



National Institutes  
of Health

*12th*  
ANNUAL

May 31- June 1, 2017

NIH PAIN  
CONSORTIUM  
SYMPOSIUM

# Multidisciplinary Strategies for the Management of Pain

**Walter Koroshetz (NINDS)  
Chair NIH Pain Consortium  
Executive Committee**

**Josephine Briggs (NCCIH), Patricia Grady (NINR), Martha  
Somerman (NIDCR), Nora Volkow (NIDA)**

# The NIH Pain Consortium



National Institutes  
of Health

## *Membership*

National Cancer Institute

National Eye Institute

National Institute on Aging

National Institute on Alcohol Abuse and Alcoholism

National Institute of Arthritis and Musculoskeletal and Skin  
Diseases

National Institute of Biomedical Imaging and Bioengineering

National Institute of Child Health and Human Development

National Institute on Deafness and Other Communication  
Disorders

National Institute of Dental and Craniofacial Research

National Institute of Diabetes and Digestive and Kidney  
Disorders

National Institute on Drug Abuse

National Institute of General Medical Sciences

National Institute of Mental Health

National Institute of Minority Health and Disparities

National Institute of Neurological Disorders and Stroke

National Institute of Nursing Research

National Heart Lung and Blood Institute

National Center for Advancing Translational Science

National Center for Complementary & Integrative Health

John E. Fogarty International Center

Warren Grant Magnuson Clinical Center

Office of Science Policy and Analysis

Office of Behavioral and Social Sciences Research

Office of Technology Transfer

Office of Research on Women's Health

Office of Rare Diseases

# The NIH Pain Consortium



National Institutes  
of Health

## Mission

<http://painconsortium.nih.gov/>

- *To enhance pain research and promote collaboration among researchers across the NIH Institutes and Centers that have programs and activities addressing pain*

## Leadership

- *Dr. Walter Koroshetz, Acting Director NINDS, NIH Pain Consortium Chair*
- *Dr. Josephine Briggs, Director NCCIH*
- *Dr. Patricia A. Grady, Director NINR*
- *Dr. Martha Somerman, Director NIDCR*
- *Dr. Nora Volkow, Director NIDA*

## Staff: Office of Pain Policy

- *Dr. Linda Porter, Director, Office of Pain Policy*
- *Dr. Cheryse Sankar, Dr. Leah Pogorzala and Dr. Khara Ramos, Pain Policy Analysts*

# Multidisciplinary Pain Care



March 2016



March 2016

## Multidisciplinary Care to Improve Patient Outcome & Reduce Reliance on Opioids



*“The potent medications science has developed have great potential for relieving suffering, as well as great potential for abuse. Any policy in this area must strike a balance between our desire to minimize abuse of prescription drugs and the need to ensure access for legitimate use”.*

# A Public Health Crisis

*100 million American adults report pain*

*40 million have severe pain*

*25 million report daily pain*

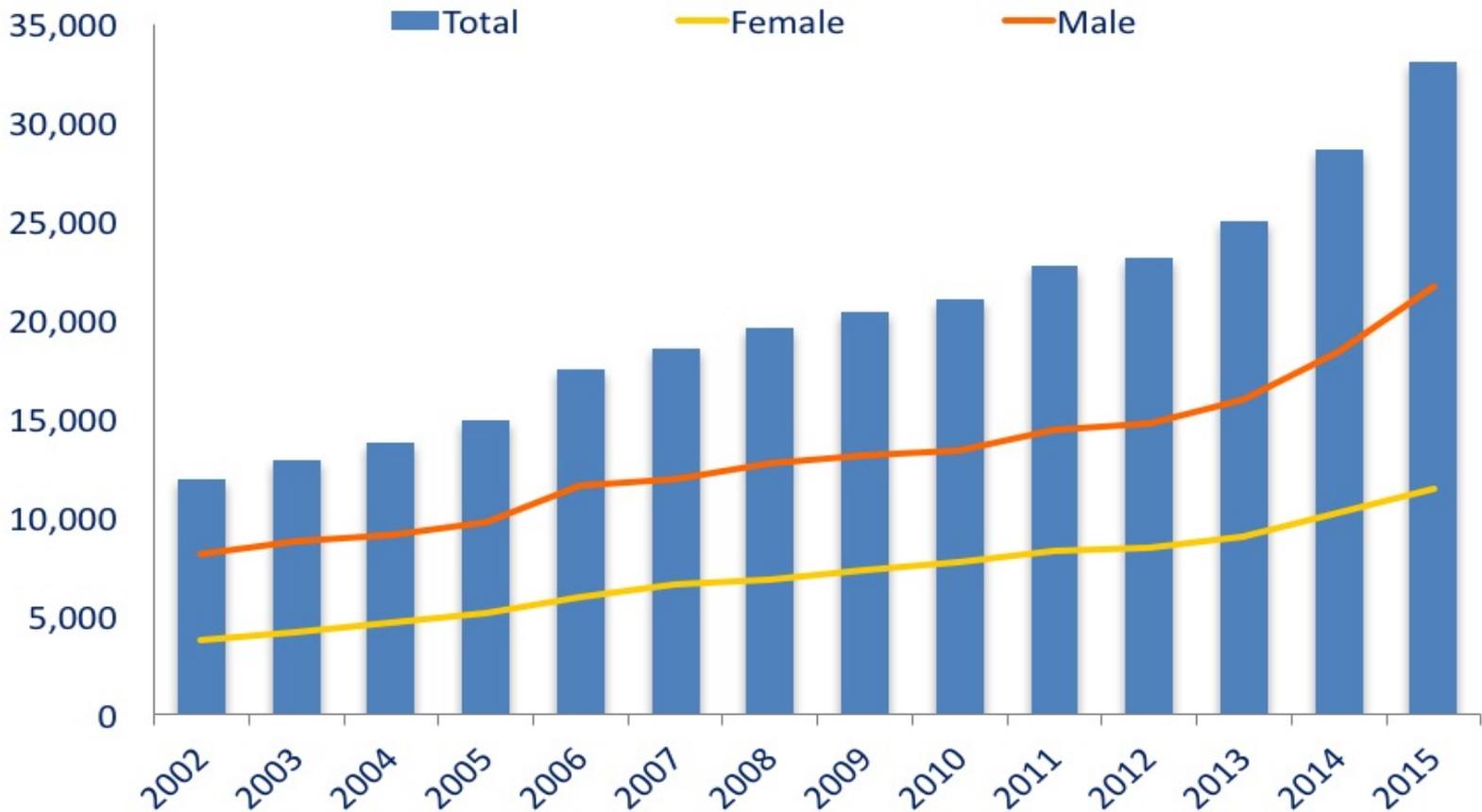
*8 million have pain that interferes with lifestyle*



# A Public Health Epidemic



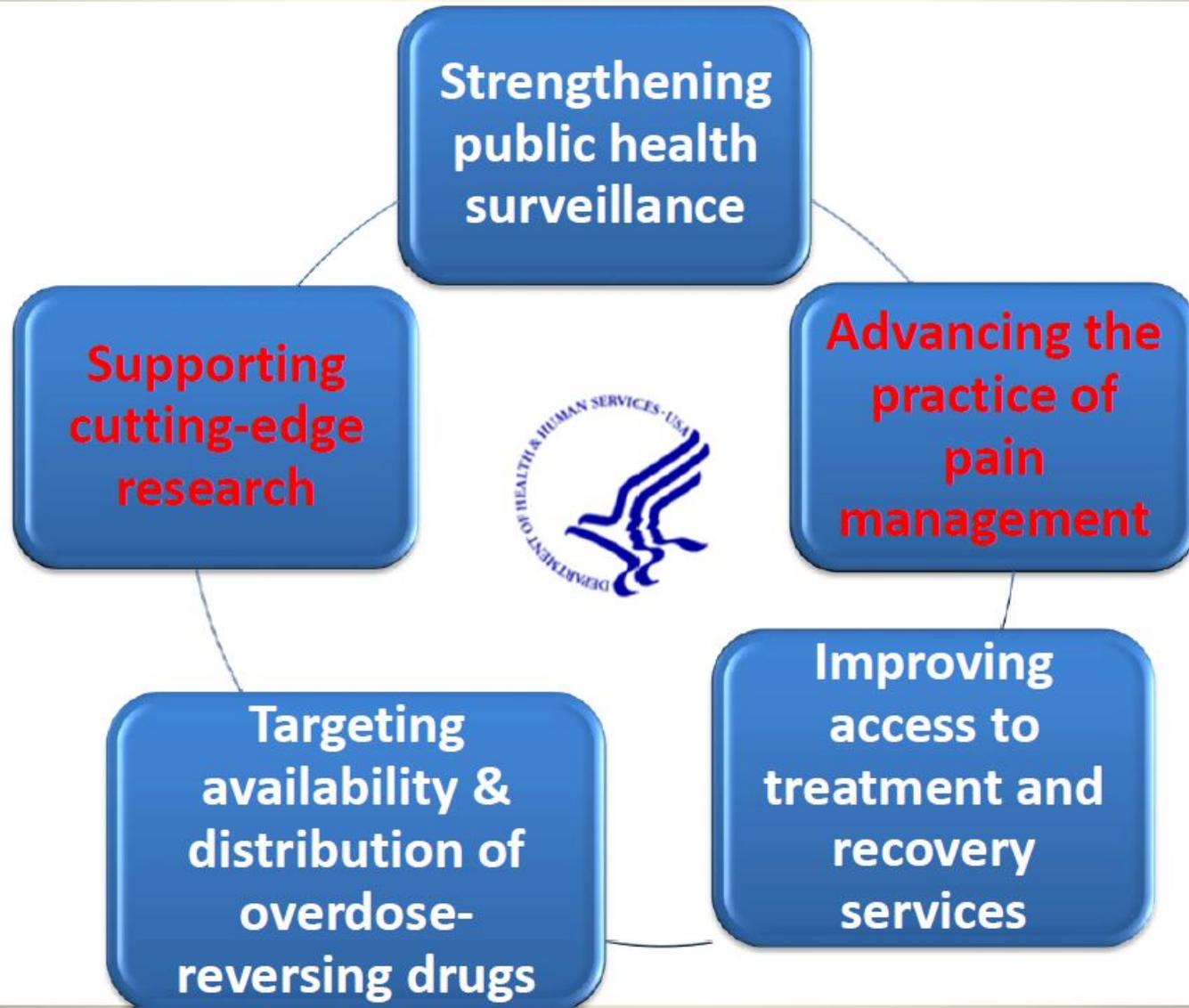
## Number of Deaths from Opioid Drugs



Source: National Center for Health Statistics, CDC Wonder

# Balancing Pain Care and Treatment Risks

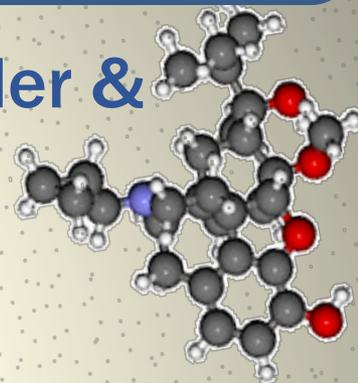
## HHS Opioid Strategy: Five Pillars



# Cutting Edge Science Meetings to Address the Opioid Crisis

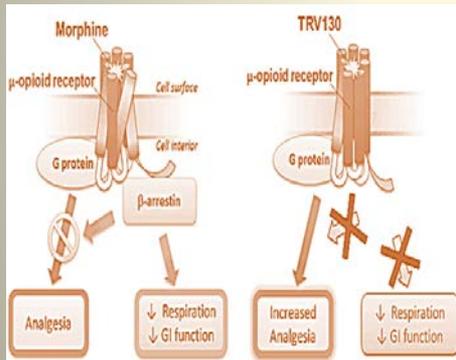
## Develop Treatments for Opioid Use Disorder & Overdose Prevention

June 5, 2017



## Accelerate Development of Effective & Non- Addictive Treatments for Pain

June 16, 2017



## Neurobiology of Pain

## Facilitate Development of Mechanistically-based Treatments

July 7, 2017



# 2016 Science Advances

## [Pain Mechanisms](#)

The indirect pathway of the nucleus accumbens shell amplifies neuropathic pain. Ren W, *et al.* **Nat Neurosci.** 2016 Feb.

Injured sensory neuron-derived CSF1 induces microglial proliferation and DAP12-dependent pain. Guan Z *et al.* **Nat Neurosci.** Jan

Selective spider toxins reveal a role for the Nav1.1 channel in mechanical pain. Osteen JD *et al.* **Nature.** 2016 June

## [Risk Factors & Causes](#)

Early life stress elicits visceral hyperalgesia and functional reorganization of pain circuits in adult rats. Holschneider DP, *et al.* **Neurobiol Stress.** 2016

Identification of clusters of individuals relevant to temporomandibular disorders and other chronic pain conditions: the OPPERA study. Eric Bair, *et al.* **Pain.** 2016 June

# 2016 Science Advances

## Tools & Instruments

Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. Kim YS, *et al.* **Neuron**. 2016

## Basic to Clinical

Structure-based discovery of opioid analgesics with reduced side effects. Manglik A, *et al.* **Nature**. 2016 Sep.

## Surveillance and Human Trials

Two-Year Follow-up of a Randomized Clinical Trial of Mindfulness-Based Stress Reduction vs Cognitive Behavioral Therapy or Usual Care for Chronic Low Back Pain

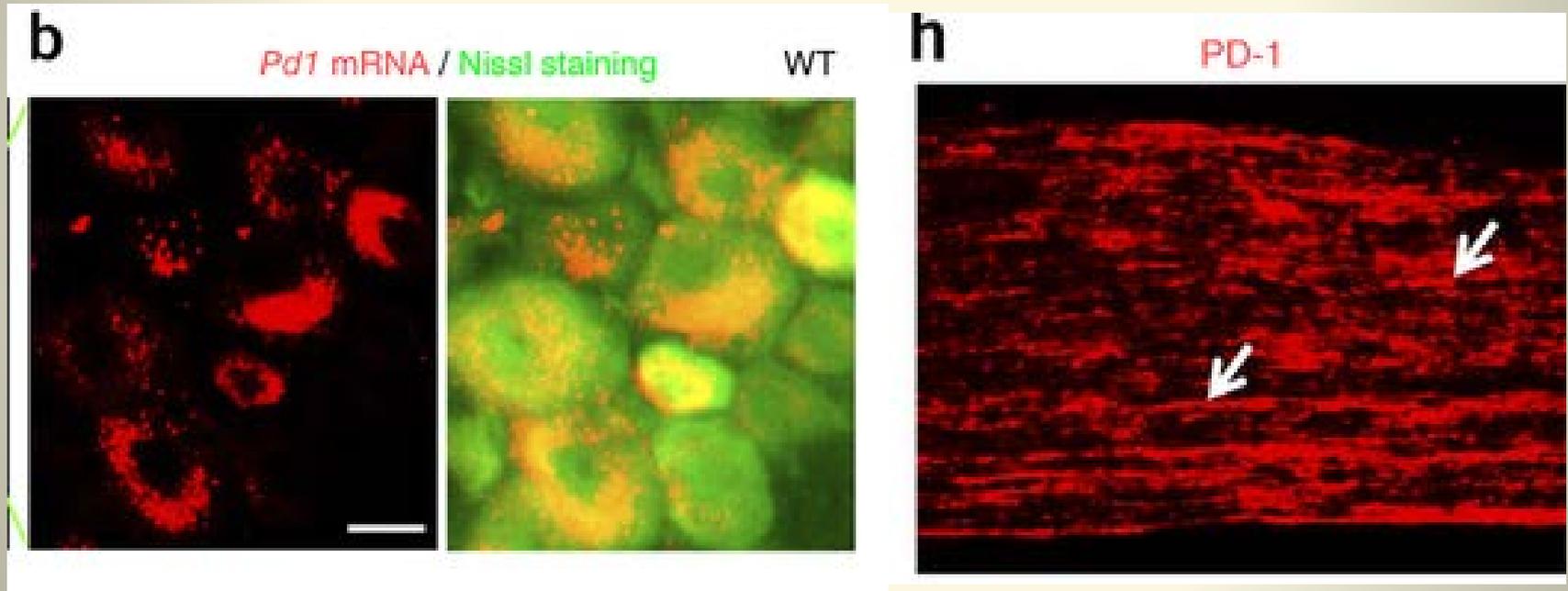
Cherkin DC, *et al.* **JAMA**. 2017 Feb

## Disparities

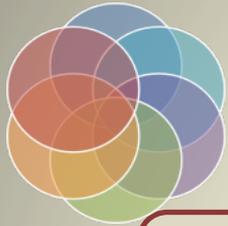
Sociodemographic disparities in chronic pain, based on 12-year longitudinal data. Hanna Grol-Prokopczyk. **Pain**. 2017 Feb.

Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites. Kelly M. Hoffman, *et al.* **Proc Natl Acad Sci U S A**. 2016 Apr

# PD-L1 inhibits acute and chronic pain by suppressing nociceptive neuron activity via PD-1

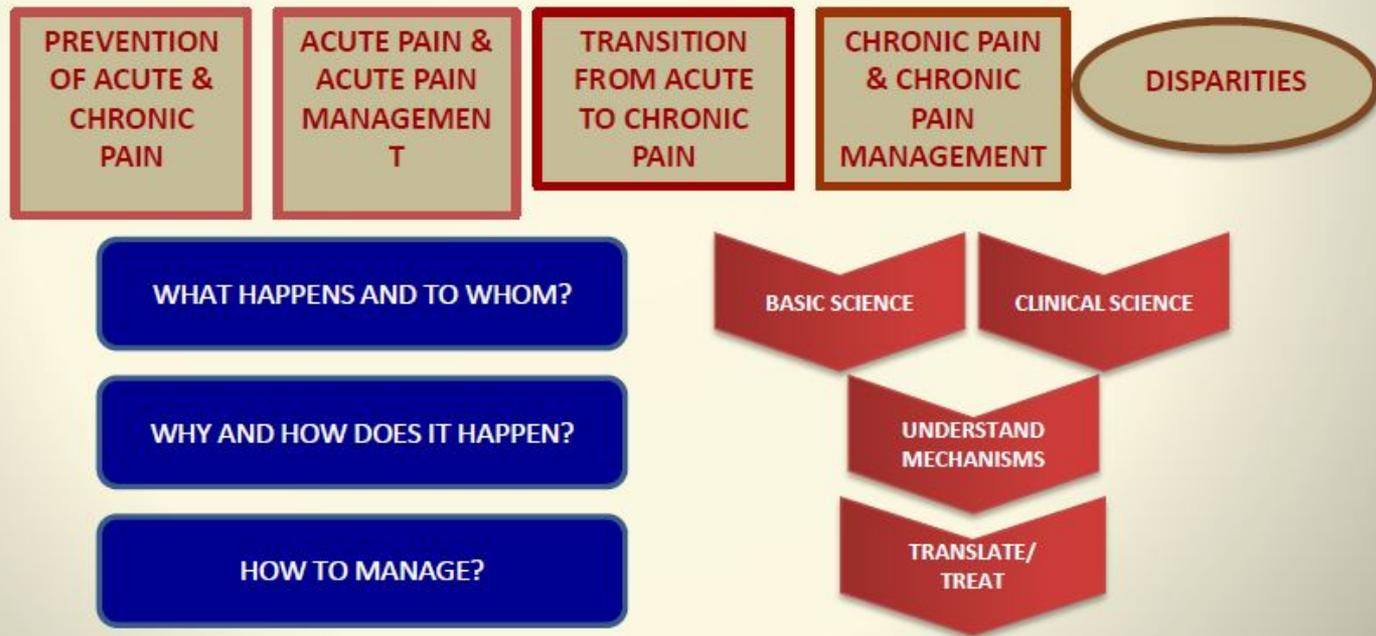


*NATURE NEUROSCIENCE*, MAY 22, 2017  
Chen et al., Laboratory of Ru-Rong Ji



# Federal Pain Research Strategy

The CONTINUUM of PAIN: characterization of pain as a temporal process, beginning with an acute stage, which may progress to a chronic state of variable duration. Chronic pain may start early after injury or surgery, because of an individual's susceptibility, through mechanisms activated in the acute setting.



# Federal Pain Research Strategy

---

Public Comment Period on the Federal Pain Research Priorities

[FPRS\\_PublicComments@mail.nih.gov](mailto:FPRS_PublicComments@mail.nih.gov)

Public Discussion June 1, 2017

NIH Campus

Natcher Auditorium

12:45 pm – 3:30 pm



For more information see: <https://iprcc.nih.gov/FPRS/FPRS.htm>