National Institutes of Health
Office of Behavioral and Social Sciences Research

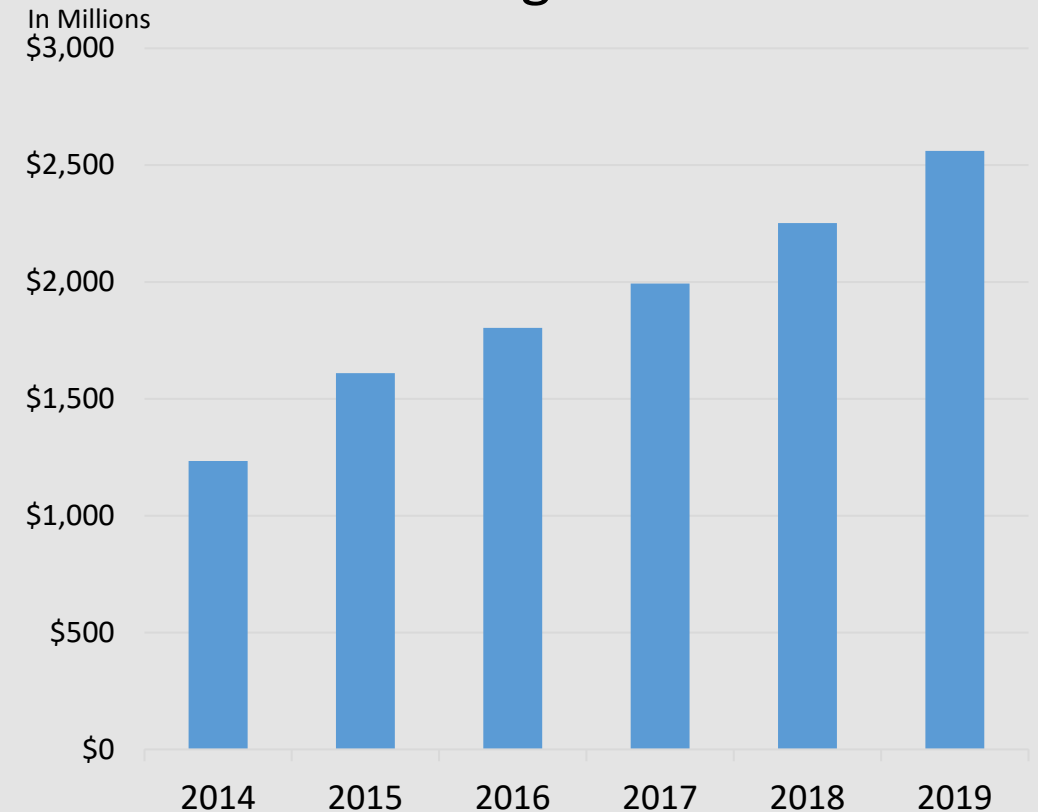# Basic Behavioral and Social Sciences Research Working Group Update

January 2021

Healthier Lives through Behavioral and Social Sciences

National Institutes of Health
Turning Discovery Into Health

Overview

Charge of the Working Group
Working Group Members
The Group's Progress
Next Steps

Healthier Lives through Behavioral and Social Sciences

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Basic Behavioral and Social Sciences Research at NIH

bBSSR Funding FY14 to FY19

- Basic research – whether biomedical or behavioral/social – generates fundamental knowledge about the nature and behavior of living systems
- In 2004 an NIH ACD Working Group on Research Opportunities in Basic Behavioral and Social Sciences produced a report:
  - Pre-RCDC so the report was predominantly an overview of broad areas of basic behavioral and social sciences research (bBSSR) that various ICs supported at the time
  - More on WHY fund bBSSR than WHAT to fund in bBSSR
  - Report was partly in response to NIMH de-prioritizing some bBSSR
  - Report recommended a "stable home" for trans-NIH bBSSR, either at NIGMS or by transforming OBSSR to more of an OAR model– which resulted in OppNet

In Millions

$3,000	
$2,500	
$2,000	
$1,500	
$1,000	
$500	
$0	

2014 2015 2016 2017 2018 2019

The Working Group's Charge

- Has NIH funding for bBSSR kept pace with the science?
- Can NIH improve return on investment by identifying better the promising and emerging areas of bBSSR relevant to the NIH mission?
- Which of these emerging areas of research are not adequately supported by the current NIH bBSSR portfolio which NIH can encourage and accelerate?
- Can these inadequately addressed emerging areas of research be addressed by individual IC efforts, or do some require a trans-NIH effort to address?
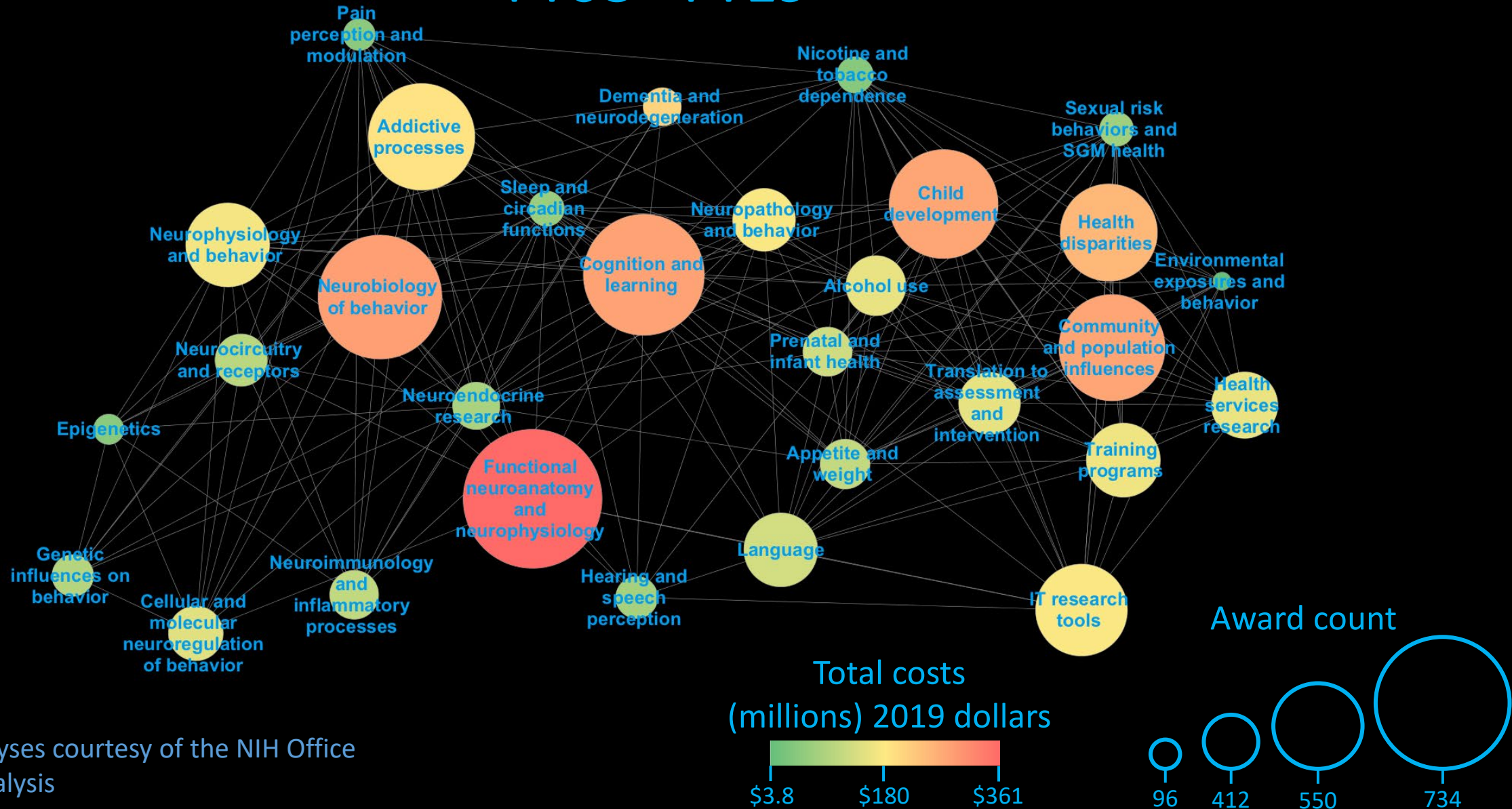
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Working Group Membership

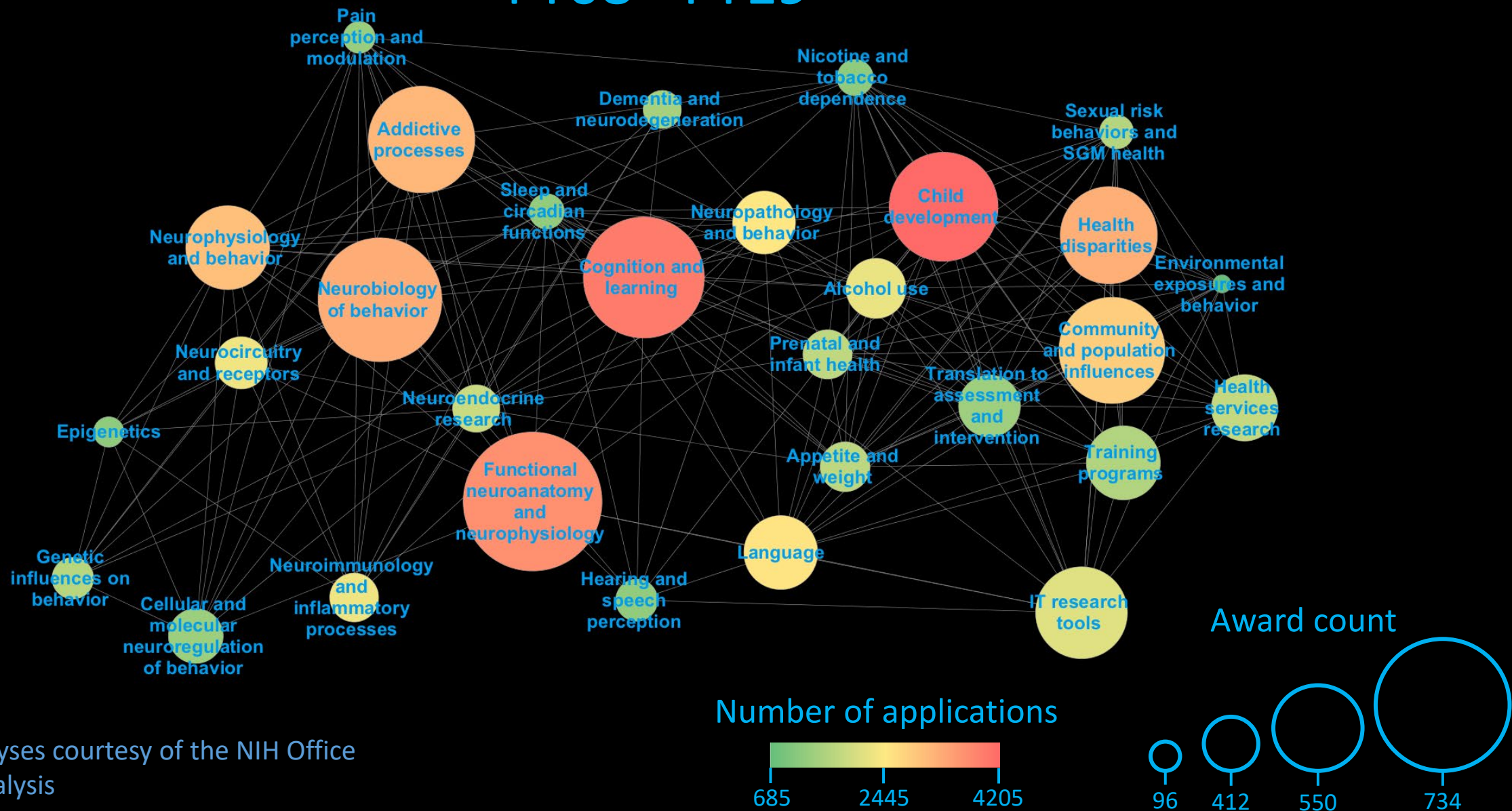|		
William Riley, Ph.D., Co-Chair	National Institutes of Health	OBSSR
Graham A. Colditz, MD, DrPH, Co-Chair	Washington University, St. Louis	Public Health Sciences
Dolores Albarracín Ph.D.	University of Illinois at Urbana-Champaign	Psychology, Business, and Medicine
Patricia Bauer, Ph.D.	Emory University	Psychology
Jordan A. Booker, Ph.D.	University of Missouri	Psychology
Steve Cole, Ph.D.	University of California, Los Angeles	Medicine; Psychiatry; Biobehavioral
M. Lynne Cooper, Ph.D.	University of Missouri	Psychology
Dustin T. Duncan, Sc.D.	New York University School of Medicine	Epidemiology
Paul J. Kenny, Ph.D	Ichan School of Medicine at Mount Sinai	Neuroscience; Drug Discovery
Florencia Torche, Ph.D.	Stanford University	Sociology
Jenny Tung, Ph.D.	Duke University	Evolutionary Anthropology; Biology
Jeff Zacks, Ph.D.	Washington University, St. Louis	Psychology; Brain Sciences; Radiology
William Elwood, Ph.D.	National Institutes of Health	OBSSR
Kathryn Morris, MPH, DFO	National Institutes of Health	OBSSR

The Working Group's Progress

- WG approved in May 2020, first convened September 2020
- The Office of Portfolio Analysis assisted with understanding the current bBSSR portfolio and the relationship with neuroscience vs. other topic areas within the portfolio
  - Influence (via Relative Citation Ratio)
  - Clinical Impact
  - Translational Potential
- Discussions of the WG Members' editorial research experience with the OPA analysis as context

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NIH b-BSSR Awards
FY08 - FY19

Slides and analyses courtesy of the NIH Office of Portfolio Analysis

Total costs (millions) 2019 dollars

$3.8 $180 $361

Award count

96   412   550   734

NIH b-BSSR Number of applications FY08 - FY19

Pain perception and modulation

Nicotine and tobacco dependence

Dementia and neurodegeneration

Sexual risk behaviors and SGM health

Addictive processes

Sleep and circadian functions

Child development

Health disparities

Neuropathology and behavior

Neurophysiology and behavior

Environmental exposures and behavior

Cognition and learning

Neurobiology of behavior

Alcohol use

Community and population influences

Neurocircuitry and receptors

Prenatal and infant health

Translation to assessment and intervention

Health services research

Neuroendocrine research

Epigenetics

Appetite and weight

Training programs

Functional neuroanatomy and neurophysiology

Language

Genetic influences on behavior

Cellular and molecular neuroregulation of behavior

Neuroimmunology and inflammatory processes

Hearing and speech perception

IT research tools

Number of applications

685   2445   4205

Award count

96   412   550   734

NIH b-BSSR Award rate
FY08 - FY19
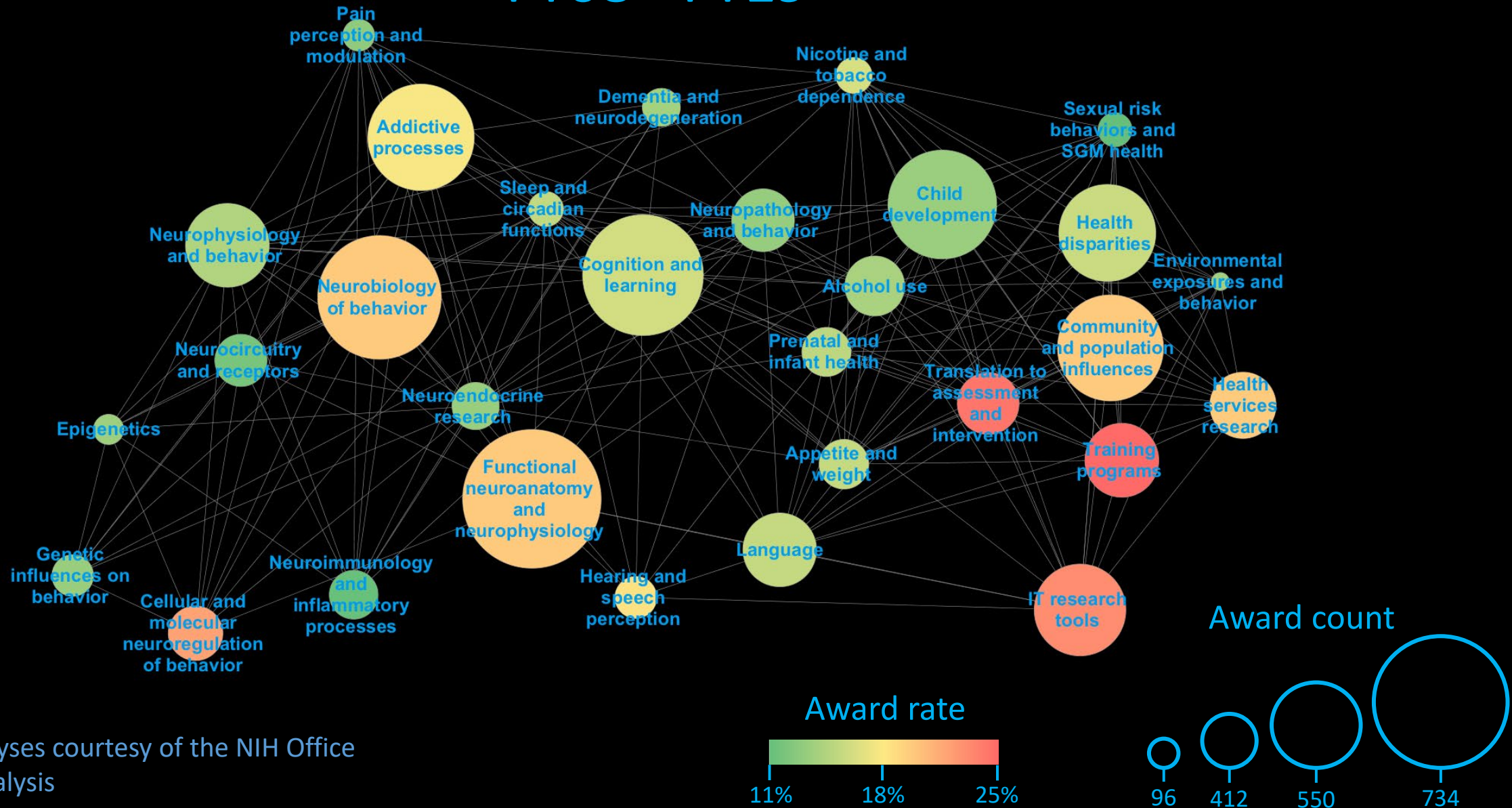
Slides and analyses courtesy of the NIH Office of Portfolio Analysis

NIH bBSSR Award Rates by AI/ML Topic Cluster

Cluster ID	Cluster Label	Award rate		Cluster ID	Cluster Label	Award rate
0	Cellular and molecular neuroregulation of behavior	22.1%		15	Child development	13.7%
1	Epigenetics	13.9%		16	IT research tools	23.3%
2	Genetic influences on behavior	13.6%		17	Training programs	25.2%
3	Pain perception and modulation	13.2%		18	Translation to assessment and intervention	24.5%
4	Neurophysiology and behavior	14.7%		19	Health services research	19.9%
5	Addictive processes	17.9%		20	Sexual risk behaviors and SGM health	11.3%
6	Neurobiology of behavior	20.0%		21	Community and population influences	19.9%
7	Neurocircuitry and receptors	12.1%		22	Health disparities	15.8%
8	Neuroimmunology and inflammatory processes	11.4%		23	Dementia and neurodegeneration	14.1%
9	Neuroendocrine research	13.6%		24	Sleep and circadian functions	15.6%
10	Appetite and weight	15.6%		25	Cognition and learning	16.2%
11	Nicotine and tobacco dependence	16.5%		26	Neuropathology and behavior	13.5%
12	Environmental exposures and behavior	14.0%		27	Functional neuroanatomy and neurophysiology	19.9%
13	Prenatal and infant health	15.3%		28	Language	15.6%
14	Alcohol use	14.4%		29	Hearing and speech perception	18.6%

Working Group Progress

- Input of the working group on areas of bBSSR to prioritize, and those with a pathway for eventual translation
- Consideration of NIH program staff research priorities (surveys and town halls).
- Consideration of workforce diversity issues and the role topic choice on bBSSR research priorities as PI diversity

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Working Group Progress – Examples of Priorities Identified

- Maintain the study of learning as core basic BSSR research area
- Greater balance of negative vs. positive processes
- Increased integration of neuroscience (but neuroscience not a requirement)
- Increased integration of how social environment affects the brain and the periphery
- Greater emphasis on the dynamics and consequences of social interactions
- Increased multi-level research
- Increased focus on epidemiology and population health
- Basic BSSR relevant to infectious diseases, especially in light of the pandemic
- Basic research relevant to sustaining vs. initiating behavior change
- Focus on meaningful behavioral outcomes
- Building capacity (resources and talent) for data harmonization and data integration
- Increased workforce diversity

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Next Steps

- Comparing the priorities identified by WG with those identified by NIH program staff
- Working on report drafts
- Final report to Council of Councils in May, 2021

Questions or Comments?