



OFFICE OF RESEARCH  
INFRASTRUCTURE PROGRAMS

Division of Construction and Instruments



**Concept Clearance -  
Reissue of STTR/SBIR FOAs:  
Novel Tools and Devices for Animal Care  
Research Facilities and to Support Care of  
Animal Models and Animal Care Research  
Facilities (R41/R42, R43/R44)**

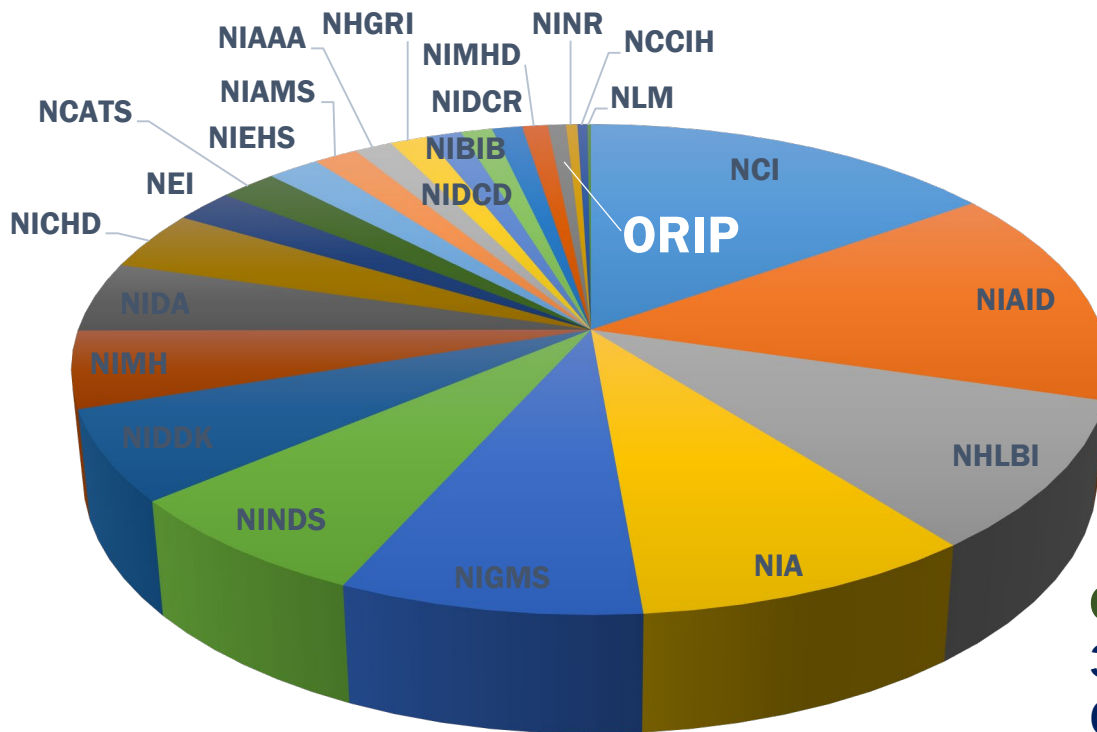


National Institutes of Health  
Office of Research Infrastructure Programs

NIH/OD/DPCPSI/ORIP/DCI

# NIH's SBIR/STTR Program

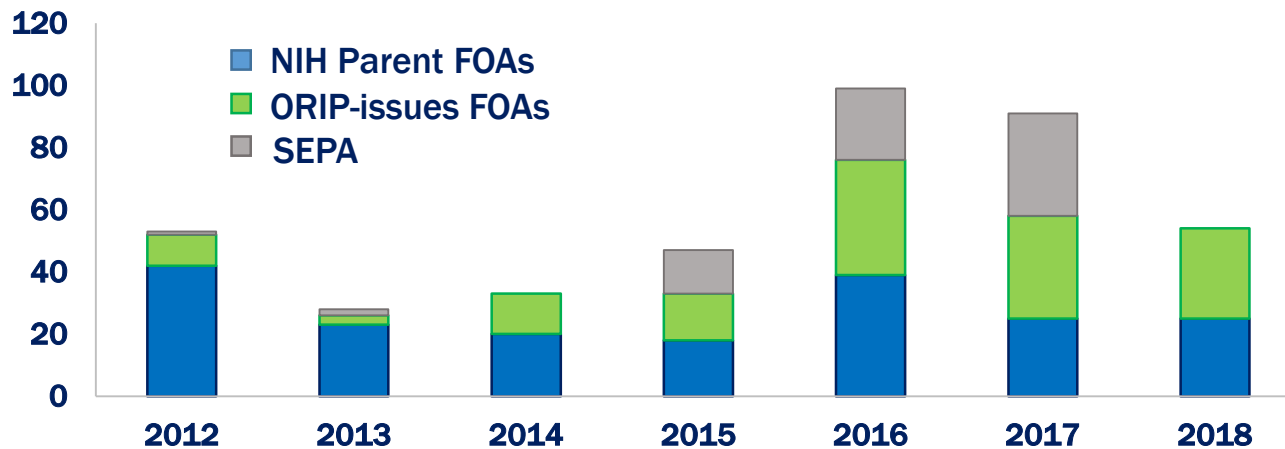
The Small Business Program (SBIR/STTR) is congressionally-mandated as a set-aside activity (Pie chart shows FY2019 distribution)



**NIH SBIR/STTR FY2019 BUDGET**  
3.2% SBIR \$1B  
0.45% STTR \$141M  
NIH Total \$1.14B

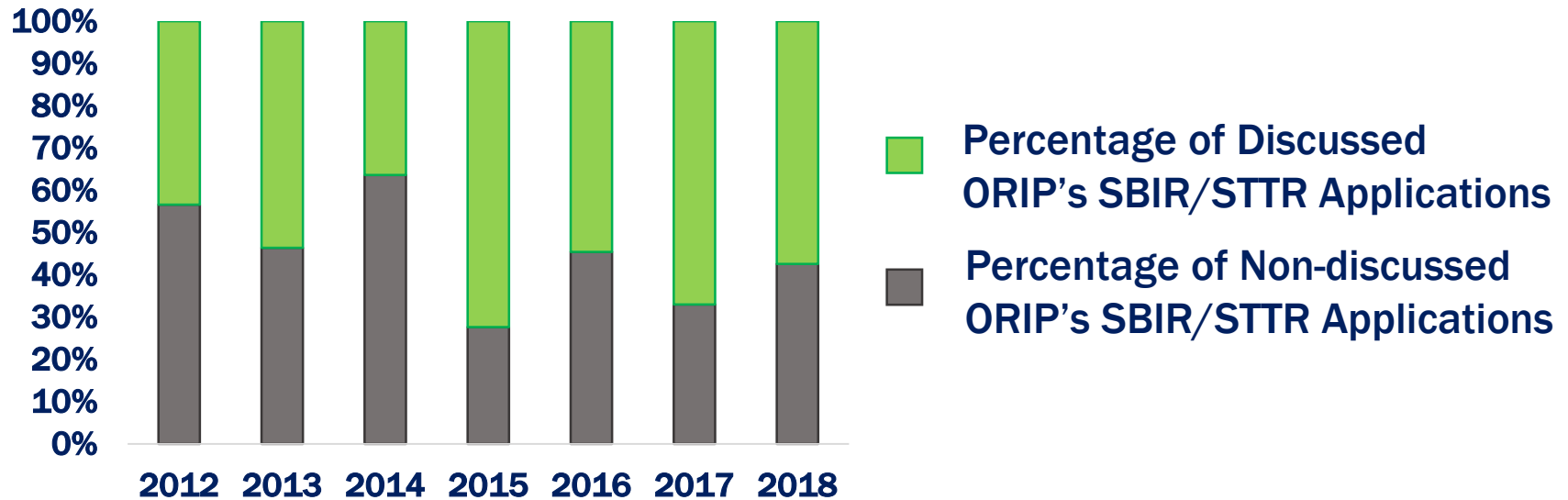
**ORIP SBIR/STTR FY2019 BUDGET**  
3.2% SBIR \$6.62M  
0.45% STTR \$0.93M  
ORIP Total \$7.55M

# ORIP's SBIR/STTR Program



- The numbers of SBIR/STTR applications received by ORIP in FYs2012-2018; different programs are indicated by different colors
  - ★ SEPA was transferred to NIGMS in 2018
- ORIP attributes the increase in received application to outreach and issuing own FOAs

# ORIP's SBIR/STTR Program



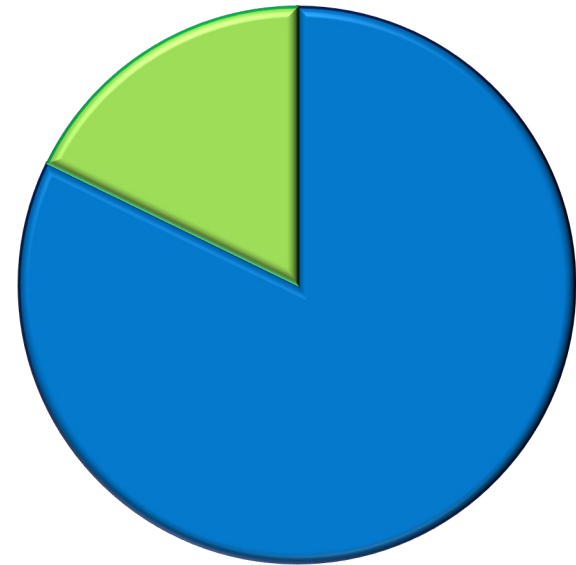
- Typically the top 50% of NIH applications are discussed by study sections
- **SBIR/STTR applications submitted to ORIP are discussed at higher than 50% rates; indicating their “better than average” merit**

# ORIP's "Tools and Devices" SBIR/STTR FOAs

- To support innovative research projects from Small Businesses to develop novel tools and devices to:
  - ★ Improve handling of laboratory animals
  - ★ Ease the management of animal facilities
  - ★ Enhance experiments which use animal models
  - ★ Benefit welfare and care of research animals
  - ★ Better monitor and assess environmental conditions of animal research facilities to improve robustness of experiments

# ORIP's "Tools and Devices" SBIR/STTR FOAs

- In FYs 2016-2019:
  - ★ STTR: R41/R42 (PAR-15-185):
    - ▶ 9 applications submitted
    - ▶ 2 grants funded
  - ★ SBIR: R43/R44 (PAR-15-186):
    - ▶ 36 applications submitted
    - ▶ 6 grants funded



■ PAR15-185/186 Non-funded Applications

■ PAR15-185/186 Awards (18% success rate)

# Concept Clearance

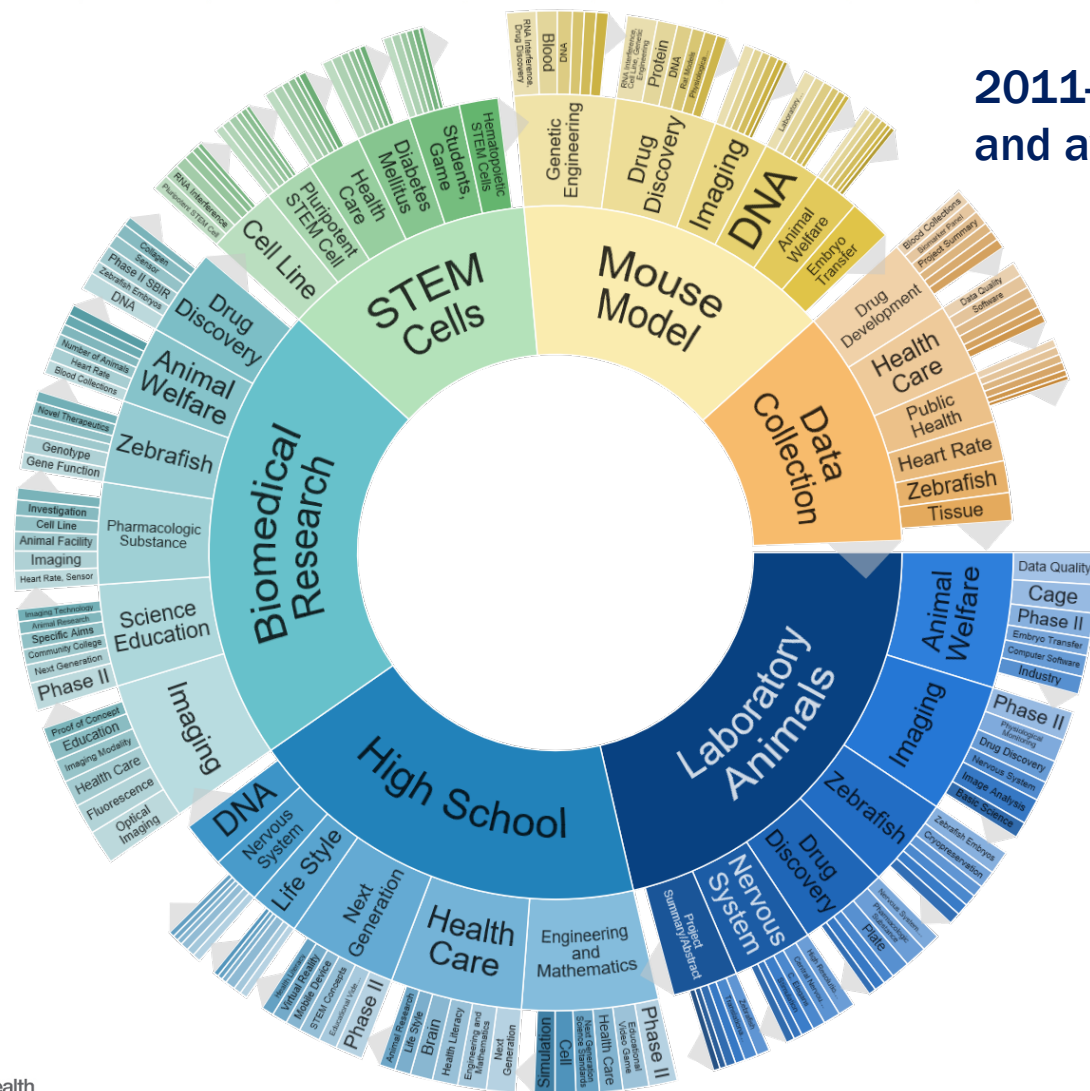
- **Continue support for the SBIR/STTR Program that targets the development of novel tools and devices for animal care research facilities and to support care of animal models**

# Appendix

- Topics of ORIP's SBIR/STTR applications
- Examples of PAR15-185/186 SBIR/STTR award



# Topics in ORIP's SBIR/STTR Applications



2011-2019 applications and awards, all FOAs

Source: iReport

# Examples: PAR15-185/186-funded grants

- Integrated photoacoustic and fluorescence imaging system for anatomical, functional, and molecular characterization of murine models  
(R43 OD023029-01, Photosound Technologies, Inc.)
- System for providing an interface for interacting with an animal  
(R43 OD023231-01A1, Neurotargeting Systems)
- A circular array desktop ultrasound tomography system for cross-sectional imaging of small animals  
(R43 OD024893-01, Sonamed Technologies, LLC)
- Piezoelectric Ring Mounted Oscillated Syringe System for Lower Distress, Lower Force, Laboratory Animal Vascular Access and Injection to Improve Data Quality and Laboratory Animal Welfare  
(R44 OD023024-01, Actuated Medical, Inc.)
- A Rodent Physiologic Analysis and Recording System  
(R44 OD024965-01A1, Barron Associates, Inc.)