

APS 33rd Annual

**April 30–
May 3**
Tampa

Scientific Meeting

www.apsscificmeeting.org



2014 Scientific Program Committee

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Chair**

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Albany Medical Center

**Ted Price, PhD
Chair-Elect**

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University of Arizona

Phillip Albrecht, PhD

Assistant Professor
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Beth Darnall, PhD

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Teaching Associate
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Christopher Herndon, PharmD BCPS

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Barbara Raket, PhD RN

Assistant Professor
University of Iowa

Nalini Sehgal, MD

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Senior Fellow and Acting Instructor
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University of North Texas

Mark Wallace, MD

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Roger Fillingim, PhD

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Renee Manworren, PhD APRN PCNS-BC

Chair, APS Education Advisory Committee

Assistant Professor
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Lisa Peters, MN RN CNS

Lead Nurse Planner

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Why You Should Attend

According to the Institute of Medicine, pain affects more lives than the total number of lives affected by heart disease, cancer, and diabetes combined. Pain is a leading cause of disability and a major public health problem. Moreover, the issue of ensuring appropriate interdisciplinary assessment and treatment of pain has a far-reaching impact on morbidity, mortality, quality of life, and economics—both of individuals and across the healthcare system. There is a continued need to connect the work of researchers studying the science of pain with those from multiple disciplines who seek to use the best-available evidence to treat and thus improve pain care. As the premier pain meeting in the United States, the American Pain Society (APS) Annual Scientific Meeting provides attendees with a unique forum for sharing advances and standards in evidence-based pain research and treatment by colleagues from all disciplines in pain, in a setting that encourages interactions between scientists and clinicians.

This meeting accomplishes that by providing you the opportunity to

- interact with the best and brightest in pain research
- translate scientific discoveries into clinical practice
- connect with colleagues across settings and disciplines at numerous networking events, including shared interest group meetings and the opening reception with exhibits and posters
- raise questions, debate the implications, plan follow-up studies, and discuss results
- discuss your own research and clinical observations
- meet with more than 450 poster presenters to learn about their work and future research directions
- visit an extensive number of exhibiting companies featuring products and services specifically designed for professionals who study and treat pain.

Who Should Attend

The APS 33rd Annual Scientific Meeting is intended for basic scientists, nurses, pharmacists, physicians, psychologists, and other healthcare professionals who make up the interdisciplinary pain community. Generalists and specialists will benefit from a wide range of topics and faculty presenting basic, translational, and clinical research and treatment advancements.

What You Can Expect to Gain

The APS 33rd Annual Scientific Meeting will offer current information about the diagnosis, treatment, and management of acute pain, chronic cancer and noncancer pain, and recurrent pain. Presentations are designed to enhance research or clinical knowledge and competence pertinent to pain management and will feature content appropriate for professionals at several experience levels. The meeting is an arena for interdisciplinary exchange among pain scientists and healthcare professionals. By participating in this meeting, attendees can expect to achieve the following objectives:

1. Describe various pain management models.
2. Critique current basic science and clinical and psychological research with regard to their applicability to practice.
3. Evaluate new trends, techniques, therapies, and diagnostic procedures in pain research and management.
4. Assemble a network of professional colleagues.

There are no prerequisites for participation in this activity.

Continuing Education

The APS 33rd Annual Scientific Meeting will offer continuing education (CE) credit/contact hours for nurses, pharmacists, physicians, and psychologists. Credit will be awarded for those sessions attended and evaluated. Successful completion requires that participants register for the meeting, attend and participate, and complete an online evaluation. Participants will receive their CE certificates immediately after they submit their evaluations online.



Physicians

The American Pain Society is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The American Pain Society designates this live activity for a maximum of 15.0 *AMA PRA Category 1 Credit(s)*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Psychologists

The American Pain Society is approved by the American Psychological Association to sponsor continuing education for psychologists. The American Pain Society maintains responsibility for the program and its content. This activity has been designated for a maximum of 15.0 hours of CE credit for psychologists for sessions attended and evaluated.



Nurses

The American Pain Society is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity has been designated for up to 16.5 contact hours.



Pharmacists

The American Pain Society is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. Up to 15.0 credit hours (1.50 CEUs) will be awarded and a statement of credit provided upon submission of a completed evaluation.

Disclosure It is the policy of APS that the planners, faculty, and this provider disclose the existence of any significant financial interest or other relationships they or their spouse or partner may have with the manufacturer(s) of any commercial product(s) or services relating to the topics presented in the educational activity. APS also requires disclosure of the intent to discuss unlabeled uses of a commercial product or investigational use of a product not yet approved for this purpose. It is the responsibility of the Scientific Program Committee to review potential conflicts of interest as submitted in the disclosure form and resolve such conflicts. Resolving the conflict ensures that the content of the activity is aligned with the interests of the public. Detailed disclosure information will be published in course materials. Learners also will be informed when no relevant financial relationships exist.

Disclaimer The material presented in this activity represents the opinion of the speakers and not necessarily the views of APS.

Meeting Highlights



David Newman, MD
Keynote Speaker



Mark Zylka, PhD
Plenary Speaker



Camilla Svensson, PhD
Plenary Speaker



John Loeser, MD
Plenary Speaker



Michael J. Iadarola, PhD
Award Lecturer



Mark P. Jensen, PhD
Award Lecturer



Brian Schmidt, DDS MD PhD
Global Year Against Pain Lecturer

Wednesday, April 30

1–4:30 pm

Early Career Forum

2:30–4:30 pm

Shared Interest Group (SIG)
Meetings

4:30–6 pm

Opening Reception with Exhibits
and Posters

6–8 pm

Clinical and Basic Science Data
Blitz

Thursday, May 1

7:45–8 am

Gathering and Introductions

8–8:30 am

(100) State of the Society
Roger Fillingim, PhD
APS President

8:30–9 am

(101) Keynote Address
**Health Care's Most Important
Reform—The Provider**
David Newman, MD

9–9:30 am

(102) Plenary Lecture
**Sensory Mechanism for Heat
Inhibition of Cold**
Mark Zylka, PhD

9:30–11 am

Break with Exhibits and Posters*
Author-Attended Poster Session
Odd-Numbered Posters

11 am–12:30 pm

Symposia Sessions

12:45–2 pm

Luncheon Symposia

2:15–3:45 pm

Symposia Sessions

3:45–5:15 pm

Break with Exhibits and Posters

5:15–6:15 pm

SIG Meetings

6:30–8 pm

President's Recognition Reception

Friday, May 2

7:30–8 am

(103) Plenary Lecture
**Beyond Inflammation—Exploring
Mechanisms of Persistent Pain in
Arthritis**
Camilla Svensson, PhD

8–8:30 am

(104) Plenary Lecture
**Illuminating the Path to
Multidisciplinary Pain
Management**
John Loeser, MD

8:45–10:15 am

Break with Exhibits and Posters*
Author-Attended Poster Session
Even-Numbered Posters

10:30 am–Noon

Symposia

12:15–1:30 pm

Luncheon Symposia

1:45–3:15 pm

Symposia

1:45–5 pm

Workshops

3:30–5 pm

Symposia

5:30–7:30 pm

Basic Science Research Dinner
**Promises and Challenges of
Bioinformatic Approaches in Pain
Research**

*Space is limited. Preregistration is
required. Continuing education credit will
not be offered for this session.*

Saturday, May 3

8–8:30 am

(105) Frederick W. L. Kerr Basic
Science Research Lecture
**TRPV1 Therapeutics and
Transcriptomics**
Michael J. Iadarola, PhD

8:30–9 am

(106) Wilbert E. Fordyce Clinical
Lecture
**Wilbert E. Fordyce: A Legacy of
Clinical Mastery**
Mark P. Jensen, PhD

9–9:30 am

(107) Global Year Against Pain
Lecture
**The Neurobiology of Orofacial
Cancer Pain**
Brian Schmidt, DDS MD PhD

9:30–9:45 am

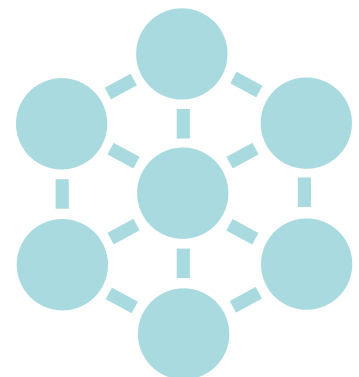
Break

9:45–11:15 am

Symposia

11:30 am–1 pm

Symposia



*Posters ending in odd numbers will be presented on Thursday, and posters ending in even numbers will be presented on Friday.

Exhibits

The 33rd Annual Scientific Meeting will feature more than 150 booths that showcase products and services specifically designed for interdisciplinary leaders in the study and treatment of pain. By visiting the exhibit floor, you will experience firsthand the technology, products, and services that can help you manage your professional goals and strategic objectives and keep you and your organization at the forefront of your field. Exhibitors will feature products and information in the following areas:

- alternative delivery systems
- biology kits and reagents
- business management services
- clinical research
- clinical trial management
- education
- laboratory/diagnostic testing
- laboratory equipment
- medical devices
- medical equipment and supplies
- pharmaceuticals
- publishing
- software.

2014 Exhibitors*

Aptiv Solutions	INSYS Therapeutics	Purdue Pharma
AstraZeneca	Mallinckrodt Pharmaceuticals	Quest Diagnostics
CRI Lifetree	<i>Pain Medicine News</i>	SI Bone, Inc.
Depomed, Inc.	Pinnacle Lab Services	Teva Pharmaceuticals
eLab Solutions	Practical Pain Management	XenoPort, Inc.
The Gideons International	Premier Research	

*As of 12/19/13

Thank you to our lanyard supporter, eLab Solutions.

Posters

The 33rd Annual Scientific Meeting will feature two author-attended poster sessions. Chosen from a large number of submissions, the more than 450 selected posters represent the best innovations and research in the study and treatment of pain. Poster abstracts selected for presentation at the annual meeting will be available online in a searchable database to allow registrants to plan their poster viewing in advance of the meeting. The abstracts are scheduled to be available online in April 2014. To search and view the abstracts, visit www.apsscificmeeting.org.

Poster abstracts selected for presentation at the meeting will be published in a supplemental issue of *The Journal of Pain*, the official journal of APS. All attendees will receive this supplemental issue.

NEW! Early Career Forum

Wednesday, April 30, 1–4:30 pm

All early career attendees are encouraged to take part in this special session. The purpose of the APS Early Career Forum is to encourage interdisciplinary collaborations and provide opportunities to assist in the development of future leaders in the fields of pain research and treatment.

APS seeks to achieve these aims by

- facilitating networking to share ideas and experiences and to develop new collaborations
- providing opportunities for early career members to interact with senior researchers and clinicians within APS
- enhancing early career members' professional development
- promoting education as an important component of pain research and treatment
- encouraging future generations of pain researchers and clinicians.

Please plan to take part in this exciting opportunity during your APS Annual Scientific Meeting experience. The agenda will be facilitated by Jennifer Haythornthwaite, PhD, and preliminarily includes the following:

- a Meet the Experts session
- a research track
- a clinician/educator track.

Exhibit and Poster Schedule

Wednesday, April 30

4–6 pm

Exhibits Open

4:30–6 pm

Opening Reception with Exhibits and Posters (odd-numbered posters, not author attended)

Thursday, May 1

9–11 am

Exhibits Open

9:30–11 am

Break with Exhibits and Posters (odd-numbered posters, author attended)

3:15–5:30 pm

Exhibits Open

3:45–5:15 pm

Break with Exhibits and Posters (even-numbered posters, not author attended)

Friday, May 2

8:30–10:30 am

Exhibits Open

8:45–10:15 am

Break with Exhibits and Posters (even-numbered posters, author attended)

APS Annual Awards



Dennis C. Turk, PhD



Robert H. Dworkin, PhD



Mark P. Jensen, PhD



Michael J. Iadarola, PhD



Anna Taddio



Claudia M. Campbell, PhD



Joanna Girard Katzman, MD MSPH



David A. Williams, PhD

John and Emma Bonica Public Service Award

Dennis C. Turk, PhD, and Robert H. Dworkin, PhD

The John and Emma Bonica Public Service Award honors outstanding contributions by an individual or organization to the field of pain through public education, dissemination of information, public service, or other efforts to further knowledge about pain. The award is named for John Bonica, a leading force in the development of the pain treatment movement, and his wife, Emma.

Wilbert E. Fordyce Clinical Investigator Award

Mark P. Jensen, PhD

The Wilbert E. Fordyce Clinical Investigator Award and Lecture were established in 1995 to recognize and honor career achievement in clinical research on pain. The award is named for Wilbert E. Fordyce, PhD, the first recipient of this honor.

Frederick W. L. Kerr Basic Science Research Award

Michael J. Iadarola, PhD

The Frederick W. L. Kerr Basic Science Research Award and Lecture were established in 1987 in honor of Frederick W. L. Kerr, an APS founder, to recognize individual excellence and achievement in pain scholarship. Since then, the Kerr medallion has been presented to 26 outstanding pain professionals—researchers and clinicians—whose career achievements have made important contributions to the field of pain.

Jeffrey Lawson Award for Advocacy in Children's Pain Relief

Anna Taddio

The Jeffrey Lawson Award was established in 1996 in memory of Jeffrey Lawson, whose mother, Jill, brought the practice of performing surgery and other procedures on children without the benefit of analgesia to the attention of professional organizations. The award recognizes advocacy efforts to improve the management of pain in children.

John C. Liebeskind Early Career Scholar Award

Claudia M. Campbell, PhD

The John C. Liebeskind Early Career Scholar Award was established in 1998 to honor the memory of John C. Liebeskind, PhD, a past president of APS who was a noted pain researcher, scientist, and teacher. The Early Career Scholar Award recognizes early career achievements that have made outstanding contributions to pain scholarship.

Elizabeth Narcessian Award for Outstanding Educational Achievements

Joanna Girard Katzman, MD MSPH

The Elizabeth Narcessian Award was named in memory of Elizabeth Narcessian, MD, a noted educator on the appropriate use of opioids, patient assessment, and approaches to rehabilitation of patients devastated by chronic pain. The award recognizes outstanding contributions highlighting dedication or innovation in education in the field of pain.

Distinguished Service Award

David A. Williams, PhD

The Distinguished Service Award recognizes outstanding and dedicated service to APS.

Kathleen Foley Journalist Award

The Kathleen Foley Journalist Award recognizes excellence in reporting pain-related topics. The award honors the work of journalists whose coverage of events, scientific discoveries, and patient-care issues and policies contributes to furthering public awareness and understanding of pain and pain-related issues.

Honoring Excellence

The 2014 Clinical Centers of Excellence (CCOE) and APS Annual Awards will be presented at the President's Recognition Reception on Thursday, May 1, 6:30–8 pm. The evening's events will include a cocktail reception, remarks from the APS President, and an awards presentation. The following awards will be presented: John and Emma Bonica Public Service Award, Wilbert E. Fordyce Clinical Investigator Award, Frederick W. L. Kerr Basic Science Research Award, Jeffrey Lawson Award for Advocacy in Children's Pain Relief, John C. Liebeskind Early Career Scholar Award, Elizabeth Narcessian Award for Outstanding Educational Achievements, Distinguished Service Award, Kathleen Foley Journalist Award, and the CCOE in Pain Management Awards. The grant recipients from the Future Leaders in Pain Research Grant Program, Sharon S. Keller Chronic Research Pain Program, and the Rita Allen Foundation Award in Pain will also be recognized.

Faculty

Seena Ajit, PhD

Assistant Professor
Drexel University College of Medicine

Kristin Archer, PhD DPT

Assistant Professor
Vanderbilt University Medical Center

Charles Argoff, MD

Professor of Neurology
Albany Medical College

Mark Baccei, PhD

Research Assistant Professor
University of Cincinnati College of Medicine

Tamara Baker, PhD

Associate Professor
University of South Florida

Antje Barrevel, MD

Anesthesiology
Brigham and Women's Hospital

Emily Bartley, PhD

Postdoctoral Research Fellow
University of Florida

Inna Belfer, MD PhD

Associate Professor
University of Pittsburgh Medical Center

Phil Birch

Senior Vice President
Aptiv Solutions

Laura Bohn, PhD

Associate Professor
The Scripps Research Institute

Eva Bojner Horwitz, PhD PhD Reg DMT

Researcher
Uppsala University, Sweden

David Borsook, MD PhD

Professor of Anesthesia
Children's Hospital Boston

Joke Bradt, PhD

Associate Professor
Creative Arts Therapies Department
Drexel University

KC Brennan, MD

Assistant Professor of Neurology
University of Utah

John Burns, PhD

Professor
Rush University Medical Center

M. Catherine Bushnell, PhD

Scientific Director
National Center for Complementary and
Alternative Medicine
National Institutes of Health

Susan Carlton, PhD

Professor
University of Texas Medical Branch

Christine Chambers, PhD

Professor
Dalhousie University & IWK Health
Centre

Roger Chou, MD

Associate Professor of Medicine
Oregon Health & Science University

Jin Chung, PhD

Professor and Interim Chair
University of Texas Medical Branch

David Clark, MD PhD

Professor of Anesthesiology
Stanford University School of Medicine

Simone Codeluppi, PhD

Postdoctoral Fellow
Karolinska Institutet, Sweden

Peggy Compton, PhD RN

Professor
Georgetown University

Maureen Cooney, DNP FNP BC

Pain Management Nurse Practitioner
Westchester Medical Center

Laura Cornelissen, PhD

Research Fellow in Anesthesia
Boston Children's Hospital/Harvard
Medical School

Michael Costigan, PhD

Assistant Professor of Anesthesia
Boston Children's Hospital/Harvard
Medical School

Manuel Covarrubias, MD PhD

Professor
Jefferson Medical College of Thomas
Jefferson University

Penney Cowan, RT

Founder and Executive Director
American Chronic Pain Association

Yenisel Cruz-Almeida, PhD MSPH

Research Assistant Professor
University of Florida

Richard Dart, MD PhD

Director
Rocky Mountain Poison and Drug
Center

Brian Davis, PhD

Professor of Medicine
University of Pittsburgh

Oscar de Leon-Casasola, MD

Professor
Roswell Park Cancer Institute

Lakshmi Devi, PhD MSc

Professor
Icahn School of Medicine at Mt. Sinai

Richard Deyo, MD MPH

Professor
Oregon Health & Science University

Lara Dhingra, PhD

Assistant Professor
Albert Einstein College of Medicine

Luda Diatchenko, PhD

Associate Professor
McGill University

Greg Dussor, PhD

Associate Professor of Pharmacology
The University of Arizona College of
Medicine

Robert Edwards, PhD

Associate Professor of Anesthesiology
Brigham and Women's Hospital/
Harvard Medical School

Dawn Ehde, PhD

Professor
University of Washington School of
Medicine

Parvin Fardipour, PhD

Vice President of Adaptive Clinical
Trials
Aptiv Solutions

Adam Ferguson, PhD

Assistant Adjunct Professor of
Neurological Surgery
University of California San Francisco

Roger Fillingim, PhD

Professor
University of Florida College of
Dentistry

Laura Frey Law, PhD PT

Associate Professor of Physical Therapy
and Rehabilitation Science
University of Iowa

Stefan Friedrichsdorf, MD

Director of the Department of
Pain Medicine, Palliative Care, and
Integrative Medicine
Children's Hospital and Clinics of
Minnesota

Robert Gereau, PhD

Professor
Washington University School of
Medicine

Toni Glover, PhD

Assistant Professor
University of Florida Gainesville

Burel Goodin, PhD

Research Coordinator
Johns Hopkins School of Medicine

Debra Gordon, RN DNP FAAN

Teaching Associate
University of Washington

Carmen Green, MD

Professor
University of Michigan

Kalpna Gupta, PhD

Associate Professor
University of Minnesota

Molly Haaga, MA

Art Psychotherapist
Lesley University, United Kingdom

Shuanglin Hao, MD PhD

Research Associate Professor
University of Miami

R. Norman Harden, MD

Professor
Northwestern University Medical School

Jennifer Haythornthwaite, PhD

Professor
Johns Hopkins University

Cheryl Hillery, MD

Professor
Medical College of Wisconsin

Adam Hirsh, PhD

Assistant Professor
Indiana University–Purdue Indianapolis

Marie Hoeger Bement, PhD PT

Associate Professor
Marquette University

Ann Horgas, PhD RN

Associate Professor
University of Florida

Susan Horn, PhD

Senior Scientist
ISIS, Inc./ICOR

Michael J. Iadarola, PhD

Investigator
National Institutes of Health

Robert Jamison, PhD

Associate Professor
Brigham and Women's Hospital/
Harvard Medical School

Michael Jankowski, PhD

Assistant Professor
Cincinnati Children's Hospital Medical
Center

Mark P. Jensen, PhD

Professor
University of Washington

Nathaniel Jeske, PhD

Assistant Professor
The University of Texas Health Science
Center at San Antonio

Ru-Rong Ji, PhD

Professor
Duke University Medical Center

Donna Kalaoukalani, MD MPH

Medical Director
Folsom Pain Management

Jordan Karp, MD

Associate Professor
University of Pittsburgh

Joanna Katzman, MD MSPH

Associate Professor
University of New Mexico School of
Medicine

Francis Keefe, PhD

Professor
Duke University

Robert Kerns, PhD

Professor
VA Connecticut Healthcare System/
Yale University

Partap Khalsa, PhD

Program Officer
National Center for Complementary and
Alternative Medicine
National Institutes of Health

Asma Khan, PhD BDS

Assistant Professor
University of North Carolina

Benedict Kolber, PhD

Assistant Professor
Duquesne University

John Kramer, PhD

Postdoctoral Fellow
Shepherd Center

John Kusiak, PhD

Program Director
National Institutes of Health

8 Faculty

Cynthia M. LaFond, PhD RN CCRN
Postdoctoral Research Fellow
University of Iowa

Helene Langevin, MD
Professor
Harvard Medical School

Jon David Levine, MD PhD
Professor
University of California San Francisco

Amy Lewandowski Holley, PhD
Assistant Professor
University of Washington

John Loeser, MD
Professor
University of Washington

Mark Lumley, PhD
Professor
Wayne State University

Sean Mackey, MD PhD
Co-Director, Stanford Pain Research
Stanford University

Bertha Madras, PhD
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Harvard Medical School

Katrina Maluf, PhD PT
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University of Colorado Denver

Gemma Mansell, MSc
Research Assistant
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John Markman, MD
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University of Rochester School of
Medicine and Dentistry

Bill McCarberg, MD
Adjunct Assistant Clinical Professor
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School of Medicine

Lance McCracken, PhD
Professor
King's College London

Laura McGhee, PhD
Battlefield Pain Control Project Area
United States Army Institute of Surgical
Research

Ali Mchaourab, MD
Anesthesiologist
Cleveland VA Medical Center

Durga Mohapatra, PhD
Assistant Professor
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of Medicine

Derek Molliver, PhD
Assistant Professor
University of Pittsburgh

Jose Moron-Concepcion, PhD
Associate Professor
Columbia University Medical Center

Jennifer Murphy, PhD
Inpatient Clinical Director
Tampa VA Medical Center

Andrea Nackley, PhD
Assistant Professor
University of North Carolina

Vitaly Napadow, PhD
Assistant Professor
Harvard Medical School

David Newman, MD
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Judith Paice, PhD RN
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Tonya Palermo, PhD
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N.G. and Helen T. Hawkins
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Jeffrey Petruska, PhD
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Barbara Rakel, PhD RN
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Christopher Ramsden, MD
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Neurosciences
National Institutes of Health

Bob Rappaport, MD
Director of the Division of Anesthesia,
Analgesia, and Addiction Products
U.S. Food and Drug Administration

Cary Reid, MD PhD
Associate Professor of Medicine
Weill Cornell Medical College

Eduardo Rodenas, MD
Medical Lead Consultant, Pediatric
Program
Purdue Pharma

E. Alfonso Romero-Sandoval, MD PhD
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Presbyterian College School of
Pharmacy

Sarah Ross, PhD
Assistant Professor
University of Pittsburgh

Ahmet Sacan, PhD
Assistant Professor
Drexel University

Barbara St. Marie, PhD ANP GNP
Adult and Gerontology Nurse
Practitioner
University of Minnesota Medical Center

Daniela Salvemini, PhD
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Saint Louis University School of
Medicine

Seddon Savage, MD MS
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Geisel School of Medicine at
Dartmouth

Brian Schmidt, DDS MD PhD
Professor
New York University

Joanne Schneider, MSN CNS NP
Certified Nurse Practitioner, Pain
Management
Cleveland Clinic Chronic Pain
Rehabilitation Program

Howard Schubiner, MD
Founder and Director of the Mind Body
Medicine Program
Providence Hospital and Wayne State
University

Rebecca Seal, PhD
Assistant Professor
University of Pittsburgh

David Seminowicz, PhD
Assistant Professor
University of Maryland School of
Dentistry

Reza Sharif Naeini, PhD
Assistant Professor
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Minjung Shim, MA
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Instructor, Psychology
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Brett Stacey, MD
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Oregon Health & Science University

Jennifer Stinson, PhD RN CPNP
Associate Professor
The Hospital for Sick Children

Laura Stone, PhD
Assistant Professor
McGill University

Cheryl Stucky, PhD
Professor
Medical College of Wisconsin

Camilla Svensson, PhD
Assistant Professor
Karolinska Institutet, Sweden

Yuan-Xiang Tao, PhD
Vice Chair of Research
Rutgers University School of Medicine

David Thomas, PhD
Project Lead, NIH Pain Consortium
National Institute on Drug Abuse
National Institutes of Health

Zina Trost, PhD
Assistant Professor
University of North Texas System

Dennis C. Turk, PhD
Professor
University of Washington

Robert Twillman, PhD
Director of Advocacy and Policy
American Academy of Pain
Management

Yuriy Usachev, PhD
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The University of Iowa Carver College
of Medicine

Kevin Vowles, PhD
Assistant Professor
University of New Mexico

Mark Wallace, MD
Chair, Division of Pain Medicine
University of California San Diego

Lynn Webster, MD
Chief Medical Director, Founder
Lifetree Clinical Research

Stephen Wegener, PhD ABPP
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Johns Hopkins School of Medicine

Debra Weiner, MD
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University of Pittsburgh

Hants Williams, BSN
Research Assistant
Duke University School of Nursing

Cheryl Stucky, PhD
Professor
Medical College of Wisconsin

Hants Williams, BSN
Research Assistant
Duke University School of Nursing

Anna Wilson, PhD
Assistant Professor
Oregon Health & Science University

Fadel Zeidan, PhD
Postdoctoral Fellow
Wake Forest School of Medicine

Mark Zylka, PhD
Associate Professor
University of North Carolina School of
Medicine

Wednesday, April 30**1–4:30 pm****(118) Early Career Forum****2:30–4:30 pm****Shared Interest Group (SIG) Meetings****(119) Nursing Issues** 1.5 CE 1.5 CE Rx

Rapid reports of four research topics will be moderated by Maureen Cooney, DNP FNP BC. Participants will discuss the nursing implications related to each of the following topics:

“Just Because I’m an Addict, Doesn’t Mean I Don’t Have Pain”: Healthcare Experiences of Those with Coexisting Substance Use Disorder and Chronic Pain*Barbara St. Marie, PhD ANP GNP***PICU Nurses’ Pain Ratings and Intervention Choices in Response to Virtual Human Vignettes***Cynthia M. LaFond, PhD RN CCRN***Behavioral Health Needs of Patients with Sickle Cell Disease in the Emergency Department***Hants Williams, BSN***Acute Pain Antagonizes the Anti-Inflammatory Effects of Opioids***Peggy Compton, PhD RN***(120) Pharmacotherapy**

1. Call for nominations for cochairs of SIG
2. Discuss potential topics for APS annual programming for 2015
3. Debate the utility of pharmacogenetic testing in routine pain management

(121) Psychosocial Research

The 2014 Psychosocial Research SIG meeting will feature three components. First, a brief business meeting will update members on major SIG activities and include an election for the SIG cochair for the 2014–2015 term. Second, the 5th Annual SIG Young Investigator Poster Award will be presented, and the winner will present his or her research in a platform session. Finally, experts in the field of psychosocial pain research will give brief presentations and participate in a panel discussion, “Threatening Our Darlings: A Critical Examination of Fundamental Assumptions in Psychosocial Research on Pain.” Expert presentations and discussion will focus on fundamental assumptions in the field’s approach to theory, methodology, intervention, and assessment that often are not challenged, as well as alternatives that may be considered. Panelists will include Drs. Lance McCracken, Beverly Thorn, Mark P. Jensen, Michael Sullivan, and Robert Coghill. Join us for an engaging and interactive SIG meeting.

(122) Pain in Sickle Cell Disease (SCD)

The Pain in SCD SIG seeks to foster the development of a multidisciplinary community that brings together a diverse group of pain researchers, including basic scientists, clinicians, and other health professionals, to increase the knowledge of pain in SCD.

Drs. Dampier and Palermo, cochairs of the working group on sickle cell pain, will present an overview of the progress toward development of a comprehensive, evidence-based pain taxonomy with a multiaxial framework for diagnostic criteria for the classification of chronic pain in SCD as part of the Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks (ACTTION) public-private partnership with the U.S. Food and Drug Administration and APS. Further discussion will focus on the challenges presented by the unique features of acute episodic and chronic pain in SCD for taxonomy classifications, and the potential relevance of the International Classification of Headache Disorders to SCD pain. Finally, studies needed to further validate SCD pain taxonomies will be described.

(123) Measurement of Pain and Its Impact

Charles Argoff and Nalini Sehgal are invited to discuss the “Role of Symptoms and Signs Assessment in Diagnosis of Neuropathic Pain.”

(124) Pain Rehabilitation**(126) Ethics***Roger Chou, MD; Judith Scheman, PhD; Brett Stacey, MD*

The Ethics SIG will host a panel presentation discussing various ethical dilemmas. Dr. Chou will present ethical dilemmas related to conflict of interest, reporting bias, or off-label use; Dr. Stacey will discuss a medical case; and Dr. Scheman will present a dilemma related to psychology and opioid prescription. This session promises a lively discussion with ample audience participation.

4:30–6 pm**Opening Reception with Exhibits and Posters****6–8 pm****Clinical and Basic Science Data Blitz****Thursday, May 1****7:45–8 am****Gathering and Introductions****8–8:30 am****(100) State of the Society***Roger Fillingim, PhD, APS President***8:30–9:30 am****General Session** 1.0 CE K**8:30–9 am****(101) Keynote Address****Health Care’s Most Important Reform—The Provider***David Newman, MD*

Increasingly, surveys show patients are dissatisfied and providers are frustrated. The provider-patient relationship is in peril, and yet, though patients distrust insurance companies or pharmaceutical corporations or politicians to make decisions for them, they trust their providers. Physicians are the *de facto* face of reform and the primary drivers of reform’s success or failure.

This raises critical questions: Can the academic medicine community reform itself, starting with the provider? Can we reform the way we think, interact with patients, or use technologies? Can we deconstruct and rewire? There is no health-care reform without provider reform—but providers are famously headstrong. What now?

9–9:30 am**(102) Plenary Lecture****Sensory Mechanism for Heat Inhibition of Cold***Mark Zylka, PhD*

Calcitonin gene-related peptide (CGRP) is a classic molecular marker of peptidergic primary somatosensory neurons. Despite years of research, it is unknown whether these neurons are required to sense pain or other sensory stimuli. We found that genetic ablation of CGRP α -expressing sensory neurons reduced sensitivity to noxious heat, capsaicin, and itch (histamine and chloroquine) and impaired thermoregulation but did not impair mechanosensation or β -alanine itch—stimuli associated with nonpeptidergic sensory neurons. Unexpectedly, ablation enhanced behavioral responses to cold stimuli and cold mimetics without altering peripheral nerve responses to cooling. Mechanistically, ablation reduced tonic and evoked activity in postsynaptic spinal neurons associated with TRPV1/heat while profoundly increasing tonic and evoked activity in spinal neurons associated with TRPM8/cold. Our data reveal that CGRP α sensory neurons encode heat and itch and tonically cross-inhibit

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cold-responsive spinal neurons. Disruption of this cross-talk unmasks cold hypersensitivity, with mechanistic implications for neuropathic pain, side effects of TRPV1 antagonists, and temperature perception.

9:30–11 am

Break with Exhibits and Posters

Author-Attended Poster Session (Odd-Numbered Posters)

11 am–12:30 pm

Symposia

(200) Frontiers in Pain Research: Rita Allen Foundation Scholars in Pain **1.5 CE B K**

Michael Jankowski, PhD (Moderator); Sarah Ross, PhD; Rebecca Seal, PhD; Reza Sharif Naeini, PhD

This symposium will bring together the 2012 and 2013 APS and Rita Allen Foundation Scholars in Pain to present their ongoing research, which covers areas of interest to both basic science researchers and clinicians. The purpose of this session is to present and discuss novel advances in the mechanisms of pain at the molecular and cellular levels and how these results can be translated into better clinical therapies. Because of the diversity of the scholars, this session will cover a range of topics analyzing the peripheral and central mechanisms of pain development, which includes studies of basic science, musculoskeletal pain, and translational pain research.

(201) Exercise Is Medicine: Translating Science to Practice **1.5 CE T K**

Laura Frey Law, PhD PT (Moderator); Marie Hoeger Bement, PhD PT; Katrina Maluf, PhD PT; Kathleen Sluka, PhD PT

In the past decade, our understanding of the widespread health benefits of regular physical activity has expanded greatly. This symposium will present new basic, translational, and clinical data supporting the benefits of exercise for preventing and managing chronic pain and will highlight open-access resources to support exercise prescription in clinical practice.

(202) From Brain to Spine and Beyond: Tracking Low Back Pain from the Nervous System to Peripheral Tissues **1.5 CE T K**

Laura Stone, PhD (Moderator); Helene Langevin, MD; David Seminowicz, PhD

Persistent back pain affects 15% of the adult population and is the leading cause of disability in individuals 45 years and younger. Current diagnostic and therapeutic approaches to chronic back pain are limited by our narrow understanding of the underlying biological mechanisms and by its inherent complexity. Dr. Stone will present data from preclinical studies investigating the

relationship between degenerating intervertebral discs and the development of behavioral signs of low back pain (LBP), and the therapeutic effects of increased voluntary activity will be presented. Dr. Seminowicz will discuss brain imaging studies in people suffering from LBP and related disorders. Dr. Langevin will present the result of ultrasound studies of paravertebral connective tissue in human chronic LBP.

(203) Pediatric Chronic Pain in the Laboratory: Conditioned Pain Modulation and Neuroimaging in Clinical and High-Risk Samples of Youth **1.5 CE T K**

Christine Chambers, PhD (Moderator); Amy Lewandowski Holley, PhD; Laura Simons, PhD; Anna Wilson, PhD

This symposium will describe findings from studies using conditioned pain modulation (CPM) tasks and neuroimaging approaches with youth with chronic pain or at increased risk for chronic pain. Presenters will discuss ways in which CPM and neuroimaging data collected in childhood and adolescence may contribute to our knowledge of the development of chronic pain and correlates of pain treatment response and will address methodological considerations.

(204) Understanding and Treating Persistent Pain Using Virtual Technologies **1.5 CE T K**

Francis Keefe, PhD (Moderator); Adam Hirsh, PhD; Thomas Parsons, PhD; Zina Trost, PhD

Recent advances in virtual technologies (VTs) have facilitated new approaches to understanding and treating pain. Though virtual reality environments successfully have been utilized for acute pain intervention, researchers increasingly are using these technologies to address issues in chronic pain management. This session will present on recent uses of VTs a) as an immersive adaptive environment for treatment of chronic pain, b) as an extension of graded exposure therapy for chronic pain disability that incorporates an interactive gaming interface, and c) as a tool for understanding and informing clinicians' treatment decisions.

(205) Forging Provider-Patient Partnerships to Help Patients Navigate the Maze of Pain **1.5 CE C K**

Donna Kalaoukalani, MD MPH (Moderator); Penney Cowan, RT; Joanne Schneider, MSN CNS NP

The American Chronic Pain Association promotes a balanced approach to pain management with the goal of improving quality of life, increasing function, and reducing the sense of suffering. Key elements in this approach are optimizing communication between the consumer and the health-care provider and empowering the patient to become engaged in self-management activities.

2:15–3:45 pm

Symposia

(300) Optogenetics in Pain **1.5 CE B K**

Brian Davis, PhD (Moderator); Robert Gereau, PhD; Benedict Kolber, PhD

This symposium will provide a coordinated introduction to the use of optogenetics to understand the neural control of nociception and pain. Optogenetics includes light-activated channels, pumps, and receptors (e.g., G protein-coupled receptors) to modulate neuronal activity in a cell-type specific manner. It also includes genetically encoded probes that can be used to monitor neuronal activity (e.g., GCaMP). The purpose of this symposium is to first provide an introduction to optogenetics for the novice and discuss the future use of this technique as a basic science and clinical tool. Next, three presentations will highlight research utilizing optogenetic approaches to interrogate the contribution of peripheral nociceptors and the brain in the modulation of nociception and pain.

(301) Does Sex Matter? Sex X Gene Interactions in Human Pain and Analgesia **1.5 CE .50 CE Rx T K**

Inna Belfer, MD PhD (Moderator); Luda Diatchenko, PhD; Roger Fillingim, PhD

The future of personalized pain medicine will be based on individual difference factors contributing to variability in pain and analgesic responses, such as sex and genetic polymorphisms. Moreover, it is increasingly appreciated that these factors interact with each other to impact pain and analgesia. Sex differences in pain have been extensively documented, and genetic influences on pain can vary considerably based on the sex of the individual; however, the particular interactions between sex and genes regarding pain still are not fully uncovered. This session will provide current research insights on a wide spectrum of fundamental differences in the genetic contributions to variability in pain and analgesic responses within each sex and mechanisms underlying these differences. A particular emphasis will be placed on the implications of the findings for clinical practice.

(302) Cognitive and Emotional Processing for Chronic Pain: Innovative Treatment Approaches **1.5 CE C K**

Mark P. Jensen, PhD (Moderator); Mark Lumley, PhD; Howard Schubiner, MD

This symposium will introduce participants to the theory underlying and evidence supporting innovative treatments that incorporate cognitive and emotional processing to improve pain treatment outcomes. The symposium is most relevant to treatment providers (physicians, nurses, psychologists, and social workers) who use

or incorporate psychological or behavioral approaches into their practice and who wish to increase the number of therapeutic techniques they can use to benefit their clients.

(303) Bench to Bedside: Linking Genetics, Neurophysiology, and Psychosocial Factors in Pediatric Chronic Pain **1.5 CE** **C** **K**

Christine Seiberg, PhD (Moderator); Mark Baccei, PhD; Laura Cornelissen, PhD

The mechanisms of developing chronic pain are starkly different in neonates, children, and adults. Neuropathic pain rarely develops in neonates, even after large-scale nerve damage, in sharp contrast to adults (Costigan et al., 2009). Inflammation in the young, however, is thought to pathologically sculpt the developing nervous system in ways that can increase pain in these systems throughout life (Beggs et al., 2012). The focus of this symposium is to discuss the genetics, neurophysiology, and psychological factors in pediatric chronic pain.

(304) NIH Pain Consortium—Research Standards for Chronic Low Back Pain **1.5 CE** **C** **K**

Partap Khalsa, PhD (Moderator); Richard Deyo, MD MPH; Sean Mackey, MD PhD

This will be a presentation of the research standards for chronic low back pain that were developed by a research task force convened by the National Institutes of Health (NIH) Pain Consortium. The heart of the research standards is a definition of chronic low back pain and a minimum dataset that should be included in all prospective research studies related to chronic low back pain. The presentation will include the process and methods used to arrive at the research standards as well as the research standards themselves.

(305) Neural Basis of Nonpharmacological Pain Treatments **1.5 CE** **T** **K**

Catherine Bushnell, PhD (Moderator); Vitaly Napadow, PhD; Fadel Zeidan, PhD

Complementary pain treatments, such as acupuncture, meditation, and yoga, likely reduce pain through endogenous modulatory systems in the brain.

3:45–5:15 pm

Break with Exhibits and Posters

5:15–6:15 pm

Shared Interest Group (SIG) Meetings

(127) Pain in Infants, Children, and Adolescents

The APS Pain in Infants, Children, and Adolescents SIG will hold a Pediatric Pain Research Blitz at its meeting at the 2014 Annual Scientific Meeting.

This session will consist of short, 10-minute presentations on new research efforts. We also will use the meeting to announce the 2014 recipient of the Pediatric Young Investigator Research Award.

Participants in the research blitz will be selected from responses to a call for proposals, which we will issue approximately 2 months before the meeting.

(128) Basic Science

Three early career scholars will give brief presentations on their recent work. The Basic Science liaisons to the APS Board of Directors and the Scientific Program Committee will give brief reports on APS activities over the year. SIG members will have an opportunity to contribute ideas for SIG activities for the coming year. Ideas will be solicited for the 2015 Basic Science Research Dinner. A new cochair for 2014–2015 will be elected.

(129) Geriatric Pain

The program will feature 40 minutes of focused presentations and a discussion on alternatives to traditional pharmacologic therapy for pain in older adults. Problems with the use of acetaminophen, nonsteroidal anti-inflammatory drugs, and opioids in older adults will be briefly summarized. Experts from across diverse care settings will discuss the potential of shared decision making to solve this problem, the role of novel pharmacologic therapies and procedures to treat acute pain, and the barriers to providing complementary and alternative therapies to institutionalized older adults. Areas in which additional research is needed and the potential for collaboration across disciplines will be emphasized. The meeting will conclude with a 15- to 20-minute business meeting for the Geriatric Pain SIG.

Part 1: Presentation and Discussion of Alternative Therapies to Treat Pain in Older Adults

A. The Challenge of Treating Older Adults with Traditional Pharmacologic Therapies and the Potential of Shared Decision Making to Solve this Problem

Timothy F. Platts-Mills, MD

B. Novel Therapies for Acute Pain Management in Older Adults: Lessons from the Emergency Department

Knox H. Todd, MD MPH

C. Barriers to Providing Complementary and Alternative Therapies to Treat Pain in Older Adults in Long-Term Care

Todd Monroe, PhD

D. Discussion

Part 2: Geriatric Pain SIG Business Meeting

A. Review of mission statement

B. Election of officers—chair, vice chair, secretary, and four at-large members

C. Member engagement and activities

1. Communications with members (e.g., using the Listserv)
2. IASP 2014—Buenos Aires, October 6–11, 2014
3. SIG awards (e.g., investigator, mentoring, etc.)
4. Planning for the 2015 annual meeting
5. Other opportunities

(130) Pain Education

The Pain Education SIG will discuss the progress of the Centers of Excellence in Pain Education and how to support the movement and integrate content into interprofessional training at hospitals and medical centers. Strategies for disseminating risk evaluation and mitigation strategies training and developing a working group to update a list of resources and peer-reviewed educational materials that represent best practices also will be discussed.

(131) Genetics and Pain

The 2014 Genetics and Pain SIG meeting will follow a highly interactive format that welcomes input and engaging discussion from all attendees. The meeting will begin with an award given to recognize the outstanding work of a junior investigator/trainee, selected from poster abstracts pertaining to genetics and pain. The award recipient will have the opportunity to present his or her poster and discuss the implications of the findings with the audience. Next, one of our own members, Dr. Roy Levitt, will highlight novel genetic mechanisms that contribute to susceptibility to persistent pain. Following the presentations, time is allotted for overall discussion regarding the growth and direction of the SIG, including ways to build the membership and expand activities. Please contact the Genetics and Pain SIG Organizing Committee to express your interest in becoming more involved in this exciting SIG, and plan to be an active participant at the SIG meeting in Tampa.

(132) Pain and Disparities **1.0 CE**

This meeting, moderated by Lara Dhingra, PhD, and Burel Goodin, PhD, will feature three presentations from nationally known speakers who expand traditional perspectives on pain disparities and propose key priorities for pain research and policy. Dr. Roger Fillingim will examine original data from a study that aims to clarify the roles of biological, sociocultural, and psychological factors that contribute to ethnic differences in pain. Dr. Carmen Green will discuss health policy and relevant research on disparities in pain care due to race and ethnicity, and will review how new initiatives within the Affordable Care Act will address pain care disparities. Dr. Robert Twillman will describe the impact of new state policies on access to pain care, particularly for populations with healthcare disparities, and will review original data from a survey of individuals with

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chronic pain who were denied prescriptions at pharmacies.

Biopsychosocial Contributions to Ethnic Group Differences in Knee Osteoarthritis

Roger Fillingim, PhD

Dr. Fillingim will present findings from his ongoing Understanding Pain and Limitations in Osteoarthritic Disease (UPLOAD) study, which endeavors to identify biopsychosocial factors that contribute to osteoarthritis-related pain and disability in African Americans and non-Hispanic whites. The presentation will highlight biological, quantitative sensory testing, and psychosocial measures that may differentially predict clinical pain and disability across ethnic groups.

Unequal Burden of Pain: Opportunities for Healthcare Policy

Carmen Green, MD

This talk will focus on health policy and relevant research on pain care disparities. It will provide an overview of racial and ethnic disparities in pain care. It also will provide insights into how healthcare disparities—more specifically, pain care disparities—integrate into new policy initiatives within the Affordable Care Act, including the metrics and desired outcomes.

States of Pain: How State Efforts to Eliminate Pill Mills Can Wind Up Hurting People with Pain

Robert Twillman, PhD

In grappling with the problem of “pill mills” and their role in the prescription drug abuse crisis, some states have passed strict new laws and regulations for pain clinics. Unfortunately, some of the unintended consequences of these new policies have caused substantial harm to people with pain, especially populations with healthcare disparities, and considerable inconvenience to their healthcare providers. This presentation will examine policies in Florida, the truth behind claims of their effectiveness, and results of a survey of people with pain who have had prescriptions denied at the pharmacy.

(133) Complementary and Alternative Medicine

(134) Clinical Trials

Friday, May 2

7:30–8:30 am

General Session 1.0 CE K

7:30–8 am

(103) Plenary Lecture

Beyond Inflammation—Exploring Mechanisms of Persistent Pain in Arthritis

Camilla Svensson, PhD

Rheumatoid arthritis (RA) is an autoimmune disease associated with debilitating joint pain and progressive cartilage and bone loss. Although inflammation is assumed to be the driving force for joint pain occurring in RA, recent data show that pain continues to be a problem, although the disease is medically controlled or in remission. This raises the possibility that arthritis-induced pain is only partly dependent on the inflammatory status in the joint. Using disease-relevant models of RA has revealed that antibody-driven joint inflammation has long-term impacts on the sensory nervous system. This talk will describe changes in the neurochemical profile of nociceptive neurons occurring in the post-inflammatory phase of experimental arthritis and highlight potential peripheral and central mechanisms that drive persistent pain when it occurs as a consequence of joint inflammation.

8–8:30 am

(104) Plenary Lecture

Illuminating the Path to Multidisciplinary Pain Management

John Loeser, MD

The lecture will address the history of the development of the concept of multidisciplinary pain management and various forms of its implementation in different countries throughout the world. Evidence for the efficacy of this type of pain management will be discussed, and issues in the implementation of multidisciplinary pain management will be explored. Key components of successful multidisciplinary pain management will be explored, and lessons learned from the experiences at the University of Washington will be discussed.

8:45–10:15 am

Break with Exhibits and Posters

**Author-Attended Poster Session
(Even-Numbered Posters)**

10:30 am–Noon

Symposia

(400) Innovative Delivery of Pain Self-Management Programs

1.5 CE C K

Dawn Ehde, PhD (Moderator); Kristin Archer, PhD DPT; Stephen Wegener, PhD ABPP; Tonya Palermo, PhD

Self-management programs that target psychosocial risk factors have proven effective for reducing pain and disability in adults and youth with chronic pain. However, studies indicate that many adults, adolescents, and children with pain have inadequate access to evidence-based pain treatment because of financial, geographic, or mobility constraints that typically render clinic-based programs impractical or inaccessible. This symposium will describe innovative delivery models that broaden the availability of effective pain management and behavior change strategies. The research programs represented in this session will focus on remote (telephone and Web-based) pain self-management programs; implementation through nontraditional providers, such as physical therapists; and the translation of these models into clinical practice.

(401) Emerging Themes in G Protein-Coupled Receptor Signaling

1.5 CE 1.0 CE Rx B K

Derek Molliver, PhD (Moderator); Laura Bohn, PhD; Nathaniel Jeske, PhD; Lakshmi Devi, PhD MSc

This session will describe emerging themes in research examining the function of G protein-coupled receptors in the modulation of pain circuits. Significant advances in our understanding of how these receptors function provide a more complex picture of their role in signal transduction and suggest new avenues for the development of drugs with increased selectivity and reduced side-effect profile.

(402) The Role of Mitochondria in Chronic Pain 1.5 CE 0.5 CE Rx B K

Shuanglin Hao, MD PhD (Moderator); Jin Chung, PhD; Jon Levine, MD PhD; Daniela Salvemini, PhD

A wide range of disorders have underlying pathophysiological mechanisms resulting in mitochondrial dysfunction. The mechanisms of mitochondrial dysfunction in chronic pain are largely unclear. This session will explore the recent studies about mitochondrial mechanisms in the inflammatory, nerve injury, or HIV-related neuropathic pain and morphine tolerance.

(403) APS Clinical Centers of Excellence: Promoting the Highest Standards of Evidence-Based Interdisciplinary Pain Care 1.5 CE C K

Robert Kerns, PhD (Moderator); Stefan Friedrichsdorf, MD; John Markman, MD

This symposium will highlight one of APS's most important initiatives, the Clinical Centers of Excellence Program. The symposium will provide an overview of the program and showcase presentations from three recent honorees. Presenters will describe innovations in providing evidence-based, interdisciplinary clinical care and the integration of science, education, and advocacy in both university and community settings.

(404) Mechanisms of Change in Psychosocial Interventions for Chronic Pain 1.5 CE C K

Lance McCracken, PhD (Moderator); John Burns, PhD; Gemma Mansell, MSc; Kevin Vowles, PhD

Though psychosocial interventions have good evidence of effect, the mechanisms by which these effects occur remain unclear. This symposium will present the results of several recent studies designed to enhance clarity in the identification of these mechanisms.

(405) Neural and Immune Mechanisms Mediating Pain in Sickle Cell Disease 1.5 CE T K

Cheryl Stucky, PhD (Moderator); Kalpna Gupta, PhD; Cheryl Hillery, MD

The acute and chronic pain that devastates the lives of patients with sickle cell disease has only recently been appreciated by the pain research community. This symposium will focus on a) recent developments in our understanding of the peripheral and central neural mechanisms underlying sickle cell pain, b) the contribution of immune cells to the pain, and c) developing strategies that treat the pain without an inadvertent effect on the systemic disease. The goal is to identify targets for therapeutics that will treat the pain and result in improved disease outcome.

1:45–3:15 pm

Symposia

(500) National and International Pain Registries: Analysis and Use of Practice-Based Evidence 1.5 CE C K

Debra Gordon, DNP RN FAAN (Moderator); Susan Horn, PhD; Sean Mackey, MD PhD

This symposium will describe the current progress in developing and utilizing large chronic and acute pain registries for point-of-care decision making, quality improvement, and research. Appropriate data elements and data collection and analysis methods for large databases will

be outlined, highlighting registry progress in the field of pain.

(501) Pain Control by Novel Lipid Mediators: Preclinical and Clinical Studies on Pro- and Anti-Inflammatory Mediators 1.5 CE T K

Ru-Rong Ji, PhD (Moderator); Christopher Ramsden, MD; Daniela Salvemini, PhD

Recent progress demonstrates that lipid mediators have both pro- and antinociceptive roles. This symposium will review evidence that a) pro-inflammatory lipid mediators such as ceramide and sphingosine 1-phosphate (SIP) promote pain and b) anti-inflammatory lipid mediators such as resolvins and protectins potently inhibit inflammatory and neuropathic pain in animal models. We also will present clinical evidence that a dietary intervention increasing n-3 and reducing n-6 fatty acids can effectively reduce chronic headache.

1:45–5 pm

Workshops

(W700) NIH Workshop on Successful Grant Writing and Funding Opportunities in Pain Research 3.0 CE B A

Linda Porter, PhD (Moderator); John Kusiak, PhD; Jennifer Haythornthwaite, PhD; David Thomas, PhD

This workshop will guide new and experienced investigators through the National Institutes of Health (NIH) grant application process and offer tips for successful grant writing and guidance on NIH funding opportunities for pain research. It will include an overview of NIH funding mechanisms for early and midstage career development and an update on review processes at NIH.

(W701) Herbal Marijuana in Clinical Practice: Optimizing Policies and Outcomes 3.0 CE 2.0 CE Rx T A

Seddon Savage, MD MS (Moderator); Bertha Madras, PhD; Bill McCarberg, MD; E. Alfonso A. Romero-Sandoval, MD PhD

Herbal marijuana is now legally available in numerous states for clinical use by patients with pain, nausea, cachexia, and other symptoms, and some states have made cannabis available for recreational and other elective purposes. This session will prepare clinicians to counsel patients on the potential benefits and risks of marijuana use, consider different drug delivery systems, weigh the relative benefits of currently available U.S. Food and Drug Administration-approved cannabinoid medications and emerging products, and monitor and guide patients who choose to use marijuana for symptom management. It also will explore the range of federal and state policies that govern marijuana use and will consider how to improve policies to better serve patients and the public health.

(W702) Square Pegs in Round Holes? Do Clinical Guidelines Fit Our Patients' Needs? 3.0 CE 1.0 CE Rx C A

Charles Argoff, MD (Moderator); Roger Chou, MD; R. Norman Harden, MD; Brett Stacey, MD; Mark Wallace, MD

Multiple pain management practice guidelines in the peer-reviewed literature include those for interventional modalities, chronic opioid therapy, neuropathic pain, chronic low back pain, migraine headache, trigeminal neuralgia, persistent pain in older people, complex regional pain syndrome, and transcutaneous electrical nerve stimulation. Even when best evidence and sound methodology are utilized to create a guideline, they fall short of providing true clinical guidance. Each of the faculty will present logical and methodical approaches to addressing the limits of current treatment guidelines to improve patient outcomes as well as recommendations for improving the clinical relevance of future pain management treatment guidelines.

3:30–5 pm

Symposia

(600) Function and Dysfunction of Potassium Channels in Nociceptors: Implications in the Development and Treatment of Neuropathic Pain 1.5 CE .50 CE Rx B K

Manuel Covarrubias, MD PhD (Moderator); Hui-Lin Pan, MD PhD; Yuan-Xiang Tao, PhD

We will discuss studies of various voltage-gated potassium channels (Kv1.2, Kv1.4, Kv3.4, K4.2, and Kv7.2) and large conductance calcium-activated potassium channels expressed in nociceptors. These studies have investigated various injury models (peripheral nerve injury, spinal cord injury, etc.) to demonstrate that hyperexcitable pain states can result from potassium channel dysregulation involving specific post-transcriptional, posttranslational, and epigenetic mechanisms.

(601) Biopsychosocial Mechanisms and Treatment of Pain in Older Adults 1.5 CE .50 CE Rx T K

Barbara Rakel, PhD RN (Moderator); Emily Bartley, PhD; Yenisel Cruz-Almeida, PhD MSPH; Jordan Karp, MD

This symposium will focus on integrating mechanism-based approaches in the characterization and treatment of pain in older adults to guide clinical pain interventions. Efforts to translate the current science of pain and aging to improve assessment and management of pain in older populations will be considered.

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5:30–7:30 pm

Basic Science Research Dinner

(136) Promises and Challenges of Bioinformatic Approaches in Pain Research

Benedict Kolber, PhD, and David Seminowicz, PhD (Moderators); Michael Costigan, PhD; Luda Diatchenko, PhD; Camilla Svensson, PhD

In recent years, bioinformatic approaches have gained momentum in the field of pain. By focusing on large-scale analysis of genes, gene expression, and overall disease state, bioinformatic approaches carry the promise of identifying new targets in our understanding of pain and in revealing the root causes of complex multi-gene diseases. The speakers, with their diverse backgrounds in pain and different bioinformatic approaches, will discuss the early successes of using “big data” to study pain and the future of bioinformatics in pain.

Seating is limited. Preregistration is required.

Saturday, May 3

8–9:30 am

General Session 1.5 CE K

8–8:30 am

(105) Frederick W. L. Kerr Basic Science Research Lecture

TRPV1 Therapeutics and Transcriptomics

Michael J. Iadarola, PhD

This talk will examine the development of an agonist approach to TRPV1 therapeutics for treating pain. The TRPV1 ion channel/capsaicin receptor has been intensively studied ever since the algogenic actions of capsaicin were identified. My lab has concentrated on the development of TRPV1 agonists as analgesic agents in particular the high potency agonist resiniferatoxin (RTX) and more recently positive allosteric modulators. This talk will discuss RTX agonist actions that support its use as an analgesic in translational studies and our canine and human clinical cancer pain trials. Because of the efficacy of RTX, we have sought to determine every molecule these neurons make and recently elaborated the complete transcriptome of TRPV1 neurons using next-gen RNA-Seq. The RNA-Seq method quantitatively and comprehensively measures all genes expressed in a particular cell type or tissue sample. These data provide the beginnings of the sensory ganglion “nociceptome” to be constructed that allows a new, in silico, approach to pain research to be developed.

8:30–9 am

(106) Wilbert E. Fordyce Clinical Lecture

Wilbert E. Fordyce: A Legacy of Clinical Mastery

Mark P. Jensen, PhD

Wilbert “Bill” E. Fordyce is perhaps best known for his pioneering work in the application of the operant model to chronic pain and the development of effective pain treatment strategies based on this model. These contributions alone have had a monumental impact on the field of pain assessment, treatment, and research, and laid the groundwork for a whole generation of clinicians and researchers who continue to create innovative and effective pain interventions. However, those of us who were lucky enough to work directly with Dr. Fordyce also knew him as a master clinician who was able to quickly establish rapport with patients and elicit significant change in how they view and respond to pain. Dr. Jensen will discuss some of the ways that Dr. Fordyce continues to inspire many of the world’s experts in the field of pain research and treatment. He also will review a number of specific clinical strategies Dr. Fordyce applied regularly and effectively with patients, including his use of metaphor, and share some of the colorful ways he communicated key findings from his evaluations to colleagues. The talk will end with a discussion of research that has continued in Dr. Fordyce’s tradition—research that seeks to identify and understand clinical strategies that will inspire individuals with chronic pain to live full and meaningful lives.

9–9:30 am

(107) Global Year Against Pain Lecture

The Neurobiology of Orofacial Cancer Pain

Brian Schmidt, DDS MD PhD

The etiology of orofacial cancer pain is not known, and current treatment is ineffective. Dr. Schmidt will discuss the molecular cross-talk between cancer and peripheral nervous system that is responsible for pain. He will present data demonstrating a reciprocal proliferative effect between cancer and surrounding sensory nerves.

9:30–9:45 am

Break

9:45–11:15 am

Symposia

(800) Measuring Inappropriate Use of Analgesic Medications in Clinical Trials 1.5 CE 1.5 CE Rx C K

Dennis C. Turk, PhD (Moderator); Richard Dart, MD PhD; Bob Rappaport, MD; Shannon Smith, PhD

This symposium will present a consensus effort undertaken by academic, industry, clinical, public health, and regulatory experts in pain and addiction to a) standardize classifications and definitions for inappropriate medication use events (e.g., abuse, misuse), b) develop a system to retrospectively quantify such events in completed clinical trials, and c) create a prospective assessment system to identify and classify inappropriate medication use events occurring in clinical trials. This symposium will be of interest to investigators and sponsors studying drugs with the potential for inappropriate use.

(801) Novel Modulators and Signaling Mechanisms in Inflammatory Pain 1.5 CE 0.5 CE Rx B K

Yuriy Usachev, PhD (Moderator); David Clark, MD PhD; Durga Mohapatra; PhD

This symposium focuses on several novel classes of inflammatory and pronociceptive mediators, including complement fragments; sphingolipids and natriuretic peptides and their receptors; downstream signaling mechanisms; and molecular targets in nociceptive neurons, glia, and immune cells. Distinct mechanisms through which these novel mediators potentiate nociceptor excitability and pain hypersensitivity, as well as the epigenetic mechanisms controlling the expression of pain mediators by both neurons and glial cells, will be discussed. It is expected that this symposium will aid in the development of new mechanism-based approaches for more specific and efficacious pain treatment.

(802) Disparities in Osteoarthritis: Clinical Findings and Treatment Implications 1.5 CE C K

Robert Edwards, PhD (Moderator); Tamara Baker, PhD; Toni Glover, PhD; Ann Horgas, PhD RN

The goal of this session is to present research data from three studies examining disparities in osteoarthritis assessment and treatment for older black Americans and to discuss how these findings impact clinical care.

(803) There Is an App for That: Using Mobile Technology to Improve Chronic Pain 1.5 CE C K

Robert Jamison, PhD (Moderator); Cary Reid, MD PhD; Jennifer Stinson, PhD RN CPNP

This symposium will review different smartphone pain apps for managing chronic pain.

(804) The Use of Creative Arts Therapies for Chronic Pain Management: Embodied Interventions 1.5 CE C K

Joke Bradt, PhD (Moderator); Eva Bojner, PhD PhT Reg DMT; Molly Haaga, MA; Minjung Shim, MA

The creative arts therapies, including music therapy, dance/movement therapy, and art therapy, activate mechanisms important for improved physical and psychosocial functioning in people with chronic pain. Engagement in creative expression within a therapeutic relationship can augment body awareness, improve emotional expressivity, facilitate meaning making, enhance mood, restore joy and energy, renew hope, and provide a strong sense of support. This symposium will highlight the unique contributions of the creative arts therapies to chronic pain management and will present current research evidence.

(805) Translating Provider Education from Theory into Clinical Practice 1.5 CE C K

Laura McGhee, PhD (Moderator); Joana Katzman, MD MSPH; Christopher Spevak, JD MD MPH

The pain conditions and comorbidities experienced by injured service members and the challenge of pain management by the military medical system offer an opportunity to inform pain management and medical research. This session describes pain education standardization efforts that are ongoing at the University of New Mexico Extension for Community Health Outcomes program and in the Department of Defense. This program will focus on the unique challenges in pain management faced by the primary care providers in both the civilian health-care system and military medical system and the translation of these ideas into clinical tools and practice.

11:30 am–1 pm

Symposia

(900) Circulating MicroRNA Signatures of Chronic Pain 1.5 CE B K

Asma Khan, PhD BDS (Moderator); Seena Ajit, PhD; Andrea Nackley, PhD; Ahmet Sacan, PhD

Emerging evidence implicates a role for small noncoding RNAs called microRNAs (miRNAs) in chronic pain syndromes. Because miRNAs function as negative regulators of gene expression, reductions in circulating miRNA levels may result in increased expression of genes involved in pain-relevant processes. This symposium will elucidate miRNA signatures associated with different types of pain (musculoskeletal, neuropathic, inflammatory, and chemical) in humans and animal models as well as discuss the basic underlying molecular mechanisms and future clinical implications.

(901) State of the Science and Practice of Interprofessional Pain Education 1.5 CE C K

David Thomas, PhD (Moderator); Antje Barreveld, MD; Rosemary Polomano, PhD RN FAAN; Debra Weiner, MD

The aims of this session are to a) examine the state of research and consensus guiding interprofessional pain education, b) report on the progress made by three National Institutes of Health Pain Consortium Centers of Excellence in Pain Education in creating and disseminating critical topics in interprofessional pain education, c) summarize the unique challenges of conducting interprofessional pain education and discuss effective solutions to promote the integration of interprofessional pain education programs into existing academic and practice settings, and d) outline evaluation strategies to measure the success and impact of innovative educational initiatives.

(902) Applying Innovative Trial Design to Address the Challenges of Novel Analgesic Drug Development

1.5 CE 1.5 CE Rx T K

Phil Birch (Moderator); Parvin Fardipour, PhD; Eduardo Rodenas, MD; Lynn Webster, MD

Developing new analgesic drugs to treat acute and chronic pain in adults and children is a challenging, costly, and lengthy process. The use of innovative adaptive trial design to improve decision making and efficiency in exploratory clinical research offers substantial hope that effective analgesics can be delivered to patients more efficiently and quickly than in traditional fixed designs.

General Information

Meeting Location

Tampa Convention Center

333 S. Franklin Street
Tampa, FL 33602
813.274.8511

The Tampa Convention Center is directly across the street from the Marriott and Embassy Suites hotels.

Hotel Reservation Information

Please visit www.apsscientificmeeting.org to make your reservations online. Be sure to indicate you are attending the APS 33rd Annual Scientific Meeting to receive the meeting rate. For room blocks of five or more, payment is required in advance to hold the reservation. There is a 3-night minimum on blocks of five or more rooms held at meeting rates.

Marriott Tampa Waterside Hotel & Marina

700 S. Florida Avenue
Tampa, FL 33602
813.221.4900
Reservations: 888.268.1616
Room rate: \$209 single/double*
Cutoff date: March 28

Embassy Suites Tampa Downtown Convention Center

513 S. Florida Avenue
Tampa, FL 33602
813.769.8300
Reservations: 813.769.8300
Room rate: \$209 single/double*
Cutoff date: March 28


*Room rate includes a rebate to APS to help offset meeting and convention costs.

Airport Information

Tampa International Airport (TPA)

4100 George J. Bean Outbound Parkway
Tampa, FL 33607
813.870.8700

Airline Information

UNITED  is offering special meeting discounts for attendees for this meeting. You may book online at www.united.com and enter Offer Code ZR8A883560 in the appropriate field when searching for your flights. If booking through a travel professional or United Meetings at 800.426.1122, please provide Agreement Code 883560 and Z Code ZR8A. Outside of the United States, please call your local United Airlines Reservation Office.

Weather and Meeting Attire

Tampa's average high in May is 85°F, and the average low is 68°F. Meeting room temperatures tend to vary. Please bring a light sweater or jacket to all meetings.

Additional information on Tampa can be found at www.visittampabay.com.

Young Investigator Travel Support

APS is planning to offer Young Investigator travel support for the 2014 meeting. A limited number of funding awards may be available to individuals who will be presenting poster abstracts at the meeting. Applicants may be from any research training background (basic or clinical science, psychology, medicine, or biostatistics) and may be at any level in training, including students, residents, predoctoral trainees, postdoctoral fellows, or those who have completed their postdoctoral training within the past 3 years. All applicants must be APS members and must have a poster abstract accepted for presentation. Applications from nonmembers will not be considered.

The Young Investigator Travel Award application will be available on the APS website beginning January 6, 2014. To apply for funding, visit the APS website and complete the online application. Note that an **applicant's abstract must be accepted for presentation** before he or she is eligible to submit an application for Young Investigator travel support. The listing of accepted abstracts, by primary author, will be available on the APS website in late December. **Please check the abstract acceptance list before applying for a Young Investigator Travel Award.**

Applications must be completed online by **February 10**.

Paperless Meeting

Speakers' Presentations and Handout Materials

Registrants will be able to access and view the handout materials via the online Webprogram before the annual meeting. APS will not print a paper syllabus of speakers' handouts. The Webprogram will become available for attendees' use in April 2014.

Program Evaluation Tool

APS offers its meeting evaluation in an online format. Registrants will receive access to the evaluation system on May 1. Meeting participants will log in to the system using the same username and password used to register online for the annual meeting or to access the "Members Only" section of the APS website. The online evaluation can be completed during the meeting or after returning home. Participants will receive their CE certificate immediately after submitting their evaluations online. We encourage all attendees to complete this evaluation regardless of whether they are seeking CE credits.

For more information, please check the APS website at www.apsscientificmeeting.org or call 847.375.4715.

Registration Information

APS membership dues have always been set according to income levels to ensure those interested in belonging to APS would be able to afford it. Registration rates for the Annual Scientific Meeting also are set according to income levels to ensure everyone interested in coming to the meeting will be able to attend without financial hardship. To register for the meeting, complete the registration form on page 19. Enter the 3-digit session number of each activity for which you wish to register in the appropriate box on the form. Remember to enter the appropriate fees in the subtotals. Symposia are included in the cost of basic registration, but your selection for each time slot will help APS staff determine space requirements.

You may register online at www.apsscscientificmeeting.org or by mailing the completed annual meeting registration form with payment to APS Scientific Meeting, PO Box 31756, Chicago, IL 60631. Telephone and fax registrations are accepted with credit card. If payment is not received at the time of registration, your registration will not be processed. You can expect to receive an electronic confirmation of your registration at the e-mail address provided with your registration.

Types of Registration

Member: You must be an APS member in good standing at the time you register to take advantage of the discounted member fees.

Student/Trainee: Any full-time undergraduate or graduate student can register at a special rate. Documented proof of this status (e.g., faculty letter, fee receipt) is required with registration.

Join and Register: You can become an APS member and register for the annual meeting at the reduced member rate. See “APS Membership” on this page for a list of membership benefits. Select the “Join and Register” option, and check the appropriate membership category. The price includes 1 year of membership and meeting registration. Remember to include payment for the annual meeting and membership dues with your registration. Also, be sure to select your professional discipline.

Guest: Any spouse or guest who is accompanied by a professional registrant can take advantage of a reduced registration fee. Guests will have access to all general sessions, the exhibit hall, and networking events. Guests will not be able to earn continuing education credits and will not receive personal access to the handout database and self-assessment questions.

Onsite Registration Hours

**Stop by the registration desk
to register or check in for the
meeting on site.**

Wednesday, April 30, 1:30–6 pm

Thursday, May 1, 7 am–5 pm

Friday, May 2, 7 am–5 pm

Saturday, May 3, 7:30–11:30 am

APS Membership

APS members receive a significant discount on annual meeting registration!

APS is the first national society dedicated exclusively to the science of pain and is the only such organization to have established a multidisciplinary, evidence-based approach to both the research and clinical treatment of pain. As an APS member, you will be part of a large and diverse community of professionals from varied disciplines who work on behalf of basic research, clinical research and treatment, advocacy, public policy, and people in pain. APS membership supports your continued professional development by providing peer-reviewed scientific and clinical publications, unmatched resources for sharing best practices, peer-to-peer networking, and continuing education programs that examine pain from many perspectives. For details on member benefits, visit www.americanpainsociety.org/membership.

APS Membership Categories

Regular Member: Health professionals and scientists working in the United States, its territories, or its government services

Affiliate International Member: Individuals who are interested in APS but who do not qualify for regular membership, such as professionals working outside the United States

Student/Resident/Fellow Member: Individuals in the training phases of the health and related sciences

Corporate Council: Organizations that support the goals and mission of APS and provide products or services used in the diagnosis and treatment of pain

Program Changes and Cancellations

Please note: APS reserves the right to substitute faculty or to cancel or reschedule sessions because of low enrollment or other unforeseen circumstances. If the meeting must be canceled, registrants will receive a full refund of their paid registration fee. No refunds can be made for lodging, airfare, or other expenses related to attending the meeting.

Cancellation Policy

All cancellations must be made in writing. A \$100 processing fee will apply to all cancellations. No refunds will be made on cancellations postmarked after April 30. All refunds will be issued after the meeting.

Deductibility of Expenses

Consult your tax adviser for information about the deductibility of registration and membership fees.

Special Assistance

For special assistance, please check the appropriate box on the registration form. Call APS Member Services at 847.375.4715 if you have any questions.

Session Codes

Wednesday, April 30

1–4:30 pm

(118) Early Career Forum

2:30–4:30 pm

Shared Interest Group (SIG) Meetings

(119) Nursing Issues

(120) Pharmacotherapy

(121) Psychosocial Research

(122) Pain in Sickle Cell Disease

(123) Measurement of Pain and Its Impact

(124) Pain Rehabilitation

(126) Ethics

Thursday, May 1

11 am–12:30 pm

Symposia

(200) Frontiers in Pain Research: Rita Allen Foundation Scholars in Pain

(201) Exercise Is Medicine: Translating Science to Practice

(202) From Brain to Spine and Beyond: Tracking Low Back Pain from the Nervous System to Peripheral Tissues

(203) Pediatric Chronic Pain in the Laboratory: Conditioned Pain Modulation and Neuroimaging in Clinical and High-Risk Samples of Youth

(204) Understanding and Treating Persistent Pain Using Virtual Technologies

(205) Forging Provider-Patient Partnerships to Help Patients Navigate the Maze of Pain

2:15–3:45 pm

Symposia

(300) Optogenetics in Pain

(301) Does Sex Matter? Sex X Gene Interactions in Human Pain and Analgesia

(302) Cognitive and Emotional Processing for Chronic Pain: Innovative Treatment Approaches

(303) Bench to Bedside: Linking Genetics, Neurophysiology, and Psychosocial Factors in Pediatric Chronic Pain

(304) NIH Pain Consortium—Research Standards for Chronic Low Back Pain

(305) Neural Basis of Non-Pharmacological Pain Treatments

5:15–6:15 pm

SIG Meetings

(127) Pain in Infants, Children, and Adolescents

(128) Basic Science

(129) Geriatric Pain

(130) Pain Education

(131) Genetics and Pain

(132) Pain and Disparities

(133) Complementary and Alternative Medicine

(134) Clinical Trials

Friday, May 2

10:30 am–Noon

Symposia

(400) Innovative Delivery of Pain Self-Management Programs

(401) Emerging Themes in G Protein-Coupled Receptor Signaling

(402) The Role of Mitochondria in Chronic Pain

(403) APS Clinical Centers of Excellence: Promoting the Highest Standards of Evidence-Based Interdisciplinary Pain Care

(404) Mechanisms of Change in Psychosocial Interventions for Chronic Pain

(405) Neural and Immune Mechanisms Mediating Pain in Sickle Cell Disease

1:45–3:15 pm

Symposia

(500) National and International Pain Registries: Analysis and Use of Practice-Based Evidence

(501) Pain Control by Novel Lipid Mediators: Preclinical and Clinical Studies on Pro- and Anti-Inflammatory Mediators

1:45–5 pm

Workshops

(W700) NIH Workshop on Successful Grant Writing and Funding Opportunities in Pain Research

(W701) Herbal Marijuana in Clinical Practice: Optimizing Policies and Outcomes

(W702) Square Pegs in Round Holes? Do Clinical Guidelines Fit Our Patients' Needs?

3:30–5 pm

Symposia

(600) Function and Dysfunction of Potassium Channels in Nociceptors: Implications in the Development and Treatment of Neuropathic Pain

(601) Biopsychosocial Mechanisms and Treatment of Pain in Older Adults

5:30–7:30 pm

Basic Science Research Dinner

(136) Promises and Challenges of Bioinformatic Approaches in Pain Research

Saturday, May 3

9:45–11:15 am

Symposia

(800) Measuring Inappropriate Use of Analgesic Medications in Clinical Trials

(801) Novel Modulators and Signaling Mechanisms in Inflammatory Pain

(802) Disparities in Osteoarthritis: Clinical Findings and Treatment Implications

(803) There Is an App for That: Using Mobile Technology to Improve Chronic Pain

(804) The Use of Creative Arts Therapies for Chronic Pain Management: Embodied Interventions

(805) Translating Provider Education from Theory into Clinical Practice

11:30 am–1 pm

Symposia

(900) Circulating MicroRNA Signatures of Chronic Pain

(901) State of the Science and Practice of Interprofessional Pain Education

(902) Applying Innovative Trial Design to Address the Challenges of Novel Analgesic Drug Development

APS 33rd Annual Scientific Meeting Registration Form

April 30–May 3, 2014 • Tampa Convention Center • Tampa, FL

Please type or print clearly. Use a separate form for each registrant; duplicate as necessary.

FOR OFFICE USE ONLY

Customer # _____ Mtg Ord # 1- _____

Date _____ | _____

Full Name _____ First Name for Badge _____ Highest Credential _____

Facility _____ Facility City/State _____

Preferred Address (Home Office) _____ City/State/ZIP _____

Home Phone _____ Office Phone _____ Fax _____

E-mail (required) _____ Enter letter code from mailing label here _____

Emergency Contact Name _____ Day Phone _____ Evening Phone _____

(bcr) Check here if you do basic/preclinical research. (fta) Check here if this will be your first APS Annual Meeting. NPI # _____

To register, make your selections in the boxes below, add the subtotals, and indicate the total amount in box H.

Registration Rates

APS Member Rates

Income > \$175,000 \$525 \$625
 \$125,000–\$175,000 \$480 \$580
 \$75,000–\$124,999 \$340 \$440
 < \$75,000 \$230 \$330
 Student/Trainee \$80 \$180
 Affiliate (International) \$340 \$440

Nonmember Rates

Income > \$175,000 \$650 \$750
 \$125,000–\$175,000 \$575 \$675
 \$75,000–\$124,999 \$410 \$510
 < \$75,000 \$335 \$435
 Student/Trainee \$100 \$200
 Affiliate (International) \$410 \$510

Join/Renew and Register Rates (new structure)

Income > \$175,000 \$850 \$950
 \$125,000–\$175,000 \$755 \$855
 \$75,000–\$124,999 \$530 \$630
 < \$75,000 \$350 \$450
 Student/Trainee:
 Undergraduate \$130 \$230
 Graduate/Professional \$130 \$230
 Postdoctoral/residency/fellowship \$170 \$270
 Affiliate (International) \$400 \$500

Subtotal \$ _____

A

1-Day Conference Registration

(for registrants attending 1 day of the meeting only)

Please select which day you will be attending. Be sure to complete boxes C & D for the appropriate day.

TH Thursday

FR Friday

SAT Saturday

1-Day APS Member Rates

Income > \$175,000 \$320
 \$125,000–\$175,000 \$260
 \$75,000–\$124,999 \$210
 < \$75,000 \$145

1-Day Nonmember Rates

Income > \$175,000 \$390
 \$125,000–\$175,000 \$330
 \$75,000–\$124,999 \$245
 < \$75,000 \$208

1-Day Student/Trainee

\$65

1-Day Affiliate (International)

\$245

Subtotal \$ _____

B

Special Events

Check the sessions you plan to attend. See page 18 for SIG topics and codes.

Wednesday, April 30

1–4:30 pm Early Career Forum
 2:30–4:30 pm SIG Meetings

Thursday, May 1

5:15–6:15 pm SIG Meetings

Friday, May 2

5:30–7:30 pm Basic Science Research Dinner (136)
 Advance registration required.

Symposia 200–902

Enter the 3-digit code for each symposium you plan to attend.
 For session codes, see page 18.

Thursday, May 1

11 am–12:30 pm
 2:15–3:45 pm

Friday, May 2

10:30 am–Noon
 1:45–3:15 pm
 1:45–5 pm
 3:30–5 pm

Saturday, May 3

9:45–11:15 am
 11:30 am–1 pm

C

D

F

G

H

Professional Discipline (Required; please select one.)

Basic Science

Neurophysiology (BSN)
 Behavioral (BSB)
 Systems (BSY)
 Other (BSO) Specify: _____

Behavioral Science (BSC)

Biomedical Engineering (BE)
 Business/Industry (BUS)
 Chiropractic (CHI)

Dentistry (DEN)

Health Policy (HP)

Medicine

Anesthesiology (ANS)
 Emergency Medicine (EM)
 Family Practice (FP)
 Gynecology (GYN)
 Internal Medicine (IM)
 Neurology (NEU)

Neurosurgery (NS)

Oncology (ON)
 Oral/Facial Surgery (OS)
 Orthopedic Surgery (ORS)
 Pediatrics (PED)
 Physical Medicine & Rehabilitation (PMR)
 Psychiatry (PSY)
 Rheumatology (RHE)
 Surgery (SUR)

Urology (URO)

Nursing (NSG)
 Occupational Therapy (OT)
 Pharmacy (PHA)
 Physical Therapy (PT)
 Psychology (PSI)
 Social Work (SW)
 Other (OTH) Specify: _____

E

Special Needs

(SA) I require special assistance, please contact me.
 (DIS) I do not wish to have my name and contact information included in the onsite attendee list.
 (OTH) I have other needs, please contact me.
 (SDV) Vegetarian meal request

Guest Registration

Includes access to all general sessions, exhibit hall, and networking events. *No continuing education credits offered with guest pass.*

Name of Guest(s) _____

Number of Guests _____ x (GST) \$75 = _____ Subtotal \$ _____

Grand Total

(A or B) + G = \$ _____ (Be sure to complete boxes C, D, & E.)

4 easy ways to register

Online

(preferred method)
www.apsscientificmeeting.org
 (credit card payment only)

Phone

847.375.4715
 (credit card payment only)

Fax*

866.574.2654 or 847.375.6479
 International Fax 732.460.7318
 (credit card payment only)

* If you fax this form, please do not mail the original.

Mail

APS Meeting
 PO Box 31756
 Chicago, IL 60631

Payment MasterCard VISA American Express Discover Check (enclosed)

• Make check payable to APS.
 • A charge of \$75 will apply to checks returned for insufficient funds.

• If rebilling of a credit card charge is necessary, a \$75 processing fee will be charged.
 • I authorize APS to charge the above listed credit card amounts reasonably deemed by APS to be accurate and appropriate.

Account Number _____

Expiration Date _____

Cardholder's Name (Please print.) _____

Signature _____

If payment does not accompany this form, your registration will not be processed.

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American Pain Society
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APS 33rd Annual Scientific Meeting

April 30–
May 3
Tampa

Online registration is now open at
www.apsscificmeeting.org.

Why Attend the APS 33rd Annual Scientific Meeting?

-  Attend a variety of educational sessions featuring interactive workshops and symposia.
-  Network with colleagues at the opening reception in the exhibit hall on Wednesday evening.
-  Enjoy a waterfront location in the Florida sun.
-  Participate in a new session designed to help pain researchers and clinicians who are early in their careers.
-  Attend a keynote address by David Newman, MD.

