The American Pain Society
Research Agenda

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University of Florida
Immediate Past President, American Pain Society
Overview

• The importance of pain research

• Brief overview of the American Pain Society

• APS research agenda
Prevalence and Costs of Several Chronic Diseases in the United States

- Cancer
- HIV/AIDS
- Heart Disease
- Diabetes
- Alzheimer's
- Chronic Pain

**Prevalence (in millions)**

- 120
- 100
- 80
- 60
- 40
- 20
- 0

**2010 Annual Costs (in billions)**

- 700
- 600
- 500
- 400
- 300
- 200
- 100
- 0

**Legend**

- Blue bars: Prevalence
- Black line: Annual Costs
Increasing Prevalence of Chronic Low Back Pain
(Frebruger, et al, 2009 Arch Int Med 169: 251-58)

CLBP: (1) pain and activity limitations nearly every day for the past 3 months or (2) more than 24 episodes of pain that limited activity for 1 day or more in the past year
Knee Pain: Pain lasting at least a month in or around the knee, including the back of the knee during the past 12 months. Only adults ≥ 70 years of age included.
Pain Research is Underfunded

Cost data were derived from the following sources: chronic pain, heart disease, cancer, diabetes (Gaskin & Richard, 2012); HIV/AIDS (Hutchinson, et al, 2006), and Alzheimer’s disease (Hurd, et al, 2013). All societal costs were converted to 2010 dollars. NIH expenditures are for 2012, the most recent year available.
American Pain Society

What?

How?

Why?
American Pain Society

Why

• Only together can we improve the relief of pain.

How

• Through interdisciplinary research, education, treatment, and advocacy
By *Together We Mean*...

- Basic scientists, clinical researchers and pain treatment providers collaborating to bring more effective pain care to patients.
- Pain professionals and patient advocates working with policymakers to improve funding for pain research and access to pain care.
- Public-private partnerships to move the pain research mission forward.
APS Mission Domains

- Research
- Education
- Treatment
- Advocacy
NIH and other funders will recognize pain as a distinct and high priority health care problem deserving increased resources for research.

Robert Gereau, PhD
APS Board Chair for Research
Washington University School of Medicine
Collaboration with NIH Pain Consortium

APS collaborates closely with the NIH Pain Consortium to help disseminate funding opportunities to our members and to advocate for increased pain research funding overall.
## Support for Emerging Research Leaders

<table>
<thead>
<tr>
<th>Program</th>
<th>Number of Awards</th>
<th>Sponsors</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Young Investigator Travel Support</strong></td>
<td>56 attendees received $750 travel awards for the 2014 meeting</td>
<td>NINDS, NIDCR, NIDA, NCCAM, NINR, NIA, NICHD</td>
<td>Thanks to Charles Argoff, MD</td>
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<tr>
<td><strong>Future Leaders in Pain Research</strong></td>
<td>3 Awards of $20,000 each</td>
<td>Eli Lilly, Purdue, and TEVA</td>
<td>37 awards since 2005 (508 publications, 47 NIH grants)</td>
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<tr>
<td><strong>Rita Allen Foundation Awards in Pain Research</strong></td>
<td>2 grants per year of $50,000 per year (up to 3 years)</td>
<td>Rita Allen Foundation</td>
<td>10 awards since 2009 (76 publications, 18 NIH grants)</td>
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<tr>
<td><strong>Sharon S. Keller Chronic Pain Research Program</strong></td>
<td>Up to 4 grants of $35,000 (2 in this inaugural year)</td>
<td>Sharon S. Keller Fund</td>
<td>2 awards in 2013, 4 awards in 2014 (pending)</td>
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Since 2005, the APS has awarded more than $1.8 million in grants.
The Pain Research Fund

www.painresearchfund.org

- **Purpose:** The APS Pain Research Fund provides a mechanism for members and non-members to donate funds to the APS to support future research grants and revision of clinical practice guidelines.

- **Rationale:** Funds donated to the APS Pain Research Fund will support the APS mission domains (Research, Education, Clinical, and Advocacy), which helps to further our members’ interests and professional needs.
The APS Research Agenda
(Gereau, et al, in preparation)

• A goal oriented agenda for pain research in the 21st century
APS Research Agenda: Goal 1

• Develop novel pain treatments that enhance clinically meaningful pain relief and functional improvement with no or clinically acceptable adverse effects
  – Discovery research
  – Optimize existing treatments
  – Bidirectional translational research
  – Fast track clinical trials
APS Research Agenda: Goal 2

• Expedite progress towards the prevention, diagnosis and management of chronic pain conditions
  – Biopsychosocial model
  – Large-scale mechanistic cohort studies
  – Public-private partnerships
APS Research Agenda: Goal 3

• Optimize the use of and access to currently available treatments that are known to be effective
  
  – Pharmacologic and non-pharmacologic treatments
  – Access to interdisciplinary care
  – Matching treatments to patients
APS Research Agenda: Goal 4

- Understand the impact influence of health policies and systems on pain treatment
  - Affordable Care Act impact on pain care
  - Incentivizing evidence-based treatment
  - Cost effectiveness
APS Research Agenda: Goal 5

• Improve pain management through education research
  – Pain is underrepresented in health professional education
  – Like pain, pain education is complex
  – Outcomes of educational initiatives need to be tracked
Translational Pain Research

- Quantitative Sensory Testing
- Preclinical Nociceptive Assays
- Basic Neurobiology of Nociception
- Identify New Molecular Targets
- High Throughput Screening
- Social Determinants Of Health
- Implementation Science
- Pragmatic Trials
- Comparative Effectiveness Trials

T0 Discovery Research

Reduced Pain in the Population

T1 Translation to Humans

- Pharmacologic Probes
- Brain Imaging
- Genetic Associations
- Case-Control Studies
- Genetic Associations

T2 Translation to Patients

- Phase II-III Clinical Trials
- Prospective Cohort Studies

T3-4 Translation to Practice & Population

- Pragmatic Trials
- Comparative Effectiveness Trials
- Implementation Science
- Social Determinants Of Health

- Preclinical Nociceptive Assays
- Basic Neurobiology of Nociception
- Identify New Molecular Targets
- High Throughput Screening
By any reasonable code, freedom from pain should be a basic human right, limited only by our knowledge to achieve it.

Liebeskind & Melzack, 1988
Thank You