

Neonatal Opioid Withdrawal Syndrome Workshop

January 10, 2018

NIDA, 6001 Executive Blvd, Rockville, Maryland 20852

Agenda

- 8:30 am** Greetings and Welcome: Rita Valentino, PhD. Director of Division of Neuroscience and Behavior, NIDA
- 8:35 am** Meeting Overview and Objectives: Da-Yu Wu, PhD. NIDA
- 8:45 am** Keynote Speech: Loretta Finnegan, MD. Executive Officer, CPDD
NAS: Progress and Future Challenges.
- 9:25 am** Presentation: Mishka Terplan, MD. Virginia Commonwealth University
Overview of treatment for pregnant woman with opioid use disorders.
- 9:55 am** Presentation: Henrietta Bada, MD. University of Kentucky
Short and long-term outcomes of maternal opioid exposure in infants and children.
- 10:25 am – 10:40 am** Break
- 10:40 am** Presentation: Jonathan Davis, MD. Tufts University
Genetic and genomic risk factors of neonatal opioid withdrawal syndrome.
- 11:10 am** Panel Discussion I: Clinical and Translational Research – Challenges and Future Directions (90 min)
Chair: Geetha Subramaniam, MD. NIDA
Panel Members: Jonathan Davis, MD. Tufts University
Loretta Finnegan, MD, CPDD
Uma Reddy, MD. NICHD
Henrietta Bada, MD. Kentucky University
Julie Blendy, PhD. University of Pennsylvania
Yingxian Pan, PhD. Memorial Sloan Kettering
Tim Ragan, PhD. TissueVision, Inc.
Walter Kraft, MD. Jefferson University
Lindsay Farrer, PhD. Boston Medical Center
- 12:10 pm** Lunch break (on your own. Catering order information provided on third page, \$16.49 pp)
- 1:10 pm** Wilson Compton, MD, MPE: Congress, HHS and NIDA Program Interest in NOWS.
- 1:20 pm** Karen Sirocco, PhD: ECHO and NOWS.
- 1:40 pm** Panel Discussion II: Opioids in brain and cognitive development - Genetics and Animal Models
Chair: Roger Sorensen, PhD. NIDA
Research Projects (20 min presentation, 30 min debates, critiques and recommendations)
- 1:40 – 2:30 pm:** Julie Blendy, PhD, University of Pennsylvania Perelman School of Medicine
Validating cellular and molecular studies of animal models for neonatal abstinence syndrome.
- 2:30 – 3:20 pm:** Liz Conradt, PhD. University of Utah
Identifying placental cytosine methylation and neurodevelopmental treatment targets for prenatal opioid exposure
- 3:20 – 4:10 pm:** Elisha Wachman, MD. Boston Medical Center
Neonatal Opioid Withdrawal Syndrome: Moving Forward with Genomics Research in a Shifting Clinical Framework.
- 4:10 pm** Concluding Remarks.
- 4:20 pm** Adjourn.

Panel Discussion Questions

Sample Discussion Topics for Panel Discussion I:

- Are there critical periods of gestation where exposure to opioids is more problematic? Does it differ by type and dose of opioid used by pregnant mother? How is exposure of these drugs to the fetus measured?
- How is NOWS reliably measured at birth? What are the quantitative measurement for NOWS?
- How do confounds: nutrition, environmental toxins, alcohol and other drugs (e.g. nicotine, prescription medications such as antidepressants, illicit substances, etc.) impact the diagnosis and treatment of NOWS?
- Can you reduce the impact on neonate, infant and toddler, by tailoring and standardizing the treatment of pregnant women and post-partum mothers?
- What are the novel treatment options for NOWS? What are the efforts to standardize care? How does this impact brain development in infancy and subsequent developmental stages?
- How to overcome obstacles in recruiting mother/infant dyads for genetic and genomic research?
- How accessible is electronic medical record for NOWS? How can this access be improved for NOWS research?
- Are there sufficient power/numbers of NOWS cases for GWAS or whole genome sequencing?
- How do you plan to study the genetic and genomic risk factors for NOWS and for the variation of the severity of NOWS after maternal opioid exposure?
- What are the most effective cellular, molecular and anatomical approaches in studying NOWS?

Sample Discussion Topics for Panel Discussion II:

- What are the confounding factors in studying maternal opioid exposure to the developing brain?
- What are strategies that leverage genetic data on opioid withdrawal syndromes in animal models?
- What are the genetic and epigenetic changes induced by opioids and opioid antagonists? Are these changes long term? What are the consequences in adolescents and in later life?
- How and why does maternal opioid exposure affect fetal brain development?
- How and why fetal brain disorders induced by opioid or opioid antagonists cause long term brain and cognition damages? How can these be studied?

Invitees and Participants

Henrietta Bada, University of Kentucky (speaker)

Gordon Barr, Children's Hospital of Philadelphia

Julie Blendy, U. Penn (speaker)

Camron Bryant, Boston Medical Center

Liz Conradt, U. Utah (speaker)

Jonathan Davis, Tufts U. (speaker)

Amelia Eisch, Children's Hospital of Phil. (speaker)

Michelle Ehrlich, Mt. Sinai School of Medicine

Lindsay Farrer, Boston Medical Center

Loretta Finnegan, CPDD (speaker)

Lauren Jansson, JHU

Walter Kraft, Jefferson U.

Barry Lester, Brown U. (speaker)

Yingxian Pan, Memorial Sloan Kettering

Tim Ragan, TissueVision, Inc.

Uma Reddy, NICHD

Zhaoxia Ren, NICHD

Karen Sirocco, NIDA

Roger Sorensen, NIDA

Geetha Subramaniam, NIDA

Mishka Terplan, VCU (speaker)

Rita Valentino, NIDA

Elisha Wachman, Boston Medical Center (speaker)

Da-Yu Wu, NIDA