

## 2011 Accepted Abstracts

Please note that abstracts have not been edited by PAINWeek staff for content, style, or accuracy, and are displayed as input by each submitter.

### 1. Open-label, open-ended study of the safety of diclofenac sodium topical solution for management of osteoarthritis: characterization of gastrointestinal adverse events

Charles Argoff<sup>1</sup>, Jeff Patrick<sup>2</sup>, Zev Shainhouse<sup>3</sup>

<sup>1</sup>Albany Medical College, Albany, NY, USA, <sup>2</sup>Covidien, Hazelwood, MO, USA, <sup>3</sup>Consultant, Toronto, ON, Canada

### 2. Open-label, open-ended study of the safety of diclofenac sodium topical solution for management of osteoarthritis: characterization of application-site adverse events

Zev Shainhouse<sup>1</sup>, Jeff Patrick<sup>2</sup>, Charles Argoff<sup>3</sup>

<sup>1</sup>Consultant, Toronto, ON, Canada, <sup>2</sup>Covidien, Hazelwood, MO, USA, <sup>3</sup>Albany Medical College, Albany, NY, USA

### 3. Evaluation of the current practices for managing postoperative pain and characterization of patients undergoing total knee or hip arthroplasty in a real-world setting

Carmen Kirkness<sup>1,5</sup>, Carrie McAdam-Marx<sup>2</sup>, Sudhir Unn<sup>3</sup>, Jason Young<sup>2</sup>, Xiangyang Ye<sup>2</sup>, Arthi Chandran<sup>4</sup>, Da-In Kim<sup>2</sup>, Junji Lin<sup>2</sup>, Christopher Peters<sup>2</sup>, Carl Asche<sup>2,5</sup>

<sup>1</sup>Department of Physical Therapy, College of Health, University of Utah, Salt Lake City, UTAH, USA, <sup>2</sup>Department of Pharmacotherapy, University of Utah, Salt Lake City, UTAH, USA, <sup>3</sup>Department of Orthopaedics, School of Medicine, University of Utah, Salt Lake City, UTAH, USA, <sup>4</sup>Pfizer, Inc., New York, NEW YORK, USA, <sup>5</sup>University of Illinois College of Medicine, Peoria, ILLINOIS, USA

### 4. Observation of improved adherence with ongoing urine drug testing in patients with chronic pain

David Yee<sup>1</sup>, Michelle Hughes<sup>1</sup>, Alexander Guo<sup>1</sup>, Stephanie Tse<sup>1</sup>, Neveen Barakat<sup>1</sup>, Rabia Atayee<sup>1,2</sup>, Joseph Ma<sup>1,2</sup>, Brookie Best<sup>1,3</sup>, Amadeo Pesce<sup>4,5</sup>

<sup>1</sup>University of California San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, California, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, La Jolla, California, USA, <sup>3</sup>University of California Department of Pediatrics, Rady Children's Hospital-San Diego, San Diego, California, USA, <sup>4</sup>Millennium Research Institute, San Diego, California, USA, <sup>5</sup>University of California Department of Pathology and Laboratory Medicine, San Diego, California, USA

### 5. A novel diagnostic examination of the lumbar adhesion arachnoiditis by MRI scanning in supine and prone positions

Kenji Azuma<sup>1</sup>, Masahiko Sumitani<sup>1</sup>, Takamichi Kogure<sup>1</sup>, Hiroshi Sekiyama<sup>1</sup>, Yoshitsugu Yamada<sup>1</sup>

<sup>1</sup>Department of Anesthesiology and Pain Relief Center, The University of Tokyo Hospital, Tokyo, Japan

### 6. The conversion of hydrocodone to hydromorphone and norhydrocodone comparison in subjects with chronic pain

Neeven Barakat<sup>1</sup>, Rabia Atayee<sup>1,2</sup>, Joseph Ma<sup>1,2</sup>, Brookie Best<sup>1,3</sup>, Amadeo Pesce<sup>4,5</sup>

<sup>1</sup>University of California, San Diego (UCSD), Skaggs School of Pharmacy & Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, LA Jolla, CA, USA

### 7. Dose-proportionality, relative bioavailability, and effects of food on bioavailability of an immediate-release oxycodone HCl tablet designed to discourage tampering

Almasa Bass<sup>1</sup>, Kenneth Somerville<sup>1</sup>, Robert Roller<sup>1</sup>, Glenn Pixton<sup>1</sup>, Jeffrey Stark<sup>1</sup>, Cynthia Zamora<sup>2</sup>, Mark Leibowitz<sup>3</sup>

<sup>1</sup>Pfizer Inc., Cary, NC, USA, <sup>2</sup>Worldwide Clinical Trials Drug Development Solutions, Austin, TX, USA, <sup>3</sup>Worldwide Clinical Trials Drug Development Solutions, San Antonio, TX, USA

### 8. Daily average consumption of oxycodone CR and oxymorphone ER before and after the introduction of reformulated oxycodone CR

R. Amy Puenpatom<sup>1</sup>, Kent Summers<sup>1</sup>, Robert Garvin<sup>1</sup>, Larry Ma<sup>1</sup>, Sheryl L. Szeinbach<sup>2</sup>, Rami Ben-Joseph<sup>1</sup>

<sup>1</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA, <sup>2</sup>Ohio State University, College of Pharmacy, Columbus, OH, USA

### 9. A viable methodology for assessing the onset of treatment for low back pain

Jerrold Petrofsky<sup>1</sup>, Lee Berk<sup>1</sup>, Gurinder Bains<sup>1</sup>, Geraldine Doyle<sup>2</sup>, Shijie Chen<sup>2</sup>, Lisa Baird<sup>3</sup>, Paul Desjardins<sup>4</sup>, Jill Stark<sup>5</sup>

<sup>1</sup>Loma Linda University, Department of Physical Therapy, Loma Linda, CA, USA, <sup>2</sup>Pfizer Consumer Healthcare, Madison, NJ, USA

### 10. A posthoc pooled data analysis to evaluate the gastrointestinal tolerability profile of tapentadol extended release (ER) vs oxycodone controlled release (CR) in patients ≥75 years of age

David Biondi<sup>1</sup>, Jim Xiang<sup>2</sup>, Mila Etropolski<sup>2</sup>, Bruce Moskovitz<sup>1</sup>

<sup>1</sup>Ortho-McNeil Janssen Scientific Affairs, LLC, Raritan, NJ, USA, <sup>2</sup>Johnson & Johnson Pharmaceutical Research & Development, LLC, Raritan, NJ, USA

### 11. A posthoc pooled data analysis to evaluate blood pressure (BP) and heart rate (HR) measurements in patients with a current or prior history of hypertension who received tapentadol ER, oxycodone CR, or placebo in chronic pain studies

David Biondi<sup>1</sup>, Jim Xiang<sup>2</sup>, Mila Etropolski<sup>2</sup>, Bruce Moskovitz<sup>1</sup>

<sup>1</sup>Ortho-McNeil Janssen Scientific Affairs, LLC, Raritan, NJ, USA, <sup>2</sup>Johnson & Johnson Pharmaceutical Research & Development, LLC, Raritan, NJ, USA

### 12. Treatment of painful diabetic peripheral neuropathy in the nursing home: prevalence of the disease and conformance with a new evidence-based guideline

Frank Breve

Mid Atlantic PharmaTech Consultants, LLC, Ventnor, New Jersey, USA

### 13. Initial findings on abuse rates and routes of administration following introduction of reformulated OxyContin® in a sentinel surveillance system of patients in substance use treatment

Theresa Cassidy<sup>1</sup>, Paul Coplan<sup>2</sup>, Ryan Black<sup>1</sup>, Howard Chilcoat<sup>1</sup>, Simon Budman<sup>1</sup>, Stephen Butler<sup>1</sup>

<sup>1</sup>Inflexion, Inc., Newton, MA, USA, <sup>2</sup>Purdue Pharma L.P., Stamford, CT, USA

### 14. Sphygmomanometry-evoked allodynia for the identification of fibromyalgia patients

Arthi Chandran<sup>1</sup>, Cheryl Coon<sup>2</sup>, Susan Martin<sup>2</sup>, Lori McLeod<sup>2</sup>, Theresa Gilligan<sup>2</sup>, Lesley Arnold<sup>3</sup>

<sup>1</sup>Pfizer Inc., New York, NY, USA, <sup>2</sup>RTI Health Solutions, Ann Arbor, MI, USA, <sup>3</sup>University of Cincinnati College of Medicine, Cincinnati, OH, USA

### 15. An aid to guide primary care physicians in the differential diagnosis of fibromyalgia

Lesley Arnold<sup>1</sup>, Arthi Chandran<sup>2</sup>, Susan Martin<sup>2</sup>

<sup>1</sup>University of Cincinnati College of Medicine, Cincinnati, OH, USA, <sup>2</sup>Pfizer Inc., New York, NY, USA, <sup>3</sup>RTI Health Solutions, Ann Arbor, MI, USA

**16. Evaluation of safety and efficacy of LEVADEX® (MAP0004) in treating acute menstrual migraine**

Curtis P. Schreiber<sup>1</sup>, Shashidhar H. Kori<sup>2</sup>, Sylvia M. Lucas<sup>3</sup>, Scott W. Borland<sup>4</sup>, Min Wang<sup>5</sup>, Bin Hu<sup>6</sup>, Jan L. Brandes<sup>7</sup>, Susy Chen<sup>8</sup>  
<sup>1</sup>Headache Care Center, Primary Care Network, Springfield, MO, USA, <sup>2</sup>MAP Pharmaceuticals, Inc., Mountain View, CA, USA, <sup>3</sup>University of Washington Medical Center, Seattle, WA, USA, <sup>4</sup>Nashville Neuroscience Group, PC, Nashville, TN, USA

**17. A long-term open-label study assessing the safety and tolerability of LEVADEX® orally inhaled dihydroergotamine in adult migraineurs**

Don Kellerman, Jean Chang, Shashidhar Kori, Susy Chen  
MAP Pharmaceuticals, Inc., Mountain View, CA, USA

**18. Pain Education School: findings from year one of an "informational healing" program**

David Cosio, Erica Hugo, Ronald Albrecht  
Anesthesiology Service/Pain Clinic, Jesse Brown VA Medical Center, Chicago, IL, USA

**19. An "informational" healing program: introduction to the Pain Education School program at Jesse Brown VA Medical Center**

David Cosio, Erica Hugo, Ronald Albrecht  
Anesthesiology Service/Pain Clinic, Jesse Brown VA Medical Center, Chicago, IL, USA

**20. The medical borderline: personality characteristics that promote increased risk of opioid misuse**

Geralyn Datz<sup>1</sup>, Melissa Bonnell<sup>2</sup>, Toni Merkey<sup>3</sup>, Todd Sitzman<sup>4</sup>  
<sup>1</sup>Forrest General Hospital, Hattiesburg, MS, USA, <sup>2</sup>University of Southern Mississippi, Hattiesburg, MS, USA, <sup>3</sup>Advanced Pain Therapy, PLLC, Hattiesburg, MS, USA

**21. Test-Retest reliability of clinical sensory testing for sensorimotor polyneuropathy**

Joseph O. DiDuro, Thomas J. Burke  
Neuropathy Treatment Centers of America, Phoenix, AZ, USA

**22. A prospective study of changes in pain numeric rating scale with physiotherapy treatment for neuropathic pain**

Joseph O. DiDuro, Thomas Burke  
Neuropathy Treatment Centers of America, Phoenix, AZ, USA

**23. A randomized, double-blind, placebo-controlled discontinuation study of milnacipran for the treatment of fibromyalgia in patients receiving long-term milnacipran treatment**

Philip Mease<sup>1</sup>, Yimin Ma<sup>2</sup>, Arlene Baldecch<sup>3</sup>, Robert H. Palmer<sup>4</sup>, Joel M. Trugman<sup>5</sup>, Ian D'Souza<sup>6</sup>  
<sup>1</sup>Seattle Rheumatology Associates and Swedish Medical Center, Seattle, Washington, USA, <sup>2</sup>Forest Research Institute, Jersey City, New Jersey, USA

**24. A 3-year, open-label, flexible-dosing study of milnacipran for the treatment of fibromyalgia**

Lesley Arnold<sup>1</sup>, Allan Spera<sup>2</sup>, Arlene Baldecch<sup>3</sup>, Yong Wang<sup>4</sup>, Ian D'Souza<sup>5</sup>  
<sup>1</sup>University of Cincinnati College of Medicine, Cincinnati, USA, <sup>2</sup>Forest Research Institute, Jersey City, USA

**25. Assessing concomitant use of oxycodone formulations with known strong cytochrome P450 (CYP) 2D6 inhibitors in patients with chronic pain**

Natalie M. Elder<sup>1</sup>, Rabia S. Atayee<sup>2</sup>, Joseph D. Ma<sup>3</sup>, Bookie M. Best<sup>4</sup>, Amadeo J. Pesce<sup>5</sup>  
<sup>1</sup>University of California San Diego Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, La Jolla, CA, USA, <sup>3</sup>University of California San Diego Department of Pediatrics; Rady's Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>University of California San Diego Department of Pathology, La Jolla, CA, USA

**26. Perceiving pain in oneself and others: the influence of perspective and priming**

Samantha R. Fashler<sup>1</sup>, Kalie N. McCrystal<sup>2</sup>, Daniel Jones<sup>3</sup>, Judith Versloot<sup>4</sup>, Kenneth D. Craig<sup>5</sup>  
<sup>1</sup>University of British Columbia, Vancouver, BC, Canada, <sup>2</sup>University of Toronto, Toronto, ON, Canada

**27. Perceiving pain in sports injuries: behavioral, contextual and cognitive factors**

Kalie N. McCrystal<sup>1</sup>, Samantha R. Fashler<sup>2</sup>, Judith Versloot<sup>3</sup>, Kenneth D. Craig<sup>4</sup>  
<sup>1</sup>University of British Columbia, Vancouver, British Columbia, Canada, <sup>2</sup>University of Toronto, Toronto, Ontario, Canada

**28. Prescription adherence among chronic pain patients: does monitoring according to the SAFE USE treatment monitoring program clinical guidelines for chronic opioid therapy improve patient adherence?**

B. Baker Fore<sup>1</sup>  
<sup>1</sup>The Wellness Center, Ardmore, OK, USA, <sup>2</sup>Mercy Memorial Hospital, Ardmore, OK, USA

**29. Participation in a regional hydromorphone safety initiative**

Maria Foy, Maria Doll Shaw, Robert Giannini  
Abington Memorial Hospital, Abington, PA, USA

**30. When is more too much? A case of opioid induced neurotoxicity**

Maria Foy, Aalap Patel  
Abington Memorial Hospital, Abington, PA, USA

**31. Safety of diclofenac sodium topical solution compared with oral diclofenac for osteoarthritis of the knee in patients aged ≥65 years: pooled analysis from two controlled trials**

Sanford Roth<sup>1</sup>, Philip Fuller<sup>2</sup>  
<sup>1</sup>Arizona State University, Phoenix, AZ, USA, <sup>2</sup>Covidien, Hazelwood, MO, USA

**32. Efficacy of diclofenac sodium topical solution compared with oral diclofenac: a by-question analysis of 3 WOMAC® dimensions in patients with osteoarthritis of the knee**

Sanford Roth<sup>1</sup>, Philip Fuller<sup>2</sup>  
<sup>1</sup>Arizona State University, Phoenix, AZ, USA, <sup>2</sup>Covidien, Hazelwood, MO, USA

**33. Assessment of chronic pain, impact on quality of life, and medication use utilizing a patient questionnaire**

Dean Gianarkis<sup>1</sup>, Beth Vanderheyden<sup>1</sup>, Scott E. Glosner<sup>2</sup>, Maureen L. Blattner<sup>3</sup>, Peggy Lotkowitz<sup>4</sup>, Therese Cardoso<sup>5</sup>  
<sup>1</sup>Pfizer, Inc., New York, NY, USA, <sup>2</sup>Arthritis Foundation, West Allis, Wisconsin, Upper Midwest Region, USA, <sup>3</sup>Arthritis Foundation, Iselin, NJ, Northeast Region, USA, <sup>4</sup>Arthritis Foundation, Kankakee, IL, USA

**34. Bioavailability of crush-resistant oxycodone extended-release 40 mg with ethanol under fasted conditions**

William Fiske, Janet Jobes, Qinfang Xiang, Errol Gould, Irma Benedek  
Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

**35. Bioequivalence of crush-resistant oxycodone extended release 40 mg and oxycodone extended release 40 mg under fed conditions**

Irma Benedek, Janet Jobes, Qinfang Xiang, Errol Gould, William Fiske  
Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

**36. Effectiveness and safety of lidocaine 5% patch as add-on treatment in patients with allodynia caused by postherpetic neuralgia, diabetic neuropathy, or low back pain**

Srinivas Nalamachu<sup>1</sup>, Matthew S. Wieman<sup>2</sup>, Errol M. Gould<sup>3</sup>  
<sup>1</sup>International Clinical Research Institute, Overland Park, KS, USA, <sup>2</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

**37. Efficacy, safety, and tolerability of HZT-501, including users of low-dose aspirin (LDA), a single-tablet combination of ibuprofen-famotidine: results of two phase 3 trials**

Michael Weinblatt<sup>1</sup>, Mark Genovese<sup>2</sup>, Alan Kivitz<sup>3</sup>, Al Bello<sup>4</sup>, Amy Grahn<sup>5</sup>, Michael Schiff<sup>6</sup>  
<sup>1</sup>Harvard Medical School Division of Rheumatology, Boston, MA, USA, <sup>2</sup>Stanford University, Stanford, CA, USA, <sup>3</sup>Altoona Center for Clinical Research, Altoona, PA, USA, <sup>4</sup>Illinois Bone and Joint Institute, Glenview, IL, USA, <sup>5</sup>Horizon Pharma USA, Inc, Northbrook, IL, USA, <sup>6</sup>University of Colorado, Denver, CO, USA

**38. Long-term safety of an NSAID with built-in gastroprotection for treatment of pain and inflammation related to OA and RA: comparative results from blinded and open-label one-year safety trials of a single-tablet combination of ibuprofen-famotidine**

Jay Goldstein<sup>1</sup>, Sharad Lakhanpal<sup>2</sup>, Stanley Cohen<sup>3</sup>, Al Bello<sup>4</sup>, Amy Grahn<sup>5</sup>, Alan Kivitz<sup>6</sup>  
<sup>1</sup>University of Illinois, Chicago, IL, USA, <sup>2</sup>Metroplex Clinical Research Center, Dallas, TX, USA, <sup>3</sup>Illinois Bone and Joint Institute, Morton Grove, IL, USA, <sup>4</sup>Horizon Pharma USA, Inc, Northbrook, IL, USA, <sup>5</sup>Altoona Center for Clinical Research, Altoona, PA, USA

**39. An innovative Risk Evaluation and Mitigation Strategy (REMS) for Abstral, a transmucosal immediate-release fentanyl (TIRF) product**

Greg Guillory<sup>1</sup>, Anthony G. Oladipo<sup>2</sup>, Bridget O'Mahony<sup>3</sup>, Kristina Crockett<sup>4</sup>, Julian Howell<sup>5</sup>  
<sup>1</sup>ProStrakan, Inc., Bedminster, New Jersey, USA, <sup>2</sup>ProStrakan Group Plc., Galashiels TD1 1QH, UK, <sup>3</sup>RelayHealth Pharmacy, Atlanta, Georgia, USA

**40. Inter- and intrasubject variability of urinary norbuprenorphine to buprenorphine metabolic ratios in pain patients**

Alexander Y. Guo<sup>1</sup>, Rabia S. Atayee<sup>2</sup>, Joseph D. Ma<sup>3</sup>, Brookie M. Best<sup>4</sup>, Amadeo J. Pesce<sup>5</sup>  
<sup>1</sup>University of California, San Diego, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, La Jolla, CA, USA

**41. Gastrointestinal tolerability during conversion and titration with once-daily hydromorphone ER (OROS hydromorphone ER) in opioid-tolerant patients with chronic low back pain**

Martin Hale<sup>1</sup>, Srinivas Nalamachu<sup>2</sup>, Arif Khan<sup>3</sup>  
<sup>1</sup>Gold Coast Research, LLC., Weston, FL, USA, <sup>2</sup>International Clinical Research Institute, Overland Park, KS, USA, <sup>3</sup>Northwest Clinical Research Center, Bellevue, WA, USA

**42. Perceived pain, disability, and psychometric measures in neuropathic vs nociceptive pain**

Meryem Saracoglu<sup>1</sup>, Joseph R. Graciosa<sup>2</sup>, Maxine M. Kuroda<sup>3</sup>, R. Norman Harden<sup>4</sup>  
<sup>1</sup>Rehabilitation Institute of Chicago, Chicago, IL, USA, <sup>2</sup>Northwestern University Feinberg School of Medicine, Department of Physical Medicine & Rehabilitation, Chicago, IL, USA

**43. Providing optimal care to the chronic pain patient in the community pharmacy: a patient survey**

Erron Swick, Chris Herndon  
Southern Illinois University Edwardsville, Edwardsville, IL, USA

**44. Knowledge of chronic pain: an analysis of health literacy**

Jake Griffin, Radhika Devraj, Chris Herndon  
Southern Illinois University Edwardsville, Edwardsville, IL, USA

**45. Oral local anesthesia successfully ameliorated neuropathic pain in an upper limb, suggesting pain alleviation through neural plasticity within the central nervous system: a case report**

Jun Hozumi<sup>1</sup>, Masahiko Sumitani<sup>2</sup>, Arito Yozu<sup>3</sup>, Toshiya Tomioka<sup>4</sup>, Hiroshi Sekiyama<sup>5</sup>, Satoru Miyauchi<sup>6</sup>, Yoshitsugu Yamada<sup>7</sup>  
<sup>1</sup>Department of Anesthesiology and Pain Relief Center, The University of Tokyo Hospital, Tokyo, Japan, <sup>2</sup>Department of Rehabilitation Medicine, The University of Tokyo, The Graduate School of Medicine, Tokyo, Japan, <sup>3</sup>Kobe Advanced ICT Research Center, National Institute of Information and Communications Technology, Kobe, Japan

**46. Donepezil could reverse pregabalin/gabapentin-induced somnolence in patients with neuropathic pain**

Kiyoshi Ikegami<sup>1</sup>, Masahiko Sumitani<sup>2</sup>, Takamichi Kogure<sup>3</sup>, Kenji Azuma<sup>4</sup>, Hiroshi Sekiyama<sup>5</sup>, Satoru Miyauchi<sup>6</sup>, Yoshitsugu Yamada<sup>7</sup>  
<sup>1</sup>Department of Anesthesiology and Pain Relief Center, The University of Tokyo Hospital, Tokyo, Japan, <sup>2</sup>CREST brain function imaging team, Kobe Advanced ICT Research Center, National Institute of Information and Communications Technology, Hyogo, Japan

**47. Analysis of Pain Management Team patient survey**

Christine Kahley, Christine Higgins, Alisha Cain  
York Hospital, York, PA, USA

**49. Medication error reporting practices in hospice**

Mina Kim<sup>1</sup>, Mary Lynn McPherson<sup>2</sup>  
<sup>1</sup>University of Washington Medical Center, Seattle, WA, USA, <sup>2</sup>University of Maryland School of Pharmacy, Baltimore, MD, USA

**50. Incidence of hydromorphone associated opioid-induced neurotoxicity**

Justin Kullgren<sup>1</sup>, Vy Le<sup>2</sup>, Warren Wheeler<sup>3</sup>  
<sup>1</sup>Roseman University of Health Sciences, Henderson, NV, USA, <sup>2</sup>Nathan Adelson Hospice, Las Vegas, NV, USA

**51. Comparison of oral fluid and urine drug testing in a population of those with chronic pain**

Sergey Latyshev, David Masters-Moore, Charles Mikel Millennium Research Institute, San Diego, CA, USA

**52. Using quantitative urine drug levels to monitor adherence to chronic opioid therapy: a comparison across two pain populations**

Russell Portenoy<sup>1</sup>, Harry Leider<sup>2</sup>, Ariel Linden<sup>3</sup>, Kathryn Bronstein<sup>2</sup>, Laura Dhingra<sup>1</sup>, Helena Knotkova<sup>1</sup>, Ricardo Cruciani<sup>1</sup>

<sup>1</sup>Beth Israel Medical Center, New York, NY, USA, <sup>2</sup>Ameritox, Ltd., Baltimore, MD, USA, <sup>3</sup>Linden Consulting Group, LLC, Portland, OR, USA

**53. Healthcare provider perspectives on managing pain in the geriatric population**

Salma Lemtouni<sup>1</sup>, Kevin Zacharoff<sup>2</sup>, Karen Weiss<sup>1</sup>, Synne Wing Venut<sup>2</sup>, Pravin Pant<sup>2</sup>, Ryan Black<sup>2</sup>

<sup>1</sup>US Food and Drug Administration's Safe Use Initiative, Washington, DC, USA, <sup>2</sup>Inflexxion, Inc., Newton, MA, USA

**54. The distribution of diazepam urinary metabolites in a sample of patients with chronic pain**

Samantha O. Luk<sup>1</sup>, Rabia S. Atayee<sup>2</sup>, Joseph D. Ma<sup>1,2</sup>, Brookie M. Best<sup>3</sup>, Amadeo J. Pesce<sup>4,5</sup>

<sup>1</sup>University of California, San Diego (UCSD) Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, La Jolla, CA, USA

**55. A survey of ambulatory care pharmacist's perceptions and use of state controlled substance registries**

Karen Marlowe<sup>1,2</sup>, Emily MCCoy<sup>2</sup>

<sup>1</sup>Auburn University, Auburn, AL, USA, <sup>2</sup>University of South Alabama, Mobile, AL, USA

**56. Update on the safety of pharmaceutical-grade dimethyl sulfoxide as a penetration enhancer for diclofenac sodium topical solution**

Jeffrey Patrick, Karrie Marren

Covidien, Hazelwood, MO, USA

**57. Provider adherence to an institution-wide opioid therapy policy for patients with chronic noncancer pain in the primary care setting**

Michele Matthews<sup>1,2</sup>, Alexander Tinios<sup>1</sup>, Robert Jamison<sup>2</sup>, Edgar Ross<sup>2</sup>, Lori Tishler<sup>2</sup>

<sup>1</sup>Massachusetts College of Pharmacy and Health Sciences, Boston, MA, USA, <sup>2</sup>Brigham and Women's Hospital, Boston, MA, USA

**58. Lifestyle Redesign<sup>®</sup> for Chronic Headaches**

Susan McNulty, Soma Sahai-Srivastava

University of Southern California, Los Angeles, CA, USA

**59. Will the FDA's REMS for opioids become an Emerging Solution in Pain (ESP)?**

Bronwyn Boyes, Joan Meyer

MediCom Worldwide, Inc., Morrisville, PA, USA

**60. Effectiveness of nonpharmacological/noninterventional CBT based treatment for chronic pain**

Rick F. Meyers<sup>1</sup>, Kathy Savicki<sup>2</sup>, Janice Veehuizen<sup>1,2</sup>, Ed Daly<sup>1</sup>, Steven-Tackett Nelson<sup>1</sup>, Rebecca Ricoy<sup>1</sup>

<sup>1</sup>Mid-Valley Pain Clinic, Salem, OR, USA, <sup>2</sup>Behavioral Care Network, Salem, OR, USA, <sup>3</sup>Oregon Health and Sciences University, Portland, OR, USA

**61. A correlative study of the self-reported Ratings Determining Impairment Associated with Pain, from the AMA Guides Fifth Edition, and the clinician-derived Physical Performance Tests on Individuals with polytrauma history and with chronic pain: case series**

Armando Miciano<sup>1</sup>, Jacqueline Derhousoff<sup>1</sup>, Chad Cross<sup>2</sup>

<sup>1</sup>Nevada Rehabilitation Institute, Las Vegas, NV, USA, <sup>2</sup>University of Nevada, Las Vegas, NV, USA

**62. Direct medical costs of opioid management and the functional status of subjects with polytrauma history >two years and chronic noncancer pain: impact on healthcare utilization and life care planning**

Armando Miciano

Nevada Rehabilitation Institute, Las Vegas, NV, USA

**63. Quantification of skeletal muscle mass by Bioelectric Impedance Analysis in elderly individuals with chronic nonmalignant pain and in asymptomatic individuals and its relationships among impairments in gait and balance, functional limitations, and disability**

Armando Miciano

Nevada Rehabilitation Institute, Las Vegas, NV, USA

**64. The functional status due to Pain-Related Impairments, according to the AMA Guides Sixth Edition, and the physical performance status of subjects with a >two-year polytrauma history and with a spine impairment: a descriptive case study**

Armando Miciano<sup>1</sup>, Chad Cross<sup>2</sup>

<sup>1</sup>Nevada Rehabilitation Institute, Las Vegas, NV, USA, <sup>2</sup>University of Nevada, Las Vegas, NV, USA

**65. Determining the functional status, according to the AMA Guides Sixth Edition, Pain-Related Impairment, and physical performance of community-dwelling adults with osteopenia and with lower extremity pain**

Armando Miciano

Nevada Rehabilitation Institute, Las Vegas, NV, USA

**66. Direct medical costs of pain specialist visits, the multimorbidity burden, pain-related impairment, and the physical performance on subjects with polytrauma history >two years and chronic nonmalignant pain: impact on life care planning**

Armando Miciano

Nevada Rehabilitation Institute, Las Vegas, NV, USA

**67. Occipital nerve radiofrequency ablation for occipital neuralgia and associated headaches: report of two special medical condition cases**

Rafael Miguel, Christopher Russo

Pain Medicine Program, Department of Neurology, University of South Florida, Tampa, Florida, USA

**68. Therapeutic monitoring of benzodiazepines in the population of patients treated for pain: current limitations of inoffice immunoassays necessitate testing by mass spectrometry to assure accuracy**

Charles Mikel, Murray Rosenthal, Amadeo Pesce  
Millennium Research Institute, San Diego, CA, USA

### 69. Pain Paradox: clinician judgment for assessment and management of risks in chronic opioid therapy

James Miller, Howard A. Heit<sup>1</sup>, Douglas Gourlay<sup>2</sup>, John F. Peppin<sup>4</sup>, Carol Hampton<sup>5</sup>, Susan E. Miller<sup>6</sup>

<sup>1</sup>Educational Awareness Solutions, Norwalk, CT, USA, <sup>2</sup>Georgetown School of Medicine, Fairfax, VA, USA, <sup>3</sup>Wasser Pain Management Center, Mount Sinai Hospital, Toronto, ON, Canada, <sup>4</sup>The Pain Treatment Centers of the Bluegrass, Lexington, KY, USA, <sup>5</sup>Research and Outcomes Institute, South Norwalk, CT, USA

### 70. Breakthrough cancer pain in patients treated with fentanyl sublingual tablets: posthoc analyses of treatment response

Srinivas Nalamachu<sup>1</sup>, Richard L. Rauck<sup>2</sup>, Ann Yellowlees<sup>3</sup>, Greg Guillory<sup>4</sup>, Julian Howell<sup>5</sup>

<sup>1</sup>Mid America Psychiatrists, PA, Leawood, Kansas, USA, <sup>2</sup>Carolinas Pain Institute Center for Clinical Research, Winston-Salem, North Carolina, USA, <sup>3</sup>Quantics Consulting Ltd, Roslin EH25 9TT, UK, <sup>4</sup>ProStrakan, Inc., Bedminster, New Jersey, USA

### 71. Efficacy and safety of fentanyl buccal tablet compared with immediate-release oxycodone for the management of breakthrough pain in opioid-tolerant patients with chronic pain: a pooled analysis of two studies

Srinivas R. Nalamachu<sup>1</sup>, Arvind Narayana<sup>2</sup>, Craig Q. Earle<sup>3</sup>, Ronghua Yang<sup>4</sup>, Mark S. Wallace<sup>5</sup>

<sup>1</sup>Mid-America Psychiatrists, Overland Park, KS, USA, <sup>2</sup>Cephalon, Inc., Frazer, PA, USA, <sup>3</sup>University of California, San Diego, School of Medicine, La Jolla, CA, USA

### 72. The National Breakthrough Pain Survey (NBTPS): assessment of quality of life, functioning, and productivity

Arvind Narayana<sup>1</sup>, Nathaniel Katz<sup>2,3</sup>, Alicia C. Shillington<sup>4</sup>, Russell K. Portenoy<sup>5</sup>

<sup>1</sup>Cephalon, Inc., Frazer, PA, USA, <sup>2</sup>Tufts University School of Medicine, Boston, MA, USA, <sup>3</sup>Analgesic Solutions, Natick, MA, USA, <sup>4</sup>EPI-Q, Inc., Oak Brook, IL, USA, <sup>5</sup>Department of Pain Medicine and Palliative Care, Beth Israel Medical Center, New York, NY, USA

### 73. Aberrant drug-related behavior observed during a 12-week open-label study involving patients taking chronic opioid therapy for persistent pain and fentanyl buccal tablet or traditional short-acting opioid for breakthrough pain

Steven D. Passik<sup>1</sup>, Craig Q. Earle<sup>2</sup>, Ronghua Yang<sup>3</sup>

<sup>1</sup>Vanderbilt University Medical Center, Nashville, TN, USA, <sup>2</sup>Cephalon, Inc., Frazer, PA, USA

### 74. Exploring the economic impact of a pre-evaluation unit in a multidisciplinary pain clinic

Kenneth L. Kirsh<sup>1</sup>, Peter Wright<sup>2</sup>, John F. Peppin<sup>1,2</sup>

<sup>1</sup>The Pain Treatment Center of the Bluegrass, Lexington, Kentucky, USA, <sup>2</sup>Hospice of the Bluegrass, Lexington, Kentucky, USA, <sup>3</sup>The University of Kentucky, Lexington, Kentucky, USA

### 75. Functional assessment of chronic pain patients in a multidisciplinary pain clinic

John F. Peppin<sup>1,2</sup>, Steve Marcum<sup>3</sup>, Ashley Baughn<sup>4</sup>, Kenneth L. Kirsh<sup>5</sup>

<sup>1</sup>The Pain Treatment Center of the Bluegrass, Clinical Research Division, Lexington, Kentucky, USA, <sup>2</sup>Hospice of the Bluegrass, Lexington, Kentucky, USA, <sup>3</sup>The Pain Treatment Center of the Bluegrass, Behavioral Medicine, Lexington, Kentucky, USA, <sup>4</sup>The Pain Treatment Center of the Bluegrass, Physical Therapy Department, Lexington, Kentucky, USA

### 76. Effect of age and sex on the pharmacokinetics and metabolism of oxymorphone extended-release tablets

Joseph V. Pergolizzi<sup>1</sup>, Matthew S. Wieman<sup>2</sup>, Errol M. Gould<sup>3</sup>

<sup>1</sup>Naples Anesthesia and Pain Associates, Naples, FL, USA, <sup>2</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

### 77. Safety of oxymorphone extended release with selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors

John H. Peniston<sup>1</sup>, Susan Potts<sup>2</sup>, Xiaojun Hu<sup>3</sup>, Matthew S. Wieman<sup>4</sup>

<sup>1</sup>Feasterville Family Health Care Center, Jamison, PA, USA, <sup>2</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

### 78. Oxymorphone extended release in patients with depression

John H. Peniston<sup>1</sup>, Susan Potts<sup>2</sup>, Xiaojun Hu<sup>3</sup>, Matthew S. Wieman<sup>4</sup>

<sup>1</sup>Feasterville Family Health Care Center, Jamison, PA, USA, <sup>2</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

### 79. Effectiveness of a heated lidocaine/tetracaine topical patch in reducing pain intensity and pain interference associated with myofascial trigger points: results of an open-label pilot study

Richard Rauck<sup>1</sup>, Michael Busch<sup>2</sup>, Thomas Marriott<sup>3</sup>, Michael Smith<sup>4</sup>, James Heusner<sup>5</sup>

<sup>1</sup>Carolinas Pain Institute, Winston-Salem, NC, USA, <sup>2</sup>ZARS Pharma, Salt Lake City, UT, USA

### 80. A model to identify patients at risk for prescription opioid abuse, dependence, and misuse

J. Bradford Rice<sup>1</sup>, Alan G. White<sup>2</sup>, Howard G. Birnbaum<sup>3</sup>, Matthew B. Schiller<sup>4</sup>, David A. Brown<sup>5</sup>, Carl L. Roland<sup>6</sup>

<sup>1</sup>Analysis Group, Boston, MA, USA, <sup>2</sup>Pfizer, Inc., Cary, NC, USA

### 81. Safety and efficacy of once-daily hydromorphone ER (OROS hydromorphone ER) compared with twice-daily oxycodone CR over 52 weeks in patients with moderate to severe chronic noncancer pain

Ute Richarz<sup>1</sup>, Sandra Waechter<sup>2</sup>, Rainer Sabatowski<sup>3</sup>, Leszek Szczepanski<sup>4</sup>, Heinrich Binsfeld<sup>5</sup>

<sup>1</sup>Janssen-Cilag, Baar, Switzerland, <sup>2</sup>University Hospital Carl Gustav Carus, Technical University, Dresden, Germany, <sup>3</sup>Wyższa Szkoła Zarządzania i Administracji, Zamosc, Poland, <sup>4</sup>Schmerz-Zentrum am St. Franziskus Hospital Ahlen, Ahlen, Germany

### 82. Assessing a new educational strategy to improve postoperative pain management after discharge

Gary A. Rich

Adherent Health, Doylestown, PA, USA

### 83. Physician risk assessment for opioid therapy in patients with chronic pain: results from a national survey

Gregory Salinas<sup>1</sup>, Jill Foster<sup>2</sup>, Stephen Burton<sup>3</sup>, Nancy Roepke<sup>4</sup>, Debi Susalka<sup>5</sup>, Kimberly Evanyo<sup>6</sup>

<sup>1</sup>CE Outcomes, LLC, Birmingham, AL, USA, <sup>2</sup>Janssen Scientific Affairs, LLC, Raritan, NJ, USA

### 84. Clinician/patient interactions and counseling on opioid use: results from a national survey

Gregory Salinas<sup>1</sup>, Jill Foster<sup>2</sup>, Stephen Burton<sup>3</sup>, Nancy Roepke<sup>4</sup>, Debi Susalka<sup>5</sup>, Kimberly Evanyo<sup>6</sup>

<sup>1</sup>CE Outcomes, LLC, Birmingham, AL, USA, <sup>2</sup>Janssen Scientific Affairs, LLC, Raritan, NJ, USA

**85. Concurrent quantification of itch sensation and pain in patients with postherpetic neuralgia by PainVision**

Hiroshi Sekiyama<sup>1</sup>, Kazuo Hanaoka<sup>1,2</sup>, Takamichi Kogure<sup>1</sup>, Kenji Azuma<sup>1</sup>, Masahiko Sumitani<sup>1</sup>, Yoshitsugu Yamada<sup>1</sup>  
<sup>1</sup>Department of Anesthesiology, University of Tokyo, Tokyo, Japan, <sup>2</sup>Department of Anesthesiology, Tokyo, Japan

**86. Assessing the abuse potential of crushed EMBEDA® compared to crushed morphine sulfate controlled-release tablets and placebo in nondependent, recreational opioid users following intranasal administration**

Beatrice Setnik<sup>1</sup>, Jody Cleveland<sup>1</sup>, Veeraindar Goli<sup>1</sup>, Naama Levy-Cooperman<sup>2</sup>, Ira Smith<sup>2</sup>  
<sup>1</sup>Pfizer Inc., Cary, NC, USA, <sup>2</sup>Kendle Early Phase, Toronto, ON, Canada

**87. Self reports of prescription opioid misuse, abuse and diversion in a sample of chronic pain patients treated in primary care settings: preliminary findings**

Beatrice Setnik, David Brown, Carl Roland  
Pfizer Inc., Cary, NC, USA

**88. A biomarker panel to assess depression in pain patients**

Joseph Shurman<sup>1</sup>, George Koob<sup>2</sup>, Rosa Navarro<sup>3</sup>, Brett Shurman<sup>2</sup>, Katie Smith<sup>4</sup>, John Bilello<sup>4</sup>  
<sup>1</sup>Scripps Memorial Hospital, San Diego, CA, USA, <sup>2</sup>Scripps Research Institute, LaJolla, CA, USA, <sup>3</sup>Navarro Pain Control Group, Inc., San Diego, CA, USA, <sup>4</sup>Ridge Diagnostics, Inc, San Diego, CA, USA, <sup>5</sup>12401 Wilshire Blvd, Los Angeles, CA, USA

**89. Ischemic ulcer pain includes not only nociceptive pain but neuropathic pain components, based on a discriminant function analysis using McGill Pain Questionnaire**

Takamichi Kogure<sup>1</sup>, Masahiko Sumitani<sup>1</sup>, Arito Yozu<sup>2</sup>, Hironobu Uematsu<sup>3</sup>, Satoru Miyauchi<sup>4</sup>, Yoshitsugu Yamada<sup>1</sup>  
<sup>1</sup>Department of Anesthesiology and Pain Relief Center, The University of Tokyo Hospital, Tokyo, Japan, <sup>2</sup>Department of Rehabilitation Medicine, The University of Tokyo, Graduate School of Medicine, Tokyo, Japan, <sup>3</sup>Department of Acute Critical Medicine (Anesthesiology), Osaka University, Graduate School of Medicine, Osaka, Japan, <sup>4</sup>Kobe Advanced ICT Research Center, National Institute of Communications and Technology, Kobe, Japan

**90. Prevalence of CYP450 drug-drug exposures among oxycodone CR patients**

Joseph V. Pergolizzi<sup>1</sup>, Sumedha Labhsetwar<sup>2</sup>, Kent Summers<sup>3</sup>, R. Amy Puenpatom<sup>3</sup>, Rami Ben-Joseph<sup>3</sup>, Chunmay Fu<sup>3</sup>  
<sup>1</sup>Naples Anesthesia and Pain Associates, Naples, FL, USA, <sup>2</sup>Nema Research Inc., Naples, FL, USA, <sup>3</sup>Endo Pharmaceuticals Inc., Chadds Ford, PA, USA

**91. Comparison of ECG and Holter monitoring QTc interval measurements in patients with increased risk for QTc prolongation**

Arun Sundaram<sup>1</sup>, Arash Nafissi<sup>2</sup>, Paul Schweitzer<sup>1</sup>, Ella Dvorkin<sup>1</sup>, Peter Homel<sup>1</sup>, Daniel Feldman<sup>1</sup>, Russell Portenoy<sup>1,2</sup>, Ricardo Cruciani<sup>1,2</sup>  
<sup>1</sup>Dept Pain Medicine and Palliative Care, Beth Israel Medical Center, New York, New York, USA, <sup>2</sup>Dept Neurol & Anesth, Albert Einstein College of Medicine, Bronx, New York, USA, <sup>3</sup>Dept P&MR, New York University, New York, New York, USA

**92. Usability of an experiential course to educate medical students in proper use of opioids in the treatment of pain**

Bradley Tanner, Mary Metcalf, Susan Wilhelm  
Clinical Tools, Inc, Chapel Hill, NC, USA

**93. Improvement in sleep maintenance and early morning awakenings in adult and elderly patients with insomnia treated with doxepin 3 and 6 mg**

Robert Taylor<sup>1</sup>, Joseph Pergolizzi<sup>2</sup>, H Heith Durrence<sup>3</sup>, Brian Dorsey<sup>4</sup>, Roberta Rogowski<sup>1</sup>, Thomas Roth<sup>1</sup>  
<sup>1</sup>NEMA Research Inc., Naples, FL, USA, <sup>2</sup>Johns Hopkins University School of Medicine, Baltimore, MD, USA, <sup>3</sup>Somaxon Pharmaceuticals, San Diego, CA, USA, <sup>4</sup>Henry Ford Sleep Disorders Center, Detroit, MI, USA

**94. Consistency of symptom improvement in elderly adults with chronic insomnia treated with doxepin 1 mg, 3 mg, and 6 mg**

Robert Taylor<sup>1</sup>, Joseph Pergolizzi<sup>2</sup>, H Heith Durrence<sup>3</sup>, Roberta Rogowski<sup>1</sup>, Thomas Roth<sup>1</sup>  
<sup>1</sup>NEMA Research Inc, Naples, FL, USA, <sup>2</sup>Johns Hopkins University School of Medicine, Baltimore, MD, USA, <sup>3</sup>Somaxon Pharmaceuticals, San Diego, CA, USA, <sup>4</sup>Henry Ford Sleep Disorders Center, Detroit, MI, USA

**95. Topical corticosteroid administration by pulsed radiofrequency energy**

Forest Tennant  
Veract Intractable Pain Clinic, West Covina, CA, USA

**96. Chorionic gonadotropin initial doses for intractable pain**

Forest Tennant  
Veract Intractable Pain Clinic, West Covina, CA, USA

**97. Endocrine findings and serum opioid levels after 20 years of therapy**

Forest Tennant  
Veract Intractable Pain Clinic, West Covina, CA, USA

**98. Weekly response following a single administration of Qutenza®, an 8% capsaicin patch, in patients with postherpetic neuralgia: results of integrated analyses**

Lynn R. Webster<sup>1</sup>, Gordon Irving<sup>2</sup>, Miroslav Backonja<sup>1</sup>, Jeffrey Tobias<sup>3</sup>, Geertrui F. Vanhove<sup>3</sup>  
<sup>1</sup>LifeTree Clinical Research, Salt Lake City, UT, USA, <sup>2</sup>Swedish Pain Center, Seattle, WA, USA, <sup>3</sup>NeurogesX, San Mateo, CA, USA

**99. Factors that may affect carisoprodol metabolism by cytochrome P450 (CYP) 2C19 in pain patients using urinary excretion data**

Stephanie Tse<sup>1</sup>, Rabia Atayee<sup>1,2</sup>, Joseph Ma<sup>1,2</sup>, Brookie Best<sup>1,3</sup>, Amadeo Pesce<sup>4,5</sup>  
<sup>1</sup>University of California, San Diego (UCSD), Skaggs School of Pharmacy & Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, La Jolla, CA, USA

**100. A repeat-dose, steady-state pharmacokinetic evaluation of once-daily hydromorphone ER (OROS hydromorphone ER) in patients with chronic cancer or noncancer pain**

Joris Vandenbossche<sup>1</sup>, Ute Richarz<sup>2</sup>, Henry Richards<sup>3</sup>  
<sup>1</sup>Johnson & Johnson Pharmaceutical Research & Development, Beerse, Belgium, <sup>2</sup>Janssen-Cilag, Baar, Switzerland, <sup>3</sup>Johnson & Johnson Pharmaceutical Research & Development, Titusville, NJ, USA

**101. Characterization of the pharmacokinetic profile of single-dose once-daily hydromorphone ER (OROS hydromorphone ER) vs IR hydromorphone administered over 24 hours in healthy subjects**

Ute Richarz<sup>1</sup>, Joris Vandenbossche<sup>2</sup>, Michael Kutch<sup>3</sup>, Todd Moore<sup>4</sup>

<sup>1</sup>Janssen-Cilag, Baar, Switzerland, <sup>2</sup>Johnson & Johnson Pharmaceutical Research & Development, Beerse, Belgium, <sup>3</sup>Applied Clinical Intelligence, Bala Cynwyd, PA, USA, <sup>4</sup>Johnson & Johnson Pharmaceutical Research & Development, Titusville, NJ, USA

## 102. Characterization of the steady-state pharmacokinetic profile of once-daily hydromorphone ER (OROS hydromorphone ER) vs IR hydromorphone in healthy subjects

Ute Richarz<sup>1</sup>, Joris Vandenbossche<sup>2</sup>, Michael Kutch<sup>3</sup>, Todd Moore<sup>4</sup>

<sup>1</sup>Janssen-Cilag, Baar, Switzerland, <sup>2</sup>Johnson & Johnson Pharmaceutical Research & Development, Beerse, Belgium, <sup>3</sup>Applied Clinical Intelligence, Bala Cynwyd, PA, USA, <sup>4</sup>Johnson & Johnson Pharmaceutical Research & Development, Titusville, NJ, USA

## 103. TD-1211 demonstrates peripheral selectivity and constipation-relieving effects in patients with opioid-induced constipation

Ross Vickery<sup>1</sup>, Yu-Ping Li<sup>2</sup>, Roger Kohler<sup>3</sup>, Lynn Webster<sup>4</sup>, Neil Singla<sup>5</sup>, Oranee Daniels<sup>6</sup>

<sup>1</sup>Theravance, Inc., South San Francisco, CA, USA, <sup>2</sup>Lifetree Clinical Research, Inc., Salt Lake City, UT, USA, <sup>3</sup>Lotus Clinical Research, Inc., Pasadena, CA, USA

## 104. The impact of health literacy on chronic pain

Julie Waldfogel, Meredith Adams, Robert Hurley

University of Florida, Gainesville, Florida, USA

## 105. Butrans® (buprenorphine) transdermal system (BTDS) improves health-related quality of life in patients with moderate-to-severe chronic low back pain

Aaron Yaras<sup>1</sup>, Warren Wen<sup>2</sup>, Maribeth Kowalski<sup>3</sup>, Shau Yu Lynch<sup>4</sup>, Bradley Dain<sup>5</sup>, Steven Ripa<sup>6</sup>

<sup>1</sup>QualityMetric, Inc., Lincoln, RI, USA, <sup>2</sup>Purdue Pharma LP, Stamford, CT, USA

## 106. Butrans® (buprenorphine) Transdermal System (BTDS) improves sleep quality and reduces sleep problems in patients with moderate-to-severe chronic low back pain

Aaron Yaras<sup>1</sup>, Warren Wen<sup>2</sup>, Maribeth Kowalski<sup>3</sup>, Shau Yu Lynch<sup>4</sup>, Bradley Dain<sup>5</sup>, Steven Ripa<sup>6</sup>

<sup>1</sup>QualityMetric, Inc., Lincoln, RI, USA, <sup>2</sup>Purdue Pharma LP, Stamford, CT, USA

## 107. Observations on the urinary metabolic profile of codeine in patients with chronic pain

David Yee<sup>1</sup>, Rabia Atayee<sup>2</sup>, Joseph Ma<sup>3</sup>, Brookie Best<sup>4</sup>, Amadeo Pesce<sup>5</sup>

<sup>1</sup>University of California San Diego (UCSD), Skaggs School of Pharmacy & Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, La Jolla, CA, USA

## 108. painACTION.com: Web-based support to self-manage neuropathic pain

Kevin Zacharoff, Jonas Bromberg, Synne Venuti, Mollie Wood, Dan Surette

Inflexion, Inc., Newton, MA, USA

## 109. Survey of healthcare providers on clinical technology and transition to electronic opioid risk assessments

K.L. Zacharoff, S.F. Butler, M. Wood, S. Charity, S. Budman

Inflexion, Inc., Newton, MA, USA

## 110. Pharmacokinetic interaction between the opioid-analgesic fentanyl and the CYP3A inhibitor ketoconazole

Victoria Ziesenitz<sup>1</sup>, Sonja Koenig<sup>2</sup>, Nina Mahlke<sup>3</sup>, Gisela Skopp<sup>4</sup>, Juergen Burhenne<sup>5</sup>, Gerd Mikus<sup>6</sup>

<sup>1</sup>Department of Clinical Pharmacology and Pharmacoepidemiology, University of Heidelberg, Heidelberg, Germany, <sup>2</sup>Institute of Legal Medicine, University of Heidelberg, Heidelberg, Germany

## 111. Observations of oxycodone coprescriptions and nonreported prescription medications in a population of those with chronic pain

Elizabeth Gonzales, Murray Rosenthal, Amadeo Pesce, Charles Mikel, Robert West, Cameron West, Sergey Latyshev, Perla Almazan

Millennium Research Institute, San Diego, USA

## 112. Variability of meperidine metabolism and excretion in patients with chronic pain

Kathleen Moy<sup>1</sup>, Rabia Atayee<sup>2</sup>, Joseph Ma<sup>3</sup>, Brookie Best<sup>4</sup>, Amadeo Pesce<sup>5</sup>

<sup>1</sup>University of California San Diego (UCSD), Skaggs School of Pharmacy and Pharmaceutical Sciences, La Jolla, CA, USA, <sup>2</sup>Doris A. Howell Palliative Care Service, San Diego, CA, USA, <sup>3</sup>UCSD Department of Pediatrics, Rady Children's Hospital, San Diego, CA, USA, <sup>4</sup>Millennium Research Institute, San Diego, CA, USA, <sup>5</sup>Department of Pathology and Laboratory Medicine, UCSD School of Medicine, La Jolla, CA, USA