Centers for Disease Control and Prevention

Small Business Innovation Research Program (SBIR)



Sean David Griffiths, MPH
Small Business Innovation Research (SBIR) Program Manager

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U.S. Centers for Disease Control and Prevention



CDC Mission

- CDC works 24/7 to protect America from health, safety and security threats, both foreign and in the U.S. Whether diseases start at home or abroad, are chronic or acute, curable or preventable, human error or deliberate attack, CDC fights disease and supports communities and citizens to do the same
- CDC conducts critical science and provides health information that protects our nation against expensive and dangerous health threats, and responds when these arise
- The CDC is one of the major operating components of HHS, the Department of Health and Human Services — (AHRQ, CDC, CMS, FDA, HRSA, NIH, SAMSA)
- CDC is comprised of Centers, Institutes, and Offices (CIOs) that allow the agency to be more responsive and effective when dealing with specific public health issues



CDC Strategic Priorities

- <u>Strengthen surveillance</u>, <u>epidemiology</u>, and <u>laboratory services</u>;
- Improve the ability to <u>support state</u>, <u>tribal</u>, <u>local and territorial public</u> <u>health</u>;
- Improve global health impact;
- Increase policy impact; and,
- Better <u>prevent illness</u>, <u>injury</u>, <u>disability</u> and <u>death</u>.



CDC Winnable battles

 To keep pace with emerging public health challenges and to address the leading causes of death and disability, CDC initiated an effort to achieve measurable impact quickly in a few targeted areas

 CDC's Winnable battles are public health priorities with large-scale impact on health and with known, effective strategies to address them





Key Winnable Public Health Battles for the United States

Tobacco





Nutrition, Physical Activity, Obesity and Food Safety

Healthcare-Associated Infections





Motor Vehicle Injuries

Teen Pregnancy





HIV





ORGANIZATIONAL CHART



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Center for Global Health Rebecca Martin, PhD

Office of Public Health Scientific Services



Chesley Richards, MD, MPH, FACP



Center for Surveillance, Epidemiology, and Laboratory Services Michael F. lademarco, MD, MPH (CAPT, USPHS)



National Center for Health Statistics Charles J. Rothwell, MBA, MS

Office of Noncommunicable Diseases, Injury, and Environmental Health



Robin Ikeda, MD, MPH (RADM, USPHS)



National Center on Birth Defects and Developmental Disabilities Coleen A. Boyle, PhD, MS hyg



National Center for Chronic Disease Prevention and Health Promotion Ursula Bauer, PhD, MPH



National Center for Environmental Health/ Agency for Toxic Substances and Disease Registry* Patrick Breysse, PhD, CIH



National Center for Injury Prevention and Control Debra Houry, MD, MPH

Office of Infectious Diseases





National Center for Immunization and Respiratory Diseases Nancy Messonnier, MD (CAPT, USPHS)



National Center for Emerging and Zoonotic Infectious Diseases Rima Khabbaz, MD**



National Center for HIV, Viral Hepatitis, STD, and TB Prevention Jonathan Mermin, MD, MPH (RADM, USPHS)

ATSDR is an OPDIV within DHHS but is managed by a common director's office.

^{**} Acting

CDC Centers, Institutes, and Offices (CIOs)

- Center for Global Health (CGH)**
- National Institute for Occupational Safety and Health (NIOSH)**
- Office of Infectious Diseases (OID)
 - National Center for Immunization and Respiratory Diseases (NCIRD)**
 - National Center for Emerging and Zoonotic Infectious Diseases (NCEZID)**
 - National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention (NCHHSTP)**
- Office of Noncommunicable Diseases, Injury and Environmental Health
 - Agency for Toxic Substances and Disease Registry (ATSDR)*
 - National Center on Birth Defects and Developmental Disabilities (NCBDDD)**
 - National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)**
 - National Center for Environmental Health (NCEH)**
 - National Center for Injury Prevention and Control (NCIPC)**



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^{**}CIOs that typically have annual SBIR set-aside budgets

CDC Centers, Institutes, and Offices (CIOs)

- Office of Public Health Preparedness and Response (OPHPR)**
 - Emergency Operations Center (EOC)
- Office for State, Tribal, Local and Territorial Support (OSTLTS)
- Office of Public Health Scientific Services (OPHSS)
 - National Center for Health Statistics (NCHS)**
 - Center for Surveillance, Epidemiology and Laboratory Services (CSELS)**
- Office of the Director
 - Office of the Chief Operating Officer
 - Office of the Chief of Staff
 - Office of Equal Employment Opportunity
 - Office of Minority Health and Health Equity
 - Office of the Associate Director for Science***
 - Office of the Associate Director for Communication
 - Office of the Associate Director for Policy
 - CDC Washington Office (CDC-W)



SBIR Program

- The Small Business Innovation Research (SBIR) program was established by Congress in 1982 to provide opportunities for small businesses to participate in R&D, to increase employment, and to improve U.S. competitiveness
- SBIR provides seed funds (grants and contracts) to domestic small businesses to engage in Federal Research/Research and Development (R/R&D) that has the potential for commercialization
- The Office of the Director, Office of the Associate Director for Science (OADS) manages CDC's SBIR Program. OADS works with CIOs to make determinations as to where SBIR funds would best be used to support high quality, high impact SBIR projects that will be of overall benefit to public health



SBIR Phases and Funding



Phase I Feasibility Study - \$150,000

Six month project; establishes feasibility, prototype, technical and scientific merit



Phase II Full Research/R&D - \$1.0 Million

Two year project; continue R&D efforts initiated in Phase I



Phase III Commercialization Stage

Transition to Commercialization; Private Funds

CDC's SBIR Program

- CDC participates in the HHS/NIH SBIR omnibus grant and contract solicitations
 - CDC does not participate in Small Business Technology Transfer (STTR) Program (at this time)
 - CDC has opted to participate in the Majority VC ownership authority (as of FY15) - CDC has authority to award SBIR grants and contracts to small business concerns that are majority-owned by multiple venture operating companies, hedge funds, or private equity firms. http://www.sbir.gov/vc-ownership-authority
- Budget CDC SBIR set-aside approx. \$10.0 million (FY17)



CDC's SBIR Program

- <u>Topics</u> Approximately 20 SBIR topics per year, plus investigatorinitiated research applications submitted under the grant solicitation (which align with CDC research priorities)
- Awards ≈ 25 Phase I's up to \$150,000 each and ≈ 1-3 new Phase II's per year up to \$1.0 M each
- Grants vs. Contracts
 - FY13 58% grants & 42% contracts
 - FY14 25% grants & 75% contracts
 - FY15 30% grants & 70% contracts
 - FY16 56% grants & 44% contracts
- Uniqueness/Strength (and challenge) of CDC's SBIR Program –
 life sciences, public health, emergency response, domestic & international agency
 mission



CDC's SBIR Program – Mission & Goals

- Meet Federal research and development needs
- Increase private-sector <u>commercialization</u> of innovations derived from Federal research and development funding
- Stimulate technological innovation
- Foster and encourage participation in innovation and entrepreneurship by socially and economically disadvantaged persons



CDC SBIR Program 2017-2 Grant Omnibus

- NIH, <u>CDC</u>, FDA, & ACF SBIR/STTR Grant Solicitation : SBIR: PHS 2017-2
 - Release: June 2017
 - Standard Due Dates: September 5th 2016; January 5th 2017; April 5th 2017
- CDC had 16 grant topics in the <u>2016-2</u> SBIR/STTR Grant Omnibus Solicitation
- CDC continues to encourage investigator-initiated applications
- CDC will always encourage investigator-initiated applications that target emerging public health threats that align with the agency mission



CDC SBIR Program 2016-2 Grant Omnibus Topics (sample)

Center for Global Health (CGH)

Development of Non-Invasive Malaria Parasite Metabolite-Based Diagnostic Tools

National Center for Birth Defects and Developmental Disabilities (NCBDDD)

Low Cost Technology for Small Rice Mill Micronutrient Fortification

National Center for Emerging Zoonotic and Infectious Diseases (NCEZID)

- Antibiotic Resistant Healthcare-associated Infections
- o Zika Virus: Detection, Prevention, Diagnosis and Response
- Detection, Transmission, Ecology and Prevention of Antimicrobial Resistane in Enteric Bacteria

National Institute for Occupational Safety and Health (NIOSH)

- Control Technology and Personal Protective Equipment for High Risk Occupations
- Exposure Assessment Methods for High Risk Occupations
- Work-related Injuries from Motor Vehicle Crashes



CDC SBIR Program 2017-1 Contract Solicitation

- SBIR Contract Solicitation (NIH, CDC) Program Solicitation PHS 2017-1 (SBIRs Only)
 - Release: July 2016 <u>Closed</u>: October 16, 2016 (5pm EDT)

- CDC Topics:
- National Center for Chronic Disease and Public Health Promotion (NCCDPHP)
 - o 38 Improve Contextual Awareness Using Social Network Data
- National Center for Emerging Zoonotic and Infectious Diseases (NCEZID)
 - o 14 Multiplexed Digital Counting of Single Molecules for Advanced Molecular Diagnosis



CDC SBIR Program Staff Office of Technology and Innovation

Sean David Griffiths

SBIR Program Manager

Phone: 404-639-4641

Email: SGriffiths@cdc.gov

Darlene Forrest

SBIR Program and Logistics
Specialist (CTR)

Phone: 404-639-1023

Email: DForrest@cdc.gov

Brenda Colley-Gilbert

Director, Extramural Research Program Office, NCCDPHP

Phone: 770-488-4333

Email: BJC4@cdc.gov

Michelle Mathieson

Innovation/Public Health Analyst

Phone: 770-488-3068

Email: MTH8@cdc.gov







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1600 Clifton Road NE, Atlanta, GA 30333

Phone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348

E-mail: cdcinfo@cdc.gov Web: www.cdc.gov