# Claudia P Sanmiguel, M.D. Curriculum Vitae

#### **PERSONAL INFORMATION**

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#### **EDUCATION**

- Specialist in Gastroenterology: at University of California Los Angeles, Los Angeles, USA, July 2011 – June 2014.
- Internship and Residency in Internal Medicine: Cedars Sinai Medical Center, Los Angeles, California, USA, July 2008 – June 2011.
- Gastroenterology GI Motility Research Fellow: Cleveland Clinic Foundation, Department of Gastroenterology, Cleveland, Ohio, USA, June 24 2002 – May 31, 2004.
- Gastrointestinal Motility Clinical Research Fellow: University of Alberta, Walter MacKenzie Health Sciences Centre, Edmonton, Alberta, Canada, October 1, 2001 -June 30, 2002.
- Gastrointestinal Motility Research Fellow: University of Alberta, Walter MacKenzie Health Sciences Centre, Edmonton, Alberta, Canada, April 1<sup>st</sup>, 1997 -August 31<sup>st</sup>, 1998.
- **Specialist in Gastroenterology:** Javeriana University, School of Medicine and San Ignacio University Hospital, Bogota, Colombia, 1993-1995.
- **Specialist in Internal Medicine:** Javeriana University, School of Medicine and San Ignacio University Hospital, Bogota, Colombia, 1990-1993.
- **Medical Doctor:** Javeriana University, School of Medicine and San Ignacio University Hospital, Bogota, Colombia, 1982-1988.

• High and elementary school: Alvernia School, Bogota, Colombia, 1971-1981.

#### **LICENSURE:**

Medical Board of California. Certificate number: A116218. Date of original issuance: 3/16/2011.

### **BOARD CERTIFICATION:**

- American Board of Internal Medicine. Certificate number: 321780. Date of issuance: 2011.
- American Board of Internal Medicine. Gastroenterology. Certificate number: 321780. Date of issuance: 2014.

### **PROFESSIONAL EXPERIENCE**

 Staff Gastroenterologist: Digestive Health Associates of Southern California, October 1<sup>st</sup>, 2020 to now.

In charge of implementing a comprehensive GI motility Unit and also providing general Gastroenterology consultation. The GI Motility Unit will provide services including consultation, esophageal and anorectal high-resolution manometry, and ambulatory monitoring for esophageal acid reflux disease.

 Director of the WLAVA Gastrointestinal Motility Program, at the WLA VA hospital, Los Angeles, CA, December 2018 to September 30, 2020.

In charge of implementing a comprehensive GI motility program to serve patients at this busy teaching hospital. Services included consultation, esophageal and anorectal high-resolution manometry, wireless esophageal pH capsule study and wireless capsule GI transit times (Smart pill). Working in close collaboration with members of general, thoracic and colorectal surgery, GI and Internal Medicine departments.

 Staff Gastroenterologist: West Los Angeles Veterans Affairs Hospital, August 2017 to September 30, 2020.

Responsible for a very busy GI procedures center, performing outpatient and inpatient procedures at this teaching hospital (UCLA GI Fellows), with on-duty attending for inpatient consultation periods.

- Health Sciences Assistant Clinical Professor, David Geffen School of Medicine, University of California Los Angeles, Los Angeles, USA, July 2015 to September 30, 2020.
- Gastroenterologist, Faculty. Division of Digestive Diseases, West Los Angeles Healthcare system. Los Angeles, CA. July 2017 to September 30, 2020.

- Director of the Ingestive Behavior and Obesity Program, at the UCLA Center for the Neurobiology of the Stress. Division of Digestive Diseases. Los Angeles, California. July 2014 to September 30, 2020.
- Gastroenterologist, Faculty. Division of Digestive Diseases, University of California Los Angeles. Los Angeles, CA. July 2014 to 2017. Duties include performing GI procedures and providing consultation services on both in- and outpatients at a teaching hospital (GI fellows, Internal Medicine residents and undergraduate students.
- Clinical Instructor, David Geffen School of Medicine, University of California Los Angeles: Division of Digestive Diseases. July 2014 to June 2015.
- **Research Associate:** at the Gastrointestinal Motility Program, Cedars Sinai Medical Center, Los Angeles, CA, USA, from July 2004 up to June 2008.

Responsible for the design and development of research studies on the use of gastric electromechanical signals for eating detection, the application of electrical stimulation and its effect on gastrointestinal motility, in humans and in animal models. Promoted the use of this knowledge in new applications for clinical sciences

 Staff Gastroenterologist: Gastroenterology Unit, San Ignacio University Hospital, September 1998 to September 2001.

Responsible for a very busy consultation and procedures service at this teaching Hospital during on-duty attending periods. Promoted the development of the GI Physiology section, and implemented several new procedures in close cooperation with other members of the staff.

 Coordinator, Internal Medicine Medical Students: Javeriana University School of Medicine, February 1999 to May 2001.

Reporting directly to the Chairman of the Internal Medicine Department. Responsible for developing and implementing the curriculum and the various practical activities for junior and senior Internal Medicine students. Introduced several innovations in the evaluation process, and served as a liaison between students and the medical school directives.

 Staff Gastroenterologist: Department of Gastroenterology, Reina Sofia Clinic, May 1996 to September 2001.

Appointed through a very competitive process at this highly regarded private medical institution. Duties include performing procedures and providing consultation services on both in- and outpatients. Main goal is to promote the implementation of new GI physiology procedures.

 Chief of undergraduate medical education, Nueva Granada Military University, Medical School, March 1996 to March 1997.

Reporting directly to the Dean of the Medical School, this position implies a seat in the Directive Council, at the Vice-Dean level. Responsible for overseeing and coordinating the whole undergraduate medical education curriculum. Introduced reforms in several key areas of the undergraduate medical education program, and participated actively in the decision making on several other areas of the medical school's academic life.

- Associated Gastroenterologist: Department of Gastroenterology, Fray Bartolomé de las Casas Hospital, October 1995 to February 1996.
- Chairperson: Medical Department of the Regional Autonomous Corporation (CAR): August 1989 to July 1990.
- Adscribed Physician: Medical Department of the Regional Autonomus Corporation (CAR): February to August 1990
- **Obligatory Social Service in Medicine:** Department of Physiological Sciences, Javeriana University Medical School.January 1988 to January 1989.

Compulsory state-financed appointment at the end of medical training, usually entails working at remote spots in the country. This position, however, is one of a few in the country in which responsibilities are essentially of an academic nature, with an emphasis on research activities. As such, conducted several projects during this appointment which later became the background for further academic work and interest in applied physiology in the setting of clinical medicine.

# **TEACHING EXPERIENCE**

- Health Sciences Assistant Clinical Professor, David Geffen School of Medicine, University of California Los Angeles, Los Angeles, USA, July 2015 present.
- Clinical Instructor, David Geffen School of Medicine, University of California Los Angeles: Division of Digestive Diseases. July 2014 to June 2015.
- Assistant Professor, Internal Medicine and Gastroenterology: Javeriana University Medical School, September 1998 to September 2001.
- Instructor, Physiological Sciences: Javeriana University Medical School, January 1989 to January 1995.
- Monitor, Physiological Sciences: Javeriana University Medical School, July 1985 to January 1987.

# **PROFESSIONAL ACTIVITIES – Selected**

- Serve as a link person between the UCLA GI Motility Program, Division of Digestive Diseases, Los Angeles, California and the Gastroenterology Unit, Hospital Universitario de San Ignacio, Pontificia Universidad Javeriana, Bogota, Colombia for collaborative/educational effort in the clinical area of GI motility in which difficult diagnosis/treatment cases are presented, discussed and used as learning experience for fellows and clinicians; since 2014 to present.
- Participant at the Bi-weekly UCLA Esophageal Motility Conference; since 2014 to present.
- Member of the research program at the UCLA Center for Obesity and Metabolic Health (COMET); 2014 to 2017.
- Member of the So-Cal Quarterly Motility Meeting, since 2015.
- Chair of the 14th Annual CNS Basic and Translational Science Symposium, Los Angeles, California, February 28th, 2016.
- Chair of the 15th Annual CNS Basic and Translational Science Symposium in coordination with the Iris Cantor and UCLA Women's Health Center annual meeting, Los Angeles, California, February 3rd, 2017.

- Manuscript reviewer for the American Journal of Gastroenterology, 2016.
- Manuscript reviewer for Gastroenterolgy, 2017.
- Invited as an Abstract reviewer for the 2018 DDW Meeting: abstract descriptor Brain-Gut Axis (Including Neuroimaging, Vagal Pathways and Neurobiology of Satiety, Obesity and Metabolic Disorders).
- Invited to moderate for a Research Forum session during Digestive Disease Week® (DDW) 2018, Session Title: Brain-Gut Axis (Including Neuroimaging, Vagal Pathways and Neurobiology of Satiety, Obesity and Metabolic Disorders).
- Invited as an Abstract review chair for the 2019 DDW Meeting; : abstract descriptor Brain-Gut Axis (Including Neuroimaging, Vagal Pathways and Neurobiology of Satiety, Obesity and Metabolic Disorders).
- Manuscript reviewer for the Microbiome, February 2019.
- Co-chair for the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15-16, 2019.

## **HONORS AND SPECIAL AWARDS:**

- Recipient of the Early Career Investigator Award for the study entitled "Dynamic changes in gut microbial derived indole and phenol products after bariatric surgery and its relationship to weight loss" at the Digestive Disease Week, Washington D.C., June 2-5, 2018.
- Recipient of the Early Career Investigator Award for the study entitled "Brain-gut axis and bariatric surgery: weight loss and changes in brain control of feeding behaviors are mediated by alterations in amino acids metabolic pathways" at the Digestive Disease Week, Chicago, IL, May 6-9, 2017.
- Recipient of the 2015 Poster Competition Special Recognition for study titled "Bariatric surgery is associated with changes in the brain's reward system architecture and in hedonic eating behaviors – an interim analysis" at the Obesity Week and 32th ASMBS meeting. Los Angeles, CA, November 5, 2015.
- Young Investigator Award winner. International Society of Electrogastrography. Washington DC, May 2007.
- Young Investigator Award winner. International Society of Electrogastrograpy. New Orleans, May 19, 2004.
- Poster of Distinction (Fundoplication increases the incidence of esophageal motor abnormalities in patients with GERD) AGA/ASGE Meeting, San Francisco, USA, May 19-22, 2002.
- Second prize, Synthesis National Award to the best research protocol in Internal Medicine, Bogotá, November 1993.
- "Andrés Bello" Award to the country's outstanding high school graduate. Ministry of Education, Bogotá, December 1981.
- Second best national score, ICFES test, Colombia, November 1981.

# **RESEARCH GRANTS:**

- The Iris Cantor UCLA Women's Health Center Executive Advisory Board Pilot research award and NIH/NCATS UCLA CTSI Grant Number UL1TR000124 for the pilot of the research study entitled "Brain activity related to hunger and satiation in obese women, and its relation to weight loss after bariatric surgery". Amount: \$ 30,000.00. Dates: September 1<sup>st</sup>, 2013 to August 31<sup>st</sup>, 2014. Principal investigator.
- The Oppenheimer TENS Grant Program in Complementary, Alternative and Integrative Medicine (CAIM) for the pilot of a study entitled "The effect of brain neuromodulation on food cravings, cognitive control and food addiction scales in overweight/obese women using tDCS". Dates: May 2015 to 2019. Amount \$50,000. Principal Investigator.
- The CURE-CTSI Pilot and feasibility for the pilot of a study entitled "The role of adipokines as moderators and mediators of brain structure/activity signatures and their association with ingestive behaviors and weight loss after bariatric surgery" Amount \$20,000. Dates: April 2015 – May 2018. Principal Investigator.
- The Oppenheimer Seed Grant for the pilot of a study on "Brain-gut-microbiome effects on ingestive behaviors and weight control: the effect of weight loss interventions on those interactions". Amount \$50,000. Dates: July 2016. – August 2020. Principal Investigator.

# **PATENTS:**

- International patent: PCT/US07/86169. Title of Invention: METHOD, DEVICE AND SYSTEM FOR AUTOMATIC DETECTON OF EATING AND DRINKING. It uses electrical signals from the LES to detect the initiation and termination of a meal.
- Patent: UCLA Case No. 2017-531. COMPOSITIONS AND METHODS FOR TREATING OBESITY AND INDUCING WEIGHT LOSS.

### **LECTURES AND PRESENTATIONS - Selected**

- **Fundamentals in gastric motility: clinical applications.** Presented as part of the Lecture Series for UCLA GI Fellows. Los Angeles, California, May 24, 2020.
- Physiology of fecal continence and defecation and anorectal manometry in clinical practice. Presented as part of the Lecture Series for UCLA GI Fellows. Los Angeles, California, February 28, 2020.

- GERD in GI clinic. Lecture presented as part of the VA Monday Lectures for GI fellows. Los Angeles, California, December 16,2019.
- Cyclic vomiting and cannabinoid hyperemesis syndrome. Lecture presented at the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15 and 16, 2019.
- Gastrointestinal dysmotility in patients with eating disorders. Lecture presented at the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15 and 16, 2019.
- Anorectal manometry in clinical practice. Lecture presented at the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15 and 16, 2019.
- Constipation and bowel dysfunction associated with opiate use and abuse. Lecture presented at the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15 and 16, 2019.
- GI dysmotility clinical cases. Chair of interactive session presented at the IX Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, November 15 and 16, 2019.
- **Opioid induced constipation and bowel dysfunction.** Internal Medicine Grand Rounds. WLA VA hospital., Los Angeles, California, May 15, 2019.
- Primer in GI motility for fellows. Presented as part of the Lecture Series for UCLA GI Fellows. Los Angeles, California, February 8, 2019.
- Gastroparesis for GI fellows. Presented as part of the Lecture Series for UCLA GI Fellows. Los Angeles, California, February 8, 2019.
- The heavy weight of losing weight. Presented at the UCLA GI Clinical Conference. Los Angeles, California, August 23, 2018.
- A hard to swallow lecture. Presented as part of the Lecture Series for UCLA GI Fellows. Los Angeles, California, July 20, 2018.
- Dynamic changes in gut microbial derived indole and phenol products after bariatric surgery and its relationship to weight loss. Oral presentation at the Digestive Disease Week and 121<sup>st</sup> Annual Meeting of the American Gastroenterological Association, Washington D.C., June 2-5, 2018.
- Glutamate and hedonic eating: role of Brain-Gut-Microbiome changes on hedonic eating after bariatric surgery. Oral presentation at the Digestive Disease Week and 121<sup>st</sup> Annual Meeting of the American Gastroenterological Association, Washington D.C., June 2-5, 2018.
- Role of the Brain-Adiposity-Gut-Microbiome Axis in Weight Loss after Bariatric Surgery. Poster presentation at the Obesity Week Society, Obesity Week; National Harbor, MD, Monday, Oct 30 – Thursday, Nov 2, 2017.
- Of nausea, vomiting and other maladies. On eating disorders and Gl. . Presented at the UCLA GI Clinical Conference. Los Angeles, California, October 12, 2017.
- **Probiotics: 40 years and hundreds of products**. Lecture at the Gut Microbiome 2017 Conference; Huntington Beach, California, September 16-17, 2017.
- The brain-gut-microbiome axis in obesity, weight loss and appetite regulation in humans. Invited lecture at the 25th Annual Meeting of the Society for the Study on Ingestive Behavior, Montreal, Canada, July 18-22nd, 2017.

- Brain-gut axis and bariatric surgery: weight loss and changes in brain control of feeding behaviors are mediated by alterations in amino acids metabolic pathways" Oral presentation at the Digestive Disease Week and 120<sup>th</sup> Annual Meeting of the American Gastroenterological Association, Chicago, IL, May 6-9, 2017.
- GERD for the PCP. Lectures as part of the UCLA 2016-17 Internal Medicine Residency Program's core ambulatory curriculum. Los Angeles, CA, May-June, 2017.
- Brain Gut Microbiome axis in Obesity and Weight loss: The effect of Bariatric Surgery. Lecture at the 6th Gut Microbiota for Health Summit, Paris, France, March 10-12<sup>th</sup>, 2017.
- Gastroparesis: time to revise concepts. Lecture at the VIII Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, February 10-11th, 2017.
- Utility of the Smart Pill in gastrointestinal motility disorders. Lecture at the VIII Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, February 10-11th, 2017.
- **Fatty Liver and the Gut Microbiome.** Lecture at the VIII Curso Internacional de Motilidad Gastrointestinal, Bogota, Colombia, February 10-11th, 2017.
- **The Brain-Gut-Microbiome Axis in Obesity**. Lecture at the North American Human Microbiome Congress; San Diego, California, January 24-25, 2017.
- Gut Microbiome is Associated with Weight Loss and Reduced Appetite After Laparoscopic Sleeve Gastrectomy. Oral presentation at the Obesity Week; New Orleans, Louisiana, October 31 to November 5, 2016.
- Changes in Amino Acids Serum Profiles After Sleeve Gastrectomy are Associated with Modifications in the Brain's Reward System Function and with Weight Loss. Oral presentation at the Obesity Week; New Orleans, Louisiana, October 31 to November 5, 2016.
- Gut Microbiome and Non-alcoholic Fatty Liver Disease. Lecture at the Gut Microbiome 2016 Conference; Huntington Beach, California, September 24 – 25, 2016.
- Bariatric surgery is associated with changes in the brain's reward system architecture and eating behaviors. Poster presented at DDW and 119<sup>th</sup> Annual Meeting of the American Gastroenterological Association; San Diego, CA, May 21-24, 2016.
- Advanced gut microbial composition analysis is able to discriminate between before and after Laparoscopic sleeve gastrectomy status. Poster presented at DDW and 119<sup>th</sup> Annual Meeting of the American Gastroenterological Association; San Diego, CA, May 21-24, 2016.
- Gastric hyperplastic polyps and Helicobacter Pylori. What do I need to do now? Lecture presented at the UCLA Wednesday GI Clinical Case, UCLA, Los Angeles, California, April 20, 2016.
- **Gastroparesis.** Presented as part of the Lecture Series for UCLA GI Fellows; Los Angeles, California, April 8, 2016.
- How bariatric surgery Works: the role of the brain in obesity and weight loss. Oral presentation at the Wadsworth Medical and Surgical Alumni Annual Scientific Meeting; Los Angeles, California, April 2nd, 2016.

- Early changes in gut microbiome composition and in metabolites after bariatric surgery are associated with weight loss and with alterations at the brain's reward system. Poster presentation at The 2016 CURE Annual Meeting; Los Angeles, California, March 10,2016.
- Advanced gut microbial composition analysis is able to discriminate between before and after laparoscopic sleeve gastrectomy status. Poster presentation at the 14<sup>th</sup> Annual CNS Basica and Translational Science Symposium. Bringing the Brain Back into Medicine: Focus on Gut Microbiome; Los Angeles, California, February 18, 2016.
- Bariatric surgery is associated with changes in the brain's reward system architecture and eating behaviors. Poster presentation at the 14<sup>th</sup> Annual CNS Basic and Translational Science Symposium. Bringing the Brain Back into Medicine: Focus on Gut Microbiome; Los Angeles, California, February 18, 2016.
- Effect of Bariatric Surgery on Regional Topology of Functional Networks. Poster presentation at the 14<sup>th</sup> Annual CNS Basic and Translational Science Symposium. Bringing the Brain Back into Medicine: Focus on Gut Microbiome; Los Angeles, California, February 18, 2016.
- The effect of bariatric surgery in the brain-gut axis: post-operative changes in amino acid profiles are linked to modifications in the brain's reward system function and structure and in weight loss. Oral presentation at the 14<sup>th</sup> Annual CNS Basic and Translational Science Symposium. Bringing the Brain Back into Medicine: Focus on Gut Microbiome; Los Angeles, California, February 18, 2016.
- Overweight and obese individuals display abnormal resting-state Brain connectivity between the reward system (Nucleus Accumbens and Amygdala) and the prefrontal cortex. Poster presented at the Obesity Week 2015 and 32nd ASMBS Annual Meeting; Los Angeles, California, November 2-7, 2015.
- Weight loss after bariatric surgery is associated with changes in the brain's reward system architecture and in hedonic eating behaviors. Poster presented at the Obesity Week 2015 and 32nd ASMBS Annual Meeting; Los Angeles, California, November 2-7, 2015.
- Obesity-related proinflammatory environment is associated with variations in the brain's reward system architecture. Oral presentation at the Obesity Week 2015 and 32nd ASMBS Annual Meeting; Los Angeles, California, November 2-7, 2015.
- Chronic Constipation. Presented as part of the Lecture Series for UCLA GI Fellows, Los Angeles, California, July 24, 2015.
- Adiposity is associated with alterations within the brain reward system in adult subjects. Poster at the 13th Annual CNS Basic and Translational Science Symposium, Los Angeles, California, February 27<sup>th</sup>, 2015 Poster presented at DDW and 118<sup>th</sup> Annual Meeting of the American Gastroenterological Association; Washington DC, May 6-19, 2015.

- GERD worsened or induced by bariatric surgery. Physiopathology and treatment. Presented at the UCLA GI Clinical Conference. Los Angeles, California, May 6, 2015.
- Constipation and Bowel leaks. Community health seminar presented at the Belmont Village, Los Angeles, California, February 10<sup>th</sup>, 2015.
- Treatment of GERD in 2014. Invited lecture. At the Cedars-Sinai Medical Center Invitational CME Conference on Irritable Bowel Syndrome for Physicians from Mexico. Los Angeles, California, September 22-23, 2014.
- Esophageal Motility disorders after bariatric surgery. Invited lecture at the VII International Gastrointestinal Motility Course, Bogota, Colombia, August 29-30, 2014.
- Diagnosis and treatment of chronic constipation. Invited lecture at the VII International Gastrointestinal Motility Course. Bogota, Colombia, August 29-30, 2014.
- Does your gut make you fat? Invited lecture at the VII International Gastrointestinal Motility Course, Bogota, Colombia, August 29-30, 2014.
- Sex commonalities and differences in BMI-related alterations in intrinsic brain activity and connectivity. Poster will be presented at DDW and 117<sup>th</sup> Annual Meeting of the American Gastroenterological Association; Chicago, Illinois, May 4-7, 2014.
- Morphological Imaging-Based Brain Signatures Discriminate Overweight from Lean Subjects: Examining Central Mechanisms Within the Reward Network. Poster at DDW and 117<sup>th</sup> Annual Meeting of the American Gastroenterological Association; Chicago, Illinois, May 4-7, 2014
- Association of abdominal fat with resting state low frequency brain activity in humans. Poster: Presented at the 17th Neurogastroenterology & Motility Scientific Meeting. Huntington Beach, California September 20-22, 2013.
- A high-resolution view of gastroesophageal motility in patients with regurgitation. Poster at the American College of Gastroenterology (ACG) 2011 Annual Scientific Meeting and Postgraduate Course, Washington, DC October 2011.
- Characterization of the postprandial gastroduodenal motor activity in healthy volunteers using High-Resolution manometry Poster presented at DDW and 114<sup>th</sup> Annual Meeting of the American Gastroenterological Association; San Diego, CA, May 2011.
- Characterization of the fasting gastroduodenal motor activity in healthy volunteers using High-Resolution manometry. Poster presented at DDW and 113<sup>th</sup> Annual Meeting of the American Gastroenterological Association; New Orleans, May 2010.
- Safety and Functionality of Gastric Electrical Stimulation with TANTALUS® on glycemic control in overweight subjects with type 2 diabetes - Results of a clinical feasibility study on an investigational device. Poster presented at: DDW

and 110<sup>th</sup> Annual Meeting of the American Gastroenterological Association; San Diego, CA, May 17-22, 2008.

- The effect of food on electrical and mechanical activity of the canine antrum.
  Poster presented at: DDW and 109<sup>th</sup> Annual Meeting of the American Gastroenterological Association; Los Angeles, CA, May 20-23, 2007
- The effect of Lower Esophageal Sphincter (LES) electrical stimulation on LES pressure. Poster presented at: DDW and 109<sup>th</sup> Annual Meeting of the American Gastroenterological Association; Los Angeles, CA, May 20-23, 2007.
- Eating detection using lower esophageal sphincter (LES) electrical activity. Poster presentation at DDW meeting, 108<sup>th</sup> Annual meeting of the American Gastroenterological Association, Washington, USA, May 20-23, 2007.
- Medications that modify GI motility: current indications. Oral presentation at the International Meeting of Gastrointestinal Motility, Bogota, Colombia, March 23-24, 2007.
- Anorectal motility: state of the art. Oral presentation at the International Meeting of Gastrointestinal Motility, Bogota, Colombia, March 23-24, 2007.
- The TANTALUS<sup>™</sup> system for obesity: effect on gastric emptying of solids. Oral presentation at DDW meeting, 107<sup>th</sup> Annual Meeting of the American Gastroenterological Association. Los Angeles, USA, May 20 25, 2006.
- The effect of food on electrical and mechanical activity of the canine antrum. Poster presentation at DDW meeting, 107<sup>th</sup> Annual Meeting of the American Gastroenterological Association. Los Angeles, USA, May 20 – 25, 2006.
- The effect of Lower Esophageal Sphincter (LES) electrical stimulation on LES pressure. Poster presentation at DDW meeting, 107<sup>th</sup> Annual Meeting of the American Gastroenterological Association, Los Angeles, USA, May 20 – 25, 2006.
- The TANTALUS<sup>™</sup> system for obesity: effect on gastric emptying of solids. Oral presentation at the14<sup>th</sup> International workshop on electrogastrography. Los Angeles, USA, May 25, 2006.
- The effect of food on electrical and mechanical activity of the canine antrum. Oral presentation at 14<sup>th</sup> International workshop on electrogastrography. Los Angeles, USA, May 25, 2006.
- The effect of Lower Esophageal Sphnicter (LES) electrical stimulation on LES pressure. Oral presentation at 14<sup>th</sup> International workshop on electrogastrography. Los Angeles, USA, May 25, 2006.
- Diurnal patterns of gastric electrical and motor activity in dogs. Poster presentation at 14<sup>th</sup> Annual Scientific Meeting of the American Motility Society. Santa Monica, USA, September 22 – 25, 2005.

# PUBLICATIONS

### a. Research papers (peer reviewed - selected):

- Mintchev MP, <u>Sanmiguel CP</u>, Bowes KL. Electrogastrographic impact of multisite functional gastric electrical stimulation. Journal of Medical Engineering and Technology 1999, 23 (1): 5-9.
- Mintchev MP, <u>Sanmiguel CP</u>, Otto SJ, Bowes KL. Microprocessor-controlled movement of liquid gastric content using sequential neural electrical stimulation. Gut 1998, 43: 607-11.
- <u>Sanmiguel CP</u>, Mintchev MP, Bowes KL. Dynamics of the level of randomness of electrogastrograms can be indicative of gastric electrical uncoupling in dogs. Dig Dis Sci 1999, 44 (3): 523-8.
- Mintchev MP, <u>Sanmiguel CP</u>, Amaris M, Bowes KL. Microprocessor-controlled movement of solid gastric content using sequential neural electrical stimulation. Gastroenterology 2000, 118 (2): 258-63.
- Amaris MA, <u>Sanmiguel CP</u>, Sadowski DC, Bowes KL, Mintchev MP. Electrical activity from colon overlaps with normal gastric electrical activity in cutaneous recordings. Dig Dis Sci 2002, 47: 2480 – 85.
- Lin Y, <u>Sanmiguel C</u>, Turner LE, Soffer E, Mintchev MP. Hardware-software codesign of portable functional gastrointestinal stimulator system. J Med Eng Technol 2003; 27: 164 – 77.
- Imam H, <u>Sanmiguel C</u>, Larive B, Bhat Y, Soffer E. Study of intestinal flow by combined videofluoroscopy, manometry, and multiple intraluminal impedance. Am J Physiol Gastrointest Live Physiol 2004; 286: G263 – 70.
- <u>Sanmiguel CP</u>, Casillas S, Senagore A, Mintchev MP, Soffer EE. Neural gastrointestinal electrical stimulation enhances colonic motility in a chronic canine model of delayed colonic transit. Neurogastroenterol Motil. 2006; 18: 647 – 53.
- <u>Sanmiguel CP</u>, Aviv R, Policker S, Haddad W, Brody F, Soffer EE. Association between gastric electromechanical activity and satiation in dogs. Obesity; 2007; 15:2958-63.
- <u>Sanmiguel CP</u>, Haddad W, Aviv R, Cunneen SA, Phillips EH, Kapella W, Soffer EE. The TANTALUS <sup>™</sup> System for obesity: effect on gastric emptying of solids and ghrelin plasma levels. Obes Surg. 2007; 17: 1503-9.
- Aviv R, Policker S, Brody F, Bitton O, Haddad W, Kliger a, <u>Sanmiguel CP</u>, Soffer EE.
  Circadian patterns of gastric electrical and mechanical activity in dogs. Neurogastroenterol Motil. 2008; 20:63-8.
- Aviv R, <u>Sanmiguel CP</u>, Kliger A, Policker S, Haddad W, Hagiike M, Soffer EE. The use of gastric electrical signals for algorithm for Automatic Eating Detection in dogs. Neurogastroenterol Motil.; 2008, 20:369-76.

- <u>Sanmiguel CP</u>, Hagiike M, Mintchev MP, Cruz RD, Phillips EH, Cunneen SA, Conklin JL, Soffer EE. Effect of electrical stimulation of the LES on LES pressure in a canine model. American Journal of Physiology Gastrointest Liver Physiol.. 2008 Aug; 295(2): G389-394.
- <u>Sanmiguel CP</u>, Ito Y, Hagiike M, Conklin JL, Lalezari D, Soffer EE. The effect of eating on Lower Esophageal Sphincter electrical activity. American Journal of Physiology Gastrointest Liver Physiology. 2009 Apr; 296(4): G793-797.
- <u>Sanmiguel CP</u>, Conklin JF, Cunneen SA, Barnett P, Phillips EH, Kipnes M, Pilcher J, Soffer EE. Gastric Electrical Stimulation with the TANTALUS® System in Obese Type 2 Diabetes Patients: Effect on Weight and Glycemic Control. J Diabetes Science and Technology. 2009; 3: 964-970.
- Shen B, <u>Sanmiguel C</u>, Bennett AE, Lian L, Larive B, Remzi FH, Fazio VW, Soffer EE. Irritable pouch syndrome is characterized by visceral hypersensitivity. Inflamm Bowel Dis. 2011 Apr;17(4):994-1002.
- Tan C, Kunkel D, Ocampo LH, <u>Sanmiguel CP</u>, Karsan S, Cohen H, Leung FW.. A novel application of the water exchange method in the treatment of sigmoid volvulus: a report of two cases. J Interv Gastroenterol. 2013 Jan;3(1):28-30.
- Gupta A, Mayer EA, <u>Sanmiguel CP</u>, Van Horn JD, Woodworth D, Ellingson BM, Fling C, Love A, Tillisch K, Labus JS. Patterns of Brain Structural Connectivity Differentiate Lean from Overweight Subjects. Neuroimage-Clinical, 2015; 7: 506– 517. Gupta A, Mayer EA, <u>Sanmiguel CP</u>, Van Horn JD, Woodworth D, Ellingson BM, Fling C, Love A, Tillisch K, Labus JS. Patterns of Brain Structural Connectivity Differentiate Lean from Overweight Subjects. Neuroimage-Clinical, 2015; 7: 506– 517.
- Gupta A, Mayer EA, Hamadani K, Bhatt R, Fling C, Alaverdyan M, Torgerson C, Ashe-McNalley C, Van Horn JD, Naliboff B, Tillisch K, <u>Sanmiguel CP</u>, Labus JS. Sex differences in the influence of body mass index on anatomical architecture of brain networks. Int J Obes (Lond). 2017 Aug;41(8):1185-1195. doi: 10.1038/ijo.2017.86. PMID:28360430.
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Gastrectomy is Associated with Alterations in the Brain-Gut-Microbiome Axis in Obese Women. Nutrients. In Press (10/2020)

### **b. Reviews and chapters - selected:**

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# LANGUAGES:

**English and Spanish, Fluent: Bilingual**: Able to fluently read, write, and speak both Spanish and English at a collegiate level