POSTER SESSION 1: THURSDAY JULY 25, 2019, CENTENNIAL C&D

ISAN19.053 - Bilateral inhibition of vagal afferent input to the nucleus of the solitary tract decreases body weight in rats

Bruce Ngo[1], Mariana Melo[1], Angela Connelly[1], Jaspreet Bassi[1], Sharon Layfield[1], Stuart McDougall[1], Ross Bathgate[1], Andrew Allen[2]; [1]University of Melbourne, Parkville, Australia, [2]University of Melbourne, Parkville, VIC/Australia

ISAN19.054 - Blood pressure-independent increase in cerebral blood flow by acupuncture to the segmental region

Sae Uchida, Fusako Kagitani; Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan

ISAN19.055 - Increased Occurrence of Ventricular Arrhythmias in Type 2 Diabetic Mice

Christiane Jungen[1], Katharina Scherschel[2], Pradeep Rajendran[3], Haesung Jee[3], Frederik Flenner[4], Christian Meyer[2], Jeffrey Ardell[5], John Tompkins[6]; [1], Cologne, Germany, [2]University Heart Center, University Hospital Hamburg-Eppendorf, Hamburg, Germany, [3]University of California - Los Angeles (UCLA) Cardiac Arrhythmia Center, Neurocardiology Research Center of Excellence,, Los Angeles, United States of America, [4]Cardiovascular Research Centre, University Medical Centre Hamburg-Eppendorf, Hamburg, Germany, [5]UCL
A, Los Angeles, CA/United States of America, [6]University of California - Los Angeles (UCLA) Cardiac Arrhythmia Center, Neurocardiology Research Center of Excellence,, Los Angeles, CA/United States of America

ISAN19.056 - A TRIP into neural control of cardiac electrophysiology

Katharina Scherschel[1], Hanna Bräuninger[1], Christiane Jungen[2], Nadine Erlenhardt[1], Andrea Mölders[3], Ehsan Amin[3], Christian Eickholt[1], Dane Chetkovitch[4], Nikolaj Klöcker[3], Christian Meyer[1]; [1]University Heart Center, University Hospital Hamburg-Eppendorf, Hamburg, Germany, [2], Cologne, Germany, [3]University Clinic Düsseldorf, Düsseldorf, Germany, [4]Northwestern University, Chicago, United States of America

ISAN19.057 - Cardiovascular and locomotor responses elicited by chemogenetic activation of the medial and lateral hypothalamus

Jamie Dracup[1], Bruno Dampney[1], Irfan Beig[2], Neda Assareh[1], Gavan McNally[1], Pascal Carrive[3]; [1]University of New South Wales, Sydney, Australia, [2]Indus Instruments, Webster, United States of America, [3]University of New South Wales, Sydney, NSW/Australia

ISAN19.058 - Sacral nerve stimulation modulates colonic motility in conscious rodents

Bradley Barth[1], Warren Grill[2], Xiling Shen[2]; [1]Duke University, Durham, NC/United States of America, [2]Duke University, Durham, United States of America

ISAN19.059 - NPY and the relationship with coronary microvascular constriction, infarct size and mortality following STEMI.

Thomas Gibbs[1], Nidi Tapoulal[2], Manish Kalla[2], Chieh-Ju Lu[2], Erica Dall'armellina[2], Adrian Banning[2], Robin Choudhury[2], Stefan Neubauer[2], Rajesh Kharbanda[2], Keith Channon[2], Neil Herring[2]; [1]University of Oxford,

Dpag, Sherrington Building, Sherrington Rd, Oxford, United Kingdom, [2]University of Oxford, Oxford, United Kingdom

ISAN19.060 - Leading pacemaker shift with reflex vagal stimulation and altered electrical source-to-sink balance

Jesse Ashton[1], Mark Trew[1], Ian Legrice[1], David Paterson[2], Julian Paton[1], Anne Gillis[3], Bruce Smaill[1]; [1]University of Auckland, Auckland, New Zealand, [2]University of Oxford, Oxford, United Kingdom, [3]University of Calgary, Calgary, Canada

ISAN19.061 - Antiarrhythmic effects of GLP-1

Svetlana Mastitskaya[1], Richard Ang[1], Andrew Tinker[2], Alexander V Gourine[1]; [1]University College London, London, United Kingdom, [2]William Harvey Research Institute, London, United Kingdom

ISAN19.062 - Cross-validation of fast neural EIT for imaging fascicular activity in vagus nerve

Svetlana Mastitskaya, Enrico Ravagli, Nicole Thompson, Kirill Aristovich, David Holder; University College London, London, United Kingdom

ISAN19.063 - The effect of low-level transcutaneous vagus nerve stimulation on heart failure with preserved ejection fraction

Jeremy Houser[1], Mulan Tang[2], Mary Beth Humphrey[3], Stavros Stavrakis[4]; [1]University of Oklahoma HSC, Oklahoma City, OK/United States of America, [2]Oklahoma School of Science and Mathematics, Oklahoma City, United States of America, [3]University of Oklahoma Health Sciences Center, Oklahoma City, United States of America, [4]University of Oklahoma Health Sciences Center, Oklahoma City, OK/United States of America

ISAN19.064 - Impact of Bilateral Cardiac Sympathetic Denervation on Atrial Rhythm in Structural Heart Disease

Veronica Dusi[1], Julie Sorg[2], Jeffrey Gornbein[3], J Gima[3], Jane Yanagawa[1], Jay Lee[3], Marmar Vaseghi[1], Jason Bradfield[3], Gaetano De Ferrari[4], Kalyanam Shivkumar[5], Olujimi Ajijola[5]; [1]David Geffen School of Medicine at UCLA, Los Angeles, CA/United States of America, [2]UCLA, Los Angeles, CA/United States of America, [3]David Geffen School of Medicine at UCLA, Los Angeles, United States of America, [4]University of Pavia, Pavia, Italy, [5]UCLA Health System, DGSOM, Los Angeles, CA/United States of America

ISAN19.065 - Impact of Atrial Volume and Atrial Arrhythmias on Outcomes following Cardiac Sympathetic Denervation

Veronica Dusi[1], Julie Sorg[2], Jeffrey Gornbein[3], J Gima[3], Jane Yanagawa[1], Jay Lee[3], Marmar Vaseghi[1], Jason Bradfield[3], Gaetano De Ferrari[4], Kalyanam Shivkumar[5], Olujimi Ajijola[5]; [1]David Geffen School of Medicine at UCLA, Los Angeles, CA/United States of America, [2]UCLA, Los Angeles, CA/United States of America, [3]David Geffen School of Medicine at UCLA, Los Angeles, United States of America, [4]University of Pavia, Pavia, Italy, [5]UCLA Health System, DGSOM, Los Angeles, CA/United States of America

ISAN19.066 - Neuropathic Pain following Cardiac Sympathetic Denervation for Ventricular Arrhythmias

Veronica Dusi[1], Luigi Pugliese[2], Silvia Castelletti[3], Federica Dagradi[3], Lia Crotti[3], Anna Mori[2], Marco Maurelli[2], Rita Camporotondo[2], Claudia Raineri[2], Stefano Ghio[2], Alessandro Vicentini[2], Roberto Rordorf[2], Alessandro Proclemer[4], Luigi Oltrona Visconti[2], Peter Schwartz[3], Gaetano De Ferrari[5]; [1]David Geffen School of Medicine at UCLA, Los Angeles, CA/United States of America, [2]Fondazione IRCCS Policlinico San Matteo, Pavia, Italy, [3]Center for Cardiac Arrhythmias of Genetic Origin, Istituto Auxologico Italiano, IRCCS, Milano, Italy, [4]Azienda Sanitaria Universitaria Integrata di Udine, Udine, Italy, [5]University of Pavia, Pavia, Italy

ISAN19.067 - Sympathetic block for prediction of compensatory hyperhidrosis in primary palmar hyperhidrosis

Jin Yong Jeong, Incheon St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Incheon, Korea, Republic of

ISAN19.068 - Targeting spinal D3 receptors to improve urinary function in rats with complete spinal cord injury

Jeremy Weinberger[1], Dong Wang[2], Jaclyn Definis[1], Veronica Tom[3], Shaoping Hou[4]; [1]Drexel University College of Medicine, Philadelphia, PA/United States of America, [2]Drexel University College of Medicine, Philadelphia, United States of America, [3]Drexel University, Philadelphia, United States of America, [4]Drexel University, Philadelphia, PA/United States of America

ISAN19.069 - Donepezil, a centrally-acting cholinesterase inhibitor, activates vagal and sympathetic efferent pathways

Donald Hoover[1], Aaron Polichnowski[2], Tesha Blair[2]; [1]East Tennessee State University, Johnson City, TN/United States of America, [2]East Tennessee State University, Johnson City, United States of America

ISAN19.070 - Effects of pregnancy on sympathetic responses to isometric handgrip

Rachel Skow[1], Margie Davenport[2], Craig Steinback[1]; [1]Univeristy of Alberta, Edmonton, AB/Canada, [2]Univeristy of Alberta, Edmonton, Canada

ISAN19.071 - Proposal for the classification of sweating disorders based on lesion site for accurate treatment

Yoko Inukai, Satoshi Iwase; Aichi Medical University School of Medicine, Nagakute, Japan

ISAN19.072 - Role of orexin neurons during social defeat stress and descending projections from the hypothalamus in the rat

Ena Yamamoto[1], Takatoshi Horiuchi[1], Misaki Ichikawa[1], Jouji Horiuchi[2]; [1]Toyo university, Kawagoe,saitama, Japan, [2]Toyo university, Saitama, Japan

ISAN19.073 - Effect of rotenone administration on intestinal permeability and enteric neurons in A53T mice

Rachel McQuade[1], Enie Lei[2], Lewis Singelton[2], Remy Constable[2], David Finkelstein[2], John Furness[3], Shanti Diwakarla[2]; [1]Florey Institute of Neuroscience and Mental Health , Melbourne, VIC/Australia, [2]Florey Institute of Neuroscience and Mental Health, Melbourne, Australia, [3]University of Melbourne, Melbourne, Australia

ISAN19.074 - Arrhythmogenic action of the cardiac sympathetic co-transmitter neuropeptide-Y

Nidi Tapoulal[1], Manish Kalla[1], Guoliang Hao[1], Kun Liu[1], Dan Li[1], Olujimi Ajijola[2], Kalyanam Shivkumar[2], David Paterson[1], Neil Herring[1]; [1]University of Oxford, Oxford, United Kingdom, [2]UCLA Health System, DGSOM, Los Angeles, CA/United States of America

ISAN19.075 - Characterisation of 5-HT immunoreactive neurons in human colonic myenteric plexus

Bao Nan Chen[1], Adam Humenick[1], Phil Dinning[2], David Wattchow[2], Simon Brookes[3]; [1]Flinders University, Adelaide, Australia, [2]Flinders Medical Centre, Adelaide, Australia, [3]Flinders University, Adelaide, SA/Australia

ISAN19.076 - Pharyngeal stimulation promotes secretion of thyroxin and calcitonin, via thyroid parasympathetic nerve reflex

Harumi Hotta, Kaori Iimura, Harue Suzuki; Tokyo Metropolitan Institute of Gerontology, Tokyo, Japan

ISAN19.077 - Down syndrome mouse models have submucosal plexus hypoganglionosis

Ellen Schill[1], Christina Wright[2], Alisha Jamil[2], Jonathan Lacombe[3], Randall Roper[3], Robert Heuckeroth[4]; [1]Washington University School of Medicine, St. Louis, United States of America, [2]The Children's Hospital of Philadelphia and The Perelman School of Medicine at the University of Pennsylvania, Philadelphia, United States of America, [3]Indiana University-Purdue University, Indianapolis, United States of America, [4]The Children's Hospital of Philadelphia and The Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA/United States of America

ISAN19.078 - Cardiac sympathetic tone and central blood pressures

Peter Latchman[1], Gregory Gates[2], Jason Pereira[3], Robert Axtell[4], Kenneth Gardner[5], Jennifer Schlie[6], Qin Yang[4], Tianhong Yue[4], Ally Morin-Viall[4], Ronald Demeersman[7]; [1]Southern Connecticut State University, New Haven, CT/United States of America, [2]Albert Einstein College of Medicine, Bronx, United States of America, [3]Yale Health, New Haven, United States of America, [4]Southern Connecticut State University, New Haven, United States of America, [5]Gerald Claude Eugene Foster College of Physical Education & Sports, St. Catherine, Jamaica, [6]University of Munster, Munster, Germany, [7]Teachers College, Columbia University, New York, United States of America

ISAN19.079 - The susceptibility of cardiac disorders after spinal cord crush injury in rats

Silvia Fernandes[1], Jeremy Weinberger[2], Idiata Iredia[3], Shaoping Hou[1]; [1]Drexel University, Philadelphia, PA/United States of America, [2]Drexel University College of Medicine, Philadelphia, PA/United States of America, [3]Drexel University College of Medicine, Philadelphia, United States of America

ISAN19.080 - Cardiac Neuromodulation using Epicardial Botulinum Toxin Injections in a Canine Model of Ventricular Tachycardia

Xun Zhou[1], Fabrizio Assis[2], Cecillia Lui[2], Hari Tandri[2], KAUSHIK Mandal[3]; [1]Johns Hopkins University School of Medicine, Baltimore, United States of America, [2]Johns Hopkins University School of Medicine, Baltimore, MD/United States of America, [3]PennState University Milton S hershey Medical Centre, Hershey, PA/United States of America

ISAN19.081 - Baroreflex control of sympathetic action potential discharge during orthostatic stress

Stephen Klassen[1], M Erin Moir[2], J Kevin Shoemaker[2]; [1]University of Western Ontario, London, ON/Canada, [2]University of Western Ontario, London, Canada

ISAN19.082 - A review of acute responses, after-effects and chronic complications related to microneurography

Victoria Meah[1], Stephen Busch[1], Kelvin Jones[1], Margie Davenport[1], Craig Steinback[2]; [1]Univeristy of Alberta, Edmonton, Canada, [2]Univeristy of Alberta, Edmonton, AB/Canada

ISAN19.083 - The influence of acute, chronic and lifelong hypoxia on cardiac responses to apnea

Stephen Busch[1], Sean Van Diepen[1], Lydia Simpson[2], Andrew Steele[1], Victoria Meah[1], Lindsey Berthelsen[1], Megan Smoschok[1], Michael Tymko[3], Christopher Willie[3], Philip Ainslie[3], Jonathan Moore[2], Michael Stembridge[4], Craig Steinback[5]; [1]Univeristy of Alberta, Edmonton, Canada, [2]Bangor University, Bangor, United Kingdom, [3]University of British Columbia – Okanagan, Kelowna, Canada, [4], Cardiff Metropolitan University, Cardiff, United Kingdom, [5]Univeristy of Alberta, Edmonton, AB/Canada

ISAN19.084 - Changes in autonomic parameters throughout the day in university students

Conrado Borgatello, Jorge Guridi, Sebastián Luna, Alejandrina Funes, Lorena Neila, Silvana Rosso; National University of Rosario, Rosario, Argentina

ISAN19.085 - Projections to the rostroventral medulla and the cardiovascular response evoked by social defeat stress in rats

Mio Matsuyama[1], Ena Yamamoto[2], Jouji Horiuchi[1]; [1]Toyo university, Saitama, Japan, [2]Toyo university, Kawagoe,saitama, Japan

ISAN19.086 - Intraneural recordings of single-unit autonomic neural activity with a novel microelectrode array

Elizabeth Bottorff[1], Ahmad Jiman[2], Elissa Welle[2], David Ratze[2], Paras Patel[2], John Seymour[1], Cynthia Chestek[2], Tim Bruns[2]; [1]University of Michigan, Ann Arbor, MI/United States of America, [2]University of Michigan, Ann Arbor, United States of America

ISAN19.087 - Poor leep quality affects cardiovascular autonomic imbalance in hypertensives

Leandro Brito, Laura Silva, Tiago Peçanha, Rafael Fecchio, Rafael Rezende, Andrea Abreu, Giovânio Silva, Décio Mion-Junior, Cláudia Forjaz; University of São Paulo, São Paulo, Brazil

ISAN19.088 - Defining segmental parasympathetic efferent cardiac projections in the yucatan mini pig

Michael Dacey[1], Mohammed Swid[2], Owais Salahudeen[3], Cameron Carlson[3], Kalyanam Shivkumar[4], Jeffrey Ardell[1]; [1]UCLA, Los Angeles, CA/United States of America, [2]University of California Los Angeles (UCLA) Cardiac Arrhythmia Center and Neurocardiology Research Program of Excellence, Los Angeles, AL/United States of America, [3]University of California Los Angeles (UCLA) Cardiac Arrhythmia Center and Neurocardiology Research Program of Excellence, Los Angeles, CA/United States of America, [4]UCLA Health System, DGSOM, Los Angeles, CA/United States of America

ISAN19.089 - Altered Insular Organization in Obstructive Sleep Apnea during the Valsalva Maneuver.

Amrita Pal[1], Jennifer Ogren[2], Ravi Aysola[2], Rajesh Kumar[2], Frisca Yan-Go[3], Ronald Harper[4], Paul Macey[5]; [1]University of California at Los Angeles (UCLA), 1702, CA/United States of America, [2]University of California at Los Angeles (UCLA), Los Angeles, United States of America, [3]UCLA, Los Angeles, United States of America, [4]UCLA, Los Angeles, CA/United States of America, [5]University of California at Los Angeles (UCLA), Los Angeles, CA/United States of America

ISAN19.090 - Cardiac innervation in the normal heart

Joseph Westaby, Mary Sheppard; St George's University of London, London, United Kingdom

ISAN19.091 - Heart rate modulation in patients with different laterality of ischaemic stroke

Jan Galuszka, Miloš Táborský, Dana Galuszková; Palacký University and University Hospital Olomouc, Faculty of Medicine and Dentistry, Olomouc, Czech Republic

ISAN19.092 - Carotid flow responses to L-cysteine mapped in the partially carotid-denervated rat ventral medulla

Yumi Takemoto, Hiroshima University Graduate School of Biomedical and Health Sciences, Hiroshima, Japan

ISAN19.093 - Sympathetic and motor activation by midbrain neurons projecting to the ventral medulla

Satoshi Koba[1], Nao Kumada[2]; [1]Tottori University Faculty of Medicine, Yonago, Tottori, Japan, [2]Tottori University Faculty of Medicine, Yonago, Japan

ISAN19.094 - MicroCT optimisation for imaging of fascicular anatomy in the mammalian vagus nerve

Nicole Thompson[1], Enrico Ravagli[1], Svetlana Mastitskaya[1], Francesco Iacoviello[1], Kirill Aristovich[1], Justin Perkins[2], Paul Shearing[1], David Holder[1]; [1]University College London, London, United Kingdom, [2]The Royal Veterinary College, Hatfield, United Kingdom

ISAN19.095 - GLP-1 deficiency in Patients with Postural Tachycardia Syndrome and Post-prandial Gastrointestinal Symptoms

Cyndya Shibao[1], Nicholas Breier[2], Sachin Paranjape[2], Shea Scudder[2], Shahram Mehr[2], Suzanna Lonce[2], Charles Flynn[2]; [1]Vanderbilt, Nashville, TN/United States of America, [2]Vanderbilt University Medical Center, Nashville, United States of America

ISAN19.096 - Cardioneuroablation for symptomatic cardioinhibitory carotid sinus syndrome and orthostatic intolerance.

Sebastian Stec[1], Artur Pietrucha[2], Aleksandra Wilczek-Banc[3], Janusz Sledz[4], Michal Chrabaszcz[4]; [1]MediNice Research and Development Center, Jasionka-Rzeszów, Poland, [2]Jagiellonian University, Cracow, Poland, [3]Subcarpathia Center for Cardiac Rehabilitation, Rymanow Zdroj, Poland, [4]ELMedica EP-Network, Ska, Poland

POSTER SESSION 2: FRIDAY JULY 26, 2019, CENTENNIAL C&D

ISAN19.139 - THREE-DIMENSIONAL (3D) IMAGING AND PHENOTYPING OF INTRINSIC CHOLINERGIC INNERVATION IN THE HUMAN COLON

Pu-Qing Yuan[1], Jean-Pierre Bellier[2], Tao Li[3], Mary Kwaan[3], Hiroshi Kimura[2], Yvette Tache[4]; [1]University California Los Angeles, Los Angeles, United States of America, [2]Shiga University of Medical Science, Otsu, Japan, [3]University California Los Angeles, Los Angeles, CA/United States of America, [4]UCLA, Los Angeles, CA/United States of America

ISAN19.140 - MAPPING OF GI NEURAL CIRCUITS: STOMACH LOCATIONS STIMULATED DETERMINES EFFECTS ON DUODENAL PERISTALSIS

Zhenjun Tan[1], Matthew Ward[1], Robert Phillips[1], Xueguo Zhang[2], Bartek Rajwa[3], Deborah Jaffey[1], Elizabeth Baronowsky[1], Jennifer McAdams[1], Logan Chesney[1], Terry Powley[1]; [1]Purdue University, West Lafayette, IN/United States of America, [2]Clunbury Scientific LLC, Bloomfield Hills, MI/United States of America, [3]Bindley Bioscience Center, Purdue University, United States of America

ISAN19.141 - INTRINSIC CARDIAC NEURAL CONTROL OF THE SINOATRIAL NODE

Peter Hanna[1], Michael Dacey[2], Mohammed Swid[3], Pradeep Rajendran[4], Sarah Hiyari[5], John Tompkins[5], Ching Zhu[6], Elizabeth Smith[7], Stanley Peirce[8], Jin Chen[9], Rajanikanth Vadigepalli[10], James Schwaber[11], Zixi Cheng[12], Donald Hoover[13], Jeffrey Ardell[2], Kalyanam Shivkumar[14]; [1]UCLA Cardiac Arrhythmia Center and Neurocardiology Research Program of Excellence, United States of America, [2]UCLA, Los Angeles, CA/United States of America, [3]University of California Los Angeles (UCLA) Cardiac Arrhythmia Center and Neurocardiology Research Program of Excellence, Los Angeles, AL/United States of America, [4]University of California - Los Angeles (UCLA) Cardiac Arrhythmia Center, Neurocardiology Research Center of Excellence,, Los Angeles, United States of America, [5]University of California - Los Angeles (UCLA) Cardiac Arrhythmia Center, Neurocardiology Research Center of Excellence,, Los Angeles, CA/United States of America, [6]University of California - Los Angeles (UCLA) Cardiac Arrhythmia Center, Neurocardiology Research Program of Excellence, Los Angeles, CA/United States of America, [7]East Tennessee State University, Mountain Home, TN/United States of America, [8]East Tennessee State University, Mountain Home, AL/United States of America, [9]University of Central Florida, United States of America, [10]Thomas Jefferson University, Philadelphia, AL/United States of America, [11]Thomas Jefferson University, Philadelphia, PA/United States of America, [12]University of Central Florida, Orlando, FL/United States of America, [13]East Tennessee State University, Johnson City, TN/United States of America, [14]UCLA Health System, DGSOM, Los Angeles, CA/United States of America

ISAN19.142 - EPIDURAL STIMULATION OF THE LUMBOSACRAL CORD EVOKES VOIDING IN URETHANE-ANESTHETIZED WISTAR RATS.

Charles Hubscher[1], Robert Hoey[2], Daniel Medina-Aguinaga[2], Fahmi Khalifa[2], Sharon Zdunowski[2], Ayman El-Baz[3]; [1]University of Louisville, Louisville, United States of America, [2]Univ Louisville Sch Med, Louisville, KY/United States of America, [3]Univ Louisville Sch Med, Louisville, United States of America

ISAN19.143 - Characterization of synaptic specialisations in pelvic ganglion neurons innervating the rat lower urinary tract

Peregrine Osborne[1], Pawan Bista[2], Victoria Morrison[1], Janet Keast[3]; [1]University of Melbourne, Melbourne, Australia, [2]University of Melbourne, Melbourne, ACT/Australia, [3]Melbourne university, Melbourne, Australia

ISAN19.144 - Feeding behavior following electrical stimulation of vagal afferent terminals located in the stomach muscle wall

Robert Phillips[1], Matthew Ward[1], Kun-Han Lu[2], Jiayue Cao[2], Gabriel Albors[1], Zhongming Liu[3], Pedro Irazoqui[1], Deborah Jaffey[1], Zhenjun Tan[1], Trevor Meyer[1], Terry Powley[1]; [1]Purdue University, West Lafayette, IN/United States of America, [2]Purdue University, United States of America, [3]Purdue University, West Lafayette, United States of America

ISAN19.145 - THE BRAIN RESPONDS TO GASTRIC ELECTRIC STIMULATION WITH ORIENTATION SELECTIVITY

Jiayue Cao[1], Ranajay Mandal[2], Kun-Han Lu[1], Christina Hendren[2], Robert Phillips[2], Terry Powley[2], Zhongming Liu[3]; [1]Purdue University, United States of America, [2]Purdue University, West Lafayette, IN/United States of America, [3]Purdue University, West Lafayette, United States of America

ISAN19.146 - BUILDING THE GANGLION-ORGAN CONNECTOME FOR DISTINCT REGIONS OF THE LOWER URINARY TRACT IN RATS

Janet Keast[1], Anges Wong[2], Victoria Morrison[2], Peregrine Osborne[2]; [1]Melbourne university, Melbourne, Australia, [2]University of Melbourne, Melbourne, Australia

ISAN19.147 - ANATOMICAL AND FUNCTIONAL MAPPING OF RENAL NERVES

Roman Tyshynsky[1], Dusty Van Helden[1], Erin Larson[2], John Osborn[3], Lucy Vulchanova[1]; [1]University of Minnesota, Minneapolis, MN/United States of America, [2]University of Minnesota, Minneapolis, United States of America, [3]University of Minnesota, United States of America

ISAN19.148 - CHEMICAL TAXONOMY OF ENTEROENDOCRINE CELLS AND NERVE FIBERS IN HUMAN OXYNTIC MUCOSA

John Furness[1], Josiane Fakhry[2], Yulia Bayguinov[3], Sean Ward[3], Martin Stebbing[4], Kent Sasse[3], Billie Hunne[2]; [1]University of Melbourne, Melbourne, Australia, [2]University of Melbourne, Parkville, VIC/Australia, [3]University of Nevada, Reno, United States of America, [4]Florey Institute of Neuroscience and Mental Health, Parkville, VIC/Australia

ISAN19.149 - MOLECULAR CHARACTERISTICS OFTHE RIGHT ATRIAL GANGLIONATED PLEXUS AND THE SINOATRIAL NODE COMPLEX IN PIG HEART

Alison Moss[1], Sirisha Achanta[1], Shaina Robbins[2], Sean Nieves[3], Peter Hanna[4], Jeffrey Ardell[5], Kalyanam Shivkumar[6], James Schwaber[1], Rajanikanth Vadigepalli[7]; [1]Thomas Jefferson University, Philadelphia, PA/United States of America, [2]Thomas Jefferson University, United States of America, [3]Thomas Jefferson University, Philadelphia, United States of America, [4]UCLA Cardiac Arrhythmia Center and Neurocardiology Research Program of Excellence, United States of America, [5]UCLA, Los Angeles, CA/United States of America, [6]UCLA Health System, DGSOM, Los Angeles, CA/United States of America, [7]Thomas Jefferson University, Philadelphia, AL/United States of America

ISAN19.150 - Anatomical mapping of sympathetic innervation to interscapular brown adipose tissue in adult mice

Rui Zhang[1], Marie François[2], Clara Huesing[2], Nathan Lee[2], Emily Qualls-Creekmore[2], Hayden Torres[2], Christopher Morrison[2], Sangho Yu[2], Hans-Rudolf Berthoud[2], David Burk[2], Heike Munzberg[2]; [1]Pennington Biomedical Research Center, Louisiana State University, United States of America, [2]Pennington Biomedical Research Center, Baton Rouge, LA/United States of America

ISAN19.151 - SEROTONIN RECEPTOR PLASTICITY ON PHRENIC MOTOR NEURONS AFTER CERVICAL SPINAL INJURY AND INTERMITTENT HYPOXIA

Latoya Allen[1], Yasin Seven[2], Marissa Ciesla[1], Kristin Smith[2], Zachary Asa[2], Alec Simon[2], Ashley Holland[2], Juliet Santiago[2], Kelsey Stefan[2], Ashley Ross[2], Elisa Gonzalez-Rothi[2], Gordon Mitchell[2]; [1]University of Florida, United States of America, [2]University of Florida, Gainesville, FL/United States of America

ISAN19.152 - ADENOSINE RECEPTOR EXPRESSION ON PHRENIC MOTOR NEURONS AFTER CERVICAL SPINAL INJURY AND INTERMITTENT HYPOXIA

Yasin B Seven[1], Latoya Allen[2], Marissa Ciesla[1], Kristin Smith[3], Zachary Asa[2], Alec Simon[2], Ashley Holland[2], Juliet Santiago[2], Kelsey Stefan[2], Ashley Ross[2], Amanda Zwick[3], Elisa Gonzalez-Rothi[2], Gordon Mitchell[2]; [1]University of Florida, United States of America, [2]University of Florida, Gainesville, FL/United States of America, [3]University of Florida, Gainesville, United States of America

ISAN19.153 - DARPP-32 AND CDK5 EXPRESSION IN THE VENTRAL CERVICAL SPINAL CORD OF RATS

Ashley Ross[1], Mia Kelly[1], Latoya Allen[1], Marissa Ciesla[2], Yasin Seven[1], Gordon Mitchell[1]; [1]University of Florida, Gainesville, FL/United States of America, [2]University of Florida, United States of America

ISAN19.154 - NOVEL INHIBITORY POST-SYNAPTIC POTENTIALS IN MOUSE PROXIMAL COLON MYENTERIC NEURONS - A ROLE FOR NITRIC OXIDE

Joel Bornstein[1], Parvin Zarei Eskikand[2], Rachel Gwynne[1]; [1]University of Melbourne, Parkville, VIC/Australia, [2]University of Melbourne, Australia

ISAN19.155 - NEUROMODULATION MAPPING OF THE SENSORY AND MOTOR NEURONS INNERVATING THE PANCREATIC VASCULATURE IN THE RAT

Aritra Kundu[1], Victoria Dugan[2], Richard Johnson[3]; [1]Univeristy of Florida, Gainesville, FL/United States of America, [2]University of Florida, Gainesville, AL/United States of America, [3]University of Florida, United States of America

ISAN19.156 - COLON EPITHELIAL CELLS INITIATE ACTIVITY IN MYENTERIC NEURONS AND EXTRINSIC PRIMARY AFFERENT NEURONS

Sarah Najjar[1], Kristen Smith-Edwards[1], Kathryn Albers[2], Brian Davis[2]; [1]University of Pittsburgh, United States of America, [2]University of Pittsburgh, Pittsburgh, PA/United States of America

ISAN19.157 - RESPONSE OF DISTAL COLON AND RECTUM TO SPINAL CORD EPIDURAL STIMULATION IN RATS UNDER URETHANE ANESTHESIA.

Robert Hoey[1], Daniel Medina-Aguinaga[1], Fahmi Khalifa[1], Sharon Zdunowski[1], Ayman El-Baz[2], Charles Hubscher[3]; [1]Univ Louisville Sch Med, Louisville, KY/United States of America, [2]Univ Louisville Sch Med, Louisville, United States of America, [3]University of Louisville, Louisville, United States of America

ISAN19.158 - NANOSCALE ORGANIZATION OF THE NEUROVASCULAR UNIT

Eric Arreola[1], Luis Santana[2]; [1]UC-Davis, United States of America, [2]University of California, Davis, Davis, CA/United States of America

ISAN19.159 - IDENTIFYING SUBPOPULATIONS OF VISCERAL AFFERENTS INVOLVED IN NEUROIMMUNE INTERACTIONS AND NOCICEPTION

Kimberly Meerschaert[1], Peter Adelman[2], Robert Friedman[3], Kathryn Albers[3], H Koerber[3], Brian Davis[3]; [1]University of Pittsburgh, United States of America, [2]Afiniti, Washington D.c., DC/United States of America, [3]University of Pittsburgh, Pittsburgh, PA/United States of America

ISAN19.160 - SUPERIOR CERVICAL GANGLIONECTOMY ALTERS O_2-SENSING K^+CURRENTS IN CAROTID BODY GLOMUS CELLS

Paulina Getsy[1], Gregory Coffee[2], Stephen Lewis[3]; [1]Case Western Reserve University, United States of America, [2]Case Western Reserve University, Cleveland, OH/United States of America, [3]Case Western Reserve University, Cleveland, United States of America

ISAN19.161 - SEX DIFFERENCES IN RAT CARDIAC AUTONOMIC INNERVATION

Richard Bayles[1], Beth Habecker[2], Suzanne Fei[2], William Woodward[2], Lina Gao[2], Joanne Tran[2], Antoinette Olivas[2]; [1]Oregon Health & Science University Department of Physiology & Pharmacology, Torquay, VIC/Australia, [2]Oregon Health and Science University, Portland, OR/United States of America

ISAN19.162 - THE EFFECTS OF INFLAMMATION ON COLON MOTILITY PATTERNS

Brian Edwards[1], Kristen Smith-Edwards[2], Brian Davis[2]; [1]University of Pittsburgh, United States of America, [2]University of Pittsburgh, Pittsburgh, PA/United States of America

ISAN19.163 - ADRENERGIC EFFECTS ON PORCINE CARDIAC ELECTROPHYSIOLOGY: COMBINED EXPERIMENTAL AND MODELING FRAMEWORK

Haibo Ni[1], Stefano Morotti[2], Lianguo Wang[3], Bardia Ghayoumi[3], Yanyan Jiang[3], Yi-Je Chen[3], Daisuke Sato[3], Crystal Ripplinger[3], Eleonora Grandi[3]; [1]University of California Davis, Davis, United States of America, [2]UC Davis, United States of America, [3]University of California Davis, Davis, CA/United States of America

ISAN19.164 - SPINAL ADENOSINE 2A RECEPTOR ACTIVATION ELICITS PHRENIC LONG-TERM FACILITATION IN CAROTID-DENERVATED RATS

Raphael Rodrigues Perim, Paul Kubilis, Gordon Mitchell; University of Florida, Gainesville, FL/United States of America

ISAN19.165 - Serotonergic Recovery in Phrenic Motor Nuclei after Cervical Spinal Injury, with and without Intermittent Hypoxia

Marissa Ciesla[1], Yasin Seven[2], Latoya Allen[2], Kristin Smith[2], Zachary Asa[2], Alec Simon[2], Ashley Holland[2], Juliet Santiago[2], Kelsey Stefan[2], Ashley Ross[2], Elisa Gonzalez-Rothi[2], Gordon Mitchell[2]; [1]University of Florida, United States of America, [2]University of Florida, Gainesville, FL/United States of America

ISAN19.166 - THE STIMULUS INTENSITY-DEPENDENT RECRUITMENT OF NA_V1s IN ACTION POTENTIAL INITIATION IN VAGAL C-FIBER TERMINALS

F RU[1], Nikoleta Pavelkova[2], Marian Kollarik[3]; [1]Johns Hopkins University, United States of America, [2]Morsani College of Medicine, University of South Florida, Tampa, AL/United States of America, [3]Morsani College of Medicine, University of South Florida, Tampa, FL/United States of America

ISAN19.167 - NEURAL RESPONSES OF THE CERVICAL SYMPATHETIC CHAIN TO BARORECEPTER ACTIVATION AND TO HYPOXIC CHALLENGE IN RATS

Martin Muntzel[1], Yee-Hsee Hsieh[2], Stephen Lewis[2]; [1]Lehman College, United States of America, [2]Case Western Reserve University, Cleveland, United States of America

ISAN19.168 - DAILY ACUTE, BUT NOT CHRONIC, EPISODIC HYPOXIA ENHANCES PHRENIC MOTOR PLASTICITY IN CHRONIC SPINAL INJURY

Arash Tadjalli[1], Elisa Gonzalez-Rothi[2], Latoya Allen[1], Marissa Ciesla[1], Alec Simon[2], Zachary Asa[2], Kristin Smith[3], Mohamad El Chami[2], Ashley Holland[2], Juliet Santiago[2], Ashley Ross[2], Gordon Mitchell[2]; [1]University of Florida, United States of America, [2]University of Florida, Gainesville, FL/United States of America, [3]University of Florida, Gainesville, United States of America

ISAN19.169 - FUNCTIONAL IMAGING OF PERIPHERAL NERVES BY POLARIZATION-SENSITIVE AND ANGIOGRAPHIC OPTICAL COHERENCE TOMOGRAPHY

Mohsen Erfanzadeh[1], Guillermo Monroy[2], Ahhyun Nam[3], Srikanth Vasudevan[4], Daniel Hammer[4], Benjamin Vakoc[3]; [1]MGH/Harvard Medical School, Boston, MA/United States of America, [2]Division of Biomedical Physics, Food and Drug Adminisration, United States of America, [3]MGH/Harvard Medical School, Boston, United States of America, [4]Food and Drug Adminisration, Silver Spring, United States of America

ISAN19.170 - INTEGRATED MAPPING AND MODELING OF THE INNERVATED MOUSE HEART REVEALS UNIQUE ADRENERGIC RESPONSES

Lianguo Wang[1], Stefano Morotti[2], Srinivas Tapa[3], Samantha Stuart[1], Yanyan Jiang[1], Eleonora Grandi[1], Crystal Ripplinger[2]; [1]UC Davis, Davis, CA/United States of America, [2]UC Davis, United States of America, [3]UC Davis, Davis, United States of America

ISAN19.171 - Modeling the structure-function relationship in the enteric nervous system in the adult mouse colon

Marthe Howard[1], Andrea Kalinoski[1], Samantha McKee[2], Joseph Margiotta[1], Kalina Venkova[2]; [1]University of Toledo Health Sciences, Toledo, OH/United States of America, [2]University of Toledo Health Sciences, Toledo, United States of America

ISAN19.172 - Stellate ganglia ion channel dysfunction leads to repetitive firing in the spontaneously hypertensive rat

Harvey Davis, Neil Herring, David Paterson; University of Oxford, Oxford, United Kingdom

ISAN19.173 - Electron microscopy studies of fiber composition and neural circuitry in the autonomic nervous system

Natalia Biscola[1], Petra Bartmeyer[2], Nianhui Zhang[2], Leif Havton[2]; [1]UCLA, Los Angeles, CA/United States of America, [2]UCLA, Los Angeles, United States of America

ISAN19.174 - Clinical Profile of Small Fiber Neuropathy with Neuronal Antibodies

Freddy Martinez, Peter Novak; Brigham and Women's Hospital, Boston, MA/United States of America

ISAN19.175 - Neurochemical properties of the hypothalamic neurons during ageing

Petr Masliukov, Konstantin Moiseev, Andrey Spirichev, Darya Aryaeva, Polina Vyshnyakova; Yaroslavl State Medical University, Yaroslavl, Russian Federation

ISAN19.176 - Expression of different calcium-binding proteins in the rat enteric ganglia during the development

Petr Masliukov[1], Antonina Budnik[2], Alexandr Nozdrachev[3]; [1]Yaroslavl State Medical University, Yaroslavl, Russian Federation, [2]Kabardino-Balkarian State University, Nalchik, Russian Federation, [3]Saint Petersburg State University, Saint Petersburg, Russian Federation

ISAN19.177 - Expression of calcium-binding proteins in the sympathetic preganglionic neurons after sensory deprivation

Petr Masliukov[1], Valentina Porseva[1], Alexandr Nozdrachev[2]; [1]Yaroslavl State Medical University, Yaroslavl, Russian Federation, [2]Saint Petersburg State University, Saint Petersburg, Russian Federation

ISAN19.178 - Localization of peptidergic sensory components in the pelvic nerves and major pelvic ganglion of male rats.

Martin Bertrand[1], Nadja Korajkic[2], Peregrine Osborne[3], Janet Keast[2]; [1]Nîmes University hospital, Nîmes, France, [2]Melbourne university, Melbourne, Australia, [3]University of Melbourne, Melbourne, Australia

ISAN19.179 - High-resolution imaging, segmentation and mapping of mesoscale organs using two-photon excitation microscopy

Michael Lake[1], Lixin Wang[2], Pu-Qing Yuan[3], Yvette Tache[1], Laurent Bentolila[4]; [1]UCLA, Los Angeles, CA/United States of America, [2]University California Los Angeles, Los Angeles, CA/United States of America, [3]University California Los Angeles, Los Angeles, United States of America, [4]UCLA, Los Angeles, United States of America

ISAN19.181 - Pain and sleep quality improve after resistance training with instability in Parkinson's disease patients

Carla Silva-Batista, Carlos Ugrinowitsch; School of Physical Education and Sport, University of São Paulo, São Paulo, Brazil

ISAN19.182 - Dual-Sided Optical Mapping of the Human Sinoatrial Node

Jaclyn Brennan, The George Washington University, Washington DC, United States of America

POSTER SESSION 3: SATURDAY JULY 27, 2019, CENTENNIAL C&D

ISAN19.238 - MICROSCOPE INTEGRATABLE NON-INVASIVE LIGHT SHEET FLUORESCENT MICROSCOPE (MINILSFM)

Yehe Liu[1], Junqi Zhuo[2], Michael Jenkins[2]; [1]Case Western Reserve University, United States of America, [2]Case Western Reserve University, Cleveland, OH/United States of America

ISAN19.239 - MULTICOLOR SPARSE LABELING OF MOUSE COLONIC ENTERIC NEURONS USING A NOVEL AAV CAPSID

Lixin Wang[1], Collin Charlis[2], Charless Fawlkes[3], Pu-Qing Yuan[4], Viviana Gradinaru[5], Yvette Tache[6]; [1]University California Los Angeles, Los Angeles, CA/United States of America, [2]California Institute of Technology, Pasadena, CA/United States of America, [3]UCI, Irvine, AL/United States of America, [4]University California Los Angeles, Los Angeles, United States of America, [5]California Institute of Technology, Pasadena, United States of America, [6]UCLA, Los Angeles, CA/United States of America

ISAN19.240 - Visualization of the human enteric cholinergic system using a newly generated antibody against the human pChAT

Jean-Pierre Bellier[1], Pu-Qing Yuan[2], Ikuo Tooyama[1], Yvette Tache[3], Hiroshi Kimura[1]; [1]Shiga University of Medical Science, Otsu, Japan, [2]University California Los Angeles, Los Angeles, United States of America, [3]UCLA, Los Angeles, CA/United States of America

ISAN19.241 - NERVES OF THE BONE: FOUNDATIONAL NEUROANATOMICAL MAPPING OF SKELETAL NERVES FROM BONE TO BRAIN

Madelyn Lorenz[1], Jennifer Brazill[2], Eva Jeliazkova[3], Natalie Wee[4], Sungjae Park[3], Zhaohua Wang[2], Mark Jacquin[3], Clarissa Craft[2], Erica Scheller[2]; [1]Washington University School of Medicine, United States of America, [2]Washington University in, St. Louis, MO/United States of America, [3]Washington University School of Medicine, St. Louis, MO/United States of America, [4]University of Connecticut Health Center, Farmington, CT/United States of America

ISAN19.242 - IN-VIVO TRACING OF VAGAL PROJECTIONS TO THE BRAIN WITH MANGANESE ENHANCED MAGNETIC RESONANCE IMAGING

Steven Oleson[1], Kun-Han Lu[2], Jiayue Cao[1], Terry Powley[2], Zhongming Liu[3]; [1]Purdue University, United States of America, [2]Purdue University, West Lafayette, IN/United States of America, [3]Purdue University, West Lafayette, United States of America

ISAN19.243 - LOW-COST, IMPLANTABLE WIRELESS SENSOR PLATFORM FOR NEUROMODULATION RESEARCH

Brett Hanzlicek[1], Ian McAdams[2], Aref Smiley[2], Steve Majerus[3], Dennis Bourbeau[4], Margot Damaser[5]; [1]Louis Stokes Cleveland VA Medical Center, Cleveland, United States of America, [2]Cleveland Clinic Foundation, United States of America, [3]Louis Stokes Cleveland VA Medical Center, Cleveland, OH/United States of America, [4]MetroHealth Medical System, Cleveland, OH/United States of America, [5]Cleveland Clinic, Cleveland, OH/United States of America

ISAN19.244 - DISTRIBUTIONS, MORPHOLOGIES AND INNERVATION OF GASTRIC ENTEROENDOCRINE CELLS IN THE RAT

John Furness[1], Billie Hunne[2], Martin Stebbing[3]; [1]University of Melbourne, Melbourne, Australia, [2]University of Melbourne, Parkville, VIC/Australia, [3]Florey Institute of Neuroscience and Mental Health, Parkville, VIC/Australia

ISAN19.245 - A 64-CHANNEL WIRELESS IMPLANTABLE SYSTEM TO STUDY GASTROINTESTINAL ELECTRICAL ACTIVITY

Amir Javan-Khoshkholgh[1], Joseph Sassoon[2], Mehdi Kiani[3], Larry Miller[4], Aydin Farajidavar[2]; [1]New York Institute of Technology, United States of America, [2]New York Institute of Technology, Old Westbury, NY/United States of America, [3]Pennsylvania State University, University Park, United States of America, [4]Feinstein Institute for Medical Research, Manhasset, AL/United States of America

ISAN19.246 - COMPREHENSIVE MAPPING OF THE INTRACARDIAC NERVOUS SYSTEM IN RODENTS USING KNIFE-EDGE SCANNING MICROSCOPY

Navid Farahani[1], Hunter Jackson[2], Todd Huffman[3], James Schwaber[4]; [1]3Scan, United States of America, [2]3Scan, San Francisco, AL/United States of America, [3]3Scan, San Francisco, United States of America, [4]Thomas Jefferson University, Philadelphia, PA/United States of America

ISAN19.247 - INTRINSIC CARDIAC NEURONS (ICNS) PROJECTING TO THE SA AND AV NODES IN RAT HEART

Jin Chen[1], Rajanikanth Vadigepalli[2], James Schwaber[3], Susan Tappan[4], Zixi Cheng[5]; [1]University of Central Florida, United States of America, [2]Thomas Jefferson University, Philadelphia, AL/United States of America, [3]Thomas Jefferson University, Philadelphia, PA/United States of America, [4]MBF Bioscience, Williston, VT/United States of America, [5]University of Central Florida, Orlando, FL/United States of America

ISAN19.248 - MAPPING INTRINSIC CARDIAC NEURON DISTRIBUTION IN 3-D RECONSTRUCTED HEARTS OF RATS AND MICE

Clara Leung[1], Jin Chen[2], Shaina Robbins[3], Alison Moss[4], Sirisha Achanta[4], Todd Huffman[5], Navid Farahani[6], Maci Heal[7], Susan Tappan[7], Rajanikanth Vadigepalli[8], James Schwaber[4], Zixi Cheng[1]; [1]University of Central Florida, Orlando, FL/United States of America, [2]University of Central Florida, United States of America, [3]Thomas Jefferson University, United States of America, [4]Thomas Jefferson University, Philadelphia, PA/United States of America, [5]3Scan, San Francisco, United States of America, [6]3Scan, United States of America, [7]MBF Bioscience, Williston, VT/United States of America, [8]Thomas Jefferson University, Philadelphia, AL/United States of America

ISAN19.249 - INTEGRATED ANATOMICAL AND MOLECULAR ATLAS OF RODENT INTRA-CARDIAC NERVOUS SYSTEM

Shaina Robbins[1], Clara Leung[2], Alison Moss[3], Sirisha Achanta[3], Susan Tappan[4], Maci Heal[4], Jin Chen[5], Jonathon Gorky[3], Navid Farahani[6], Todd Huffman[7], Zixi Cheng[2], Rajanikanth Vadigepalli[8], James Schwaber[3]; [1]Thomas Jefferson University, United States of America, [2]University of Central Florida, Orlando, FL/United States of America, [3]Thomas Jefferson University, Philadelphia, PA/United States of America, [4]MBF Bioscience, Williston, VT/United States of America, [5]University of Central Florida, United States of America, [6]3Scan, United States of America, [7]3Scan, San Francisco, United States of America, [8]Thomas Jefferson University, Philadelphia, AL/United States of America

ISAN19.250 - AN IMPLANTABLE NEUROMODULATION DEVICE WITH RECORDING AND STIMULATION FOR FREELY-BEHAVING SMALL-ANIMALS

Bryan McLaughlin[1], Warren Grill[2], Chris Langdale[2], Zhe Hu[3], Kevin Meador[3], Bill McKinney[3], Girish Chitnis[3], John Ogren[3], Liane Wong[3]; [1]MicroLeads, Inc, United States of America, [2]Duke University, Durham, United States of America, [3]Micro-Leads, Inc, Somerville, United States Minor Outlying Islands

ISAN19.251 - VAGAL NERVE STIMULATION USING AN IMPLANTABLE PULSE GENERATOR FOR CONTROLLING BLOOD GLUCOSE

Jieyun Yin, Transtimulation Research Inc, United States of America

ISAN19.252 - FUNCTIONAL MAPPING OF THE INFLUENCE OF NEUROMODULATION ON COLONIC MOTILITY IN A PORCINE MODEL

Muriel Larauche[1], Yushan Wang[2], Po-Min Wang[3], Genia Dubrovsky[3], Yi-Kai Lo[3], Ian Hsiang[3], James Dunn[4], Wentai Liu[3], Yvette Tache[3], Million Mulugeta[3]; [1]CURE/Digestive Diseases Research Center, Vatche and Tamar Manoukian Digestive Diseases Division, Department of Medicine, UCLA David Geffen School of Medicine, VA GLAHS, Los Angeles, CA, USA, United States of America, [2]UCLA, Los Angeles, AL/United States of America, [3]UCLA, Los Angeles, CA/United States of America, [4]Stanford University, Stanford, CA/United States of America

ISAN19.253 - A NOVEL STOCHASTIC SELF-ASSEMBLY MODEL FOR ION CHANNEL TRAFFICKING AND CLUSTERING IN EXCITABLE CELLS

Daisuke Sato[1], Gonzalo Hernandez-Hernandez[2], Collin Matsumoto[3], Sendoa Tajada[3], Claudia M Moreno[3], Rosie Dixon[3], Samantha O'dwyer[3], Manuel Navedo[4], James Trimmer[3], Marc Binder[5], Colleen Clancy[6], Luis Santana[4]; [1]University of California, Davis, United States of America, [2], , [3]University of California Davis, Davis, CA/United States of America, [4]University of California, Davis, Davis, CA/United States of America, [5]University of Washington, Seattle, United States of America, [6]UC Davis, Davis, CA/United States of America

ISAN19.254 - COMPUTATIONAL MODELS OF COMPOUND NERVE ACTION POTENTIAL RECORDINGS FROM RAT CERVICAL VAGUS NERVE

Edgar Pena[1], Eric Musselman[2], Nicole Pelot[1], Gabriel Goldhagen[2], Brandon Thio[3], Matthew Ward[4], Warren Grill[2]; [1]Duke University, United States of America, [2]Duke University, Durham, United States of America, [3]Duke University, Durham, NC/United States of America, [4]Purdue University, West Lafayette, AL/United States of America

ISAN19.255 - MECHANISM FOR CAMP OVERSHOOT IN VENTRICULAR MYOCYTES FOLLOWING β1 - ADRENERGIC STIMULATION

Emily Meyer[1], Colleen Clancy[2], Timothy Lewis[3]; [1]University of California, Davis, United States of America, [2]UC Davis, Davis, CA/United States of America, [3]University of California, Davis, Davis, CA/United States of America

ISAN19.256 - Ultrasound Radiation Force and Cavitation Monitoring During Focused Ultrasound Neuromodulation in Sciatic Nerve

Stephen Lee[1], Hermes Kamimura[2], Mark Burgess[3], Elisa Konofagou[2], Min Gon Kim[1]; [1]Columbia University, United States of America, [2]Columbia University, New York City, NY/United States of America, [3]Columbia University, New York, NY/United States of America

ISAN19.257 - A demonstration of modularity and reproducibility for cardiac electrophysiology model using Kepler Workflows

Pei-Chi Yang[1], Shweta Purawat[1], Pek Ieong[2], Mao-Tsuen Jeng[1], Kevin Demarco[1], Igor Vorobyov[1], Andrew McCulloch[2], Ilkay Altintas[2], Rommie Amaro[2], Colleen Clancy[1]; [1]UC Davis, Davis, CA/United States of America, [2]UC San Diego, La Jolla, CA/United States of America

ISAN19.258 - MODELING NEURO-CARDIOVASCULAR COUPLING MODULATION WITH ATOMISTIC SIMULATIONS

Kevin Demarco[1], John Dawson[2], Vladimir Yarov-Yarovoy[2], Colleen Clancy[1], Igor Vorobyov[3]; [1]UC Davis, Davis, CA/United States of America, [2]University of California, Davis, Davis, CA/United States of America, [3]UC Davis, United States of America

ISAN19.259 - RESPIRATORY-GATED TRANSCUTANEOUS VNS MODULATES 4D-CINE-MRI-ASSESSED STOMACH MOTILITY AND EMPTYING IN HUMANS

Roberta Sclocco[1], Christopher Nguyen[2], Rowan Staley[2], Harrison Fisher[2], Ronald Garcia[2], Catherine Hubbard[2], April Mendez[2], Kun-Han Lu[3], Zhongming Liu[4], Matthew Ward[3], Terry Powley[3], Braden Kuo[5], Vitaly Napadow[2]; [1]Massachusetts General Hospital, United States of America, [2]Massachusetts General Hospital, Harvard Medical School, Charlestown, MA/United States of America, [3]Purdue University, West Lafayette, IN/United States of America, [4]Purdue University, West Lafayette, United States of America, [5]Massachusetts General Hospital, Harvard Medical School, Charlestown, United States of America

ISAN19.260 - SELECTIVE ACTIVATION OF FERRET ABDOMINAL VAGAL PATHWAYS USING A NERVE CUFF WITH MULTIPLE CIRCUMFERENTIAL CONTACTS

Jonathan Shulgach[1], Derek M. Miller [2], Ameya C. Nanivadekar [3], Stephanie A. Fulton [4], Michael Sciullo [4], John Ogren [5], Liane Wong [5], Bryan Mclaughlin [5], Lee E. Fisher [3], Bill J. Yates [2], Charles C. Horn [4] [1]Carnegie Mellon University, Pittsburgh, PA, UNITED STATES OF AMERICA, [2]University of Pittsburgh, Otolaryngology, Pittsburgh, PA, UNITED STATES OF AMERICA, [3]University of Pittsburgh, Physical Medicine And Rehabilitation, Pittsburgh, PA, UNITED STATES OF AMERICA, [4]University of Pittsburgh, Medicine, Pittsburgh, PA, UNITED STATES OF AMERICA, [5]Micro-Leads, Inc, Somerville, MA, UNITED STATES OF AMERICA

ISAN19.261 - ULTRASOUND-GUIDED FOCUSED ULTRASOUND INHIBITS ELECTRICALLY EVOKED MOTOR NEURON ACTIVITY IN MOUSE SCIATIC NERVE

Min Gon Kim[1], Stephen Lee[1], Hermes Kamimura[2], Elisa Konofagou[2]; [1]Columbia University, United States of America, [2]Columbia University, New York City, NY/United States of America

ISAN19.262 - ACUTE AND CHRONIC RESPONSES OF BONE TO BIOELECTRIC STIMULATION OF THE SCIATIC NERVE

Alec Beeve[1], Priscilla Stecher[2], Zhaohua Wang[3], Kristann Magee[3], Nathan Birenbaum[2], John Cirrito[4], Matthew Macewan[2], Clarissa Craft[3], Erica Scheller[3]; [1]Washington University in, United States of America, [2]Washington University, St. Louis, MO/United States of America, [3]Washington University in, St. Louis, MO/United States of America, [4]Washington University, St. Louis, United States of America

ISAN19.263 - MACHINE LEARNING TECHNIQUES TO REVEAL PREDICTORS OF CARDIAC DYNAMICS IN RESPONSE TO AUTONOMIC STIMULATION.

Parya Aghasafari[1], Pei-Chi Yang[2], Colleen Clancy[2]; [1]UC Davis, United States of America, [2]UC Davis, Davis, CA/United States of America

ISAN19.264 - Direct measurements of sympathetic input to brown adipose tissue in vivo using fast scanning cyclic voltammetry

Daniele Nen[1], Kara Zang[2], Shyue-An Chan[3], Jeffrey Ardell[4], Stephen Lewis[5], Corey Smith[6], Lori Zeltser[7]; [1]Columbia University Medical Center, New York, United States of America, [2]Columbia University Medical Center, United States of America, [3]Case Western Reserve University, Cleveland, OH/United States of America, [4]UCLA, Los Angeles, CA/United States of America, [5]Case Western Reserve University, Cleveland, United States of America, [6]Case Western University, Cleveland, OH/United States of America, [7]Columbia University Medical Center, New York, NY/United States of America

ISAN19.265 - ULTRASOUND STIMULATION OF PERIPHERAL NERVES AND END-ORGANS FOR TREATING HEALTH DISORDERS

Hubert Lim[1], Daniel Zachs[2], Claire Kaiser[2], Rachel Graham[2], Erik Peterson[2], Bryce Binstadt[2]; [1]University of Minnesota, United States of America, [2]University of Minnesota, Minneapolis, MN/United States of America

ISAN19.266 - MODELLING INTERACTION BETWEEN CORONARY PERFUSION AND MYOCARDIUM MECHANICS USING COMPUTATIONAL POROELASTICITY

Yasser Aboelkassem[1], Alexandra Diem[2], Kristian Valen-Sendstad[3], Andrew McCulloch[4]; [1]University of California San Diego, United States of America, [2]bSimula Research Laboratory, Lysaker, Norway, [3]Simula Research Laboratory, Lysaker, Norway, [4]UC San Diego, La Jolla, CA/United States of America

ISAN19.267 - ACTIVATION OF LONG ASCENDING EXCITATORY INTERNEURONS, BY ELECTRICAL FIELD STIMULATION IN EXCISED HUMAN COLON

Reizal Mohd Rosli[1], Tim Hibberd[2], Raghu Kumar[3], David Wattchow[4], John Arkwright[5], Marcello Costa[5], Simon Brookes[2], Nick Spencer[6], Phil Dinning[4]; [1]Flinders University of South Australia, Australia, [2]Flinders University, Adelaide, SA/Australia, [3]Flinders medical centre, Adelaide, SA/Australia, [4]Flinders Medical Centre, Adelaide, Australia, [5]Flinders University, Adelaide, Australia, [6]Flinders uni, Adelaide, ACT/Australia

ISAN19.268 - NEUROMODULATION OF SPINAL CORD FOR AMELIORATING GASTROINTESTINAL MOTILITY

Jiande Chen, Johns Hopkins University, Baltimore, MD/United States of America

ISAN19.269 - DISTENSION INDUCED EPITHELIAL SECRETION IN HUMAN INTESTINE IN VITRO

Michael Schemann[1], Stefanie Schäuffele[2], Dagmar Krueger[2], Ihsan Ekin Demir[3], Jörg Theisen[4], Florian Zeller[5]; [1]Technical University of Munich, Germany, [2]Technical University of Munich, Freising, Germany, [3]Technical University of Munich, Munich, Germany, [4]Clinic Erding, Erding, Germany, [5]Clinic Freising, Freising, Germany

ISAN19.270 - Machine learning prediction of emesis and gastric fill in ferrets implanted with gastrointestinal electrodes

Charles Horn[1], Ameya Nanivadekar[2], Derek Miller[1], Stephanie Fulton[2], Johnathan Ogren[3], Liane Wong[3], Bryan McLaughlin[4], Lee Fisher[2], Bill Yates[2]; [1]University of Pittsburgh, United States of America, [2]University of Pittsburgh, Pittsburgh, PA/United States of America, [3]MicroLeads, Inc, Somerville, United States of America, [4]MicroLeads, Inc, United States of America

ISAN19.271 - NEUROIMAGING OF SUBMUCOSAL NEURONS FROM PORCINE COLON

Anna Filzmayer[1], Kristin Elfers[2], Gemma Mazzuoli-Weber[2]; [1]University of Veterinary Medicine Hannover, Foundation, Hannover, Germany, [2]University of Veterinary Medicine, Foundation, Hannover, Hannover, Germany

ISAN19.272 - ANTIARRHYTHMIC AND PROARRHYTHMIC EFFECTS OF SUBCUTANEOUS NERVE STIMULATION IN AMBULATORY DOGS

Juyi Wan[1], Mu Chen[2], Yuan Yuan[2], Zhuo Wang[2], Changyu Shen[3], Michael Fishbein[4], Zhenhui Chen[2], Johnson Wong[2], Maria Grant[5], Thomas Everett[2], Peng-Sheng Chen[2]; [1]Krannert Institute of Cardiology, United States of America, [2]Krannert Institute of Cardiology, Indinapolis, IN/United States of America, [3]Richard and Susan Smith Center for Outcomes Research in Cardiology, Boston, AL/United States of America, [4]Department of Pathology and Laboratory Medicine, University of California, Los Angeles, AL/United States of America, [5]Department of Ophthalmology, University of Alabama-Birmingham, Birmingham, AL/United States of America

ISAN19.273 - FECOBIONICS TECHNOLOGY FOR STUDYING COLONIC AND ANORECTAL NEUROPHYSIOLOGY

Hans Gregersen[1], Ghassan Kassab[2], Bhavesh Patel[1], Bill Combs[2]; [1]California Medical Innovations Institute, United States of America, [2]California Medical Innovations Institute, San Diego, CA/United States of America

ISAN19.274 - AIRWAY-NERVOUS SYSTEM MEDIATORS FOR AIRWAY PROTECTION

Leah Reznikov[1], Yan-Shin Liao[2], Tongjun Gu[3], Katelyn Davis[3], Shin-Ping Kuan[4], Kalina Atanasova[2], Joshua Dadural[2], Emily Collins[2], Maria Guevara[2], Kevin Vogt[2]; [1]University of Florida, United States of America, [2]University of Florida, Gainesville, FL/United States of America, [3]University of Florida, Gainesville, United States of America, [4]University of Florida, Gainesville, AL/United States of America

ISAN19.275 - FULLY IMPLANTED WIRELESS CONTROLLED SYSTEM FOR VAGAL STIMULATION AND RECORDING IN A TRANSLATIONAL MODEL, THE PIG

John Furness[1], Martin Stebbing[2], Vivek Ganesh[3], Gabriel Albors[3], Pedro Irazoqui[3], Ruslan Pustovit[4], Peter Cakebread[1]; [1]University of Melbourne, Melbourne, Australia, [2]Florey Institute of Neuroscience and Mental Health, Parkville, VIC/Australia, [3]Purdue University, West Lafayette, IN/United States of America, [4]The University of Melbourne, Melbourne, VIC/Australia

ISAN19.276 - A high-density tool for the ANS: MIcroneedle Nerve Array (MINA) demonstrated in the rat cervical vagus nerve

Dongxiao Yan[1], Ahmad Jiman[1], Paras Patel[1], David Ratze[1], Elizabeth Bottorff[2], Elissa Welle[1], Zhonghua Ouyang[3], Daniel Ursu[3], Hannah Parrish[1], Stephen Kemp[1], Cynthia Chestek[1], Tim Bruns[1], Euisik Yoon[1], John Seymour[2]; [1]University of Michigan, Ann Arbor, United States of America, [2]University of Michigan, Ann Arbor, MI/United States of America, [3]University of Michigan, Ann Arbor, Mi, United States of America

ISAN19.277 - NeuroMACS: A system for mapping and controlling neuromuscular activity

Dhruv Pai[1], Kip Ludwig[2]; [1], Potomac, MD/United States of America, [2]University of Wisconsin-Madison, Madison, United States of America

ISAN19.278 - Skin sympathetic nerve activity and ventricular rate during atrial fibrillation

Takashi Kusayama[1], Anthony Douglas Ii[1], Juyi Wan[2], Anisiia Doytchinova[3], Johnson Wong[4], Gloria Mitscher[1], Susan Straka[1], Changyu Shen[5], Thomas Everett[4], Peng-Sheng Chen[6]; [1]Indiana University School of Medicine, Indianapolis, IN/United States of America, [2]Krannert Institute of Cardiology, United States of America, [3]University of Cincinnati, Cincinnati, OH/United States of America, [4]Krannert Institute of Cardiology, Indinapolis, IN/United States of America, [5]Richard and Susan Smith Center for Outcomes Research in Cardiology, Boston, AL/United States of America, [6],

ISAN19.279 - The NIH SPARC Program: Bridging the gap to make precision neuromodulation therapies a reality

Kristina Faulk[1], Felicia Qashu[2], Andrew Weitz[2], Michael Wolfson[2], Nick Langhals[2], Karen Teff[2], Siavash Vaziri[2], David Saslowsky[2], Gene Civillico[2]; [1], , [2]National Institutes of Health, Bethesda, MD/United States of America