

CURRICULUM VITAE

LIN CHANG, M.D.

Professor of Medicine
Vatche and Tamar Manoukian Division of Digestive Diseases
David Geffen School of Medicine at UCLA

PERSONAL HISTORY:

Office Address: G. Oppenheimer Center for Neurobiology of Stress and Resilience
10833 Le Conte Avenue
CHS 42-210
Los Angeles, CA 90095-7378
(310) 206-0192; FAX (310) 825-1919

EDUCATION:

1978 - 1982 University of California, Los Angeles, Degree: B.S.
Biochemistry

1982 - 1986 UCLA School of Medicine, Los Angeles, Degree: M.D.

1986 - 1987 Internship: Harbor-UCLA Medical Center, Internal Medicine

1987 - 1989 Residency: Harbor-UCLA Medical Center, Internal Medicine

1989 - 1990 Research Fellowship: Harbor-UCLA Medical Center,
Division of Gastroenterology

1990 - 1992 Clinical Fellowship: UCLA Integrated Program,
Gastroenterology

LICENSURE:

California - #G061634, expires 8/31/23

BOARD CERTIFICATION:

ABIM: Internal Medicine 1989
Gastroenterology 1993, recertification 2014

PROFESSIONAL EXPERIENCE:

2006- present Professor of Medicine-in-Residence, Division of Digestive Diseases, David Geffen School of Medicine at UCLA

2000 - 2006 Associate Professor of Medicine, Division of Digestive Diseases, David Geffen School of Medicine at UCLA

1997 - 2000	Assistant Professor of Medicine, Division of Digestive Diseases, UCLA School of Medicine
1993 - 1997	Assistant Professor of Medicine-in-Residence, UCLA, Harbor-UCLA Medical Center
1992 - 1993	Associate Consultant, Mayo Clinic, Rochester, Minnesota, Department of Gastroenterology

PROFESSIONAL ACTIVITIES:

2017 – present	Vice-Chief, Vatche and Tamar Manoukian Division of Digestive Diseases, David Geffen School of Medicine at UCLA
2002 - present	Co-Director, G Oppenheimer Center for Neurobiology of Stress and Resilience, Division of Digestive Diseases, David Geffen School of Medicine at UCLA
2013 – present	Program Director, UCLA GI Fellowship Training Program
2012 – 2016	Director, Digestive Health and Nutrition Clinic, UCLA
2016 – 2020	Scientific Review Committee, Clinical Translational Science Institute
2011 - 2016	Co-Leader, Clinical Translational Science Institute, Clinical and Community Research Resource Program
2005 – 2011	Associate Director, UCLA General Clinical Research Center
2004 - 2014	Co-Director, CURE: Digestive Diseases Research Center, Human Studies Core
2002 - 2004	Course Director of Pathophysiology of Disease: Gastrointestinal System, UCLA School of Medicine
1997 - 2002	Co-Director and Head of Clinical and Clinical Research Operations, Neuroenteric Disease Program, UCLA/CURE
1997 - 2007	Director, Motility Unit, UCLA Medical Center
1993 - 1997	Director, General Gastroenterology Clinic, Harbor-UCLA
1993 - 1997	Director, Motility Unit, Harbor-UCLA

Committee Service

1994 - 1999	Harbor-UCLA Department of Medicine
1994 - 1997	Professional Group Management Committee
1996 - 1997	Medical Intern Interview Committee
1996 - 1999	Clinical Study Center Advisory Committee
1997 - present	UCLA and/or CURE
1997 - 1998	Clinical GI Meeting Committee
2000 - 2001	Enrichment Committee
1998 - 1999, 2002-3	All-Day Research Meeting Organizing Committee Served as Co-chair (2002)
2001 - 2003	Executive Committee
2005 - 2019	CURE Pilot and Feasibility Committee
2009 - 2015	UCLA MedCAP Committee, alternate member
2012- 2014	UCLA Search Committee for FTE in Division of Digestive Diseases
2010 – 2012	Gastroenterology Fellowship Application Committee
2013 – present	Gastroenterology Fellowship Application Committee (Chair)
2013 – present	Gastroenterology Fellowship Curriculum Action Committee (Chair)
2014 – present	Gastroenterology Fellowship Clinical Competency Committee
2015 – present	Gastroenterology Fellowship Program Evaluation Committee (Chair)
2015 – present	Gastroenterology Fellowship Self-study Group (Chair)
2015 – 2021	Research Council, Division of Digestive Diseases
2011 – 2016	Operations Committee and Scientific Review Committee, UCLA Clinical Translational Research Center
2016 – present	Clinical and Translational Science Institute (CTSI) Scientific Review Committee (SRC)
2018 – present	CTSI Data Safety Monitoring Board (DSMB)
2016 - 2018	UCLA Medical Education Pathway (MEP) mentor
2017 - present	T32 training grant committee member
2016 – present	Faculty Mentoring program, UCLA Department of Medicine
2016 – 2020	Department of Medicine Research Day, poster judge
2018 – present	Associate Director, CURE Digestive Disease Research Center
2018 – 2021	Council on Research, Academic Senate
2019 – present	UCLA Biodesign Fellowship, Affiliate Faculty
2019 – present	GI faculty scholarship champion
2020 – present	Advisory Committee for the UCLA Resident-Scientist Training Program (RSTP), an NIH-funded, R38 pilot program
2020 – present	Fellowship Counselor for Digestive Diseases, UCLA Department of Medicine residency program
2005 - present	Center for Neurobiology of Stress
2003 - present	Executive Committee
2005 – 2006, 2014	Annual Symposium (Committee Chairperson)
1994 - present	American College of Gastroenterology (ACG)
1994	Abstract Selection Subcommittee (Miscellaneous category)

2001	Functional GI Abstract Selection Committee
2004 - 2008	Practice Parameter Sub-Committee, Functional Bowel and GI Motility (Sub-Chair)
2007-2013	Educational Affairs Subcommittee
2008	Abstract Selection Subcommittee, Chair (Stomach and Small Intestine, unspecified)
2009	Abstract Selection Subcommittees (Functional Bowel Disorders and Stomach and Small Intestine)
2010-2012	Abstract Selection Subcommittee (Functional Bowel Disorders; served as Chair in 2011)
2014	Abstract Selection Subcommittee (Functional Bowel Disorders)
2013	Course Co-Director, ACG Postgraduate Course
2013 – 2015	Women in Gastroenterology Committee
2014 – present	Mentoring Program
2017 – present	ACG Functional GI Health and Nutrition Circle Expert Panel
2003 - present	American Gastroenterological Association (AGA)
2006-2007	Nominating Committee
2007-2008	AGA Women's health slide set, IBS section
2008	AGA Investing in the Future Program (Chair, regional course)
2010	AGA Clinical Congress, Course Director
2012	Corporate Committee member, AGA Research Foundation
2012	Regulatory Work Group, Public Affairs and Advocacy Committee
2013-2014, 2018-2021	AGA Clinical Practice Guidelines on Pharmacotherapy in IBS, Technical Review Committee
2015 – 2017	AGA China Task Force
2015 – 2016	AGA Rome Foundation Awards-Grant Review Committee
2015	Course Co-Director, AGA Freston Conference on IBS
2016	Abstract Poster Judge, Irritable Bowel Syndrome: Clinical, Digestive Diseases Week
2017	2017 Regional Practice Skills Workshop- California, Faculty Course Director
2018	Director, AGA Postgraduate Course
2017 – 2018	Presidential Plenary Subcommittee, AGA Council
2018 – 2021	Clinical Research Councilor, AGA Institute Governing Board
2018 – 2021	Appointments Committee
2018 – present	AGA FORWARD Program (R25) selection committee and External Advisory Board
2020 - 2021	AGA Clinical Practice Guidelines on Chronic Constipation, Technical Review Committee
2020-2021	AGA DDW Task Force
	AGA Neurogastroenterology and Motility Section
2003-2005	Abstract Selection Committee, Pharmacotherapy (served as Chair for 2004-5)
2003-2005	Abstract Selection Committee, Pharmacotherapy (served as Chair for 2004-5)

2004-2006	Abstract Selection Committee, Small Bowel Motility and Disorders (Chair for 2005-6)
2007-2012	Clinical Councilor
2008-2009	Abstract Section Committee Chair, Constipation, IBS and other Functional GI Disorders: Pathophysiology and Genetics
2009-2010	Abstract Selection Committee, Constipation, IBS and Other Colonic Motility and Functional Disorders: Pathophysiology Genetics and Molecular Epidemiology
2010-2012	Abstract Selection Committee Chair, Viscerosensory Mechanisms and Visceral Nociception
2012-2013	Abstract Selection Committee (Chair), Constipation, IBS and Other Colonic Motility and Functional Disorders: Pathophysiology Genetics and Molecular Epidemiology
2012- 2013	Abstract Selection Committee (Chair), Constipation, IBS and Other Colonic Motility and Functional Disorders: Diagnosis, Evaluation and Treatment
2013-2014	Abstract Selection Committee (Chair), Irritable Bowel Syndrome
2015-2016	Abstract Selection Committee (Vice Chair), Irritable Bowel Syndrome: Clinical
2016-2017	Abstract Selection Committee (Chair), Irritable Bowel Syndrome: Clinical
2017-2019	Vice-Chair, Neurogastroenterology and Motility Section

AGA Hormone and Receptors Section

2005-2008	Councilor
2005-2008	Hormone and Receptors Section Abstract Selection Committees (Chair 2006-2008): Hormones/Transmitters/Receptors and the Enteric Nervous System, GI Motility, Brain-Gut and Gut-Brain Axis, Appetite and Satiety
2010-2011	Nominating Committee

AGA Clinical Practice Section

2014-2015	Councilor
-----------	-----------

2003 – 2010

2003-2006	Functional Brain Gut Research Group (FBG) Annual FBG Young Investigators' Forum, Faculty, Co-Chair (2005), Chair (2006)
2004-2006	Council member
2006-2008	Secretary/treasurer
2008-2010	President Elect
2009	NGM 2009 abstract selection committee

2008-present

	American Neurogastroenterology and Motility Society (ANMS)
2008-2010	Councilor
2008-2010	Research Committee
2010	NGM 2010 abstract selection committee
2010	Chair, Tissue and Serum Biomarker group, FDA

2010-2012	Biomarker Workshop
2010-2012	Chair, Clinical Practice Committee
2012-2014	President Elect
2014-2016	President
2015-present	Past-President
2016, 2019	Neurogastroenterology and Motility Journal Management Committee
2015-2016	Young Investigator Forum faculty member
2017	Junior Faculty Task Force
2017-2022	Federation of Neurogastroenterology and Motility 2018 meeting planning committee
2019	ANMS Institute's Advisory Board
	Women in NGM organizing committee
2003-present	Rome Foundation
2005-2020	Rome Foundation Board of Directors
2007-present	Industry Advisory Council, Chair
2007-present	Education Committee, Chair
2003-2006	Rome III Committee, Co-chair of subcommittee on <i>Gender, Age and Cultural Influences on Functional Bowel Disorders</i>
2005-2006	Rome Committee, Co-chair of working group on <i>Severity of Functional Gastrointestinal Disorders</i>
2005-2006	Rome III working committee to develop a CD slide set for <i>Management and Diagnosis of Treatment Trials</i>
2008-2009	Chair, Endpoints and Outcomes in FGID Conference
2012-2016	Rome IV Editorial Board and committee liaison
2013-2016	Rome IV <i>Functional Bowel Disorders</i> committee
2012-2013	Rome-China Liaison Committee, Chair
2020-present	Rome communications working team
2020-present	Rome IBS plausibility working team
2020-present	Rome V Editorial Board and committee liaison
2004 - present	National Institutes of Health (NIH)
November 2004	NIH Clinical and Integrative Gastrointestinal Pathobiology (CIGP) study section ad hoc reviewer
November 2007, July 2008	Digestive Sciences Small Business and Bioengineering scientific review panel
2007 – 2012	NIDDK Data and Safety Monitoring Board- EPISOD
October 2008	Center for Scientific Review- CFS study section
May 2009	NIDDK reviewer for challenge grants
February 2010	Somatosensory and Chemosensory Systems (SCS) study section- ad hoc reviewer
June 2012	NIDDK study section for pilot R21 applications
September 2015-June 2016	NIDDK Workshop on Functional Gastrointestinal Disorders: Research Directions, Planning Committee
July 2016 – June 2020	Clinical, Integrative and Molecular Gastroenterology Study Section
August 2019	Diabetic Complications Consortium (DiaComp): 2019 Pilot & Feasibility reviewer
June 2021	NIDDK Diseases Special Emphasis Panel

2003-present	Other Committee Service
2003- 2013	International Foundation for Functional Gastrointestinal Disorders (IFFGD) Symposium Planning Committee
2020-2021	IFFGD's 30th Anniversary Nancy and Bill Norton Education Series Program Committee, Co-Chair
2005-2010, July 2015-2019 9/16/2021 to 6/30/2025 2009-2013	Gastrointestinal Drugs Advisory Committee of the FDA (Chair, 2009-2010) FDA Special Government Employee
April 2012 – February 2014	Institute of Medicine Committee on Gulf War and Health: Long-term Effects of Blast Exposure
2009-2014	PRO Consortium IBS working group (qualitative research phase)
2014-2018	PRO Consortium IBS working group expert panel (quantitative research phase)
January 2018- 2022	American Board of Internal Medicine (ABIM) Gastroenterology Committee
January 2022 – June 2024	Gastroenterology Certification and Traditional MOC Approval Committee

Membership in Professional Associations and Scholarly Societies:

1994 - present	American College of Gastroenterology (Fellow in 05/12)
1994 - present	American Gastroenterologic Association (Fellow in 02/08)
2000 - 2010	Functional Brain Gut Research Group
2001 - present	Society for Neuroscience
2004 - 2010	Gastroenterology Research Group
2004 - present	American Neurogastroenterology and Motility Society
2008 - present	Organization of the Study of Sex Differences (OSSD)

Advisory Boards/Consultant:

2003, 2006-9	Foundation for Better Health Care
2008-2014	Foundation, IBS Initiative (Chair)
2014- present	GI Health Foundation, Board member
2001-2007, 2009	GlaxoSmithKline
2001-2005	Solvay
2001-2005	Novartis
2005-2007	Vela/Pharmos Pharmaceuticals
2001-2003, 2007-14	Forest, Actavis
2003	Merck
2005	sanofi-Aventis
2006-2016, 2018-2021	Microbia/Ironwood (Steering Committee 2018- present)
2006-2013	Prometheus
2006, 2015, 2020	Allergan
2006-2009, 2011-12, 2015	Takeda
2007, 2011	Lexicon
2008-2018	Salix

2008-2009	McNeil
2008, 2012-3	Tioga
2008, 2010-12	Albireo
2008, 2010, 2015-2018	Synergy
2008-2011	Rose Pharma
2008, 2010	Movetis/Shire
2009	Ocera Therapeutics
2011	Johnson & Johnson
2011	Orexigen
2012	ONO
2011	Marathon
2012-2013	Ferring
2013	Purdue Pharma L.P.
2013	Entera Health
2014	Furiex
2014-2015	QOL Medical
2014-2018	Biomerica
2014	Drais Pharmaceuticals
2014-2019	ForConti Medical
2015-2018	Ardelyx
2015	Commonwealth Laboratories
2015	Valeant
2015	Astra-Zeneca
2016-2020	IM Health Sciences
2016	Synthetics Biologics
2016-2017	Eli Lilly
2016-2017, 2019	Orpho-Med
2017	Napo Pharmaceuticals
2017	Cairn Diagnostics
2018-2019	Modify Health Clinical Advisory Committee
2018-2019	Arena Pharmaceuticals
2018	Ritter
2018	Alnylam Pharmaceuticals
2018-2019	Meta Me
2019-2020	Takeda-Shire
2020	Gelesis
2020	Pendulum
2020	Cosmo Pharma

Reviewer Services:Associate Editor

October 2009-2015
June 2017-2022

American Journal of Gastroenterology
Clinical Gastroenterology and Hepatology

Editorial Board

2004-2007
2005-
2008-
2008-2014
2010-2013

American Journal of Gastroenterology
Gastroenterology and Hepatology
Therapeutic Advances in Gastroenterology
Neurogastroenterology and Motility
Gastroenterology (also Selected Summaries contributor)

2010	Frontiers in Gastrointestinal Pharmacology
2012-2015	Clinical Gastroenterology and Hepatology
2016-2019	Journal of Clinical Gastroenterology

Reviewer

1996, 2003	Alimentary Pharmacology & Therapeutics
1996	Digestion
1996 -1997	Current Gastroenterology
1998, 2001-2010, 2016-21	Gastroenterology
1998, 2003-2004, 2015, 2018	Gut
2000-2002, 2004-2016	American Journal of Gastroenterology
2000	Sleep Reviews in Medicine
2004	Mayo Clinic Proceedings
2001	NeuroImage
2001-2002	Lancet
2001	American Journal of Physiology
2001, 2008	Pain
2002	Biological Research in Nursing
2003, 2006-2017	Neurogastroenterology and Motility
2003	Annals of Rheumatic Diseases
2003-2020	Clinical Gastroenterology and Hepatology
2005	Gender Medicine
2005, 2008-9	Journal of Pain
2007	Annals of Internal Medicine
2007	Journal of Psychosomatic Research
2008	Therapeutics in Gastroenterology and Hepatology
2016	Plos One
2020	Digestive Diseases and Sciences

HONORS AND SPECIAL AWARDS:

1990	Young Investigator Award, American Motility Society
1995	Auxiliary Award, American College of Gastroenterology
2002	Janssen Award in Gastroenterology, Basic or Clinical Research
2002	Women in Gastroenterology and Wyeth Award for Gender Based Research, American College of Gastroenterology
2009	AGA Distinguished Clinician Award
2012	Most cited original paper 2009—2011 in <i>Neurogastroenterology & Motility</i>
2016 – 2017	UCLA/CSMC Mid-Career Women's Leadership Program
2018	2018 Innovation Fund MedTech competition recipient

2018	2018 David Y. Graham & Jim T. Schwartz Distinguished Lectureship Award
2018	<i>Healio Gastroenterology and Liver Disease</i> Gold Award for best special report or section in the American Society of Healthcare Publication Editors (ASHPE) Awards Competition for "Healio Hot Topic: IBS". One of the section experts
2019	Women in Neurogastroenterology and Motility Award, American Neurogastroenterology and Motility Society
2019	Certificate of Training, Facilitation Training in Communication Skills
2010 – 2011	Voted one of "75 Best Gastroenterologists in America" by Becker's ASC Review
2013-2016, 2019-2020	Best Doctors in America honor
2017-2019	Super Doctors in US honor
2019-2020	Southern California Super Doctors
2019	Albert Nelson Marquis Who's Who in America, Lifetime Achievement Award
2020	Who's Who Top Doctors Honors Edition
2021	AGA Distinguished Educator Award
2021	W. Jerry Dodds, MD and Sushil K. Sarna, PhD Endowed Lectureship

RESEARCH GRANTS:Dates**1. NIH****Active**

U54 DK123755-01 (MPI: Mayer and Chang)

NIH/NIDDK/ORWH

05/01/20-04/30/25

SCORE title: Sex related differences in Brain Gut Microbiome Interactions in Irritable Bowel Syndrome

Project 1 title: The role of brain-gut microbiome interactions in mediating IBS and constipation symptoms during menses and menopause

Role: MPI, SCORE; Co-Lead, Project 1, Leadership Administrative Core, and Career Enhancement Core

SPARC OT2OD024899 (PI: Taché) 09/01/20 – 08/31/22
 NIH/NDS HEAL/SPARC
 Comprehensive Structural and Functional Mapping of Mammalian Colonic Nervous System
 Milestone 5 title: 3D imaging and computational quantitation of extrinsic and intrinsic innervation
 and nerve-mast/glial cell spatial relationship in the human colonic mucosa for neuromodulation in
 patients with irritable bowel syndrome (IBS)
 Role: Co-I

Pending

Completed

NIH CAP Award 08/01/96-07/31/99
 Sensory Input in IBS and Fibromyalgia
 M01 RR00425-27S2
 Role: PI

NIH R01 grant (PI: Naliboff) 07/01/98-06/30/01
 Gender related differences in visceral sensitivity in IBS
 R01 NR04881
 Role: Co-I

NIH R01 grant (PI: Mayer) 07/01/01-05/31/06
 Perception and modulation of visceral sensations
 R01 DK 48351
 Role: Co-I

NIH M01 grant (PI: Levey) 12/01/01 – 11/30/11
 NIH/NCRR
 General Clinical Research Center
 M01-RR00865
 Role: Co-I

NIH R01 grant (PI: Chang) 07/01/99-1/31/12
 Neuroendocrine alterations in Fibromyalgia and IBS
 R01 AR46122-01
 Role: PI

1P50 DK64539 (PI: Mayer) 10/01/02-08/31/12
 Center for Neurovisceral Sciences and Women's Health
 Project 2: Sex differences in mucosal neuron-endocrine-immune interactions in IBS patients and
 relationship to symptoms (PI: Chang)
 P50 DK64539
 Role: PI, Project 2

1U01AR057936 (PI: Khanna/Spiegel) 09/30/09 - 07/31/13
 NIH/NIAMS
 GI Stress Domain for PROMIS
 Role: Co-I

P30 DK 41301 (PI: Rozengurt) 12/01/09 – 11/30/14
 NIH/NIDDK
 CURE: Digestive Diseases Research Core Center – Human Studies Core
 Co-Director, Human Studies Core
 Role: Co-I

UL1TR000124 (PI: Dubinett) 06/01/11-05/31/16
 NIH/ National Center for Advancing Translational Sciences
 UCLA Clinical and Translational Science Institute (CTSI)
 Role: Co-Leader, Clinical & Community Research Resource (CCRR) Program

1R21 DK104078-01 (PI: Chang) 08/01/15-07/31/18
 NIH/NIDDK
 DNA Methylation Based Biomarkers and Epigenetic Regulation in IBS
 Role: PI

1P50 DK64539 (PI: Mayer) 09/01/12 – 08/31/19 (NCTE)
 NIH P50 Center Grant
 Center for Neurovisceral Sciences and Women’s Health
 Project 1: HPA Axis Dysregulation in IBS and Related Animal Models, with Emphasis on Sex Differences (PI: Chang)
 Role: Co-Lead (Administrative Core), PI (Proj. 1)

UL1TR0001881-01S2 (PI: Dubinett) 07/01/16-5/31/21
 NIH/ National Center for Advancing Translational Sciences
 UCLA Clinical and Translational Science Institute (CTSI): Enhancing Innovation and Implementation in Safety Net Systems: A CTSA and Public Health Data Collaboration
 Role: Scientific Review Committee

R01 DK048351 (PI: Mayer) 09/30/96 – 07/31/20 (NCTE)
 NIH/NIDDK
 Perception and Modulation of Visceral Sensations
 Role: Co-Investigator

R44DK116362 Phase II SBIR (PI: Larauche) 05/01/19 – 04/30/21
 NIH/NIDDK
 Targeting Irritable Bowel Syndrome (IBS) with astressins
 Role: Co-Investigator

2. Mentored NIH Awards

NIH Training grant (PI: Jensen) 07/01/14- 06/30/17
 Gastroenterology
 Project: Markers of Stress Hyperresponsiveness in Irritable Bowel Syndrome
 NIH T32 DK07180-40
 Role: Mentor

NIH Loan Repayment Program (Vidlock) 07/01/15- present
 Stress-related biomarkers in IBS
 L30 DK106759-01
 Role: Mentor

NIH Training grant (PI: Jensen) 07/01/07- 06/30/09
 Gastroenterology
 Project: Neuroendocrine responses and startle response in IBS
 NIH T32 DK07180-40
 Role: Mentor

NIDDK Diversity grant supplement (PI: Mayer/Chang) 08/01/07- 07/31/10
 Women's health and functional visceral disorders center
 Project 2: Sex differences in neuroendocrine and immunologic responses in IBS
 3P50DK064539-06
 Role: PI, Project 2, Mentor

CURE (P30 DK 41301)/CTSI (UL1TR000124)
 Pilot and Feasibility Grant (PI: Joshi) 03/08/16- 07/31/17
 Colonic miRNA and gene expression pathways and gut-microbiome interaction in IBS
 Role: Mentor

3. University

Active

Barbara and Joel Marcus GI Fellowship Seed Grant 03/01/16-12/30/20
 Fructose Reintroduction Protocol in Irritable Bowel Syndrome
 Patients Successfully Treated with a low FODMAP diet
 Role: PI/Mentor

Children's Discovery & Innovation Institute Harry Winston 07/01/18-06/30/20
 Fellowship, UCLA Department of Pediatrics
 VSI-IBD: A Measure of GI Symptom Specific Anxiety in IBD
 Role: Mentor

Investigator-initiated study 05/01/18 – 01/31/20
 Vatche and Tamar Manoukian Division of Digestive Diseases
 Use of the Stress Management and Resilience Training (SMART) program in the management of
 irritable bowel syndrome: A pilot study
 Role: PI

UCLA Innovation Fund 12/11/18- present
 IBS Diagnostic Test
 UCLA Innovation Fund, New Ventures Division, UCLA Technology Development Group
 Role: Co-PI

Completed

Harbor-UCLA 10/01/94-09/30/95
 Initial support of new faculty grant
 Identification of the pathophysiologic mechanisms present in idiopathic constipation
 REI 104258-00-12;008039
 Role: PI

Harbor-UCLA Research seed grant 03/01/95-02/28/97

Identification of the pathophysiologic mechanisms present in idiopathic constipation
 REI 508063-00-00
 Role: PI

Norman Cousins Program in 04/01/98-04/01/99
 Psychoneuroimmunology at UCLA
 Autonomic, Neuroendocrine, Immunologic, and Brain Responses to Acute Stimulation in
 Ulcerative Colitis
 Role: PI

4. Private Industry

Active or pending

AnX/Ankon 1/26/21 - present
 Investigator-initiated study: Navicam Magnetically Controlled Capsule Endoscopy Feasibility
 Study in Gastric Motility
 Role: PI

UCLA GI Fellowship Seed Grant/Innovative Health Solutions 04/23/20-present
 Neuromodulation with Percutaneous Electrical Nerve Field Stimulation for Adults with Irritable
 Bowel Syndrome: A Randomized, Double-Blind, Sham-Controlled Pilot Study
 Role: PI

Ironwood Pharmaceuticals 09/2021 – 09/2022
 Investigator-initiated study: 3D imaging of sensory fibers and cholinergic innervation in colonic
 mucosa of IBS with constipation patients and healthy controls
 Role: PI

Completed

AstraZeneca (Mayer) 01/01/97 - 6/30/03
 Basic and Clinical studies in functional GI disorders.
 Role: Co-I

GlaxoWellcome – Investigator-initiated 09/00 - 12/01
 A Pilot Study to Assess Nocturnal Autonomic Arousal in Female Subjects with Diarrhea-
 Predominant Irritable Bowel Syndrome as Compared with Healthy Controls
 Role: PI

Novartis – Investigator-initiated 07/01/03 - 06/30/05
 Characterization of irritable bowel syndrome with alternating bowel habits
 Role: PI

GlaxoSmithKline – Investigator-initiated 1/05/05-12/31/07
 Colonic mucosal immune markers in IBS
 Study # RA03-18
 Role: PI

Prometheus – Multicenter clinical trial 1/01/08 - 6/13/08
 Procurement of blood samples for use in the development of a gastrointestinal disease test panel.
 Role: PI

Gastrotech/Rose-Multicenter clinical survey study Survey for evaluation of pain attacks in irritable bowel syndrome. A natural history survey. Roel: Site PI	8/01/08 - 12/30/08
Prometheus – Investigator-initiated Measurements of biomarkers in biopsies from IBS patients Role: PI	02/15/09 - 10/14/10
Takeda – Investigator-initiated The IBS Patient Reported Observed Outcomes and Function Database Role: Co-PI	09/15/09 - 12/15/10
Rose Pharma – Investigator-initiated Characterizing abdominal pain in IBS: The impact on illness experience and treatment expectations Role: Co-PI	1/1/2010 - 6/30/2011
Shire-Movetis NV – Investigator-initiated Developing a PRO for the Treatment of Patients with Gastroesophageal Reflux Disease (GERD) who have Partial but Inadequate Symptom Relief from Proton Pump Inhibitor (PPI) Therapy Role: Co-I	05/15/11-12/31/11
Tioga- Multicenter Clinical Trial A 12-Week, Randomized, Double-Blind, Placebo-Controlled Study of Asimadoline in Subjects with Diarrhea-Predominant Irritable Bowel Syndrome Role: Site PI	04/01/12 - 03/30/13
Ironwood – Investigator-initiated A Pilot Study Evaluating Guanylate Cyclase C Receptor and Ligand Expression in Colonic Mucosa in Irritable Bowel Syndrome with Constipation and Chronic Constipation Role: PI	03/01/12 - 07/31/14
Salix – Multicenter Clinical Trial A Study to Assess Repeat Treatment Efficacy and Safety of Rifaximin 550 mg TID in Subjects with Irritable Bowel Syndrome with Diarrhea (IBS-D) Role: Site PI	09/03/13 - 07/24/14
Ironwood – Investigator-initiated Development and Validation of The Automated Evaluation of GastroIntestinal Symptoms (AEGIS) Platform Role: Co-I	10/1/11-10/31/14
Ardelyx, Inc. – Investigator-initiated Influence of Tenapanor on alterations of colonic epithelial permeability induced by IBS-C and IBS-D fecal supernatants. Role: Co-PI	03/23/17 – 03/15/18
Vanda – Multicenter Clinical Trial A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Assess the Efficacy of Tradipitant in Relieving Symptoms of Gastroparesis	01/18/18 – 04/30/19

Arena Pharmaceuticals- Multicenter Clinical Trial 04/09/20 -
 A Phase 2, Multi-Center, Randomized, Double-Blind, Placebo-Controlled Parallel-Group Study to
 Evaluate the Safety, Tolerability, and Efficacy of Olorinab in Subjects with Irritable Bowel
 Syndrome Experiencing Abdominal Pain
 Role: Lead PI, Site PI

5. Other

Crohn's and Colitis Foundation IBD Plexus Project 12/10/20 - present
 Using Epigenetic Markers to Facilitate Early Diagnosis of Inflammatory Bowel Disease
 Role: Co-PI

The Rome Foundation 03/01/15 – 02/29/16
 Multi-center Validation Study of the Rome IV Diagnostic Criteria for Functional Gastrointestinal
 Disorders
 Role: Site PI

PATENTS

DNA methylation based biomarkers for irritable bowel syndrome, Ref.: 2018-578-2, UCLA reference:
 UCLA.260WOU1, filed 5/31/2019

TEACHING

Lectures:

1993 - 1996	GI motility disorders. Advanced Clinical Gastroenterology Lecture Series, Harbor-UCLA GI Inpatient Consultation Service
1993 – 1997	Inpatient Internal Medicine Ward Attending, Harbor-UCLA Medical Center (2 months per year)
1993 – 1997	Inpatient Gastroenterology Consultation Service Attending, Harbor-UCLA Medical Center (3-4 months per year)
1994 - 1997	“Pathophysiology of Gastrointestinal Motility Disorders” UCR/UCLA Biomedical Science Program, Disease Process 260 A, B, C
1994 - 1997	“Cirrhosis: Clinical Case Presentation” UCR/UCLA Biomedical Science Clinical Pathology Conference
January 1995	Colonic Motility Disorders, UCLA GI Fellows' Friday Morning Conference Lecture Series
February 1995	“Management of diabetic gastroparesis”, Harbor-UCLA Clinical Endocrinology Conference
April 1995	“Evaluation of Pathophysiologic Mechanisms of Idiopathic Constipation” UCLA Neuroenteric Biology Group Clinical Research Seminar

April 1995	“Management of Chronic Constipation” Harbor UCLA Department of Medicine Grand Rounds
June 1995	“Management of ascites”, Harbor-UCLA Department of Surgery Grand Rounds
June 1995	“Evaluation and management of dyspepsia”, Harbor-UCLA Family Medicine Grand Rounds
June 1996	“Evolving therapy in irritable bowel syndrome”, Harbor-UCLA Medical Grand Rounds
January 1997	Anorectal Motility Disorders. UCLA Affiliated Training Program in GI Lecture Series.
February 1997	Alterations in the Brain-Gut Axis in Irritable Bowel Syndrome. Dallas VA Medical Center GI Conference
March 1997	Advanced Clinical Gastroenterology
1997 – present	Motility/IBD Weekly Noon Conference, UCLA Division of Digestive Diseases
October 1997	Functional Bowel Diseases. Primary Care Lecture Series, Harbor-UCLA Medical Center
July 1998, 1999, 2000, 2001	Gastrointestinal Infection, Inflammatory Bowel Disease, and Irritable Bowel Syndrome, California Internal Medicine Board Review Course Cosponsored by the American College of Physicians and the UCLA Department of Medicine
September 1998	Fibromyalgia and Irritable Bowel Syndrome: Overlap of Symptoms and Pathophysiologic Mechanisms. Harbor-UCLA Medical Center Medical Grand Rounds
January 1999	Esophageal Motility Disorders, Friday Morning Lecture Series, UCLA Affiliated Training Program in Gastroenterology
January 1999	Non-ulcer Dyspepsia and Helicobacter pylori, GI Journal Club, UCLA Division of Digestive Diseases
Feb. – March 1999 October 2001-2002 Jan 2004, Jan 2005, Jan 2006, 2007, 2008 2009, March 2010, 2011, May 2012, May 2013	Inpatient Gastroenterology Consultation Service Attending, UCLA Medical Center
April 1999	Evaluation of Anorectal Motility Disorders, GI Journal Club, UCLA Division of Digestive Diseases

May 1999	Irritable Bowel Syndrome: Update on Pathophysiologic Mechanisms and Treatment, GI Conference, Cedar-Sinai Medical Center
May 2000-2001	Gender Bias in GI Disease, Pathophysiology of Disease: Liver and Gastrointestinal Systems, UCLA School of Medicine
December 2000	Post-Infectious Irritable Bowel Syndrome, GI Conference of the Week, UCLA Division of Digestive Diseases, UCLA School of Medicine
January 2001	Differences in responses to somatic and visceral stimuli in IBS. GI Fellows Conference, University of North Carolina
January 2001	Update in Management of IBS, GI Fellows Conference, UCLA Division of Digestive Diseases, UCLA School of Medicine
June 2001	A Pathophysiologic Model of IBS. Gastroenterology Fellows Conference, Visiting Professor's Program, Penn State University, Hershey, PA
September 2001	A new model of chronic visceral hypersensitivity in adult rats induced by colon irritation during postnatal development, GI Conference of the Week, UCLA Division of Digestive Diseases, UCLA School of Medicine
October 2001	Perspectives on Managing IBS Patients, Friday AM GI Fellowship Conference, UCLA School of Medicine
January 2002	Pathophysiologic Mechanisms of Irritable Bowel Syndrome, UCLA Department of Medicine Grand Rounds
March 2002-2004	Lower Gastrointestinal Disorders, Pathophysiology of Disease: Liver and Gastrointestinal Systems, UCLA School of Medicine
July 2002	Serotonin Agents for the Treatment of IBS, Preceptor for UCLA Division of Digestive Diseases Journal Club, UCLA School of Medicine
October 2002	Pathophysiologic Mechanisms of Irritable Bowel Syndrome, Medical Grand Rounds, Visiting Professor Program, University of Manitoba, Winnipeg, Canada
December 2002	Concepts of Visceral Hypersensitivity in Irritable Bowel Syndrome, GI Grand Rounds, Cedars Sinai Medical Center, Beverly Hills, California
February 2003	Utility of Visceral Sensitivity Measures and Brain Imaging in Irritable Bowel Syndrome, USC GI Conference, Visiting Professor Program
February 2003	Evidence of Altered Brain-Gut Interactions in Irritable Bowel Syndrome, USC Medical Conference, Visiting Professor Program
March 2003	Anorectal Manometry, UCLA Division of Digestive Diseases Noon Conference.

August 2003	Women's Health Issues in GI Disorders: What Does Sex Have to do with it? UCLA GI Fellows Conference
September 2003	Overlap syndromes, GI Conference, University of Arizona VA, Visiting Professor Program
September 2003	Mechanisms of Visceral Hypersensitivity, Gulf Coast Research Conference, Baylor University and University of Texas, Visiting Professor Program
September 2003	Functional Gastrointestinal Disorders: Emerging Concepts and Promising Therapies, Cornell GI Grand Rounds
January 2004	Diagnosis and Management of Irritable Bowel Syndrome, Functional Bowel Disorders in Women: IBS, Dyspepsia, and More, UCLA Center for Neurovisceral Sciences and Women's Health Clinical Symposium (Program Chair)
January 2004	Interactive Case Presentations, Functional Bowel Disorders in Women: IBS, Dyspepsia, and More, UCLA Center for Neurovisceral Sciences and Women's Health Clinical Symposium (Program Chair)
January 2004	Pathophysiologic Mechanisms and Treatment of Irritable Bowel Syndrome, Staten Island University Hospital Grand Rounds, New York
January 2004	Emerging Concepts and Novel Treatments for Irritable Bowel Syndrome, University of Medicine and Dentistry of New Jersey Grand Rounds, New Jersey
February 2004	Use of Psychotropic Agents in Functional Gastrointestinal Disorders, UCLA Division of Digestive Diseases Noon Conference
February 2004	Functional Dyspepsia: What's the Cause and Can We Treat It? Difficult Problems - New Solutions; An update in Gastroenterology and Hepatology for 2004, UCLA Division of Digestive Diseases 50 th Anniversary, Century City, Los Angeles
July 2004	Pathophysiologic Mechanisms of Irritable Bowel Syndrome and Fibromyalgia, Center for Neurovisceral Sciences and Women's Health Translational Seminar, UCLA, Los Angeles
August 2004	Differential diagnosis of IBS: symptom presentation and diagnosis; UCLA Division of Digestive Diseases Noon Conference
September 2004	Overlap of Irritable Bowel Syndrome and Fibromyalgia, GI Grand Rounds, University of Michigan, visiting professor
November 2004	Irritable Bowel Syndrome, Gastrointestinal, Endocrine and Reproductive Medicine II, Human Biology and Disease Curriculum, David Geffen School of Medicine

November 2004	Gender Specificity in GI Disease, Gastrointestinal, Endocrine and Reproductive Medicine II, Human Biology and Disease Curriculum, David Geffen School of Medicine
January 2005	Overlap of Chronic Functional Pain Syndromes. Functional Gastrointestinal Disorders and Co-Morbid Conditions, UCLA Center for Neurovisceral Sciences and Women's Health Clinical Symposium (Program Chair)
February 2005	Irritable Bowel Syndrome: New Approach to Diagnosis and Treatment, Update 2005: Gastroenterology and Hepatology for the Primary Care Physician, Division of Digestive Diseases, David Geffen School of Medicine
March 2005	Functional Dyspepsia; UCLA Division of Digestive Diseases Noon Conference
April 2005	Sex Determinants of Visceral Pain Including Irritable Bowel Syndrome (IBS), CURE Astra-Zeneca Lecture Series
August 2005	Abuse and GI Pain Conditions; UCLA Division of Digestive Diseases Noon Conference
September 2005	IBS Medical Therapies: Current Treatment and What's in the Pipeline? UCLA Division of Digestive Diseases GI Fellows Morning Conference
April 2006	New Data and Drugs for the treatment of Functional GI Disorders, UCLA Division of Digestive Diseases Noon Conference
July 2006	UCLA Summer Course
October 2006	Sex Differences in Irritable Bowel Syndrome, UCLA Division of Digestive Diseases Noon Conference
November 2006	Irritable bowel syndrome, Gastrointestinal, Endocrine and Reproductive Medicine II, Human Biology and Disease Curriculum, David Geffen School of Medicine
December 2006	How does one best manage patients with functional bowel disorders? Interactive case presentations. UCLA Division of Digestive Diseases Noon Conference
February 2007	Addressing the Use of Psychotropic Agents for Functional GI Disorders: Why, Which One, and How. UCLA Division of Digestive Diseases Noon Conference
March 2007	New insights in the molecular mechanisms of sex differences and stress in functional gastrointestinal disorders, UCLA Department of Grand Rounds
April 2007	Pathophysiology and Treatment of Irritable Bowel Syndrome, USC GI Grand Rounds

July 2007	Post-DDW 2008 abstract review: Functional GI Disorders. UCLA Division of Digestive Diseases Noon Conference
October 2007	Irritable bowel syndrome, Intestinal Inflammation lecture series, 2 nd year medical school curriculum, David Geffen School of Medicine
December 2007	Irritable bowel syndrome and other gastrointestinal pain disorders. 2007-2008 Pain Lecture Series, VAGLAHS Pain Management Program
December 2007	Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
March 2008	Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
August 2008	IBS Overview, GI Fellows conference, UCLA-VA-Cedars GI Fellowship Program
September 2008	Understanding sex and gender related differences in irritable bowel syndrome, GI Grand Rounds, Cedars-Sinai Medical Center
October 2008	The Smart Pill, UCLA Division of Digestive Diseases Noon Conference
October 2008	American College of Gastroenterology Women's Leadership Skills Program, Orlando, Florida
November 2008-2010	Irritable bowel syndrome, 2 nd year medical school curriculum, David Geffen School of Medicine at UCLA
January 2009	Patient case of painful constipation. Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
March 2009	Irritable Bowel Syndrome: Differences in Symptoms, Pathophysiology and Treatment in Men and Women. Columbia GI Grand Rounds
March 2009	Irritable bowel syndrome with constipation. St. Luke's and Roosevelt's GI Conference
May 2009	ACG Guidelines for Treatment of Irritable Bowel Syndrome 2009, UCLA Division of Digestives Diseases Noon Conference
October 2009	IBS with diarrhea case presentation. Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
November 2009, 2010	Irritable bowel syndrome. 2 nd year medical school curriculum, David Geffen School of Medicine at UCLA
March 2010	Nausea and vomiting case presentation. Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference

July 2010	Bile acid malabsorption and rectal prolapse. Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
August 2010	Early life trauma and stress response. CNS Translational Seminar, UCLA
November 2010	Pancreatic polypeptide tumor and refractory constipation. Functional GI and Motility case conference, UCLA Division of Digestive Diseases Noon Conference
February 2011	Irritable Bowel Syndrome: What you Need to Know for Clinical Practice
March 2011	IBS Case Conference, UCLA Division of Digestive Diseases Noon Conference
July 2011	How to Write a Scientific Paper, UCLA CTSI Educational Program
July 2011	Functional Dyspepsia case conference, UCLA Division of Digestive Diseases Noon Conference
November 2011	Bloating and gas case conference, UCLA Division of Digestive Diseases Noon Conference
July 2014	Grant writing course, UCLA-CTRW 2014 Clinical & Translational Research Workshop: Grant & Clinical Protocol Development

Mentoring/Training:

Max Schmulson, M.D.	visiting scientist	1997-1999
Oh Young Lee, M.D.	visiting scientist	1997-1999
Miyoshi Hirano	pre-medical student	1999-2007
Kerstin Huebel	medical student	1999
Birgit Adam	medical student	1999
Tobias Liebrechts	medical student	1999
Britta Dickhaus, M.D.	visiting scientist	2000-2002
Joel Sach, M.D.	GI fellow	2001-2004
Kirsten Tillisch, M.D.	GI fellow/clinical instructor	2002-2005
Steven Tan, M.D.	Post-doc fellow	2002-2004
Heng Wong, M.D.	visiting scientist	2003-2004
Mark Michalski	pre-medical student	2002-2003
Paul Dunckley, M.D., Ph.D.	GI research fellow	2002-2005
Caroline Hwang	medical student	2004
Violette Gray, M.D.	Kennamer general medicine fellow	2004-2005
Elizabeth Videlock, M.D.*	medical student, GI fellow, PhD	2006-2009, 2013-2019
Amy Strickland, M.D.	medical resident	2006-2007
Mopelola Adeyemo, MS	graduate student, medical student	2006-2009, 2014
Trinh Truong, M.D.	GI fellow	2007-2009
Eddie Garcia	pre-medical student	2009
Neel Mann, M.D.	GI fellow	2008-2009
Sarah Khan, M.D.	medical resident	2009-2010

Lynn Connelly, M.D.,MSCR	GI fellow	2010-2012
Kara Bradford, M.D.	medical resident	2010-2011
Sharon Kim, M.D.	medical resident	2010-2012
Miriam Goebel, M.D.	medical resident	2010-2012
Paul Cheng	medical student	2011-2012
Laleh Boroujerdi, M.D.	medical resident	2011-2012
Andrew Su	medical student	2012
Malin Gadd, M.D.	visiting scientist	2012-2013
Alexa Orand**	medical student	2013-2016
Wendy Shih, MS	graduate student	2011-2016
Aaron Lee, M.D.	medical resident	2013-2016
Swapna Joshi, PhD	Post-doc fellow/Project Scientist	2013-present
Sarah Park, M.D.	medical student/resident/fellow	2014-present
Guy Weiss, M.D.	GI fellow	2014-2016
Vien Nguyen	medical student	2015-2016
Rusha Modi, M.D. MPH	GI fellow	2016-2017
Shahzad Ahmed, M.D.	Nutrition fellow	2016- 2017
Raymond Addante, M.D.	medical resident	2016- 2017
Rachel Wong	undergraduate student	2016-2017
Emily Huang	undergraduate student	2016-2018
Marissa Holden	medical student	2017-2020
Tiffany Ju, B.A.	Post-graduate	2017-2019
Colleen Parker, M.D.	Post-doc visiting scientist	2017-present
Janice Bitong, M.D.* #	Pediatric GI fellow	2016-2019#
Kim Trieschmann, M.D. #	Pediatric GI fellow	2017-present
Karen O'Laco**	medical student	2018-2019
Charlene Choo	medical student	2018-present
Adrienne Lenhart, M.D.	GI fellow	2018-present
Saumya Pathak, M.D. #	pediatric GI fellow	2018-2021
Ben Nulsen, M.D.	GI fellow	2018-2021
Frank Chen, M.D.	GI fellow	2019-2021
Wendi LeBrett, M.D.	medical resident	2018-present
Eric Shah, MD MBA	junior faculty	2019-present
Rachel Sarnoff, MD	medical resident	2020-present
Troy Sanders	medical student	2019-2020
Jessica Sohn	undergraduate student	2019-present
Preetha Ivengar	medical resident	2020-present
Anna Lee	medical resident	2020-present
Dean Ehrlich	GI fellow	2020-present
Rahul Kamath	GI fellow	2021-present
Callie Cuff	medical student	2021-present

* T32 training grant award

**Internal Medicine Chief's Summer Fellowship Award

#Scientific Oversight Committee

Thesis Committee member, UCLA:

1. Elizabeth Videlock, M.D., Ph.D.; May 2019, Molecular Mechanisms in Irritable Bowel Syndrome, Molecular, Cellular, and Integrative Physiology, UCLA
2. Artin Soroosh, Ph.D., Molecular, Cellular, and Integrative Physiology; May 2021.

3. Lynn Connolly, M.D. MSCR; May 2012; Differences in brain responses between lean and obese women to a sweetened drink.
4. Trinh Troung, M.D. MSCR; May 2013, Discrimination of contextual threat cues associated with visceral threat in patients with IBS.

Scientific Oversight Committee member, Pediatric Gastroenterology, UCLA:

1. Janice Bitong, M.D., July 2018-2020, Microbiome and metabolome of patients with chronic intestinal pseudo-obstruction (CIPO)
2. Kim Trieschmann, M.D., July 2018-2020, Visceral Sensitivity Index for Inflammatory Bowel Disease
3. Saumya Pathak, M.D., July 2019-2021, DNA methylation profile of peripheral blood mononuclear cells in pediatric patients with irritable bowel syndrome

LECTURES AND PRESENTATIONS:

1990-1995

1. The effect of activated inflammatory cells on colonic smooth muscle contraction. Workshop on the Immunomodulation of Motility, Montecito, California, March, 1990.
2. Effect of bethanechol and vasoactive intestinal peptide on the early production of inositol 1,4,5-trisphosphate in intact smooth muscle. American Motility Society Symposium, Newport, Rhode Island, October, 1990.
3. Comparison of endobiliary biopsy, brush and aspiration cytology performed during ERCP in the diagnosis of biliary obstruction. American College of Gastroenterology, Miami Beach, Florida, October, 1992.
4. Acid peptic disorders. Department of Medicine Conference, Downey Community Hospital, Downey, California, November, 1994.
5. Management of diabetic gastroparesis. City of Hope Endocrinology Conference, Downey, California, May, 1995.
6. A prospective randomized trial assessing the timing and cost of ERCP in gallstone pancreatitis. American College of Gastroenterology, New York, New York, October, 1995.

1996

7. H. Pylori: To treat or not to treat. Visiting Professor Lecture, St. Francis Medical Center, Lynwood, California, February, 1996.
8. A prospective randomized trial of mild-moderate gallstone pancreatitis: Clinical outcome and cost of selective preoperative vs. postoperative ERCP. ASGE meeting, San Francisco, California, May, 1996.
9. Inflammatory and functional intestinal disorders differ in their response to acute visceral pain. CURE Clinical GI Research Meeting, West Los Angeles, California, October, 1996.

1997

10. Anorectal motility disorders. UCLA Affiliated Training Program in GI Lecture Series, Westwood, California, January, 1997.
11. The role of ERCP in gallstone pancreatitis. 4th International Symposium on Pancreatic and Biliary Endoscopy, Anaheim, California, January, 1997.
12. Inflammatory and functional intestinal disorders differ in their response to acute visceral pain. Western Society for Clinical Investigation, Carmel, California, February, 1997.
13. Alterations in the brain-gut axis in irritable bowel syndrome. Dallas VA Medical Center GI Conference, Dallas, Texas, February, 1997.
14. Functional gastrointestinal disease and fibromyalgia. Functional Gastrointestinal Disorders: Defining Cost and Outcomes, Kona, Hawaii, October, 1997.

1998

15. Pain perception. 9th Annual GIRG Research Retreat, University of Calgary, Banff, Canada, January, 1998.
16. The association of irritable bowel syndrome and fibromyalgia. American Fibromyalgia Foundation Annual Conference 1998, Newport Beach, California, February, 1998.
17. Differences in left prefrontal activation to visceral and somatic stimuli assessed by O¹⁵-water PET in female patients with irritable bowel syndrome (IBS) and fibromyalgia. American Gastroenterological Association Meeting, New Orleans, Louisiana, May, 1998.
18. Gastrointestinal infection, inflammatory bowel disease, and irritable bowel syndrome. California Internal Medicine Board Review Course Cosponsored by the American College of Physicians and the UCLA Department of Medicine, Universal City, California, July, 1998.
19. CNS responses to visceral pain in patients with inflammatory bowel disease. 4th International Symposium on Brain-Gut Interactions, San Diego, California, July, 1998.
20. Controversies in functional bowel disease and motility disorders. Southern California Society of Gastroenterology 21st Post-AGA-DDW Weekend Review, Palm Springs, California, July, 1998.

1999

21. The emotional brain-implications for diagnosis and therapy. 3rd International Symposium on Functional Gastrointestinal Disorders, Milwaukee, WI, April, 1999.
22. Irritable bowel syndrome: visceral hyperalgesia. DDW Symposium: Women's health in gastroenterology. American Gastroenterological Association, Digestive Diseases Week, Orlando, FL, May, 1999.
23. Neuroendocrine Parameters in functional GI Disorders. Functional Dyspepsia Mechanisms and Experimental Models, Astra Hässle, Mölndal, Sweden, June, 1999.

24. Controversies in irritable/functional bowel disease. Southern California Society of Gastroenterology 22nd Post-AGA-DDW Weekend Review, Carlsbad, CA, July, 1999.
25. Irritable bowel syndrome. American Fibromyalgia Foundation, Inc.'s support group meeting, Hoag Memorial Hospital, Newport Beach, CA, July, 1999.
26. The Cause of IBS. Breakthrough in Patient Care for Irritable Bowel Syndrome, American Academy of Family Physicians Scientific Assembly, Orlando, FL, September, 1999.
27. Extraintestinal symptoms. Workshop on the Pathophysiology and Treatment of Functional Gastrointestinal Disorders, Key Biscayne, FL, October, 1999.
28. Altered neuroendocrine response. Workshop on the Pathophysiology and Treatment of Functional Gastrointestinal Disorders, Key Biscayne, FL, October, 1999.
29. Perceptual and CNS responses to visceral pain in patients with inflammatory bowel disease. Society of Neuroscience 29th Annual Meeting, Miami, FL, October, 1999.
30. Motility disorders of the lower gastrointestinal tract: from basic science to therapy. European Postgraduate Gastro-surgical School, Amsterdam, December, 1999.

2000

31. Irritable Bowel Syndrome. California Academy of Family Physicians, 52nd Annual Scientific Assembly, San Francisco, CA, February, 2000.
32. Pathophysiology of IBS. IBS: Advances in the New Millenium, Inova Fairfax Hospital, Physicians Conference Center, Falls Church, VA, April, 2000.
33. Clinical Perspectives and the role of gender. DDW Symposium: Visceral Sensitivity: Basic Advances and Novel Therapies, San Diego, May, 2000.
34. Progress in the treatment of IBS – role of 5-HT₃ antagonists. DDW Satellite Symposium: Visceral Hypersensitivity and Irritable Bowel Syndrome, San Diego, May, 2000.
35. Differences in cortical activation to visceral and somatic stimuli assessed by H₂ ¹⁵O PET in female patients with irritable bowel syndrome (IBS) and fibromyalgia. Brain-Gut 2000, Toulouse, France, July 2000.
36. IBS clinical overview. Western Region Managed Care Advisory Board, Santa Barbara, California, September 2000.
37. Management of Irritable Bowel Syndrome (IBS). 2000 Post Graduate Assembly, Santa Monica, California, September 2000.
38. Serotonergically Active Agents: New Drugs for an Old Disorder. Symposium – Treatment of Irritable Bowel Syndrome, American College of Gastroenterology meeting, New York, October 2000.
39. Visceral Hyperalgesia: Implications on the Management of IBS. Postgraduate Course, National Weekend of Gastroenterology, Mazatlán, Mexico, December 2000.

2001

40. Gender Differences in the Physiologic Responses in Irritable Bowel Syndrome. University of North Carolina Functional Bowel Disease Center Meeting, Chapel Hill, North Carolina, January 2001.
41. The Emotional Brain. Canadian Digestive Diseases Week, Banff, Canada, February 2001.
42. Irritable Bowel Syndrome. Iris Cantor Center Medical Conference, UCLA, February 2001.
43. Brain-Gut Axis. 4th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, WI, March-April 2001.
44. Gender Differences in IBS. 4th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, WI, March-April 2001.
45. A Comprehensive Disease Model of IBS. Gastroenterology Conference, Visiting Professor's Program, Mayo Clinic, Rochester, MN, April 2001.
46. Pharmacotherapy of IBS. Postgraduate Course, American Gastroenterological Association, Atlanta, GA, May 2001.
47. Irritable Bowel Syndrome. Family Practice Department Educational Conference, Kaiser Permanente, Baldwin Park, CA, June 2001.
48. Irritable Bowel Syndrome. UCLA Women's Health Initiative Lecture Series. UCLA, July 2001.
49. The Brain-Gut Axis - New Pathways to Understanding Functional Disorders, Update in Gastroenterology, Hepatology & Nutrition, Columbia and Cornell GI Course, New York, November 2001.

2002

50. Gender Differences in Visceral Perception. The Haynang University-UCLA Joint Symposium on Gut-Brain Interactions, Seoul, Korea, March 2002.
51. The Neurobiology of Stress and Gastrointestinal Disorders. The Haynang University-UCLA Joint Symposium on Gut-Brain Interactions, Seoul, Korea, March 2002.
52. Extraintestinal Manifestations of IBS. American Gastroenterological Association meeting, San Francisco, California, May 2002.
53. Gender Differences in GI Disorders. Meet the Professor luncheon, American Gastroenterological Association meeting, San Francisco, California, May 2002.
54. Measurement and Assessment: Imaging. NIAMS Fibromyalgia Program Assessment, Airlie Conference Center, Warrenton, Virginia, September 2002.

55. Extraintestinal and psychiatric manifestations of IBS: What is the link? Falk symposium No.130, Freiburg, Germany, October 2002.
56. New Treatment Frontiers for Irritable Bowel Syndrome. American college of Osteopathic Family Physicians California, Anaheim, California, October 2002.

2003

57. Advances the diagnosis and treatment of IBS. Women's Healthcare Forum, Anaheim, California, March 2003.
58. Gender and sociocultural differences in functional GI disorders. International Functional Gastrointestinal Disorders meeting, Milwaukee, Wisconsin, April 2003.
59. Brain-Gut Axis workshop. International Functional Gastrointestinal Disorders meeting, Milwaukee, Wisconsin, April 2003.
60. University-based practice. First Annual Functional Brain Gut Research Group's GI Motility Disorders Young Investigators' Forum, Phoenix, Arizona, May 2003.
61. Focused clinical updates in functional lower GI disorders. Digestive Diseases Week, Orlando, Florida, May 2003.
62. Safety and appropriate use of alosetron in clinical practice. Translating Science into Clinical Outcomes: New Paradigms in the Management of the IBS Patient. Digestive Diseases Week, Orlando, Florida, May 2003.
63. Diagnosis of IBS. State of the Art Lecture, Digestive Diseases Week, Orlando, Florida, May 2003.
64. Mechanisms of visceral hypersensitivity. CME educational symposium, Digestive Diseases Week, Orlando, Florida, May 2003.
65. Controversies in Functional Bowel Disorders. Post-DDW Meeting, Southern California Gastroenterology Society, La Costa, California, July 2003.
66. Conquering the Challenges of Treating the Diarrhea Predominant IBS Patient, teleconference series, April-September 2003 (served as Chair)
67. The pathophysiology of IBS as a basis of understanding symptom presentation, Pri-Med CME Symposium, Philadelphia, Pennsylvania, September 2003.
68. Irritable bowel syndrome- top three DDW heavyweights. Gastro-Hep Impact 2003 "Improving Medical Practice through Advanced Clinical Therapeutics," Chicago, Illinois, September 2003.
69. How I manage the IBS patient with constipation. Gastro-Hep Impact 2003 "Improving Medical Practice through Advanced Clinical Therapeutics," Chicago, Illinois, September 2003.

70. The pathophysiology of IBS, and common co-morbidities, as a basis of understanding symptoms, Functional Disorders in the Lower GI Tract: Mechanisms, Meaning and Clinical Management. Program for American Academy of Family Physicians, New Orleans, Louisiana, October 2003.
71. New development in the safety and clinical use of alosetron. Coping with the Complexities of IBS: Practical Aspects of Patient Management, CME educational symposium, American College of Gastroenterology meeting, Baltimore, Maryland, October 2003 (served as Chair).
72. The role of serotonin as a central mediator in IBS symptom complexes. The Challenges of Irritable Bowel Syndrome in Clinical Practice: From Science to Solutions, CME educational symposium, American College of Gastroenterology meeting, Baltimore, Maryland, October 2003.
73. New pathophysiological concepts and treatment options in IBS. Current Diagnosis and Management of Gastrointestinal Motility Disorders, Boston, MA, November 2003.

2004

74. Emerging concepts and novel treatments for irritable bowel syndrome, New York Gastroenterological Association, New York, January 2004.
75. IBS with constipation: diagnosing and managing the multiple symptom complex. Constipation: chronic disorder or irritable bowel? Symptom-defined strategies for continuing challenges, Pri-Med Update Meeting, La Jolla, California, March 2004.
76. Emerging concepts and novel treatments for irritable bowel syndrome, Women's Healthcare Forum, Anaheim, March 2004.
77. Differences in brain responses to rectal distension between patients with inflammatory and functional GI disorders. CURE Annual Research Meeting, Los Angeles, March 2004.
78. Epidemiology and quality of life functional gastrointestinal disorders. Novartis GI: Advancing the Science Global Summit, Hollywood, Florida, April 2004.
79. Stirring up the sluggish colon. My approach to the constipated IBS patient. Gastro-Hep Impact 2004: "Improving Medical Practice by Advancing Clinical Therapeutics." New York, April 2004.
80. University-based practice. Second Annual Functional Brain Gut Research Group's GI Motility Disorders Young Investigators' Forum, Scottsdale, Arizona, April 2004.
81. Differences in brain responses to rectal distension between patients with inflammatory and functional GI disorders, American Gastroenterological Association meeting, New Orleans, Louisiana, May 2004.
82. Evidence for an antihyperalgesic effect of exogenous corticotropin releasing factor (CRF) in irritable bowel syndrome (IBS). American Gastroenterological Association meeting, New Orleans, Louisiana, May 2004.

83. Novel therapeutics for functional dyspepsia and irritable bowel syndrome. 2004 American Gastroenterological Association Spring Postgraduate Course, New Orleans, Louisiana, May 2004.
84. Differential diagnosis of IBS: symptom presentation and diagnostic; improving treatment success: individualizing gastrointestinal disease management. Digestive Diseases Week satellite symposium, American Gastroenterological Association meeting, New Orleans, Louisiana, May 2004.
85. New treatment options in irritable bowel syndrome in men and women. The future of irritable bowel syndrome management in men and women. Digestive Diseases Week satellite symposium, American Gastroenterological Association meeting, New Orleans, Louisiana, May 2004.
86. Diagnostics and treatment of irritable bowel syndrome. A State of the Art Update in Clinical GI Problems, University of Manitoba, Winnipeg, Canada, June 2004.
87. Bowel disorders: differential diagnosis and new therapeutic strategies. The 12th Annual Congress on Women's Health, Hilton Head, South Carolina, June 2004.
88. IBS and gender. Symposium for Patients and Non-Health Care Professionals. "Understanding IBS and Other Functional Gastrointestinal Disorders." Raleigh-Durham, North Carolina, June 2004.
89. New Advances in the Treatment of IBS. 48th Annual Postgraduate Symposium, Family Medicine Update 2004. San Diego, California, June 2004.
90. Clinical Minicourse Interactive Session (IBS, colon, pediatrics). American Motility Society meeting, Rochester, Minnesota, September 2004.
91. Optimizing the management of IBS/Chronic Constipation. Gastro-Hep Impact 2004: "Improving Medical Practice by Advancing Clinical Therapeutics." Chicago, October 2004.
92. Medical Crossfire Live ACG Program: Irritable Bowel Syndrome: Evolving Perspectives and Treatment Strategies. American College of Gastroenterology meeting, Orlando, Florida, October-November 2004.
93. Cases challenges in functional bowel disease: what to do when the usual stuff fails. Irritable bowel syndrome - should we target the brain, gut or both? American College of Gastroenterology meeting, Orlando, Florida, October-November 2004.

2005

94. What's new in the pathophysiology of IBS? First Annual IBS Symposium, University of Washington, Seattle, Washington, January 2005.
95. Hot New Medical Therapies. First Annual IBS Symposium, University of Washington, Seattle, Washington, January 2005.
96. Update on IBS and Constipation. Women's Health Group, Santa Monica, California, February 2005.

97. Functional Dyspepsia. Visiting Professor program, FDA GI Medical Team, Rockville, Maryland, February 2005.
98. Pathophysiology of IBS. Mayo Clinic Scottsdale Winter Gastroenterology Meeting Linked to Endoscopy and Hepatology, March 2005.
99. How to Make the Most of Your Mentoring Partnership. Third Annual Functional Brain Gut Research Group's GI Motility Disorders Young Investigators' Forum, Del Mar, California, March 2005.
100. Other Causes for Pelvic Pain in Women: From Irritable Bowel Syndrome (IBS) to Fibromyalgia, and Interstitial Cystitis. Women's Sexual Health State-of-the-Art Series, Beverly Hills, California, April 2005.
101. Sex Determinants of Visceral Pain with a Focus on Irritable Bowel Syndrome. BIRCWH Scholars Conference on Sex Determinants of Pain, London, April 2005.
102. How I manage the IBS patient with constipation. Gastro-Hep Impact 2005 "Improving Medical Practice through Advanced Clinical Therapeutics," Chicago, Illinois, April 2005.
103. Communication Skills Mini-Symposium: Methodological Approach to Studying the Gastroenterological-Patient Relationship, International Foundation of Functional Gastrointestinal Disorders meeting, Milwaukee, Wisconsin, April 2005.
104. Update on Diagnosis and Treatment of IBS, Gut Club, Mobile, Alabama, April 2005
105. Irritable bowel syndrome, fibromyalgia and other overlapping conditions, GI Grand Rounds, Visiting professor program, University of South Alabama, Mobile, Alabama, April 2005.
106. Diagnosing and Managing Women with Irritable Bowel Syndrome. 5th Annual North American Women's Healthcare Forum, Anaheim, May 2005.
107. Emerging Therapies: What does the future hold? Controversies in the Management of IBS Clinical Practice symposium, American Gastroenterological Association meeting, Chicago, May 2005.
108. Diagnosis and Treatment of IBS. Managing IBS: Optimizing Patient Selection and Clinical Outcomes, Digestive Diseases Week satellite symposium (Chair), American Gastroenterological Association meeting, Chicago, May 2005.
109. Pathophysiology of IBS. Meet the Professor luncheon, American Gastroenterological Association meeting, Chicago, May 2005.
110. IBS with constipation: diagnosing and managing the multiple symptom complex. Constipation: chronic disorder or irritable bowel? Symptom-defined strategies for continuing challenges, Pri-Med CME Symposium, Sacramento, California, May 2005.
111. Cross-system interactions from the GI perspective (Irritable Bowel Syndrome), Pelvic Pain Syndrome(s) in Women: New Insights into Pathophysiology, Center for Neurovisceral Sciences and Women's Health at UCLA, Los Angeles, California, June 2005.

112. How I manage the IBS patient with constipation. Gastro-Hep Impact 2005 “Improving Medical Practice through Advanced Clinical Therapeutics,” Los Angeles, California, June 2005
113. IBS with constipation: diagnosing and managing the multiple symptom complex. Constipation: chronic disorder or irritable bowel? Symptom-defined strategies for continuing challenges, Pri-Med CME Symposium, San Jose, California, June 2005.
114. Brain processing of gastrointestinal sensorimotor function. 20th International Symposium on Neurogastroenterology and Motility, Toulouse, France, July 2005.
115. Controversies in Functional Bowel Disorders. Post-DDW Meeting, Southern California Gastroenterology Society, La Costa, California, July 2005.
116. Visceral pain and abuse. IASP Satellite Symposium on Visceral Pain, Adelaide, Australia, August 2005.
117. Pathophysiology of Chronic Constipation and Irritable Bowel Syndrome. Chronic Constipation and Irritable Bowel Syndrome: Helping Patients Move from Intestinal Distress to Intestinal Success! Roundtable Discussion, Montreal, Canada, September 2005.
118. Overview of IBS: New Concepts and Treatment Options. Frontiers in Gastroenterology and Hepatology, Case Western GI Grand Rounds Program, Cleveland, Ohio, September 2005.
119. IBS with constipation: diagnosing and managing the multiple symptom complex. Constipation: chronic disorder or irritable bowel? Symptom-defined strategies for continuing challenges, Pri-Med CME Symposium, Pasadena, California, September 2005.
120. Gender Differences in Irritable bowel syndrome. A Day in the Gut symposium-North Shore University Hospital in Manhasset, Long Island, New York, October 2005.
121. Tegaserod – the reality of clinical practice. Dysmotility and sensory symptoms – understanding and treating IBS-C, United European Gastroenterology Week 2005 (UEGW), Copenhagen, Denmark, October 2005.
122. Brain-gut pathways in FGIDs. NASPGHAN Postgraduate Course, Salt Lake City, Utah, October 2005.
123. IBS with constipation: diagnosing and managing the multiple symptom complex. Constipation: chronic disorder or irritable bowel? Symptom-defined strategies for continuing challenges, Pri-Med CME Symposium, Los Angeles, California, November 2005.
124. Future of Functional GI Disorders. National Week of Gastroenterology Congress, Mexico City, November 2005.
125. Treatment of IBS. National Week of Gastroenterology Congress, Mexico City, November 2005.
126. Gender Differences in IBS. Keynote presentation, National Week of Gastroenterology Congress, Mexico City, November 2005.

127. Chronic constipation: primary care approaches to a common patient concern, Pri-Med CME symposium, Sacramento, California, December 2005.
128. Current and Future Treatment Options. Conquering Chronic Constipation: Exploring Pathophysiology and Treatment Options, AGA Clinical Congress satellite symposium, Hollywood, Florida, December 2005.
129. Emerging Medical Treatments for IBS, Bench to Bedside in IBS. AGA Winter Clinical Congress, Hollywood, Florida, December 2005.

2006

130. HPA axis dysregulation in functional disorders. Center for Neurovisceral Sciences and Women's Health 3rd Annual Basic and Translational Science Symposium, Los Angeles, California, January 2006.
131. Traditional and Novel Treatment of FGID in Adults. Diagnosis and Management of Functional GI Disorders: From Child to Adult, Center for Neurovisceral Sciences and Women's Health 3rd Annual Clinical Symposium, Los Angeles, California, January 2006.
132. How I manage the IBS patient with constipation. Gastro-Hep Impact 2006 "Improving Medical Practice through Advanced Clinical Therapeutics," Phoenix, Arizona, January 2006.
133. Irritable bowel syndrome: pathophysiology and treatment. Functional Bowel Disorders session, American Motility Society course on Gastrointestinal Motility in Clinical Practice, San Diego, California, February 2006.
134. A status report: complementary and alternative medicine. GI Motility and Functional Bowel Disorders Focus Areas, American Motility Society course on Gastrointestinal Motility in Clinical Practice, San Diego, California, February 2006.
135. How I manage the IBS patient with constipation. Gastro-Hep Impact 2006 "Improving Medical Practice through Advanced Clinical Therapeutics," Beverly Hills, California, February 2006.
136. Irritable bowel syndrome: neurobiologic alterations and their overlap with other chronic pain syndromes. Frontiers of GI Research Conference, visiting professor program, University of Illinois at Chicago, Illinois, February 2006.
137. Chronic Constipation: Piecing Together the Puzzle in Primary Care, Pri-Med meeting, Seattle, Washington, March 2006; Durham, North Carolina, March 2006; Anaheim, California, April 2006; Dallas, Texas, April 2006; San Jose, California, November 2006.
138. Focusing on the Patient: Clinical challenges in motility and sensory disorders, Primed meeting, Los Angeles, California, March 2006; Chicago, Illinois, May 2006; Seattle, Washington, September 2006.
139. Neurobiologic alterations of IBS and the overlap with other chronic pain syndromes. GI Research Conference, The Johns Hopkins Hospital, Baltimore, Maryland, March 2006.

140. Stress and the single woman. Clinical Conundrums in Gastroenterology, Foundation for Better Healthcare, Atlanta and Los Angeles, April 2006.
141. Chronic Constipation: An Age-old Problem with New Solutions, American Geriatric Society annual scientific meeting adjunct symposium, Chicago, Illinois, May 2006.
142. Is There a Relationship Between IBS and Colonic Ischemia? Controversies in IBS. Clinical Practice symposium, American Gastroenterological Association meeting, Los Angeles, California, May 2006.
143. Managing the Patient with Severe Functional Bowel Disease. Digestive Diseases Week Meet-the-Professor luncheon, American Gastroenterological Association meeting, Los Angeles, California, May 2006.
144. IBS-C: Where are we going? Fast Track Solutions to GI Motility and Sensory Disorders. Digestive Diseases Week satellite symposium, American Gastroenterological Association meeting, Los Angeles, California, May 2006.
145. Exploring the Mechanism of Action of Therapeutic Modalities for Chronic Constipation. Chronic Constipation: Translating Novel Mechanisms of Action into Innovative Therapeutic Interventions. Digestive Diseases Week satellite symposium, American Gastroenterological Association meeting, Los Angeles, California, May 2006.
146. Evidence-Based Presentation 2: Evaluating Current and Novel Treatment Modalities for Chronic Idiopathic Constipation. Raising the Bar in the Management of Chronic Idiopathic Constipation (serving as moderator), satellite symposium, American Association of Physician Assistants meeting, San Francisco, California, May 2006.
147. Novel Mechanisms Paving the Way to Relief in Chronic Constipation. CME dinner programs, Los Angeles, June 2006, San Francisco, June 2006 and Anaheim September 2006.
148. Does the HPA Axis have a Role in Modulating Visceral Hypersensitivity? AGA/BSG Joint Symposium, Cambridge, UK, September 2006.
149. The Mechanism Behind the Treatment. New Mechanisms and Novel Concepts in Chronic Constipation, American Motility Society Joint International meeting, Boston, MA, September 2006 (Chair).
150. Deal A Winning Hand: Expert Advice on Chronic Constipation. American College of Gastroenterology meeting symposium, Las Vegas, Nevada, October 2006.
151. IBS-C and CC: A therapeutic continuum? Overlapping GI motility and sensory disorders: An integrated approach, American College of Gastroenterology meeting symposium, Las Vegas, Nevada, October 2006.
152. Irritable bowel syndrome: Diagnosis is the Key, Perspectives in Women's Health, Women's Health Congress, San Francisco, November 2006.
153. Treatment of Irritable Bowel Syndrome, Gastroenterology Pan-American Congress, Cancun, Mexico, November 2006.

154. Evaluating Current and Novel Treatment Modalities for Chronic Idiopathic Constipation, Gastroenterology-Hepatology Impact meeting, San Francisco, November 2006.

2007

155. Dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis and its association with symptoms in irritable bowel syndrome and fibromyalgia. American Psychosomatic Society meeting, Budapest, Hungary, March 2007.
156. Diagnosis and treatment of patients with functional somatic syndromes. "Best practice" breakfast symposium, American Psychosomatic Society meeting, Budapest, Hungary, March 2007.
157. Peripheral measures of stress response in irritable bowel syndrome (IBS). Annual CURE Scientific meeting, Los Angeles, March 2007.
158. Brain-Gut Axis/Genetics. Plenary session, 7th Annual International Foundation of Functional Gastrointestinal Disorders (IFFGD) Symposium. Milwaukee, Wisconsin, April 2007.
159. Gender, Age, Society, Culture, and Patient's Perspective in Functional GI Disorders workshop. 7th Annual International Foundation of Functional Gastrointestinal Disorders (IFFGD) Symposium. Milwaukee, Wisconsin, April 2007.
160. Neurobiologic Alterations in IBS and Other Chronic Pain Syndromes. GI Visiting Professor Program, University of Chicago, Chicago, May 2007.
161. Focused Clinical Updates: Irritable bowel syndrome. Digestive Diseases Week, American Gastroenterological Association meeting, Washington, D.C., May 2007.
162. Neurobiologic alterations in irritable bowel syndrome and fibromyalgia, IBS and Co-morbid somatic conditions symposium. Digestive Diseases Week, American Gastroenterological Association meeting, Washington, D.C., May 2007.
163. No. It is in the brain! Functional brain imaging in functional GI disorders. Third International Symposium on Pediatric Gastroenterology, Hepatology, and Nutrition. Montreal, Canada, June 2007.
164. Controversies in Gastrointestinal & Liver Diseases: Functional GI Disorders. Southern California Society of Gastroenterology, San Diego, July 2007.
165. Gender differences in irritable bowel syndrome. Pregraduate Course, Congreso Argentino de Gastroenterología Y Endoscopia Digestiva, Mendoza, Argentina, August 2007.
166. Brain-gut dysregulation in irritable bowel syndrome, Congreso Argentino de Gastroenterología Y Endoscopia Digestiva, Mendoza, Argentina, August 2007.
167. Emerging treatments for functional gastrointestinal disorders, Congreso Argentino de Gastroenterología Y Endoscopia Digestiva, Mendoza, Argentina, August 2007.

168. Neuroendocrine Alterations of the Central Stress Response in Irritable Bowel Syndrome. GI Division Research Conference, Mayo Clinic visiting professor program, Rochester, MN, September 2007.

2008

169. HPA Axis and Brain Imaging. IGA/AGA meeting, Tel Aviv, Israel, February 2008.
170. How to Prepare and Deliver a Presentation. IGA/AGA meeting, Tel Aviv, Israel, February 2008.
171. Newer Agents for the Gut. IGA/AGA meeting, Tel Aviv, Israel, February 2008.
172. Pathophysiology and Drug Targets for IBS. GI conference, Hassadah Hospital, Jerusalem, Israel, February 2008.
173. Irritable Bowel Syndrome. Gastroenterology and Hepatology Linked to Endoscopy: Mayo Clinic's 6th Annual Winter Course in Scottsdale, Scottsdale, AZ, February 2008.
174. Evidence Based Therapy for IBS. Canadian Digestive Diseases Week and the Fourth Annual CASL Winter Meeting, Montreal, Canada, February-March 2008.
175. Difficult Cases of Irritable Bowel Syndrome - My Tricks. Canadian Digestive Diseases Week and the Fourth Annual CASL Winter Meeting, Montreal, Canada, February-March 2008.
176. How to make the most out of your mentoring relationship. Functional Brain-Gut Group Young Investigators Conference, San Diego, California, April 2008.
177. Chronic Constipation and Colonic Pseudo-Obstruction. AGA Postgraduate Course, Clinical Challenges, Digestive Diseases Week, San Diego, California, May 2008.
178. The Brain-Gut Interaction: Do SSRIs and TCAs Improve IBS Symptoms? Controversies in IBS symposium, AGA Digestive Diseases Week, San Diego, California, May 2008.
179. Narcotic Bowel Syndrome. AGA Digestive Diseases Week, San Diego, California, May 2008.
180. Emerging therapies in FGID. Meet-the-Professor luncheon, AGA Digestive Diseases Week, San Diego, California, May 2008.
181. Impact of IBS. Satellite symposium, AGA Digestive Diseases Week, San Diego, California, May 2008.
182. IBS: A Diagnosis of Exclusion? Satellite symposium, AGA Digestive Diseases Week, San Diego, California, May 2008.
183. Central dysregulations in irritable bowel syndrome: HPA axis and brain imaging. Stress and Gastrointestinal Illness. American Behavioral Medicine Research meeting, Lake Louise, Canada, June 2008.

184. Sex differences in visceral pain in irritable bowel syndrome, NIH Women's Health Sciences Seminar, Bethesda, Maryland, July 2008.
185. Sorting Through the Complexities of Irritable Bowel Disease: Advances in Patient Evaluation and Treatment Modalities. Impact, Los Angeles, California, September 2008.
186. Mechanisms and Treatment of Chronic Functional Abdominal Pain, Post-graduate Course, American College of Gastroenterology meeting, Orlando, Florida, October 2008.
187. Defining symptoms and severity in functional GI disorders. Joint Neurogastroenterology and Motility meeting, Lucerne, Switzerland, November 2008.
188. The Management of Constipation – Did We Overcome the Blockage at Last? University of Arizona GI Motility Conference, Phoenix, Arizona, November 2008.

2009

189. Women's Health Issues in GI. AGA Clinical Congress, Las Vegas, Nevada, January 2009.
190. Managing Slow Transit Constipation and Dyssynergic Defecation. AGA Clinical Congress, Las Vegas, Nevada, January 2009.
191. New Insights into the Pathophysiology of Irritable Bowel Syndrome: Implications for Future Treatments. Miami CME Winter Series, GI Update 2009, Miami, Florida, February 2009.
192. Management of IBS: the Evidence and the Experience. Miami CME Winter Series, GI Update 2009, Miami, Florida, February 2009.
193. Do I Ever Use Antibiotics for IBS? Miami CME Winter Series, GI Update 2009, Miami, Florida, February 2009.
194. Nausea and vomiting: old and new therapies. ACG Western Postgraduate CME Course in Las Vegas, Nevada, March 2009.
195. Biomarkers. 8th International Symposium on Functional GI Disorders, Milwaukee, Wisconsin, April 2009.
196. Challenging Cases at the Referral Centers. 8th International Symposium on Functional GI Disorders, Milwaukee, Wisconsin, April 2009.
197. *Gender, Age, Society and the Patient*. 8th International Symposium on Functional GI Disorders, Milwaukee, Wisconsin, April 2009.
198. Review of CC and IBS. Go Beyond Expectations: Successful GI Outcomes Through Improved Clinician-Patient Partnerships. American College of Physicians, Philadelphia, PA, April 2009.
199. How to talk to your doctor- you are not alone. Overlapping Disorders symposium, International Foundation for Functional GI Disorders and TMJ Association, Milwaukee, WI, April 2009.

200. Tailoring Treatment of IBS. Digestive Disease Week Postgraduate Course, American Gastroenterological Association, Chicago, Illinois, May 2009.
201. The Future of IBS Therapy. Digestive Disease Week symposium, American Gastroenterological Association, Chicago, Illinois, May 2009.
202. Women's Health Issues in IBS. GI Health Foundation IBS Initiative, Chicago, Illinois, May 2009.
203. Sex differences in FGID. Joint Neurogastroenterology and Motility meeting, Chicago, Illinois, August 2009.
204. Pathophysiology of IBS. International Pelvic Pain Society meeting, Phoenix, AZ, October 2009.
205. Has our understanding of the pathophysiology of IBS improved its treatment? American College of Gastroenterology Postgraduate Course, San Diego, California, October 2009.

2010

206. Diagnosis of IBS: Biomarker or Symptom-based Criteria? AGA Clinical Congress, Las Vegas, Nevada, January 2010.
207. HPA Axis and Colonic Mucosal Changes in IBS. Center for Neurobiology of Stress Basic and Translational Science Symposium, Los Angeles, February 2010.
208. Clinical Presentation and Approach: But What if It is Not Lactose Intolerance? NIH Consensus Development Conference: Lactose Intolerance and Health, Bethesda, Maryland, February 2010.
209. Stress and HPA axis alterations in irritable bowel syndrome. 2010 Annual CURE Research Meeting, David Geffen School of Medicine at UCLA, Los Angeles, California, April 2010.
210. Irritable bowel syndrome: What you need to know in clinical practice. Pacific Northwest Gastroenterology Society (PNWGS) meeting, Seattle, Washington, April 2010.
211. Role of stress and HPA axis in irritable bowel syndrome, Frontiers in Gastroenterology, University of Washington CME Accredited Series, Seattle, Washington, April 2010.
212. What actually helps in managing IBS? Postgraduate Course, Digestive Diseases Week, New Orleans, LA, May 2010.
213. Clinical challenge session: Healing the complicated functional bowel disease patient. Postgraduate Course, Digestive Diseases Week, New Orleans, LA, May 2010.
214. Major Advances in IBS. Presidential Plenary, Digestive Diseases Week, New Orleans, LA, May 2010.
215. Lack of Correlation Between IBS Symptoms and Cytokine Markers of Inflammation in IBS Biopsies and Circulation, Translational Research symposium, Neurogastroenterology and Motility section, Digestive Diseases Week, New Orleans, LA, May 2010.

216. Beyond Fiber - Treatment of C-IBS with SSRIs, Lubiprostone, Osmotic Laxatives, and New Agents, Clinical Practice symposium, Digestive Diseases Week, New Orleans, LA, May 2010.
217. Impact of Pain Attacks on Behavior and Health-Related Outcomes in Patients with Irritable Bowel Syndrome Meeting Rome III Criteria. Digestive Diseases Week, New Orleans, LA, May 2010.
218. Focused Clinical Updates: Treatment of functional bowel disorders. Digestive Diseases Week, New Orleans, LA, May 2010.
219. Gender differences and women's health issues in functional GI disorders. AGA Nurse Practitioners and Physician Assistant's meeting, San Francisco, August 2010.
220. Evidence-based vs. Patient-centered approach. Annual ACG meeting, San Antonio, TX, October 2010.
221. Controversies in Functional Bowel Diseases. Southern California Gastroenterology Society Post-DDW Course, Dana Point, California, July 2010.
222. Testing for bacterial overgrowth, IBS, and carbohydrate intolerance. ANMS 5th Biennial Course on GI Motility & Neurogastroenterology in Clinical Practice, Boston, Massachusetts, August 2010.
223. Cytokines and local effector mechanisms. 2010 Joint International Neurogastroenterology and Motility meeting, Boston, Massachusetts, August 2010.
224. Tissue and Serum Biomarkers in FGIDs: HPA axis, 5-HIAA, fecal calprotectin and human β -defensin-2. FDA Biomarker Workshop, Silver Springs, MD, September 2010.
225. Patient-Centered Care vs. Evidence Based Care, IBS breakfast symposium, Annual ACG meeting, San Antonio, Texas, October 2010.

2011

226. Irritable Bowel Syndrome: What You Need To Know In Clinical Practice. Medicine Grand Rounds, Vanderbilt University Medical Center, 2011 William D. Salmon Lectures
227. hip, Nashville, TN, January 2011.
228. Role of Stress and Inflammation in IBS: What Is the Evidence. GI Grand Rounds, Vanderbilt University Medical Center, 2011 William D. Salmon Lectureship, Nashville, TN, January 2011.
229. Clinical Trials in Irritable Bowel Syndrome: A Year in Review. Digestive Diseases of the Caribbean, Puerto Rico Gastroenterology Association, Puerto Rico, March 2011.
230. Refractory Nausea, Vomiting, and Gastroparesis. Digestive Diseases of the Caribbean, Puerto Rico Gastroenterology Association, Puerto Rico, March 2011.

231. Challenging Cases at the Referral Centers- Mini Symposium. 9th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, WI, April 2011.
232. Brain Gut Modulation of GI Symptoms- Workshop. 9th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, WI, April 2011.
233. Managing Pain in Irritable Bowel Syndrome. Postgraduate Course, Digestive Diseases Week, Chicago, Illinois, May 2011.
234. Primer on the FDA PRO Guidance Document. Digestive Diseases Week, Chicago, Illinois, May 2011.
235. Controversies in Functional Bowel Diseases. Southern California Gastroenterology Society Post-DDW Course, Laguna Niguel, California, July 2011.
236. Diagnostic testing in IBS, Current approaches for testing in IBS, SIBO, and lactose/fructose intolerance. ANMS-FBG Annual Motility Course, St. Louis, MI, September 2011.
237. Secretagogues, Prokinetics, and Anti-nociceptives in IBS. Satellite symposium, ANMS-FBG Scientific Meeting, St. Louis, MI, September 2011.
238. How to make the most out of your mentoring relationship. Young Investigators Forum, ANMS-FBG Scientific Meeting, St. Louis, MI, September 2011.
239. Functional GI Disorders: Underlying Mechanisms and Appropriate Therapy. American College of Gastroenterology GI Pathophysiology Course, Washington, D.C., October 28, 2011.
240. Gas and Bloating – Still a Problem After All of These Years? Annual ACG Scientific Meeting, Washington, D.C., November 2, 2011.
241. What tools are available for symptom measurement in IBS? Meeting on Measurement of Urinary Symptoms (MOMUS), NIH, Bethesda, Maryland, November 14, 2011.
242. Diagnosis and Treatment of Irritable Bowel Syndrome. X Semana Brasileira do Aparelho Digestivo, Brazilian Congress of Gastroenterology, Porto Alegre, Brazil, November 21, 2011.
243. Effect of Stress on FGIDs. X Semana Brasileira do Aparelho Digestivo, Brazilian Congress of Gastroenterology, Porto Alegre, Brazil, November 22, 2011.

2012

244. Clinical Trials Update in IBS, Intestinal Disorders session (also moderated session). AGA Clinical Congress, Miami, Florida, January 21, 2012.
245. Gastroparesis: Evolving Tools, Breakout session. AGA Clinical Congress, Miami, Florida, January 20-21, 2012.
246. Irritable bowel syndrome: What's New? (Also served as Moderator) ACG Board of Governors/ASGE Best Practices, Huntington Beach, California, January 28, 2012.

247. Early Life Stress and Glucocorticoid Receptor Gene Methylation in Irritable Bowel Syndrome. Center for Neurobiology of Stress 10th Anniversary Annual Symposium, Los Angeles, CA, February 9, 2012.
248. Medical management of constipation, fecal incontinence, and IBS. Multidisciplinary Pelvic Floor Conference, UCLA, Los Angeles, CA, March 21, 2012.
249. Review of IBS and Functional Abdominal Pain. Pediatric GI Conference, UCLA, Los Angeles, CA, March 23, 2012.
250. Difficult FGID Cases, AGA Postgraduate Course, Digestive Diseases Week, San Diego, CA, May 19, 2012.
251. GI Motility, IBS and Women. Presidential Plenary, Digestive Diseases Week, San Diego, CA, May 21, 2012.
252. Glucocorticoid Receptor Gene Methylation is a Potential Biomarker of Irritable Bowel Syndrome. Digestive Diseases Week, San Diego, CA, May 19, 2012.
253. Irritable Bowel Syndrome: What's Important to Know for Clinical Practice, Harbor-UCLA Department of Medicine Grand Rounds, Torrance, CA, June 5, 2012.
254. Pathophysiology of IBS and Other Common FGIDs. Rome Foundation - AGA Institute Communication Skills Workshop: Improving the Medical Interview and the Physician Patient Relationship with Patients Having Functional GI Disorders. Chapel Hill, NC, June 8-9, 2012.
255. Controversies in Functional Bowel Disorders. Southern California Gastroenterology Society Post-DDW Course, Laguna Beach, California, June 16, 2012.
256. State of the Art Lecture: Management of Functional Abdominal Pain. Southern California Gastroenterology Society Post-DDW Course, Laguna Beach, California, June 16, 2012.
257. Patient case: Chronic constipation. UCLA GI Noon Conference: Neurogastroenterology, Los Angeles, California, June 20, 2012.
258. Medical management of IBS. Expert Update on Treatments for Functional GI Disorders: A Symposium for Patients, Chapel Hill, North Carolina, June 23, 2012.
259. Bloating. Expert Update on Treatments for Functional GI Disorders: A Symposium for Patients, Chapel Hill, North Carolina, June 24, 2012.
260. How to find the right mentor. 2012 Tenth Annual Young Investigator Forum, American Neurogastroenterology and Motility Society (ANMS) Motility Course, Chicago, Illinois, July 27, 2012.
261. Pathophysiology and Treatment of IBS. Gastrointestinal Motility and Neurogastroenterology in Clinical Practice, Chicago, Illinois, July 29, 2012.
262. Psychosocial Factors in IBD. Served as preceptor for GI Division Journal Club, August 23, 2012.

263. Management of IBS. Visiting Professor GI Grand Rounds, Indiana University, Indianapolis, Indiana, September 17, 2012.
264. Bloating and distension patient case. UCLA GI Noon Conference, Los Angeles, CA, October 3, 2012.
265. Understanding IBS for Rome IV. Festival of Gastroenterology and Endoscopy (FGE) Sanya, Sanya Island, China, October 10, 2012.
266. Recurrent abdominal pain and disordered bowel habit. FGE Beijing, Chinese PLA General Hospital Beijing, China, October 13, 2012.
267. Antibiotics: What to Do After They Work? IBS: Do Microbes Matter? Symposium, ACG Annual Meeting, Las Vegas, NV, October 18, 2012.
268. IBS Diagnosis, Pathophysiology and Treatment. The 6th Japan and US Collaboration Conference in Gastroenterology Program, Tokyo, Japan, November 14, 2012.

2013

269. IBS: Insights Into the Pathophysiology and Treatment. GI Grand Rounds, Mount Sinai visiting professor program, New York, NY, January 4, 2013.
270. The Spectrum of Functional GI Disorders: Symptoms and Diagnostic Criteria. UCLA GI Fellows Conference, Los Angeles, CA, February 8, 2013.
271. IBS: Insights Into the Pathophysiology and Treatment. GI Grand Rounds, Stanford Hack Lectureship Program visiting professor program, Palo Alto, CA, February 27, 2013.
272. Treatment of IBS – State-of-the-Art in 2013. Advances in Gastroenterology and Hepatology, San Diego, CA, March 2, 2013.
273. Chronic nausea and vomiting- causes and remedies. UCLA-Mellinkoff Gastroenterology Symposium, Beverly Hills, CA, March 8, 2013.
274. Chronic abdominal pain. UCLA Pediatric GI Conference, Los Angeles, CA, March 23, 2013.
275. Treatment of Opioid Bowel, Opioid and Narcotic Bowel Mini-symposium. 10th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, Wisconsin, April 12-14, 2013.
276. Treatment Pearls, Clinical Pearls for the Clinician workshop. 10th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, Wisconsin, April 12-14, 2013.
277. IBS, Clinical Trial Design and Outcome Measurement Mini-symposium. 10th International Symposium on Functional Gastrointestinal Disorders, Milwaukee, Wisconsin, April 12-14, 2013.
278. IBS: Insights Into the Pathophysiology and Treatment. Medical Grand Rounds, Rouse visiting professor lectureship, Baylor University Medical Center, Dallas, TX, April 16, 2013.

279. Chronic Nausea and Vomiting: Diagnosis and Treatment. Noon Housestaff Conference, Baylor University Medical Center, Dallas, TX, April 16, 2013.
280. Gastroparesis: New Treatments for a Perpetual Problem. Served as preceptor for Journal Club, Division of Digestive Diseases, UCLA.
281. What Causes "Functional" Bowel Disorders? Recent Insights and What It Means for the Clinician. AGA Postgraduate Course General Session, Digestive Diseases Week meeting, Orlando, FL, May 18, 2013.
282. The "Impossible" Abdominal Pain Patient: Treatment Strategies and Helpful Hints. AGA Postgraduate Course Clinical Challenge session, Digestive Diseases Week meeting, Orlando, FL, May 18, 2013.
283. Bloating and Distension: Understanding the Mechanisms and Optimizing Management. Meet-the-Professor, Digestive Diseases Week meeting, Orlando, FL, May 19, 2013.
284. Clinical Conversations: Getting Patients With CC and IBS-C Back on Track. DDW satellite symposium, Digestive Diseases Week meeting, Orlando, FL, May 19, 2013.
285. Functional Abdominal Pain Syndrome. Neurogastroenterology Clinical Conference. UCLA GI noon conference, Los Angeles, CA, May 29, 2013.
286. IBS: It's not that simple. First Annual GALA Conference, Austin, TX, June 21-22, 2013.
287. Functional GI case conference. First Annual GALA Conference, Austin, TX, June 21-22, 2013.
288. How to Approach Challenging Clinical Scenarios in Functional GI Disorders. UCLA GI Fellowship Curriculum Conference, Los Angeles, CA, August 23, 2013
289. Management of IBS, IBS Cornerstones Lecture. GI Conference, University of Washington, Seattle, WA, August 30, 2013.
290. Fecal Incontinence. UCLA GI Noon Conference, Los Angeles, CA, September 11, 2013.
291. Current insights on the Causes of Functional Bowel Disorders and How They Impact Treatment. Ray Clouse Visiting Professor of Excellence Lecture, Washington University, St. Louis, September 17, 2013.
292. Current state of PROs for IBS, gastroparesis and functional dyspepsia. 17th Neurogastroenterology & Motility Scientific Meeting, Huntington Beach, CA, September 22, 2013.
293. Differentiating and Managing IBS-C and Chronic Constipation. Annual American College of Gastroenterology (ACG) Postgraduate Course, San Diego, CA, October 12, 2013.
294. Management of the Severely Constipated Patient. United European Gastroenterology (UEG) Scientific Meeting, Berlin, Germany, October 15, 2013.

295. Emerging Treatment for IBS. United European Gastroenterology (UEG) Scientific Meeting, Berlin, Germany, October 15, 2013.
296. Psycho-Pharmacology Therapies. UNC Functional GI Conference, How to Treat IBS Effectively: Expert Update for Health Professional, Raleigh-Durham, NC, November 2, 2013.
297. Rome Diagnostic algorithm for functional bowel disorders. UNC Functional GI Conference, How to Treat IBS Effectively: Expert Update for Health Professional, Raleigh-Durham, NC, November 2, 2013.
298. Evaluation and Medical Management of Chronic Constipation and Defecatory Disorders. Female Pelvic Medicine and Reconstructive Surgery lecture series. Los Angeles, CA, December 9, 2013.
299. Functional GI and Motility Jeopardy. UCLA GI Fellowship Curriculum lectures, Los Angeles, CA, December 20, 2013.

2014

300. Functional GI cases. Second Annual UCLA-Mellinkoff Gastroenterology Symposium, Beverly Hills, CA, March 8, 2014.
301. Management of functional GI disorders. UCLA Pediatric Gastroenterology Conference, Los Angeles, CA, April 18, 2014.
302. Genetic Polymorphisms and Cytokines in Irritable Bowel Syndrome. Digestive Diseases Week, Chicago, IL, May 3, 2014.
303. Functional Abdominal Pain, Clinical Challenges session, Postgraduate Course. Digestive Diseases Week, Chicago, IL, May 3, 2014.
304. Managing Chronic Constipation and IBS with Constipation: New Evidence of Overlap, Distinctions, and Improved Treatment Strategies. Satellite Symposium, Digestive Diseases Week, Chicago, IL, May 3, 2014.
305. IBS and FODMAPs. ASGE/AGA Presidential Plenary. Digestive Diseases Week, Chicago, IL, May 4, 2014.
306. Genetics and IBS: Is there a Pattern to the Puzzle? Digestive Diseases Week, Chicago, IL, May 5, 2014.
307. Communication with the Patient in the Era of EHR. Digestive Diseases Week, Chicago, IL, May 6, 2014.
308. Irritable Bowel Syndrome. Meet the Professor luncheon. Digestive Diseases Week, Chicago, IL, May 3, 2014.
309. Understanding what causes symptoms in the intestines and rectum. Expert Update for Functional GI Disorders: A Symposium for Patients, Washington, D.C., June 22, 2014.

310. Managing your irritable bowel syndrome. Expert Update for Functional GI Disorders: A Symposium for Patients, Washington, D.C., June 22, 2014.
311. Multidimensional Disease Clinical Profile- Applications for Treatment and Research. UCLA Digestive Diseases Noon Conference. July 9, 2014.
312. What are the major updates in IBS over the past year? American Neurogastroenterology Society annual postgraduate course, Baltimore, Maryland, July 26, 2014.
313. Current and Emerging Therapeutic Strategies for IBS-C and CC: Clinical Findings. Individualized Management of IBS-C and CC in the Primary Care Setting: Practical Strategies to Improve Patient Outcomes. Peerview Institute online medical education program.
314. Working team for severity in IBS. Rome symposium, Federation of Neurogastroenterology and Motility meeting, Guangzhou, China, September 5, 2014
315. Novel therapeutic targets. Federation of Neurogastroenterology and Motility meeting, Guangzhou, China, September 6, 2014.
316. Microinflammation and immune activation in functional bowel disorders. Federation of Neurogastroenterology and Motility meeting, Guangzhou, China, September 7, 2014.
317. Patient Management Updates: Opioid Induced Constipation. GI and Liver Association of America (GALA) conference, San Francisco, CA, September 19, 2014.
318. Epidemiology of IBS. IBS conference, Cedars-Sinai Medical Center, Los Angeles, CA, September 22, 2014.
319. A “new” source of relief? Prucalopride and Constipation (Preceptor). UCLA GI Journal Club, Los Angeles, AG, October 3, 2014.
320. Logic in using a diet without FODMAPs in IBS. 2014 Pan American Congress of Gastroenterology and Endoscopy, Buenos Aires, Argentina, October 7, 2014.
321. New treatments in FGIDs. 2014 Pan American Congress of Gastroenterology and Endoscopy, Buenos Aires, Argentina, October 7, 2014.
322. IBS-C and Chronic Constipation. GI News Tonight, Satellite symposium, 2014 American College of Gastroenterology (ACG) Annual Meeting in Philadelphia, PA, October 19, 2014.
323. Inflammatory Diarrhea. Chronic Idiopathic Diarrhea satellite symposium, 2014 American College of Gastroenterology (ACG) Annual Meeting in Philadelphia, PA, October 20, 2014.
324. Academic Practice. AGA Regional Practice Skills Workshop. Los Angeles, CA, October 24, 2014.
325. Global epidemiology of FGIDs. Postgraduate Course, Semana Nacional de Gastroenterologia meeting, Cancun, Mexico, November 15, 2014.

326. What's new in IBS pathophysiology? Postgraduate Course, Semana Nacional de Gastroenterologia meeting, Cancun, Mexico, November 16, 2014.
327. Following the evolution and prevalence of IBS. Semana Nacional de Gastroenterologia meeting, Cancun, Mexico, November 17, 2014.
328. Opioid induced constipation. Semana Nacional de Gastroenterologia meeting, Cancun, Mexico, November 18, 2014.
329. Understanding the AGA Institute IBS Treatment Guidelines. AGA Webinar, December 16, 2014.
330. GI Jeopardy: Functional GI Disorders. UCLA GI Fellowship curriculum lectures series. Los Angeles, CA, December 19, 2014.

2015

331. Irritable bowel syndrome and SIBO. ACG Western Regional Conference, Las Vegas, NV, January 25, 2015.
332. SCOR Project 1 study: Hypothalamic-pituitary-adrenal axis responses to hormone challenge: IBS and sex differences. Center for Neurobiology of Stress SCOR research meeting. Los Angeles, CA, January 28, 2015.
333. Case Conference, Functional GI Disorders. UCLA GI Noon Conference, Los Angeles, CA, February 25, 2015.
334. Chronic constipation and fecal incontinence: diagnosis and management. Third annual Mellinkoff GI conference, Beverly Hills, March 13, 2015.
335. Emerging strategies to identify disease-specific biomarkers in the Omics era: The role of ethnicity and gender. ANMS Advisory Committee Meeting, Dallas, TX, March 21, 2015.
336. Patient Management Updates: Chronic Constipation. GALA Conference, Dallas, TX, April 10, 2015.
337. Functional Bowel Disorders. UCLA GI Fellowship Monday morning VA lectures, Los Angeles, CA, April 12, 2015.
338. Evaluation and Management of Constipation. Division of Pelvic Medicine and Reconstructive Surgery Lecture Series, Los Angeles, CA, April 27, 2015.
339. ACG GI Circle and Rome Foundation Webinar: "A Multi-Dimensional Approach to Treating Functional Gastrointestinal Disorders II, May 7, 2015.
340. The Problem of Abdominal Pain: How to Work Up, Evidence on Effective Treatments. Digestive Diseases Week Postgraduate Course, Washington, D.C., May 16, 2015.
341. Managing the Complicated IBS Patient. Clinical Challenge Session, Digestive Diseases Week Postgraduate Course, Washington, D.C., May 16, 2015.

342. Enhanced stimulated stress hormone response in irritable bowel syndrome (IBS) is associated with downregulation of glucocorticoid receptor expression. Research Forum, Digestive Diseases Week meeting, Washington, D. C., May 18, 2015.
343. Current insights on the causes and treatment of IBS. University of Alabama visiting lectureship in GI. Birmingham, AL, June 1, 2015.
344. Rome Multidisciplinary Clinical Profiles (MDCP) of FGID Patients. Department of Pediatrics GI Conference, Los Angeles, CA, June 12, 2015.
345. Novel Insights into the Pathogenesis of IBS (Diet/Gluten/Celiac/Microbiome). Joint Congress in Neurogastroenterology at Northwestern Medicine, Chicago, IL, August 27, 2015.
346. Clinical Cases: Globus, Dysphagia, Irritable Bowel Syndrome, Constipation. Joint Congress in Neurogastroenterology at Northwestern Medicine, Chicago, IL, August 27, 2015.
347. Bloating and Abdominal Distension: Diagnosis and Management. ANMS Clinical Course, Chicago, IL, August 28, 2015.
348. Role of Stress and Early Adverse Life Events in IBS. AGA James W. Freston Single Topic Conference, Chicago, IL, August 30, 2015.
349. Managing IBS: Integrating an Evidence Based and Practical Approach. 41st Annual Topics in Gastroenterology and Hepato-Biliary Update Conference, Baltimore, MD, September 10, 2015.
350. Chronic constipation, rectal and vaginal prolapse case presentation. UCLA GI noon conference, Los Angeles, CA, September 23, 2015.
351. Myths and Realities about Feeling Good: What We Should Know. Wisdom from Within conference, Division of Digestive Diseases, David Geffen School of Medicine, Los Angeles CA, September 30, 2015.
352. Current insights in the causes, diagnosis and treatment of IBS. UCLA GI Fellowship Core Curriculum, Los Angeles, CA, October 30, 2015.
353. Functional GI and Motility Disorders Jeopardy, UCLA Gastroenterology Fellowship Core Curriculum, Los Angeles, CA, December 18, 2015.

2016

354. Current insights in the diagnosis, causes, and treatment of IBS. Department of Medicine Grand Rounds, Tulane University, New Orleans, LA, January 6, 2016.
355. Functional GI case conference: Abdominal bloating and distension. UCLA GI noon conference, Los Angeles, CA, February 24, 2016.
356. Role of Stress and Early Adverse Life Events in IBS. Academic Day for Center for East West Medicine, UCLA, Los Angeles, CA, March 3, 2016.

357. Celiac disease and IBS: What is the overlap? 7th Expert Strategies in Endoscopy, Gastrointestinal and Liver Diseases, Kansas City, MO, March 12, 2016.
358. Functional Diarrhea and Functional Constipation. 7th Expert Strategies in Endoscopy, Gastrointestinal and Liver Diseases, Kansas City, MO, March 12, 2016.
359. Emerging IBS Treatments. 4th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 13, 2016.
360. Chronic constipation. UCLA GI Fellowship Monday am VA lecture series, Los Angeles, CA, March 28, 2016.
361. Integrating Scientific Evidence and a Practical Approach in the Management of Irritable Bowel Syndrome. Department of Medicine Grand Rounds, New York University (NYU) Langone Medical Center, NY, April 6, 2016.
362. Diagnosis and Management of IBS. Lecture Series, Division of Pelvic Floor and Reconstructive Surgery, Department of Urology, April 25, 2016.
363. The role of brain-gut interactions in chronic pain and stress in IBS. GI Fellow Grand Rounds, University of Michigan, Ann Arbor, MI, May 10, 2016.
364. Mechanisms and management of bloating in IBS. MBCP Grand Rounds, University of Michigan, Ann Arbor, MI, May 10, 2016.
365. Motility Matters: An Interactive Forum to Debate What Progress the Field Has Made. IBS, constipation and fecal incontinence. Digestive Diseases Week, San Diego, CA, May 23, 2016.
366. Patient management update: chronic constipation and opioid induced constipation. GALA conference, Cleveland, OH, June 3, 2016.
367. Functional GI Disorders. GALA conference, Cleveland, OH, June 3, 2016.
368. Classification of Rome IV functional GI disorders and management. VA Monday morning lecture, UCLA GI Fellowship Program, Los Angeles, CA, June 13, 2016.
369. Biologic phenotypic of functional bowel disorders. NIDDK Functional Bowel Disorders workshop, Bethesda, Maryland, June 23, 2016.
370. Multidisciplinary Clinical Profiles (MDCP): Individualized Patient Care Approach for Functional Upper GI Disorders. UCLA Division of Digestive Diseases Noon Conference, Los Angeles, CA, August 10, 2016.
371. Update in Pathophysiology, Diagnosis and Treatment of IBS. GI conference, Rady's Children's Hospital San Diego, UC San Diego, August 11, 2016.
372. Role of stress and early adverse life events in IBS. Pediatric Grand Rounds, Rady's Children's Hospital San Diego, UC San Diego, August 12, 2016.

373. From Rome III to Rome IV...what's new about IBS? IBS in 2016: present and future challenges ...redefining history? GI Conference, San Francisco, CA, August 24, 2016.
374. Celiac and IBS: What is the overlap? IBS in 2016: present and future challenges ...redefining history? GI Conference, San Francisco, CA, August 24, 2016.
375. Rome IV Multidimensional Clinical Profile (MDCP): Augmenting Rome Criteria to Optimize Patient-Centered Treatment. Federation of Neurogastroenterology and Motility (FNM) scientific meeting, San Francisco, CA, August 25, 2016.
376. Genomic Biomarkers in IBS: Diagnosis. Federation of Neurogastroenterology and Motility (FNM) scientific meeting, San Francisco, CA, August 26, 2016.
377. New and Emerging Therapies for Managing Visceral Hyperalgesia. Federation of Neurogastroenterology and Motility (FNM) scientific meeting satellite symposium, San Francisco, CA, August 26, 2016.
378. Integrating Scientific Evidence and a Practical Approach in the Management of Irritable Bowel Syndrome. Wade Volwiler GI visiting professor lecture at Department of Medicine Grand Rounds, University of Washington, Seattle, WA, September 1, 2016.
379. Current and Emerging Treatments for Irritable Bowel Syndrome and Bloating. Pacific Northwest Gastroenterology Society, Seattle, WA, September 1, 2016.
380. The role of stress and resilience in IBS. Frontiers in Gastroenterology and Hepatology, Seattle, WA, September 2, 2016.
381. Diagnosis and management of irritable bowel syndrome. ACG Edgar Achkar Professorship, Rush University Medical Center, Chicago, IL, September 9, 2016.
382. Extraintestinal symptoms in IBS. 24th United European Gastroenterology Week, Austria, Vienna, October 17, 2016.
383. State-of-the-art in IBS: from single to multi-symptom therapy, Discover the truth about IBS: rethinking current opinions in gastroenterology satellite symposium. 24th United European Gastroenterology Week, Austria, Vienna, October 17, 2016.
384. A positive diagnostic strategy is preferred in IBS. 24th United European Gastroenterology (UEG) Week, Austria, Vienna, October 18, 2016.
385. Optimizing the Patient-Provider relationship using Effective Communication Techniques. 24th United European Gastroenterology Week, Austria, Vienna, October 18, 2016.
386. Chronic constipation. UCLA GI Fellowship VA clinic lecture series, Los Angeles, CA, October 31, 2016.
387. Highlights in Rome IV Criteria and Recommendations from Rome Experts. 15th PUMCH Symposium of Functional Gastrointestinal Disorders (FGIDs) and Psychological Disorders, Beijing, China, November 5, 2016.

388. Understanding Brain-Gut Interaction Disorders: Visceral Pain. 15th PUMCH Symposium of Functional Gastrointestinal Disorders (FGIDs) and Psychological Disorders, Beijing, China, November 5, 2016.
389. The Inspirations from Rome. PUMCH Research Workshop on Functional Gastrointestinal Disorders (FGIDs) Scientific Program, Beijing, China, November 6, 2016.
390. Design, Methodology and Reports. PUMCH Research Workshop on Functional Gastrointestinal Disorders (FGIDs) Scientific Program, Beijing, China, November 5, 2016.
391. Irritable bowel syndrome. UCLA GI Fellowship VA clinic lecture series, Los Angeles, CA, November 14, 2016.
392. Functional Gastrointestinal Disorders. The Rome Foundation Symposium: Launch of Rome IV. Association of Mexican Gastroenterology Conference, Mexican Digestive Diseases Week, Mazatlan, November 21, 2016.
393. Lower Gastrointestinal Functional Bowel Disorders. The Rome Foundation Symposium: Launch of Rome IV. Association of Mexican Gastroenterology, Mexican Digestive Diseases Week, Mazatlan, November 21, 2016.
394. Emerging Pharmacological Therapies for Irritable Bowel Syndrome, Keynote Conference, Association of Mexican Gastroenterology Conference, Mexican Digestive Diseases Week Mazatlan, November 22, 2016.
395. Myths and realities...do we move forward? Association of Mexican Gastroenterology Conference, Mexican Digestive Diseases Week Mazatlan, November 22, 2016.
396. Integrating Scientific Evidence and a Practical Approach in the Management of Irritable Bowel Syndrome. City Wide GI Lecture, Toronto, Canada, November 30, 2016.

2017

397. Celiac Disease and IBS: What is the overlap? GI Fellowship Program Core Curriculum lecture, Division of Digestive Diseases, UCLA, Los Angeles, CA, February 17, 2017.
398. Integrating Scientific Evidence and a Practical Approach in the Management of Irritable Bowel Syndrome. 48th Annual Samuel D. Kushlan Visiting Professor, Yale University, New Haven, CT, March 1, 2017.
399. Current and Emerging Treatments for IBS, Chronic Abdominal Pain and Bloating. Department of Medicine Grand Rounds, Samuel D. Kushlan Visiting Professor, Yale University, New Haven, CT, March 2, 2017.
400. What's New with Rome IV for Functional GI Disorders? 5th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 10, 2017.
401. Chronic Bloating. ACG Western Regional Postgraduate Course and Hepatology School, Las Vegas, NV, March 11, 2017.

402. Disease Management of Challenging Functional GI Cases. UCLA GI noon conference, Los Angeles, CA, March 15, 2017.
403. CURE lecture: Role of Stress in IBS: Biologic Mechanisms and Clinical Implications. Annual CURE Digestive Disease Research Center Meeting, Los Angeles, CA, March 17, 2017.
404. Stress, early life adversity and sex differences in IBS. Rome visiting professorship, Centre of Neuroscience conference, Flinders University, Adelaide, Australia, March 29, 2017.
405. Multidisciplinary Clinical Profiles (MDCP): Individualized Patient Care Approach for Functional GI Disorders. Rome visiting professorship, IBS workshop, Flinders University, Adelaide, Australia, March 29, 2017.
406. Mechanisms and management of abdominal bloating. Australasian NeuroGastroenterology & Motility Association (ANMGA)- 2017 Conference, Melbourne, Australia, April 1, 2017.
407. Role of brain-gut interactions and stress in IBS. Keynote lecture, Australasian NeuroGastroenterology & Motility Association Inc (ANMGA)- 2017 Conference, Melbourne, Australia, April 2, 2017.
408. Irritable bowel syndrome. AGA Postgraduate Course: The Full Scope of GI Advances, General Session, Chicago, Illinois, May 7, 2017.
409. 42 Y/O Media Consultant with Severe IBS. AGA Postgraduate Course, Case-based Session, Chicago, Illinois, May 7, 2017.
410. Planning for An Academic Career During Fellowship, Digestive Diseases Week meeting, May 8, 2017.
411. Irritable Bowel Syndrome - Looking Through the Crystal Glass. Meet-the-Professor luncheon, Digestive Diseases Week meeting, May 9, 2017.
412. IBS: Meeting the Clinical Challenge. Pri-Med West Annual Conference & Exhibition, Anaheim, CA, May 11, 2017.
413. Pathophysiology, Diagnosis and Treatment of IBS. Oregon Health Sciences University GI Research Conference, Portland, OR, June 9, 2017.
414. State-of-the-Art Lecture: Functional Bowel Disorders. Post-DDW Conference 2017, Oregon Health Sciences University, Portland, OR, June 10, 2017.
415. Role of Stress in IBS: Clinical and Biologic Implications. 2017 International Forum of Gastrointestinal Disorders, Wuhan Union Hospital, Wuhan, China, June 23, 2017.
416. What's New in Rome IV? 2017 International Forum of Gastrointestinal Disorders, Wuhan Union Hospital, Wuhan, China, June 24, 2017.
417. Case presentations. Non-medical treatment options for functional disease and live videostream #3. 12th Postgraduate Course on Gastrointestinal Motility & Neurogastroenterology in Clinical Practice, August 4-6, 2017, New York, New York.

418. Treatment of IBS. Metro Health 4th Annual GI Symposium. Cleveland, Ohio, August 18, 2017.
419. Making the Diagnosis of IBS. How to Conquer the Awkward Constipation and Diarrhea Conversations Symposium. American Academy of Family Practitioners meeting, San Antonio, TX, September 13, 2017.
420. Chronic constipation. VA GI fellow lecture series, Los Angeles, CA, October 2, 2017.
421. Optimizing the Diagnosis of IBS: Future Directions. 25th United European Gastroenterology (UEG) Week, Barcelona, Spain, October 31, 2017.
422. Emerging Therapies for IBS. 25th United European Gastroenterology (UEG) Week, Barcelona, Spain, November 1, 2017.
423. GI Case Conference: Functional Dyspepsia and IBS with Constipation. UCLA Division of Digestive Diseases Case Conference, Los Angeles, November 9, 2017.
424. Role of Stress and Resilience in IBS: Clinical Implications and Biologic Mechanisms. Charles F. Code Lecturer, Mayo Clinic, Rochester, MN, November 15, 2017.
425. Academics, panel discussion. AGA Practice Skills Workshop- California. Los Angeles, CA, December 9, 2017.
426. Irritable Bowel Syndrome. VA GI fellow lecture series, Los Angeles, CA, December 11, 2017.

2018

427. Irritable Bowel Syndrome and Functional Constipation. Rome Foundation webcast for Acino, New York, NY, January 19, 2018.
428. Case based presentations on IBS-D, IBS-C, Functional Constipation, Functional Defecation Disorder. Rome Foundation webcast for Acino, New York, NY, January 19, 2018.
429. Pharmacotherapy of Functional Dyspepsia. 6th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 9, 2018.
430. Pharmacotherapy of Chronic Constipation. 6th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 9, 2018.
431. Neurobiology of Stress and IBS. American College of Gastroenterology Regional Course, New Orleans, LA, March 10, 2018.
432. Evaluation and management of constipation. Division of Pelvic Medicine and Reconstructive Surgery Lecture Series, Department of Urology, UCLA, Los Angeles, CA, March 26, 2018.
433. Effect of sex on HPA axis response and peripheral glucocorticoid receptor in IBS. 7th Annual Postgraduate Course in Neurogastroenterology and Motility (APNM) and 29th Annual Conference of the Korean Society of Neurogastroenterology and Motility, Seoul, South Korea, April 7, 2018.

434. State-of-the-Art in IBS. Allergan Medical Institute - Canada Expert Meeting in Gastroenterology, Toronto, Canada, April 27-28, 2018.
435. IBS Treatment: Expanding the Evidence. Allergan Medical Institute - Canada Expert Meeting in Gastroenterology, Toronto, Canada, April 27-28, 2018.
436. Why is Gender so Important in IBS? IBS Days Conference, Bologna, Italy, May 18, 2018.
437. Functional GI Disorders: Diagnosis and Management of IBS and Chronic Constipation. UCLA GI Fellowship curriculum lectures series. Los Angeles, CA, May 25, 2018.
438. Taking the Pain out of Managing Functional GI Patients. How to Manage Difficult Gastroenterology Consultations symposium, Digestive Diseases Week, Washington, D.C., June 2, 2018.
439. Colorectal session: Chronic abdominal pain, Bloating and constipation cases. Motility Matters symposium, Digestive Diseases Week, Washington, D.C., June 4, 2018.
440. Diagnosing IBS and other Functional Bowel Disorders. Chronic Diarrhea and IBS: Current Knowledge and Update on Management Strategies symposium, Digestive Diseases Week, Washington, D.C., June 5, 2018.
441. Controversies in IBS. Southern California Society of Gastroenterology Post-DDW Symposium, Laguna Niguel, CA, June 24, 2018.
442. Managing Functional GI Disorders when the Biomarkers are Normal. American Neurogastroenterology and Motility Society (ANMS) Clinical Course, Milwaukee, Wisconsin, July 28, 2018.
443. Systems Approach in IBS. Federation of Neurogastroenterology and Motility meeting, Amsterdam, Netherlands, August 31, 2018.
444. Pharmacologic Treatment of IBS. Functional Disorders session, ACG Postgraduate Course, Philadelphia, PA, October 6, 2018.
445. Management of Rumination, Cyclic Vomiting, and Cannabis Hyperemesis. Learning Luncheon. ACG Postgraduate Course, Philadelphia, PA, October 6, 2018.
446. Irritable bowel syndrome: Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, Santa Fe, NM, October 13-14, 2018.
447. Chronic constipation: Subtypes and Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, Santa Fe, NM, October 13-14, 2018.
448. Diagnostic Algorithm and MDCP Concept, Case Examples and Rome IV Interactive Clinical Decision Toolkit. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, Santa Fe, NM, October 13-14, 2018.

449. Therapy update in functional gastrointestinal disorders: Constipation. United European Gastroenterology (UEG) week meeting, Vienna, Austria, October 20, 2018.
450. IBS: What's new in IBS?: Biomarkers. United European Gastroenterology (UEG) week meeting, Vienna, Austria, October 25, 2018.
451. A Multidisciplinary approach to managing functional GI disorders. UCLA GI noon conference, Los Angeles, CA, November 8, 2018.
452. Management of IBS. UCLA GI Fellowship Monday morning VA lectures, Los Angeles, CA, November 19, 2018.
453. Chronic constipation. UCLA GI Fellowship Monday morning VA lectures, Los Angeles, CA, November 26, 2018.
454. Chronic constipation and pelvic floor dysfunction. 2018 ACG's Hepatology School & Southern Regional Postgraduate Course. Nashville, TN, December 2, 2018.

2019

455. Irritable bowel syndrome: Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, New York, NY, January 20-21, 2019.
456. Irritable bowel syndrome: Treatment Approaches. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, New York, NY, January 20-21, 2019.
457. Chronic constipation: Subtypes and Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, New York, NY, January 20-21, 2019.
458. Diagnostic Algorithm and MDCP Concept, Case Examples and Rome IV Interactive Clinical Decision Toolkit. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, New York, NY, January 20-21, 2019.
459. Cyclic Vomiting Syndrome and Cannabis Hyperemesis Syndrome. UCLA GI Fellowship curriculum lectures series. Los Angeles, CA, January 11, 2019.
460. Rome Guidelines: Lessons Learned. Making Sense of Care Guidelines session, Crohn's & Colitis Congress, Las Vegas, NV, February 7, 2019.
461. Irritable bowel syndrome: Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, San Antonio, TX, February 9-10, 2019.
462. Chronic constipation: Subtypes and Pathophysiology. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, San Antonio, TX, February 9-10, 2019.

463. Diagnostic Algorithm and MDCP Concept, Case Examples and Rome IV Interactive Clinical Decision Toolkit. Diagnosing and Treating Functional GI Disorders in the Primary Care Setting, Rome Foundation Symposium on Functional GI Disorders, San Antonio, TX, February 9-10, 2019.
464. Pharmacotherapy for IBS: What Do We Have and What's New? IBS with Constipation. 7th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 1, 2019.
465. Pharmacotherapy for IBS: What Do We Have and What's New? IBS with Diarrhea. 7th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 1, 2019.
466. Diagnosis and Treatment of Irritable Bowel Syndrome. 2018 David Y. Graham & Jim T. Schwartz Distinguished Lectureship Award, Grand Rounds, Baylor College of Medicine, Houston, TX, March 7, 2019.
467. Role of Brain-Gut Interactions in IBS. DDC GI Research Forum, Baylor College of Medicine, Houston, TX, March 7, 2019.
468. Role of Stress and Resilience in IBS: Clinical Implications and Biologic Mechanisms. Arthur Atkinson Memorial Lectureship, Northwestern University Medical Grand Rounds, Chicago, IL, March 19, 2019.
469. The Neurobiology of Stress and IBS. 2019 Radhika Srinivasan Grand Rounds Memorial Lecture and Professorship, Philadelphia, PA, March 27, 2019.
470. Irritable bowel syndrome. Internal medicine residency lecture series, Department of Medicine, UCLA, Los Angeles, CA, April 3, 2019.
471. So, You want to be a PD. 2019 GI Training Directors' Workshop, Ft. Lauderdale, FL, April 13-14, 2019.
472. Mentoring the Research-Minded Fellow. 2019 GI Training Directors' Workshop, Ft. Lauderdale, FL, April 13-14, 2019.
473. Career Development for the PD. 2019 GI Training Directors' Workshop, Ft. Lauderdale, FL, April 13-14, 2019.
474. Treatment of IBS. UCLA Pediatric GI Fellowship Lecture. Los Angeles, CA, April 26, 2019.
475. Diagnosis Confirmed: Pharmacologic and Nonpharmacologic Options for IBS-D. Let's Talk About IBS: Cases From the Clinic, CME session, 2019 ACOG Annual meeting, Nashville, TN, May 5, 2019.
476. Early Life Events from Bench to Bedside: Evidence and Future Directions. Early Life Events on Pediatric Functional Bowel Disorders: What Is Their Relevance? Session, Digestive Diseases Week, San Diego, CA, May 18, 2019.

477. Irritable bowel syndrome: Art and Spice. AGA Postgraduate Course, San Diego, CA, May 19, 2019.
478. Medical and Psychological Comorbidities Influencing Therapeutic Choices. Making Treatment Choices for Functional GI Disorders. AGA-Rome Foundation lectureship, Digestive Diseases Week, San Diego, May 20, 2019.
479. Career Development: My 10 Rules for Success. UCLA GI Fellowship Core Curriculum Lecture, Los Angeles, CA, June 7, 2019.
480. Controversies in Functional GI and Motility. 2019 Southern California Society of Gastroenterology (SCSG), Laguna Niguel, CA, June 22, 2019.
481. Women in GI (panel member), Gastroenterology and Liver Society (GALS) event, 2019 Southern California Society of Gastroenterology (SCSG), Laguna Niguel, CA, June 22, 2019.
482. Women in NGM survey results and panel member, 2019 American Neurogastroenterology and Motility Society Annual Meeting, August 16, 2019, Chicago, IL.
483. The effects of early-life stress on the development of FGIDs. Neurodevelopmental programming of the GI tract session, American Neurogastroenterology and Motility Society Annual Meeting, August 17, 2019, Chicago, IL.
484. What Does and What Does Not Cause IBS? ACG's Functional GI Disorders School, September 6, 2019, Williamsburg, VA.
485. The Chronically Constipated Patient: Avoiding Another Shutdown. ACG's Functional GI Disorders School, September 6, 2019, Williamsburg, VA.
486. GI Case Conference: Management of FGID with Comorbidities. UCLA Division of Digestive Diseases Case Conference, Los Angeles, October 24, 2019.
487. Life in Academic Practice. AGA Academic Skills workshop webcast. November 17, 2019.
488. Chronic constipation. UCLA GI Fellowship Monday morning VA lectures, Los Angeles, CA, November 18, 2019.

2020

489. What Does and What Does Not Cause IBS? ACG's Functional GI Disorders School, January 10, 2020, San Diego, CA.
490. The Chronically Constipated Patient: Avoiding Another Shutdown. ACG's Functional GI Disorders School, January 10, 2020, San Diego, CA.
491. Role of Stress in Digestive Health and Disease. Keynote speaker, Wazo Connect Brain Food Feast Workshop, UCLA, January 21, 2020, Los Angeles, CA.
492. Year in Review: IBS-D and IBS-C. 4th Annual Gastroenterology Updates in IBD and Liver, Guild Conference. February 19, 2020, Maui, HI.

493. Irritable bowel syndrome. UCLA GI Fellowship Monday am VA lecture series, Los Angeles, CA, February 24, 2020.
494. Pharmacologic treatment of chronic abdominal pain. Also served as moderator for Functional GI session. 8th Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, Beverly Hills, CA, March 7, 2020.
495. Functional GI Disorders: Management of IBS with Diarrhea Symptoms. Division of Digestive Diseases Case Conference, April 23, 2020, Los Angeles, CA.
496. How to Manage Common Clinical Scenarios in Functional GI Disorders. UCLA GI Fellowship Core Curriculum Lecture Series, May 7, 2020, Los Angeles, CA.
497. Irritable Bowel Syndrome. Expert Strategies GI endoscopy virtual conference, KU/Mayo GI Course, May 15, 2020.
498. Functional Dyspepsia and Cyclic Vomiting Syndrome. South Orange County GI Journal Club, August 12, 2020.
499. Stress, Epigenetics, and Microbiome. Brain-gut microbiome research conference, UCLA G Oppenheimer Center for Neurobiology of Stress and Resilience, September 9, 2020.
500. Functional dyspepsia. University of Minnesota GI Citywide Conference virtual lecture, September 24, 2020.
501. Overview and update of chronic constipation and irritable bowel syndrome with constipation. Symposium on chronic constipation. Japanese Society of Gastroenterology meeting, virtual conference, October 3, 2020.
502. Management of abdominal bloating and distension. UCLA Gastroenterology Fellowship core curriculum, Los Angeles, October 2, 2020.
503. Chronic Constipation - Subtypes and Pathophysiology. The Rome Foundation Symposium on Disorders of Gut-Brain Interaction (DGBI). Virtual symposium, October 17, 2020.
504. Chronic Constipation - Evidence-based diagnostic approach. The Rome Foundation Symposium on Disorders of Gut-Brain Interaction (DGBI). Virtual symposium, October 17, 2020.
505. Chronic Constipation - Treatment Approaches. The Rome Foundation Symposium on Disorders of Gut-Brain Interaction (DGBI). Virtual symposium, October 17, 2020.
506. Brain-Gut Axis and Its Interaction With the Enteric Microbiome. Functional GI Disorders – Leveraging the Mind-Gut Connection – Clinical Pearls session, ACG Postgraduate Course, virtual symposium, October 25, 2020.
507. Chronic abdominal pain: Approach to Evaluation and Treatment. ACG Postgraduate Course, virtual symposium, October 25, 2020.

508. Guidance on career opportunities in academic medicine: clinical research. AGA Career Development Workshop series on “How to Navigate Your Career Options.” Virtual townhall, November 9, 2020.
509. What Does and What Does Not Cause IBS? ACG's Functional GI Disorders School, virtual conference, December 5, 2020.
510. The Chronically Constipated Patient: Avoiding Another Shutdown. ACG's Functional GI Disorders School, virtual conference, December 5, 2020.
511. Case presentation: Management of IBS with diarrhea symptoms. SCOPE Canada Rounds, Interactive Webinar Series, December 15, 2020.
512. Irritable bowel syndrome. UCLA GI Fellowship VA clinic lecture series, Los Angeles, CA, December 21, 2020.
513. Best Practices in the Management of Irritable Bowel Syndrome (IBS). University of Chicago Virtual Medicine Grand Rounds, January 12, 2021.
514. Why is Sex and Gender so Important in IBS? GI Research Conference, Beth Israel Deaconess Medical Center, virtual lecture, January 13, 2021.
515. 2021 ACG/LGS Annual Spring Symposium Beyond the Package Insert- Pharmacological Agents for IBS. 2021 ACG/LGS Annual Spring Symposium, virtual lecture, March 6, 2021.
516. Case Study: Patient with Chronic Dyspepsia: Diagnosis and Treatment. IBS and Other Disorders of the Gut-Brain Interaction session speaker and moderator. Ninth Annual UCLA-Mellinkoff Gastroenterology and Hepatology Symposium, virtual conference, March 7, 2021.
517. The MDCP Approach and Diagnostic Algorithms. Rome Foundation Global Epidemiology Study Virtual Symposium Sessions, March 18, 2021.
518. When Laxatives Aren't Enough: Expert Tips for Improving CIC Care. Digestive Diseases Week virtual satellite symposium, May 21, 2021.
519. The spectrum of congenital sucrase-isomaltase deficiency. Digestive Diseases Week virtual satellite symposium, May 22, 2021.
520. Best Practices in the Management of Irritable Bowel Syndrome (IBS). University of Nebraska medical Center GI Grand Rounds, virtual lecture, May 28, 2021.
521. Approach to a Patient with Difficult to Treat IBS. Summer School for Digestive Diseases and Endoscopy, virtual lecture to Middle East, June 4, 2021.
522. Current and Emerging Therapies for IBS-C. 2nd Annual Medical Crossfire, IBS and IBD. Virtual interactive conference, June 5, 2021.
523. Medical Crossfire: Challenging Cases in IBS. 2nd Annual Medical Crossfire, IBS and IBD. Virtual interactive conference, June 5, 2021.

524. Integrating Scientific Evidence and Practical Tips in Managing IBS. UCLA GI Fellowship Program core curriculum, June 11, 2021.
525. Treatment of Irritable Bowel Syndrome (IBS). Brazilian Gastro Meeting, virtual lecture, June 12, 2021.
526. Brain Gut Aspects in Symptom Generation and Management. Pan American meeting, Brazil, virtual lecture.
527. Patient cases and Communication workshop. Pan American meeting, Brazil, virtual lecture.
528. Brain Gut Aspects in Symptom Generation and Management. Asian Pacific Digestive Diseases week meeting, Malaysia, virtual lecture.
529. Pathophysiology of IBS. GI ReConnect meeting, Napa Valley, CA, June 19, 2021.
530. Functional constipation. Remote International Digestive Event (Ride) to iGlobe. Virtual conference, July 8, 2021.
531. IBS From Crib to Adulthood: Novel Clinical and Physiologic Insights. W. Jerry Dodds, MD and Sushil K. Sarna, PhD Endowed Lectureship, ANMS Annual Scientific Meeting, Boston, MA, August 15, 2021.
532. Epigenetics in IBS – Status quo. European Society of Neurogastroenterology and Motility (ESNM) 2021, virtual meeting, September 3, 2021.
533. Efficacy and Safety of Olorinab, a Peripherally Acting, Highly Selective, Full Agonist of Cannabinoid Receptor 2, for the Treatment of Abdominal Pain in Patients With Irritable Bowel Syndrome: Results From a Phase 2b Randomized Study (CAPTIVATE). UEG 2021 virtual meeting oral presentation, October 3-5, 2021.
534. Career Opportunities for Women in GI. Panel member. ACG Virtual Grand Rounds. September 14, 2021.
535. Overlap of IBS, CVS and CHS. University of Arizona GI Fellows conference. Tucson, Arizona, September 22, 2021.
536. Novel Clinical and Physiologic Insights on IBS: From Bedside to Bench. University of Arizona Medical Grand Rounds. Tucson, Arizona, September 22, 2021.

MEDIA, BLOGS, WEBCAST INTERVIEWS:

- A. **TV interviews:** The View (IBS), The Doctors (Constipation; 9/25/09), Good Day LA (Gut health during the holidays, IBS, constipation; 12/19/18)
- B. **Radio interviews:** “Embodied” program, State of Things on WUNC, North Carolina Public Radio (8/22/19); Doctor Radio, Sirius radio, linaclotide and IBS with constipation (07/29/21).
- C. **Magazine articles:** Health magazine, Vogue, Men’s Health, Dr. Oz Magazine, Reader’s Digest, Healthy Living Made Simple, Self, Cosmopolitan, Women’s Health Today, Vivmag, Good Housekeeping, Ladies’ Home Journal

- D. **News articles:** Wall Street Journal, Healio IBS, NIH News in Health, The New Gastroenterologist, WebMD, Lifescript, everydayhealth.com, Healio Linaclotide, Healio on CIC (4/8/20)
- E. **Blogs:** Alliance for Patient Access (IBS Awareness month; 04/20), Rome Foundation Gut Feelings (IBS Awareness month; 04/20)
- F. **Webcast interviews:** Gender in Disorders of Gut-Brain Interactions, Rome Foundation, August 21, 2020.
- G. **Podcast:** 1) Embodied” program, Pooped: Second Brain Inside of Us, September 2020 (<https://apple.co/3hXaQ6z>); 2) AGA Podcast: About Small Talk, Big Topics: Mentorship, February 21, 2021.

PUBLICATIONS:

A. RESEARCH PAPERS – PEER REVIEWED

1990-1995

1. Boyar A, Nussmeier M, **Chang L**, Beall G. Eosinophilia as a presentation in metastatic gastric carcinoma. **Immunol All Pract** 12: 17-20, 1990.
2. de Virgilio C, Klein S, **Chang L**, Klassen M, Bongard F. Clostridial bacteremia: Implications for the surgeon. **Am Surg** 57: 388-393, 1991.
3. de Virgilio C, Verbin C, **Chang L**, Lindor S, Stabile B, Klein S. Gallstone pancreatitis: The role of preoperative ERCP. **Arch Surg** 129: 909-913, 1994.

1996-1999

4. Arnell T, de Virgilio C, **Chang L**, Bongard F, Stabile BE. Admission factors can predict the need for ICU monitoring in gallstone pancreatitis. **Am Surg** 62: 815-819, 1996.
5. Munakata J, Naliboff B, Harraf F, Kodner A, Lembo T, **Chang L**, Silverman DHS, Mayer EA. Repetitive sigmoid stimulation induces rectal hyperalgesia in patients with irritable bowel syndrome. **Gastroenterology** 112: 55-63, 1997.
6. Toosie K, **Chang L**, Renslo R, Arnell T, Bongard F, Stabile BE, de Virgilio C. Early computed tomography is rarely necessary in gallstone pancreatitis. **Am Surg** 10: 904-907, 1997.
7. **Chang L**, de Virgilio C, Lo SK, Lewis R, Stabile BE. Gallstone pancreatitis: A prospective study on the incidence of cholangitis and clinical predictors of retained common bile duct stones. **Am J Gastroenterol** 93: 527-531, 1998.
8. Schmulson M, Lee O, **Chang L**, Naliboff B, Mayer EA. Symptom differences in moderate to severe IBS patients based on predominant bowel habit. **Am J Gastroenterol** 94:2929-2935 1999.
9. Lee OY, FitzGerald LZ, Naliboff B, Liu C, Schmulson M, Fullerton S, Mayer EA, **Chang L**. Impact of advertisement and clinic populations in symptoms and perception of irritable bowel syndrome. **Aliment Pharmacol Ther** 13:1631-1638, 1999.

2000

10. **Chang L**, Lo SK, Lewis R, Stabile BE, de Virgilio C. Gallstone pancreatitis: a prospective randomized trial of preoperative vs. postoperative ERCP. **Ann Surg** 231:82-87, 2000.
11. Meek K, Toosie K, Stabile BE, Elbassir M, Murrell Z, Lewis RJ, **Chang L**, de Virgilio C. Simplified admission criterion for predicting severe complications of gallstone pancreatitis. **Arch Surg** 135:1048-54, 2000.
12. **Chang L**, Mayer EA, FitzGerald L, Stains J, Naliboff B. Differences in somatic perception in patients with irritable bowel syndrome with and without fibromyalgia. **Pain** 84:297-307, 2000.
13. Schmulson M, **Chang L**, Naliboff B, Lee O, Mayer EA. Correlation of symptom criteria with perception thresholds during rectosigmoid distension in irritable bowel syndrome. **Am J Gastroenterol** 95:152-156, 2000.
14. **Chang L**, Munakata J, Mayer EA, Schmulson MJ, Johnson TD, Bernstein CN, Saba L, Naliboff B, Anton PA, Matin K. Perceptual responses in patients with inflammatory and functional bowel disease. **Gut** 47:497-505, 2000. PMID: PMC1728092
15. Berman S, Munakata J, Naliboff B, **Chang L**, Mandelkern MA, Silverman D, Kovalik E, Mayer EA. Gender differences in regional brain response to visceral pressure in IBS patients. **Eur J Pain** 4:157-172, 2000.

2001

16. Naliboff B, Derbyshire SWG, Munakata J, Berman S, Mandelkern M, **Chang L**, Mayer EA. Cerebral activation in irritable bowel syndrome patients and control subjects during rectosigmoid stimulation. **Psychosom Med** 63(3):365-75, 2001.
17. Lee OY, Mayer EA, Schmulson M, **Chang L**, Naliboff B. Gender related differences in irritable bowel syndrome symptoms. **Am J Gastroenterol** 96:2184-2193, 2001.
18. Heitkemper M, Olden K, Gordon S, Carter E, **Chang L**. Irritable bowel syndrome: a survey of nurses' knowledge. **Gastroenterol Nurs** 24:281-287, 2001.
19. **Chang L**, Lee OY, Naliboff B, Schmulson M, Mayer EA. Bloating and abdominal distension symptoms in patients with irritable bowel syndrome. **Am J Gastroenterol** 96:3341-3347, 2001.

2002

20. Mayer EA, Derbyshire SWG, **Chang L**, Fitzgerald L, Berman S, Mandelkern M, Hamm L, Vogt B and Naliboff BD. The Effect of the 5-HT₃ Receptor Antagonist Alosetron on brain responses to visceral stimulation in IBS patients. **Aliment Pharmacol Ther** 16(7):1357-1366, 2002.

21. Heitkemper M, Elta G, Carter EG, Ameen V, Olden KW, **Chang L**. Women with Irritable Bowel Syndrome: Differences in Patients' and Physicians' Perceptions. **Gastroenterol Nurs** 25:192-200, 2002.
22. Berman S, **Chang L**, Suyenobu B, Derbyshire SWG, FitzGerald L, Mandelkern M, Hamm L, Vogt B, Naliboff BD, Mayer EA. Condition specific deactivation of brain regions by 5HT₃ antagonist alosetron. **Gastroenterology** 123:969-977, 2002.
23. Berman SM, Naliboff BD, **Chang L**, FitzGerald L, Antolin T, Camplone A, Mayer EA. Enhanced preattentive CNS reactivity in irritable bowel syndrome. **Am J Gastroenterol** 97:2791-2797, 2002.
24. Chey WD, Drossman D, Olden KW, Carter EG, Boyle J, **Chang L**. Do the Rome I and Rome II criteria identify the same IBS patients? Data from the Landmark Study. **Am J Gastroenterol** 97:2803-2811, 2002.
25. Sach J, Bolus R, Fitzgerald L, Naliboff BD, **Chang L**, Mayer EA. Is there a difference between abdominal pain and discomfort in moderate to severe IBS patients? **Am J Gastroenterol** 97:3131-3138, 2002.

2003

26. Dickhaus B, Mayer EA, Firooz N, Stains J, Conde F, Olivas TI, Fass R, **Chang L**, Mayer M, Naliboff BD. Effect of auditory stress on perceptual and emotional ratings of visceral stimuli in IBS patients. **Am J Gastroenterol** 98(1):135-43, 2003.
27. Naliboff BD, Berman S, **Chang L**, Derbyshire SWG, Suyenobu B, Vogt BA, Mandelkern MA, Mayer EA. Sex-related differences in IBS patients: central processing of visceral stimuli. **Gastroenterology** 124:1738-1747, 2003.
28. **Chang L**, Berman S, Mayer EA, Suyenobu B, Derbyshire SWG, Naliboff BD, Vogt B, FitzGerald LZ, Mandelkern MA. Brain responses to acute visceral and somatic stimuli in patients with irritable bowel syndrome and fibromyalgia. **Am J Gastroenterol** 98:1354-1361, 2003.
29. Hazlett-Stevens H, Craske MG, Mayer EA, **Chang L**, Naliboff BD. Prevalence of irritable bowel syndrome among university students: the roles of worry, neuroticism, anxiety sensitivity and visceral anxiety. **J Psychosom Res** 55(6): 501-505, 2003.

2004

30. Schwetz I, Naliboff B, Munakata J, Lembo T, **Chang L**, Matin K, Ohning G, Mayer EA. Anti-hyperalgesic effect of octreotide in patients with irritable bowel syndrome. **Aliment Pharmacol Ther** 9(1):123-31, 2004.
31. Naliboff BD, Mayer M, Fass R, FitzGerald LZ, **Chang L**, Bolus R, Mayer EA. The effect of life stress on symptoms of heartburn. **Psychosom Med** 66(3):426-34, 2004.
32. Labus JS, Bolus R, **Chang L**, Wiklund I, Naesdal J, Mayer EA, Naliboff BD. The visceral sensitivity index: development and validation of a gastrointestinal symptom-specific anxiety scale. **Aliment Pharmacol Ther** 20:89-97, 2004.

33. Spiegel BMR, Gralnek IM, Bolus R, **Chang L**, Dulai GS, Mayer EA, Naliboff B. Clinical determinants of health-related quality of life in irritable bowel syndrome. **Arch Intern Med** 164:1773-1780, 2004.
34. Gralnek IM, Hays RD, Kilbourne, AM, **Chang L**, Mayer EA. Racial differences in the impact of irritable bowel syndrome on health-related quality of life. **J Clin Gastro** 38(9):782-9, 2004.

2005

35. **Chang L**, Ameen VZ, Dukes G, McSorley DJ, Mayer EA. A dose-ranging, phase II study of the efficacy and safety of alosetron hydrochloride (Lotronex®) in men with diarrhea-predominant IBS. **Am J Gastroenterol** 100:115-123, 2005.
36. Tillisch K, Labus J, Naliboff BD, Bolus R, Shetzline M, Mayer EA, **Chang L**. Characterization of the alternating bowel habit subtype in patients with irritable bowel syndrome. **Am J Gastroenterol** 100(4):896-904, 2005.
37. Longstreth GF, Bolus R, Naliboff B, **Chang L**, Kulich KR, Carlsson J, Mayer EA, Naesdal J, Wiklund IK. Impact of irritable bowel syndrome on patients' lives: Development and psychometric documentation of a disease-specific measure for use in clinical trials. **Eur J Gastroenterol Hepatol** 17(4):411-420, 2005.
38. Hungin P, **Chang L**, Locke R, Dennis E, Barghout V. Prevalence, symptoms and impact of IBS in the USA: a descriptive study. **Aliment Pharmacol Ther** 21:1365-1375, 2005.
39. Mayer EA, Berman S, Suyenobu B, Labus J, Mandelkern MA, Naliboff B, **Chang L**. Brain responses to visceral pain between male patients with irritable bowel syndrome and ulcerative colitis. **Pain** 115(3):398-409, 2005.
40. Dunckley P, Wise R, Painter D, Brooks J, Tracey I, Aziz Q, **Chang L**. Cortical processing of visceral and somatic stimulation - differentiating pain intensity from unpleasantness. **Neurosci** 133(2):533-42, 2005.
41. Tillisch K, Mayer EA, Labus JS, Stains J, **Chang L**, Naliboff BD. Gender-specific alterations in autonomic function among patients with irritable bowel syndrome. **Gut** 54(10):1396-1401, 2005.
42. Tan S, Tillisch K, Bolus R, Olivas TI, Spiegel B, Naliboff BD, **Chang L**, Mayer EA. Subgrouping of irritable bowel syndrome patients using Traditional Chinese Medicine symptom classification - A pilot study. **Am J Chin Med** 33(3):365-79, 2005.
43. Dunckley P, Wise RG, Fairhurst M, Hobden P, Aziz Q, **Chang L**, Tracey I. A comparison of visceral and somatic pain processing in the human brainstem using fMRI. **J Neurosci** 25(32):7333-41, 2005.
44. Tack J, Müller-Lissner S, Bytzer P, Corinaldesi R, **Chang L**, Viegas A, Dunger-Baldauf C, Rueegg P. A randomised controlled trial assessing the efficacy and safety of repeated tegaserod therapy in women with irritable bowel syndrome with constipation (IBS-C). **Gut** 54(12):1707-13, 2005.

45. Spiegel BMR, Gralnek IM, Bolus R, **Chang L**, Dulai G, Naliboff B, Mayer EA. Is a negative colonoscopy associated with reassurance or improved health-related quality of life in irritable bowel syndrome? **Gastrointest Endosc.** 2005;62(6):892-899.
46. Vakil N, Veldhuyzen van Zanten S, **Chang L**, Whitehead W, Toth G, Sherman J, Fraser M, Cohard-Radice M. Patient comprehension and awareness of dyspepsia. **Aliment Pharmacol Therap**;22(11-12):1147-55, 2005.

2006

47. **Chang L**, Chey WD, Harris L, Olden K, Surawicz C, Schoenfeld P. Incidence of ischemic colitis and serious complications of constipation among patients using alosetron: Systematic review of clinical trials and post-marketing surveillance data. **Am J Gastroenterol** 101(5):1069-79, 2006.
48. Labus J, Mayer E, Berman S, **Chang L**, Fallon J, Naliboff B. Characterizing effective connectivity of functional neural networks in irritable bowel syndrome (IBS). **Journal of Pain** 7(4) Suppl, 2006.
49. Naliboff BD, Berman S, Suyenobu B, Labus JS, **Chang L**, Stains J, Mandelkern MA, Mayer EA. Longitudinal changes in perceptual and brain activation responses to visceral stimulation in irritable bowel syndrome patients. **Gastroenterology** 131(2):352-365, 2006.
50. **Chang L**, Mayer EA, Labus J, Schmulson M, Lee OY, Olivas TI, Stains J, Naliboff BD. Effect of sex on perception of rectosigmoid stimuli in irritable bowel syndrome. **Am J Physiol-Regulatory, Integrative and Comparative Physiology** 291:R277-R284, 2006.

2007

51. Labus JS, Mayer EA, **Chang L**, Bolus R, Naliboff BD. The Central Role of Gastrointestinal-Specific Anxiety in Irritable Bowel Syndrome: Further Validation of the Visceral Sensitivity Index. **Psychosomatic Medicine**;69(1):89-98, 2007.
52. Dunckley P, Aziz Q, Wise RG, Brooks J, Tracey I, **Chang L**. Attentional modulation of visceral and somatic pain. **Neurogastroenterology and Motility**; 19(7):569-77, 2007.

2008

53. **Chang L**, Kahler KH, Sarawate C, Quimbo R, Kralstein J. Assessment of Potential Risk Factors Associated With Ischemic Colitis. **Neurogastroenterology and Motility**; 20:36-42, 2008.
54. Spiegel BMR, Strickland A, Naliboff BD, Mayer EA, **Chang L**. Predictors of patient-assessed illness severity in irritable bowel syndrome. **American Journal of Gastroenterology** 2008;103(10):2536-43. PMID: PMC2949074.
55. Jarcho JM, **Chang L**, Berman SM, Suyenobu B, Naliboff BD, Lieberman MD, Mandelkern MA, Mayer EA. Neural, psychological, and symptom-based predictors of treatment

response in irritable bowel syndrome patients with a 5-HT₃ receptor antagonist – a pilot study. **Aliment Pharmacol Therap.** 2008;1;28(3):344-52.

56. Naliboff BD, Waters AM, Labus JS, Kilpatrick L, Craske MG, **Chang L**, Negoro H, Ibrahimovic H, Mayer EA, Ornitz E. Increased acoustic startle responses in IBS patients during abdominal and non-abdominal threat. **Psychosomatic Medicine** 2008; 70(8):920-7.

2009

57. **Chang L**, Sundaresh S, Elliott J, Anton PA, Baldi P, Licudine A, Mayer M, Vuong T, Hirano M, Naliboff BD, Ameen VZ, Mayer EA. Dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis in irritable bowel syndrome. **Neurogastroenterology and Motility** 2009;21:149–159. PMC: 2745840
58. Drossman DA, **Chang L**, Schneck S, Blackman C, Norton WF, Norton NJ. A focus group assessment of patient perspectives on irritable bowel syndrome and illness severity. **Digestive Diseases and Sciences** 2009;55:1532-1541.
59. Spiegel BMR, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Bolus RE, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Dulai GS, Talley J, **Chang L**. Developing valid and reliable health utilities in irritable bowel syndrome: Results from the IBS PROOF Cohort. **American Journal of Gastroenterology** 2009;104(8):1984-91.
60. Videlock E, Adeyemo M, Licudine A, Hirano M, Ohning G, Mayer M, Mayer EA, **Chang L**. Childhood trauma is associated with increased hypothalamic-pituitary-adrenal (HPA) axis responsiveness in irritable bowel syndrome. **Gastroenterology** 2009;137:1954-1962. PMID: PMC2789911
61. Spiegel BMR, Bolus RE, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Esralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Dulai GS, Talley J, **Chang L**. Measuring IBS patient reported outcomes with an abdominal pain numeric rating scale: results from the PROOF cohort. **Alimentary Pharmacology and Therapeutics** 2009;30:1159-70. PMID: PMC2793273

2010

62. Spiegel BM, Farid M, Esralian E, Talley J, **Chang L**. Is irritable bowel syndrome a diagnosis of exclusion? A survey of primary care providers, gastroenterologists, and IBS experts. **American Journal of Gastroenterology** 2010;105: 848-858. PMC2887205
63. **Chang L**, Tong K, Ameen V. Ischemic colitis and complications of constipation associated with the use of alosetron under a risk management plan: Clinical characteristics, outcomes, and incidences. **American Journal of Gastroenterology** 2010;105:866-875.
64. Schmulson M, Adeyemo M, Gutiérrez-Reyes G, Charúa-Guindic L, Farfán-Labonne B, Ostrosky-Solis F, Díaz-Anzaldúa A, Medina A, **Chang L**. Differences in gastrointestinal symptoms according to gender in Rome II positive IBS and dyspepsia in a Latin American population. **American Journal of Gastroenterology** 2010;105:925-932. PMID: 20179693

65. Adeyemo M, Spiegel BMR, **Chang L**. Do Irritable Bowel Syndrome (IBS) Symptoms Vary Between Men and Women? A Meta-Analysis and Systematic Review. **Alimentary Pharmacology and Therapeutics** 2010;32:738-55. PMC2932820
66. Spiegel BMR, Bolus RE, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Chey WD, Sayuk G, Esrailian E, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Characterizing abdominal pain in IBS: guidance for study inclusion criteria and outcome measurement. **Alimentary Pharmacology and Therapeutics** 2010;32(9):1192-202. PMC4118306
67. Spiegel BMR, Bolus RE, Agarwal N, Sayuk G, Harris LA, Lucak SL, Esrailian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Measuring symptoms in irritable bowel syndrome: development of a framework for clinical trials. **Alimentary Pharmacology and Therapeutics** 2010;32(10):1275-91.

2011

68. Spiegel BMR, Khanna D, Bolus R, Agarwal N, Khanna P, **Chang L**. Understanding gastrointestinal distress: a framework for clinical practice. **American Journal of Gastroenterology** 2011;106:380–385.
69. Hellström PM, Saito Y, Bytzer P, Tack J, Mueller-Lissner S, **Chang L**. Characteristics of Acute Pain Attacks in Patients with Irritable Bowel Syndrome (IBS) Meeting Rome III Criteria. **American Journal of Gastroenterology** 2011;106(7):1299-307.
70. Chey WD, Camilleri M, **Chang L**, Rikner L, Graffner H. A Randomized Placebo-controlled Phase IIb Trial of A3309, a bile acid transport inhibitor, for Chronic Idiopathic Constipation. **American Journal of Gastroenterology** 2011;106:1803-12.

2012

71. **Chang L**, Adeyemo M, Karagiannides I, Videlock EJ, Bowe C, Shih W, Presson AA, Yuan PQ, Gong H, Singh S, Cortina G, Licudine A, Tache Y, Pothoulakis C, Mayer EA. Serum and colonic immune markers in irritable bowel syndrome. **American Journal of Gastroenterology** 2012; 107(2):262-72. PMC3311761
72. Naliboff BD, Kim S, Bolus R, Bernstein CN, Mayer EA, **Chang L**. Gastrointestinal and Psychological Mediators of Health Related Quality of Life in IBS and IBD: A Structural Equation Modeling Analysis. **American Journal of Gastroenterology** 2012;107:451–459.
73. Bradford K, Shih W, Videlock E, Presson AP, Naliboff BD, Mayer EA, **Chang L**. Association of early adverse life events and irritable bowel syndrome. **Clinical Gastroenterology and Hepatology** 2012;10(4):385-390. PMC3311761

2013

74. Tong K, Nicandro JP, Shringarpure R, Chuang E, **Chang L**. A 9-Year Evaluation of Temporal Trends in Alosetron Post-Marketing Safety Under the Risk Management Program. **Therapeutic Advances in Gastroenterology** 2013;6(5):344–357.

75. Cheng P, Alberto M, Shih W, Presson AP, Licudine A, Mayer EA, Naliboff BD, **Chang L**. Autonomic response to a visceral stressor is dysregulated in irritable bowel syndrome and correlates with visceral perception. **Neurogastroenterology and Motility** 2013;25(10):e650-9. PMC3788031
76. Grasberger H, **Chang L**, Shih W, Presson AP, Karagiannides I, Pothoulakis C, Mayer EA, Merchant JL. Identification of a Functional *TPH1* Polymorphism Associated with Irritable Bowel Syndrome Bowel Habit Subtypes. **American Journal of Gastroenterology** 2013;108(11):1766-74. PMC4067697

2014

77. Su A, Shih W, Presson AP, **Chang L**. Characterization of symptoms in irritable bowel syndrome with mixed bowel habit pattern. **Neurogastroenterology and Motility** 2014;26(1):36-45. PMC3865067
78. Khanna P, Agrawal N, Khanna D, Hays RD, **Chang L**, Bolus R, Melmed G, Whitman C, Kaplan RM, Ogawa R, Snyder B, Spiegel B. Development of an online library of patient reported outcome measures in gastroenterology: The GI-PRO database. **American Journal of Gastroenterology** 2014;109(2):234-48. PMC4275098
79. Schoenfeld P, Pimentel M, **Chang L**, Lembo A, Chey WD, Yu J, Paterson C, Bortey E, Forbes WP. Safety and tolerability of rifaximin for the treatment of irritable bowel syndrome with diarrhea: a pooled analysis of randomized, double-blind, placebo-controlled trials. **Alimentary Pharmacology and Therapeutics** 2014;39(10):1161-8. PMC4112801
80. Bashashati M, Rezaei N, Shafieyoun A, McKernan DP, **Chang L**, Öhman L, Quigley EM, Schmulson M, Sharkey KA, Simrén M. Cytokine imbalance in irritable bowel syndrome: a systematic review and meta-analysis. **Neurogastroenterology and Motility** 2014;26(7):1036-48.
81. Cohen E, Bolus R, Khanna D, Hays RD, **Chang L**, Melmed GY, Khanna P, Spiegel BM. GERD Symptoms in the General Population: Prevalence and Severity vs. Care Seeking Patients. **Dig Dis Sci** 2014;Oct;59(10):2488-96. PMC4275099
82. Nagaraja V, Hays RD, Khanna PP, Spiegel BMR, **Chang L**, Melmed GY, Bolus R, Khanna D. Construct validity of the Patient Reported Outcomes Measurement Information System (PROMIS®) Gastrointestinal Symptom Scales in Systemic Sclerosis. **Arthritis Care Res** 2014 Nov;66(11):1725-30. PMC4182150
83. Spiegel BM, Hays R, Bolus R, Melmed G, **Chang L**, Whitman C, Khanna PP, Paz SH, Hays T, Reise S, Khanna D. Development of the NIH Patient Reported Outcomes Measurement Information System (PROMIS®) Gastrointestinal Symptom Scales. **American J Gastroenterology** 2014;109(11):1804-14. PMC4285435
84. **Chang L**, Lembo AJ, Lavins BJ, Shiff SJ, Hao X, Chickering JG, Jia XD, Currie MG, Kurtz, Johnston JM. Abdominal Symptoms Affect Global Measures in Chronic Constipation Patients Before and After Linaclotide. **Alimentary Pharmacology and Therapeutics** 2014;40(11-12):1302-12.

85. **Chang L**, Lembo A, Sultan S. American Gastroenterological Association Technical Review on the Pharmacological Management of Irritable Bowel Syndrome. *Gastroenterology* 2014;147(5):1149-1172.

2015

86. Almario CV, Chey WD, Kaung A, Whitman C, Fuller G, Reid M, Nguyen K, Bolus R, Dennis B, Encarnacion R, Martinez B, Talley J, Modi R, Agarwal N, Lee A, Kubomoto S, Sharma G, Bolus S, **Chang L**, Spiegel BMR. Computer Algorithm Outperforms Physician-Documented History of Presenting Illness (HPI): Results of a Blinded Comparison. *American Journal of Gastroenterology* 2015 Jan;110(1):170-9. PMC4289091
87. Saypol B, Drossman DA, Schmulson MJ, Olano C, Halpert A, Aderoju A, **Chang L**. Using Interactive Theater to improve physician patient communication: Experiences from three educational project. *Rev Esp Enferm Dig.* 2015 May;107(5):268-273.
88. Gerson CD, Gerson MJ, **Chang L**, Corazziari ES, Dumitrascu D, Ghoshal UC, Porcelli P, Schmulson M, Wang WA, Zali M. A cross-cultural investigation of attachment style, catastrophizing, negative pain beliefs, and symptom severity in irritable bowel syndrome. *Neurogastroenterol Motil.* 2015 Apr;27(4):490-500.
89. Polytarchou C, Hommes DW, Palumbo T, Hatzia Apostolou M, Koukos G, van der Meulende Jong AE, Oikonomopoulos A, Van Deen WK, Vorvis C, **Chang L**, Anton PA, Pothoulakis C, Verspaget HW, Iliopoulos D. MicroRNA-214 is associated with progression of ulcerative colitis, and inhibition reduces development of colitis and colitis-associated colon cancer in mice. *Gastroenterology* 2015;149(4):981-992. PMC4584179
90. Baritaki S, Rodriguez JA, Iliopoulos D, Huerta-Yeppez S, Hoffman JM, Baay-Gusman GJ, Tirado-Rodriguez AB, Ka Man Law I, Hommes DW, Verspaget HW, **Chang L**, Pothoulakis C. Diminished expression of CRH 2 in human colon cancer promotes tumor growth and EMT via persistent IL-6/STAT3 signaling. *Cellular and Molecular Gastroenterology and Hepatology* 2015 Nov 1;1(6):610-630. PMC4610032
91. Almario CV, Chey WD, Iriana S, Dailey F, Robbins K, Patel AV, Reid M, Whitman C, Fuller G, Bolus R, Dennis B, Encarnacion R, Martinez B, Soares J, Modi R, Agarwal N, Lee A, Kubomoto S, Sharma G, Bolus S, **Chang L**, Spiegel BMR. Computer Versus Physician Identification of Gastrointestinal Alarm Features. *International Journal of Medical Informatics* 2015 Dec;84(12):1111-7.
92. Orand AC, Gupta A, Shih W, Presson AP, Hammer C, Nisler B, Heendeniya N, Mayer EA, **Chang L**. Catecholaminergic Gene Polymorphisms are Associated with GI Symptoms and Morphologic Brain Changes in Irritable Bowel Syndrome. *PLoS One* 2015; Aug 19;10(8):e0135910. PMC4546052

2016

93. Gupta A, Labus, JS, Kilpatrick LA, Bonyadi M, Ash-McNalley C, Heendeniya H, Bradesi S, **Chang L**, Mayer EA. Early Life Adversity: Interactions with Stress Related Gene Polymorphisms to Impact Regional Brain Structure. *Brain Structure & Function* 2016;221(3):1667-79. PMC4573367

94. Palsson OS, Whitehead WE, van Tilburg MAL, **Chang L**, Chey WD, Crowell MD, Keefer L, Lembo AJ, Parkman HP, Rao SSC, Sperber A, Spiegel B, Tack J, Vanner S, Walker LS, Whorwell P, Yang Y. Development and Validation of the Rome IV Diagnostic Questionnaire for Adults. *Gastroenterology* 2016;150:1481-1491.
95. Mahurkar-Joshi S, Polyartchou C, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. Genome-wide DNA Methylation Analysis Demonstrates Potential Epigenetic Biomarkers for Irritable Bowel Syndrome. *Neurogastroenterology and Motility* 2016; 28(3):410-422. PMC3994910
96. Videlock EJ, Shih W, Adeyemo M, Mahurkar-Joshi S, Presson AP, Polyartchou P, Alberto M, Iliopoulos D, Mayer EA, **Chang L**. Effect of IBS and sex on HPA axis response and peripheral GR expression. *Psychoneuroendocrinology* 2016;69:67-76. PMC4977028
97. Park SH, Videlock EJ, Shih W, Presson AP, Mayer EA, **Chang L**. Adverse Childhood Experiences are Associated with Irritable Bowel Syndrome and Gastrointestinal Symptom Severity. *Neurogastroenterology and Motility* 2016;28:1252-1260. PMC4956522
98. Orand A, Naliboff BD, Gadd M, Shih W, Ju T, Presson AP, Mayer EA, **Chang L**. CRH-R1 Genetic Polymorphisms are Associated with Irritable Bowel Syndrome and Acoustic Startle Response. *Psychoneuroendocrinology* 2016;73:133-141. PMC5048544
99. Latorre R, JHuynh J, Mazzoni M, Gupta A, Bonora E, Clavenzani P, **Chang L**, Mayer EA, De Giorgio R, Sternini C. Expression of the Bitter Taste Receptor, T2R38, in Enteroendocrine Cells of the Colonic Mucosa of Overweight/Obese vs. Lean Subjects. *PLoS One* 2016 Feb 11;11(2):e0147468. doi: 10.1371/journal.pone.0147468. PMC4750998
100. **Chang L**, Chey WD, Drossman D, Losch-Beridon T, Wang M, Lichtlen P, Mareya S. Effects of Baseline Abdominal Pain and Bloating on Response to Lubiprostone in Patients With Irritable Bowel Syndrome With Constipation. *Alimentary Pharmacology and Therapeutics* 2016;Nov;44(10):1114-1122. PMC5215520

2017

101. Lee AD, Spiegel BM, Hays RD, Melmed GY, Bolus R, Khanna D, Khanna P, **Chang L**. Gastrointestinal Symptom Severity in Inflammatory Bowel Disease, Irritable Bowel Syndrome and the General Population. *Neurogastroenterology and Motility* 2017 May;29(5). doi: 10.1111/nmo.13003. PMC5393974
102. Khanna D, Hays RD, Shreiner AB, Melmed GY, **Chang L**, Khanna PP, Bolus R, Whitman C, Paz SH, Hays T, Reise SP, Spiegel B. Responsiveness to Change and Minimally Important Differences of the Patient Reported Outcomes Measurement Information System Gastrointestinal Symptoms Scales. *Digestive Diseases and Sciences* 2017;62(5):1186-1192. PMC5532518
103. Gupta A, Mayer EA, Acosta JR, Hamadani K, Torgerson C, van Horn JD, **Chang L**, Naliboff B, Tillisch K, Labus JS. Early adverse life events are associated with altered brain network architecture in a sex- dependent manner. *Neurobiol Stress*. 2017 Feb 17;7:16-26. PMC5318542

104. Sayuk GS, Wolf R, **Chang L**. Comparison of Symptoms, Healthcare Utilization, and Treatment in Diagnosed and Undiagnosed Individuals With Diarrhea-Predominant Irritable Bowel Syndrome. *American Journal of Gastroenterology* 2017;112(6):892-899.
105. Gupta A, Cole S, Labus JS, Joshi S, Nguyen TJ, Kilpatrick L, Hong J, Tillisch K, Naliboff B, **Chang L**, Mayer EA. Gene Expression Profiles in Peripheral Blood Mononuclear Cells Correlate with Salience Network Activity in Chronic Visceral Pain: A Pilot Study. *Neurogastroenterology and Motility* 2017;Jun;29(6). doi: 10.1111/nmo.13027. PMC5503466
106. Gupta A, Love A, Kilpatrick LA, Labus JS, Alaverdyan M, **Chang L**, Tillisch K, Naliboff B, Mayer EA. Morphological brain measures of cortico-limbic inhibition related to resilience. *J Neurosci Res* 2016;Dec 28. doi: 10.1002/jnr.24007. PMC5512424
107. Volkmann ER, Hoffman-Vold A, Chang Y, Jacobs JP, Tillisch K, Mayer EA, Clements PJ, Hov JR, Jummen M, Molber Ø, **Chang L**, Labus JS, Midtvedt Ø, Braun J. Systemic sclerosis is associated with specific alterations in gastrointestinal microbiota in two independent cohorts. *BMJ Open Gastroenterology* 2017;4(1):e000134. doi: 10.1136/bmjgast-2017-000134. PMC5508636
108. Bashashati M, Moossavi S, Cremon C, Raffaella Barbaro M, Moraveji S, Talmon G, Rezaei N, Hughes PA, Bian Z, Choi CH, Lee O, Coëffier M, **Chang L**, Ohman L, Schmulson MJ, McCallum RW, Simren M, Sharkey KA, Barbara G. Colonic immune cells in irritable bowel syndrome: A systematic review and meta-analysis. *Neurogastroenterology and Motility* 2017 Aug 29. doi: 10.1111/nmo.13192.
109. Cash BD, Pimentel M, Rao S, Weinstock L, **Chang L**, Heimanson Z, Lembo A. Repeat Treatment With Rifaximin Improves Irritable Bowel Syndrome-Related Quality of Life: a Randomized, Double-Blind, Placebo-Controlled Trial. *Therapeutic Advances in Gastroenterology* 2017;10(9):689-699. PMC5598815

2018

110. Strege P, Mazzone A, Bernard C, Neshatian L, Gibbons S, Saito Y, Tester D, Calvert M, Mayer E, **Chang L**, Ackerman M, Beyder A, Farrugia G. Irritable bowel syndrome (IBS) patients have *SCN5A* channelopathies that lead to decreased Nav1.5 current and mechanosensitivity. *American Journal of Physiology-Gastrointestinal and Liver Physiology* 2018;314(4):G494-G503.
111. Park SH, Naliboff BD, Shih W, Presson AP, Videlock E, Ju T, Kilpatrick L, Gupta A, Mayer EA, **Chang L**. Resilience is decreased in Irritable bowel syndrome and associated with symptoms and cortisol response. *Neurogastroenterology and Motility* 2018 Jan;30(1). doi: 10.1111/nmo.13155. Epub 2017 Jul 18. PMC5739983.
112. Henström M, Diekmann L, Bonfiglio, Hadizadeh F, Kuech E, von Köckritz-Blickwede, Thingholm LB, Zheng FBT, Assadi G, Dierks C, Heine M, Philipp U, Distl O, Money ME, Belheouane M, Heinsen F, Rafter J, Nardone G, Cuomo R, Usai-Satta P, Galeazzi F, Neri M, Walter S, Simren M, Karling P, Ohlsson B, Schmidt P, Lindberg G, Dlugosz A, Agreus L, Andreasson A, Engstrand L, Portincasa P, Bellini M, Stanghellini V, Barbara G, **Chang**

- L, Camilleri M, Franke A, Naim HY, D'Amato M. Functional variants in the sucrase-isomaltase gene associate with increased risk of irritable bowel syndrome. *Gut* 2018;67(2): 263–270. PMC5563477.
113. Bonfiglio F, Zheng T, Garcia-Etxebarria K, Hadizadeh F, Bujanda L, Bresso F, Agreus L, Andreasson A, Dlugosz A, Lindberg G, Schmidt PT, Karling P, Ohlsson B, Simren M, Walter S, Nardone G, Cuomo R, Usai-Satta P, Galeazzi F, Neri M, Portincasa P, Bellini M, Barbara G, Latiano A, Hübenthal M, Thijs V, Netea MG, Jonkers D, **Chang L**, Mayer EA, Wouters MM, Boeckxstaens G, Camilleri M, Franke A, Zhernakova A, D'Amato M. Female-specific Association Between Variants on Chromosome 9 and Self-reported Diagnosis of Irritable Bowel Syndrome. *Gastroenterology* 2018;155(1):168-179. PMC6035117.
114. Garcia-Etxebarria K, Zheng T, Bonfiglio F, Bujanda L, Dlugosz A, Lindberg G, Schmidt PT, Karling P, Ohlsson B, Simren M, Walter S, Nardone G, Cuomo R, Usai-Satta P, Galeazzi F, Neri M, Portincasa P, Bellini M, Barbara G, Jonkers D, Eswaran S, Chey WD, Kashyap P, **Chang L**, Mayer EA, Wouters MM, Boeckxstaens G, Camilleri M, Franke A, D'Amato M. Increased Prevalence of Rare Sucrase-isomaltase Pathogenic Variants in Irritable Bowel Syndrome Patients. *Clin Gastroenterol Hepatol.* 2018 Oct;16(10):1673-1676. PMC6103908
115. Videlock EJ, Mahurkar-Joshi S, Hoffman J, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. Sigmoid mucosal gene expression supports alterations of neuronal signaling in irritable bowel syndrome with constipation. *American Journal of Physiology – Gastrointestinal and Liver Physiology* 2018;315(1):G140-G157. PMC6109711
- 2019**
116. Addante R, Naliboff B, Shih W, Presson AP, Tillisch K, Mayer EA, **Chang L**. Predictors of health related quality of life in irritable bowel syndrome patients compared to healthy individuals. *Journal of Clinical Gastroenterology* 2019;53:e142-e149. PMC6051929
117. Lacy BE, Harris LA, **Chang L**, Lucak S, Gutman C, Dove LS, Covington PS, Lembo A. Impact of patient and disease characteristics on the efficacy and safety of eluxadoline for IBS-D: a subgroup analysis of phase 3 trials. *Therapeutic Advances in Gastroenterology* 2019;12: 1–12. PMC6466471
118. Hagiwara S, Hasdemir B, Heyman M, **Chang L**, Bhargava A. GPCR-containing B7-2+ extracellular vesicles from immune cells in blood correlate with Irritable Bowel Syndrome Severity. *Cells* 2019; 8(2): 101 PMC6406316
119. Soroosh A, Rankin CR, Polytarchou C, **Chang L**, Pothoulakis C, Iliopoulos D, Padua DM. MicroRNA-24 is elevated in Ulcerative Colitis patients and regulates intestinal epithelial barrier function. *American Journal of Pathology* 2019 Sep;189(9):1763-1774. PMC6723227
120. Parker CH, Naliboff BD, Shih W, Presson AP, Videlock EJ, Mayer EA, **Chang L**. Negative Events During Adulthood are Associated with Symptom Severity and Altered Stress Response in Irritable Bowel Syndrome. *Clinical Gastroenterology and Hepatology* 2019;17:2245-2252. PMC6609507

121. Castro J, Harrington AM, Lieu T, Garcia-Caraballo S, Maddern J, Schober G, O'Donnell T, Grundy L, Miller P, Ghetti A, Steinhoff MS, Poole DP, **Chang L**, Bunnett NW, Brierley SM. Activation of pruritogenic TGR5, MRGPRA3 and MRPGR11 on colon-innervating afferents induces visceral hypersensitivity. *JCI Insight*. 2019;4(20):e131712. PMC6824308
122. Dothel G, **Chang L**, Shih W, Barbaro MR, Stanghellini V, De Ponti F, Mayer EA, Barbara G, Sternini C. Colonic mucosal levels of μ -opioid receptor, β -endorphin and cannabinoid receptor-2 are increased in irritable bowel syndrome. *Neurogastroenterology and Motility* Jul 2019 Nov;31(11):e13688. doi: 10.1111/nmo.13688. PMC6791736
123. Osadchiy V, Mayer EA, Labus JS, Bhatt R, Gao L, Kilpatrick LA, Liu C, Tillisch K, Naliboff B, **Chang L**, Gupta A. History of Early Life Adversity is Associated with Increased Food Addiction and Sex-specific Alterations in Reward Network Connectivity in Obesity. *Obesity Science & Practice* 2019;30;5(5):416-436. PMC6819979

2020

124. Ju T, Naliboff BD, Shih W, Presson AP, Liu C, Gupta A, Mayer EA, **Chang L**. Risk and Protective Factors Related to Early Adverse Life Events in Irritable Bowel Syndrome. *Journal of Clinical Gastroenterology* 2020;54(1):63-69. PMC6802286
125. Chen FW, LeBrett WG, Yang L, **Chang L**. Opioid Prescription Patterns Among US Gastroenterologists From 2013 to 2017. *Gastroenterology* 2020;158:776–779.
126. Lenhart A, Naliboff B, Shih W, Gupta A, Tillisch K, Liu C, Mayer EA, **Chang L**. Postmenopausal Women with Irritable Bowel Syndrome (IBS) Have More Severe Symptoms Than Premenopausal Women with IBS. *Neurogastroenterol Motil*. 2020;00:e13913. [https:// doi.org/10.1111/nmo.13913](https://doi.org/10.1111/nmo.13913). PMC7529855
127. Rahal H, Videlock EJ, Shih W, Naliboff BD, Gupta A, Mayer EA, **Chang L**. Importance of fear in patients with irritable bowel syndrome and early adverse life events. *Neurogastroenterol Motil*. 2020; 2020 Jun 17;e13896. doi: 10.1111/nmo.13896. PMC7483907
128. Kamp, KJ, Han, C, Shulman RJ, Cain KC, Barney P, Opp MR, **Chang L**, Burr RL, Heitkemper MM. Cytokine Levels and Symptoms Among Women With Irritable Bowel Syndrome: Considering the Role of Hormonal Contraceptive use. *Biol Res Nurs* 2020 Jul 17;1099800420941252. doi: 10.1177/1099800420941252
129. Parker CH, Naliboff BD, Shih W, Presson AP, Kilpatrick LA, Gupta A, Liu C, Keefer L, Sauk J, Hirten R, Sands BE, **Chang L**. Resilience in irritable bowel syndrome is lower compared to the general population and other chronic gastrointestinal conditions. *Clin Gastroenterol Hepatol*. 2020 Aug 21:S1542-3565(20)31152-6. doi: 10.1016/j.cgh.2020.08.043. Epub ahead of print. PMC7897330.
130. Hirten RP, Danieletto M, Scheel R, Shervey M, Ji J, Hu L, Sauk J, **Chang L**, Arnrich B, Böttinger E, Dudley J, Keefer L, Sands BE. Longitudinal Autonomic Nervous System Measures Correlate With Stress and Ulcerative Colitis Disease Activity and Predict Flare. *Inflamm Bowel Dis*. 2020 Dec 31:izaa323. doi: 10.1093/ibd/izaa323. Epub ahead of print. PMID: 33382065.

131. Hirten R, Stanley S, Danieletto M, Borman Z, Grinspin A, Rao P, Sauk J, **Chang L**, Arnrich B, Böttinger E, Keefer L, Sands BE. Wearable devices are well accepted by patients in the study and management of inflammatory bowel disease: A survey study. *Digestive Diseases and Sciences* 2020 Jul 23. doi: 10.1007/s10620-020-06493-y.
132. Osadchiy V, Mayer EA, Gao K, Labus JS, Naliboff B, Tillisch K, **Chang L**, Jacobs JP, Hsiao EY, Gupta A. Analysis of brain networks and fecal metabolites reveals brain-gut alterations in premenopausal females with irritable bowel syndrome. *Transl Psychiatry*. 2020 Nov 2;10(1):367. doi: 10.1038/s41398-020-01071-2. PMID: 33139708; PMC7608552.
133. Nulsen B, LeBrett W, Drossman DA, **Chang L**. A survey of gastroenterologists in the United States on the use of central neuromodulators for treating irritable bowel syndrome. *Aliment Pharmacol Ther* 2021;54(3):281-291. PMID: 34148256.

2021

134. Shah ED, **Chang L**, Salwen-Deremer JK, Gibson PR, Keefer L, Muir JG, Eswaran S, Chey WD. Contrasting clinician and insurer perspectives to managing irritable bowel syndrome: multilevel modeling analysis. *American J of Gastroenterol* 2020 (m J Gastroenterol. 2021 Apr;116(4):748-757.
135. LeBrett WG, Chen FW, Yang L, **Chang L**. Increasing Rates of Opioid Prescriptions for Gastrointestinal Diseases in the United States. *Am J Gastroenterol*. 2021 Apr;116(4):796-807.
136. Mahurkar-Joshi S, Rankin CR, Videlock EJ, Soroosh A, Verma A, Khandadash A, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. The Colonic Mucosal MicroRNAs, MicroRNA-219a-5p and MicroRNA-338-3p, are Downregulated in Irritable Bowel Syndrome and are Associated with Barrier Function and MAPK signaling. *Gastroenterology*. 2021 Jun;160(7):2409-2422.e19. doi: 10.1053/j.gastro.2021.02.040. Epub 2021 Feb 20. PMID: 33617890; PMC8169529.

B. RESEARCH PAPERS – PEER REVIEWED (IN PRESS)

137. Shah ED, **Chang L**, Lembo A, Staller K, Curley MA, Chey WD. Price Is Right: Exploring Prescription Drug Coverage Barriers for Irritable Bowel Syndrome Using Threshold Pricing Analysis. *Dig Dis Sci*. 2021 Jan 12. doi: 10.1007/s10620-020-06806-1. Epub ahead of print. PMID: 33433804.
138. Shah ED, Lacy BE, Chey WD, **Chang L**, Brenner DM. Tegaserod for irritable bowel syndrome with constipation in women less than 65 years of age without cardiovascular disease: pooled analyses of 4 controlled trials. *Am J of Gastroenterol* 2021 (in press).
139. **Chang L**, Lacy BE, Moshiree B, Kassebaum A, Abel JL, Hanlon J, Bartolini W, Boinpally R, Bochenek W, Fox SM, Mallick M, Tripp K, Omniewski N, Shea E, Borgstein N. Efficacy of Linaclotide in Reducing Abdominal Symptoms of Bloating, Discomfort, and Pain: A Phase 3B Trial Using a Novel Abdominal Scoring System. *Am J of Gastroenterol* 2021 (in press).

140. Lenhart A, Dong T, Joshi S, Jaffe N, Choo C, Liu C, Jacobs JP, Lagishetty V, Shih W, Labus JS, Gupta A, Tillisch K, Mayer EA, **Chang L**. Effect of Exclusion Diets on Symptom Severity and the Gut Microbiota in Patients with Irritable Bowel Syndrome. *Clin Gastroenterol Hepatol*. 2021 May 19:S1542-3565(21)00565-6. doi: 10.1016/j.cgh.2021.05.027. Epub ahead of print. PMID: 34022450. PMC pending.

C. RESEARCH PAPERS – PEER REVIEWED (Submitted)

148. Shah ED, **Chang L**, Curley MA, Chey WD. Value-based prescription drug pricing in irritable bowel syndrome to increase access to effective therapy.
149. Trieschmann KD, **Chang L**, Park S, Naliboff BD, Joshi S, Labus JS, Sauk JS, Limketkai BN, Mayer EA. The Visceral Sensitivity Index: A novel tool for measuring GI-symptom specific anxiety in inflammatory bowel disease (IBD).
150. Parker CH, Sood A, Naliboff BD, Shih W, **Chang L**. The effect of the Stress Management and Resiliency Training (SMART) Program in irritable bowel syndrome: A controlled trial.
151. Lenhart A, Chen F, Condon A, Kardashian A, Yang L, El-Nachef N, **Chang L**. Gender Differences in Endoscopy Volume Among U.S. Gastroenterology Fellows.

D. RESEARCH PAPERS – NON-PEER REVIEWED

1. **Chang L**, Hierro M, LeDuc L, Snape WJ Jr. Effects of immune cells and inflammation on smooth muscle and enteric nerves. CRC Press, Snape and Collins, editors, 247-256 (1990).
2. Mayer EA, **Chang L**, Lembo T. Brain-gut interactions: Implications for newer therapy. **Eur J Surg (Suppl)** 582:50-55, 1998.
3. Naliboff BD, Munakata J, **Chang L**, Mayer EA. Toward a biobehavioral model of visceral hypersensitivity in irritable bowel syndrome. **J Psychosom Res** 45: 485-492, 1998.
4. **Chang L**. The association of functional gastrointestinal disorders and fibromyalgia. **Eur J Surg (Suppl)** ;583:32-36, 1998.
5. Mayer EA, Lembo T, **Chang L**. Approaches to the modulation of abdominal pain. **Can J Gastroenterol (Suppl)** 13:66A–70A, 1999.
6. Mayer EA, Naliboff B, Lee O, Munakata J, **Chang L**. Gender-related differences in functional gastrointestinal disorders. **Aliment Pharmacol Ther (Suppl 2)** 13:65-69, 1999.
7. Mayer EA, Naliboff BD, **Chang L**. Basic pathophysiologic mechanism in irritable bowel syndrome. **Dig Dis** 19:212-218, 2001.
8. Mayer EA, Naliboff BD, **Chang L**. Evolving pathophysiological model of functional gastrointestinal disorders: implications for treatment. **Eur J Surg** 168 (Suppl 587):3-9, 2002.

E. RESEARCH PAPERS – NON-PEER REVIEWED (IN PRESS)

None

F. RESEARCH PAPERS – NON-PEER REVIEWED (SUBMITTED)**G. CHAPTERS**

1. Stabile B, **Chang L.** (1995) Islet cell tumors. In HA Pitt, D Carr-Locke, J Ferrucci (Eds.), *Hepatobiliary and Pancreatic Disease*. Little, Brown and Co., Medical Division, Boston, pp. 437.
2. **Chang L,** Mayer EA. (1998) Pain in IBD: mechanisms, perception and control. In B Lembcke, W Kruis, RB Sartor (Eds.), *Systemic Manifestations of IBD: The Pending Challenge for Subtle Diagnosis and Treatment*. Kluwer Academic Publishers, Medical Division, Lancaster, United Kingdom, pp. 3-19.
3. Lembo T, **Chang L,** Mayer EA. (1998) Irritable bowel syndrome: present and future approaches to treatment. In G Gitnick (Ed.), *Critical Issues in Gastroenterology*. Williams & Wilkins, Baltimore, pp. 53-72.
4. Naliboff BD, Heitkemper MM, **Chang L,** Mayer EA. Sex and gender in irritable bowel syndrome. In RB Fillingim (Ed.), *Sex, Gender and Pain*. IASP Press, Seattle, pp. 327-354.
5. Dickhaus B, Schmulson M, **Chang L.** (2002) Irritable bowel syndrome. In JP Pregler and AH DeCherney (Ed.), *Women's Health: Principles and Clinical Practice*. B.C. Decker Inc., Hamilton, Ontario, pp. 452-474.
6. Drossman DA, **Chang L.** (2002) Psychosocial factors in the care of patients with gastrointestinal disorders. In T Yamada (Ed), *Textbook of Gastroenterology*. Lippincott Williams & Wilkins, Philadelphia, Pennsylvania, pp. 636-654.
7. **Chang L.** (2003) Extraintestinal manifestations and psychiatric illness in IBS: is there a link? In G Holtmann and NJ Talley (Eds.), *Gastrointestinal Inflammation and Disturbed Gut Function: The Challenge of New Concepts*. Falk Symposium 130. Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 10-16.
8. **Chang L,** Drossman DA. (2004) Psychotropic Drugs and Management of Patients with Functional Gastrointestinal Disorders. In TM Bayless and AM Diehl (Eds.), *Advanced Therapy in Gastroenterology and Liver Disease, Fifth Edition*. BC Decker Inc Publishers, Hamilton, Ontario, Canada.
9. Wong HY, **Chang L.** (2004) Stress and the Gut - Central Influences. In D Grundy and R Spiller (Eds.), *Pathophysiology of the Enteric Nervous System: a basis for understanding functional diseases*, Blackwell Publishing.

10. Harris L, **Chang L.** (2005) The Functional Bowel Spectrum. In DJ Wallace and DJ Clauw (Eds.), *Textbook of Fibromyalgia and Other Non-Neuropathic Pain Syndromes*, Lippincott Wilkins & Williams, Philadelphia, PA.
11. **Chang L.** (2005) Brain responses to visceral and somatic stimuli in IBS: a CNS disorder? *Gastroenterology Clinics of North America*, NJ Talley (Ed.), Elsevier, 34(2):271-279.
12. **Chang L** and Harris L. (2006) Irritable bowel syndrome and functional abdominal pain syndromes: clinical features and management. *Chronic Abdominal and Visceral Pain: Theory and Practice*, PJ Pasricha, WD Willis, and G Gebhart (Eds.), CRC LLC Press.
13. Videlock EJ, **Chang L.** (2007) Irritable Bowel Syndrome: Current Approach to Symptoms, Evaluation and Treatment. *Gastroenterology Clinics of North America*, HP Parkman (Ed.), Elsevier, 36:665-685.
14. **Chang L**, Drossman DA. (2009) Irritable bowel syndrome and related functional disorders. *Functional Pain Syndromes: Presentation and Pathophysiology*. EA Mayer and MC Bushnell (Eds.). IASP Press, Seattle, Washington, 87-120.
15. Videlock EJ, **Chang L.** (2010). Irritable bowel syndrome. *Handbook of Gastrointestinal Motility Testing*. HP Parkman, S Rao, MD, and R McCallum (Eds.). Cambridge University Press, New York.
16. **Chang L**, Heitkemper MM (2011). IBS and the menstrual cycle - what is the relationship? *Curbside Consultation in IBS: 49 Clinical Questions (Curbside Consultation in Gastroenterology Series)* (Ch. 17, pp. 87-90). New Jersey: Slack, Inc.
17. **Chang, L** (2011). Constipation. *Gut Instincts: A Clinician's Handbook of Digestive and Liver Diseases*. E Esrailian (Ed.).
18. Maneerattanaporn, M, **Chang, L**, Chey, WD (2011). Emerging Pharmacological Therapies for the Irritable Bowel Syndrome. *Gastroenterology Clinics of North America*, WD Chey (Ed.), Elsevier, 40(1):223-43.
19. Videlock E, **Chang L.** (2015) Irritable Bowel Syndrome. *Yamada's Textbook of Gastroenterology*, Sixth Edition. Eds. DK Podolsky, M. Camilleri, J. G. Fitz, A.N. Kalloo, F. Shanahan, and T. C. Wang. Published 2015 by John Wiley & Sons, Ltd.
20. Institute of Medicine (IOM) Committee on Gulf War and Health: Long Term Effects of Blast Exposures. (2014) *Gulf War and Health*, Volume 9, The National Academics Press (Ed).
21. Videlock E, **Chang L.** (2015) Irritable Bowel Syndrome. *Handbook of Gastrointestinal Motility Testing*. In: Rao SSC, Parkman HP, McCallum RW (Eds), Chapter 18, pp 213-231, SLACK Incorporated.
22. Videlock E, **Chang L.** (2016) Irritable Bowel Syndrome. *Practical Gastroenterology and Hepatology Board Review Toolkit, Second Edition*. Talley NJ, DeVault KR, Wallace MB, Aqel BA, Lindor KD (Eds). Chapter 65, pp 391-399, John Wiley & Sons, Ltd.

23. Videlock EJ, **Chang L.** (2016) Stress, Distress and FGIDs. FGID: A Biopsychosocial Treatment Approach. Knowles SR, Stern J, Hebbard G (Eds). Chapter 2, pp 12-21, Routledge.
24. Prusator D, **Chang L.** (2017) Sex Related Differences in GI Disorders. *Gastrointestinal Pharmacology, Handbook of Experimental Pharmacology* 2017;239:177-192. Ed. Greenwood-Van Meerveld B. Chapter 12.
25. Lenhart A, **Chang L.** (2019) Clinical Casebook: The Overlap Between Functional Gastrointestinal Disorders and Celiac Disease. *Diagnosis and Management of Gluten-Associated Disorders: A Clinical Casebook.* Weiss G (Ed). Chapter 16. Springer Nature.
26. LeBrett W, Sanders T, **Chang L.** (2020) Nutritional Management of Functional Gastrointestinal Disorders. *Evidence-Based Gastrointestinal Nutrition: A Clinician's Handbook.* Limketkai B and McClave S (Eds). SLACK Incorporated (submitted).
27. Videlock E, **Chang L.** (2021) Irritable Bowel Syndrome. *Yamada's Textbook of Gastroenterology*, Sixth Edition. Eds. DK Podolsky, M. Camilleri, J. G. Fitz, A.N. Kalloo, F. Shanahan, and T. C. Wang. Published 2015 by John Wiley & Sons, Ltd.

H. REVIEWS– PEER REVIEWED

1. **Chang L,** Heitkemper MM. Gender differences in irritable bowel syndrome. *Gastroenterology* 123(5):1686-1701, 2002.
2. **Chang L,** Toner BB, Fukudo S, Guthrie E, Locke GR, Norton NJ, Sperber AD. Gender, Age, Society, Culture, and the Patient's Perspective in the Functional Gastrointestinal Disorders. *Gastroenterology* 130(5):1435-1446, 2006.
3. Harris LA, **Chang L.** Alosetron: An Effective Treatment for Diarrhea-Predominant Irritable Bowel Syndrome. *Women's Health* 3(1):15-27, 2007.
4. Mayer EA, Bradesi S, **Chang L,** Spiegel BMR, Bueller JA, Naliboff BD. Functional GI disorders: From animal models to drug development. *Gut* 2008;57(3):384-404.
5. Hall KE, Cash BD, **Chang L.** Managing constipation in the elderly. *Geriatrics supplement* 2007.
6. Spiegel BMR, Chey WD, **Chang L.** Bacterial overgrowth and irritable bowel syndrome: a spurious consequence of proton pump inhibitors? *Am J Gastroenterol* 2008;103:2972-2976. PMC2949084
7. Camilleri M, **Chang L.** Challenges to the Therapeutic Pipeline for Irritable Bowel Syndrome: Endpoints and Regulatory Hurdles. *Gastroenterology* 2008; 35(6):1877-91. PMC2671226
8. **Chang L.** Impact of IBS. *Gastroenterology & Hepatology* 2008;4(Suppl 21):4-8.
9. Adeyemo MM, **Chang L.** New treatments for irritable bowel syndrome in women. *Women's Health* 2008;4(6):605-623. PMC2652519

10. Heitkemper MM, **Chang L**. Do Fluctuations in Ovarian Hormones Affect Gastrointestinal Symptoms in Women with Irritable Bowel Syndrome? **Gender Medicine theme issue; Pain Experience, Perception & Therapy** 2009;6:152-167. PMID: 19406367
11. **Chang L**, Drossman DA. Rome Foundation Endpoints and Outcomes Conference 2009: Optimizing Clinical Trials in FGIDs. **American Journal of Gastroenterology** 2010;105:722-730.
12. Sanger GJ, **Chang L**, Bountra C, Houghton LA. Challenges and prospects for pharmacotherapy in functional gastrointestinal disorders. **Therapeutics Adv Gastroenterol** 2010;3:291-305.
13. Khan S, **Chang L**. Diagnosis and Treatment of Irritable Bowel Syndrome. **Nature Gastroenterology and Hepatology** 2010;7(10):565-81.
14. **Chang L**, Lacy BE, Spiegel BM. An Evidence-based Approach to Therapy in IBS-D: A Case Study Compendium. **Gastroenterol Hepatol** (N Y). 2010 Sep;6(9 Suppl 15):1-12. PMCID: PMC3338169.
15. Schmulson M and **Chang L**. Invited review: Treatment of functional abdominal bloating and distension. **Alimentary Pharmacology and Therapeutics** 2011;33(10):1071-86.
16. **Chang L**. Invited review: The role of stress on physiologic responses and clinical symptoms in IBS. **Gastroenterology** 2011;140(3):761-765. PMC3039211
17. Drossman DA, **Chang L**, Bellamy N, Gallo-Torres HE, Lembo A, Mearin F, Norton NJ, Whorwell P. Severity in Irritable Bowel Syndrome: A Rome Working Team Report **American Journal of Gastroenterology** 2011;106:1749-59.
18. Tack J, Camilleri M, **Chang L**, Chey WD, Galligan JJ, Lacy BE, Müller-Lissner S, Quigley EMM, Schuurkes J, De Maeyer JH, Stanghellini V. Systematic review of cardiovascular safety profile of 5-HT₄ agonists developed for GI disorders. *Aliment Pharmacol Ther.* 2012;35(7):745-67.
19. Kim SE, **Chang L**. Overlap between functional GI disorders and other functional syndromes: What are the underlying mechanisms? **Neurogastroenterology and Motility** 2012 Oct;24(10):895-913. PMC3812246
20. Lacy BE, Mearin F, **Chang L**, Chey WD, Lembo AJ, Simren M, Spiller R. Bowel Disorders. *Gastroenterology* 2016;150(6):1393-1407.
21. **Chang L.**, Heitkemper MM, Wiley J, Camilleri M. 2015 James W. Freston Single Topic Conference – A Renaissance in the Understanding and Management of IBS. *Gastroenterology* 2016;151:e1-e8, *Clinical Gastroenterology and Hepatology (CGH)* 2016;14(7):e77-86, and *Cellular and Molecular Gastroenterology and Hepatology* 2016 May 28;2(4):394-399.e2.
22. Lucak S, **Chang L**, Halpert A, Harris LA. Current and emergent pharmacologic treatments for irritable bowel syndrome with diarrhea: evidence-based treatment in practice. *Therapeutic Advances in Gastroenterology* 2017;10(2):253-275.

23. Camilleri M, Ford AC, Mawe G, Dinning PG, Rao S, Chey WD, Simren M, Lembo T, Young-Fadok T, **Chang L**. Chronic Constipation. Invited Review for Nature Reviews Disease Primers 2017;3:1-19.
24. **Chang L**, Di Lorenzo C, Farrugia G, Hamilton FA, Mawe GM, Pasricha PJ, Wiley JW. Functional Bowel Disorders: A Roadmap to Guide the Next Generation of Research. *Gastroenterology* 2018;154:723-735.
25. Mahurkar-Joshi S, **Chang L**. Epigenetic Mechanisms in Irritable Bowel Syndrome. *Front Psychiatry*. 2020 Aug 14;11:805. doi: 10.3389/fpsy.2020.00805. PMID: 32922317; PMCID: PMC7456856
26. Drossman DA, **Chang L**, Deutsch JK, Ford AC, Halpert A, Kroenke K, Nurko S, Ruddy J, Snyder J, Sperber A. A Review of the Evidence and Recommendations on Communication Skills and the Patient-Provider Relationship (PPR): A Rome Foundation Working Team Report. *Gastroenterology* 2021 (in press).
27. Chey WD, Al Hashash J, Manning L, **Chang L**. AGA Clinical Practice Update on Role of Diet in Irritable Bowel Syndrome: Expert Review. Submitted.
28. **Chang L**. How to Approach a Patient with Difficult to Treat IBS. Invited review, *Gastroenterology, Mentoring, Education and Training* section. 2021 (in press).

I. **REVIEWS– NON-PEER REVIEWED**

1. **Chang L**, Snape WJ Jr. Irritable Bowel Syndrome. **IM Internal Medicine** 15: 27-34, 1994.
2. **Chang L**. Evolving therapies for functional colonic disorders. **Curr Opin Gastroenterol** 12: 32-38, 1996.
3. **Chang L**. Gastroesophageal reflux disease: pathophysiology, clinical symptoms, and diagnosis. **Am J Managed Care** 3: S6-S11, 1997.
4. Mayer EA, Munakata J, **Chang L**. Does mind-body medicine have a role in gastroenterology? **Curr Opin Gastroenterol** 13: 1-4, 1997.
5. Mayer EA, **Chang L**, Lembo T. Brain-gut interactions: implications for newer therapy. **Eur J Surg Suppl** 582:50-55, 1998.
6. Schmulson W. M., **Chang L**. Diagnostic approach to the patient with IBS. **Am J Med** 107 (3A):20S-26S, 1999.
7. Mayer EA, Naliboff B, Lee O, Munakata J, **Chang L**. Review article: gender-related differences in functional gastrointestinal disorders. **Aliment Pharmacol Ther** 13:65-69, 1999.

8. Mayer EA, Naliboff BD, **Chang L**, Coutinho SV. Stress and irritable bowel syndrome. **Am J Physiol Gastrointest Liver Physiol** 280(4):G519-524, 2001.
9. Mayer EA, Naliboff BD, **Chang L**. Evolving pathophysiological model of functional GI disorders: implications for therapeutic target identification. **Eur J Surg Suppl** 587; 2002.
10. Mayer EA, Naliboff BD, **Chang L**. Basic pathophysiologic mechanisms in irritable bowel syndrome. **Dig Dis** 19:212-218, 2001.
11. Sach J, **Chang L**. Irritable bowel syndrome. **J Curr Treat Option Gastroenterol** 5:267-278, 2002.
12. Sach J, **Chang L**. Drug treatment of irritable bowel syndrome with serotonin (5-HT) modulators. **Pract Gastroenterol** 127(3): 31-52, 2003.
13. **Chang L**, Drossman DA. Optimizing patient care: the psychological interview in irritable bowel syndrome. **Clin Perspect** 5(6):336-342, Nov/Dec 2002.
14. Heitkemper M, Jarrett M, Bond EF, **Chang L**. Impact of sex and gender on irritable bowel syndrome. **Biol Res Nurs** 5(1):56-65, 2003.
15. **Chang L**. Update on epidemiology, diagnosis and treatment of functional gastrointestinal disorders. Review of ACG 2003 abstracts, www.medscape.com, 2003.
16. Harris L, **Chang L**. IBS: Improving diagnosis, serotonin signaling and implications for treatment. www.medscape.com, 2003.
17. **Chang L**. Functional gastrointestinal disorders -- New answers to old questions. Review of DDW 2004 abstracts, www.medscape.com, 2004.
18. Mayer EA, Berman S., **Chang L**, Naliboff BD. Sex-based differences in gastrointestinal pain. **Eur J Pain** 8:451-463, 2004.
19. **Chang L**. Impact of Functional Gastrointestinal Disorders and Treatment on Symptoms, Quality of Life, and Healthcare Utilization and Costs. Review of ACG 2004 abstracts, www.medscape.com, 2004.
20. **Chang L**. Review article: epidemiology and quality of life in functional gastrointestinal disorders. **Aliment Pharmacol Ther** 20 (Suppl. 7):1-9, 2004.
21. Hwang C, **Chang L**. IBS: Gender differences. **Pract Gastroenterology** 28:13-28, 2004.
22. Tillisch K, **Chang L**. Diagnosis and treatment of irritable bowel syndrome: State of the art. **Current Gastroenterology Reports, Neuromuscular Disorders of the Gastrointestinal Tract** section; 7(4):249-56, 2005.
23. **Chang L**. Impact of Chronic Constipation and IBS. **Adv Stud Med**. 2006;6(2A):S49-S57.
24. Crowell MD, Harris LA, Jones MP, **Chang L**. New insights into the pathophysiology of irritable bowel syndrome: Implications for future treatments. **Current Gastroenterology**

- Reports, Neuromuscular Disorders of the Gastrointestinal Tract** section, 7(4):272-9, 2005.
25. **Chang L.** Lower GI Functional Disorders: Current Concepts and Considerations. Review of ACG 2005 abstracts, www.medscape.com, 2005.
 26. Harris LA, **Chang L.** Irritable bowel syndrome: new and emerging therapies. **Curr Opin Gastroenterol** 22;128-135, 2006.
 27. **Chang L.** From Rome to Los Angeles -- The Rome III Criteria for the Functional GI Disorders. DDW 2006 symposium daily session update, www.medscape.com, 2006.
 28. Cash BD, **Chang L**, Sabesin SM, Vitat P. Update on the management of adults with chronic idiopathic constipation. **J Fam Pract.** 2007;56(6 Suppl Update):S13-9; quiz S20.
 29. Truong TT, **Chang L.** Impact of IBS with Constipation and Chronic Constipation on Women's Health, Current Concepts and Considerations. www.medscape.com, April 2008.
 30. Chang L. The Trials and Tribulations of Drug Development for Functional Gastrointestinal Disorders. **Neurogastroenterology and Motility** 2008;20 (Suppl 1):130-138.
 31. Truong TT, Naliboff BD, **Chang L.** Novel techniques to study visceral hypersensitivity in irritable bowel syndrome. **Current Gastroenterology Reports** 2008;10(4):369-78.
 32. Lacy BE, Chey WD, **Chang L.** An Evidence-Based Look at Misconceptions in the Treatment of Patients with IBS-D. **Gastroenterol Hepatol** (NY). 2013;9 (11 Supple 5):1-24. PMC4034490
 33. Cash B, **Chang L**, Harris L, Lacy B. Nonconstipation irritable bowel syndrome. The Medical Roundtable: General Medical Edition 2014;1(4):323-334.
 34. **Chang L.** IBS and low FODMAPs diet. *GI & Hepatology News*. July 21, 2014.
 35. **Chang L.** Updates to the Rome Criteria for Irritable Bowel Syndrome. *Gastroenterol Hepatol* (NY) 2017;13:304-306.

J. EDITORIALS/SELECTED SUMMARIES/LETTERS

1. **Chang L.** How useful is anorectal manometry? Getting to the bottom of the issue. **Advances in Gastroenterology, Hepatology, and Clinical Nutrition** 2: 143-144, 1997.
2. **Chang L.** Irritable bowel syndrome: progress into the 21st century. **Advances in Gastroenterology, Hepatology, and Clinical Nutrition** 2: 258-261, 1997.
3. **Chang L.** Neuroendocrine and Neuroimmune Markers in IBS: Pathophysiological Role or Epiphenomenon? **Gastroenterology** 130:596-600, 2006.
4. Wang H. and **Chang L.** The Walkerton Outbreak Revisited at Year 8: Predictors, Prevalence and Prognosis of Post-infectious IBS. Selected Summaries, **Gastroenterology** 2011;140(2):726-8.

5. Connolly L. and **Chang L.** Combined oro-caecal scintigraphy and lactulose hydrogen breath testing demonstrate that breath testing detects oro-caecal transit, not small intestinal bacterial overgrowth in patients with IBS. Selected Summaries, **Gastroenterology** 2011;141(3):1118-1121.
6. Schmulson M. and **Chang L.** Letter to the Editors: Response to Letter to the Editor: Treatment of bloating and distension: role of probiotics. **Alimentary Pharmacology and Therapeutics** 2011;34(5):581-3.
7. **Chang L.** Understanding the multidimensional nature of illness severity as measured by patient reported outcome measures in irritable bowel syndrome. **Clinical Gastroenterology and Hepatology** 2011;9(11):918-919.
8. Kim S, **Chang L.** A mindful way through IBS: reducing abdominal pain and improving quality of life. **Gastroenterology** 2012;May;142(5):1247-50.
9. Su A, **Chang L.** IBS bowel habits and associated symptoms: forming a clearer picture. **Gastroenterology** 2013 Jan;144(1):239-42.
10. **Chang L.** Irritable bowel syndrome: new insights into the pathogenesis. AGA Perspectives December 2014/January 2015.
11. **Chang L.** Issue Highlights – August 2017. *Clinical Gastroenterology and Hepatology* 2017;15(8):1141–1143.
12. Lin LD, **Chang L.** Using the Rome IV Criteria to Help Manage the Complex IBS Patient. *American Journal of Gastroenterology, Red Section* 2018;113(4):453-456.
13. Wiley JW and **Chang L.** Functional Bowel Disorders. *Gastroenterology 75th anniversary edition.* *Gastroenterology* 2018;155:1–4.
14. **Chang L.** How do I integrate new IBS therapeutics into clinical practice? AGA Perspectives, July 2018.
15. **Chang L.** Issue Highlights – August 2018. *Clinical Gastroenterology and Hepatology* 2018;16(8):1179-1181.
16. **Chang L.** 9 Things to Know About Medical Therapies for IBS. *Healio Gastroenterology and Liver Disease Special Issue on IBS*, July 2018.
17. Lin LD, **Chang L.** Benefits and Pitfalls of Change From Rome III to Rome IV Criteria for Irritable Bowel Syndrome and Fecal Incontinence. *Clinical Gastroenterology and Hepatology Clin Gastroenterol Hepatol.* 2020;18(2):297-299.
18. **Chang L.** Issue Highlights – August 2019. *Clinical Gastroenterology and Hepatology* 2019;17(8): 1421–1423.
19. **Chang L.** Issue Highlights – August 2020. *Clinical Gastroenterology and Hepatology* 2020 (in press).

20. **Chang L.** Standard Gastroenterologist Versus Multidisciplinary Treatment for Functional Gastrointestinal Disorders (MANTRA): An Open-Label, Single-Centre, Randomised Controlled Trial. PracticeUpdate website. Available at: <https://www.practiceupdate.com/content/standard-gastroenterologist-vs-multidisciplinary-treatment-for-functional-gi-disorders/104109/65/9/1>.
21. Buscaglia JM, **Chang L.** Pain Phenotypes in Chronic Pancreatitis: Beginning to Fine-tune Our Approach to Treatment. Clin Gastroenterol Hepatol. 2020 Dec 30:S1542-3565(20)31728-6. doi: 10.1016/j.cgh.2020.12.032. Epub ahead of print. PMID: 33387669.
22. Onken J, **Chang L,** Kanwal F. Unconscious Bias in Peer Review. Onken J, Chang L, Kanwal F. Unconscious Bias in Peer Review. Clin Gastroenterol Hepatol. 2021 Mar;19(3):419-420. doi: 10.1016/j.cgh.2020.12.001. Epub 2020 Dec 3. PMID: 33279782.
23. Chokshi RV, **Chang L.** Is It Time to Abandon Gastric Emptying in Patients with Symptoms of Gastroparesis and Functional Dyspepsia? Clin Gastroenterol Hepatol. 2021 May 22:S1542-3565(21)00569-3. doi: 10.1016/j.cgh.2021.05.031. Epub ahead of print. PMID: 34033924.
24. Shin A, **Chang L.** The Transition from Rome III to Rome IV Irritable Bowel Syndrome: What We Gain and Lose. Clinical Gastroenterology and Hepatology (2021), doi: <https://doi.org/10.1016/j.cgh.2021.06.032>.
25. LeBrett W, Chen F, Yang L, **Chang L.** Reply to Liu et al.: “Comments on Study of Opioid Prescriptions for Gastrointestinal Disease in the United States”. American Journal of Gastroenterology 2021 (in press).
26. **Chang L.** Examining the Gut-Brain Connection in IBS. Data Trends, Gastroenterology & Hepatology News 2021 (in press).

K. BLOGS

1. Stress, Chronic Stress and IBS. Rome Foundation Gut Feelings – Blog. <https://theromefoundation.org/gut-feelings-blog/>

L. PAPERS IN PREPARATION

- 1.

M. ABSTRACTS

1990

1. **Chang L,** Chen J, Eysselein VE, Snape WJ Jr. Effect of bethanechol and vasoactive intestinal peptide (VIP) in the early production of inositol 1,4,5-trisphosphate in the intact colonic smooth muscle. **Gastroenterology** 94: A1207, 1990.

1991

2. Xie Y, Gerthoffer W, Chen J, **Chang L**, Snape WJ Jr. Phosphatidylinositol metabolism and myosin light chain phosphorylation in the colitic colon smooth muscle. **Gastroenterology** 100: A509, 1991.

1992

3. **Chang L**, Lo SK, French S, Hierro M. Comparison of tissue sampling techniques performed during ERCP in the diagnosis of biliary obstruction. **Gastrointest Endosc** 38: 248, 1992.

1993

4. Lo SK, **Chang L**, French S, Juarez D, Ashby K. The efficacy of endobiliary biopsy and CEA staining in evaluating biliary strictures. **Gastrointest Endosc** 39: 324, 1993.
5. Lo SK, French S, **Chang L**, Venegas R, Juarez D. Forceps biopsy, supplemented by CEA biochemical staining, should become a routine procedure to evaluate biliary strictures. **Am J Gastroenterol** 88: 1531, 1993.

1994

6. de Virgilio C, Lindor S, **Chang L**, Verbin C, Klein S. Gallstone pancreatitis: The current role of preoperative ERCP. Pacific Coast Surgical Association, 1994.
7. Venegas R, Kashyap PK, **Chang L**, French S, Lo SK. Cytology is of poor yield in diagnosing newly presented neoplastic biliary strictures. **Gastrointest Endosc (Suppl)** 40: 129, 1994.

1995

8. **Chang L**, de Virgilio C, Lo SK, Klein S, Stabile BE. Indications and timing of ERCP in gallstone pancreatitis. **Gastrointest Endosc** 41: 393, 1995.
9. **Chang L**, de Virgilio C, Lo SK, Stabile BE. A prospective randomized trial assessing the timing and cost of ERCP in gallstone pancreatitis. **Am J Gastroenterol** 90: 1601, 1995.
10. Lo SK, French S, **Chang L**, Venegas R, Chen J, Doo E, Juarez D. A prospective study comparing forceps biopsy and cytology for diagnosing neoplastic biliary strictures (NBS). **Gastrointest Endosc** 41: 405, 1995.
11. Munakata J, **Chang L**, An C, Naliboff B, Fullerton S, Mayer EA. The effect of benzodiazepam on thresholds and stimulus response (SR) functions for rectal sensations in normal subjects and IBS patients. **Gastroenterology** 108: A992, 1995.
12. Munakata J, **Chang L**, An C, Naliboff B, Mayer EA. Repetitive activation of sigmoid mechanoreceptors results in the development of rectal hyperalgesia in IBS patients. **Gastroenterology** 108: A653, 1995.
13. Munakata J, Naliboff B, **Chang L**, An K, Mayer EA. Octreotide inhibits the development of rectal hyperalgesia in response to mechanical sigmoid sensitization in IBS patients. **Gastroenterology** 108: A652, 1995.

1996

14. Arnell T, de Virgilio C, **Chang L**, Bongard F, Stabile BE. Guidelines for intensive care monitoring in patients with gallstone pancreatitis: a prospective study. Southern California Chapter of the American College of Surgeons, 1996.
15. **Chang L**, de Virgilio C, Lo SK, Stabile BE. A prospective randomized trial of mild-moderate gallstone pancreatitis: clinical outcome and cost of selective preoperative vs. postoperative ERCP. **Gastrointest Endosc**, 1996.
16. **Chang L**, Munakata J, An K, Saba L, Naliboff B, Procaccino F, Mayer EA. Evidence for the activation of endogenous pain modulation system in ulcerative colitis. **Gastroenterology** 110: A645, 1996.
17. Fullerton S, **Chang L**, Naliboff B, Saba L, Mayer EA. Fibromyalgia symptoms in patients with irritable bowel syndrome. **Gastroenterology** 110: A18, 1996.
18. Munakata J, Naliboff B, **Chang L**, Lembo T, Mayer EA. Differential effects of chronic and acute visceral irritation on perception of rectosigmoid pain. 8th World of Congress on Pain, 1996.

1997

19. **Chang L**, Mayer EA, FitzGerald L, Stains J, Naliboff B. Altered perception of somatic stimuli by IBS patients with and without fibromyalgia (FM). **Gastroenterology** 112: A709, 1997.
20. **Chang L**, Munakata J, Saba L, Naliboff B, Matin K, Mayer EA. Inflammatory and functional intestinal disorders differ in their response to acute visceral pain. Western Society for Clinical Investigation, 1997.
21. **Chang L**, Munakata J, Silverman DHS, Mandelkern MA, Mayer EA. Correlation of cortical brain activation with affective and anxiety ratings in response to rectal pain in patients with inflammatory bowel disease (IBD). **Gastroenterology** 112: A947, 1997.
22. **Chang L**, Saba L, Silverman DHS, Matin K, Mandelkern MA, Mayer EA. Differences in perception and brain activation in response to visceral stimuli in IBS patient and non-patient twins. **Gastroenterology** 112: A709, 1997.
23. **Chang L**, Woo K, Saba L, FitzGerald L, Stains J, Mayer EA. Features of atypical and melancholic subtypes of depression in patients with inflammatory bowel disease (IBD). **Gastroenterology** 112: A947, 1997.
24. Fullerton S, **Chang L**, Naliboff B, Saba L, Lembo T, Mayer EA. Bloating and abdominal distension symptoms in patients with irritable bowel syndrome. **Gastroenterology** 112: A734, 1997.
25. Silverman DHS, Munakata J, **Chang L**, Mandelkern MA, Mayer EA. Patients with inflammatory bowel disease and irritable bowel syndrome have distinct abnormal cingulate cortical responses to visceral stimuli: an O^{15} -water brain PET study. **Gastroenterology** 112: A1092, 1997.

26. Toosie K, **Chang L**, Renslo R, Arnell T, Bongard F, Stabile BE, de Virgilio C. Early computed tomography in gallstone pancreatitis: correlation with admission factors and outcome. Annual Meeting of the Southern California Chapter, American College of Surgeons, 1997.

1998

27. **Chang L**, Mayer EA, Munakata J, FitzGerald L, Schmulson M, Naliboff B. The coexistence of fibromyalgia (FM) alters rectal perception before and after sigmoid stimulation in female IBS patients. **Gastroenterology** 114: A732, 1998.
28. **Chang L**, Mayer EA, Munakata J, Silverman DHS, Berman S, Gilmore S, FitzGerald L, Schmulson M, Mandelkern MA, Naliboff B. Differences in left prefrontal activation to visceral and somatic stimuli assessed by O¹⁵-water PET in female patients with irritable bowel syndrome (IBS) and fibromyalgia. **Gastroenterology** 114: A732, 1998.
29. **Chang L**, Munakata J. CNS responses to visceral pain in patients with inflammatory bowel disease. **Neurogastroenterol Motil** 10: 358, 1998.
30. Munakata J, Silverman DHS, Naliboff B, Liu M, **Chang L**, Mandelkern MA, Mayer EA. Altered cortical and subcortical brain activation associated with autonomic responses to visceral pain in irritable bowel syndrome. **Gastroenterology** 114: A1167, 1998.
31. Schmulson M, Mayer EA, Munakata J, **Chang L**, Naliboff B. Symptom criteria and severity in irritable bowel syndrome are associated with rectal sensitivity thresholds before and after sigmoid stimulation. **Gastroenterology** 114: A834, 1998.

1999

32. **Chang L**, Lembo T, Naliboff B, Schmulson M, Mayer EA. Differences in perceptual responses to thermal and mechanical pain female patients with irritable bowel syndrome (IBS). **Gastroenterology** 116: A969, 1999.
33. **Chang L**, Poland R, Naliboff B, Schmulson M, FitzGerald LZ, Mayer EA. Decreased slow wave sleep activity in female patients with irritable bowel syndrome (IBS) and fibromyalgia (FM). **Gastroenterology** 116: A969, 1999.
34. Derbyshire SWG, Naliboff B, Munakata J, **Chang L**, Mandelkern M, Berman S, Mayer EA. Gender differences in the central response to visceral pain and anticipation of pain in irritable bowel syndrome (IBS). **Gastroenterology** 116: A1038, 1999.
35. de Virgilio C, Elbassir M, Toosie K, Lewis R, Stabile B, **Chang L**. Admission criteria predict major complications of gallstone pancreatitis: a prospective study. Submitted to The Southwestern Surgical Congress, 1999.
36. FitzGerald L, Mayer EA, **Chang L**, Naliboff B. Irritable bowel syndrome (IBS) patients can be distinguished by predominance of pain or discomfort symptoms. **Gastroenterology** 116: A1037, 1999.

37. Hastie BA, Mayer EA, **Chang L**, Anton P, Bernstein CN, Naliboff BD. Structural equation modeling of symptom severity and psychological factors in determining quality of life in irritable bowel syndrome and inflammatory bowel disease. **Gastroenterology** 116: A1039, 1999.
38. Lee OY, Schmulson M, Mayer EA, **Chang L**, Naliboff B. Gender related differences in irritable bowel syndrome symptoms. **Gastroenterology** 116: A1026, 1999.
39. Lee OY, Schmulson M, Naliboff B, Olivas T, **Chang L**, Mayer EA. The influence of psychological factors on viscerosensory symptoms and rectal perception threshold in IBS patients. **Gastroenterology** 116: A1025, 1999.
40. Munakata J, Naliboff B, **Chang L**, Mandelkern M, Derbyshire S, Mayer EA. Gender differences in brain regions associated with subjective intensity ratings of visceral stimuli. **Gastroenterology** 116: A1039, 1999.
41. Schmulson M, Lee OY, **Chang L**, FitzGerald L, Liu C, Naliboff B, Mayer EA. Characterizing bowel habit in irritable bowel syndrome (IBS). **Gastroenterology** 116: A1078, 1999.
42. Schmulson M, Lee OY, Olivas T, **Chang L**, FitzGerald L, Naliboff B, Mayer EA. Effect of food intake on rectosigmoid motor and perceptual responses in IBS patients with different bowel habit. **Gastroenterology** 116: A1078, 1999.

2000

43. Bahmani P, Lee OY, Naliboff BD, Mayer EA, Liu C, Olivas TI, **Chang L**. Altered stress symptoms in response to noxious rectosigmoid stimulation in irritable bowel syndrome (IBS) **Gastroenterology** 118:A842, 2000.
44. **Chang L**, Heitkemper M, Carter E. A national survey of irritable bowel syndrome (IBS) in females: Physician and patient perspectives. **Gastroenterology** 118:A144, 2000.
45. Derbyshire SWG, Naliboff BD, **Chang L**, Mandelkern M, Hamm L, Mayer EA. Evidence for selective effect of the 5HT₃ antagonist alosetron on amygdala and hippocampal activation in IBS patients. **Gastroenterology** 118: A81, 2000.
46. Lee OY, Mayer EA, **Chang L**, Naliboff BD. Ratings of sigmoid but not rectal distensions correlate with rectal distensions correlate with IBS symptom severity. **Gastroenterology** 118:A445, 2000.
47. Lee OY, Mayer E, Olivas TI, **Chang L**, Bahmani P, Naliboff B. Gender differences in autonomic activity in IBS. **Gastroenterology** 118:A137, 2000.
48. Naliboff B, Derbyshire S, Munakata J, Berman S, Mandelkern M. **Chang L**, Mayer E. Evidence for decreased activation of central fear circuits by expected aversive visceral stimuli in patients. **Gastroenterology** 118:A137, 2000
49. Lee OY, Naliboff B, Olivas TI, **Chang L**, Mayer E. Differences in rectal mechanoelastic properties according to predominant bowel habit in IBS patients. **Gastroenterology** 118:A667, 2000.

50. Lee OY, Munakata J, Naliboff B, **Chang L**, Mayer E. A double blind parallel group pilot study of the effects of CJ-11,974 and placebo on perceptual and emotional responses to rectosigmoid distension in IBS patients. **Gastroenterology** 118:864, 2000.
51. Naliboff B, Lee OY, Derbyshire S, Olivas T, **Chang L**, Mayer E. Central and symptomatic correlates of rectal accommodation in IBS. **Gastroenterology** 118:1191, 2000.
54. **Chang L**, Derbyshire SWG, Naliboff BD, Mandelkern MA, Mayer EA. Differences in cortical activation to visceral and somatic stimuli assessed by H₂ ¹⁵O PET in female patients with irritable bowel syndrome (IBS) and fibromyalgia. **Neurogastroenterol Motil** 12:380, 2000.
52. FitzGerald LZ, Naliboff BD, Mayer EA, Bahmani P, **Chang L**. Altered stress symptoms in response to noxious rectosigmoid stimulation in irritable bowel syndrome (IBS). **Neurogastroenterol Motil** 12:386, 2000.
53. Mayer EA, Derbyshire SWG, **Chang L**, Mandelkern M, Hamm L, Naliboff B. Effect of 5HT₃ antagonist alosetron on regional brain responses to visceral stimulation. **Soc Neurosci Abstr** 2000.

2001

57. **Chang L**, Olden K, Carter E, Boyle J, Chey WD. Bowel habit predominance has a significant impact on symptoms and daily activities in women with IBS. **Gastroenterology** 120:A634, 2001.
58. **Chang L**, Naliboff B, Schmulson M, Lee OY, Olivas TI, Mayer EA. The role of gender and bowel habit predominance on visceral perception in IBS. **Gastroenterology** 120:A755, 2001.
59. Chey WD, **Chang L**, Boyle J, Olden K. Do the Rome I and Rome II criteria identify the same IBS pts? **Gastroenterology** 120:A635, 2001.
60. Olden K, Chey WD, Boyle J, **Chang L**. Health related quality of life in irritable bowel syndrome: A community based study. **Gastroenterology** 120:A634, 2001.

2002

59. **Chang L**, Naliboff BD, Vuong T, Hirano M, Mayer M, Olivas TI, FitzGerald LZ, Mayer EA. Role of cortisol in the symptoms of irritable bowel syndrome and fibromyalgia. **Gastroenterology** 122:A313, 2002.
60. **Chang L**, Anton P, Elliott J, Reinholdt J, Taing P, Mayer EA. Decreased mucosal cytokines in diarrhea-predominant irritable bowel syndrome. **Gastroenterology** 122:A552, 2002.

2003

61. **Chang L**, Baisnee PF, Baldi PF, Licudine A, Vuong T, Hirano M, Olivas TI, Mayer M, FitzGerald LZ, Naliboff BD, Mayer EA. Altered diurnal rhythm of ACTH and cortisol in irritable bowel syndrome and fibromyalgia. **Gastroenterology** 124:A672, 2003.
62. Tillisch K, Naliboff BD, Bolus R, Olivas TI, Mayer EA, **Chang L**. Rectosigmoid sensory measures distinguish IBS patients from controls and correlate with self ratings of GI symptom severity. **Gastroenterology** 124:A252, 2003.
63. Tillisch K, Sach J, Mayer EA, Naliboff BD, Liu C, **Chang L**. Characterization of symptoms in IBS patients with alternating bowel habits. **Gastroenterology** 124:A390, 2003.
64. FitzGerald LZ, **Chang L**, Lee CK, Owens MJ, Mayer M, Naliboff BD, Nemeroff CB, Mayer EA. Elevated levels of central stress mediators in irritable bowel syndrome. **Gastroenterology** 124:A252, 2003.
65. Spiegel BMR, Gralnek IM, Mayer EA, Bolus R, **Chang L**, Dulai GS, Naliboff BD. Is a negative colonoscopy associated with reassurance or improved health-related quality of life in irritable bowel syndrome? **Gastroenterology** 124:A 2003.
66. Spiegel BMR, Gralnek IM, Mayer EA, Bolus R, **Chang L**, Dulai GS, Naliboff BD. Clinical determinants of health-related quality of life in irritable bowel syndrome. **Gastroenterology** 124:A398, 2003.
67. Schmulson MJ, Remes JM, Olivas TI, Valdovinos MA, Hinojosa C, **Chang L**, Mayer EA, Naliboff BD. Clinical characteristics and QOL in patients from Mexico and the USA: Are they different? **Gastroenterology** 124:A395, 2003.
68. Berman SM, Jarcho J, Suyenobu B, Naliboff BD, **Chang L**, Mandelkern M, Mayer EA. Evidence for activation of central pain modulation networks in placebo-mediated pain relief in IBS patients. **Gastroenterology** 124:A578, 2003.
69. Berman SM, Mayer EA, Suyenobu B, Gordon W II, **Chang L**, Naliboff BD. Amygdala modulation during delivered and undelivered visceral pressure. **Gastroenterology** 124:A680, 2003.
70. Naliboff BD, Berman S, **Chang L**, Suyenobu B, Mandelkern MA, Mayer EA. Differential brain activations associated with visceral discomfort in IBS and control subjects. **Gastroenterology** 124:A672, 2003.
71. Hungin P, **Chang L**, Barghout V, Kahler K. The impact of IBS on absenteeism and work productivity: United States and eight European countries. **Am J Gastroenterol** 98:S227, 2003.

2004

72. **Chang L**, Licudine A, Stains J, Hirano M, Olivas TI, Naliboff BD, Mayer EA. Evidence for an antihyperalgesic effect of exogenous corticotropin releasing factor (CRF) in irritable bowel syndrome (IBS). **Gastroenterology** 126: A-4, 2004.

73. Berman SM, Naliboff B, Suyenobu B, **Chang L**, Gordon W, Stains J, Mayer EA. Modulation of endogenous pain inhibition circuits during visceral stimulation. **Gastroenterology** 126: A-590, 2004.
74. **Chang L**, Berman SM, Suyenobu B, Gordon WA, Mandelkern MA, Naliboff BD, Mayer EA. Differences in brain responses to rectal distension between patients with inflammatory and functional GI disorders. **Gastroenterology** 126: A-106, 2004.
75. Naliboff BD, **Chang L**, Crowell MD, Holtmann GJ, Monnikes H, Lee OY, Schmulson M, Valenzuela JE, Stains J, Bolus R, Mayer EA. Tegaserod increases sigmoid accommodation in female irritable bowel syndrome (IBS) patients. **Gastroenterology** 126: A-101, 2004.
76. Vakil N, **Chang L**, Veldhuyzen van Zanten S, Whitehead W, Sherman J, Fraser M, Cohard-Radice M, Earnest D. Patient comprehension and awareness of dyspepsia. **Gastroenterology** 126: A-70, 2004.
77. Dunckley P, Wise R, Painter D, Brooks J, Tracey I, Aziz Q, **Chang L**. Cortical processing of noxious visceral and somatic stimulation. **Gut** 53 (Supp III): A112, 2004.
78. Dunckley P, Wise R, Painter D, Brooks J, Tracey I, Aziz Q, **Chang L**. Common patterns of cerebral activation exist during matched unpleasant visceral and somatic stimulation in humans. **J Pain** 5(3 Supp I): 666, 2004.

2005

79. **Chang L**, Sundaresh S, Baldi P, Licudine A, Mayer M, Vuong T, Hirano M, Olivas TI, Liu C, Naliboff BD, Mayer EA. Dysregulation of basal circadian and pulsatile secretion of hypothalamic-pituitary-adrenal (HPA) axis in irritable bowel syndrome and fibromyalgia. **Gastroenterology** 128: A-620, 2005.
80. **Chang L**, Licudine A, Hirano M, Stains J, Bolus R, Naliboff BD, Olivas TI, Liu C, Mayer EA. Differences in visceral perception in irritable bowel syndrome and fibromyalgia. **Gastroenterology** 128:A-371, 2005.
81. Ameen VZ, Heath AT, **Chang L**. Gender differences in placebo response in patients with diarrhea-predominant IBS (d-IBS). **Gastroenterology** 128:A-463, 2005.
82. Chey WD, **Chang L**, Harris L, Olden K, Surawicz C, Schoenfeld P. Incidence of ischemic colitis in clinical trials and in post-marketing surveillance amongst patients using alosetron after blinded adjudication. **Gastroenterology** 128: A-465, 2005.
83. Dunckley P, Wise R, Fairhurst M, Hobden P, Aziz Q, **Chang L**, Tracey I. Imaging the neural correlates of visceral and somatic pain in the brainstem. **Gastroenterology** 128: A-372, 2005.

2006

84. Labus JS, Mayer EA, Berman SM, Suyenobu B, **Chang L**, Naliboff BD. Identification of brain networks associated with visceral perception and hypervigilance in patients with irritable bowel syndrome (IBS). **Gastroenterology** 2006;130:A-78.

85. Berman SM, Naliboff BD, Suyenobu B, **Chang L**, Bueller J, Ruby K, Minnema M, Stains J, Mayer EA. Abnormal CNS response to anticipation of visceral distension in female patients with irritable bowel syndrome (IBS) an FMRI study. **Gastroenterology** 2006;130:A-78.
86. Labus J, Mayer EA, Berman S, Suyenobu B, **Chang L**, Naliboff BD. Sex-specific differences in a brain network functioning during anticipation of rectal discomfort in irritable bowel syndrome patients (IBS). **Gastroenterology** 2006;130:A-93.
87. Spiegel BM, Farid M, Esrailian E, Talley J, **Chang L**. Is irritable bowel syndrome (IBS) a diagnosis of exclusion? A survey of primary care providers, gastroenterologists, and IBS experts. **Gastroenterology** 2006;130:A-111.
88. Wong HY, Mayer EA, Naliboff BD, Dickhaus B, Olivas TI, Ameen VZ, Reinholdt J, **Chang L**. Evidence for alterations in central autonomic activity during sleep in women with diarrhea-predominant irritable bowel syndrome (IBS-D). **Gastroenterology** 2006;130:A-292.
89. Dunckley P, Aziz Q, Wise RG, Brooks J, Tracey I, **Chang L**. Attentional modulation of visceral and somatic pain. **Gastroenterology** 2006;130:A-139.
90. Spiegel BM, Farid M, Esrailian E, Talley J, **Chang L**. Provider beliefs regarding diagnostic testing in IBS exhibit extreme variation and diverge from guidelines. **Gastroenterology** 2006;130:A-160.
91. Dunckley P, Aziz Q, Wise RG, Brooks J, Tracey I, **Chang L**. A comparison of the cortical responses to selectively attended visceral and somatic pain. **Gastroenterology** 2006;130:A-440.
92. Wong HY, Mayer EA, Naliboff BD, Dickhaus B, Ameen VZ, Reinholdt J, Schramm PJ, Labus JS, Olivas TI, **Chang L**. Abnormalities of sleep architecture and colonic motility are limited to early sleep in diarrhea-predominant irritable bowel syndrome (IBS-D) patients. **Gastroenterology** 2006;130:A-444.
93. Spiegel BM, Naliboff B, Mayer E, Bolus R, **Chang L**. Development and validation of a concise point-of-care severity index in IBS: The "B.E.S.T." Questionnaire. **Gastroenterology** 2006;130:A-513.
94. **Chang L**, Alvarado C, Mayer EA, van Oijen MG, Liu C, Spiegel BM. Women with irritable bowel syndrome (IBS) in pre- and post-menopausal age groups report similar gastrointestinal (GI) symptoms. **Gastroenterology** 2006;130:A-514.
95. **Chang L**, Cohard-Radice M, Dunger-Baldauf C, Kralstein J, Shetzline MA. Tegaserod is effective for long-term use in patients with chronic constipation. **Gastroenterology** 2006;130:A-599.
96. **Chang L**, Kralstein J, Dunger-Baldauf C, Cataldi F. Tegaserod Improves GI Symptoms throughout the Menstrual Cycle. ACG meeting, Poster 334.

97. Miner PB, **Chang L**, Dolker M, Cataldi F. Tegaserod Improves Symptoms in Patients with IBS-C with Severe Baseline Abdominal Pain/Discomfort and Bloating. ACG meeting, Poster 1129.
98. **Chang L**, Kahler KH, Cziraky MJ, Kralstein J. A Case-Control Study of Risk Factors for Ischemic Colitis. ACG meeting, Poster 1072.

2007

99. Ameen VZ, Heath A, McSorley D, Spiegel BM, **Chang L**. Global measure of adequate relief predicts clinically important difference in pain and is independent of baseline pain severity in irritable bowel syndrome (IBS). **Gastroenterology** 2007;132:A-140.
100. Labus JS, Naliboff BD, Tillisch K, Berman SM, Suyenobu B, **Chang L**, Mandelkern M, Bueller J, Mayer EA. Differential functioning of pain modulatory networks in men with and without irritable bowel syndrome: A central role of the parabrachial nucleus. **Gastroenterology** 2007;132:A-71.
101. Spiegel BM, **Chang L**, Kanwal F. Is asking "*How are you doing?*" enough to capture health related quality of life (HRQOL) and overall severity in irritable bowel syndrome (IBS)? **Gastroenterology** 2007;132:A-140.
102. Spiegel BM, Strickland A, **Chang L**. Predictors of patient-assessed illness severity in irritable bowel syndrome (IBS). **Gastroenterology** 2007;132:A-680.
103. Videlock EJ, Kokkotou E, Pothoulakis C, Licudine A, Hirano M, Mayer EA, **Chang L**. Sex differences in plasma catecholamines and colonic tissue markers of noradrenergic activity in irritable bowel syndrome (IBS). **Gastroenterology** 2007;132:A-726-A-727.
104. Videlock EJ, Licudine A, Hirano M, Gui D, Cortina G, Mayer EA, **Chang L**. Colonic mucosal cellular infiltrate correlates with symptom severity in irritable bowel syndrome (IBS). **Gastroenterology** 2007;132:A-726.
105. Videlock EJ, Yuan PQ, Taché Y, Licudine A, Mayer M, Ohning GV, Hirano M, Mayer EA, **Chang L**. Stress-induced cortisol response and colonic mucosal CRF-1 mRNA receptor expression correlate with symptoms of chronic stress and quality of life in irritable bowel syndrome (IBS). **Gastroenterology** 2007;132:A-72.
106. Yuan PQ, Wu V, **Chang L**, Santos J, Saperas E, Malagelada JR, Taché Y. Cellular localization of corticotropin-releasing factor (CRF) receptor 1 (CRF1) in human colon and its expression in the jejunum and colon of irritable bowel syndrome (IBS) female and male patients. **Gastroenterology** 2007;132:A-190.

2008

107. Spiegel BM, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Bolus RE, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Dulai GS, Strickland A, **Chang L**. Predictor of work productivity in irritable bowel syndrome (IBS): Results from the PROOF Cohort. **Gastroenterology** 134:A28, 2008.

108. Spiegel BM, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Bolus RE, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Dulai GS, Strickland A, Talley J, **Chang L**. Euroqol utilities demonstrate excellent validity and responsiveness in IBS: Results from the PROOF Cohort. **Gastroenterology** 134:A28, 2008.
109. Spiegel BM, Harris LA, Lucak SL, Mayer EA, Naliboff BD, Bolus RE, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Dulai GS, Strickland A, **Chang L**. Measuring IBS patient reported outcomes with a single item numeric rating scale: Results from the PROOF Cohort. **Gastroenterology** 134:A467, 2008.

2009

110. Adeyemo MA, Spiegel, BMS, **Chang L**. Do IBS Symptoms Vary Between Men and Women? A Meta-Analysis. **Gastroenterology** 2009;136(5) Suppl 1:A-374.
111. Adeyemo MA, Videlock E, Bowe C, Karagiannidis I, Pothoulakis C, Cortina G, Licudine A, Alberto M, Mayer EA, **Chang L**. Stress-related biomarkers and symptoms are predictive of irritable bowel syndrome (IBS). **Gastroenterology** 2009;136(5), Suppl 1:A-67.
112. Adeyemo MA, Videlock E, Mayer M, Licudine A, Ohning GV, Licudine A, Mayer EA, **Chang L**. Early adverse life events are associated with increased responsiveness of the hypothalamic-pituitary-adrenal (HPA) axis in individuals with and without IBS. **Gastroenterology** 2009;136(5), Suppl 1:A-118.
113. Truong TT, Kilpatrick LA, Mayer EA, Naliboff BD, Dandekar U, Jarcho J, Gilbert C, Licudine A, Ornitz E, **Chang L**. COMT genetic polymorphism is associated with alterations in attentional processing in patients with IBS and other functional pain syndromes. **Gastroenterology** 2009;136(5), Suppl 1:A-74.
114. Videlock EJ, Naliboff BD, Mayer EA, **Chang L**. Symptom Attitudes and Beliefs Predict Severity and Quality of Life in Irritable Bowel Syndrome and Partially Mediate the Effect of Depression On Quality of Life. **Gastroenterology** 2009;136(5), Suppl1:A-119.

2010

114. Videlock EJ, Mayer EA, Naliboff, BD, **Chang L**. The effect of childhood trauma and abuse on the development of irritable bowel syndrome is mediated by somatization. **Gastroenterology** 2010;138(5), Suppl 1:S-144.
115. Adeyemo M, Videlock EJ, Karagiannides I, Bowe C, Pothoulakis C, Yuan PQ, Gong H, Singh S, Khan S, Cortina G, Licudine A, Tache Y, Mayer EA, **Chang L**. Colonic mucosal inflammation is unlikely to play a primary role in irritable bowel syndrome. **Gastroenterology** 2010;138(5), Suppl 1:S-626.
116. Truong TT, Kilpatrick L, Naliboff BD, Ornitz E, Gaspar J, Licudine A, Alberto M, Mayer EA, **Chang L**. IBS patients learn to discriminate contextual threat cues associated with an aversive visceral threat. **Gastroenterology** 2010;138(5), Suppl 1:S-143.
117. **Chang L**, Saito Y, Bytzer P, Tack J, Mueller-Lissner S, Schambye H, Hellström PM. Impact of Pain Attacks on Behavior and Health-Related Outcomes in Patients with Irritable Bowel Syndrome Meeting Rome III Criteria. **Gastroenterology** 2010;138(5), Suppl 1:S-

111-S-112.

118. Hellström PM, Saito Y, Bytzer P, Tack J, Mueller-Lissner S, Schambye H, **Chang L**. Characteristics of Acute Pain Attacks in Patients with Irritable Bowel Syndrome (IBS) Meeting Rome III Criteria. **Gastroenterology** 2010;138(5), Suppl 1:S-100.
119. Spiegel BM, Bolus RE, Harris LA, Lucak SL, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Characterizing Abdominal Pain Attributes in IBS: Guidance for Study Inclusion Criteria and Outcome Measurement. **Gastroenterology** 2010;138(5), Suppl 1:S-99-S-100.
120. Spiegel BM, Bolus RE, Talley J, **Chang L**. Patient Willingness to Use a Subcutaneous (SC) GLP-1 Analogue for IBS Pain Episodes. **Gastroenterology** 2010;138(5), Suppl 1:S-227.
121. Spiegel BM, Bolus RE, Harris LA, Lucak SL, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Characterizing Bowel Urgency: Guidance for Outcome Assessment in Patients with Diarrhea Predominant IBS.
122. Spiegel BM, Bolus RE, Harris LA, Lucak SL, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Do IBS Patients Understand the Difference Between Abdominal Pain vs. Discomfort? Implications for Clinical Practice and Clinical Trial Design. **Gastroenterology** 2010;138(5), Suppl 1:S-379.
123. Spiegel BM, Bolus RE, Harris LA, Lucak SL, Estralian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Patient-Reported Symptom Relief from Current Therapy is a Robust Marker of Illness Severity in IBS. **Gastroenterology** 2010;138(5), Suppl 1:S-119.

2011

124. Chey, WD, Camilleri, M, **Chang, L**, Rikner, L, Graffner, H. A3309, an Ileal Bile Acid Transport (IBAT /ASBT) Inhibitor, Significantly Improved Stool Frequency and Other Constipation-related Complaints in Adults with Chronic Constipation: Data from an 8-Week, Randomized, Double-Blind, Placebo-Controlled Study. **Gastroenterology** 2011;140(5), Supplement 1:S-3.
125. Alberto M, Shih W, Presson AP, Licudine A, Mayer EA, **Chang L**. Irritable Bowel Syndrome and Early Life Trauma Are Associated With an Enhanced HPA Axis Response to Hormone Stimulation. **Gastroenterology** 2011;140(5), Supplement 1:S-462-463.
126. Spiegel BM, Bolus RE, Agarwal N, Sayuk GS, Harris LA, Lucak SL, Esrailian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Do Patients Understand the Bristol Stool Scale? Results of Cognitive De-Briefing of IBS Patients. **Gastroenterology** 2011; 140(5), Supplement 1:S-615.
127. Spiegel BM, Bolus RE, Agarwal N, Sayuk GS, Harris LA, Lucak SL, Esrailian E, Chey WD, Lembo A, Karsan HA, Tillisch K, Talley J, **Chang L**. Factors Analysis of Bowel Symptoms in IBS: Guidance for Patient Reported Outcome (PRO) Development. **Gastroenterology** 2011; 140(5), Supplement 1:S-615.

2012

128. Boroujerdi L, Shih W, Presson AP, Naliboff BD, Mayer EA, Chang L. Perceived stress is higher in IBS than healthy controls and correlates with IBS severity over time. *Gastroenterology* 2012;142 (5 Suppl 1):S-299.
129. Rao SS, Chang L, Hao X, Lavins BJ, Shiff SJ, Cao X, Schneier H, Currie MG, Johnston JM. Assessing the percent of days Linaclotide improved abdominal symptoms and stool frequency in patients with IBS-C: A pooled analysis of two phase 3 trials. *Gastroenterology* 2012;142 (5 Suppl 1):S-816-S-817.
130. Lembo A, Pimentel M, Chang L, Zakko S, Yu J, Merchant K, Bortey E, Forbes WP. Improvement in quality of life of patients with irritable bowel syndrome with diarrhea is sustained for 10 weeks following a 2-week course of Rifaximin. *Gastroenterology* 2012;142 (5 Suppl 1):S-819.
131. Chang L, Chey WD, Drossman DA, Lembo A, Pimentel M, Schoenfeld PS, Yu J, Merchant K, Paterson C, Bortey E, Forbes WP. Safety and tolerability profile of ifaximin for treatment of IBS without constipation: Results of a pooled analysis of double-blind, placebo-controlled randomized controlled trials. *Gastroenterology* 2012;142 (5 Suppl 1):S-823.
132. Lembo A, Chang L, Chey WD, Drossman DA, Pimentel M, Schoenfeld PS, Yu J, Merchant K, Paterson C, Bortey E, Forbes WP. Impact of concurrent use of PPIs or anti-depressants on efficacy of Rifaximin for IBS without constipation. *Gastroenterology* 2012;142 (5 Suppl 1):S-824.
133. Kim SE, Presson AP, Shih W, Naliboff BD, Tillisch K, Mayer EA, Chang L. Body mass index (BMI) is associated with gastrointestinal symptoms in a racially and ethnically diverse IBS patient population. *Gastroenterology* 2012;142 (5 Suppl 1):S-825.
134. Cheng P, Alberto M, Shih W, Presson AP, Licudine A, Mayer EA, Naliboff BD, Chang L. Autonomic response to a visceral stressor is dysregulated in irritable bowel syndrome and correlates with visceral perception. *Gastroenterology* 2012;142 (5 Suppl 1):S-831.
135. Locke GR, Chang L, Currie MG, Hao X, Shi K, Schneier H, Johnston JM. Comparison of responder rates and degree of agreement for symptom-specific and global-relief endpoints in two phase 3 trials of Linaclotide in IBS-C. *Gastroenterology* 2012;142 (5 Suppl 1):S-736.
136. Schoenfeld PS, Chang L, Carson R, Shiff SJ, Lavins BJ, MacDougall JE, Jia XD, Schneier H, Currie MG, Johnston JM. Do baseline factors contribute to treatment satisfaction in patients with chronic constipation treated with Linaclotide vs placebo? *Gastroenterology* 2012;142 (5 Suppl 1):S-737-S-738.
137. Chang L, Iliopoulos D, Polytarchou C, Alberto M, Shih W, Presson AP, Licudine A, Pothoulakis C, Mayer EA. Glucocorticoid receptor gene methylation is a potential biomarker of irritable bowel syndrome. *Gastroenterology* 2012;142 (5 Suppl 1):S-176-S.
138. Pimentel M, Chang L, Chey WD, Drossman DA, Lembo A, Schoenfeld PS, Yu J, Merchant K, Paterson C, Bortey E, Forbes WP. Efficacy of Rifaximin for IBS without constipation in men and women. *Gastroenterology* 2012;142 (5 Suppl 1):S-182-S-183.

2013

139. Gadd M, Shih W, Presson AP, Heendeniya N, Mayer EA, **Chang L**. Corticotropin Releasing Hormone Receptor 1 (CRH-R1) Polymorphisms Are Predictive of Irritable Bowel Syndrome (IBS) Status. *Gastroenterology* 2013, Vol. 144, Issue 5, S-121
140. **Chang L**, Bolus R, Melmed GY, Hays RD, Khanna D, Khanna P, Spiegel BM. Differences in Gastrointestinal Symptom Severity Between Irritable Bowel Syndrome (IBS) and Inflammatory Bowel Disease (IBD) Patients and the General Population. *Gastroenterology* 2013, Vol. 144, Issue 5, S-918
141. **Chang L**, Bolus R, Melmed GY, Hays RD, Khanna D, Khanna P, Spiegel BM. Gender and Group Differences in Gastrointestinal Symptom Severity Between Irritable Bowel Syndrome and Inflammatory Bowel Disease Patients and the General Population. *Gastroenterology* 2013, Vol. 144, Issue 5, S-380
142. Cohen ER, Hays RD, Bolus R, Bolus S, Khanna D, **Chang L**, Khanna P, Spiegel BM, Melmed GY. How Well Do Physicians Perceive Severity of Patients' Gastrointestinal Symptoms? A Comparison Across Disease States. *Gastroenterology* 2013, Vol. 144, Issue 5, S-752
143. Cohen ER, Bolus R, Khanna D, **Chang L**, Melmed GY, Khanna P, Spiegel BM. GERD Symptoms in the General Population: Prevalence and Severity vs. Care Seeking Patients. *Gastroenterology* 2013, Vol. 144, Issue 5, S-23

2014

144. Joshi S, Polyarchou C, Iliopoulos D, DeYoung J, Mayer EA, **Chang L**. Global DNA Methylation Analysis in Irritable Bowel Syndrome. *Gastroenterology* 2014, Vol. 146, Issue 5, S-540–S-541
145. Orand AC, Shih W, Ju T, Presson AP, Heendeniya N, Mayer EA, Naliboff BD, **Chang L**. Catecholaminergic Genetic Polymorphisms are Associated with Autonomic Nervous System (ANS) Function in Irritable Bowel Syndrome. *Gastroenterology*, Vol. 146, Issue 5, S-108.
146. Latorre R, J Huynh, A Gupta, Mazzoni M, Clavenzani P, **Chang L**, Mayer EA, De Giorgio R, Sternini C. Mucosal Bitter Taste Receptor Expression In Overweight And Obese Subjects. *Gastroenterology*, Vol. 146, Issue 5, S-115–S-116
147. Jorge Rodriguez J, Dimitrios Iliopoulos D, Ypez SH, Hoffman JM, Baay-Gusman GJ, Tirado-Rodriguez AB, Law I, Hommes DW, Verspaget HW, **Chang L**, Pothoulakis C, Baritaki S. Inhibition of corticotropin-releasing hormone receptor 2 (CRHR2) expression in colorectal cancer correlates with tumor growth and EMT in vitro and in vivo, poor patient survival and increased risk for distant metastases. *Gastroenterology*, Vol. 146, Issue 5, S-814.

148. Almario CV, MD, Chey, Kaung A, Whitman C, Fuller G, Reid M, Bolus R, Dennis B, Encarnacion R, Martinez B, Talley J, Modi R, Agarwal N, Lee A, Kubomoto S, Sharma G, Bolus S, **Chang L**, and Spiegel BMR. Computer Automated Evaluation of Gastrointestinal Symptoms (AEGIS) Outperforms Physician-Documented History of Presenting Illness (HPI): Results of a Blinded Comparison. *Gastroenterology*, Vol. 146, Issue 5, S-189.
149. Videlock E, Muhurkar-Joshi S, Hoffman J, Shih W, Alberto M, **Chang L**. Guanylate cyclase-C receptor and ligand expression in colonic mucosa in chronic constipation. *American Journal of Gastroenterology* 2014;109:S2:S540.

2015

150. **Chang L**, Aggarwal. Comparison of Symptoms, Health Care Utilization, and Treatment in Diagnosed and Undiagnosed Patients With IBS With Diarrhea. *Gastroenterology* 2015;148, Issue 4:S-652–S-653.
151. Joshi SM, Mayer EA, **Chang L**. Genome-Wide Transcriptional Profiling Demonstrates Differences Between Irritable Bowel Syndrome (IBS), Inflammatory Bowel Disease (IBD) and Healthy Controls. *Gastroenterology* 2015;148, Issue 4:S-775–S-776.
152. Park S, Shih W, Presson AP, Mayer EA, **Chang L**. Adverse Childhood Experiences Are Associated With Irritable Bowel Syndrome and Gastrointestinal Symptom Severity. *Gastroenterology* 2015;148, Issue 4:S-663–S-664.
153. Videlock EJ, Liu C, Shih W, Naliboff BD, Mayer EA, **Chang L**. The Association of Early Adverse Life Events and Irritable Bowel Syndrome (IBS) Is Amplified by the Presence of Peritraumatic Fear. *Gastroenterology* 2015;148, Issue 4: S-656–S-657.
154. Pimentel M, Chang L, Lembo A, Barrett AC, Yu J, Bortey E, Paterson C, Forbes WP. Durability of Benefit in IBS-D Patients Responding to a 2-Week Course of Rifaximin: Results From TARGET 3. *Gastroenterology* 2015;148, Issue 4:S-658–S-659.
155. Videlock EJ, Liu C, Shih W, Naliboff BD, Mayer EA, **Chang L**. Internal Consistency and Test-Retest Reliability of the Early Trauma Inventory Self Report-Short Form (ETI-SR) in Patients With Irritable Bowel Syndrome (IBS) and Healthy Controls. *Gastroenterology* 2015;148, Issue 4:S-662.
156. Dothel G, **Chang L**, Shih W, Barbaro MR, Stanghellini V, De Ponti F, Mayer EA, Barbara G, Sternini C. Increased Expression of μ -opioid and Cannabinoid Receptors in the Colonic Mucosa of Patients With Irritable Bowel Syndrome (IBS). *Gastroenterology* 2015;148, Issue 4:S-119.
157. Gupta A, Cole S, Labus JS, Nguyen TJ, Joshi SM, Kilpatrick LA, Tillisch K, **Chang L**, et al. Gene Expression Profiles in Peripheral Blood Mononuclear Cells (PBMCS) Correlate With Structural and Functional Brain Networks in Chronic Visceral Pain. *Gastroenterology* 2015;148, Issue 4:S-164–S-165.
158. **Chang L**, Chey WD, Drossman DA, Losch-Beridon TR, Wang M, Lichtlen P, Mareya SM. Effects of Baseline Abdominal Pain on Response to Lubiprostone in Patients With Constipation-Predominant Irritable Bowel Syndrome. *Gastroenterology* 2015;148, Issue 4:S-653.

159. **Chang L**, Pimentel M, Lembo A, Barrett AC, Yu J, Bortey E, Paterson C, Forbes WP. Characterizing the Effect of Rifaximin on Individual Symptoms of IBS-D: Findings From the Open-Label Phase of TARGET 3. *Gastroenterology* 2015;148, Issue 4:S-653.
160. Lacy BE, Pimentel M, **Chang L**, Barrett AC, Yu J, Bortey E, Paterson C, Forbes WP. Enduring Effects Following a Course of Rifaximin Therapy in Patients With IBS-D: Incremental Benefit Upon Repeat Treatment. *Gastroenterology* 2015;148, Issue 4:S-655.
161. Sanmiguel CP, Arpana Gupta A, Labus JS, Coveleskie K, Karagiannidis I, Alaverdyan M, Ashe-McNalley C, Stains J, **Chang L**, et al. Adiposity Is Associated With Alterations Within the Brain Reward System in Adult Subjects. *Gastroenterology* 2015;148, Issue 4,:S-674.
162. Gevorkian J, Verspaget HW, Hommes DW, **Chang L**, Pothoulakis C, Baritaki S. Corticotropin-Releasing Hormone Receptor 2 (CRHR2) Inhibits Colorectal Cancer Immunoescape Through Regulation of Fas/FasL Signaling. *Gastroenterology* 2015;148, Issue 4:S-732.
163. Chey WD, **Chang L**, Lembo A, Aggarwal K, Bortey E, Paterson C, Forbes WP. Effects of Rifaximin on Urgency, Bloating, and Abdominal Pain in Patients With IBS-D: A Randomized, Controlled, Repeat Treatment Study. *Gastroenterology*, 2015;148, Issue 4:S-69.
164. Adeyemo MA, Shih W, Joshi SM, Mayer EA, **Chang L**. Enhanced Stimulated Stress Hormone Response in Irritable Bowel Syndrome (IBS) Is Associated With Downregulation of Glucocorticoid Receptor Expression. *Gastroenterology* 2015;148, Issue 4:S-54–S-55.
165. Almario CV, Chey WD, Iriana S, Whitman CB, Fuller G, Reid MW, Bolus R, Dennis RA, et al. Automated Evaluation of Gastrointestinal Symptoms (AEGIS) Versus Physician Identification of Gastrointestinal Alarm Features. *Gastroenterology* 2015;148, Issue 4;S-205–S-206.
166. Neshatian L, Strege PR, Beyder A, Bernard CE, Mazzone A, Gibbons SJ, Tester DJ, Will ML, et al. IBS Patients Have *SCN5A* Mutations That Result in Decreased NaV1.5 Current and Mechanosensitivity. *Gastroenterology* 2015, Vol. 148, Issue 4, S-130–S-131.
167. Polytarchou C, Hommes DW, Palumbo T, HatziaPOSTOLOU M, Koukos G, van der Meulende Jong AE, Oikonomopoulos A, Van Deen WK, Vorvis C, **Chang L**, Anton PA, Pothoulakis C, Verspaget HW, Iliopoulos D. Targeting a microRNA for the Therapy of Colitis-Associated Colorectal Cancer. *Gastroenterology* 2015, Vol. 148, Issue 4, S-74.

2016

168. Garcia-Carraballo S, Harrington A, Castro J, Hanning G, Kurtz CB, Silos-Santiago A, Chang L, Brierley S. Guanylate cyclase-C expression is down-regulated in colonic biopsies from female irritable bowel syndrome patients with constipation. *Gastroenterology* 2016;150(4):S81-S82.

169. Nguyen V, Shih W, Presson A, Naliboff BD, Kilpatrick LA, Gupta A, Mayer EA, Chang L. Resilience is decreased in irritable bowel syndrome (IBS) and associated with poorer quality of life and greater symptom severity. *Gastroenterology* 2016;150(4):S731.
170. Orand AC, Naliboff BD, Shih W, Presson A, Mayer EA, Chang L. Corticotropin-releasing hormone receptor 1 (CRH-R1) polymorphisms are associated with irritable bowel syndrome (IBS) and acoustic startle response (ASR). *Gastroenterology* 2016;150(4):S946-S947.
171. Mahurkar-Joshi S, Videlock EJ, Iliopoulos D, Mayer EA, Chang L. Functional pathways associated with differential colonic mucosal expression of microRNA and mRNA in irritable bowel syndrome. *Gastroenterology* 2016;150(4):S949.
172. Park S, Shih W, Presson A, Videlock EJ, Mayer EA, Chang L. Differences in cortisol responses to hormone challenge vs. visceral stressor in irritable bowel syndrome. *Gastroenterology* 2016;150(4):S950-S951.
173. Bashashati M, Moossavi S, Rezaei N, Moraveji S, Cremon C, Hughes PA, Bian Z, Choi CH, Lee O-Y, Coëffier M, Chang L, Ohman L, Schmulson MJ, Simren M, Sharkey KA, Barbara G. Colonic Immune cells in irritable bowel syndrome: A systematic review and meta-analysis. *Gastroenterology* 2016;150(4):S951-S952.
174. Strege PR, Beyder A, Mazzone A, Bernard C, Linden DR, Gibbons SJ, Chang L, Mayer EA, Farrugia G. IBS-associated SCN5A mutation G615E results in a NaV1.5 channel with normal Na⁺ current density but loss of mechanosensitivity. *Gastroenterology* 2016;150(4):S952.

2017

175. Larauche, MH, Mahurkar-Joshi S, Biraud M, Ju T, Islam N, Mayer EA, **Chang L**. Sex-Dependent Alterations of Colonic Epithelial Permeability in Irritable Bowel Syndrome. *Gastroenterology* 2017, Volume 152, Issue 5, S723.
176. Ju T, Naliboff BD, Shih W, Presson A, Liu C, Gupta A, Mayer EA, **Chang L**. *Gastroenterology* 2017, Volume 152, Issue 5, S711 - S712.
177. Park S, Naliboff BD, Shih W, Presson P, Ju T, Kilpatrick LA, Gupta A, Mayer EA, **Chang L**. Resilience is Associated with Early Life Stress and HPA Axis Response in IBS. *Gastroenterology* 2017, Volume 152, Issue 5, S921.
178. Mahurkar-Joshi S, Labus JS, Jacobs J, Videlock EJ, Lagishetty V, Iliopoulos D, Mayer EA, **Chang L**. Colonic Mucosal Microbiome is Associated with Mucosal MicroRNA Expression in Irritable Bowel Syndrome. *Gastroenterology* 2017, Volume 152, Issue 5, S40 - S41.
179. Videlock EJ, Mahurkar-Joshi S, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. Expression Profiling of Sigmoid Biopsies in Irritable Bowel Syndrome vs Healthy Controls. *Gastroenterology* 2017, Volume 152, Issue 5, S722.
180. Videlock EJ, Mahurkar-Joshi S, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. Dysregulation of the Long-Noncoding RNA, Ghrls, in Irritable Bowel Syndrome. *Gastroenterology* 2017, Volume 152, Issue 5, S722.

181. Kalani A, Naliboff BD, Shih W, Mayer EA, **Chang L**. Increased Sleep Disturbances in Irritable Bowel Syndrome (IBS) Patients is Associated with Greater Symptom Severity and Decreased Quality Of Life. *Gastroenterology* 2017, Volume 152, Issue 5, S716.

2018

182. Parker CH, Naliboff BD, Shih W, Presson AP, Videlock EJ, Mayer EA, **Chang L**. Stressful life events in adulthood increase risk for irritable bowel syndrome and symptom severity. *Gastroenterology* 2018;154(6) Suppl 1: S-105.
183. Larauche MH, McGinn J, Labus JS, Tillisch K, **Chang L**, Mayer EA, Hsiao E. Brain-gut alterations in germ-free mice transplanted with fecal microbiota from IBS patients. *Gastroenterology* 2018;154(6) Suppl 1: S-116.
184. Osadchiy V, Labus JS, Gupta A, Jacobs JP, Ashe-McNalley C, Hsiao E, **Chang L**, Sanmiguel CP, Mayer EA. Correlation of gut microbiota-derived tryptophan metabolites with connectivity of extended central reward network in healthy subjects. *Gastroenterology* 2018;154(6) Suppl 1: S-182-S183.
185. Mahurkar-Joshi S, Videlock EJ, Iliopoulos D, Pothoulakis C, Mayer EA, **Chang L**. Epigenetic changes in blood cells and colonic mucosa are associated with irritable bowel syndrome (IBS). *Gastroenterology* 2018;154(6) Suppl 1: S-214.
186. Parker CH, Mahurkar-Joshi S, Iliopoulos D, Pothoulakis C, Shih W, Presson AP, Mayer EA, **Chang L**. DNA methylation age acceleration is associated with decreased resilience in irritable bowel syndrome. *Gastroenterology* 2018;154(6) Suppl 1: S-325.
187. Wang J, Larauche MH, Siegel M, King AJ, Mayer EA, Tillisch K, Labus JS, **Chang L**, Caldwell JS. Tenapanor attenuates increased macromolecule permeability in human colon monolayer cultures induced by inflammatory cytokines and human fecal supernatants. *Gastroenterology* 2018;154(6) Suppl 1: S-326.
188. Gupta A, Osadchiy V, Labus JS, Kilpatrick LA, Sanmiguel CP, **Chang L**, Tillisch K, Naliboff BD, Mayer EA. Sex differences: Early life adversity and adult stress are associated with alterations in the extended reward network and increased food addiction. *Gastroenterology* 2018;154(6) Suppl 1: S-431.
189. Gupta A, Osadchiy V, Labus JS, Jacobs JP, Kilpatrick LA, Sanmiguel CP, Tillisch K, **Chang L**, Naliboff BD, Mayer EA. Early life adversity is associated with increased susceptibility to brain-gut alterations and hedonic eating behaviors in obesity. *Gastroenterology* 2018;154(6) Suppl 1: S-749-S-750.
190. Kalani A, Labus JS, **Chang L**, Mayer EA. Increased perceived stress is associated with a sex-dependent functional change in the brain of irritable bowel syndrome patients. *Gastroenterology* 2018;154(6) Suppl 1: S-750.
191. Strege PR, Mazzone A, Saito Loftus YA, Bernard C, Gibbons SJ, Linden DR, **Chang L**, Beyder A, Farrugia G. IBS-associated Scn5A mutation G615E results in Nav1.5 voltage-dependent sodium channels with normal voltage-dependent function and loss of mechanosensitivity. *Gastroenterology* 2018;154(6) Suppl 1: S-920.

2019

192. Trieschmann KD, Mayer EA, Naliboff BD, Mahurkar-Joshi S, **Chang L**. The Visceral Sensitivity Index: A novel tool for measuring GI-symptom specific anxiety in inflammatory bowel disease (IBD). **Gastroenterology** 2019;156(6):S-437–S-438.
193. Lenhart A, Naliboff BD, Mayer EA, **Chang L**. Postmenopausal women with irritable bowel syndrome (IBS) have more severe symptoms than premenopausal women with IBS. **Gastroenterology** 2019;156(6):S-465.
194. Lenhart A, Choo C, Shih W, Jaffe N, Liu C, Gupta A, Labus JS, Mayer EA, **Chang L**. Effect of symptom severity and gender on dietary patterns in patients with irritable bowel syndrome. **Gastroenterology** 2019;156(6):S-466.
195. Hagiwara SI, Hasdemir B, Heyman MB, **Chang L**, Bhargava A. GPCR-containing B7-2+ extracellular vesicles from immune cells in blood correlate with irritable bowel syndrome severity. **Gastroenterology** 2019;156(6):S-571.
196. Holden MG, Naliboff BD, Shih W, Jacobs JP, Videlock EJ, Mayer EA, **Chang L**. Autonomic nervous system response in irritable bowel syndrome is associated with sex, bowel habit and gut microbiota. **Gastroenterology** 2019;156(6): S-580–S-581.
197. O'Laco KA, Parker CH, Mahurkar-Joshi S, Shih W, Videlock EJ, Sanmiguel CP, Gupta A, Emeran A. Mayer, **Chang L**. The association of visceral adiposity with irritable bowel syndrome, symptom severity, and the hypothalamic-pituitary-adrenal axis response. **Gastroenterology** 2019;156(6):S-584.
198. Parker CH, Naliboff BD, Shih W, Presson AP, Kilpatrick LA, Liu C, **Chang L**. Resilience in irritable bowel syndrome is lower compared to the general population and other chronic gastrointestinal conditions. **Gastroenterology** 2019;156(6):S-1061.
199. Mahurkar-Joshi S, Jacobs JP, Lagishetty V, Choo C, Mayer EA, **Chang L**. Colonic mucosal microbiome is associated with bowel habit subtypes in irritable bowel syndrome (IBS) patients. **Gastroenterology** 2019;156(6):S-1163–S-1164.
200. Choo C, Mahurkar-Joshi S, Jacobs JP, Lagishetty V, Lenhart A, Jaffe N, Mayer EA, **Chang L**. Colonic mucosal microbiome correlates with dietary intake in IBS patients and healthy controls. **Gastroenterology** 2019;156(6): S-1164.
201. LeBrett W, Chen F, Yang, L, **Chang L**. Opioid and Neuromodulator Prescription Patterns Among U.S. Gastroenterologists. **American Journal of Gastroenterology** 2019 abstract

2020

202. LeBrett W, Mahurkar-Joshi S, Labus J, Naliboff BD, Gupta A, Jacobs J, Tillisch K, Kilpatrick L, Mayer EA, **Chang L**. Association of fecal microbiome with resilience in irritable bowel syndrome compared to healthy controls. **Gastroenterology** 2020;158(6):S-992.

203. Nulsen B, LeBrett W, Drossman DA, Chang L. Factors affecting central neuromodulator use by gastroenterologists in the treatment of IBS: results of a national survey. *Gastroenterology* 2020;158(6):S-894.
204. Mahurkar-Joshi S, Rankin CR, Videlock EJ, Soroosh A, Verma A, Khandadash A, Iliopoulos D, Pothoulakis C, Mayer EA, Chang L. Identification of colonic mucosal microRNAs altered in irritable bowel syndrome and their roles in intestinal barrier function. *Gastroenterology* 2020;158(6):S-899.