NIAAA Director’s Report

On Institute Activities to the 134th Meeting of the National Advisory Council on Alcohol Abuse and Alcoholism

Kenneth R. Warren, Ph.D.
Acting Director National Institute on Alcohol Abuse and Alcoholism

Thursday, September 19, 2013
Rockville, Maryland
<table>
<thead>
<tr>
<th></th>
<th>FY 2013 Enacted Base*</th>
<th>FY 2014 Requested Level</th>
<th>FY 2014 Senate Total, NIAAA (In Thousands of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, NIAAA (In Thousands of Dollars)</td>
<td>432,994</td>
<td>463,848</td>
<td>460,765</td>
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<tr>
<td>Change from FY 2013 Enacted</td>
<td></td>
<td></td>
<td>6.41%</td>
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<tr>
<td>Change from FY 2014 Requested</td>
<td></td>
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<td>-0.6%</td>
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On July 11, 2013, the Senate Appropriations Committee reported out S. 1284, the FY2014 Labor, HHS, Education Appropriations bill. The bill has been placed on the Senate Calendar. The Senate recommended funding NIAAA for FY14 at $460.7 million, a $3.1 million (0.6% decrease) from the requested level.
NIH Program Level in Appropriated Dollars and Constant 1998 Dollars

![Bar chart showing NIH program level in appropriated dollars and constant 1998 dollars from FY 1998 to FY 2013 Post-Sequester.](image)

- **Y-axis:** (In Millions)
- **X-axis:** Fiscal Year (FY) 1998 to FY 2013 Post-Sequester

Legend:
- Blue: Appropriation
- Orange: Appropriation in 1998 Dollars

**Source:** NIH Center for Scientific Review
Scientific Research & Development Spending Change from 2012 to 2013

China

Germany

Japan

S. Korea

Canada

U.S.

Source: Biology Boom Goes Bust.
Cell 154, July 3, 2013
**Ms. Kathleen Tepas-Wise** recently joined the Office of Science Policy as NIAAA’s Legislative Coordinator following completion of NIH’s Management Intern (MI) Program. Her responsibilities within the Science Policy Branch will include tracking legislation, coordinating courtesy visits by the incoming NIAAA Director to The Hill, and working with the Communications Branch and public liaison groups to increase the visibility of NIAAA. Prior to entering the MI Program, Ms. Tepas-Wise served as a nurse in the NIH Clinical Center.

**Ms. LaToya S. Sewell** of the United States Public Health Service joins NIAAA as a Family Nurse Practitioner for the Laboratory of Clinical and Translational Studies (LCTS). Before coming to NIAAA she served as a Nurse Practitioner in the Clinical Neurocardiology Section at NINDS working with patients with autonomic function disorders. In her new position she is the Clinical provider for LCTS outpatient service.
## Director’s Activities

**Kenneth R. Warren, Ph.D., Calendar of Activities**  
**June – December 2012**

<table>
<thead>
<tr>
<th>Title of Activity</th>
<th>Date</th>
<th>Director’s Role</th>
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<tbody>
<tr>
<td>36th Annual Research Society on Alcoholism (RSA) Scientific Meeting</td>
<td>June 22-26, 2013</td>
<td>Speaker</td>
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<tr>
<td>HHS Behavioral Health Coordinating Committee</td>
<td>July 24, 2013</td>
<td>Participant</td>
</tr>
<tr>
<td>Rivne Diagnostic Center and Danylo Halytsky Lviv National Medical University – Lviv, Ukraine</td>
<td>September 4-7, 2013</td>
<td>Speaker</td>
</tr>
<tr>
<td>14th Congress of European Society for Biomedical Research on Alcoholism (ESBRA) – Warsaw, Poland</td>
<td>September 8-11, 2013</td>
<td>Speaker</td>
</tr>
<tr>
<td>NIAAA National Advisory Council</td>
<td>September 18-19, 2013</td>
<td>Chairperson</td>
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*Meeting with the Rector of Danylo Halytsky Lviv National Medical University, Prof. Borys Zimenkovsky in Lviv, Ukraine.*
New RFA’s/PA’s

√ PAR 11-346 (R01): Interventions for Health Promotion and Disease Prevention in Native American Populations

√ PAR-13-233 (R01): Chronic Inflammation and Age-related Disease

√ PAR-12-237 (R24): Alcohol Research Resource Awards

√ PA-13-262/263 (R01/R21): Implications of New Digital Media Use for Underage Drinking, Drinking-Related Behaviors, and Prevention Research
In September, NIAAA recognized **International Fetal Alcohol Spectrum Disorders (FASD) Awareness Day**, which takes place each year on September 9. The event serves as a reminder that drinking during pregnancy is the leading preventable cause of birth defects and developmental disabilities in the U.S.

A **new permanent exhibit showcasing NIAAA** was installed on May 24th in Building 31 on NIH’s main campus.

In July and August, as an addition to the seasonal outreach effort, NIAAA ran a series of **outdoor ads** in select locations across the mid-Atlantic region. The billboards complemented and extended the themes and colorful graphics of the summer safety fact sheets.
See pp. 10 – 13 for NIAAA scientists in the news and recent press releases.
The 18th Annual Mark Keller Award and Lecture will be held October 22, 2013 at 1:30 – 3:30 p.m. in NIH’s Mazur Theater. This year’s recipient, Dr. Edith V. Sullivan will present a lecture entitled, “Functional Compromise and Compensation in Alcoholism: Neuropsychology Meets Neuroimaging.”
• The annual meeting of the Research Society on Alcoholism was held June 22-26. NIAAA staff chaired many symposia and satellite sessions. For details of these and other staff activities, go to p. 13 of the Director’s Report.

NIAAA research advances are listed on pp. 18 – 31 of the report.
NIH and the BRAIN Initiative

BRAIN Research through Advancing Innovative Neurotechnologies

Presentation at NIAAA Council

September 19, 2013
“The Next Great American Project”

Learning the Language of the Brain
Brain Disorders Affect Us All

- **Neurodegenerative** disorders
  - Alzheimer’s, Parkinson’s, ALS, Huntington’s...
  - Annual cost of dementia care in the U.S. is ~200 billion

- **Cognitive and affective** disorders
  - Schizophrenia, Bipolar Disorder, Depression, Anxiety, OCD, ...

- **Addictive Disorders**

- **Neurodevelopmental disorders**
  - Autism, Attention-deficit disorder, Epilepsy, Intellectual disability, FASD...

- **Injury- and insult-induced** disorders
  - PTSD, Traumatic brain injury, Stroke...
We know that the Science Is Ready

- Progress in neuroscience is yielding new insights into brain structure and function

- Progress in optics, genetics, nanotechnology, informatics, etc. is rapidly advancing the design of new tools
There are Advances in Understanding Brain Structure

Human Connectome (Wedeen et al., 2012)
And Advances in Understanding Brain Function

21 transient co-activation networks (U-Minn/Was U)
Making the Next Leap

• Despite these advances, we are still limited in our ability to understand how the brain encodes, stores, and retrieves information.

• New levels of understanding will be achieved through sophisticated tools and technologies capable of assessing:
  – How the parts of the brain work together to generate patterns of activity.
  – How these patterns of activity are translated into thoughts, behaviors, and emotions.
  – How experience alters the brain’s organization.
“So there is this enormous mystery waiting to be unlocked, and the BRAIN Initiative will change that by giving scientists the tools they need to get a dynamic picture of the brain in action and better understand how we think and how we learn and how we remember. And that knowledge could be – will be – transformative.”

~President Obama, April 2, 2013
BRAIN Initiative: Goals

• Accelerate development, application of innovative technologies to construct dynamic picture of brain function that integrates neuronal and circuit activity over time and space

• Build on growing scientific foundation – neuroscience, genetics, physics, engineering, informatics, nanoscience, chemistry, mathematics, etc. – to catalyze interdisciplinary effort of unprecedented scope
# BRAIN Initiative: Partners

## FY2014 Investments

<table>
<thead>
<tr>
<th>Government Agencies</th>
<th>$ in Millions</th>
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<tbody>
<tr>
<td>National Institutes of Health</td>
<td>$40</td>
</tr>
<tr>
<td>Defense Advanced Research Projects Agency</td>
<td>$50</td>
</tr>
<tr>
<td>National Science Foundation</td>
<td>$20</td>
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<table>
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<tr>
<th>Private Organizations</th>
<th>$ in Millions</th>
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<tbody>
<tr>
<td>Allen Institute for Brain Science</td>
<td>$60</td>
</tr>
<tr>
<td>Howard Hughes Medical Institute</td>
<td>$30</td>
</tr>
<tr>
<td>Salk Institute for Biological Studies</td>
<td>$28</td>
</tr>
<tr>
<td>The Kavli Foundation</td>
<td>$4</td>
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</tbody>
</table>
NIH and BRAIN: *How will it work?*

- Plan to be developed by NIH Advisory Council to the Director BRAIN Working Group
  - Selected for visionary leadership, expertise
  - Charged with articulating scientific goals, developing plan
    - Including timetables, milestones, costs
NIH and BRAIN: NIH Working Group

Cornelia Bargmann, PhD (co-chair)
The Rockefeller University

Bill Newsome, PhD (co-chair)
Stanford University

David Anderson, PhD
California Institute of Technology

Emery Brown, MD, PhD
Massachusetts Institute of Technology

Karl Deisseroth, MD, PhD
Stanford University

John Donoghue, PhD
Brown University

Peter MacLeish, PhD
Morehouse School of Medicine

Eve Marder, PhD
Brandeis University

Richard Normann, PhD
University of Utah

Joshua Sanes, PhD
Harvard University

Mark Schnitzer, PhD
Stanford University

Terry Sejnowski, PhD
Salk Institute for Biological Studies

David Tank, PhD
Princeton University

Roger Tsien, PhD
University of California, San Diego

Kamil Ugurbil, PhD
University of Minnesota

EX OFFICIO MEMBERS
Kathy Hudson, PhD
National Institutes of Health

Geoffrey Ling, MD, PhD
Defense Advanced Research Projects Agency

John Wingfield, PhD
National Science Foundation
NIH and BRAIN: *How will it work?*

- Plan to be developed by NIH Advisory Council to the Director BRAIN Working Group
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- NIH BRAIN Working Group will
  - Seek broad input; hold open meetings, workshops
  - Deliver interim report on high-priority areas for FY14 funding in summer 2013; final report, June 2014

- Informed by experts across sectors and disciplines; assisted by NIH Blueprint for Neuroscience Research
Features of the BRAIN Initiative

• Potential for wide-ranging benefits
  – Dedicated to providing tools to enhance many areas of research
  – Should provide methods for deeper understanding of all brain disorders
• Identify proactively a set of core ethical standards to both
  – Guide neuroscience research
  – Address ethical dilemmas raised by application of findings

• Engage a wide range of constituencies, including scientists, ethicists, legal scholars, and members of the public to ensure findings reflect and strengthen our values as a Nation
Collaborative Research on Addiction at NIH (CRAN) (Formerly known as Functional Integration)
Leaders at NIAAA, NIDA, and NCI have formed a **CRAN Steering Committee** that will guide integration efforts undertaken by the **CRAN Coordination Committee (CCC)**, which consists of representatives from the three ICs.

Members are:
- Susan Weiss (NIDA)
- Kevin Conway (NIDA)
- Denny Pintello (NIDA)
- MicheleBloch (NCI)
- Yvonne Hunt (NCI)
- Casey Dicocco (NCI)
- Lorraine Gunzerath (NIAAA)

The CCC, established in April 2013, is meeting regularly to coordinate:
1) FY 14/15 FOA proposals
2) Development of a website
3) Joint Council Meeting (Feb 5, 2014)
4) Other short- and long-term plans for the CRAN (e.g., training, evaluation)
Mission

To provide a strong collaborative framework to enable NIAAA, NIDA, and NCI to integrate resources and expertise to advance substance use, abuse and addiction science research and public health outcomes.

IC CRAN Contributions

- NIDA 70%
- NIAAA 25%
- NCI 4%
- Others 1%
FY 14 CRAN FOAs

Revision Applications to Promote Collaborative Research on Addiction at NIH (CRAN): Comorbidity-Related Research (R01) RFA-DA-14-014

Issued: July 15, 2013; Open Date: August 24, 2013; App. Due Date: Sept 24, 2013.

Limited to R01 parent grants
Letters of Intent were due in August:
   6 received (3 NIAAA parent grants, 3 NIDA parent grants, 0 from NCI)
$ 3 Million allocated to this FOA

Administrative Supplements to Promote Collaborative Research on Addiction at NIH (CRAN): Comorbidity-Related Research (Admin Supp)

Issued: July 15, 2013; Open Date: August 24, 2013; App. Due Date September 24, 2013

Various R, P, and U mechanisms are eligible
Many inquiries received by each of the 3 ICs -- no applications actually received yet, as due date is next week
$ 2 Million allocated to this FOA; given the limited response to the Competitive Supplement,
   the excess dollars from there will likely be moved to fund more of these Admin Supplements
Ultimately, CRAN will:

foster more effective communication between Institute staff, and improve collaboration and knowledge exchange among diverse scientific communities through both formal and informal collaborations. The end result will be a seamless and comprehensive approach to prevention and treatment of all substance use, abuse, and addiction; and comorbidities.
Special thanks to
Susan Weiss, Ph.D., NIDA Associate Director for Scientific Affairs
for selected slides