### **ABBREVIATED CV: 8/2020**

### **PERSONAL DATA**

Elise Peery Gómez-Sánchez, D.V.M., Ph.D.

Department of Pharmacology & Toxicology

(secondary: Departments of Medicine; Neurobiology & Anatomical Sciences)

egomez-sanchez@umc.edu

Date of Birth: 3/14/49

Place of Birth: San Tomé, Estado Anzoátequi, Venezuela

Citizenship: USA

Husband: Celso Enrique Gómez-Sánchez, M.D. Children: Daniel Cliff, Miriam Teresa, Clara María,

### **EDUCATION**

B.A. Case Western Reserve U.
D.V.M. Texas A & M University
Ph.D. Texas A & M U. Physiol/Pharmacol
1977
1982

### **POST-GRADUATE TRAINING**

Post-Doctoral Fellowship: UTHSC-Dallas Department of Pharmacology 1977-1978

#### **APPOINTMENTS**

### 11/1999-present

University of Mississippi Medical Center, Jackson, MS

7/2020- Professor; Department of Pharmacology & Toxicology: Part Time

Adjunct: Medicine, Division of Endocrinology; Neurobiology & Anatomic Science;

4/2014- Professor; Department of Pharmacology & Toxicology

Adjunct: Medicine, Division of Endocrinology; Neurobiology & Anatomic Science;

11/1999-3/2014: Professor: Department of Medicine, Division of Endocrinology;

Adjunct: Pharmacology & Toxicology; Neurobiology & Anatomic Science

GV(Sonny) Montgomery VA Medical Center, Jackson, MS

4/2014-WOC

8/2012-3/2014 Acting Chief of Staff for Research

11/1999-3/2014 Research Scientist; GVS Montgomery VAMC, Jackson MS.

#### 1993-1999

Harry Truman VAMC, Columbia, MO

1993-1999 Research Scientist:

University of Missouri-Columbia

1997-1999: Professor: Internal Medicine, College of Medicine, & Biomedical Sciences, College

of Veterinary Medicine

1993-1997: Associate Professor: Internal Medicine, College of Medicine, & Biomedical

Sciences, College of Veterinary Medicine

### 1980-1993

College of Medicine; University of South Florida College of Medicine

1983-1993: Associate Professor, Departments of Internal Medicine

Adjunct, Department of Pharmacology

1980-1983: Instructor- Department of Internal Medicine

James A Haley VAMC, Tampa, FL

1984-1993: Research Physiologist,

1987-1993 State of Florida Board of Professional Regulation for Veterinary Medicine: member

1978-1993 Veterinary clinical practice; locum tenens & specialty surgery

#### PROFESSIONAL LICENSURE:

State <u>I.D. Number</u> <u>Dates</u>

 Mississippi
 1381
 6/18/02-active

 Missouri
 VT 0R5606
 1/21/94-2008

 Texas
 4172
 8/5/77-active

 Florida
 VM 0002761
 1/30/81-2008

#### **AFFILIATIONS AND MEMBERSHIPS**

American Association for the Advancement of Science

Endocrine Society- Editorial Board of Endocrinology

**European Endocrine Societies** 

American Physiological Society

American Heart Association; Fellow, Council for High Blood Pressure Research

American Society of Hypertension

American Veterinary Medical Association

Mississippi Veterinary Medical Association

Society for Neuroscience, Mississippi Chapter

#### **SERVICE**

# University of Mississippi Medical Center; 1999-present

2020- UMMC IACUC; VA representative

2014-present: Department of Pharmacology committees: Graduate Student Recruitment; Curriculum; Faculty Recruitment

5/2014-17 Executive Committee for the Neuroscience Training Program; member

2015- Department of Pediatrics Rhodes-Cai Research Award; reviewer

2013- COBRE: Obesity, Cardiorenal and Metabolic Diseases; mentor

2006- COBRE: Center for Psychiatry Neurosciences: mentor; reviewer

2006-2013 Center for Psychiatric Neuroscience/ Neuroscience Training program: mentor; seminar

participant; curriculum development & faculty

2000-2009 Department of Medicine Research Council: Member; 2007-2008 Chairman

10/2003-2007 National Center of Excellence in Women's Health Initiative, NIH # 233-03-0023; member: Core Leadership Committee; Research and Education Subcommittees

GV (Sonny) Montgomery VA Medical Center; Jackson, MS

2020- UMMC IACUC; VA representative

3/2007-present Chairman, Radiation Safety Committee. 8/2012-3/2014 President, VA Research MS! Foundation

8/2012-7/2013 Acting ACOS/R

10/2010-8/2012 Chairman, Research & Development Committee

7/2009-3/2013 Biological Safety Officer

3/13-4/14 Green Environmental Management System; Member

12/2000-1/2013 Research Service Safety Subcommittee: Chairman 12/2000-1/2009

#### Community, Mississippi

2003-present Jackson State University IACUC: Member, auxiliary veterinary clinician (unpaid), training lectures

CCL MS member: lecturer

2005-2013 Jackson Heart Study Publications & Presentations Subcommittee, now: ad hoc reviewer

Sporadic Mississippi Science and Engineering Fair-Region II, judge

### Service: University of Missouri-Columbia; 1993-1999

1997-1999 Office of Laboratory Animal Medicine Task Force for Occupational Health; OPRR

Standards Review

9/95-10/99 Institutional Animal Care and Use Committee; member.

Subcommittees: Alternative Animal Housing; Training
12/98-1999
Curriculum Board; representative to the Curriculum Steering Committee
Preparation of the European Economic Union RFP; successful: EEU Center granted to UM-Columbia)
Department of Internal Medicine Research Committee
1994-1997
Children's Miracle Network Research Board;

### Service: Harry S Truman Memorial V. A.; Columbia, MO 1993-1999

6/95-10/99 Subcommittee for Laboratory Animal Care, Chairman

6/94-10/99 Subcommittee for Radiation Safety, member

ad hoc Merit Review Proposal reviewer

selection committee for R&D Administrative Officer

Lay Speakers Bureau

# Service: University of South Florida Medical Center

9/85 - 6/93	Laboratory Animal Ethics Committee (IACUC)
	Laboratory Animal Ethics Committee-St. Petersburg campus
9/91 - 6/93	Health Science Center Liaison for the Mayor's Hispanic Advisory Committee,
	1992-1993 Chairman
1992-1993	University of South Florida Medical Center Research Council Peer Review Committee;
1987-1993	Florida Governor's Leadership Training for the Future; summers

### Service: J. A. Haley V. A. Hospital (Tampa, FL)

1985-6/93 Subcommittee for Laboratory Animal Care

1988-6/93 Advisory Committee for Health Care of Women Veterans; member

1984-6/93 Veterinary clinician for Pet Facilitated Therapy of the Nursing Home Care Unit & Spinal Cord Trauma Unit

## **SERVICE TO NATIONAL VA & VISN 16**

1989- Veterans Administration Scientific peer review of grant proposals; ad hoc

2013; ad hoc 2014-2017 VISN 16 pilot grants

2011 peer review of grant proposals: Neurobiology C

2008-2009 Career Development proposal review study sessions

2005 Gulf War Syndrome applications Review study Section

2005 F-04 ENDO A Merit Review study Sections

2009, 2010, 2013, 2017 VISN 16 grant reviews

## SERVICE TO PROFESSIONAL ORGANIZATIONS.

American Heart Association

Reviewer Cardiac Bio Reg - BSci 3, 2013-present

Southern Affiliates, Committee R2 – Vascular Biology/Blood Pressure Regulation 3/08

Missouri Affiliate: Speaker's Bureau; Peer Review Group D. 1993-9

Southern Peer Review Consortium; 1989-94

Florida Affiliate, Peer Review Committee, Vice Chairman (1989-6/93); Research Committee; 1992-6/93, Lay Education committee 1991-1993

National Institutes of Health: grant proposal reviewer

CSR special emphasis panels ZRG1 BBBP-J 45 R; 2014-2015

NCRR, Comparative Medicine Review Committee Study Session; 2008-2012

Special Emphasis panels: ZRG1VH-B (95S) & ZRG1 BDCN C(02)M; 2009-10

Cardiovascular & Renal / Hypertension & Microcirculation; 6/03-6/07

STRB; Development and improvement of institutional animal facilities; 10/04

SBIR, Cardiovascular & Renal Study Section) ad hoc 10/02; outside reviewer; 3/99; 2/02 American Physiological Society Animal Care and Experimentation Committee 2011-2013 Endocrine Society

Abstract reviewer: annually since 1999; Judge ~ every 2 years Ethics Advisory Committee (1/05-08); now Advisory Panel

Experimental Biology 2009: co-organizer of the symposium 'Adrenal Corticosteroid Effects in the Central Nervous System on the Long-Term Control of Blood Pressure' and speaker

Council for High Blood Pressure Research of the American Heart Association: faculty, Workshop entitled "Emerging Concepts on Neural Interactions in Hypertension" 10/05

FASEB faculty member; Summer Research Conference: Neural Mechanisms in Cardiovascular Regulation; 7/24-29/04

American Society of Hypertension; membership committee 1993-1995

### **INTERNATIONAL**

Medical Research Council (UK): ad hoc grant proposal reviewer

ad hoc grant proposal reviewer 2015, 2016

National Research Foundation (South Africa)

Merit & Retention Reviews: 2017

Ad hoc grant proposal reviewer, 2012, 2015, 2016

Stellenbosch University, South Africa:

PhD Thesis examiner, Department of Biochemistry

Promotion & Tenure; Faculty of Science outside reviewer

National Health and Medicine Research Council (Australia)

Ad hoc grant reviewer, 2003

University of Melbourne, Australia: mentor for PhD candidates 2002, 2004

Thesis examiner: 2016

International Aldosterone Conference

Co-chairman 6/2005-6, Chairman 6/2006-7, advisory board member 2008-

International Society for Hypertension/European Society for Hypertension joint meeting, organizer & abstract reviewer, Prague, 2002; Fukuoka, Japan 2006; organizer & speaker of satellite mtg ("Putting the A back into RAAS", Santorini 2014

#### **EDITORIAL BOARDS**

Associate Editor: Cardiorenal Medicine; Comprehensive Physiology 2015-present

Board Member: Frontiers in Cardiovascular Medicine; Hypertension & Endocrinology 2014- present

Editorial Advisory Board for Comprehensive Phyiology 2015-2019

# Service to the Veterinary Profession

American Veterinary Medical Association; panel for review/validation of exams

Veterinary National Board and Clinical Competency Examinations panel 1992, 1993

Professional Examination Service consultant 1989-1993

Department of Professional Regulation, Florida State Board of Veterinary Medical Examiners; 5/87-6/91 & 6/92-6/93:

Chairman: Probable Cause Panel, Education and Testing, & Continuing Education Evaluation Committees; 12/92-6/93

Impaired Practitioners Program for the State of Florida, Veterinary Board representative; Co-chairman; 7/91-6/93

Department of Professional Regulation, Consultant, expert witness 7/91-12/92; 8/93-1/95

### Invited speaker (last 15 years):

CME seminar course for physicans, faculty, and graduate students: Universidad Nacional de la Matanza, "Fisio- patología de la hipertensión Mineralocorticoidea: más allá del riñón" 9/11/2020

Royal Netherlands Academy of Arts & Sciences: Colloquium on Co-Morbidity of Affective, Metabolic & Cardiovascular Disease: a crucial role of the Mineralocorticoid Receptor. Amsterdam, 10/2016

Satellite to the European Society of Hypertension/International Society of Hypertension meeting: "Putting the A Back into RAAS"; Is Aldosterone Relevant to Brain Mineralocorticoid Receptors? 6/2014

American Heart Association, "Functional & histochemical evidence for the membrane associated MR"; Symposium on: Rapid non-genomic mineralocorticoid receptor effects on cardiovascular function;

#### 11/20/13

Aldosterone and Salt: Kidney and Heart; satellite symposium of the International Society of Hypertension; 10/2012

American Heart Association "CNS Effects of Circulating and Local Aldosterone in Hypertension; 11/2011

International Congress for Endocrinology, 2010, Kyoto, "Aldosterone synthesis in the brain contributes to hypertension"

Experimental Biology Symposium "Adrenal Corticosteroid Effects in the Central Nervous System on the Long-Term Control of Blood Pressure" 2009

Invited lecture "Over-Expression of Aldosterone Synthase in the Brain," Endocrine Society's 90th Annual Meeting, June 19, 2008

Organizing Committee and speaker: Scientific Workshop on The Mineralocorticoid Receptor - update on Biology, Structure and Ligands. Berlin from September 10-12, 2008

Organizer, Chair, speaker "receptors and signal transduction," International Conference on the Adrenal Cortex, June 11-19, 2008

Sixth International Congress of Neuroendocrinology, Cardiovascular Neuroendocrinology symposium; "Central Mineralocorticoid receptors in Cardiovascular Disease" June 19-22, 2006

Industry invited speaker:

Novartis Advisory Board, "Extra Adrenal Production of Aldosterone: vessels & Heart" June 2006 Merck Pharmaceuticals, "Mineralocorticoid Receptor & Cardiovascular Disease: beyond the Kidney" 4/2005

#### **FUNDED RESEARCH PROJECTS:**

Source Grant # Title of Project Role Dates Ann Dir

#### Current

NHLBI R01 HL144847-2 **Adrenal cell ATP1A1 mutations and mechanisms of aldosterone biosynthesis** CE Gomez-Sanchez PI; EP Gomez-Sanchez co-PI 7/1/2019-6/30/2023 \$250,000/year The aim of this proposal is to study the mechanisms of the stimulation of aldosterone secretion mediated by mutations of the sodium potassium ATPase 1A1 (ATP1A1). Elise P. Gomez-Sanchez: role: joint design of experiments, data interpretation, and report and manuscript preparations. All animal work and tissue preparation

VA I01BX004681 CE Gomez-Sanchez; EP Gomez-Sanchez collaborator 10/01/2019-03/31/2023

**Regulation of Mineralocorticoid Receptor Action** \$165,000/yr (+50,000 equipment for first year)

This proposal is to address mechanisms of aldosterone action, specifically the role of the carbonyl reductase in the protection of the mineralocorticoid receptor and the role of phosphorylation of the mineralocorticoid receptor in regulating its activity. Elise P. Gomez-Sanchez: role: joint design of experiments, data interpretation, and report and manuscript preparations. All animal work and tissue preparation.

#### **Past**

NIH R01 HL27255 Role of Mineralocorticoids in Co-PI 8/14-5/18 \$225,000

Hypertension

AHA

Florida Affiliate

VA Aldosterone Action in the Brain, ы 4/09-3/13 \$225,700 Hypertension and Inflammation no cost ext'n 3/14 **NIH COBRE** (Center for Psychiatric Neuroscience) Mineralocorticoid receptors: a link 6/12-6/13 \$30,000 between chronic depression and hypertension? AHA Implanted Biomaterials, Local co-PI 7/09-7/10 \$50,000 09GRNT2370045 Inflammation, and the Heart ы 7/10-7/11 no cost extn '12 VA Localization of mineralocorticoid ы 10/04-9/08 \$225,700 action in the brain and hypertension Adrenal decommissioning & hypertension ы \$200,000 NIH 12/03-11/07 HL075321-01 12/07-11/08 no cost exten VA Career Scientist Award ы 4/99-3/04 salary Hypertension, Diabetes & VA Collab 2/02-12/04 0 (Houston) Hyperlipidemia: Treatment & Outcomes ы 4/00-3/04 NIH Aldosterone Hypertension and the Brain \$125,000 HL27737-21 No cost extn 3/05 VA: Merit Rev Mineralocorticoid Receptor Selectivity ы 4/96-3/00 \$102,200 & Control of Blood Pressure no cost exten '01 AHA: 9650752N Gestational Environment & Ы 1/97-12/99\$55.000 Hypertension NIH: HL27737 Aldosterone biosynthesis in the PI 5/97-4/00 \$96,808 CNS & hypertension Pharmacia Central antihypertensive effects PI 1/01-12/02 \$24,000 of Eplerenone: end organ effects 1/98-12/00 \$20,900 Monsanto Central antihypertensive effects PI of Eplerenone Ы AHA MO95GS045 Amiloride Sensitive Sodium 7/95-6/97 \$50,000 Channel in Hypertension NIH: HL27737 CoPI 2/91-1/96 Role of Endothelin in \$80,000 **Experimental Hypertension** ы Merit Review Mechanisms of Centrally Mediated 4/92-3/95 \$90,000 Mineralocorticoid Hypertension 92GIA/823 Role of Ouabain Biosynthesis in PI AHA 7/92-6/94 \$20,000 **Experimental Hypertension** FL affiliate

Ы

7/91-6/92 \$80,000

Role of Central Actions of Ouabain

Hypertension

VA: Merit Review Mineralocorticoids and the Central PI 4/88-3/92 \$298,800

Mediation of Hypertension

VA Merit Review: CNS Mediation of Mineralocorticoid- PI 4/85-3/88 \$154,900

Induced Hypertension

NIH: Hypertension Induced by Central PI 10/85-9/88 \$166,000

Infusion of Aldosterone

AHA Hypertension Induced by Central PI 7/85-10/85 \$80,000

Florida Affiliate Infusion of Aldosterone (relinquished upon receiving NIH grant of same title)

AHA Hypertensinogenic steroids: PI 7/83-6/86 \$80,000

Florida Affiliate Mechanism of Action

# TRAINING & MENTORING (Mississippi, 2000-)

### Lecturer

Department of Pharmacology & Toxicology:

PH620: Medical; PH 626 Dental; PH724 Mechanism of Drug Action (also course director 2017-2019); PH 723 Experimental Design & Methods to Study Cell Signaling (also course director 2017-2020)

Department of Neurobiology & Anatomical Science

NSCI 720 & 706 ad hoc

Department of Medicine

Endocrine Division Case Conference & Journal Club ~3/y

Infectious Disease ~1/yr

# PhD Committees

Primary mentor for PhD

<u>Jian Chen</u> MD 2011-2014, Neurobiology & Anatomical Sciences, PhD 2014, residency in neurology 2014, academic tract

Thesis/mentoring committee

Redin Spann: Program in Neurosciences; PhD in 2020 Peyton Weems: Program in Neurosciences; PhD in 2017

Jeremy McGowan: Program in Neurosciences;

Elizabeth Fletcher: Department of Physiology, University of Melbourne; PhD in 2017

Xu Hou: UMMC, Psychiatric Neuroscience, PhD received 5/2016

Lindie Schloms: Biochemistry, Stellenbosch University, S. Africa, PhD received 2015

Francesca Gioto: Universidad de Padua; International Hypertension program,

PhD received 2016

Silmara Formenti: graduate student (PhD), Federal University of São Paulo,

Paola Krall: Dept. Biochemistry, Universidad Católica, Santiago Chile

PhD received 2008, now on Faculty

## Research Rotations: PhD

## Introductory:

Adesanya A. Akinleye Pharmacology 2018

Owen T. Herrock Pharmacology 2018

Sarah J. Fitzgerald Pharmacology 2018

Jeanne Ishimwe, Pharmacology 2017

<u>Lauren Beloate</u>, 2011-12, Psychiatric Neuroscience; PhD received 2016

Edward (Drew) Townsend, 2012-13, Psychiatric Neuroscience, PhD 018

Brianne Ellis Pharmacology 2016

Course work/elective

<u>Muhammad Sumair Riaz</u>, graduate student PhD Psychiatric Neuroscience lab 2011-2015 Laura Graham, 2016

<u>Francesca Gioto</u>, Universidad de Padua; 6 month rotation, 10/13-3/14; International Hypertension program, Jean-Paolo Rossi, MD. mentor; PhD in 2016

Justin Cobb, Psychiatric Neuroscience, received PhD 2012

<u>Silmara Formenti</u>, graduate student (PhD), Federal University of São Paulo, 13 month rotation, 11/10-12/11

Vera Saul, 2006; Frei Universitat, Berlin; 6 month rotation; PhD received 2008

<u>Clementine Faisant</u>, Paris, France 2005; 6 month rotation, now GE Quality Control for Medical Imaging, Paris, Fr

<u>Muriel Gomez-Sanchez</u>, 2006; 4 month rotation; Universidad Calletano Herredia Facultad de Medicina Veterinaria, veterinary practitioner; partner/owner of food safety company using molecular diagnostics

<u>Paola Krall</u>, rotation 6 month rotation; 2004, Dept. Biochemistry, Universidad Católica, Santiago Chile, PhD in 2008

# Dean's Summer Research Fellows;

Hobart Zhu 2016

Miles Dunbar 2010-2011

Kirsten Gambrell 2005; academic physician/surgeon

Ursuline Hawkins 2005; fellowship in Endocrinology; VA physician

Anuj Patel; 2008; physician

Yutong Liu 2007; academic physician/endocrinology

Zheng Zhu, 2004; academic physician; UVA Medical Center

<u>Summer Undergraduate students: SURE students; Neuroscience Summer Scholars Program other (EGS VA Foundation funds)</u>

Shona Gordon 2021

Andrew Milner 2019

Darrell Bailey Mabou 2018; accepted: Toxicology PhD program at Tulane Fall 2019

<u>Jermone Drake</u> 2017 & 2018; accepted: Clinical Psychology MS program, U. Pittsburgh Fall 2018; Psychology PhD program, U. Pittsburgh Fall 2019

Mark Lewis (SURE) 2016; publication: Steroids. 2017 Nov;127:56-61. PMID: 28863887; Medical student.

Catherine Lowe 2011; physician

Katherine Werbenath 2010; physician

Majalima Mbomzabwe 2010, now University of Alabama Birmingham

Jay Hogg 2010; physician

Meghan McCrary 2009; psychiatric social worker

Danielle Marie Parker 2008; physician

Emily Deaton 2008

Femi Babatunde Olutade 2007; engineer

Vignesh Shettar 2006-7; academic physician

Bailey Sanders 2006; attorney

Clara Gomez Sanchez; 2006-2010 physician academic

### Post Doctoral Fellows (1999- present)

Ponnanikajamideen Mohemed Ibrahim 2021-

Ali Yusuf PhD 2020-

Maniselvan Kuppusamy PhD 2015-18

Travel Award for New Investigators from the Council on Hypertension Scientific Sessions 2017, American Heart Association, San Francisco, CA. International Award for Publishing

Excellence in The Journal of Clinical Endocrinology & Metabolism

(http://www.ncbi.nlm.nih.gov/pubmed/23012392); now at UVA-Charlottesvile, VA

Xin Qi, MD 2012-6/2015; finished residency in neurology; Physician Scientist career

Kenji Oki, MD 4/10-3/12; Hiroshima, Japan; continues research collaborations with us

Carolina Velarde Miranda, MD 4/08-12; academic physician

Milay Luis, MD 4/09-8/12; IM residency in NY; Endocrine fellowship 2015-2017

<u>Claudia Wilhelm</u>, PhD 6/2005-4/08; Chemistry & Biochemistry teacher; St Andrews Episcopal Sch. <u>Naveed Ahmad</u>, MD; 2001-5; finished Residency in GI, UMMC GI Fellowship training where he continuing clinical research; physician in Lafayette, ID 2012-

Silvia Rilli MD, 2/2005-6/2006; academic endocrinologist, Universidad de Ancona, Italy Gaston Vergara, MD; 2002-4; Residency & Fellowship in Cardiology; physician in Las Vegas, NV Melyssa Bratton 2000- 2004. NRSA fellowship 2002-2005; Young Investigator Award, International Aldosterone Conference 2002, faculty at Tulane University

<u>Damian Romero</u> 2000-2002; Department of Biochemistry, UMMC, 2008-present

<u>Lu Yu Huber</u> 2000-2003; Research Associate, University of South Dakota Cardiovascular Institute, Sioux Falls w/ Martin Gerdes PhD 2003-2006; Medicine Residency program, USD Medical College; Pulmonary/Critical Care Fellowship, now in practice

Stefania Morra di Cella MD, 3/00-8/00; endocrinology faculty, Universidad de Torino, Italy UMMC & VA Faculty/staff mentees (mentored grants)

Mary Jane Burton, MD; mentor for SCVAHCN Research Career Development Grant 2007-2010 Rajesh Bhagat, MD; VA staff physician, UMMC Assistant. Prof, mentor for SCVAHCN Research Career Development Grant: 2005-2008

Meng-Yang Zhu, MD, mentor for NIH grant obtained in 2006; now Associate Professor of Pharmacology, East Tennessee State University, 2007

R. Baliga, MD, UMMC Professor of Pediatrics, clinician scientist, obtained NIH funds with newly acquired molecular biology repertoire. Serve as a consultant on his NIH applications 2003-7

J. Maher, MD, 1999-2007, VA, clinician scientist, Associate Professor of Medicine. mentor for Advanced Career Development award (04/99-04/02), leading to a Merit Review grant "The Function of the FEM1 Genes"; Assoc Prof of Med at UTHSC-Dallas 2007-2011; UMMC 2011-

### Invited chapters last 10 years:

Gomez-Sanchez CE, Gomez-Sanchez EP, Mihailidou AS, 2017. Aldosterone/Mineralocorticoid Receptors and Their Renal Effects: Molecular Biology and Gene Regulation. in Editors. AK Singh & GH Williams; *Textbook of Nephro-Endocrinology*, *Second Edition*. Academic Press, ISBN: 978-0-12-803247-3

Gomez-Sanchez EP, Gomez-Sanchez CE. 2014 "The multifaceted mineralocorticoid receptor". *Comprehensive Physiology* 4:965-994 APS; Wiley-Blackwell 2014. PMID:24944027

Gomez-Sanchez EP, 2013. Central Mineralocorticoid Receptors and Cardiovascular Disease." In Editors: CA Koch & GP Chrousos; *Endocrine Hypertension*, Humana Press, Springer, ISBN: 978-1-60761-547-7 (Print) 978-1-60761-548-4 (Online)

Gomez-Sanchez CE, Gomez-Sanchez EP, Galigniana M. 2009. Aldosterone Receptors and Their Renal Effects: Molecular Biology and Gene Regulation. In: Ed. AK Singh & GH Williams; *Textbook of Nephro-Endocrinology, First Edition*, Academic Press, ISBN: 978-0-12-373870-7

### **Peer Reviewed Publications:**

https://www.ncbi.nlm.nih.gov/sites/myncbi/1z5ENUr k7QkU/bibliography/41291836/public/?sort=date&dir ection=descending

last 10 years (1-47)

- 1. Gomez-Sanchez EP, Gomez-Sanchez CE. 11beta-hydroxysteroid dehydrogenases: A growing multi-tasking family. *Molecular and cellular endocrinology*. 2021;526:111210.
- 2. Gomez-Sanchez CE, Gomez-Sanchez EP. The Mineralocorticoid Receptor and the Heart. *Endocrinology*. 2021.
- 3. Vohra T, Kemter E, Sun N, Dobenecker B, Hinrichs A, Burrello J, Gomez-Sanchez EP, Gomez-Sanchez CE, Wang J, Kinker IS, Teupser D, Fischer K, Schnieke A, Peitzsch M,

- Eisenhofer G, Walch A, Reincke M, Wolf E, Williams TA. Effect of Dietary Sodium Modulation on Pig Adrenal Steroidogenesis and Transcriptome Profiles. *Hypertension*. 2020;76(6):1769-1777.
- 4. Itcho K, Oki K, Gomez-Sanchez CE, Gomez-Sanchez EP, Ohno H, Kobuke K, Nagano G, Yoshii Y, Baba R, Hattori N, Yoneda M. Endoplasmic Reticulum Chaperone Calmegin Is Upregulated in Aldosterone-Producing Adenoma and Associates With Aldosterone Production. *Hypertension*. 2020;75(2):492-499.
- 5. Gomez-Sanchez CE, Gomez-Sanchez EP, Nishimoto K. Immunohistochemistry of the Human Adrenal CYP11B2 in Normal Individuals and in Patients with Primary Aldosteronism. *Hormone and metabolic research = Hormon- und Stoffwechselforschung = Hormones et metabolisme*. 2020;52(6):421-426.
- 6. Hauck JS, Howard ZM, Lowe J, Rastogi N, Pico MG, Swager SA, Petrosino JM, Gomez-Sanchez CE, Gomez-Sanchez EP, Accornero F, Rafael-Fortney JA. Mineralocorticoid Receptor Signaling Contributes to Normal Muscle Repair After Acute Injury. *Frontiers in physiology*. 2019;10:1324.
- 7. Gomez-Sanchez EP. DOCA/Salt: Much More Than a Model of Hypertension. *J Cardiovasc Pharmacol*. 2019;74(5):369-371.
- 8. Seccia TM, Caroccia B, Gomez-Sanchez EP, Gomez-Sanchez CE, Rossi GP. The Biology of Normal Zona Glomerulosa and Aldosterone-Producing Adenoma: Pathological Implications. *Endocrine reviews*. 2018;39(6):1029-1056.
- 9. Lowe J, Kadakia FK, Zins JG, Haupt M, Peczkowski KK, Rastogi N, Floyd KT, Gomez-Sanchez EP, Gomez-Sanchez CE, Elnakish MT, Rafael-Fortney JA, Janssen PML. Mineralocorticoid Receptor Antagonists in Muscular Dystrophy Mice During Aging and Exercise. *Journal of neuromuscular diseases*. 2018;5(3):295-306.
- 10. Kobuke K, Oki K, Gomez-Sanchez CE, Gomez-Sanchez EP, Ohno H, Itcho K, Yoshii Y, Yoneda M, Hattori N. Calneuron 1 Increased Ca(2+) in the Endoplasmic Reticulum and Aldosterone Production in Aldosterone-Producing Adenoma. *Hypertension*. 2018;71(1):125-133.
- 11. Seccia TM, Caroccia B, Gomez-Sanchez EP, Vanderriele PE, Gomez-Sanchez CE, Rossi GP. Review of Markers of Zona Glomerulosa and Aldosterone-Producing Adenoma Cells. *Hypertension*. 2017;70(5):867-874.
- 12. Nishimoto K, Koga M, Seki T, Oki K, Gomez-Sanchez EP, Gomez-Sanchez CE, Naruse M, Sakaguchi T, Morita S, Kosaka T, Oya M, Ogishima T, Yasuda M, Suematsu M, Kabe Y, Omura M, Nishikawa T, Mukai K. Immunohistochemistry of aldosterone synthase leads the way to the pathogenesis of primary aldosteronism. *Molecular and cellular endocrinology*. 2017;441:124-133.
- 13. Kuppusamy M, Gomez-Sanchez EP, Beloate LN, Plonczynski M, Naray-Fejes-Toth A, Fejes-Toth G, Gomez-Sanchez CE. Interaction of the Mineralocorticoid Receptor With RACK1 and Its Role in Aldosterone Signaling. *Endocrinology*. 2017;158(7):2367-2375.
- 14. Gomez-Sanchez CE, Qi X, Gomez-Sanchez EP, Sasano H, Bohlen MO, Wisgerhof M. Disordered zonal and cellular CYP11B2 enzyme expression in familial hyperaldosteronism type 3. *Molecular and cellular endocrinology*. 2017;439:74-80.
- 15. Gomez-Sanchez CE, Lewis M, Nanba K, Rainey WE, Kuppusamy M, Gomez-Sanchez EP. Development of monoclonal antibodies against the human 3beta-hydroxysteroid dehydrogenase/isomerase isozymes. *Steroids*. 2017;127:56-61.
- 16. Gomez-Sanchez CE, Kuppusamy M, Gomez-Sanchez EP. Of Mice and Man and the Regulation of Aldosterone Secretion. *Hypertension*. 2017;70(2):240-242.
- 17. Chadwick JA, Hauck JS, Gomez-Sanchez CE, Gomez-Sanchez EP, Rafael-Fortney JA. Gene expression effects of glucocorticoid and mineralocorticoid receptor agonists and

- antagonists on normal human skeletal muscle. *Physiological genomics*. 2017;49(6):277-286.
- 18. Oki K, Plonczynski MW, Gomez-Sanchez EP, Gomez-Sanchez CE. YPEL4 modulates HAC15 adrenal cell proliferation and is associated with tumor diameter. *Molecular and cellular endocrinology*. 2016;434:93-98.
- 19. Lowe J, Floyd KT, Rastogi N, Schultz EJ, Chadwick JA, Swager SA, Zins JG, Kadakia FK, Smart S, Gomez-Sanchez EP, Gomez-Sanchez CE, Raman SV, Janssen PM, Rafael-Fortney JA. Similar efficacy from specific and non-specific mineralocorticoid receptor antagonist treatment of muscular dystrophy mice. *Journal of neuromuscular diseases*. 2016;3(3):395-404.
- 20. Gomez-Sanchez EP. Third-generation Mineralocorticoid Receptor Antagonists: Why Do We Need a Fourth? *J Cardiovasc Pharmacol.* 2016;67(1):26-38.
- 21. Gomez-Sanchez CE, Gomez-Sanchez EP. Immunohistochemistry of the adrenal in primary aldosteronism. *Current opinion in endocrinology, diabetes, and obesity*. 2016;23(3):242-248.
- 22. Chadwick JA, Swager SA, Lowe J, Welc SS, Tidball JG, Gomez-Sanchez CE, Gomez-Sanchez EP, Rafael-Fortney JA. Myeloid cells are capable of synthesizing aldosterone to exacerbate damage in muscular dystrophy. *Human molecular genetics*. 2016;25(23):5167-5177.
- 23. Konosu-Fukaya S, Nakamura Y, Satoh F, Felizola SJ, Maekawa T, Ono Y, Morimoto R, Ise K, Takeda K, Katsu K, Fujishima F, Kasajima A, Watanabe M, Arai Y, Gomez-Sanchez EP, Gomez-Sanchez CE, Doi M, Okamura H, Sasano H. 3beta-Hydroxysteroid dehydrogenase isoforms in human aldosterone-producing adenoma. *Molecular and cellular endocrinology*. 2015;408:205-212.
- 24. Gomez-Sanchez CE, Kuppusamy M, Gomez-Sanchez EP. Somatic mutations of the ATP1A1 gene and aldosterone-producing adenomas. *Molecular and cellular endocrinology*. 2015;408:213-219.
- 25. Gioco F, Seccia TM, Gomez-Sanchez EP, Rossi GP, Gomez-Sanchez CE. Adrenal histopathology in primary aldosteronism: is it time for a change? *Hypertension*. 2015;66(4):724-730.
- 26. Chadwick JA, Hauck JS, Lowe J, Shaw JJ, Guttridge DC, Gomez-Sanchez CE, Gomez-Sanchez EP, Rafael-Fortney JA. Mineralocorticoid receptors are present in skeletal muscle and represent a potential therapeutic target. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*. 2015;29(11):4544-4554.
- 27. Wosiski-Kuhn M, Erion JR, Gomez-Sanchez EP, Gomez-Sanchez CE, Stranahan AM. Glucocorticoid receptor activation impairs hippocampal plasticity by suppressing BDNF expression in obese mice. *Psychoneuroendocrinology*. 2014;42:165-177.
- 28. Nakamura Y, Maekawa T, Felizola SJ, Satoh F, Qi X, Velarde-Miranda C, Plonczynski MW, Ise K, Kikuchi K, Rainey WE, Gomez-Sanchez EP, Gomez-Sanchez CE, Sasano H. Adrenal CYP11B1/2 expression in primary aldosteronism: Immunohistochemical analysis using novel monoclonal antibodies. *Molecular and cellular endocrinology*. 2014;392(1-2):73-79.
- 29. Gomez-Sanchez EP. Brain mineralocorticoid receptors in cognition and cardiovascular homeostasis. *Steroids*. 2014;91:20-31.
- 30. Gomez-Sanchez E, Gomez-Sanchez CE. The multifaceted mineralocorticoid receptor. *Compr Physiol.* 2014;4(3):965-994.
- 31. Gomez-Sanchez CE, Qi X, Velarde-Miranda C, Plonczynski MW, Parker CR, Rainey W, Satoh F, Maekawa T, Nakamura Y, Sasano H, Gomez-Sanchez EP. Development of monoclonal antibodies against human CYP11B1 and CYP11B2. *Molecular and cellular endocrinology*. 2014;383(1-2):111-117.

- 32. Chen J, Gomez-Sanchez CE, Penman A, May PJ, Gomez-Sanchez E. Expression of mineralocorticoid and glucocorticoid receptors in preautonomic neurons of the rat paraventricular nucleus. *American journal of physiology Regulatory, integrative and comparative physiology*. 2014;306(5):R328-340.
- 33. Velarde-Miranda C, Gomez-Sanchez EP, Gomez-Sanchez CE. Regulation of Aldosterone Biosynthesis by the Kir3.4 (KCNJ5) Potassium Channel. *Clinical and experimental pharmacology & physiology*. 2013;40(12):895-901.
- 34. Oki K, Kopf PG, Campbell WB, Luis Lam M, Yamazaki T, Gomez-Sanchez CE, Gomez-Sanchez EP. Angiotensin II and III Metabolism and Effects on Steroid Production in the HAC15 Human Adrenocortical Cell Line. *Endocrinology*. 2013;154(1):214-221.
- 35. Johnson AC, Lee JW, Harmon AC, Morris Z, Wang X, Fratkin J, Rapp JP, Gomez-Sanchez E, Garrett MR. A mutation in the start codon of gamma-crystallin D leads to nuclear cataracts in the Dahl SS/Jr-Ctr strain. *Mamm Genome*. 2013;24(3-4):95-104.
- 36. Wang JM, Hou X, Adeosun S, Hill R, Henry S, Paul I, Irwin RW, Ou XM, Bigler S, Stockmeier C, Brinton RD, Gomez-Sanchez E. A dominant negative ERbeta splice variant determines the effectiveness of early or late estrogen therapy after ovariectomy in rats. *PloS one*. 2012;7(3):e33493.
- 37. Pietranera L, Brocca ME, Cymeryng C, Gomez-Sanchez E, Gomez-Sanchez CE, Roig P, Lima A, De Nicola AF. Increased Expression of the Mineralocorticoid Receptor in the Brain of Spontaneously Hypertensive Rats (Shr). *Journal of neuroendocrinology*. 2012;24(9):1249-1258.
- 38. Oki K, Plonczynski MW, Luis Lam M, Gomez-Sanchez EP, Gomez-Sanchez CE. Potassium Channel Mutant KCNJ5 T158A Expression in HAC-15 Cells Increases Aldosterone Synthesis. *Endocrinology*. 2012;153(4):1774-1782.
- 39. Oki K, Plonczynski MW, Lam ML, Gomez-Sanchez EP, Gomez-Sanchez CE. The Potassium Channel, Kir3.4 Participates in Angiotensin II-Stimulated Aldosterone Production by a Human Adrenocortical Cell Line. *Endocrinology*. 2012;153(9):4328-4335.
- 40. Oki K, Gomez-Sanchez EP, Gomez-Sanchez CE. Role of mineralocorticoid action in the brain in salt-sensitive hypertension. *Clinical and experimental pharmacology & physiology*. 2012;39(1):90-95.
- 41. Mulatero P, Morra di Cella SM, Monticone S, Schiavone D, Manzo M, Mengozzi G, Rabbia F, Terzolo M, Gomez-Sanchez EP, Gomez-Sanchez CE, Veglio F. 18-hydroxycorticosterone, 18-hydroxycortisol, and 18-oxocortisol in the diagnosis of primary aldosteronism and its subtypes. *J Clin Endocrinol Metab*. 2012;97(3):881-889.
- 42. Hawkins UA, Gomez-Sanchez EP, Gomez-Sanchez CM, Gomez-Sanchez CE. The Ubiquitous Mineralocorticoid Receptor: Clinical Implications. *Current hypertension reports*. 2012;14(6):573-580.
- 43. Gomez-Sanchez EP, Gomez-Sanchez CE. Central regulation of blood pressure by the mineralocorticoid receptor. *Molecular and cellular endocrinology*. 2012;350(2):289-298.
- 44. Gomez-Sanchez CE, Gomez-Sanchez EP. The protective side of the mineralocorticoid receptor. *Endocrinology*. 2012;153(4):1565-1567.
- 45. Gomez-Sanchez CE, Gomez-Sanchez EP. Mutations of the Potassium Channel KCNJ5 Causing Aldosterone-Producing Adenomas: One or Two Hits? *Hypertension*. 2012;59:196-197.
- 46. Briones AM, Cat AN, Callera GE, Yogi A, Burger D, He Y, Correa JW, Gagnon AM, Gomez-Sanchez CE, Gomez-Sanchez EP, Sorisky A, Ooi TC, Ruzicka M, Burns KD, Touyz RM. Adipocytes produce aldosterone through calcineurin-dependent signaling pathways: implications in diabetes mellitus-associated obesity and vascular dysfunction. *Hypertension*. 2012;59(5):1069-1078.

47. Gomez-Sanchez CE, Warden M, Gomez-Sanchez MT, Hou X, Gomez-Sanchez EP. Diverse immunostaining patterns of mineralocorticoid receptor monoclonal antibodies. *Steroids*. 2011;76(14):1541-1545.