## Contents

Meeting Information ............................................................................. 3
Continuing Education ...................................................................... 3
Disclosure ......................................................................................... 3
Meeting Highlights .......................................................................... 4
Exhibits and Posters ............................................................................. 5
APS Annual Awards .............................................................................. 6
Corporate Satellite Symposia .......................................................... 7
Faculty .................................................................................................. 8
Schedule of Events .............................................................................. 10
General Information ........................................................................... 16
Meeting Location ............................................................................ 16
Paperless Meeting ............................................................................ 16
Young Investigator Travel Support ............................................... 16
Registration Information ............................................................... 17
APS Membership ............................................................................ 17
Session Codes ...................................................................................... 18
Registration Form ............................................................................... 19

### 2013 Scientific Program Committee

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Robert Edwards, PhD  
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Brigham and Women’s Hospital

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Chair-Elect  
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Albany Medical College

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Patrick Dougherty, PhD  
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University of Florida

Keela Herr, PhD RN AGSF FAAN  
Professor  
University of Iowa

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Roger Fillingim, PhD  
APS President  
Professor  
University of Florida

Renee Manworren, PhD APRN PCNS-BC  
Lead Nurse Planner  
Assistant Professor  
University of Connecticut School of Medicine
**Why You Should Attend**

Pain affects more lives than the total number of lives affected by heart disease, cancer, and diabetes combined (Institute of Medicine Report, 2011). 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 United States’ premier pain meeting, the American Pain Society (APS) 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 special 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 400 poster presenters to learn about their work and future research directions
- visit an extensive number of exhibit booths featuring products and services specifically designed for professionals who study and treat pain.

**Who Should Attend**

The APS 32nd Annual Scientific Meeting is intended for physicians, nurses, basic scientists, pharmacists, 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 32nd 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 skills 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 32nd Annual Scientific Meeting will offer continuing education (CE) credit for physicians, psychologists, nurses, and pharmacists. 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 (ACCME) to provide continuing medical education for physicians.

The American Pain Society designates this live activity for a maximum of 17.0 AMA PRA Category 1 Credit(s)™. Physicians should claim credit commensurate with the extent of their participation in the activity.

**Psychologists**

The American Pain Society is approved by the American Psychological Association (APA) to provide continuing education (CE) for psychologists. American Pain Society maintains responsibility for the program and its content. This activity has been designated for a maximum of 17.0 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 (ANCC’s) Commission on Accreditation.

This activity has been designated for up to 18.5 contact hours.

**Pharmacists**

The American Pain Society is accredited by the Accreditation Council for Pharmacy Education (ACPE) as a provider of continuing pharmacy education. Up to 17.0 credit hours (1.70 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 and/or their spouse/partner may have with the manufacturers of any commercial products 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 will also 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.

**Statement of Non-Endorsement**

Accredited status does not imply endorsement by APS or the ACCME, ACPE, ANCC, or APA of any commercial products displayed in conjunction with this activity.
**Meeting Information**

**Meeting Highlights**

**Wednesday, May 8**  
2:30–4:30 pm  
Special 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 9**  
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  
The Future of Pain Research: Challenges and Opportunities  
Story Landis, PhD

9–9:30 am  
(102) Plenary Lecture  
Why Image Pain?  
Irene Tracey, DPhil FRCA

9:30–11 am  
Break with Exhibits and Posters*  
Author-Attended Poster Session (Odd-Numbered Posters)

11 am–12:30 pm  
Symposia

12:45–2 pm  
Corporate Satellite Lunch Symposia

2:15–3:45 pm  
Symposia

3:45–5:15 pm  
Break with Exhibits and Posters

5:15–6:15 pm  
SIG Meetings

**Friday, May 10**  
7:30–8 am  
(103) Plenary Lecture  
Pain and Aging: Translating Assessment Knowledge Into Practice  
Keela Herr, PhD RN AGSF FAAN

8–8:30 am  
(104) Plenary Lecture  
Mechanisms Controlling Nociceptor Excitability and How They Can Be Targeted for Pain Relief  
Martin Koltzenburg, MD FRCP

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  
Corporate Satellite Lunch 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  
The Future of Drug Discovery for Pain  
Space is limited. Preregistration is required.

**Saturday, May 11**  
8–8:30 am  
(105) Frederick W. L. Kerr Basic Science Research Lecture  
Mice Are People, Too: Social Modulation of and by Pain in Laboratory Rodents  
Jeffrey Mogil, PhD

8:30–9 am  
(106) Wilbert E. Fordyce Clinical Lecture  
Phenotypic and Molecular Approaches to Translational Pain Medicine  
William Maixner, PhD DDS

**Meeting Highlights**

- **Story Landis, PhD**  
  Keynote Speaker

- **Irene Tracey, DPhil FRCA**  
  Plenary Speaker

- **Keela Herr, PhD RN AGSF FAAN**  
  Plenary Speaker

- **Martin Koltzenburg, MD FRCP**  
  Plenary Speaker

- **Jeffrey Mogil, PhD**  
  Plenary Speaker

- **William Maixner, PhD DDS**  
  Clinical Lecturer

- **Emeran Mayer, MD**  
  Global Year Against Pain Speaker

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*Posters ending in odd numbers will be presented on Thursday, and posters ending in even numbers will be presented on Friday.*
Exhibits
The APS 32nd 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
- clinical research
- clinical trial management
- education
- laboratory/diagnostic testing
- medical devices
- medical equipment and supplies
- pharmaceuticals
- publishing
- software
- alternative delivery systems
- clinical research
- clinical trial management
- education
- laboratory/diagnostic testing
- medical devices
- medical equipment and supplies
- pharmaceuticals
- publishing
- software

2013 Exhibitors*

- Algo-md
- Allergan
- American Chronic Pain Association
- Bako Dermatopathology Services
- Calloway Labs
- Depomed, Inc.
- Gideons International, The
- Grunenthal USA, Inc.
- INSYS Therapeutics, Inc.
- MEDTOX Laboratories
- Millennium Laboratories
- National Center for Complementary and Alternative Medicine/National Institutes of Health (NCCAM/NIH)
- Nektar Therapeutics
- Pain & Disparities SIG
- Pain Medicine News
- Philips Respironics
- Practical Pain Management
- Premier Research
- Quest Diagnostics
- Regenesis Biomedical
- Teva
- Zogenix, Inc.

*As of 12/12/12

Posters
The 32nd Annual Scientific Meeting will feature two author-attended poster sessions. Chosen from a large number of submissions, the more than 400 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 2013. To search and view the abstracts, visit APSScientificMeeting.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.

Exhibit and Poster Schedule

Wednesday, May 8
4–6 pm
Exhibits Open

4:30–6 pm
Opening Reception with Exhibits and Posters

Thursday, May 9
9–11 am
Exhibits Open

9:30–11 am
Break with Exhibits and Posters

3:30–5:30 pm
Exhibits Open

3:45–5:15 pm
Break with Exhibits and Posters

Friday, May 10
8:30–10:15 am
Exhibits Open

8:45–10:15 am
Break with Exhibits and Posters

This meeting has inspired me to share the findings from these sessions with my patients and colleagues and encourage other colleagues to become more active in their understanding of pain.”

–2012 Meeting Attendee
**APS Annual Awards**

**John and Emma Bonica Public Service Award**
**Philip A. Pizzo, MD**

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**
**William E. Maixner, PhD DDS**

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 has been named for Wilbert E. Fordyce, PhD, the first recipient of this honor.

**Frederick W. L. Kerr Basic Science Research Award**
**Jeffrey S. Mogil, PhD**

The Frederick W. L. Kerr Basic Science Research Award and Lecture were established in 1987 in honor of Frederick W. L. Kerr, a founder of APS, 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**
**Carlton D. Dampier, MD CPI**

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**
**Laura Simons, PhD**

The John C. Liebeskind Early Career Scholar Award was named 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**
**Penney Cowan**

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**
**Charles E. Inturrisi, 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.

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**Honoring Excellence**

The 2013 Clinical Centers of Excellence (CCOE) and annual recognition awards will be presented at the President’s Recognition Reception taking place on Thursday, May 9, 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 Sharon S. Keller Chronic Research Pain Program grant recipients will also be recognized, and the Future Leaders in Pain Research grant recipients will be in attendance.
Corporate Satellite Symposia

Corporate satellite symposia will be offered in conjunction with the APS Annual Scientific Meeting. These independently sponsored, commercially supported symposia are open to registrants of the APS 32nd Annual Scientific Meeting. The program has been reviewed by the APS Scientific Program Committee and approved after determining the topic to be presented is relevant to the audience and complementary to the official APS program. There is no fee to attend a symposium, but preregistration is required. Seating will be available at no charge to those responding on a first-come, first-served basis. Program details are subject to change. Speakers are subject to change. Additional satellite programming will be announced as information becomes available. Visit APSScientificMeeting.org for the most current information.

The 32nd Annual Scientific Meeting includes APS-sponsored educational sessions as well as sessions that occur outside of the official APS program. Sessions occurring outside of the official program include any corporate satellite breakfast and lunch sessions and educational product theaters located in the exhibit hall. APS has a defined process for ensuring that the official meeting program is free of commercial bias. This process includes identifying and resolving perceived conflicts of interest on behalf of APS faculty members. Attendees will find full disclosure information for every official faculty member in the meeting’s program book, distributed on site at the meeting. This information should also be provided to attendees within each of the satellite and product theater events that are offered for continuing education credit. Attendees are encouraged to communicate with the Scientific Program Committee (SPC) about situations in which official APS faculty make statements that are commercial in nature about products, services, drugs, or devices. Attendees should be advised that sessions that are not an official part of the APS educational program are managed outside of the SPC’s purview, and in some cases, these sessions may be commercial in nature if they are not being offered for continuing education credit by the supporting company or organization.

Thursday, May 9, 2013
12:45–2 pm
Non-CME Corporate Satellite Symposia

Unmet Needs in the Treatment of Chronic Pain: Filling the Treatment and Knowledge Gap
Hydrocodone is often used to treat chronic pain patients, but clinical concerns including acetaminophen-related toxicity, inconvenient dosing, and large pill counts demonstrate the need for an extended-release hydrocodone analgesic free of acetaminophen. Unmet medical needs, clinical considerations, and opportunities to improve patient care will be discussed. This activity is funded through an educational grant from Zogenix, Inc.

The 4 Ps of Pain: Pain, Pleasure, and the Politics of Prescribing
Perry G. Fine, MD; Steven D. Passik, PhD; Kenneth L. Kirsh, PhD
This highly interactive meeting will begin with a strategic overview of the pain care environment in the United States. We discuss the evolution of neuroscience to where we now see chronic pain as a disease, and how clinicians and caregivers can optimally help patients in the current “opioid crisis.” We review what has happened in Kentucky and how systems of care have changed and discuss how to navigate legislative and complex care systems while focusing on helping patients. We discuss the future of pain care and whether new opioids can provide safer solutions. We conclude with practical advice on how to optimize care for a range of patient types. This activity is funded through an educational grant from Nektar Therapeutics.

APS will provide lunch to all meeting attendees in conjunction with these events.
Faculty

Phillip Albrecht, PhD
Assistant Professor
Albany Medical College

Dennis Ang, MD MS
Associate Professor
Wake Forest Baptist Medical Center

Kristin Archer, PhD DPT
Assistant Professor
Vanderbilt University Medical Center

Charles Argoff, MD
Professor
Albany Medical College

Paul Arnstein, PhD RN
Clinical Nurse Specialist for Pain Relief
Massachusetts General Hospital

Jennifer Autt, PT DPT PhD
Neurologist
Sutter Health East Bay Region

Dayna Loyd Avertitt, PhD MSci
Principal Investigator
U.S. Army Institute of Surgical Research

Declan Barry, PhD
Assistant Professor
Yale University School of Medicine

Diána Baumta, PhD
Assistant Professor
University of California, Berkeley

Inna Belfer, MD PhD
Associate Professor
University of Pittsburgh

Andreas Beutler, MD
Assistant Professor
Mayo Clinic

Jan Magnus Bjordal, PhD
Professor
University of Bergen

Robert Blakesley, PhD
Associate Investigator
National Human Genome Research Institute

Chas Boutris, PhD
Professor
University of Oxford

Patricia Brandon, RN-BC
Clinical Coordinator
Ochsner Medical Center

Tim Brennan, MD PhD
Professor
University of Iowa

Luis Buenaver, PhD
Assistant Professor
Johns Hopkins University

Claudia Campbell, PhD
Assistant Professor
Johns Hopkins University

James Campbell, MD
Professor
Johns Hopkins University

Susan Carlton, PhD
Professor
University of Texas Medical Branch at Galveston

Daniel Carr, MD
Professor
Tufts University School of Medicine

Greg Carter, MD MS
Professor
University of Washington

Roger Chou, MD
Associate Professor
Oregon Health & Science University

David Clark, MD PhD
Associate Professor
Stanford University

Michael Clark, PhD
Clinical Director, Pain Program
James A. Haley Veterans Hospital

Daniel Clauw, MD
Professor
University of Michigan

Ricardo Cruciani, MD PhD
Vice-Chairman
Beth Israel Medical Center

Carlton Dampier, MD
Assistant Dean for Clinical Research
Emory University School of Medicine

Elizabeth Dansle, PhD
Research Scientist III
University of Washington

Luda Diatchenko, PhD
Associate Professor
University of North Carolina School of Dentistry

Sulayman Dil-Hajj, PhD
Research Scientist
Yale School of Medicine

Patrick Dougherty, PhD
Professor
University of Texas MD Anderson Cancer Center

Gregory Dussor, PhD
Assistant Professor
University of Arizona College of Medicine

Robert Edwards, PhD
Instructor
Brigham and Women’s Hospital

Michele Farrington, BSN RN CPHON
University of Iowa Hospitals and Clinics

David Fielkin, MD
Professor
Yale School of Medicine

David Fishbain, MD
Professor
University of Miami Miller School of Medicine

Fern FitzHenry, PhD RN
Assistant Professor
Vanderbilt University

Marcie Fowler, PhD
Research Physiologist/Principal Investigator
U.S. Army Institute of Surgical Research

Julie Fritz, PT PhD ATC
Professor
University of Utah College of Health

Rollin Gallagher, MD MPH
Clinical Professor
University of Pennsylvania

Steve George, PT PhD
Associate Professor
University of Florida

Tony Glover, MSN FNP-BC
Research Nurse Practitioner
University of Florida

Michael Gold, PhD
Associate Professor
University of Pittsburgh

Burel Goodin, PhD
Assistant Professor
University of Alabama at Birmingham

Harry Gould, MD PhD
Professor
Louisiana State University Health Sciences Center

Henry Greely, JD
Director
Center for Law and the Biosciences
Stanford University

Monika Haack, PhD
Instructor
Beth Israel Deaconess Medical Center

Steven Hanling, CDR MC USN
Director
Naval Medical Center San Diego Pain Medicine Center

Kenneth Hargreaves, DDS PhD
Professor
University of Texas Health Science Center at San Antonio

Alton Hassett, PsyD
Associate Research Scientist
University of Michigan

Chris Herndon, PharmD
Associate Professor
Southern Illinois University Edwardsville

Keela Herr, PhD RN AGSF FAAN
Professor and Chair, Adult & Gerontology
University of Iowa

Mark Hoon, PhD
Chief, Molecular Genetics Unit
National Institute of Dental and Craniofacial Research/National Institutes of Health

W. Michael Hooten, MD
Associate Professor
Mayo Clinic

Michael Iadarola, PhD
Chief, Neurobiology and Pain Therapeutics Section
National Institute of Dental and Craniofacial Research/National Institutes of Health

Mark Ilgen, PhD
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University of Michigan

Eufemia Jacob, PhD RN
Associate Professor
UCLA School of Nursing

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Brigham and Women’s Hospital/ Harvard Medical School

Michael Jankowski, PhD
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Cincinnati Children’s Hospital Medical Center

Michael Jarvis, PhD
Senior Research Fellow
Abbott Laboratories

Mark Jensen, PhD
Professor
University of Washington

Ru-Rong Ji, PhD
Professor
Duke University Medical Center

Jordan Karp, MD
Associate Professor
University of Pittsburgh

Susmita Kashikar-Zuck, PhD
Associate Professor
Cincinnati Children’s Hospital Medical Center
Francis Keefe, PhD
Professor
Duke University Medical Center

Benjamin Keeney, PhD
Research Fellow
Dartmouth College

Jan Kemp, PhD RN
National Mental Health Director for Suicide Prevention
Veterans Health Administration

Martin Koltenburg, MD FRCP
Professor
University College London

Story Landis, PhD
Director
National Institute of Neurological Disorders and Stroke/National Institutes of Health

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

Amy Lischko, PhD
Associate Professor
Tufts University School of Medicine

Louis-Etienne Lorenzo, PhD
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Laval University

Sean Mackey, MD PhD
Associate Professor
Stanford University

William Maixner, PhD DDS
Professor
University of North Carolina School of Dentistry

Patrick Mantyh, PhD
Professor
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Renee Manworren, PhD APRN PCNS-BC
Assistant Professor
University of Connecticut School of Medicine

Anthony Mariano, PhD
Acting Chief, Pain Services
VA Puget Sound Health Care System

Brook Martin, PhD MPH
Instructor
Dartmouth College

Emeran Mayer, MD
Director
Oppenheimer Center for Neurobiology of Stress

John McBeth, PhD
Reader in Epidemiology
University of Manchester

Lance McCracken, PhD
Professor
King’s College London

Christina McCrae, PhD CBSM
Associate Professor
University of Florida

Laura McGhee, PhD
Scientific Director
Defense and Veterans Center of Integrative Pain Management, U.S. Army

Salimah Meghani, PhD MBE CRNP
Assistant Professor
University of Pennsylvania

Jeffrey S. Mogil, PhD
Professor
McGill University

Benjamin Morasco, PhD
Assistant Professor
Portland Veterans Administration Medical Center

Beth Murinson, MD
Assistant Professor
Johns Hopkins School of Medicine

Jennifer Murphy, PhD
Clinical Director
Chronic Pain Rehabilitation Program–James A. Haley Veterans Hospital

Susan Murphy, ScD OTR
Assistant Professor
University of Washington

Andrea Nackley, PhD
Assistant Professor
University of North Carolina School of Dentistry

David Patterson, PhD
Professor
University of Washington

Dennis Paul, PhD
Professor
Louisiana State University Health Sciences Center

Mark Pitcher, PhD
Postdoctoral Fellow
McGill University

Michael Polydefkis, MD MHS
Associate Professor
Johns Hopkins University

Frank Porreca, PhD
Professor
University of Arizona

Theodore Price, PhD
Assistant Professor
University of Arizona

Elizabeth Rahn, PhD
Postdoctoral Scholar
University of Alabama at Birmingham

Barbara Rakel, PhD RN
Assistant Professor
University of Iowa

Lorraine Reeves
Founder and Director
Chronic Pain Advocacy League

Frank Rice, PhD
Professor
Albany Medical College

Joseph Riley, PhD
Professor
University of Florida

Edgar Alfonso Romero-Sandoval, MD PhD
Assistant Professor
Dartmouth Medical School

Edgar Ross, MD
Assistant Professor
Harvard Medical School

Sarah Ross, PhD
Assistant Professor
University of Pittsburgh

Michael Saltar, MD PhD
Professor
University of Toronto

Dino Samartzis, DSc
Research Assistant Professor
University of Hong Kong

Alexander Samoshkin, PhD
Postdoctoral Research Associate
University of North Carolina at Chapel Hill

Seddon Savage, MD MS
Medical Director
Dartmouth College Geisel School of Medicine

Michael Schatman, PhD CPE
Executive Director
Foundation for Ethics in Pain Care

Brian Schmidt, MD DDS PhD
Professor
New York University

Kimberly Sible, PhD
Research Assistant Professor
University of Florida

Gary Stade, DDPH PhD BDS
Professor
University of North Carolina School of Dentistry

Kathleen Sluka, PhD PT
Professor
University of Iowa

Michael Smith, PhD
Associate Professor
Johns Hopkins University

Wally Smith, MD
Professor
Virginia Commonwealth University School of Medicine

Nomita Sonty, PhD MPhil
Associate Clinical Professor
Columbia University

Mark Sullivan, MD PhD
Professor
University of Washington

Yuan-Xiang Tao, PhD
Associate Professor
Johns Hopkins University School of Medicine

David Thomas, PhD
Program Director
National Institute on Drug Abuse/National Institutes of Health

Irene Tracey, DPhil FRCA
Professor
University of Oxford

Dennis Turk, PhD
Professor
University of Pennsylvania

Todd Vanderah, PhD
Professor
University of Arizona

Edgar Walters, PhD
Professor
University of Arizona

Thomas Ward, MD
Professor
Dartmouth Medical School

Tabitha Washington, MD MS
Assistant Professor
Dartmouth-Hitchcock Medical Center

Anna Wilson, PhD
Assistant Professor
Oregon Health & Science University

Joseph Zastrow, MD FAAFP
Associate Clinical Professor
University of North Carolina Chapel Hill
(100) State of the Society
Roger Fillingim, PhD
APS President

Thursday, May 9
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  K
The Future of Pain Research: Challenges and Opportunities
Story Landis, PhD
This keynote address will highlight recent scientific findings and significant advances in pain research and explore how they might inform future research needs and goals. The challenges faced by pain researchers and funding agencies in setting priorities in a time of fiscal uncertainty will also be discussed. Identifying and implementing the next most important steps for the future of pain research and the potential role of volunteers, private foundations and industry, private and public funders, patients, and healthcare providers in moving forward will be discussed.

9–9:30 am
(102) Plenary Lecture  K
Why Image Pain?
Irene Tracey, DPhil FRCA
Relating specific neurophysiological, chemical, and anatomical measures to perceptual changes in pain experiences induced by peripheral or central sensitization, genetic, cognitive, emotional, contextual, or pharmacological factors and identifying their site of action within the human central nervous system has been a major goal for scientists, clinicians, and the pharmaceutical industry. Identifying noninvasively where such influences occur along the pain neuraxis for an individual and relating this to his or her specific multifactorial pain experience or pain relief has both neuroscientific relevance and potential diagnostic value. This lecture will address what pain imaging does and does not tell us and its potential for providing a fuller understanding of pain perception in health and disease.

9:30–11 am
Break with Exhibits and Posters
Author-Attended Poster Session
(Odd-Numbered Posters)

11 am–12:30 pm
Symposia
(300) Rita Allen Foundation Scholars in Pain: Frontiers in Basic Pain Research  K
Edgar Alfonso Romero-Sandoval, MD PhD (Moderator); Yuan-Xiang Tao, PhD; Sarah Ross, PhD; Michael Jankowski, PhD
This symposium will bring together 2011 and 2012 American Pain Society/Rita Allen Foundation Scholars in Pain to report on their ongoing research, which covers areas of interest to both basic researchers and clinicians. Researchers will present and discuss recent advances in pain mechanisms at the molecular and cellular levels.

(301) Primary Afferent Hyperexcitability Drives Chronic Pain  K
Susan Carlton, PhD (Moderator); Edgar Walters, PhD; Tim Brennan, MD PhD; Patrick Dougherty, PhD
Although hypersensitivity of primary sensory afferent neurons is a well-known correlate of some forms of chronic pain, the degree to which chronic pain and persistent central sensitization depend upon ongoing drive from hyperexcitable primary afferents has been in dispute. Moreover, the role of chronic spontaneous activity in primary nociceptors in driving chronic pain has been underestimated. The speakers will provide several lines of evidence documenting persistent primary afferent input in a variety of chronic pain states.

(302) Co-Occurring Chronic Pain and Substance Use Disorders: Clinical Challenges and Promising Treatment Approaches  K 1.5 CE Rx
Rollin Gallagher, MD MPH (Moderator); Benjamin Morasco, PhD; Robert Jamison, PhD; Declan Barry, PhD
This symposium will review different approaches for managing co-occurring chronic pain and substance use disorders.

(303) Improving Pain Education in Medical, Pharmacy, Nursing, and Dental Schools in the United States 1
David Thomas, PhD (Moderator); Beth Murinson, MD; Chris Herndon, PharmD; Paul Armstrong, PhD RN
This session will highlight the efforts of the National Institutes of Health Pain Consortium’s Centers of Excellence in Pain Education (Co-EPEs) to enhance pain education in medical, nursing, dental, and pharmacy schools across the United States. The Co-EPEs pain education portal will be described in terms of its stage of development, how one operates it, and what it has to offer to educators and healthcare providers in the pain field. Speakers will also review current problems in pain education and ways the Co-EPEs and other organizations are trying to address them.

(304) Insight into the Neuropathic Aspect of Cancer Pain 1 1.5 CE Rx
Todd Vanderah, PhD (Moderator); Patrick Martyny, PhD; Brian Schmidt, MD DDS PhD
This symposium will focus on understanding some of the causes of cancer pain and the therapies being developed to attenuate such pain.

(305) Herbal Marijuana in Pain Medicine: Science, Practice, Policy, and Ethics  K 1.5 CE Rx
Michael Schatman, PhD CPE (Moderator); Greg Carter, MD MS; Elizabeth Rahn, PhD; Seddon Savage, MD MS
Medical marijuana is increasingly becoming an accepted potential treatment for many pain conditions. However, confusion regarding its appropriate use as a treatment, prejudices based on the drug’s recreational use history, and policy and ethical issues continue. In addition to educating attendees about the science behind the practice, this symposium will address these concerns, allowing attendees to make better-informed decisions about medical marijuana’s potential use.

(306) Pain Management in Wounded Service Members: A Department of Defense Perspective  K
Laura McGhee, PhD (Moderator); Dayna Loyd Averitt, PhD MSci; Marcie Fowler, PhD; Steven Hanling, CDR MC USN
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 ongoing basic and clinical pain research being conducted within the U.S. Department of Defense. The research programs represented in this session will focus on the unique challenges in pain management faced by the military medical system; novel therapeutic options currently being explored, including complementary and alternative medicine techniques; and the translation of these therapies into clinical tools and practice.

12:45–2 pm
Corporate Satellite Lunch Symposia
APS will provide lunch to all meeting attendees in conjunction with these events.

2:15–3:45 pm
Symposia
(307) Ethnic and Racial Disparities in Pain: Biobehavioral and Psychosocial Correlates  K
Robert Edwards, PhD (Moderator); Burel Goodin, PhD; Claudia Campbell, PhD; Toni Glover, MSN FNP-BC
This session will highlight the multifactorial nature of ethnic/racial disparities in pain to help further the understanding of how such disparities arise. Biobehavioral and psychosocial factors have been shown to partially underlie some of the consistently observed ethnic and racial disparities in pain-related outcomes. These
putative contributors to pain disparities may hold promise as important and modifiable treatment targets that could help to mitigate ethnic and racial disparities in the experience of pain.

**308 Profiling the Pain Transcriptome with RNA-Seq**

Michael Ladarola, PhD (Moderator); Andreas Beutler, MD; Robert Blakesley, PhD

Investigation of what genes within the dorsal root ganglion (DRG) and the spinal cord are changed by nerve injury or tissue damage and the degree of alteration has provided insight into the profound nature of the relationship between genes and pain. The advent of massively parallel DNA sequencing methods provides a new level of genetic definition at both the genomic and transcriptome levels. This symposium will address the processes of transcriptome regulation in the DRG, spinal cord, and peripheral tissue; how to use the information from high-throughput sequencing; and what this information can tell us.

**309 From Receptors to Pain: The Molecular Dynamics of Pain**

Luda Diatchenko, PhD (Moderator); Michael Sailer, MD PhD; Kenneth Hargreaves, DDS PhD; Alexander Samoshkin, PhD

The goal of this symposium is to review and discuss the evidence on transcutaneous electrical nerve stimulation (TENS; i.e., mechanisms and effectiveness), including what we know about the most effective TENS application methods and outcome measures, to direct future clinical trials and use for a variety of pain conditions.

**310 Transcutaneous Electrical Nerve Stimulation: Mechanisms and Strategies for Effectiveness**

Kathleen Sluka, PhD PT (Moderator); Barbara Rakel, PhD RN; Jan Magnus Bjordal, PhD

The symposium will focus on molecular mechanisms of pain receptors activation and signaling.

**311 Coverage and Reimbursement Reform Initiatives: Similarities, Differences, and Implications for Patients with Chronic Pain Conditions**

Brook Martin, PhD MPH (Moderator); Benjamin Keeney, PhD; Daniel Carr, MD; Amy Lischko, PhD

The purpose of this session is to introduce attendees to the design, implementation, and early experiences of accountable care organizations, bundled payment programs, health information exchanges, and health insurance exchanges. The expert panelists will demystify how these programs may influence the management of patients with chronic pain conditions.

**312 Reducing Disability from Low Back Pain: Highlights of Primary, Secondary, and Tertiary Prevention**

Steve George, PT PhD (Moderator); Julie Fritz, PT PhD ATC; Kristin Archer, PhD DPT

Disability can be prevented before an episode of back pain occurs (primary prevention), during an acute episode (secondary prevention), or during a chronic episode (tertiary prevention). The purpose of this session is to highlight models of primary, secondary, and tertiary prevention of low back pain. The three speakers included in this session will review specific findings from each prevention domain and provide a general consideration of how findings from a particular domain inform the larger body of knowledge on prevention of disability from low back pain.

3:45–5:15 pm

**Break with Exhibits and Posters**

5:15–6:15 pm

**Special Interest Group (SIG) Meetings**

**127 Basic Science**

Three early-career scholars will give brief presentations on their recent work. In addition, the SIG’s liaisons to the APS Board of Directors and the Scientific Program Committee will give brief reports on APS activities over the past year, and SIG members will have an opportunity to provide ideas for the SIG’s activities over the coming year, including the 2014 Basic Science Dinner Symposium. A 2013–2014 cochair will be elected.

**128 Complementary and Alternative Medicine**

The Complementary and Alternative Medicine (CAM) SIG will meet officially for the first time to engage the contributions of a broader spectrum of the membership to enhance scientific and clinical discussion, evaluation, and exploration of CAM therapies. The format for the inaugural meeting will be informal.

**129 Ethics**

The Industry Conundrum: Ethical Considerations Regarding Industry Funding of APS

The panel presentation and discussion will address the emergent concerns regarding conflict-of-interest issues in pain education, with an emphasis on developing a means of funding that minimizes actual and apparent conflicts of interest within APS. This program will involve a panel that leads audience discussion with members of the panel, including representatives from industry, APS, and the Pain Ethics Community.

**130 Genetics and Pain**

This year’s 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. Next, Jeffrey S. Mogil, PhD, this year’s Kerr Award recipient, will review novel, unexpected, and/or clinically relevant findings published in the area of genetics and pain over the past year and highlight how such findings could potentially influence the direction of the field. Following the presentations, time will be allotted for overall discussion regarding the growth and direction of the SIG, including ways to build the membership and expand activities.

**131 Measurement of Pain and Its Impact**

The meeting of the SIG will include:

- a report on activities over the year and changes in the SIG activities, including reporting on a survey of measurement practices
- a report on the current activities of the ACTTION Public Private partnership
- presentation of new analyses from the ACTTION-Baseline pain measurement variability and implications for the improvement of clinical trial assay sensitivity.

**132 Pain Education**

The 2011 Institute of Medicine Relieving Pain in America report has called for revolutionary changes in the way we educate health professionals, the public, and policy makers about pain. This forum will allow leaders in the field to discuss available resources, high-priority needs, and the tactics underway to address needed reform. Co-chairs Paul Arinstein, PhD RN, and Larry Driver, MD, will facilitate discussion on the transformational education programs needed. David Thomas, PhD, and Donna Messersmith, PhD, will discuss the support of the National Institutes of Health to develop Centers of Excellence in Pain Education (CoEPEs) as part of this effort, and the ways in which the CoEPEs plan to work with others in the pain field to enhance pain education in medical, dental, nursing, and pharmacy schools.

**133 Pain in Infants, Children, and Adolescents**

The APS SIG for Pain in Infants, Children, and Adolescents will hold a Pediatric Pain Research Blitz, which will consist of 10-minute presentations of new research. We will also use the meeting to announce the 2013 recipient of the Pediatric Young Investigator Research Award.
Activity Type: Knowledge  

(134) Pain in Sickle Cell Disease  
This 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 sickle cell disease (SCD). Catherine Bushnell, PhD, will discuss the effects of chronic pain on the structure and function of the central nervous system in chronic pain and the implications of these findings for pain in SCD. Her presentation will be followed by discussions of other ongoing pain research and clinical trials by SIG members.

(135) Palliative Care  

Friday, May 10

7:30–8 am  
(103) Plenary Lecture  

Pain and Aging: Translating Assessment Knowledge into Practice  
Keela Herr, PhD RN AGSF FAAN  
Providing quality pain care to the burgeoning older adult population rests on the ability to recognize, measure, and consistently monitor presence, severity, and impact of pain. This requires use of valid and reliable tools, both for cognitively capable and impaired patients. Recognizing and evaluating pain in those unable to self-report is challenging and critical questions remain. Evidence for best-practice pain assessment in older adults able to self-report will be discussed, followed by consideration of tools that have been developed to improve pain assessment in persons with advanced cognitive impairment. Efforts to translate the science of pain assessment to improve pain treatment and outcomes will be explored. An agenda for future research will be proposed to inspire and guide progress in improving recognition and evaluation of pain in all older adults.

8–8:30 am  
(104) Plenary Lecture  

Mechanisms Controlling Nociceptor Excitability and How They Can Be Targeted for Pain Relief  
Martin Koltenburg, MD FRCP  
Impressive progress has been made regarding the molecular and cellular mechanisms of transduction. Transient receptor potential channels have been identified as one of the major classes of ion channels that endow nociceptors with thermal or chemical sensitivity. Nerve growth factor (NGF) has now been identified as a pivotal factor in sensitizing nociceptors in chronic painful conditions such as osteoarthritis. Much less is known about the mechanisms encoding the magnitude of noxious stimuli.

How can basic science advances be harnessed for clinical practice? Antibodies neutralizing NGF have proven analgesic activity in many clinically important inflammatory pain states and will potentially enhance our treatment repertoire. Selective blockers of NaV1.7 are in development with the aim to selectively suppress action potential propagation in nociceptors without affecting other sensory modality or causing weakness.

8:45–10:15 am  

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

(313) Accelerated Cellular Aging in Musculoskeletal Conditions: Exploring Increased Risk for Morbidity  
Daniel Clauw, MD (Moderator); Afton Hassett, PsyD; Kimberly Sibille, PhD; John McBeth, PhD  
The focus of this session will be to explore the evidence for an increased risk for morbidity and mortality in chronic pain associated with musculoskeletal conditions and present preliminary evidence supporting a role for accelerated cellular aging as indexed by shortened telomere length.

(314) Pain, Stress, and Inflammation: Clinical Implications and Individual Differences  
Robert Edwards, PhD (Moderator); Joseph Riley, PhD; Jon Levine, MD PhD; Gary Slade, DDPH PhD BDSc  
Pro- and anti-inflammatory systems appear to contribute to the vast majority of persistent pain syndromes via multiple mechanisms. However, a variety of individual-difference factors, from the psychosocial (e.g., stress) to the genetic, can modulate these processes. This symposium will focus on the clinical implications of these interrelationships for shaping outcomes in groups such as patients with musculoskeletal or orofacial pain and older adults.

(315) Opioid Cessation: Why, When, and, Especially, How  
Michael Clark, PhD (Moderator); Jennifer Murphy, PhD; W. Michael Hooten, MD; Anthony Mariano, PhD  
This presentation will assist providers in efforts to terminate opioid therapy responsibly and appropriately when such termination is clinically indicated.

(316) To Do or Not to Do: Does Positive Psychology Have the Answer for Chronic Pain?  
Nomita Sonty, PhD MPhil (Moderator); Lance McCracken, PhD; Francis Keefe, PhD  
Psychological approaches to chronic pain have tended to emphasize pathology such as catastrophizing, depression, fear, and avoidance and have largely ignored personal and community resilience in adaptation. The “positive psychology” approach focuses on strengths and positive attributes that enable optimal functioning. The positive psychology or strength-based approach to chronic pain is attracting increased attention and yielding data. This session will examine this approach in the context of chronic pain, look at current evidence, and consider if there is a basis for scientific progress in this focus on the positive.

(317) Now More Than Ever, Voltage-Gated Na+ Channels as a Viable Target for the Treatment of Pain  
Michael Gold, PhD (Moderator); Michael Jarvis, PhD; Sulayman Dib-Hajj, PhD  
This session will provide an update on recent advances in our understanding of the role of voltage-gated Na+ channels in the pain associated with peripheral tissue injury, injury-induced changes in the efficacy of therapeutic interventions, and the identification of channel subtype selective blockers for the treatment of pain. Speakers in this symposium will focus on Na+ channel beta subunits as well as the alpha subunits NaV1.7 and NaV1.8.

(318) Skin Does Matter: New Insights into How Skin Analysis May Aid in Identifying Pain Mechanisms and Predictors of Treatment Outcome  
Charles Argoff, MD (Moderator); Frank Rice, PhD; Phillip Albrecht, PhD; Michael Polydefkis, MD MHS  
Recent translational research has led to exciting new data concerning peripheral pain mechanisms within the skin. These data have led to new insight into potential pain mechanisms for various painful conditions, including painful diabetic neuropathy, complex regional pain syndrome, and fibromyalgia, as well as to new pain assessment tools. Such research has also focused on the potential for such findings to help predict treatment outcomes and develop new treatments for various painful conditions. These translational efforts may enhance a basic scientist’s ability to better understand the mechanisms of a variety of pain conditions and a clinician’s ability to evaluate and treat patients with pain of diverse types.
1:45–3:15 pm

Symposia


Dennis Turk, PhD (Moderator); Francis Keefe, PhD; Monika Haack, PhD; Christina McCrae, PhD; and Jennifer Ault, PT DO PhD; Tabitha Washington, MD MS; Gregory Dussor, PhD; Edgar Ross, MD

This workshop will explore clinically relevant and emerging therapies for the treatment of headache disorders, emerging pharmacological targets, and innovative procedural/surgical innovations for the treatment of headache. This engaging and interactive workshop will leave the clinician with practical clinical tools as well as a better understanding of basic headache mechanisms and proposed new therapies.

3:30–5 pm

Symposia

(W102) Hypnosis for Pain Management

Mark Jensen, PhD (Moderator); David Patterson, PhD; Joseph Zastrow, MD FAAFP

This workshop will provide pain clinicians from all disciplines with an introduction to hypnotic and hypnotic language skills that they will find immediately useful for helping their patients better manage pain. The workshop will primarily cover hands-on practice of hypnotic skills including basic hypnotic inductions, use of hypnosis and hypnotic language for enhancing positive responses to medical and psychosocial pain treatments, and training patients in the use of self-hypnosis for pain management.

(W103) Essentials of Headache Management

Jennifer Ault, PT DO PhD; Thomas Ward, MD; Tabitha Washington, MD MS; Gregory Dussor, PhD; Edgar Ross, MD

This workshop will explore clinically relevant and emerging therapies for the treatment of headache and focus on the pathophysiology and treatment of migraine, the most common headache type. Five 35-minute sessions will encompass a breadth of topics, including the pathophysiology and treatment of migraine and discussion of novel headache syndromes, emerging pharmacological targets, and innovative procedural/surgical therapies for the treatment of headache. This engaging and interactive workshop will leave the clinician with practical clinical tools as well as a better understanding of basic headache mechanisms and proposed new therapies.

5:30–7:30 pm

(136) Basic Science Dinner

The Future of Drug Discovery for Pain

Gregory Dussor, PhD, and David Seminowicz, PhD (Moderators); Frank Porreca, PhD; Chas Bountra, PhD; and James Campbell, MD

In recent years, several major pharmaceutical companies have scaled back or completely eliminated their pain research divisions, which raises questions about the future of drug discovery for pain. The speakers, with their extensive experience in pain research in both academic and industrial settings, will provide insight on potential reasons for past failures to translate preclinical findings to patients and novel approaches for future pain studies.

Saturday, May 11

8–8:30 am

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

Mice Are People, Too: Social Modulation of and by Pain in Laboratory Rodents

Jeffrey S. Mogil, PhD

Many people believe that pain-relevant phenomena such as empathy and prosocial behaviors are the sole province of humans. However, the evolutionary antecedents of such phenomena are starting to be demonstrated in nonhuman animals, even in rodents. The speaker will discuss recent experiments showing the effect of social communication on pain behavior and the effect of pain on social interactions. Many of the research findings can be translated to human beings in a surprisingly direct manner.

8:30–9 am

(106) Wilbert E. Fordyce Clinical Lecture

Phenotypic and Molecular Approaches to Translational Pain Medicine

William Maixner, PhD DDS

New research is demonstrating that changes occur in the extracellular matrix and structural architecture surrounding both primary afferent and spinal cord neurons and glial cells that aid in “locking in” chronicity in neuropathic pain. This session will review three types of these long-term maladaptive changes and consider novel approaches that might be adapted as new treatment avenues for chronic pain.
9–9:30 am
(107) Global Year Against Pain Lecture
Chronic Visceral—The Long Path to Better Treatments
Emeran Mayer, MD

Chronic visceral pain in the form of common gastrointestinal, urological, and pelvic pain syndromes is an important clinical problem affecting up to 15% of the population. This session will include discussion of the biological understanding of these syndromes, failures in translational progress, and interest in the last decade in exploring alterations in structural and functional brain networks in these disorders. Future research direction will also be discussed.

9:30–9:45 am
Break

9:45–11:15 am
Symposia
(323) Pain Management in the Face of Disaster: Experiences of Clinicians, Patients, and Systems After Hurricane Katrina
Harry Gould, MD PhD (Moderator); Lorraine Reeves; Renee Manworren, PhD APRN PCNS-BC; Dennis Paul, PhD

Hurricane Katrina hit New Orleans on August 29, 2005, leaving a path of destruction that crippled the city, left hundreds of thousands homeless, and severely compromised the delivery of healthcare to much of the southeastern United States. In this presentation, speakers will review some of the key problems related to providing continuity of pain care that arose in the wake of the storm. They will also discuss lessons learned from the perspective of the displaced, treating clinicians, patients, and those healthcare providers who accepted and added responsibility of those in need.

(324) The Association of Suicidality and Chronic Pain in the Veteran Population
David Fishbain, MD (Moderator); Mark Ilgen, PhD; Jan Kemp, PhD RN

The following topics will be discussed in this presentation: suicidality data on armed forces members and veterans, data on suicidality and predictors of suicidality in patients with chronic pain, recent evidence in veterans on the association of suicide completion and chronic pain, and descriptions and results of national veteran suicide prevention programs.

(325) Pain, Itch, and Touch Sensations: Neurons, Circuits, and Genes
Michael Iadarola, PhD (Moderator); Diana Bautista, PhD; Mark Hoon, PhD; Sarah Ross, PhD

Basic pain research faces several challenges. One of the most long-standing issues is the establishment of neuronal identity within the pain pathways. Identity can be defined on several levels: physiological, structural, and/or molecular, and each of these contributes in a dynamic fashion to the establishment of the neuronal circuitry that forms the basis of nociceptive or nonnoxious somatosensory sensations and consequent behaviors. This symposium explores sensations of pain, itch, and touch in terms of the underlying molecular basis for these sensory processes in the dorsal root ganglion using transgenic and gene-targeted mice. In addition, the role of spinal interneurons in sharpening sensory acuity is explored, again, using molecular genetic approaches.

(326) Prediction and Prevention of Low Back Pain Throughout the Lifespan
Inna Belfer, MD PhD (Moderator); Dennis Ang, MD MS; Dino Samartzis, DSc; Susmita Kashkar-Zuck, PhD

The precise causes of low back pain (LBP) and its recurrence are poorly understood. Physical findings and structural spine abnormalities do not always reflect patient-reported symptoms. Psychosocial risk factors have consistently emerged as predictors of the course of LBP in both children and adults. Unfortunately, studies of treatment interventions targeting these risk factors have yielded mixed results, suggesting that there may be other important factors that have not been examined. A genetic approach applied to LBP research may help identify important biological factors that may contribute to the risk for or protection against chronicity and recurrence. It is highly likely that the interactions among genes, psychosocial factors, and psychophysical factors will shape LBP (or outcome) experience.

(327) Targeting Spinal GABAergic Mechanisms to Develop Novel Analgesics
Theodore Price, PhD (Moderator); Mark Pitcher, PhD; Louis-Etienne Lorenzo, PhD

It is now clear that peripheral injury alters GABAergic signaling in the dorsal horn, but we are still understanding how to manipulate this system to achieve clinically meaningful analgesia in chronic pain states. This session will present recent evidence pertaining to molecular mechanisms underlying changes in GABA after peripheral injury and will highlight pharmacological approaches that can either augment GABAergic inhibition after injury or achieve effective inhibition despite changes in the endogenous GABAergic system.

(328) Treatment of Chronic Sickle Pain: Lessons from Fibromyalgia and Other Musculoskeletal Disorders
Carlton Dampier, MD (Moderator); Wally Smith, MD; Daniel Clauw, MD; Eufemia Jacob, PhD RN

This symposium will focus on the research and practice gaps in the treatment of chronic pain in adolescents and adults with sickle cell disease (SCD), which currently largely relies on the use of chronic opioids. Novel mobile technology methods for the assessment of frequent pain and other symptoms in children with SCD that are possible precursors to chronic pain in adolescents and adults will be described. The current limited evidence base for analgesic therapy in adults with SCD, including the prevalence and incidence of chronic opioid use in children and adults, will be described and contrasted with the evidence base for the use of anticonvulsants and antidepressants in fibromyalgia, and related to their potential use in chronic SCD pain. The design for future studies, and their potential to lead to “personalized analgesia” will also be discussed.

(329) The APS, College on Problems of Drug Dependence, and Heart Rhythm Society Clinical Practice Guidelines on Safer Prescribing of Methadone for Treatment of Opioid Dependence and Chronic Pain
Ricardo Cruciani, MD PhD (Moderator); Roger Chou, MD; David Fiellin, MD

The safety regarding the use of methadone, both in opioid dependency and pain management, has become controversial due to the perception of higher morbidity and mortality associated with its increased use. As a result, several publications, including three guidelines, have been developed to help prescribers minimize risk. The three guidelines that are now available focus on prevention of cardiac arrhythmias due to the association between methadone and prolonged QTc interval seen on electrocardiogram. This session will outline clinical guidelines on safe methadone prescribing for the management of opioid dependency and chronic pain developed by the APS, College on Problems of Drug Dependence, and Heart Rhythm Society.

11:30 am–2:30 pm
(108) Special Learning Opportunity: Risk Evaluation and Mitigation Strategies (REMS) for Extended-Release, Long-Acting Opioids

This session is open to all meeting attendees. Please indicate your plans to attend by marking this session on the registration form. Faculty information and a session description will be available on the APS website in February.
General Information

Meeting Location
Ernest N. Morial Convention Center
900 Convention Center Boulevard
New Orleans, LA 70130
504.582.3023

Housing
A block of rooms is being held for APS meeting attendees at the following hotel:

Hilton New Orleans Riverside
2 Poydras Street
New Orleans, LA 70130
504.561.0500 or 800.HILTONS
Room rate: $239 single/double*
Cutoff date: April 4, 2013

Please visit the APS website at APSScientificMeeting.org to make your reservations online. Be sure to indicate you are attending the 32nd Annual Scientific Meeting of the American Pain Society to receive the conference 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 conference rates.

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

Additional travel information can be found at APSScientificMeeting.org.

Young Investigator Travel Support
APS is pleased to offer Young Investigator travel support for the 2013 meeting. A limited number of funding awards are 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 last 3 years. All applicants must be APS members and must have an abstract accepted for presentation. Applications from nonmembers will not be considered.

More information about Young Investigator travel support can be found online at www.americanpainsociety.org/education/content/aps-young-investigators-32-annual-scientific-meeting.html. Applications will be reviewed by the APS Scientific Program Committee, and stipends will be awarded in late February 2013. Notifications will be sent to applicants in February. Those applicants selected for the 2013 meeting will receive their travel grants at the annual meeting.

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 late April 2013.

Program Evaluation Tool
APS offers its meeting evaluation in an online format. Registrants will receive access to the evaluation system on May 9, 2013. They will then log in to the system using the same username and password they 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 APSScientificMeeting.org or call 847.375.4715.
Registration Information
The membership dues of APS have always been set according to income levels to ensure that those interested in belonging to the Society would be able to afford it. The registration rates for the Annual Scientific Meeting are also set according to income levels to ensure that 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 APSScientificMeeting.org or send the completed conference registration form with payment to APS Scientific Meeting, PO Box 839, Glenview, IL 60025. 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 conference 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 conference 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 located in the Hall B Foyer of the Ernest N. Morial Convention Center to register or check in for the meeting on site.
Wednesday, May 8, 1:30–6 pm
Thursday, May 9, 7 am–5 pm
Friday, May 10, 7 am–5 pm
Saturday, May 11, 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 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 Member: 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 May 11, 2013. All refunds will be issued after the conference.

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.

The information I gathered at this meeting will be very clinically helpful for my practice.”

–2012 Meeting Attendee
Session Codes

Wednesday, May 8
2:30–4:30 pm
SIG Meetings
(119) Nursing Issues
(120) Advancing the Science of Quality
(121) Clinical Trials
(122) Geriatric Pain
(123) Pain and Disparities
(124) Pharmacotherapy
(125) Psychosocial Research
(126) Pain Rehabilitation

5:15–6:15 pm
SIG Meetings
(127) Basic Science
(128) Complementary and Alternative Medicine
(129) Ethics
(130) Genetics and Pain
(131) Measurement of Pain and Its Impact
(132) Pain Education
(133) Pain in Infants, Children, and Adolescents
(134) Pain in Sickle Cell Disease
(135) Palliative Care

Thursday, May 9
11 am–12:30 pm
Symposia
(300) Rita Allen Foundation Scholars in Pain: Frontiers in Basic Pain Research
(301) Primary Afferent Hyperexcitability Drives Chronic Pain
(302) Co-Occurring Chronic Pain and Substance Use Disorders: Clinical Challenges and Promising Treatment Approaches
(303) Improving Pain Education in Medical, Pharmacy, Nursing, and Dental Schools in the United States
(304) Insight into the Neuropathic Aspect of Cancer Pain
(305) Herbal Marijuana in Pain Medicine: Science, Practice, Policy, and Ethics
(306) Pain Management in Wounded Service Members: A Department of Defense Perspective

2:15–3:45 pm
Symposia
(307) Ethnic and Racial Disparities in Pain: Biobehavioral and Psychosocial Correlates
(308) Profiling the Pain Transcriptome with RNA-Seq
(309) From Receptors to Pain: The Molecular Dynamics of Pain
(310) Transcutaneous Electrical Nerve Stimulation: Mechanisms and Strategies for Effectiveness
(311) Coverage and Reimbursement Reform Initiatives: Similarities, Differences, and Implications for Patients with Chronic Pain Conditions

Friday, May 10
10:30 am–Noon
Symposia
(312) Reducing Disability from Low Back Pain: Highlights of Primary, Secondary, and Tertiary Prevention

1:45–3:15 pm
Symposia
(313) Accelerated Cellular Aging in Musculoskeletal Conditions: Exploring Increased Risk for Morbidity
(314) Pain, Stress, and Inflammation: Clinical Implications and Individual Differences
(315) Opioid Cessation: Why, When, and, Especially, How
(316) To Do or Not to Do: Does Positive Psychology Have the Answer for Chronic Pain?
(317) Now More Than Ever, Voltage-Gated Na+ Channels as a Viable Target for the Treatment of Pain
(318) Skin Does Matter: New Insights into How Skin Analysis May Aid in Identifying Pain Mechanisms and Predictors of Treatment Outcome

1:45–5 pm
Workshops
(W102) Hypnosis for Pain Management
(W103) Essentials of Headache Management

3:30–5 pm
Symposia
(321) Objective Measures of Pain: Scientific, Legal, and Ethical Considerations
(322) The Structure of Neuropathic Pain: Extracellular and Cellular Structural Plasticity Contributing to Chronic Pain

Saturday, May 11
9:45–11:15 am
Symposia
(323) Pain Management in the Face of Disaster: Experiences of Clinicians, Patients, and Systems After Hurricane Katrina
(324) The Association of Suicidality and Chronic Pain in the Veteran Population
(325) Pain, Itch, and Touch Sensations: Neurons, Circuits, and Genes
(326) Prediction and Prevention of Low Back Pain Throughout the Lifespan
(327) Targeting Spinal GABAergic Mechanisms to Develop Novel Analgesics
(328) Treatment of Chronic Sickle Pain: Lessons from Fibromyalgia and Other Musculoskeletal Disorders
(329) The APS, College on Problems of Drug Dependence, and Heart Rhythm Society Clinical Practice Guidelines on Safer Prescribing of Methadone for Treatment of Opioid Dependence and Chronic Pain

11:30 am–2:30 pm
Special Learning Opportunity: Risk Evaluation and Mitigation Strategies (REMS) for Extended-Release, Long-Acting Opioids
### APS 32nd Annual Scientific Meeting Registration Form

**May 8–11, 2013 • Ernest N. Morial Convention Center • New Orleans, LA**

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

<table>
<thead>
<tr>
<th>Registration Rates</th>
<th>On or Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APR Member Rates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income &gt; $175,000</td>
<td>$525</td>
<td>$625</td>
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<tr>
<td>$125,000–$175,000</td>
<td>$480</td>
<td>$580</td>
</tr>
<tr>
<td>$75,000–$124,999</td>
<td>$340</td>
<td>$440</td>
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<tr>
<td>&lt; $75,000</td>
<td>$230</td>
<td>$330</td>
</tr>
<tr>
<td><strong>Student/Trainee</strong></td>
<td>$80</td>
<td>$180</td>
</tr>
<tr>
<td><strong>Affiliate</strong></td>
<td>$250</td>
<td>$350</td>
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</tbody>
</table>

| Nonmember Rates    | $650        | $750  |
| Income > $125,000  | $575        | $675  |
| $75,000–$124,999   | $410        | $510  |
| < $75,000          | $335        | $435  |
| **Student/Trainee** | $100        | $200  |
| **Affiliate**      | $410        | $510  |

| Join/Renew and Register Rates | $850        | $950  |
| Income > $125,000  | $755        | $855  |
| $75,000–$124,999   | $350        | $630  |
| < $75,000          | $350        | $450  |
| **Student/Trainee** | $130        | $230  |
| **Affiliate**      | $400        | $500  |

**1-Day Conference Registration**

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

<table>
<thead>
<tr>
<th>Day</th>
<th>Monday, May 6</th>
<th>Tuesday, May 7</th>
<th>Wednesday, May 8</th>
<th>Thursday, May 9</th>
<th>Friday, May 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TH</strong> Thursday</td>
<td>9:45–11:15 am</td>
<td>2:15–3:45 pm</td>
<td>10:30 am–Noon</td>
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<tr>
<td><strong>FR</strong> Friday</td>
<td>1:45–3:15 pm</td>
<td>2:30–4:30 pm</td>
<td>3:30–5 pm</td>
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<td>3:30–5 pm</td>
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<tr>
<td><strong>SAT</strong> Saturday</td>
<td>9:45–11:15 am</td>
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</tbody>
</table>

**Special Events**

- **Wednesday, May 8**
  - 2:30–4:30 pm: SIG Meetings
  - 6–8 pm: Clinical and Basic Science Data Blitz (DB)
- **Thursday, May 9**
  - 5:15–6:15 pm: SIG Meetings
  - 5:30–7:30 pm: Basic Science Dinner (138)*
- **Friday, May 10**
  - 3:30–5 pm: Special Learning Opportunity: BV/LA Opioid REMS

**Guest Registration**

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

**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](#)

- **Mail**
  - APS Meeting
  - PO Box 839
  - Glenview, IL 60025

**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.

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

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APS 32nd Annual Scientific Meeting

May 8–11, 2013
New Orleans, LA

Online registration is now open at APSScientificMeeting.org.

Why Attend the APS 32nd Annual Scientific Meeting?

- Attend a variety of educational sessions featuring interactive workshops and symposia.
- Enjoy the French Quarter with fellow APS meeting attendees as you indulge in the city's renowned jazz and savory Cajun cuisine.
- Receive a special conference rate of $239 at the Hilton New Orleans Riverside.
- Attend a keynote address from Story Landis, PhD, Director, National Institute of Neurological Disorders and Stroke, on the future of pain research.
- Network with colleagues at the opening reception in the exhibit hall on Wednesday evening.