase C (PKC) ζ . Activation of this pathway leads to markedly increased rodent beta cell expansion and more importantly human beta cell replication, highlighting this pathway as an attractive target for beta cell regeneration therapy. Using genetically-modified mouse models, he has also shown that the absence of HGF action in beta cells leads to the development of gestational diabetes in mice and that the absence of PKC ζ in beta cells impairs their adaptation to overnutrition leading to the development of type 2 diabetes.

At present, he is also involved in deciphering the role of the downstream targets of PKC ζ , the mTOR/PP2A/Myc pathway, in beta cell growth and function. His research group has found that glucose-mediated activation of PKC ζ enhances mTOR activity, reduces PP2A phosphatase activity and leads to enhanced action of Myc in beta cells. Myc activity is essential for the expansion and function of the beta cell.

Recently, his research group has also identified the sulfated polysaccharide, dextran sulfate, as a key molecule that can perform the triple task of inducing immune tolerance while healing the damaged islet

extracellular matrix and protecting the pancreatic beta cell. Combination therapy approaches with agents that enhance beta cell expansion together with immunomodulators and beta cell protectants such as dextran sulfate are currently being tested in the lab for the treatment of type 1 diabetes.

He is also searching for small molecules that can increase human beta cell mass while maintaining/enhancing human beta cell function, both aspects highly needed for the treatment of type 2 diabetes. His lab has recently modified a 3D imaging technique to analyze, for the first time, human beta cell mass in vivo in islets transplanted in immunosuppressed mice. Currently, he is also implementing scRNA-seq and snRNA-seq technologies in his lab to study human islet cell transcriptomic profiles under several conditions that induce beta cell stress associated with type 1 and type 2 diabetes. Finally, he has also served as Core Director of the Human Islet and Adenovirus Core of the NIH-funded Einstein-Mount Sinai Diabetes Research Center during the last 8 years.

In terms of collaborations, he is/was performing NIH-, DoD-, ADA- and JDRF-funded collaborative studies with researchers from different Institutions around the country including Nika Danial (Dana Farber, Harvard), Jeff Pessin (Albert Einstein), Bethany Cummings (UC Davis), James Lo and Tim McGraw (Cornell), Rupangi Vasavada (COH), Rohit Kulkarni (Harvard), Maureen Gannon (Vanderbilt) and with Andrew F. Stewart, Dirk Homann, Robert DeVita, Sarah Stanley and Donald K Scott at Mount Sinai, as reflected in his grant funding.

In summary, he is using the latest technologies (Genomics, Proteomics, 3D Imaging and Metabolomics) and basic science knowledge to uncover and translate significant findings into potential safe and innovative therapies for the treatment of diabetes.

CLINICAL PROFILE: N/A

OVERALL IMPACT

As indicated above, Dr. Garcia-Ocana lab focuses on diabetes research. Diabetes affects racial and ethnic minorities and low-income adult populations in the U.S. disproportionately; they also display higher rates of diabetes complications and mortality. Therefore, studies focused on deciphering therapeutic ways to ameliorate diabetes will have a strong impact on racial and ethnic minorities and low-income populations. Equally, these studies can lead to decreased diabetes complications and mortality reducing the economic impact in the society; currently US health care cost is \$237 billion in direct medical costs and \$90 billion in reduced productivity per year. Overall, studies in Garcia-Ocana's lab have a strong impact in scientific research, the health of minorities and the health of the society in general.

DIVERSITY AND INCLUSION IMPACT

The laboratory of Garcia Ocana is/has been composed of individuals who are competent for scientific research independent of gender, race, ethnicity, religion, sexual orientation, and political ideas. He has had 42 trainees (listed below) of which 28 are women, of ages between 15 and 50, from all around the world, including all races and ethnicities and with different social/economic status. Clearly, his lab constitutes a very diverse and inclusive environment.

MENTORING PROFILE

During the last year, I have been mentor or co-mentor of PhDs (3), MDs (4), BSc (1) and high school students (2). Of these, 7 are women and 3 men, with ages ranging from 15 to 50 and with different races and ethnicities (Hispanic, Asian, Asian American, Black, Indian American, and White).

Current list of Mentees:

Carolina Rosselot, PhD

Mentor

2013-

Instructor

ISMMS

Geming Lu, MD	Mentor	2017-	Instructor	ISMMS
Randy Kang, BSc	Mentor	2020-	Res. Ass.	ISMMS
Kara Beliard, MD	Mentor (EFF Grant)	2021-	Ped. End. F.	ISMMS
Keya Thakkar, MD	Co-Mentor (Stanley)	2021-	Ped. End. F.	ISMMS
Daniela Guevara, MD	Mentor	2021-	Volunteer	ISMMS
Wylie Ditory	Mentor	2021-	CEYE Stud.	ISMMS
Madeleine Wichman	Mentor	2021-	Volunteer	Ossining HS
Sharon Alterzon, PhD	Co-Mentor (K01, Scott)	2022-	Instructor	ISMMS
Jody Ye, PhD	Co-Mentor (K01, Tomer)	2022-	Instructor	Albert Einstein

GRANTS, CONTRACTS, FOUNDATION SUPPORT

List Funding Source, Project title & Number	Role in Project	Dates	Supplemental Info
NIH/NIDDK P30 DK020541-38 Albert Einstein College of Medicine- Icahn School of Medicine at Mount Sinai Diabetes Research Center (DRC). Human Islet and Adenovirus Core (HIAC)	Site PI Core Director	04/01/20- 03/31/25	The HIAC will provide training and hands on human islets, isolated rodent islets, islet transplantation approaches and adenovirus and lentivirus for trasduction of these islets.
NIH/NIDDK R01 DK125285-01 Biological and Medicinal Chemistry Approaches to Human Beta Cell Regeneration	PI, (Stewart, DeVita Co- PIs)	7/1/20- 3/31/24	The Aims of this application are: 1. Synthesis of TGF- β Inhibitors With Chemical Linkers to Compliment our Novel DYRK1A inhibitor Compounds. 2. Conjugation of Harmine-Linker and TGF- β -Inhibitor-Linker Compounds to Two GLP1 Receptor Agonists and ENTPD3 Monoclonal Antibodies. 3. Specificity and Safety of the Harmine-Linker and TGF- β -Inhibitor Linker Conjugates in vivo in Human Islet Engraftment Models.
NIH/NIDDK R01 DK126450-01 Myc Physiology in the Pancreatic Beta Cell	PI, (Scott, Co-PI)	7/1/20- 4/30/24	We will test our hypothesis that Myc is critical for adaptive β -cell growth and function. Reversing Myc resistance in the T2D-prone or metabolically-stressed aged β -cell can lead to an enhanced adaptive response.
NIH/NIDDK R01DK105015-06 Dyrk Inhibitors for Human Beta Cell Expansion	PI, (Stewart, DeVita Co- PIs)	3/1/16- 5/31/25	The Specific Aims of this application will 1. Decipher mechanisms underlying the beneficial pro-differentiation effects of select DYRK1A inhibitors; 2. Define in vivo efficacy of DYRK1A inhibition in type 1 and type 2 diabetes models; and 3. Develop linkers to novel classes of DYRK1A inhibitors for targeted delivery to beta cells.
Department of Defense PR191443 Evaluating Pancreatic Neuromodulation for Prediabetes and Diabetes	Co-I (Stanley PI)	06/01/20- 05/31/23	This application will test the hypothesis that high fat diet increases islet sympathetic innervation, reduces islet parasympathetic innervation leading to insufficient insulin to maintain normal glucose.
NIH/NIDDK R01 DK124461-01A1	Co-I, Stanley, PI	1/1/21- 12/31/24	We will test the effects of insulin resistance on islet innervation leading to dysregulated hormone secretion.

Neural control of pancreatic endocrine function in obesity and diabetes			
NIH/NIDDK R01 DK130300 Alleviation of Glucotoxicity in Pancreatic Beta Cells	Co-I (Scott PI)	07/1/21 – 06/31/25	In this proposal, we will explore specific molecular mechanisms of glucose toxicity in pancreatic beta cells and test therapeutic interventions to mitigate these effects. These studies could lead to the development of therapeutic strategies to treat beta cell dysfunction in diabetes.
NIH/NIDDK R01DK130425 Experimental and natural SARS-CoV-2 infection of the human pancreas	Co-I (Homann PI)	09/1/21– 08/31/24	Collectively, the proposed work addresses, and is expected to resolve at least in part, key aspects of the hypothesis that SARS-CoV-2 infection may precipitate diabetes onset. Together with emerging epidemiological data, it may therefore provide an important foundation for future risk assessment and the prioritization of prophylactic and/or therapeutic intervention strategies.
Pending Grant Support			
NIH/NIDDK 2 R01 DK114338-05 The Role of Nrf2 in the Expansion and Preservation of Beta Cell Mass	PI (Gannon, Scott Co-PIs)	09/01/22- 08/31/27	In this proposal we will explore the mechanisms by which eicosanoid and incretin signaling pathways interact with the Nrf2 antioxidant pathway to expand and preserve beta cell mass, and test the exciting therapeutic potential of activating combinations of these pathways to treat diabetes.
Previous Grant Support as PI (Last 3 yrs)			
Juvenile Diabetes Research Foundation Research Grant 2-SRA-2017-514-SB Combined harmalog-TGF beta inhibitors for human beta cell expansion	PI (Stewart Co-PI)	09/01/17- 08/31/19	This application will explore the combine effect of harmine and TGF beta inhibitors in beta cell proliferation.
Department of Defense W81XWH-17-1-0363 “Dextran Sulfate and human immune regulation in Type 1 diabetes”	PI	08/01/17- 07/31/20	This grant sought to analyze the effect of dextran sulfate in human PBMCs from control and type 1 diabetic subjects by using Cytof technology.

CLINICAL TRIALS PARTICIPATION:

None.

TRAINEES

Trainee	Trainee Type	Dates of Training	Trainee Institution	Topic of Study	Position today
Maria A. Martinez-Brocca	Postdoc	2001-2006	University of Seville, Spain, MD 2006	HGF-mediated increase in glucose transport in skeletal muscle	Professor, University of Seville and Chair of Division of Endocrinology, Macarena Hospital, Seville, Spain

Nathalie Fiaschi-Taesch	Postdoc	2002-2004	Universite Louis Pasteur, Strasbourg, France, PhD, 2000	PTHrP and HGF in renal ischemia and reperfusion in transgenic mouse models	Director of Oncology and Angiogenesis, Regeneron
Jennifer Roccisana	BSc	2001-2004	BSc, University of Pittsburgh, 2000	c-met deficiency in beta cells	Assistant Professor, Dept. of Biology, University of Pittsburgh
Poornima Rao	Postdoc	2002-2004	"People's Friendship" University Medical Faculty, Russia, MD 1995	Akt activation and human islet transplantation	Assistant Professor, Allegheny Hospital, Pittsburgh.
Jose A. Gonzalez-Pertusa	Postdoc	2005-2006	University of Elche, Spain, PhD, 2004	Glucolipotoxicity and beta cell death	Assistant Professor, Univ. of Seville, Spain
Laura C. Alonso	Postdoc	2005-2009	U. Penn School of Medicine, MD, 1997	Glucose-induced beta cell proliferation	Chair Division of Endocrinology, Weill-Cornell
Soledad Lopez	Postdoc	2006	Universaidad de Malaga, Spain, PhD, 2006	HGF and pancreatic beta cell death	Professor, Biochemistry, Molecular Biology and Immunology, School of Medicine, University of Seville, Spain
Jose M. Mellado-Gil	Postdoc	2006-2009	Univ. of Cadiz, Spain, PhD, 2009	c-met deficiency in Type I diabetes	Senior Researcher, CABIMER-Andalusian Center for Molecular Biology and Regenerative Medicine, Seville, Spain
Raquel Guerrero-Navarro	Postdoc	2007	University of Seville, MD, 2004	HGF and islet vascularization	Assistant Professor, Univ. of Seville, Endocrinologist, Macarena Hospital, Seville, Spain
Cem Demirci	Postdoc	2007-2009	University of Istanbul, Medical School at Cerrahpasa, Turkey, MD, 1991	Gestational diabetes and the pancreatic beta cell	Medical Director, Diabetes Program, Chase Family Chair in Juvenile Diabetes, U Conn
Taylor Rosa	BSc	2007-2009	BSc University of Pittsburgh, 2007. PhD Duke, 2014	HGF and IRS2 deficiency in beta cells.	Pharmacologist - RTI International
Silvia Velazquez-Garcia	Postdoc	2008-2011	Univ. of La Laguna, Canary Islands, Spain, Ph, 2008	Protein kinase C Zeta and the pancreatic beta cell	Senior Scientist, University of Geneva, Switzerland
Sara Ernst	Postdoc	2008-2011	Baylor College of Medicine, PhD, 2008	Beta cell regeneration and c-met	MD Student, University of Pittsburgh Medical School
Tonslyn Toure	Postdoc	2009-2010	Brown University/Alpert Medical School, MD, 2005	Protein kinase C Zeta and the pancreatic beta cell	Private Practice, Diabetes, Metabolism & Endocrinology, Boston, MA
Shelley Valle	BSc	2009-2011	BSc University of Pittsburgh, 2009. PhD University of Arizona, 2016	Dextran sulfate for Type I diabetes	Postdoctoral fellow, Cleveland Clinic

Maria Isabel Jimenez-Serrania	Postdoc	2011	University of Salamanca, Spain, PhD, 2012	HGF and glucose transport in skeletal muscle	Assistant Professor, Dept. of Pharmacology, Universidad Europea Miguel de Cervantes, Valladolid, Spain
Gabriella Casinelli	Bsc	2011-2012	BSc, Bethany College, WV, 2011	Protein kinase C Zeta and the pancreatic beta cell	MD Student, Marshall University School of Medicine
Juan.C. Alvarez-Perez	Postdoc	2011-2017	University of Santiago, Spain, PhD, 2011	p53, glucolipotoxicity, beta cell and obesity/type 2 diabetes	Senior Scientist, University of Granada, Spain
Varsha Shridhar	Psotdoc	2011-2012	Microbiology and Molecular Virology, University of Pittsburgh, PhD	Protein kinase C Zeta and the pancreatic beta cell	Antenatal and Postnatal counselor, childbirth educator, St.Philomena's Hospital, Viveknagar, Bangalore, India
Francisco Rausell-Palamos	Postdoc	2013-2016	University of Valencia, PhD, 2011	Islet transplantation and type I diabetes	Instructor, University of Madrid, Spain
Diana Wang	MS Student	2013-2014	BSc, Cornell, NY, 2013	HTS for finding activators of PKC Zeta expression	MD Student, University of Philadelphia
Carolina Rosselot	Postdoc	2013-	University of Buenos Aires, PhD, 2005	Transcriptional regulation of beta cell proliferation	Instructor, Icahn School of Medicine at Mount Sinai
Matthew P. Spindler	MS Student	2014-2015	BSc, Princeton, NJ, 2013	Immune modulation by dextran sulfate and other polysaccharides	MD/PhD Student, Icahn School of Medicine at Mount Sinai
Kelly Hyles	HS Student	2015-2016	HS for Math, Science and Engineering at the City College of NY, 2016	Protein kinase C Zeta and the pancreatic beta cell	Student, Harvard University
Anna Kalis	HS Student	2016-2017	HS for Math, Science and Engineering at the City College of NY, 2017	Transcriptional regulation of beta cell proliferation	Student, University of Michigan
Geming Lu	Postdoc	2017-	MD, University of Beijing, China, 2000	Type 1 diabetes and immune tolerance	Instructor, Icahn School of Medicine at Mount Sinai
Cecilia Berrouet	BSc	2017-2019	BSc, Cornell, NY, 2016	Epigenetic regulation of beta cell proliferation	Research Assistant, Columbia University
Jessica Wilson	BSc	2017-2019	BSc, Miami University, Oxford, OH, 2014	Harmine-based therapies for beta cell regeneration	Research Assistant, Icahn School of Medicine at Mount Sinai
Viktor Zlatanic	MS Student	2017-2018	BSc, Dartmouth, 2016	Harmalogs and beta cell regeneration	MD Student, St George's University, Grenade
Zihan Zheng	BSc	2017-2018	BSc, UNC, 2017	CyTOF-based analysis of immune cell populations in type 1 diabetes	PhD student, Stanford University
Kadeem Whyte	HS Student	2017-2018	HS for Math, Science and Engineering at the City College of NY, 2018	Specificity Protein 1 and the pancreatic beta cell	Student, Cornell University
Diego Rodriguez	HS Student	2018-2019	HS for Math, Science and Engineering at	Harmalogs and beta cell regeneration	Student, Brown University

			the City College of NY, 2019		
Soledad Lopez	Visiting Professor	2019	Universidad de Sevilla, Spain,	Dextran sulfate and human DCs	Professor, Biochemistry, Molecular Biology and Immunology, School of Medicine, University of Seville, Spain
Jiamin Zhang	BSc	2019-2020	Immunohematology Lab, Shanghai Institute of Blood Transfusion, Shanghai Blood Center, Shanghai, China, 2019	Dextran sulfate and islet basement membrane	Research technician, Immunohematology Lab, Shanghai Institute of Blood Transfusion, Shanghai Blood Center, Shanghai, China.
John Graham	Postdoc	2019-2020	MD/PhD, Icahn School of Medicine, Endocrine MD fellow	Type 1 diabetes and immune tolerance in humans	Endocrine Fellow, Icahn School of Medicine at Mount Sinai
Xinyi Yang	HS Student	2019-2020	HS for Math, Science and Engineering at the City College of NY, 2019	Dextran sulfate and beta cell survival	Student, Boston University
Roma Patel	PhD Student	2020	BSc, Navrachana University, India	Melatonin and GLP-1 to induce beta cell regeneration	Postdoc, Weill Cornell
Randy Kang	BSc	2020-	BSc, Cornell University, 2019	Omics platforms and human islets	Research Assistant, Icahn School of Medicine at Mount Sinai
Kara Beliard	Pediatric Endocrine MD fellow	2020-	MD, Universidad Pontificia Católica Madre y Maestra, Dominican Republic, 2015	Effect of Dyrk1a inhibitors on human beta cell expansion in diabetes	Pediatric Endocrine Fellow, Icahn School of Medicine at Mount Sinai
Angela Liu	HS Student	2020-2021	HS for Math, Science and Engineering at the City College of NY, 2019	Dextran sulfate, HGF and beta cell survival	Student, Northeastern University
Keya Thakkar	Pediatric Endocrine MD fellow	2021-	MD, Rutgers Robert Wood Johnson Medical School, 2017	Brain effects of Dyrk1a inhibitors	Pediatric Endocrine Fellow, Mount Sinai School of Medicine
Wylie Dituri	HS Student	2021-2022	HS for Math, Science and Engineering at the City College of NY, 2019	HGF and MDSCs	Student, HS, CEYE
Daniela Guevara	MD	2021-	MD, University of Buenos Aires, Argentina, 2011	Harmine and beta cell survival	Lab volunteer

TEACHING ACTIVITIES

Teaching Activity/Topic	Level	Role	Number of Learners	Number of hours per week/month/year	Years Taught
<i>Class: Introduction to Core Research Techniques for MD fellows.</i>	<i>MD Fellows</i>	<i>Lecturer</i>	<i>8/year</i>	<i>3 hrs/year</i>	<i>2001-2007</i>
<i>Class: Molecular Pathobiology Course</i>	<i>MD and PhD Students</i>	<i>Lecturer</i>	<i>10</i>	<i>3hrs</i>	<i>2003</i>
<i>Class: Transgenic Animal Course: Of Mice, Zebrafish and Men: If Steinbeck had been a Clinician.</i>	<i>MD and PhD Students, Fellows and Faculty</i>	<i>Lecturer</i>	<i>20</i>	<i>3hrs</i>	<i>2005</i>
<i>Course: "Research Basis of Medical Knowledge,"</i>	<i>MD/PhD Students</i>	<i>Class Mentor</i>	<i>10</i>	<i>3hrs</i>	<i>2009</i>
<i>PBL. Course: Fuel Metabolism</i>	<i>MD Students</i>	<i>Lecturer</i>	<i>9/year</i>	<i>9 hrs/year</i>	<i>2008-2012</i>
<i>Course: Systems Biomedicine. Module 2: Diabetes. Class "Non-Insulin Metabolic Hormones and Signaling: Incretins, Leptin and Other Metabolic Hormones"</i>	<i>MD, PhD, MD/PhD and MS Students</i>	<i>Lecturer</i>	<i>20/year</i>	<i>2 hrs/year</i>	<i>2013-2015</i>
<i>Course: Systems Biomedicine. Module 2: Diabetes. Class "Pancreatic Beta Cell Regeneration & Protection"</i>	<i>MD, PhD, MD/PhD and MS Students</i>	<i>Lecturer</i>	<i>20/year</i>	<i>2 hrs/year</i>	<i>2016-2022</i>
<i>Course: Diabetes Virtual Camp. Organized by Dr. Jason Kim, U. mass.</i>	<i>HS, MD, PhD, MD/PhD and MS Students. International.</i>	<i>Lecturer</i>	<i>200/year</i>	<i>2 hrs/year</i>	<i>2020</i>

ADMINISTRATIVE LEADERSHIP APPOINTMENTS:

Endocrine Research Conference Organizer, Division of Endocrinology, University of Pittsburgh, 2003-2004
Member, Basic Research Faculty Committee, Division of Endocrinology, University of Pittsburgh, 2007-2012

Member, Organizing Committee of the Division of Endocrinology Research Retreat, 2007-2009

Member of the Underrepresented Minority (URM) Focus Group of the Department of Medicine, University of Pittsburgh, 2007-2012

Experts Panel on Human Islet Isolation and Counting, Workshop held by the NIH/JDRF Human Islet Cell Resource Centers, San Francisco, CA, 2008

Abstract Reviewer, American Diabetes Association Scientific Sessions, 2008-2016

Abstract Reviewer, The Endocrine Society Scientific Sessions, 2009-2010

Member, Presidential Poster Competition, The Endocrine Society Annual Meeting, 2009-2010

American Diabetes Association Awards Selection Committee, 2007-2011

Member, American Diabetes Association Grant Review Committee, 2007-2015

Member, Midwest Islet Club Meeting Organizing Committee, 2010-2012

Organizer and Chair, 5th Midwest Islet Club Meeting in Pittsburgh, 2012

ADA Annual Meeting, Organizing Subcommittee on Islet Biology, 2013-2016

Core Director, DRC Einstein-Sinai Diabetes Research Center 2015-2020

Member, Admissions Committee, Master's in Biomedical Sciences Program at Mount Sinai, 2015-
 Organizer and Chair, 5th Annual NYC Regional Diabetes Meeting, NY, 2016.
 Member, Steering committee, Nineteenth Annual Child Health Research Day, 2017, Icahn School of
 Medicine at Mount Sinai.
 Organizer of the Work in Progress Conference, Diabetes, Obesity and Metabolism Institute, Icahn School
 of Medicine at Mount Sinai, 2017.
 Co-Chair of the American Diabetes Association's Scientific Sessions Meeting Planning Committee in the
 area of Islet Biology/Insulin Secretion, 2016-2018.
 Organizing committee of the 7th Annual Mindich Child and Health and Development Institute Retreat, 2019.
 Co-Organizer and Co-Chair, Boston-Ithaca Islet Club Meeting, NY, 2019.
 Core Director, DRC Einstein-Sinai Diabetes Research Center 2021-2023

PUBLICATIONS

Adolfo García-Ocaña <https://scinapse.io/authors/289896743>

128 Publications, 46 H-index, 6,476 Citations

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. F. Manzano, P. Esbrit, A. García-Ocaña, R. García-Cañero, M.A. Jiménez. Partial purification and characterisation of a renal growth factor from plasma of uninephrectomised rats. ***Nephrol. Dial. Transplant.*** 4:334-338, 1989.
2. P Esbrit, A García-Ocaña, R García-Cañero, F Manzano, MA Jiménez-Clavero. Biological properties of a renotropic protein present in plasma of uninephrectomized rats. ***Ren Physiol Biochem.*** 14:224-35, 1991.
3. A. García-Ocaña, P. Esbrit. Role of kidney and liver in the renotropic activity generated in rats after uninephrectomy. ***Nephrol. Dial. Transplant.*** 7:608-612, 1992.
4. A. García-Ocaña, J. Ortega, Y. González-García, C. García-Cantón, P. Esbrit. Partial purification of a renotropic activity from plasma of uninephrectomized human subjects. ***Nephron*** 64:547-551, 1993.
5. A García-Ocaña, P Esbrit. Further studies on the characterization of a renotropic activity detected in uninephrectomized rat plasma. ***Exp Nephrol.*** 2:286-93, 1994.
6. A. García-Ocaña, F. de Miguel, C. Peñaranda, J.P. Albar, J.L. Sarasa, P. Esbrit. Parathyroid hormone-related protein is an autocrine modulator of rabbit proximal tubule cell growth. ***J. Bone Miner. Res.*** 10:1875-1884, 1995.
7. R. Perrichot, A. García-Ocaña, S. Couette, E. Comoy, C. Amiel, G. Friedlander. Locally formed dopamine modulates renal Na-Pi co-transport through DA₁ and DA₂ receptors. ***Biochem. J.*** 312:433-437, 1995.
8. C. Peñaranda, A. García-Ocaña, P. Esbrit. Hypertrophy of rabbit proximal tubule cells is associated with overexpression of TGFβ. ***Life Sci.*** 59:1773-1782, 1996.
9. A. García-Ocaña, C. Peñaranda, P. Esbrit. Comparison of antiproliferative effects of atrial natriuretic peptide and transforming growth factor beta on rabbit proximal tubule cells. ***Life Sci.*** 58:251-258, 1996.
10. A. García-Ocaña, C. Peñaranda, P. Esbrit. Transforming growth factor-beta and its receptors in rabbit renal proximal tubules after uninephrectomy. ***Exp Nephrol.*** 4:231-240, 1996.
11. A. Valín, A. García-Ocaña, F. de Miguel, J.L. Sarasa, P. Esbrit. Antiproliferative effect of the C-terminal region of parathyroid hormone-related protein on osteoblastic osteosarcoma cells. ***J. Cell Physiol.*** 170:209-215, 1997.
12. M.E. Martínez, A. García-Ocaña, M. Sánchez, S. Medina, T. del Campo, A. Valín, M.J. Sánchez-Cabezudo P. Esbrit. C-terminal parathyroid hormone-related protein inhibits proliferation and differentiation of human osteoblast-like cells. ***J. Bone Miner. Res.*** 12:778-785, 1997.
13. A. García-Ocaña, E. Gómez-Casero, C. Peñaranda, P. Esbrit. Parathyroid hormone-related protein increases DNA synthesis in rabbit proximal tubule cells by cyclic-AMP and protein kinase C dependent pathways. ***Life Sci.*** 62:2267-2274, 1998.

14. A. García-Ocaña, E. Gómez-Casero, C. Peñaranda, J.L. Sarasa, P. Esbrit. Cyclosporine increases renal parathyroid hormone-related protein expression in vivo in the rat. **Transplantation** 65: 860-863, 1998.
15. S.E. Porter, R.L. Sorenson, P. Dann, A. García-Ocaña, A.F. Stewart, R.C. Vasavada. Progressive pancreatic islet hyperplasia in the islet-targeted, PTH-related protein-overexpressing mouse. **Endocrinology** 139:3743-3751, 1998.
16. R. Vasavada, A. García-Ocaña, T. Massfelder, P. Dann, A.F. Stewart. Parathyroid hormone-related protein in the pancreatic islet and cardiovascular system. **Recent Progress in Hormone Research** 53:305-340, 1998.
17. A. García-Ocaña, S.C. Galbraith, S.K. Van Why, K. Yang, L. Golovyan, P. Dann, R.A. Zager, A.F. Stewart, N.J. Siegel, J.J. Orloff. Expression and role of parathyroid hormone-related protein in human renal proximal tubule cells during recovery from ATP depletion. **J. Am. Soc. Nephrol.** 10:238-244, 1999.
18. A. Valin, F. de Miguel, A. García-Ocaña, P. Esbrit. Parathyroid hormone-related protein (107-139) decreases alkaline phosphatase in osteoblastic osteosarcoma cells UMR 106 by a protein kinase C-dependent pathway. **Calcified Tissues.** 65:148-151, 1999.
19. A. García-Ocaña, K. Takane, M. A. Syed, W.M. Philbrick, R.C. Vasavada, A.F. Stewart. Hepatocyte growth factor overexpression in the islet of transgenic mice increases beta cell proliferation and induces hypoglycemia. **J. Biol. Chem.** 275:1226-1232, 2000.
20. R.C. Vasavada, A. García-Ocaña, W.S. Zawalich, R.L. Sorenson, P. Dann, M. Syed, L. Ogren, F. Talamantes, A.F. Stewart. Targeted expression of placental lactogen in the beta cells of transgenic mice results in beta cell proliferation, islet mass augmentation, and hypoglycemia. **J. Biol. Chem.** 275:15399-15406, 2000.
21. P. Esbrit, J. Benitez-Verguizas, F. de Miguel, A. Valin, A. García-Ocaña. Characterization of parathyroid hormone/parathyroid hormone-related protein receptor and signaling in hypercalcemic Walker 256 tumor cells. **J. Endocrinol.** 166:11-20, 2000.
22. A. García-Ocaña, R. C. Vasavada, K. K. Takane, A. Cebrian, J.C. Lopez-Talavera, A.F. Stewart. Using beta cell growth factors to enhance human pancreatic islet transplantation. **J. Clin. Endo. Metab.** 86:984-988, 2001.
23. A. García-Ocaña, R.C. Vasavada, A. Cebrian, V. Reddy, K.K. Takane, J.C. Lopez-Talavera, A.F. Stewart. Transgenic overexpression of hepatocyte growth factor in the beta cell markedly improves islet function and islet transplant outcomes. **Diabetes** 50:2752-2762, 2001.
24. M.A. Syed, M.J. Horwitz, M.B. Tedesco, A. García-Ocaña, A.F. Stewart. Parathyroid hormone-related protein (1-36) stimulates renal tubular calcium reabsorption in normal human volunteers: Implications for the pathogenesis of humoral hypercalcemia of malignancy. **J. Clin. Endo. Metab.** 86:1525-1531, 2001.
25. A. Cebrian, A. García-Ocaña, K.K. Takane, D. Sipula, A.F. Stewart, R.C. Vasavada. Parathyroid Hormone-related Protein inhibits pancreatic beta cell death in vivo and in vitro. **Diabetes** 51:3003-3013, 2002.
26. M.J. Horwitz, M.B. Tedesco, C. Gundberg, A. García-Ocaña, A.F. Stewart. Short-term, very high-dose parathyroid hormone-related protein as a pure skeletal anabolic agent for the treatment of postmenopausal osteoporosis. **J. Clin. Endo. Metab.** 88:569-575, 2003.
27. A. García-Ocaña, K.K. Takane, V. Reddy, J.C. Lopez-Talavera, R.C. Vasavada, A.F. Stewart. Adenovirus-mediated hepatocyte growth factor transfer to mouse islets improves pancreatic islet transplant performance and reduces beta cell death. **J. Biol. Chem.** 278:343-351, 2003.
28. M.J. Horwitz, M.B. Tedesco, S. Sereika, B.W. Hollis, A. García-Ocaña, A.F. Stewart. Direct comparison of sustained infusion of hPTHrP (1-36) versus hPTH (1-34) on serum calcium, plasma 1,25(OH)₂ vitamin D concentrations and fractional calcium excretion in healthy human volunteers. **J. Clin. Endo. Metab.** 88:1603-1609, 2003.
29. J.C. Lopez-Talavera, A. García-Ocaña, K.K. Takane, I. Cozar, A.F. Stewart. Hepatocyte growth factor gene therapy, for pancreatic islets in diabetes: Reducing the minimal islet transplant mass required in a glucocorticoid-free rat model of allogeneic portal vein islet transplantation. **Endocrinology** 145:467-474, 2004.
30. N.M. Fiaschi-Taesch, S. Santos, V. Reddy, S. Van Why, W.F. Philbrick, A. Ortega, P. Esbrit, J.J. Orloff, A. García-Ocaña. Prevention of acute ischemic renal failure by targeted delivery of growth factors

- to the proximal tubule in transgenic mice: The efficacy of HGF and PTHrP. *J. Am. Soc. Nephrol.* 15:112-125, 2004.
31. Y. Fujinaka, D. Sipula, A. Garcia-Ocaña, and R.C. Vasavada. Characterization of mice doubly transgenic for parathyroid hormone-related protein and murine placental lactogen: a novel role for placental lactogen in pancreatic beta cell survival. *Diabetes* 53:3120-3130, 2004.
 32. P. Rao, I. Cozar, J. Roccisana, R.C. Vasavada, A. Garcia-Ocaña. Hepatocyte growth factor gene therapy for islet transplantation. *Expert Opinion on Biological Therapy* 4:507-518, 2004.
 33. A. Garcia-Ocaña. Protein Kinase B/Akt and the Pancreatic Beta Cell. In *CellScience*. Vol. 1(3), 2005.
 34. M.J. Horwitz, M.B. Tedesco, S. Sereika, A. Garcia-Ocaña, A. Bisello, B.W. Hollis, C.J. Rosen, J.J. Wysolmerski, P. Dann, C. Gundberg and A.F. Stewart. Continuous infusion of parathyroid hormone versus parathyroid hormone-related protein in humans: discordant effects on 1,25(OH)₂ vitamin D and prolonged suppression of bone formation. *J. Bone Miner. Res.* 20:1792-803, 2005.
 35. P. Rao, J. Roccisana, K. K. Takane, R. Bottino, A. Zhao, M. Trucco and A. García-Ocaña. Gene Transfer of Constitutively Active Akt Markedly Improves Human Islet Transplant Outcomes in Diabetic SCID Mice. *Diabetes*. 54:1664-1675, 2005.
 36. J. Roccisana, V. Reddy, R. C. Vasavada, J. A. Gonzalez-Pertusa, M. A. Magnuson and A. Garcia-Ocaña. Targeted inactivation of HGF receptor, c-met, in beta cells leads to defective insulin secretion and Glut-2 downregulation without alteration of beta cell mass. *Diabetes*. 54:2090-2102, 2005.
 37. M.J. Horwitz, M.B. Tedesco, S. Sereika, A. Garcia-Ocaña, A. Bisello, B.W. Hollis, C. Gundberg and A.F. Stewart. Safety and Tolerability of subcutaneous PTHrP (1-36) in healthy human volunteers: A dose escalation study. *Osteoporosis Int.* 17:225-239, 2006.
 38. B Burguera, A Brunetto , A Garcia-Ocana, R Teijeiro, J Esplen, T Thomas, ME Couce, A Zhao. Leptin increases proliferation of human osteosarcoma cells through activation of PI(3)-K and MAPK pathways. *Med Sci Monit.* 12:BR341-9, 2006.
 39. R. C. Vasavada, J. A. Gonzalez-Pertusa, Y. Fujinaka, N.M. Fiaschi-Taesch, I. Cozar-Castellano, A. Garcia-Ocaña. Growth factors and pancreatic beta cell proliferation. *Int J Biochem Cell Biol* 38:931-950, 2006.
 40. I. Cozar-Castellano, N. Fiaschi-Taesch, T.A. Bigatel, K.K. Takane, A. Garcia-Ocaña, R.C. Vasavada, A.F. Stewart. Molecular control of cell cycle progression in the pancreatic beta cell. *Endocr. Rev.* 27:356–370, 2006.
 41. N. Fiaschi-Taesch, A.F. Stewart, A. Garcia-Ocaña. Improving islet transplantation by gene delivery of hepatocyte growth factor (HGF) and its downstream target, protein kinase B (PKB)/Akt. *Cell Biochem Biophys*. 48:191-199, 2007.
 42. N. Iiyori, L. C. Alonso, J. Li, M. H. Sanders, A. Garcia-Ocaña, R. M. O'Doherty, V. Y. Polotsky, C. P. O'Donnell. Intermittent hypoxia causes insulin resistance in lean mice independent of autonomic activity. *Am J Respir Crit Care Med.* 175: 851-857, 2007.
 43. L. C. Alonso, T. Yokoe, S. Kim, C. P. O'Donnell and A. Garcia-Ocaña. Glucose-infusion in mice: a new model of increased beta cell proliferation. *Diabetes* 56:1792-1801, 2007.
 44. R. C. Vasavada, L. Wang, Y. Fujinaka, K. K. Takane, T.C. Rosa, J.M.D. Mellado-Gil, P. A. Friedman, and A. Garcia-Ocaña. Protein Kinase C- ζ Activation Markedly Enhances β -Cell Proliferation: An Essential Role in Growth Factor-Mediated β -Cell Mitogenesis. *Diabetes* 56:2732-2743, 2007.
 45. T. Yokoe, L.C. Alonso, L.C. Romano, T.C. Rosa, R.M. O'Doherty, A. Garcia-Ocaña, K. Minoguchi, C. O'Donnell. Intermittent hypoxia reverses the diurnal glucose rhythm and causes pancreatic beta-cell replication in mice. *J Physiol.* 586:899-911, 2008.
 46. G. Perdomo, M.A. Martinez-Brocca, B.A. Bhatt, N.F. Brown and R.M. O'Doherty and A. Garcia-Ocaña. Hepatocyte Growth Factor is a Novel Stimulator of Glucose Uptake and Metabolism in Skeletal Muscle Cells. *J. Biol. Chem.* 283:13700-13706, 2008.
 47. N. Fiaschi-Taesch, D. Berman-Weinberg, B. Sicari, K.K. Takane, A. Garcia-Ocaña, C. Ricordi, N.S. Kenyon, and A.F. Stewart. Hepatocyte Growth Factor (HGF) Enhances Engraftment and Function of Non-Human Primate Islets. *Diabetes* 57(10):2745-2754, 2008.
 48. I. Boumaza, S. Srinivasan, W.T. Witt, C. Feghali-Bostwick, Y. Dai, A. Garcia-Ocana and M. Feili-Hariri. Autologous Bone Marrow-Derived Rat Mesenchymal Stem Cells Enhance PDX-1 and Insulin in the Islets and Induce Sustained Normoglycemia. *J Autoimmun.* 32:33-42 2009.
 49. MG Solari, S Srinivasan, J Unadkat, I Boumaza, G Harb, A Garcia-Ocana, M Feili-Hariri. Marginal

- mass islet transplantation with autologous mesenchymal stem cells promotes long-term islet allograft survival and sustained normoglycemia. *J Autoimmun.* 32:116-124, 2009.
50. Woodske ME, Yokoe T, Zou B, Romano LC, Rosa TC, A Garcia-Ocana, Alonso LC, O'Donnell CP, McVerry BJ. Hyperinsulinemia predicts survival in a hyperglycemic mouse model of critical illness. *Crit Care Med* 37:2596-2603, 2009.
 51. C. M. Blouin., K. K. Takane, F. Lasnier, A. Garcia-Ocana, P. Ferré, I. Dugail and E. Hajdуч. Plasma membrane subdomain compartmentalization contributes to distinct mechanisms of ceramide action on insulin signalling. *Diabetes.* 59:600-610, 2010.
 52. Horwitz MJ, Tedesco MB, A Garcia-Ocaña, Sereika SM, Prebehala, Carneiro R, Kahn L, Bisello A, Hollis BW, Gundberg CM, Stewart AF. Parathyroid Hormone-related Protein for the Treatment of Postmenopausal Osteoporosis: Defining the Maximal Tolerable Dose. *J Clin Endocrinol Metab* 95:1279-1287, 2010.
 53. J. A. González-Pertusa, J. Dubé, T. C. Rosa, J. M. Mellado-Gil, G. Perdomo, R. C. Vasavada and A. García-Ocaña. Novel pro-apoptotic effect of hepatocyte growth factor: Synergy with palmitate to cause beta cell apoptosis. *Endocrinology.* 151:1487-1498, 2010.
 54. E.J. Zmuda, M. Viapiano, S.T. Grey, G. Hadley, A. Garcia-Ocana and T. Hai. Deficiency of ATF3, an adaptive-response gene, protects islets and ameliorates inflammation in a syngeneic islet transplantation model. *Diabetologia.* 53:1438-1450, 2010.
 55. N.G. Kondegowda, S. Joshi-Gokhale, G. Harb, K. Williams, X. Y. Zhang, K. K. Takane, P. Zhang, D.K. Scott, A. F. Stewart, A. Garcia-Ocaña, and R.C. Vasavada. Parathyroid hormone-related protein enhances human β -cell proliferation and function with associated induction of cyclin-dependent-kinase 2 and cyclin E expression. *Diabetes* 59:3131-3138, 2010.
 56. A. Garcia-Ocana and L.C. Alonso. Glucose mediated beta cell proliferation. *The Open Endocrinology Journal*, 4:57-67, 2010.
 57. I. Oyanguren, S. Castañón, A. García-Ocaña, R. Vasavada, I. Urreta. System for the production of transgenic BY2 cells in bioreactors. *Acta Horticulturae*, 865:357-360, 2010. DOI:10.17660/ActaHortic.2010.865.51
 58. S. Ernst, C. Demirci, S. Valle, S. Velazquez-Garcia, and A. Garcia-Ocaña. Mechanisms in the adaptation of maternal beta cells during pregnancy. *Diabetes Management* 1: 239-248, 2011.
 59. H.E. Levitt, T.J. Cyphert, J.L. Pascoe, D. A. Hollern, N. Abraham, R.J. Lundell, T. Rosa, L. Romano, B. Zou, C.P. O'Donnell, A. Garcia-Ocana, and L.C. Alonso. Glucose stimulates engrafted human beta cell replication in vivo. *Diabetologia* 54:572-582, 2011.
 60. J.M. Mellado-Gil, T.C. Rosa, C. Demirci, J. A. Gonzalez-Pertusa, S. Velazquez-Garcia, S. Ernst, S. Valle, R.C. Vasavada, A.F. Stewart, L.C. Alonso and A. Garcia-Ocaña. Disruption of hepatocyte growth factor/c-Met signaling enhances pancreatic beta-cell death and accelerates the onset of diabetes. *Diabetes* 60:525-536, 2011.
 61. S. Velazquez-Garcia, S. Valle, T.C. Rosa, K.K. Takane, C. Demirci, J.M. Mellado-Gil, S. Ernst, D. K. Scott, R.C. Vasavada, L.C. Alonso and A. Garcia-Ocaña. Activation of Protein Kinase C Zeta (ζ) in Pancreatic β -Cells In Vivo Improves Glucose Tolerance and Induces β -Cell Expansion Via mTOR Activation. *Diabetes.* 60: 2546–2559, 2011.
 62. M.J. Horwitz, M.B. Tedesco, S. K. Sereika, L. Prebehala C. M. Gundberg, B. W. Hollis, A. Bisello, A. Garcia-Ocaña, R.M. Carneiro, and A. F. Stewart. A Seven Day Continuous Infusion of PTH or PTHrP Suppresses Bone Formation and Uncouples Bone Turnover. *J. Bone Miner. Res.* 26:2287-2297, 2011.
 63. K. Williams, D. Abanquah, S. Joshi-Gokhale, A. Otero, H. Lin, N. K. Guthalu, X. Zhang, A. Mozar, A. Bisello, A. F. Stewart, A. Garcia-Ocaña, and R. C. Vasavada. Systemic and Acute Administration of Parathyroid Hormone-related Peptide (1-36) Stimulates Endogenous Beta Cell Proliferation While Preserving Function in Adult Mice. *Diabetologia* 54:2867-2877, 2011.
 64. J.L. Pascoe, D. Hollern, R. Stamateris, M. Abbasi, L.C. Romano, B. Zou, C.P. O'Donnell, A. Garcia-Ocana, L.C. Alonso. Free Fatty Acids Block Glucose-Induced Beta Cell Proliferation In Mice By Inducing Cell Cycle Inhibitors p16 and p18. *Diabetes.* 61:632-641, 2012.
 65. C. Demerci, S. Ernst, J.C. Alvarez-Perez, T. Rosa, S. Valle, L.C. Alonso, R.C. Vasavada and A. García-Ocana. Loss of HGF/c-Met Signaling in Pancreatic β -Cells Leads to Incomplete Maternal β -

- Cell Adaptation and Gestational Diabetes. *Diabetes*. 61:1143-1152, 2012.
66. N. Guthalu Kondegowda, A. Mozar, A. Otero, C. Chin, A. Garcia-Ocaña and R. C. Vasavada. Lactogens protect rodent and human beta cells against glucolipotoxicity-induced cell death through Jak2/Stat5 signaling. *Diabetologia* 55:1721-1732, 2012.
 67. J. Gao, J. He, X. Shi, M. Stefanovic-Racic, M. Xu, R.M. O'Doherty, A. Garcia-Ocana, W. Xie. Gender Specific Effect of Estrogen Sulfotransferase on Energy Metabolism. *Diabetes*. 61:1543-1551, 2012.
 68. L.C. Alonso, Y. Watanabe, D. Stefanovski, J. Lee, L.C. Romano, B. Zou, A. Garcia-Ocana, R. Bergman and C.P. O'Donnell. Simultaneous measurement of insulin sensitivity, insulin secretion and the disposition index in conscious unhandled mice. *Obesity*. 20:1403-1412, 2012.
 69. M.R. Metukuri, P. Zhang, L. Alonso, K. Takane, S.C. Strom, R.M. O'Doherty, A.F. Stewart, R. Vasavada, A. Garcia-Ocaña, and D.K. Scott. ChREBP Mediates Glucose-Stimulated Beta Cell Proliferation. *Diabetes*. 61:2004-2015. 2012.
 70. R. Kulkarni, E. Bernal-Mizrachi, A. Garcia-Ocaña, and A.F. Stewart. Human β -Cell Proliferation and Intracellular Signaling: Driving in the Dark without a Roadmap. *Diabetes*. 61:2205-2213, 2012.
 71. E.J. Lee, L.C. Alonso, D. Stefanovski, H.C. Strollo, L.C. Romano, B. Zou, S. Singamsetty, K.A. Yester, K.R. McGaffin, A. Garcia-Ocana and C.P. O'Donnell. Time-Dependent Changes in Glucose and Insulin Regulation during Intermittent Hypoxia and Continuous Hypoxia. *European Journal of Applied Physiology* 113:467-478, 2013.
 72. Y Watanabe, S Singamsetty, B Zou, L Guo, D Stefanovski, LC Alonso, A. Garcia-Ocana, CP O'Donnell, BJ McVerry. Exogenous glucose administration impairs glucose tolerance and pancreatic insulin secretion during acute sepsis in non-diabetic mice. *PLOS One*, 8(6):e67716, 2013.
 73. M.J. Horwitz, M. Augustine, L. Kahn, E. Martin, C.C. Oakley, R.M. Carneiro, M.B. Tedesco, A. Laslavic, S.M. Sereika, A. Bisello, A. Garcia-Ocaña, C.M. Gundberg, J.A. Cauley, A.F. Stewart. A Comparison of Parathyroid Hormone-related Protein (1-36) and Parathyroid Hormone (1-34) on Markers of Bone Turnover and Bone Density in Postmenopausal Women: The PROP Study. *J Bone Min Res*, 28:2266-2276, 2013.
 74. T.B. Tarr, W. Malick, M. Liang, G. Valdomir, D. Lacomis, S. Reddel, A. Garcia-Ocana, P. Wipf, S.D. Meriney. Evaluation of a novel calcium channel agonist for therapeutic potential in Lambert-Eaton Myasthenic Syndrome. *J Neurosci*, 33:10559-10567, 2013.
 75. J.C. Alvarez-Perez, S. Ernst, C. Demerci, G.P. Casinelli, J.M.D. Mellado-Gil, R.C. Vasavada, A. Garcia-Ocana. Hepatocyte Growth Factor/c-Met signaling is required for β -cell regeneration. *Diabetes* 63:216-223, 2014.
 76. J.C. Alvarez-Perez, T. C. Rosa, G. P. Casinelli, S. R. Valle, J. Lakshmipathi, C. Rosselot, F. Rausell-Palamos, R.C. Vasavada, and A. García-Ocana. Hepatocyte growth factor (HGF) ameliorates hyperglycemia and corrects beta cell mass in IRS2 deficient mice. *Mol Endo* 28:2038-48, 2014.
 77. García-Martín A, Maycas M, Ardura JA, Lozano D, López-Herradón A, Portal-Núñez S, A García-Ocaña, Esbrit P. Roles of the nuclear localization signal 88-107 sequence of parathyroid hormone-related protein (PTHrP) in osteoblastic cells. *Mol Endo* 28:925–934, 2014.
 78. A. García-Ocaña and A. F. Stewart. “RAS”ling β cells to proliferate for diabetes: why do we need MEN? *J Clin Invest*, 124:3698-3700, 2014.
 79. E. Bernal-Mizrachi, R. Kulkarni, D.K. Scott, F. Mauvais-Jarvis, A.F. Stewart and A. Garcia-Ocaña. Human β -Cell Proliferation and Intracellular Signaling Part 2: Driving in the Dark without a Roadmap. *Diabetes* 63:819-831, 2014.
 80. A. Maffei, A.M. Segal, J.C. Alvarez-Perez, A. Garcia-Ocaña, and P. Harris. Anti-incretin, anti-proliferative action of dopamine on β -cells. *Mol Endo* 29:542-557, 2015.
 81. S. Ljubicic, K. Polak, J.M. Wiwczar, B. Szlyk, Y. Chang, J.C. Alvarez-Perez, G.H. Bird, L.D. Walensky, A. Garcia-Ocaña, N.N. Danial. Phospho-BAD Mimetic Strategies Protect β -Cells and Restore Functional β -Cell Mass in Diabetes. *Cell Rep*, 10: 497–504, 2015.
 82. P. Wang, J.C. Alvarez-Perez, D.P. Felsenfeld, H. Liu, S. Sivendran, A. Bender, A. Kumar, R. Sanchez, D.K. Scott, A. Garcia-Ocaña, A.F. Stewart. A high-throughput chemical screen reveals that harmine-mediated inhibition of DYRK1A increases human pancreatic beta cell replication. *Nat Medicine*, 21:383-388, 2015.

83. P. Wang, N. Fiaschi-Taesch, R.C. Vasavada, D.K. Scott, A. Garcia-Ocaña, and A.F. Stewart. Advances and Challenges in Human Beta Cell Replication for Diabetes. **Nat Rev Endo**, 11:201-212, 2015.
84. A.F. Stewart, M.A. Hussain, A. García-Ocaña, R.C. Vasavada, A. Bhushan, E. Bernal-Mizrachi and R.N. Kulkarni. Human Beta Cell Proliferation and Intracellular Signaling: Part 3. **Diabetes** 64:1872-85, 2015.
85. E. Shroff, L. Eberlin, V. Dang, A. Gouw, M. Gabay, S. Adam, D.L. Bellovin, P. Tran, W. Philbrick, A. Garcia-Ocana, S. Casey, Y. Li, C. Dang, R. Zare, D. Felsher. MYC Oncogene Overexpression Drives Renal Cell Carcinoma in a Mouse Model through Glutamine Metabolism. **Proc Natl Acad Sci U S A** 112:6539-44, 2015.
86. N.K. Guthalu, R. Fenutria, I. Pollack, A. Garcia-Ocaña, J. Penninger, R.C. Vasavada. Osteoprotegerin and Denosumab stimulate human beta cell proliferation through inhibition of the Receptor Activator of NF- κ B Ligand pathway. **Cell Metab**, 22:77-85, 2015.
87. T.V. Sanchez-Encinales, I. Cozar-Castellano, A. Garcia-Ocaña*, G. Perdomo*. Targeted delivery of HGF to the skeletal muscle improves glucose homeostasis in diet induced-obese mice. **J Physiol Biochem** 71:795-805, 2015. *Co-corresponding authors.
88. T. Zhang, D.H. Kim, X. Xiao, S. Lee, Z. Gong, R. Muzumdar, V. Calabuig-Navarro, J. Yamauchi, H. Harashima, R. Wang, R. Bottino, J. Carlos Alvarez-Perez, A. Garcia-Ocaña, G. Gittes, H. Dong. FoxO1 Plays An Important Role in Regulating Beta-Cell Compensation for Insulin Resistance in Male Mice. **Endocrinology** 157:1055-70, 2016.
89. Y-C. Lai, D.M. Tabima, J.J. Dube, K.S. Hughan, R.R. Vanderpool, D.A. Goncharov, C.M. St Croix, A. Garcia-Ocaña, E.A. Goncharova, S.P. Tofovic, A.L. Mora, M.T. Gladwin. SIRT3-AMPK activation by nitrite and metformin improves hyperglycemia and normalizes pulmonary hypertension in heart failure with preserved ejection fraction (PH-HFpEF). **Circulation**, 133:717-31, 2016.
90. R.E. Stamateris, R.B. Sharma, C.P., Y. Kong, P. Ebrahimpour, D. Panday, P. Ranganath, B. Zou, H. Levitt, N.A. Parambil, C.P. O'Donnell, A. Garcia-Ocana, and L.C. Alonso. Glucose Induces Mouse β -Cell Proliferation via IRS2, MTOR, and Cyclin D2 but Not the Insulin Receptor. **Diabetes** 65:981-995, 2016.
91. J. Lakshmipathi, J.C. Alvarez-Perez, C. Rosselot, G.P. Casinelli, R. Stamateris, F. Rausell-Palamos, C. O'Donnell, R.C. Vasavada, D.K. Scott, L.C. Alonso, A. Garcia-Ocaña. PKC- ζ is essential for pancreatic beta cell replication during insulin resistance by regulating mTOR and cyclin-D2. **Diabetes** 65:1283-1296, 2016.
92. A. Mozar, H. Lin, K. Williams, C. Chin, N.G. Kondegowda, A.F. Stewart, A. Garcia-Ocaña, R.C. Vasavada. Parathyroid Hormone-Related Peptide (1-36) Enhances Beta Cell Regeneration and Increases Beta Cell Mass in a Mouse Model of Partial Pancreatectomy. **PLOS One**, 11(7):e0158414, 2016.
93. A.I. Sacaan, S. Thibault, M. Hong, N.K. Guthalu, T. Nichols, R. Li, C. Rosselot, W. Evering, R. Fenutria, A.Vitsky, T. Brown, M. Finkelstein, A. Garcia-Ocaña, N. Khan, A.F. Stewart, R.C. Vasavada. The Effects of Inhibition of Cyclin-Dependent Kinase 4/6 on Glucose and Pancreatic Beta Cell Homeostasis in Young and Aged Rats. **Molecular Cancer Research**, 5(11):1531-1541, 2017.
94. S.D. Meriney, T.B. Tarr, K.S. Ojala, M. Wu, Y. Li, D. Lacomis, A. Garcia-Ocaña, M. Liang, G. Valdomir, and P. Wipf. Lambert-Eaton Myasthenic Syndrome: mouse passive-transfer model illuminates disease pathology and facilitates testing therapeutic leads. **Ann N Y Acad Sci**.1412:73–81, 2018.
95. A. Kumar, L.S. Katz, A. Schulz, M. Kim, L. Honig, L. Lee, B. Davenport, D. Homann, A. Garcia-Ocana, M. Herman, C. Haynes, J. Chipuk, D.K. Scott. Activation of Nrf2 is required for normal and ChREBP α -augmented glucose-stimulated β -cell proliferation. **Diabetes**, 67:1561-1575, 2018.
96. Kulina, D. Cocks-Eschler, A. Garcia-Ocana, E. Trofimovsky, J. Li, K.C. Cheesman, T. Kraus, C. J. Levy. Circulating Levels of Bone and Inflammatory Markers in Gestational Diabetes. **Biores Open Access**. 7(1):123-130, 2018.
97. C. Lin, P.M. Titchenell, J.M. Keil, A. Garcia-Ocaña, S. Abcouwer, D.A. Antonetti. Inhibition of Atypical Protein Kinase C Reduces Inflammation-Induced Retinal Vascular Permeability. **Am. J. Pathology**, 188:2392-2405, 2018.

98. P. Wang, E. Karakose, H. Liu, E. Swartz, C. Ackeifi, V. Zlatanovic, J. Wilson, C. Argmann, D.K. Scott, A. Garcia-Ocana, and A.F. Stewart. Combined Inhibition of DYRK1A, SMAD and Trithorax Pathways Synergizes to Induce Robust Replication in Adult Human Beta Cells. **Cell Metab.** 29:638-652, 2019.
99. N.N. Gómez-Banoy, J.S. Guseh, T. Chen, G. Li, A. Rubio-Navarro, B. Poirier, G. Putzel, C. Rosselot, J. Camporez, V. Bhamhani, S. Hwang, C. Yao, R. Perry, S. Mukherjee, M.G. Larson, D. Levy, G.I. Shulman, A. Garcia-Ocana, M. Hao, B.M. Spiegelman, J.E. Ho, J.C. Lo. Adipsin preserves beta cells in diabetic mice and associates with protection from type 2 diabetes in humans. **Nat Medicine**, 25:1739–1747, 2019.
100. C. Rosselot, A. Kumar, J. Lakshmipathi, P. Zhang, G. Lu, L.S. Katz, E.V. Prochownik, A.F. Stewart, L. Lambertini, D.K. Scott, A. Garcia-Ocana. Myc Is Required for Adaptive β -Cell Replication in Young Mice but Is Not Sufficient in One-Year-Old Mice Fed with a High-Fat Diet. **Diabetes** 68:1934-1949, 2019.
101. E.M. Levasseur, K. Yamada, A.R. Piñeros Alvarez, W. Wu, F. Syed, K.S. Orr, T.L. Mastracci, A. L. Mosley, Y. Liu, E. Bernal-Mizrachi, L. Alonso, D. Scott, A. Garcia-Ocana, S.A. Tersey, and R. G. Mirmira. Hypusine Biosynthesis is required for Adaptive β -Cell Proliferation in Response to Obesity. **Science Signaling**. Dec 3;12(610):eaax0715. doi: 10.1126/scisignal.aax0715, 2019.
102. C. Ackeifi, E. Swartz, K. Kumar, H. Liu, S. Chalada, E. Karakose, D.K. Scott, A. Garcia-Ocana, R. Sanchez, R.J. DeVita, A.F. Stewart, P. Wang. Pharmacologic and Genetic Approaches to Defining Human Beta Cell Mitogenic Targets of Harmine Family Analogues: Is There More Than DYRK1A? **JCI Insight**, Jan 16;5(1):e132594. doi: 10.1172/jci.insight.132594, 2020.
103. K. Kumar, P. Wang, J. Wilson, V. Zlatanovic, C. Berrouet, S. Khamrui, C. Secor, E.A. Swartz, M. Lazarus, R. Sanchez, A.F. Stewart, A. Garcia-Ocana*, R.J. DeVita*. A novel, in-vivo active, harmine-based β -cell proliferative DYRK1A inhibitor as a potential therapeutic for diabetes. **J Med Chem**, 63(6):2986-3003, 2020. * Co-corresponding authors.
104. C. Ackeifi, P. Wang, E. Karakose, J.E. Manning Fox, B.J. González, H. Liu, J. Wilson, E. Swartz, C. Berrouet, Y. Li, K. Kumar, P.E. MacDonald, R. Sanchez, B. Thorens, R. DeVita, D. Homann, D. Egli, D.K. Scott, A. Garcia-Ocana, A.F. Stewart. GLP-1 Receptor Agonists Synergize with DYRK1A Inhibitors to Potentiate Functional Human β Cell Regeneration. **Sci. Transl. Med.** Feb 12;12(530):eaaw9996. doi: 10.1126/scitranslmed.aaw9996, 2020.
105. A. Fu, J.C. Alvarez-Perez, D. Avizonis, T. Kin, G. Bridon, L. Evans, C. Rosselot, G. Bird, J. Shapiro, L.D. Walensky, R. Jones, A. Garcia-Ocana, N.N. Danial. Glucose-dependent partitioning of arginine to urea cycle spares β -cells from inflammation. **Nat Metab.** 2, 432–446, <https://doi.org/10.1038/s42255-020-0199-4>, 2020.
106. J.T. Walker, R. Haliyur, H.A. Nelson, M. Ishahak, G. Poffenberger, R. Aramandla, C. Reihsmann, J.R. Luchsginer, D.C. Saunders, P. Wang, A. Garcia-Ocana, R. Bottino, A. Agarwal, A.C. Powers, M. Brissova. Human pseudoislet system demonstrates differences in G-protein-coupled-receptor signaling pathways between α and β cells. **JCI Insight**, May 21;5(10):e137017. doi: 10.1172/jci.insight.137017, 2020.
107. R. Li, R.F. Hampton, N. Guthalu Kondogowda, J. Filipowska, A. Garcia-Ocana, R.C. Vasavada. Lactogens reduce ER stress-induced rodent and human β -cell death and diabetes incidence in mice. **Diabetes**. 69(7):1463-1475, 2020.
108. G. Lu, F. Rausell-Palamos, Z. Zhang, R.C. Vasavada, Shelley Valle, Matthew Spindler, D. Homann and A. García-Ocana. Dextran Sulfate Ameliorates Type 1 Diabetes, pancreatic beta cell death and autoimmunity. **Diabetes**. 69(8):1692-1707, 2020.
109. A. Alvarsson, C. Rosselot, M. Jiménez-González, R. Li, Z. Wu, A.F. Stewart, A. Garcia-Ocana, S.A. Stanley. A 3D atlas of the dynamic and regional variation of pancreatic innervation in diabetes. **Science Advances**, 6(41):eaaz9124, 2020.
110. C. Rosselot, S. Baumel-Alterzon, Y. Li, G. Brill, L. Lambertini, L.S. Katz, G. Lu, D.K. Scott, A. Garcia-Ocana. The many lives of Myc in the pancreatic β -cell. **J Biol Chem**. 296:100122. doi: 10.1074/jbc.REV120.011149, 2021.
111. S. Baumel-Alterzon, L. S. Katz, G. Brill, A. Garcia-Ocana, and D. K. Scott. Nrf2: The Master and Captain of Beta Cell Fate. **Trends in Endocrinology & Metabolism**. 32(1):7-19, 2021.
112. M. Saikia, M.M. Holter, L. Donohue, I. Lee, Q.C. Zheng, J. Wise, J. Todero, D. Phuong, D. Garibay, R. Coch, K.W. Sloop, A. Garcia Ocana, C.G. Danko, B.P. Cummings. Liraglutide treatment increases

- PCSK1 expression and beta-cell-like features in a subset of alpha-cells. *JCI Insight*. 6(3):141851. doi: 10.1172/jci.insight.141851, 2021.
113. K. Kumar, C. Suebsuwong, P. Wang, A. Garcia Ocana, A.F. Stewart and R.J. DeVita. DYRK1A Inhibitors as Potential Therapeutics for β -cell Regeneration for Diabetes. *J Med Chem*, 64(6):2901-2922, 2021.
 114. P.Wang, E. Karakose, L. Choleva, K. Kumar, R.J. DeVita, A. Garcia-Ocaña, A.F. Stewart. Human Beta Cell Regenerative Drug Therapy for Diabetes: Past Achievements and Future Challenges. *Front. Endocrinol.* 12:671946, 2021.
 115. S. Baumel-Alterzon; L.S. Katz; G. Brill; C. Jean-Pierre; Y. Li; S. Biswal; A. Garcia-Ocana; D.K. Scott. Nrf2 Regulates β -cell Mass by Suppressing β -Cell Death and Promoting β -Cell Proliferation. *Diabetes*. 71(5):989-1011, 2022.
 116. R. Patel, N. Parmar, A. Garcia-Ocaña, Y. Li, N. Rathwa, S.P. Palit, R. Begum. A novel therapeutic combination of sitagliptin and melatonin: An untrodden path towards replenishing pancreatic β -cells. *BBA - Biochimica et Biophysica Acta* 1869(8):119263, 2022.
 117. L.S. Katz, G. Brill, P. Zhan, A. Kumar, S. Baumel-Alterzon, L.B. Honig, N. Gómez-Banoy, E. Karakose, M. Tanase, L. Doridot, A. Alvarsson, B. Davenport, P. Wang, L. Lambertini, S.A. Stanley, D. Homann, A.F. Stewart, J.C. Lo, M.A. Herman, A. Garcia-Ocaña; D. K. Scott. Maladaptive Positive Feedback Production of ChREBP β Underlies Glucotoxic β -Cell Failure. *Nature Communications*., 13(1):4423, 2022.
 118. C. Guillén, A. Garcia-Ocana. Progression to Diabetes: Molecular and Cellular Mechanisms. *Front. Endocrinol.* 14:1141337, 2023.
 119. R.B. Kang, Y. Li, C. Rosselot, L. Santos, P. Rajbhandari, D.K. Scott, A. Garcia-Ocana and G. Lu. Human Islet Cell Transcriptome Analysis Using Single Nucleus RNA Sequencing Identifies New β -Cell Gene Sets and Distinguishes Three β -Cell Subpopulations with Different Transcriptional Activity. *Genome Medicine*, In press. 2023.
 120. C. Rosselot, Y. Li, P. Wang, A. Alvarsson, K. Beliard, G. Lu, R. Kang, R. Li, H. Liu, V. Gillespie, N. Tzavaras, K. Kumar, R.J. DeVita, A.F. Stewart¹, S.A. Stanley, A. Garcia-Ocaña. Harmine and Exendin-4 Combination Therapy Safely Expands Human Beta Cell Mass In Vivo Via VGF. *Science Translational Medicine*, In revision, 2023.
 121. S. Stanley, L. Pomeranz, R. Li, X. Yu, L. Kelly, G. Hassanzadeh, H. Molina, D. Gross, M. Brier, P. Wang, M. Jimenez-Gonzalez, A. Garcia-Ocana, J. Dordick and J. Friedman. Magnetogenetic cell activation using endogenous ferritin. Submitted.

OTHER PUBLICATIONS

Pre-prints

1. J.T. Walker, R. Haliyur, H.A. Nelson, M. Ishahak, G. Poffenberger, R. Aramandla, C. Reihsmann, J.R. Luchsinger, D.C. Saunders, P. Wang, A. Garcia-Ocaña, R. Bottino, A. Agarwal, A.C. Powers, M. Brissova. Human pseudoislet system enables detection of differences in G-protein-coupled-receptor signaling pathways between α and β cells. *bioRxiv* 842989; doi: <https://doi.org/10.1101/842989>
2. C. Rosselot, A. Alvarsson, P. Wang, Y. Li, K. Kumar, R.J. DeVita, A.F. Stewart, S.A. Stanley, A. Garcia-Ocaña. The Harmine and Exendin-4 Combination Markedly Expands Human Beta Cell Mass In Vivo: Quantification and Visualization By iDISCO+ 3D Imaging, *bioRxiv* 2020.07.24.220244; doi: <https://doi.org/10.1101/2020.07.24.220244>.
3. L. Yammine, B. Picatoste, N. Abdullah, D. Soares, R. Leahey, N. Gómez-Banoy, C. Rosselot, J. Wen, J.C. Lo, A. Garcia-Ocaña, T.E. McGraw. A common human variant of GIPR improves systemic glucose homeostasis in a sexual dimorphic manner. *bioRxiv* 2020.05.12.091025; doi: <https://doi.org/10.1101/2020.05.12.091025>.
4. S. Baumel-Alterzon, L.S. Katz, G. Brill, C. Jean-Pierre, Y. Li, S. Biswal, A. Garcia-Ocaña, D.K. Scott. Nrf2 Regulates β -cell Mass by Suppressing Cell Death and Promoting Proliferation. *bioRxiv* 2021.03.05.434145; doi: <https://doi.org/10.1101/2021.03.05.434145>.

Book Chapters

1. A. Garcia-Ocaña, R. Vasavada, K. Takane, F. de Miguel, A.F. Stewart. Parathyroid hormone-related protein. In: **Disorders of Bone and Mineral Metabolism**. F. Coe, and M. Favus Eds., 2nd edition. Lippincott, Williams & Wilkins, Philadelphia, PA pp 129-156, 2002.
2. R. C. Vasavada, A. Garcia-Ocaña, K. K. Takane, A. Cebrian, J.C. Lopez-Talavera, A.F. Stewart. Islet growth factors. In: **Type I Diabetes: Etiology and Treatment**. Sperling M.A. (Ed). Humana Press, Totowa, NJ. Pp 561-577, 2003.
3. A. Garcia-Ocaña, A.F. Stewart, and P.L. Herrera. Chapter 29: Cell Replacement Therapy for Diabetes. In: **Cell Therapy**. D. García-Olmo, J.M. García-Verdugo, J. Alemany, J. Gutiérrez-Fuentes, Eds. McGraw-Hill, 2008.
4. J.A. Gonzalez-Pertusa, L. Alonso, A. Garcia-Ocaña. Hepatocyte growth factor (HGF) and the pancreatic beta cell. In: **Islet Cell Growth Factors**. R. Kulkarni Ed., Landes Bioscience/Eureka, pp 85-101, 2011.

INVITED AND VOLUNTARY PRESENTATIONS

- 1996 "Different effects of parathyroid hormone-related protein in the growth of renal tubule cells and osteoblasts". Department of Internal Medicine, WHO Collaborating Center for Osteoporosis and Bone Disease, Cantonal Hospital, Geneva, Switzerland.
- 1997 "Role of parathyroid hormone-related protein in physiological and pathophysiological kidney growth". Department of Nephrology, Jimenez Diaz Foundation, Madrid, Spain.
- 1999 "Hepatocyte Growth Factor overexpression in the islet of transgenic mice". Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh.
- 1999 "Overexpression of HGF in the pancreatic islet of transgenic mice". Pittsburgh Smooth Muscle Group Meeting, Pittsburgh, PA.
- 2001 "Transgenic and viral approaches to enhancing islet transplant survival". Young Investigators Meeting. Department of Medicine, University of Pittsburgh, Pittsburgh, PA.
- 2001 "Transgenic delivery of islet growth factors: Improving islet transplant outcomes". Endocrinology Conference, University of Seville, Seville, Spain.
- 2002 "Hepatocyte growth factor in pancreatic beta cell growth and function. Possible therapeutic implications". Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh, Pittsburgh, PA.
- 2003 "Hepatocyte growth factor modulates growth and function of the pancreatic beta cell: A candidate for improving islet transplant outcomes". Cell Biology and Physiology Research Seminar, Department of Cell Biology and Physiology, University of Pittsburgh, Pittsburgh, PA.
- 2003 "Hepatocyte growth factor gene transfer improves islet transplantation". Pittsburgh Pancreas Project, Division of Gastroenterology, Department of Medicine, University of Pittsburgh, Pittsburgh, PA.
- 2004 "Unraveling the physiology and therapeutic potential of hepatocyte growth factor in the pancreatic beta cell". Senior Vice Chancellor's Research Seminar, University of Pittsburgh, Pittsburgh, PA.
- 2004 "Gene- and cell-based therapeutics for type I diabetes mellitus". CME Course: Genetics in renal transplantation held by EDTA/ERA (European Renal Association/European Dialysis and Transplant Association). Tenerife, Spain.
- 2004 "The future of islet transplantation: Ex vivo gene transfer of growth factors to improve the function and survival of islet grafts". Inaugural Conference of the Clinical Research Seminar Series for the Academic year 2004-2005, Canary Islands General University Hospital, Tenerife, Spain.
- 2005 "Hepatocyte growth factor (HGF) gene therapy for islet transplantation". 6th Annual Levine Symposium on "Advances in Diabetes Research: From Cell Biology to Cell Therapy," City of Hope National Medical Center, City of Hope, CA.
- 2005 "Clinical and transgenic approaches to beta cell biology and improving diabetes outcomes". Transgenic Animal Workshop: Of Mice, Zebrafish and Men: If Steinbeck had been a Clinician. Office of Research, Health Science, University of Pittsburgh, Pittsburgh, PA.
- 2005 "Unraveling the physiology and therapeutic potential of hepatocyte growth factor in the pancreatic beta cell". Division of Endocrinology, Diabetes and Metabolism, University of Vermont College of Medicine, Burlington, VT

- 2005 "Regulation of pancreatic beta cell growth and function by hepatocyte growth factor (HGF): Emerging insights and therapies". Newborn Medicine Grand Rounds, Magee-Women's Hospital, UPMC, Pittsburgh, PA.
- 2006 "A Journey from the Kidney to the Endocrine Pancreas: Growth Factors in Renal Failure and Diabetes". 1st International Meeting on Translational Research and Medicine. Jimenez Diaz Foundation. Madrid, Spain.
- 2006 "Hepatocyte growth factor/c-met signaling in beta cell growth and function: New emerging insights". Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh, Pittsburgh, PA.
- 2006 "Hepatocyte growth factor/c-met signaling in beta cell growth and function". Diabetes Center Seminar Series, Vanderbilt University School of Medicine, Nashville, TN.
- 2006 "Growth factors and signaling in beta cell replication". 1st Symposium "Beta cell biology: Opportunities for translational research intervention for diabetes in the next decade". Dracena Bioresearch, Barcelona College of Physicians, Barcelona, Spain.
- 2006 "Using β -cell growth factors to enhance human pancreatic islet transplantation". 48th Meeting of the Spanish Society of Endocrinology and Nutrition. Seville, Spain.
- 2006 "Replication of beta cells: Potential application to islet transplantation". 2nd Joint Symposium EDTA-ERA, Spanish Research Council and Queen Sofia Institute for Renal Research. Madrid, Spain.
- 2007 "Unraveling the physiologic role and therapeutic potential of HGF in diabetes". Pediatric Endocrinology Ground Rounds, Division of Pediatric Endocrinology, Children's Hospital of Pittsburgh, Pittsburgh, PA.
- 2007 "Protein Kinase C Zeta: A key kinase in growth factor-mediated beta cell proliferation". Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh, Pittsburgh, PA.
- 2007 "Growth factor-mediated beta-cell replacement and regeneration". Division of Endocrinology, Son Dureta Hospital, Mallorca, Spain.
- 2007 "Beta-cell replacement and regeneration: New strategies for diabetes treatment". IUNICS, Baleares Islands University, Mallorca, Spain.
- 2008 "Protein Kinase C Zeta in the regulation of beta cell proliferation". 8th Annual Levine Symposium on "Translational Research in Type 1 Diabetes: Beyond Insulin and the Edmonton Protocol," City of Hope National Medical Center, City of Hope, CA.
- 2008 "Growth factors and signaling pathways for beta cell replacement and diabetes". Research Seminar Series for the Academic year 2007-2008, Canary Islands General University Hospital, La Laguna University, Tenerife, Spain.
- 2008 "Protein Kinase C Zeta and beta cell proliferation". Pacific Northwest Research Institute Seminar Series, University of Washington, Seattle, WA.
- 2009 "A Janus-Faced Growth Factor in the Regulation of Pancreatic Beta Cell Survival" Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh, Pittsburgh, PA.
- 2009 "Growth factors and cell therapy for improving beta cell replacement". Annual Meeting of the Catalan Society of Transplantation, Barcelona, Spain.
- 2009 "Control of beta cell proliferation". Annual Meeting of the Spanish Society of Diabetes, Tenerife, Spain.
- 2010 "Beta Cell Growth Factors and Signaling Pathways: Physiological Role and Therapeutic Potential in Diabetes". Division of Endocrinology and Metabolism, University of Alabama at Birmingham, AL.
- 2010 "Novel Insights into the regulation of maternal beta cell adaptation during pregnancy: Role of growth factors". In the Symposium "Impaired Beta-Cell Adaptation During Pregnancy: Maternal & Transgenerational Effects Leading to Diabetes Mellitus", The Endocrine Society Annual Meeting, San Diego, CA.
- 2010 "Protein kinase zeta and the pancreatic beta cell". In the Symposium "Beta cell intracellular signaling: PI3K, PKCs and IKKs", American Diabetes Association Annual Meeting, Orlando, FL.
- 2010 "Protein kinase zeta and pancreatic beta cell proliferation". In the Workshop "Beta Cell Replication", JDRF-Broad-Sanofi-Aventis, Broad Institute-Harvard University, Cambridge, MA.
- 2011 "Growth factors and signaling pathways for the expansion of functional pancreatic beta cells". Molecular, Cellular, and Developmental Basis of Endocrinology Conference, Division of Endocrinology, Yale University, CT.
- 2011 "Hepatocyte growth factor signaling in beta cell expansion and regeneration", Second Annual Sanford Health Type 1 Diabetes Symposium: Current Activities in Beta Cell Regeneration, Sanford Health, Sanford USD Medical Center, Sioux Falls, SD.

- 2011 "Growth factor signaling for pancreatic beta cell expansion and preservation", Endocrine Research Conference, Division of Endocrinology and Metabolism, University of Pittsburgh, Pittsburgh, PA.
- 2012 "Regulation of pancreatic beta cell growth, function and survival", Diabetes Research Institute, Ohio University, Athens, OH.
- 2012 "Growth factors and signaling pathways in the expansion of functional pancreatic beta cells". Montreal Diabetes Research Center Seminar, Université de Montréal. Montréal, Canada.
- 2012 "Regulation of Pancreatic Beta Cell Growth, Survival and Function by Hepatocyte Growth Factor". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2013 "Hepatocyte Growth Factor (HGF) signaling for beta cell regeneration. When serendipity can help for the treatment of T1D". Diabetes, Obesity and Metabolism Institute (DOMI) Type I Diabetes Day. Seminar Series. Icahn School of Medicine at Mount Sinai, New York, NY.
- 2013 "Mouse Beta Cell Phenotyping: Methodologies and Examples". Merck-Icahn School of Medicine at Mount Sinai Meeting, New York, NY.
- 2013 "Regulation of Pancreatic Beta Cell Growth, Function and Survival: Implications in Diabetes", The Mindich Child Health & Development Institute Seminar, Icahn School of Medicine at Mount Sinai Meeting, New York, NY.
- 2013 "Atypical Protein Kinase C Zeta Activation, Signaling and Action in the Pancreatic Beta Cell". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2013 "Growth factors and signaling pathways for pancreatic beta cell regeneration". Molecular Biology and Genetics Institute, Department of Biochemistry, University of Valladolid, CSIC, Spain.
- 2014 "Role of PKC-zeta in Beta Cell Signaling". Keystone Symposium: Emerging Concepts and Targets in Islet Biology (D3). Keystone, CO.
- 2014 "Regulation of pancreatic beta cell replication: Looking for signals in the intracellular roads". Division of Metabolism, Endocrinology and Diabetes (MEND), Department of Internal Medicine, University of Michigan, Ann Arbor, MI.
- 2014 "Pancreatic beta cell proliferation: Looking for signals in the intracellular roads ". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2015 "Recent Advances in the Regulation of Pancreatic Beta Cell Replication". Diabetes Research Center Seminars. Albert Einstein College of Medicine of Yeshiva University, New York, NY.
- 2015 "Control of Beta Cell Proliferation and Expansion by Protein Kinase C Zeta". The Naomi Berrie Diabetes Center, Columbia University Medical center, New York, NY.
- 2015 "Human Beta Cell Proliferation and Intracellular Signaling". University of Washington, UW Diabetes Research Center, Seattle, WA.
- 2015 "Uncovering Intracellular Signaling Pathways that Regulate Adaptive Pancreatic Beta Cell Replication". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2015 "Advances and challenges in the treatment of diabetes". The Child Health Research Seminar. Mount Sinai School of Medicine, New York, NY.
- 2016 "Nutrient Oversupply and Adaptive Pancreatic Beta Cell Expansion". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2016 "Modulation of Autoimmunity and Beta Cell Survival for Type 1 Diabetes". *1st Cuban-American Workshop on Diabetes: Prevention, Management and Cure*, as part of the International Meeting "Controlling Diabetes and its more severe complications", Varadero, Matanzas, Cuba.
- 2017 "Mechanisms of Adaptive Pancreatic Beta Cell Expansion: Potential Therapeutic Targets for Diabetes?" Diabetes Research Institute-Division of Endocrinology, University of Miami Medical School, Miami, FL.
- 2017 "Advances and Challenges in Beta Cell Replacement and Regeneration Strategies for Treating Diabetes". Regeneron Pharmaceuticals, Inc., Tarrytown, NY.
- 2017 "Pancreatic Beta Cell Regeneration and Protection as Potential Therapies to Treat Diabetes: Advances and Challenges". Division of Endocrinology, Emory University, Atlanta, GA.
- 2018 "Advances in Pancreatic Beta Cell Expansion and Protection for Diabetes Treatment". Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.

- 2019 “Advances in pancreatic beta cell regeneration for diabetes treatment”. Plenary talk, Diabetes and endocrine disorders. International Conference on Reproduction, Endocrinology and Development, Navrachana University, Varodara, India.
- 2019 “Adaptive pancreatic beta cell expansion in insulin resistance”. Invited Conference, Sun Pharmaceuticals Industries, Varodara, India.
- 2019 “Pancreatic beta cell adaptation to diet and age: When Myc is just not enough”. Invited Speaker, Research Seminar Series, Molecular Biology and Genetics Institute, University of Valladolid, Spain.
- 2019 “Advances in Pancreatic β -Cell Protection and Regeneration for Diabetes Treatment”. Invited Speaker, Biomedical Sciences Seminar, Cornell University, Ithaca, NY.
- 2019 “Beta Cell Regeneration and Preservation for Diabetes Treatment: Where Are We Now?” Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2019 “How to write a specific aims page”. Diabetes, Obesity and Metabolism Institute (DOMI) Career Development Workshop, Icahn School of Medicine at Mount Sinai, New York, NY.
- 2020 “iDISCO 3D Tissue Clearing for Assessment of Human Beta Cell Mass In Vivo”. Invited Symposium Speaker, 20th Rachmiel Levine Symposium, City of Hope National Medical Center, City of Hope, CA
- 2020 “Subacute and Chronic In Vivo Administration of a Harmine-Exenatide Combination Enhances Glycemic Control and Markedly Expands Human Beta Cell Mass”. Invited Speaker, 2020 nPOD Meeting, Tampa, FL.
- 2020 “Strategies to expand and protect pancreatic beta cells for diabetes”, Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2020 “Generating New Beta Cells from Adult Human Pancreatic Islets”, Invited Symposium Speaker. American Diabetes Association 80th Meeting, Chicago, IL.
- 2020 “Regeneration of Insulin-Producing Cells for Diabetes”, Invited Speaker, Diabetes Virtual Summer Camp Team, Lauren, Allison, and Dr. Jason Kim, Wellesley, Massachusetts.
- 2020 “Human Islet and Adenovirus Core”, Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2020 “Neural Control of Pancreatic Endocrine Function in the Development of Type 1 Diabetes”. Invited Speaker, The Mindich Child Health and Development Institute. Mount Sinai School of Medicine, New York, NY.
- 2020 “Regeneration and Preservation of Pancreatic Beta Cells for Diabetes”. Invited Speaker, Grand Rounds, Department of Laboratory Medicine and Pathology, University of Minnesota.
- 2021 “Dextran Sulfate for the preservation of beta cell function in patients with type 1 diabetes”. Invited Speaker, Division of Endocrinology, Diabetes and Bone Diseases, Grand Rounds, Mount Sinai Beth Israel/Morningside/West, NY.
- 2021 “Regeneration and Functional Stimulation of Insulin-Producing Cells for Type 1 Diabetes Therapy”. Invited Speaker, Mincich Child Health and Development Institute Leadership Council Virtual Winter Meeting, Mount Sinai School of Medicine, New York, NY.
- 2021 “Immunomodulation, Beta Cell Regeneration and Functional Preservation for Type 1 Diabetes Therapy”. Invited Speaker, New York City-Type 1 Diabetes Research Network 2021, The New York Stem Cell Foundation, New York, NY.
- 2021 “3D Visualization and Quantification of Human Beta Cell Mass Expansion In Vivo”. Invited Speaker, The West Coast Islet Research Group, UCLA, CA.
- 2022 “Advances in Beta Cell Replacement and Regeneration for Type 1 Diabetes Treatment”. 2nd Congress Diabetes Zero Foundation, Granada, Spain.
- 2022 “Novel and Effective Therapeutic Approaches for Pancreatic Beta Cell Preservation and Expansion in Diabetes”, City of Hope, Duarte, CA.
- 2022 “Pancreatic Islets, Immune Cells and Diabetes: What Happens Next?” Diabetes, Obesity and Metabolism Institute (DOMI) Work In Progress. Mount Sinai School of Medicine, New York, NY.
- 2022 “Advances in Beta Cell Regeneration for Diabetes Treatment”. Congress Diabetes Evolution, La Coruña, Spain.
- 2022 “Use of DYRK1A inhibitors and GLP-1 receptor agonists for pancreatic beta cell regeneration and diabetes”. Pharmacology and Toxicology Seminar Series. Boonshoft School of Medicine, Wright State University, Dayton, OH.

- 2023 “Update on the Human Islet and Adenovirus Core”, Diabetes, Obesity and Metabolism Institute (DOMI) Work in Progress. Mount Sinai School of Medicine, New York, NY.
- 2023 “Diabetes and Pancreatic Beta Cell Regeneration: The Last 10 Years” Diabetes, Obesity and Metabolism Institute (DOMI) Work in Progress. Mount Sinai School of Medicine, New York, NY.
- 2023 “Efficient regeneration of pancreatic beta cells in vivo”. Inaugural Conference, XXXIV Annual Meeting of the Spanish Society of Diabetes, Valencia, Spain.