Canadian and United States Federal Funding for Biomechanics Research

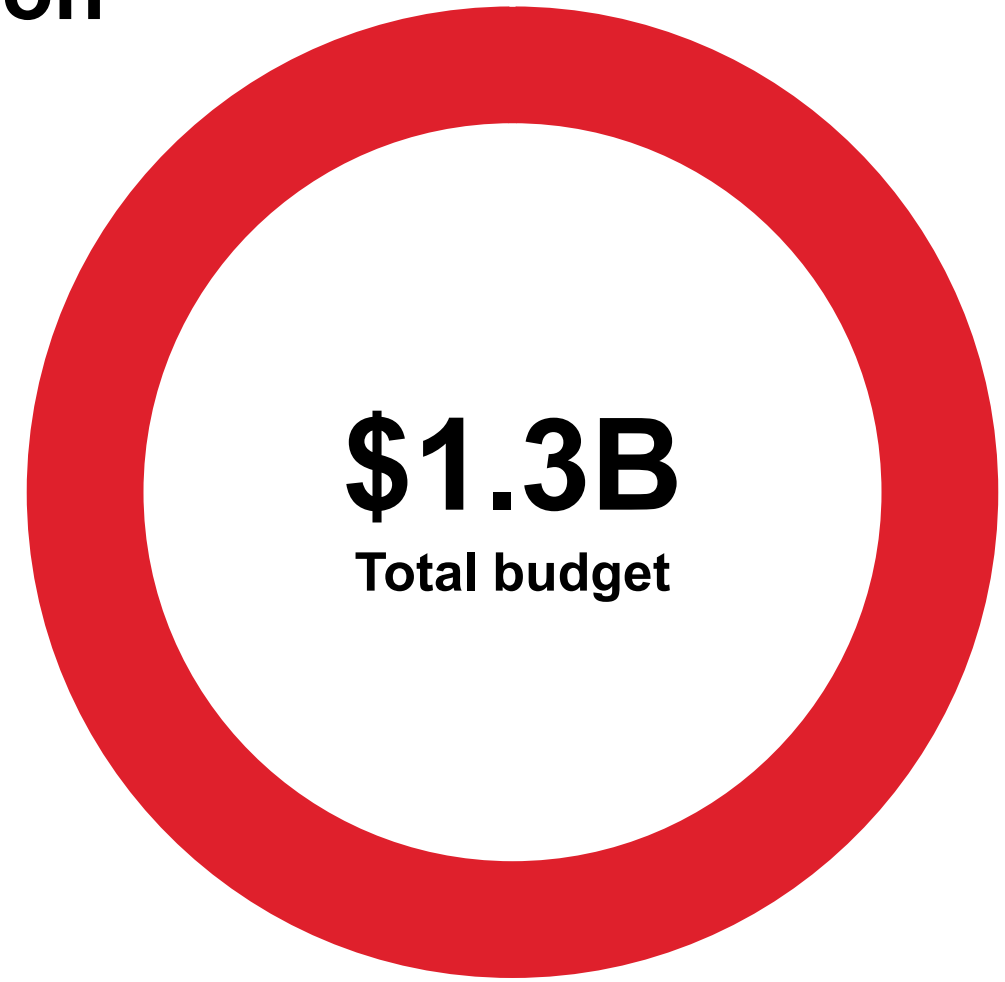
NSERC Presentation 2022

Kristina Archibald, Director, Engineering and Life Sciences, Research Grants and Scholarships

August 2022

NSERC's role in the innovation ecosystem

- NSERC funds post-secondary research and training in the natural sciences and engineering
- Supports **76** universities and **110** colleges & polytechnics
- **12,400** professors
- **3,800** industry partnerships
- **37,700** students and fellows



Overview

1. **LAUNCHING** calls for proposals, in partnership with funders abroad, both bilateral and multilateral (IC-IMPACTS IIRCC, Belmont Forum).
2. **SUPPORTING** researcher-driven, international projects (Alliance International).
3. **REDUCING** barriers to international collaborations/ mobility through flexible use of grant funds.
4. **OFFERING** Doctoral and PDF awards that can be taken up abroad.

Key Policy Drivers

- ✓ **EQUITY, DIVERSITY, & INCLUSION (EDI)** considerations integrated into policies, processes, indicators of excellence and evaluation criteria, through EDI Action Plan and Dimensions Program.
- ✓ **RESEARCH EXCELLENCE** criteria recognize and value the broad range of contributions including outreach and mentoring, emphasizing their quality and impacts.
- ✓ **OPEN SCIENCE** principles to improve access to the results of Agency-funded research, and to increase the dissemination and exchange of research results and data.
- ✓ **RESEARCH SECURITY** measures that ensure Canada's research ecosystem is open as possible, secure as necessary, includes new guidelines launched to integrate national security into the development, evaluation, and funding of research partnerships with private sector organizations.

Scholarships and Fellowships

Government of Canada invests in talented graduate scholars and postdoctoral researchers

In January 2022, the Government of Canada announced that the three federal research granting agencies are providing $260 million for the latest cohort of scholarship and fellowship recipients

- More than 5,300 scholarships and fellowships have been awarded for research training under the following programs:
- The Canada Graduate Scholarships (Doctoral program and Master's program)
- The Canada Graduate Scholarships – Michael Smith Foreign Study Supplements
- The NSERC Postgraduate Scholarships – Doctoral
- The NSERC Postdoctoral Fellowships program

In addition:

- Unveiled results of New Frontiers in Research Fund 2020 Transformation competition
- Announced new investment to support new and renewed Canada Research Chairs across the country

A total of 32, 800 students and postdoctoral fellows are trained each year by the most talented scientists and engineers in Canada

Special Response Fund for Trainees (Ukraine)

- Enables grant-holders to retain research trainees who were expected to return to Ukraine in 2022

The fund will allow for support of up to:

  - $20,000 for the master's level
  - $25,000 for the doctoral level
  - $45,000 for the post-doctoral level.
- The supplement for salaries and stipends may extend for up to one year
- Applications will be accepted on a continuous intake basis until December 22nd, 2022

The presidents of Canada's three federal research funding agencies issued a statement on March 11th expressing our deep solidarity with the Ukrainian people in the context of Vladimir Putin's unjustifiable invasion of Ukraine.

Research Partnerships

NSERC Alliance

Alliance Mission Grants

- Aimed at addressing critical science and technology challenges that can play a pivotal role in Canada's economy
- NSERC received over 300 submissions

Alliance International grants

- Permanent funding stream of Alliance
- Supports Canadian university researchers establishing and growing international research collaborations

Update to Alliance Option 2 cost-sharing ratio

- **Alliance Option 2** simplified to one single cost sharing ratio of 100% from NSERC
- Removes requirement for partner organizations to commit 10% of the project's cash budget

NSERC's Research Partnerships division continues to enhance and expand the opportunities for our researchers to collaborate with colleagues in Canada and around the world.

Programs of Interest

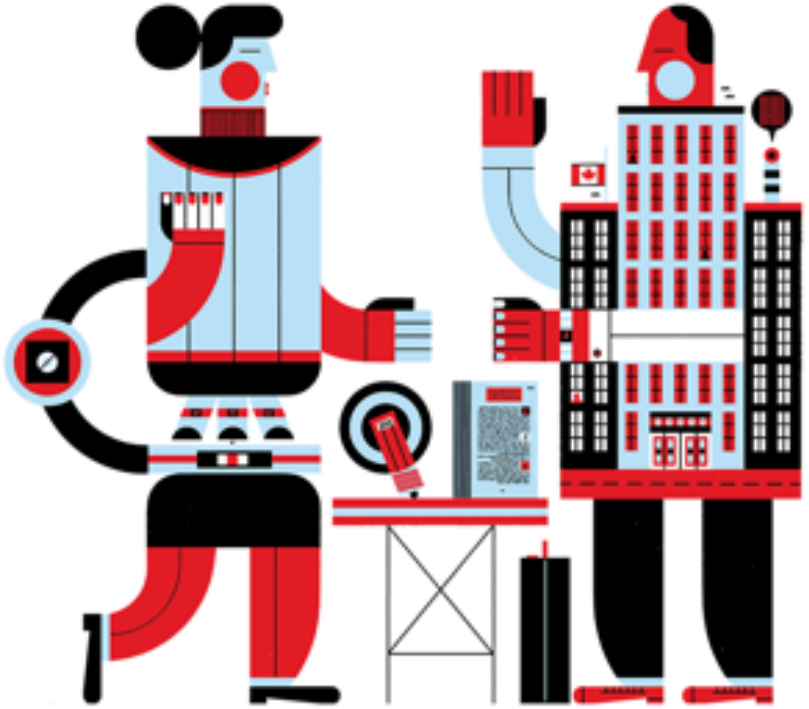
Investing in targeted, collaborative and interdisciplinary research areas; options to take research further.

CREATE - Collaborative Research and Training Experience

- A collaborative and interdisciplinary research platform that offers a unique training experience for students (undergraduate, master's, doctoral) and research professionals (postdoctoral). Focus on providing in-demand professional skills to complement technical research skills. Up to 6 years with a maximum of $1.65M over entire period.

Human Frontier Science Program

- An international program of research support that funds leading-edge research in life sciences across a variety of national boundaries and scientific disciplines.



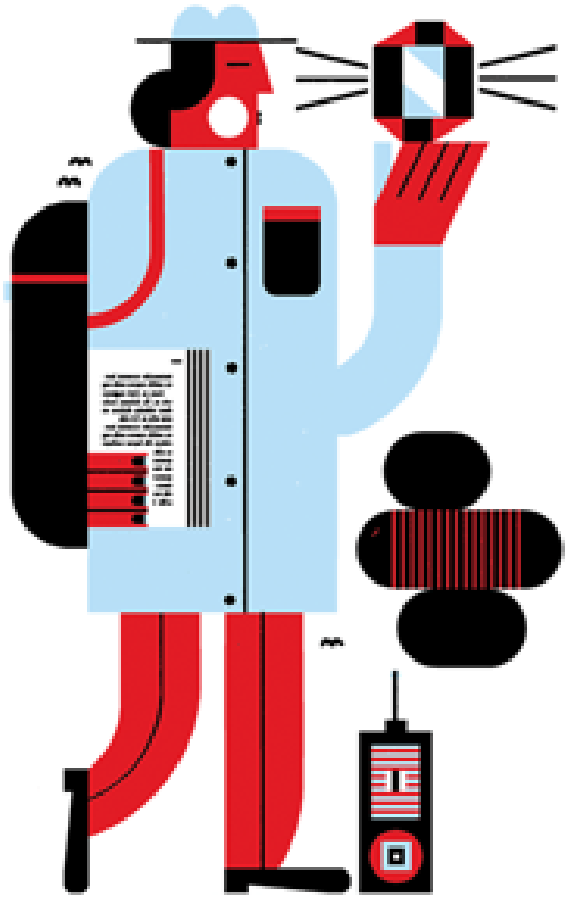
Discovery Research

Discovery Grants
- Establish your chosen program of research. Up to 5 years of funding.

Discovery Development Grants
- Boost research capacity at small universities. $30K over two years.

Research Tools and Instruments
- Support for purchase of tools essential to work. Includes separate funding support for Subatomic Physics. Up to $150K.

Discovery Horizons (Pilot)
- Integrate or transcend disciplines to advance knowledge in the natural sciences and engineering. Up to 5 years funding.



Discovery Grants Program

Objectives

- To promote and maintain a diversified base of high-quality research capability in the natural sciences and engineering (NSE) in Canadian universities.
- To foster research excellence.
- To provide a stimulating environment for research training.

Overview

- Funds programs of research
- Freedom to pursue most promising avenues
- Covers direct costs of research
- Typically 5 years in duration
- Limited to one DG at a time

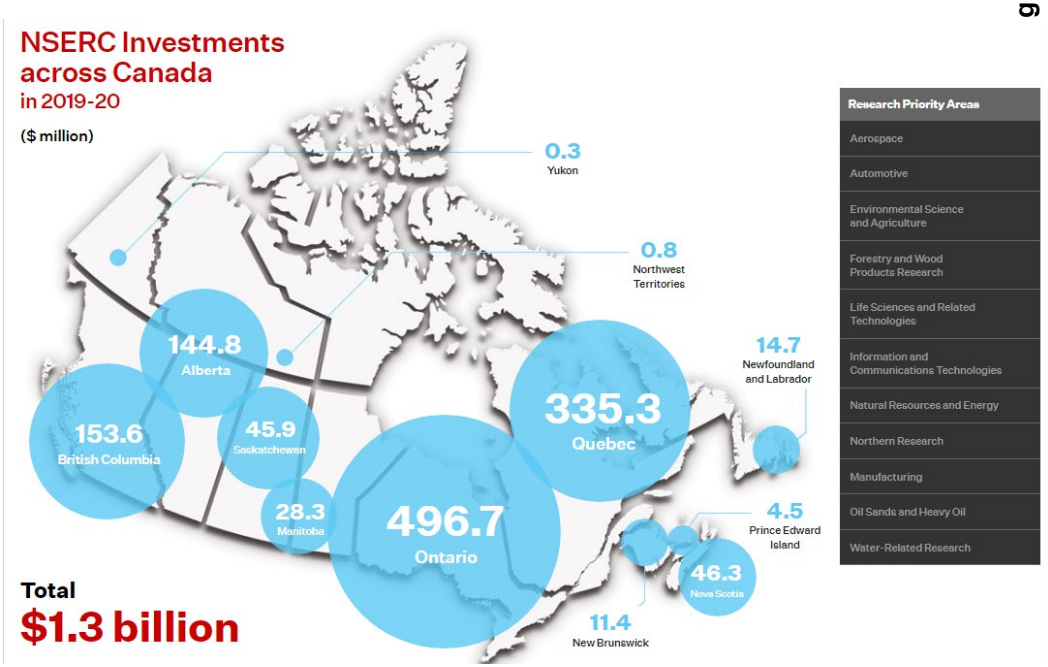
NSERC Recipients

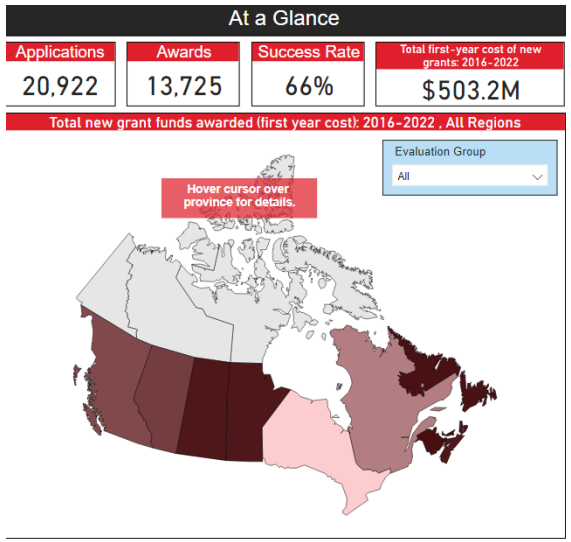
Awards and Statistics

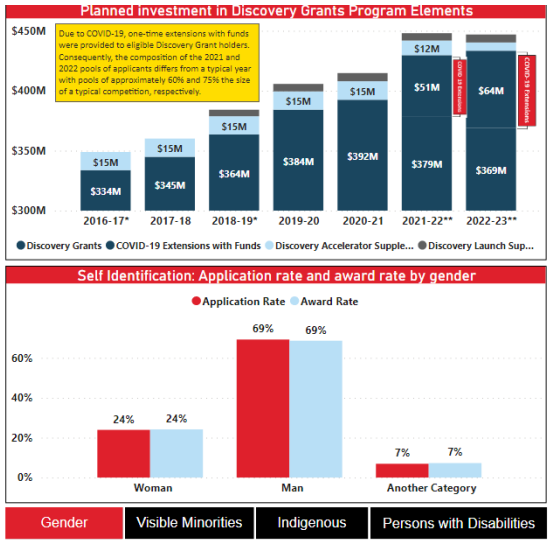
Search Criteria	
Fiscal Year From:	2020-2021
Fiscal Year To:	2020-2021
Reasearch Subject:	Kinesiology Biomechanics
Program:	Discovery Grants Program - Individual
By Institutions:	All

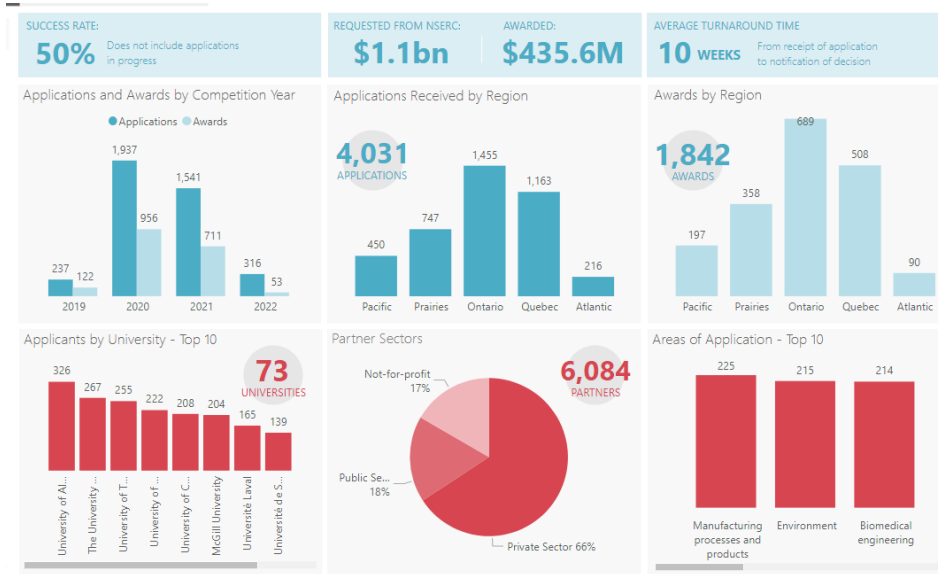
Add or Modify Criteria | New Search

Program	Number		Amount		Average Award ($)
	N	%	$	%	
DISCOVERY RESEARCH					
Discovery Grants Program - Individual	136	100.00%	4,709,147	100.00%	34,626
Subtotal:	**136**	**100.00%**	**4,709,147**	**100.00%**	**34,626**
Total	**136**	**100.00%**	**4,709,147**	**100.00%**	**34,626**









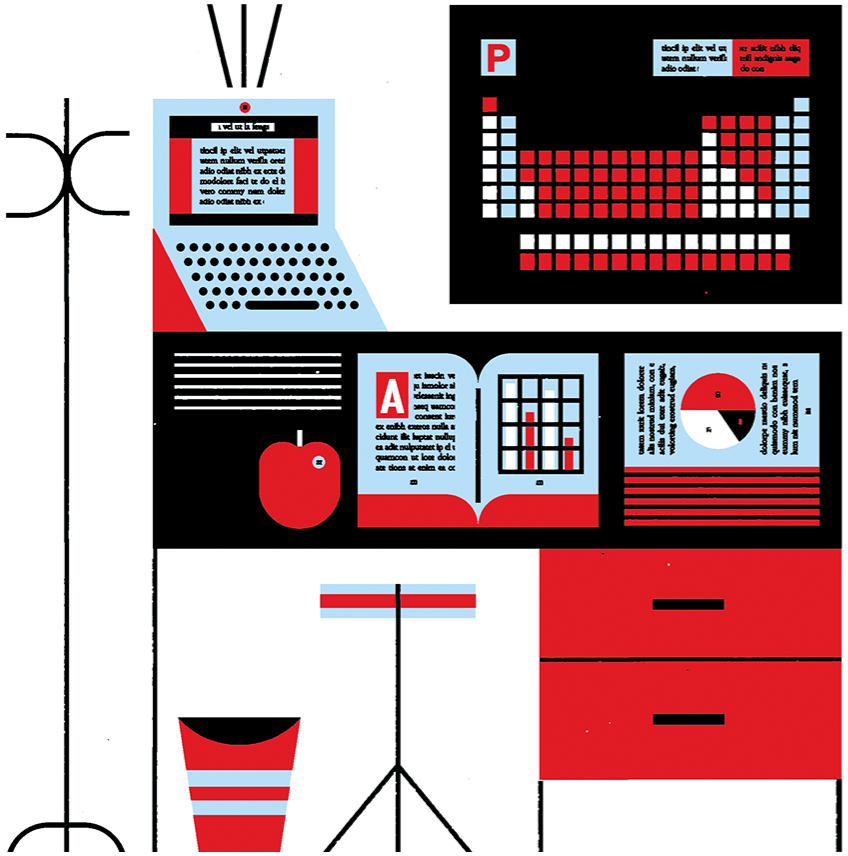
Tri-Agency Interdisciplinary Peer Review and NSERC's Discovery Horizons

Launched in 2021 to adjudicate Tri-Agency interdisciplinary applications

- First year of the pilot saw 22 members review 85 applications across 3 programs
  - NSERC's Discovery Horizons
    - 842 LOIs received, 55 full applications reviewed and 10 grants awarded
  - SSHRC's Insight Grants
  - CIHR's Project Grant programs

TAIPR and NSERC's Discovery Horizons have been **extended for an additional year**

- Tri-Agency deadlines
  - **NSERC Discovery Horizons: Letter of Intent, June 16 2022**
  - CIHR Project: Registration, early/mid August 2022
  - SSHRC Insight: Full Applications, 1 October 2022



Questions?

General inquiries: 1-855-275-2861

https://www.nserc-crsng.gc.ca/ContactUs-ContactezNous/ContactDirectory-RepertoiredeContact_eng.asp

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CIHR IRSC

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Funding Health Research in Canada

Discoveries for life / Découvertes pour la vie

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

Canada

An Overview of CIHR

CIHR: Canada's health funding agency

As the federal agency that stewards Canada's health research strategy, the Canadian Institutes of Health Research (CIHR) works collaboratively with our partners and researchers to set priorities and find solutions to health care challenges. Through our investments in world-class research, CIHR is improving the health of Canadians and people around the world.

CIHR's Mandate

To excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system.

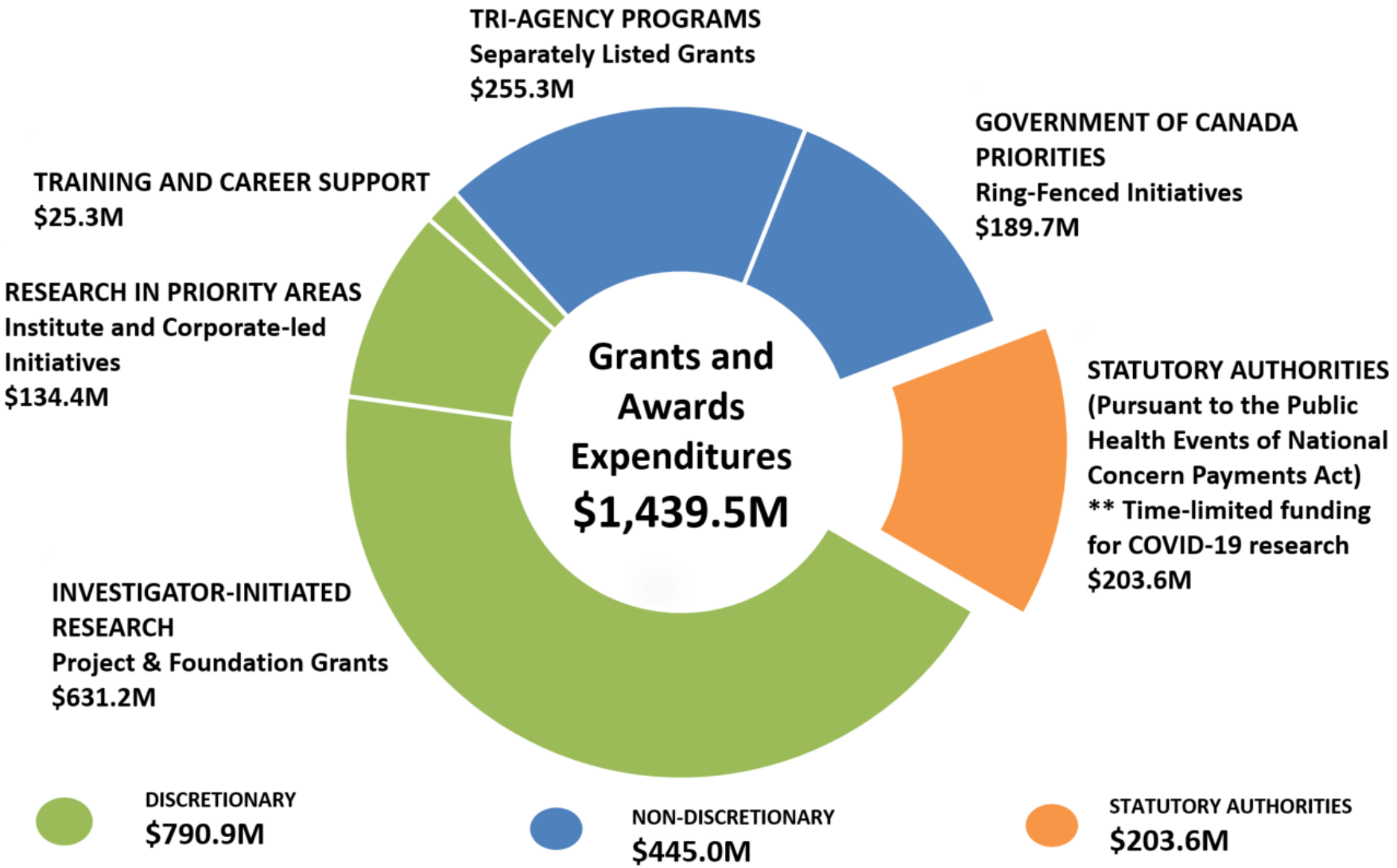
CIHR Act (S.C. 2000, c. 6)

CIHR's Mandate

CIHR seeks to transform health research in Canada by:

- Funding **investigator-initiated** research, as well as research on **targeted** priority areas
- Building research capacity in **under-developed** areas and training the **next generation** of health researchers
- Focusing on **translating knowledge** from the research setting to real-world applications
- Providing the Minister of Health with advice and advance **CIHR's strategic directions** within the Government of Canada (i.e. Canada Research Coordinating Committee)

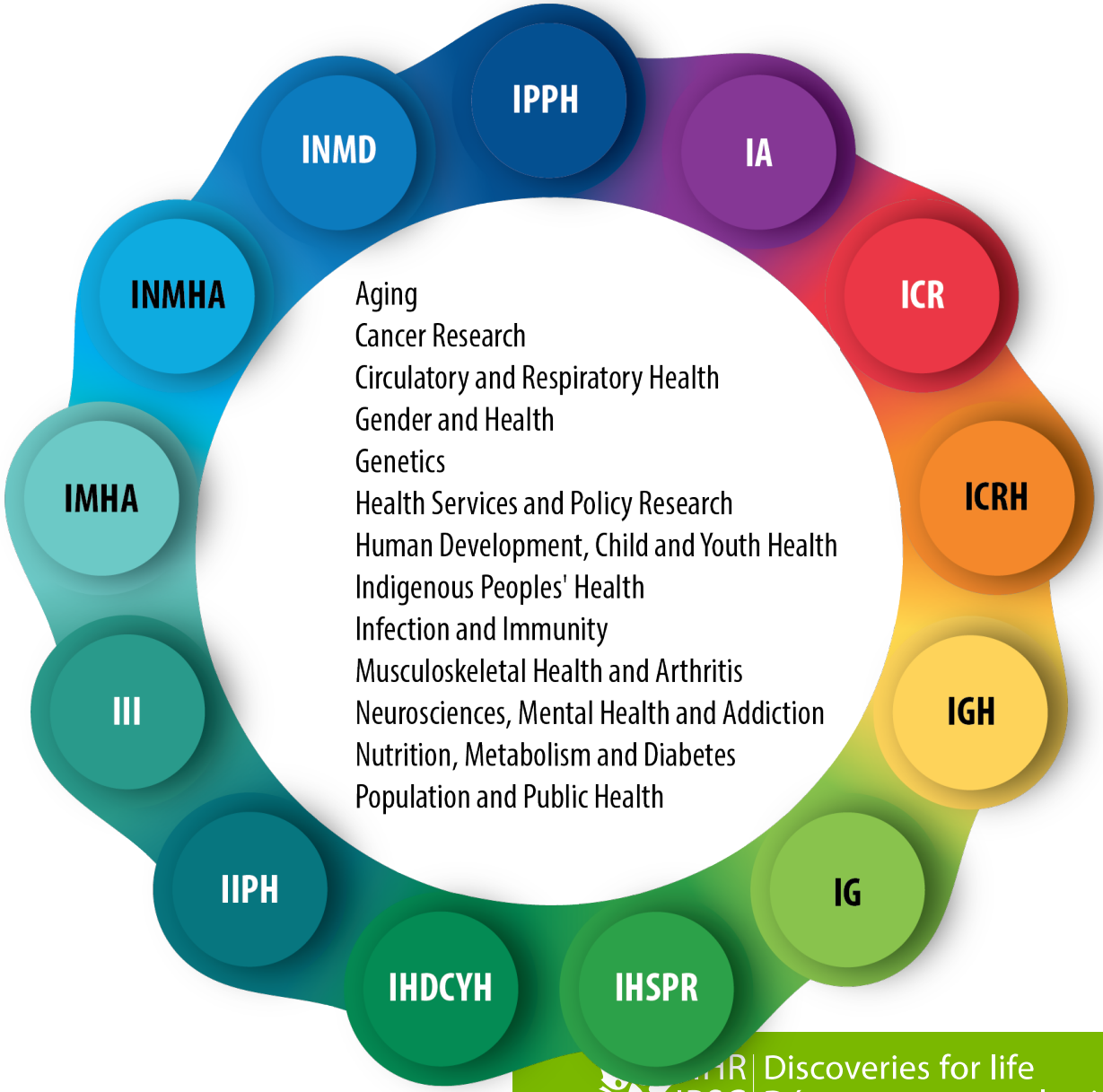
CIHR's Budget Overview



Our Institutes

Created in 2000, CIHR is a unique model for health research.

Composed of 13 virtual Institutes focusing on all areas of health research.



Health Research Priorities (2021 to 2031)

- Advance **research excellence** in all its **diversity**
- Strengthen Canadian health research **capacity**
- **Accelerate** the self-determination of **First Nations, Inuit, and Métis Peoples** in health research
- Pursue **health equity** through research
- **Integrate evidence** in health decisions
- Organizational **excellence**

CIHR Funding Programs

CIHR Funding Programs

Investigator-Initiated: Project Grant Program

- The Project Grant program is designed to capture ideas with the greatest potential to advance health-related fundamental or applied knowledge, health research, health care, health systems, and/or health outcomes.

- Supports research projects proposed and conducted by individual researchers or groups of researchers in all areas of health. The best ideas may stem from:
    - new, incremental, innovative, and/or high-risk lines of inquiry; or,
    - knowledge translation approaches.

- The Project Grant program is open to researchers at **any career stage** to build and conduct health-related research and knowledge translation projects across CIHR's mandate.

- CIHR’s largest funding grant program: approximately 5,000 applications are peer-reviewed on an annual basis, within a Spring and a Fall competition.

CIHR Funding Programs

Investigator-Initiated: Project Grant Program – TAIPR Committee

- The Tri-Agency Interdisciplinary Peer Review (TAIPR) with shared peer review committee to adjudicate interdisciplinary applications the three granting councils
- This committee reviews applications for research projects that include disciplines, approaches, methods, etc, from at least two of the (1) Social Sciences and Humanities; (2) Natural Sciences and Engineering; and (3) Health and Wellness.
- Applications must be submitted to the agency funding opportunity responsible for the dominant component of the research project and meet the eligibility requirements of the relevant funding opportunity.

CIHR Funding Programs

Investigator-Initiated: Project Grant Program – TAIPR Committee – Cont'd

- **Upcoming Deadlines:**
  - **Project Grant competition** – Fall 2022 and Spring 2023:

    Fall 2022: *Registration* early/mid August 2022. *Application* early/mid September 2022

    Spring 2023: *Registration,* early/mid February 2023; *Application,* early/mid March 2023
  - **Insight Grants:** *Full Applications* 1 October 2022

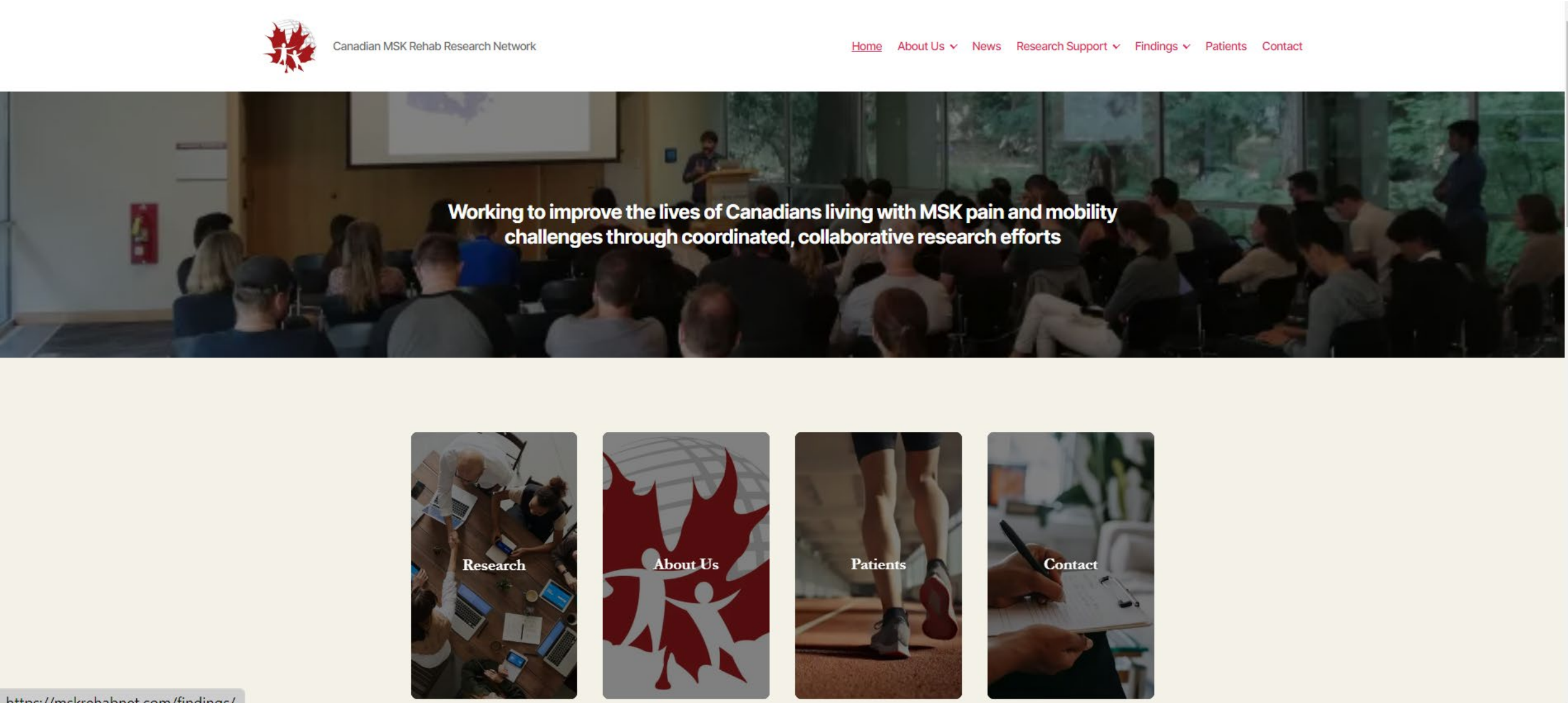
CIHR Funding Programs

Priority-Driven: Strategic Programs

- The goal of CIHR's strategic programs is to advance health knowledge and its application in specific areas of research identified by CIHR in consultation with other government departments, partners, and stakeholders, to improve health systems and/or improve health outcomes in priority areas.
- Competitions are designed in collaboration with the Institutes and/or Portfolio staff, as well as partners, and other stakeholders, as required.
- Approximately one-quarter of CIHR's $1 billion budget is provided to support priority-driven research.

CIHR Funding Programs

Funding in biomechanics – Canadian MSK Rehab Research Network



CIHR IRSC

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THANK YOU!

CIHR IRSC

Canadian Institutes of Health Research

Instituts de recherche en santé du Canada

Discoveries for life / Découvertes pour la vie

CANADA FOUNDATION FOR INNOVATION

The Canada Foundation for Innovation

NACOB 2022
August 21st, 2022

INNOVATION
Canada Foundation for Innovation
Fondation canadienne pour l'innovation

Mandate

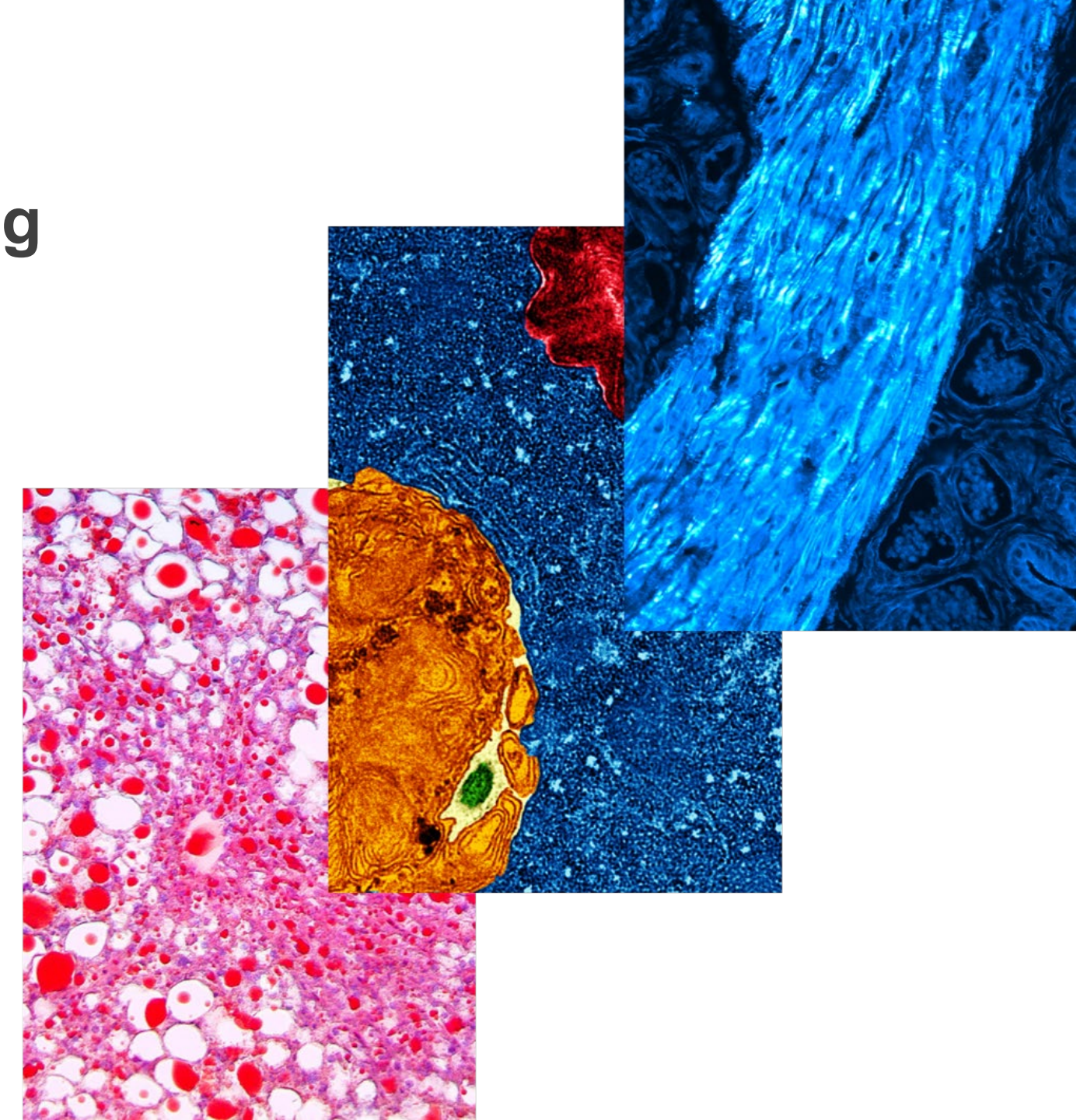
TO INCREASE THE CAPABILITY OF CANADA'S UNIVERSITIES, COLLEGES, RESEARCH HOSPITALS AND NON-PROFIT ORGANIZATIONS TO CARRY OUT HIGH QUALITY RESEARCH BY INVESTING IN RESEARCH INFRASTRUCTURE

A unique funding model

Institutional Awards for research infrastructure – equipment, renovations, database development

CFI provides 40% of infrastructure costs (remaining 60% provided by provinces, institutions and private sector)

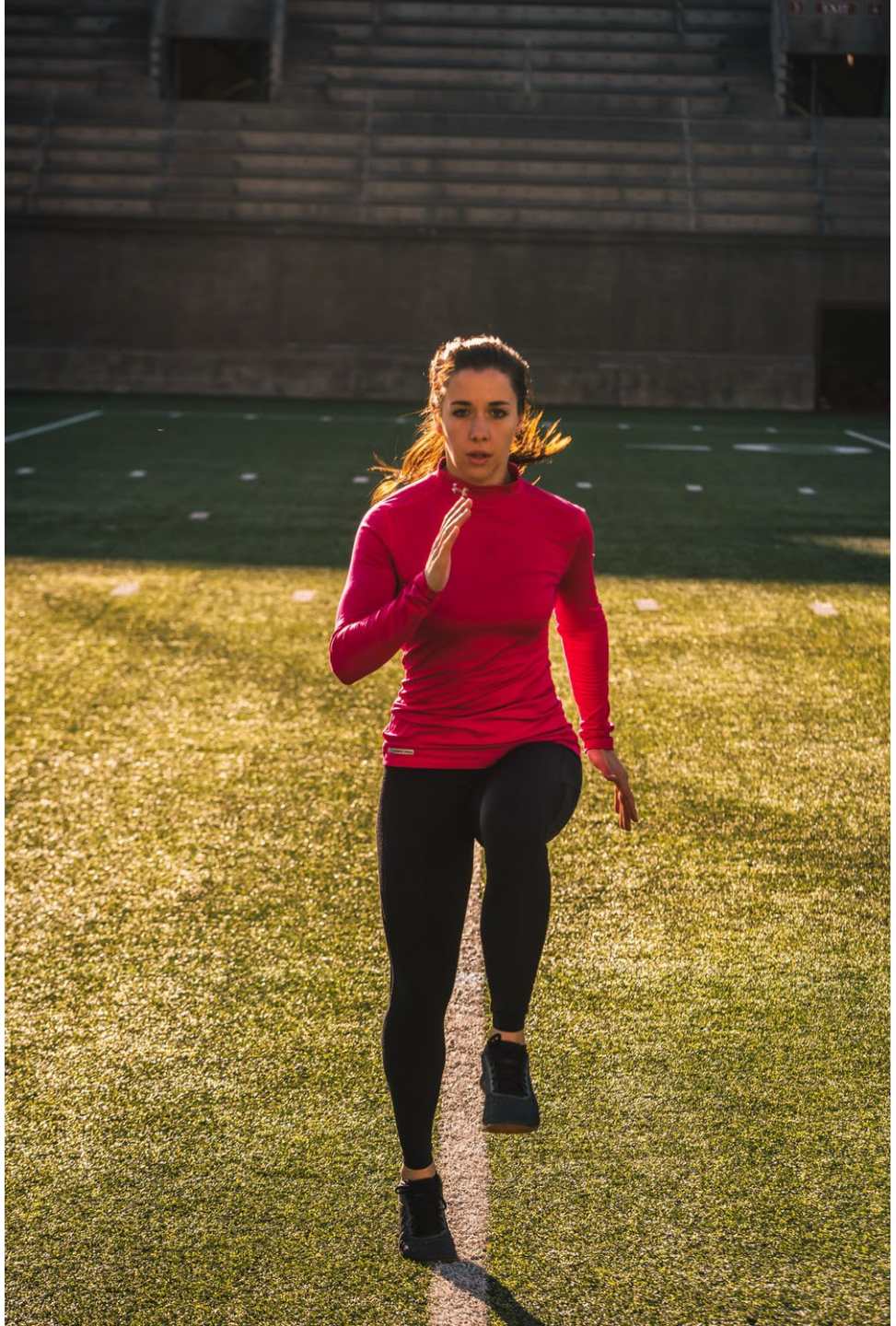
Competitive funding requiring excellence and institutional commitment to maintaining the infrastructure for its useful life



Investments

Over the past 24 years, CFI has invested over $9 billion in research infrastructure, generating over $21 billion in overall investment

The CFI has **invested over $60 million** in research infrastructure directly related to biomechanics, generating over $150 million in overall investment.

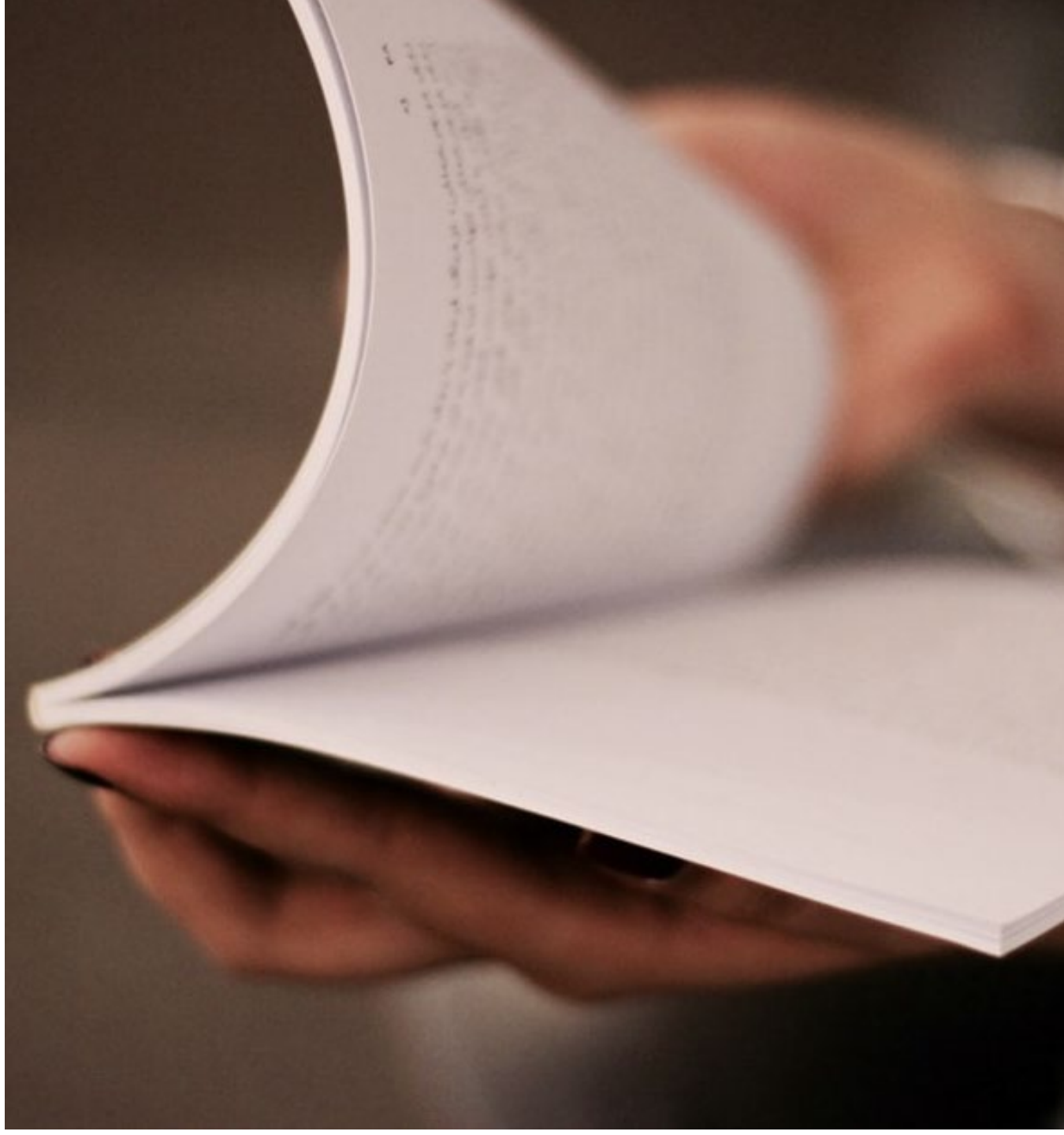


Funding programs

- Typically support:
  - a broad range of research programs
    - Natural science & engineering
    - Health
    - Social sciences and humanities
  - Research spanning the full spectrum of research
    - Basic
    - Applied
    - Technology development

Innovation Fund

- Funds large research infrastructure projects in support of leading-edge research projects
- Typically over $1 million
- Every 2-3 years
  - Latest deadline was July 2022

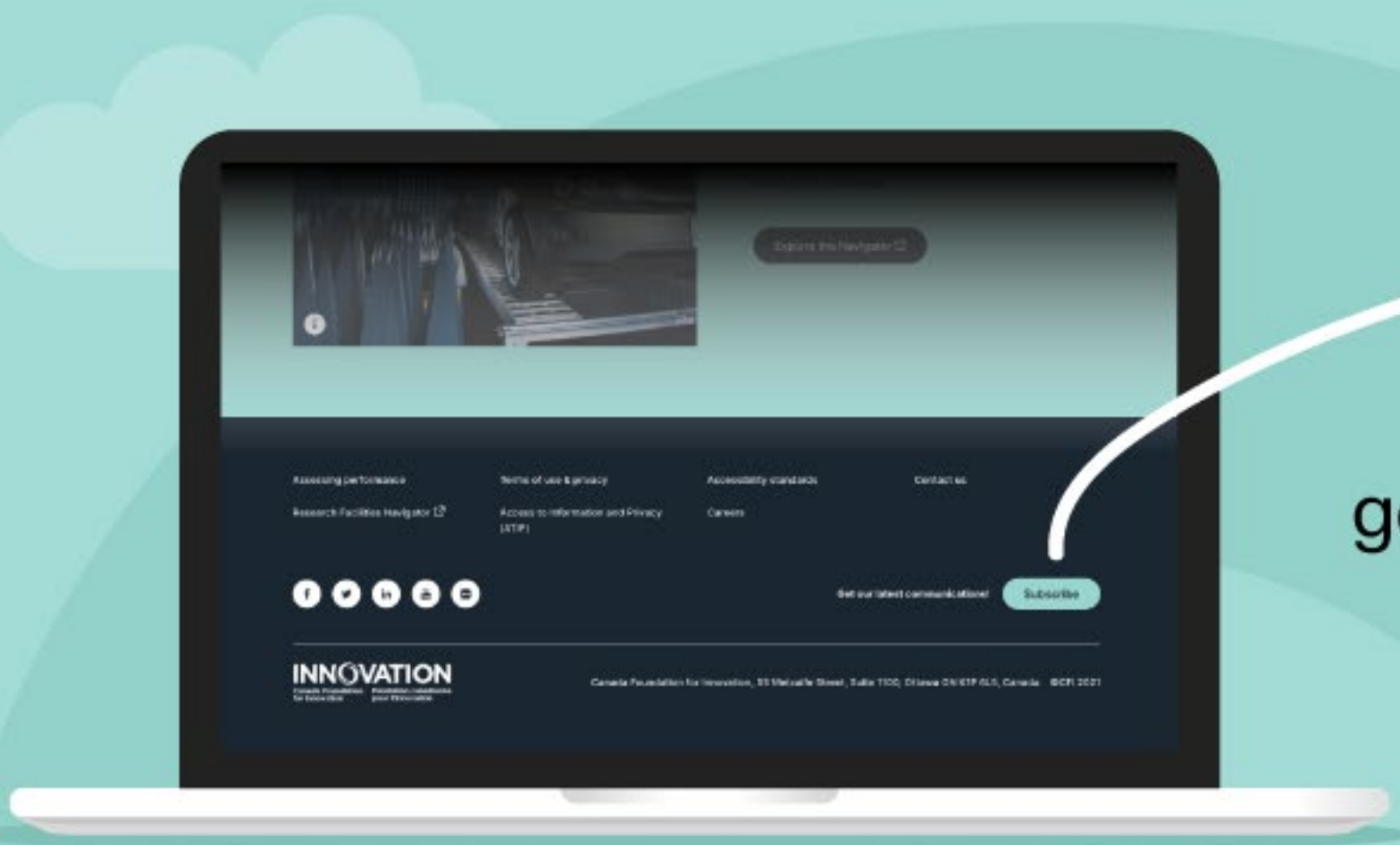


John R. Evans Leaders Fund

- Funds smaller, more focused research infrastructure projects
- Typically below $2 million
- Aimed at the attraction and retention of one to three faculty members in universities & research hospitals
- Three deadlines per year

College Fund

- Funds research infrastructure in colleges
- Supports partnerships with private, public and not-for-profit organization
- One deadline per year



Subscribe at **Innovation.ca** to get the latest updates from the CFI!

SUBSCRIBE

Supporting Collaborative Research

Emille Rodrigues, PhD

Business Development Specialist – uOttawa

Fernanda Mendonça, PhD

Business Development Specialist – Carleton University

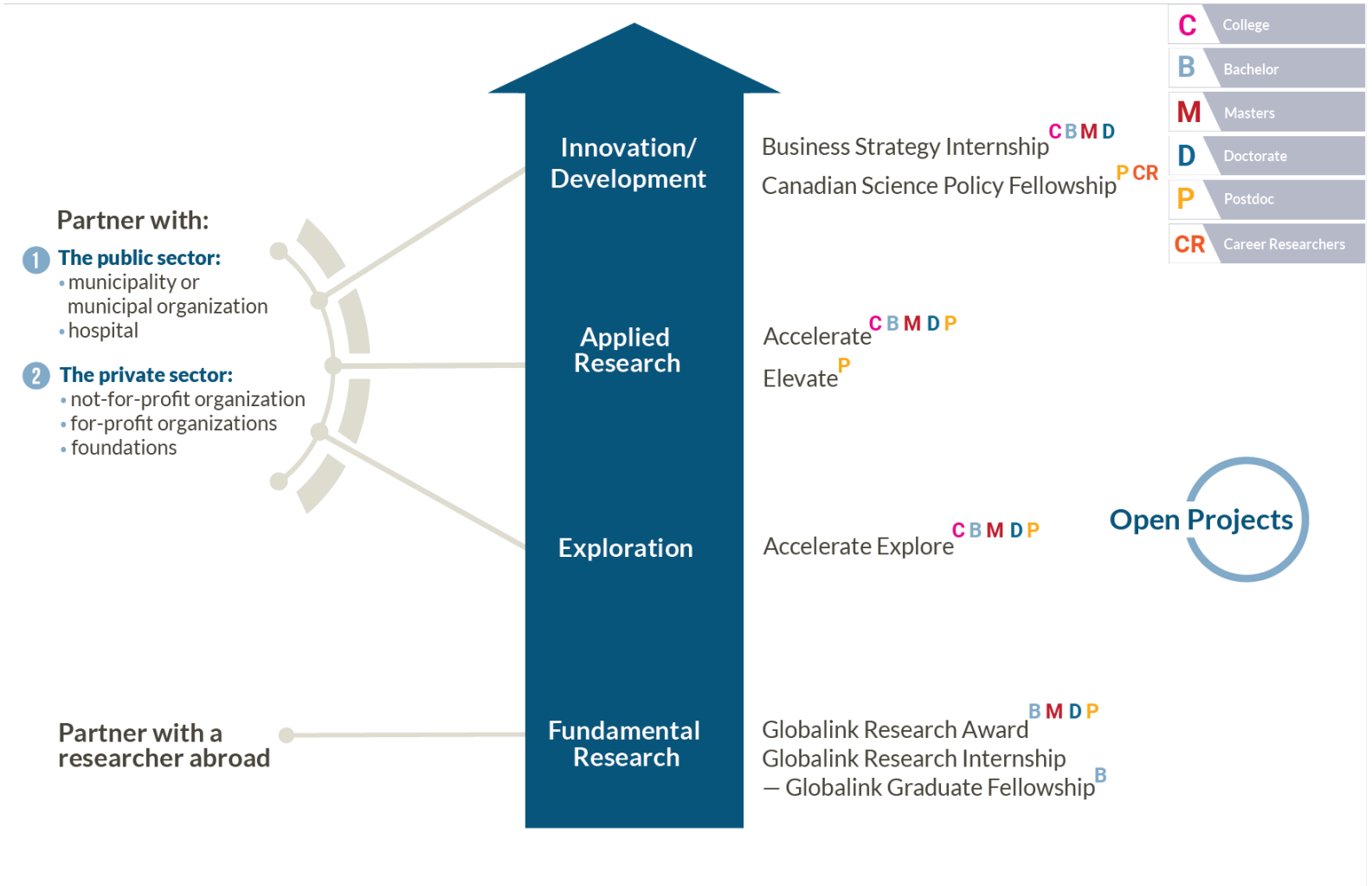
Dan Madularu, PhD

Director, Business Development

Our programs objectives

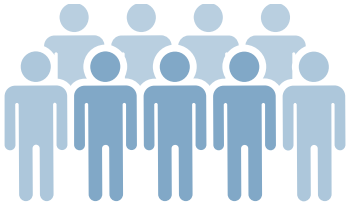
From Concept to Completion, Mitacs Embraces Your **Innovation Challenges!**

The continuum of innovation



We can help guide you at **every stage of your project** to aid you in achieving your business and collaboration goals!

Project participants: Accelerate



Mitacs eligibility criteria

Professor

- University
- College

Intern

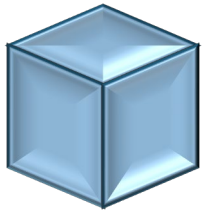
- College
- Undergraduate
- Masters
- PhD
- Postdoc

**can be TBD*

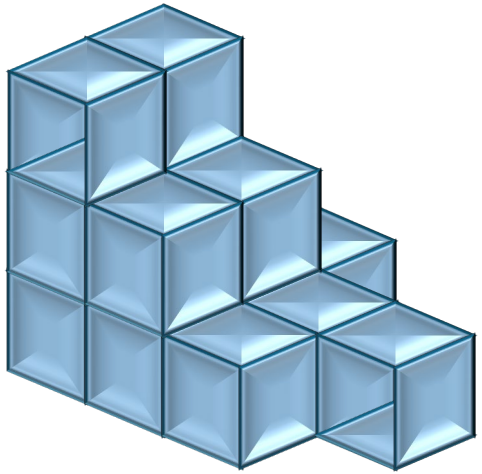
Partner

- Industry (CDN and int'l)
- Not-for-profits
- Crown corps
- Municipalities
- Hospitals

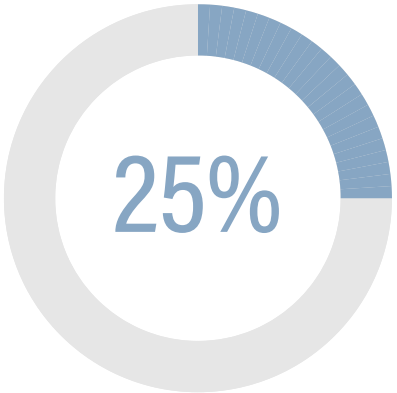
Our internships



An intern spends a minimum of 4-to-6 months — or **one internship unit** — on a project.



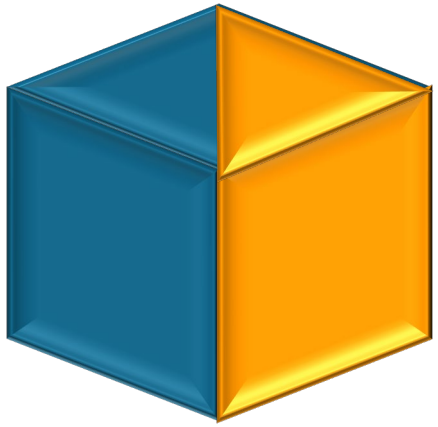
Partner organizations / PIs can have as many units as needed for the project.



The intern spends a minimum of **25% of their time** at each site (post-secondary institution or partner organization)

Our funding model

CAD 7.5k from partner organization



CAD 7.5K from Mitacs

Total working budget CAD 15K/module for 4 months

Mitacs Accelerate in a nutshell

Applied research collaborations with external partners

Applications are accepted **any time and are not competitive**

International collaborations between international companies and Canadian-based researchers

Thanks to our funding partners.

Mitacs

Thank you!

Questions?

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Overview of the National Institutes of Health – Funding Opportunities, Application & Review Process, and Writing a Competitive Application

Toyin Ajisafe, Ph.D.

National Center for Medical Rehabilitation Research

NIH *Eunice Kennedy Shriver* National Institute of Child Health and Human Development

Disclosures/Disclaimer

- No disclosures
- Content is solely the responsibility of the presenter and does not necessarily represent the official views of the National Institutes of Health

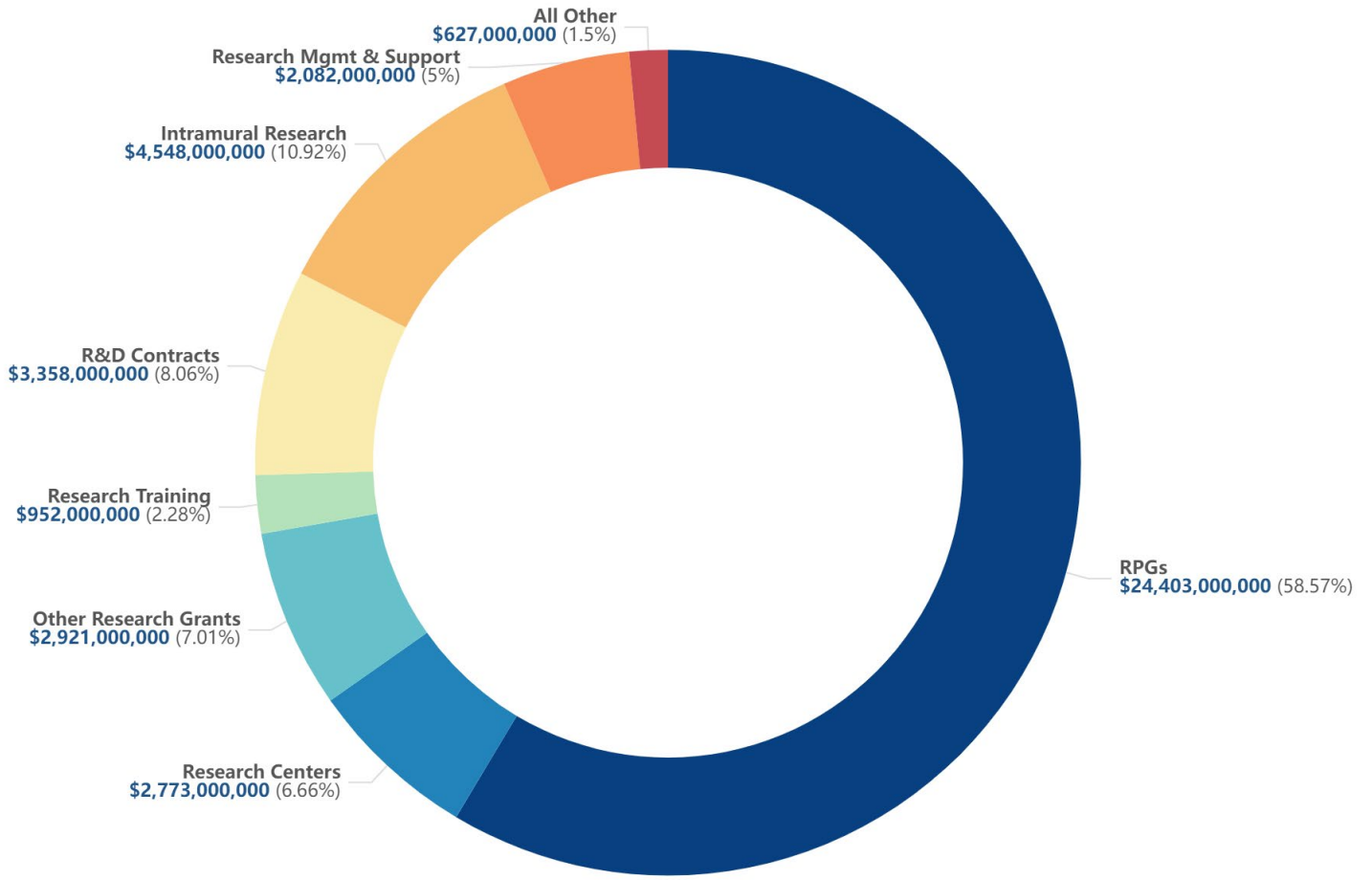
National Institutes of Health

- Mission
  - Seek fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to enhance health, lengthen life, and reduce illness and disability
  - Funds basic, translational, and clinical research
- Organizational Structure
  - 27 Institutes, Centers, and Offices (ICs), including Office of the Director. Offices don't manage grant portfolios
  - NIH and ICs for the remainder of the talk

NIH Organization Chart

NIH Budget and Distribution

Total NIH Budget Authority: FY 2021 Operating Plan



- Total budget: $41,664,000,000
- 58% for Research Project Grants (RPGs)

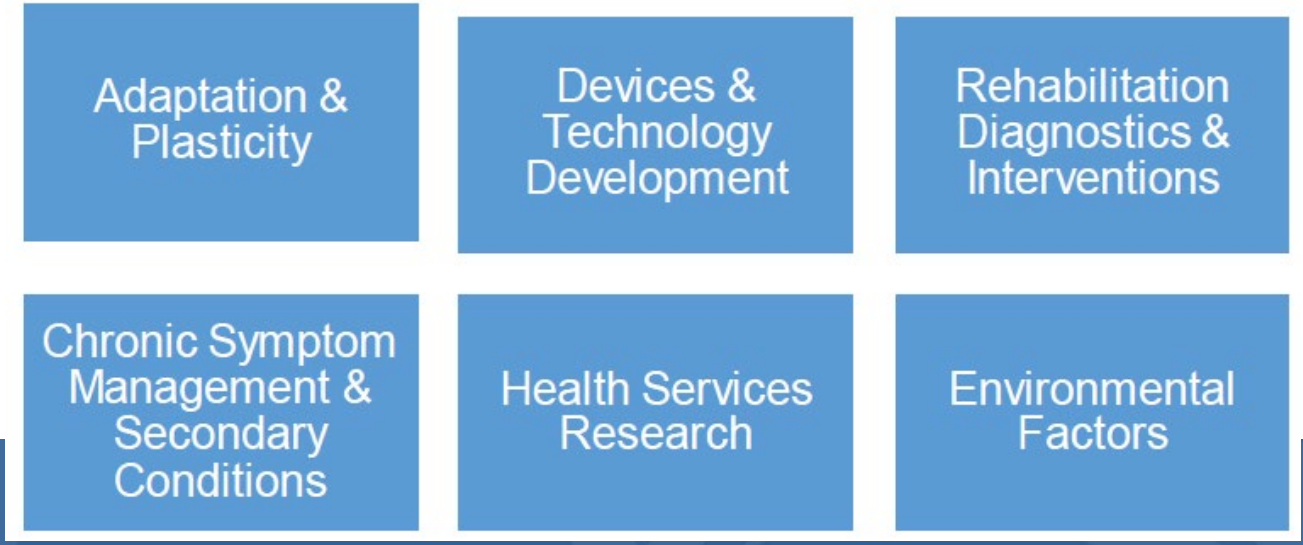
NIH Data Book

Biomechanics Research at NIH

National Center for Medical Rehabilitation Research (NCMRR)

Within NICHD (National Institute of Child Health and Human Development)

- Fosters development of scientific knowledge to enhance health, productivity, independence, and quality of life of persons with physical disabilities
- Congressionally-mandated; coordinates rehab research across NIH
- Supports full range of rehab research, including:



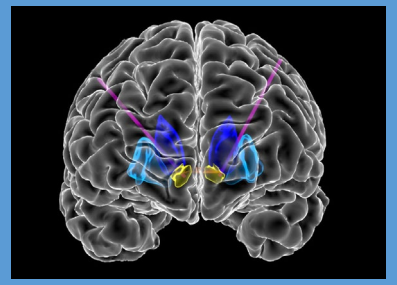
NIH Research Plan on Rehabilitation

- Themes
  - Rehabilitation Across the Lifespan
  - Community and Family
  - Technology Use and Development
  - Research Design and Methodology
  - Translational Science
  - Building Research Capacity and Infrastructure
- Highlights
  - Beyond observational studies; greater inclusion of people with disabilities - lived experiences, open source tools, data sharing, and Common Data Elements, etc.

*See full document

Other NIH ICs Supporting Medical Rehabilitation Research

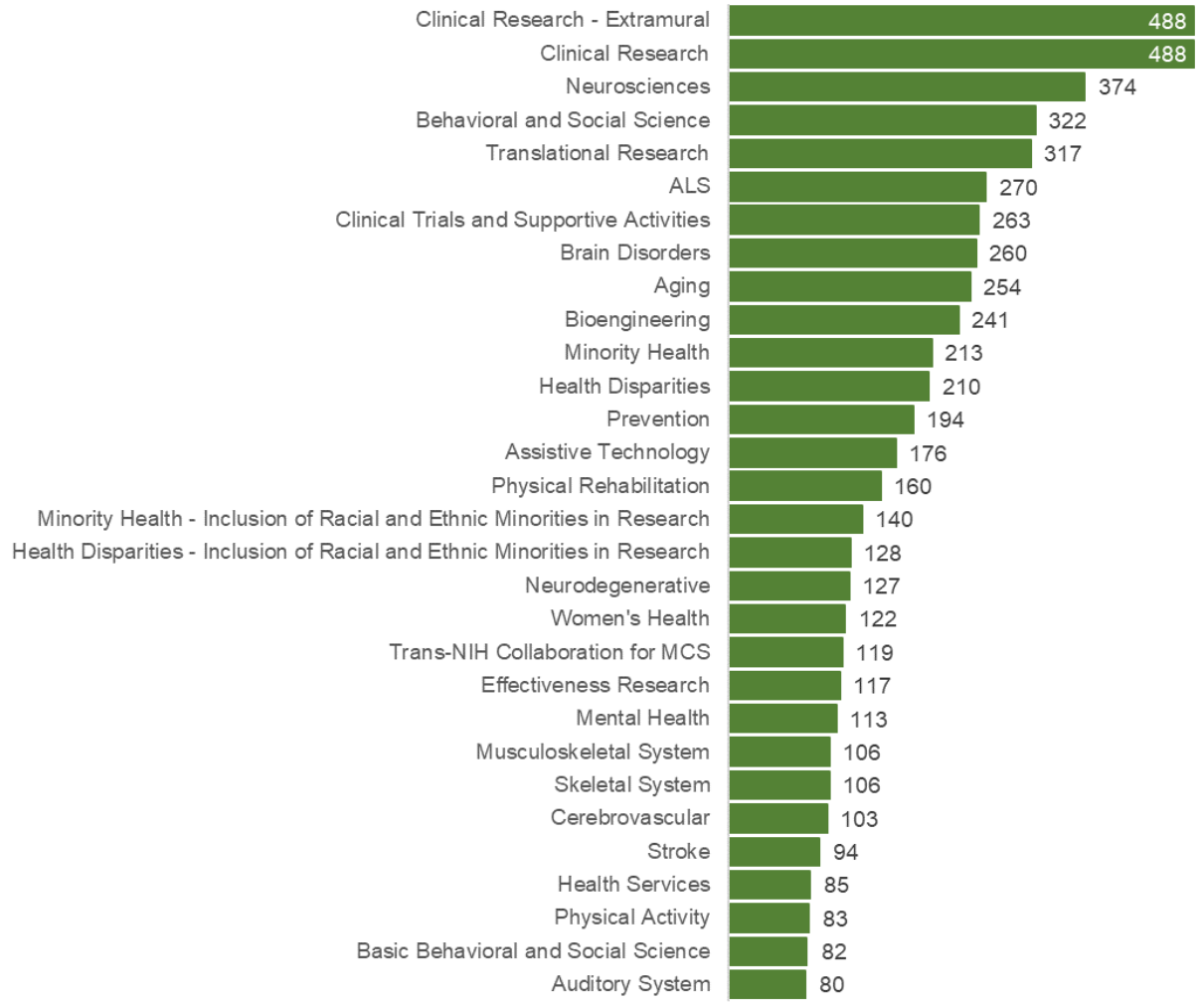
- NINDS: neurological disorders; neural circuitry; sensorimotor control; pain; neuroprosthetics
- NIBIB: bioengineering; bioimaging; neuroprosthetics
- NIAMS: musculoskeletal; sports injuries; arthritis; bone, joint, skin, and connective tissue
- NIA: geriatrics; balance and falls; frailty; sarcopenia
- NINR: symptom management; patient, family and caregiver support
- NHLBI: cardiovascular fitness and exercise; cardiovascular and artery diseases
- NCI, NCCIH, NEI, NIDCD, NIDA, NIAAA, NIMH



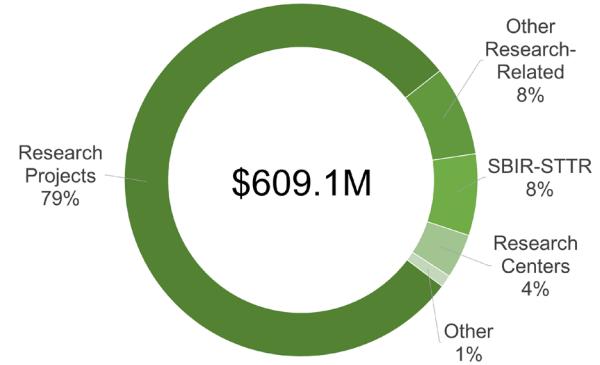
The *Brain Research Through Advancing Innovative Neurotechnologies*® (BRAIN) Initiative is aimed at revolutionizing our understanding of the human brain.

“Rehab” Research Funding across the NIH, FY2019

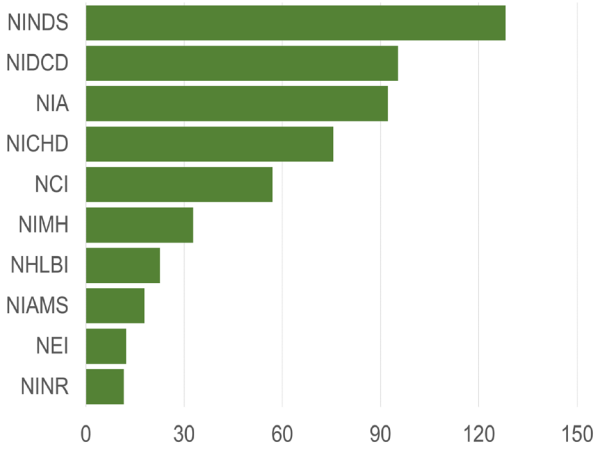
Funding per RCDC term (top 30 terms)



Funding per funding mechanism



Grants per IC (top 10 ICs)



NIH Grant Mechanisms

Special Research Initiatives (as listed in NIH Guide)

- Program Announcements (PA and PAR)
  - Highlights IC's interest in a specific research domain;
  - Extends for up to 3 yrs; allows for **revision** and **resubmission**
  - May be assigned to special targeted review panel
- Notice of Special Interest (NOSI)
- Request for Applications (RFA)
  - One time set aside of funds for applications in specific area
  - Dedicated review panel
  - No revision possible, but could resubmit as regular application
- Request for Proposals (RFP)
  - One time set aside for specific product (i.e., contract)

*Go to NIH Guide

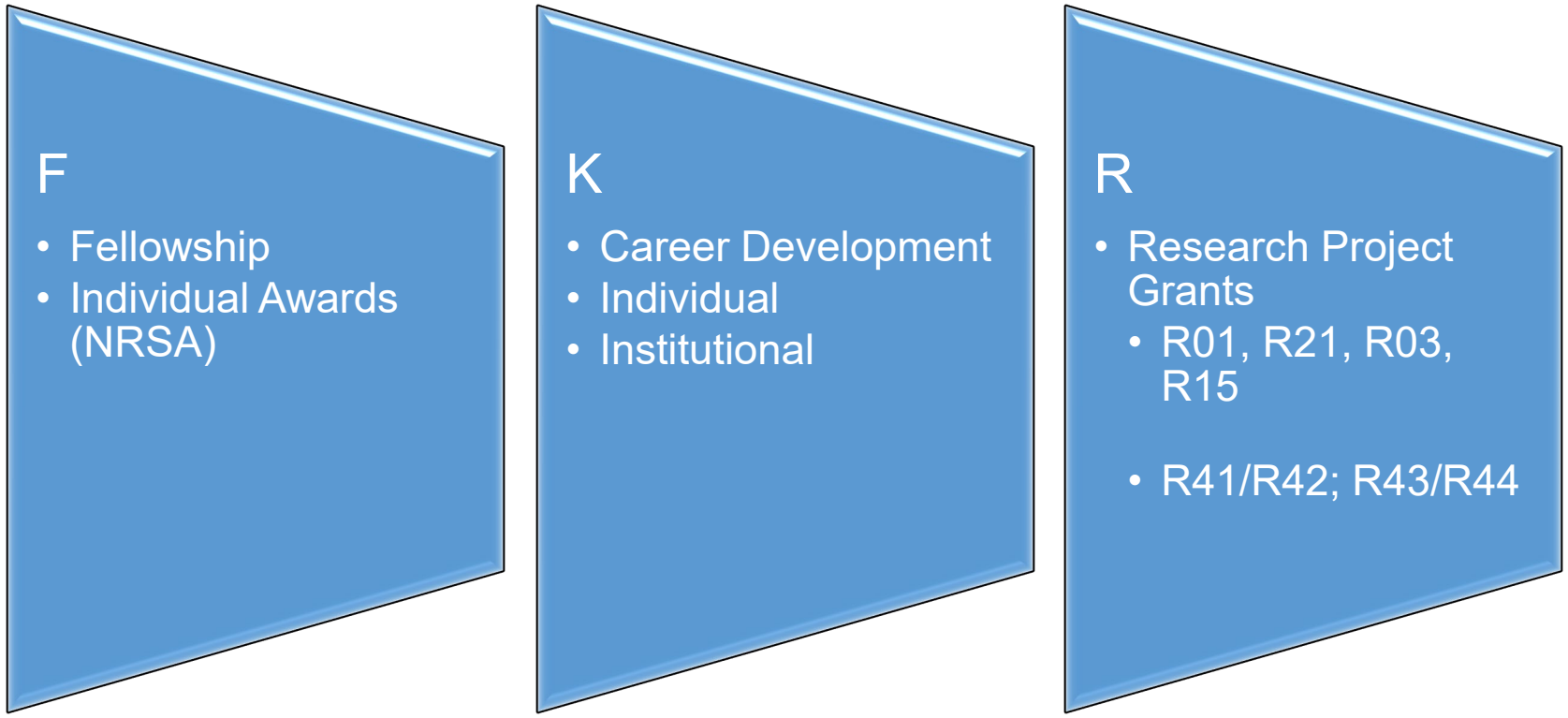
Keep Track of Your Investigator Status

- NIH continues to encourage support for New Investigators (NIs)
  - 'NI' status is highlighted in peer-review
  - NIH ICs have extended paylines for NI R01s; varies by IC
  - Receive summary statements sooner for quicker turn-around
- Beware of losing NI status as part of multiple PI team
  - Team of all NIs is considered a "NI application"
  - You do not lose your NI status if you inherit someone else's R01

New Investigator = never been PI on an R01 award

Early Career = NI and <10 yrs since terminal research degree

NIH Funding Mechanisms for individual investigators



*See full listing & description of grant types and research training, career guidance, and strategy

- Investigator-initiated applications

  (majority of basic and clinical NIH funding)
  - Focus on specific set of aims
  - Budget typically $200-350K direct costs/yr
  - May request up to 4-5 yrs
  - If funded and productive, can later apply for a “competitive renewal”

RESEARCH PROJECT GRANTS (RPGs) R01

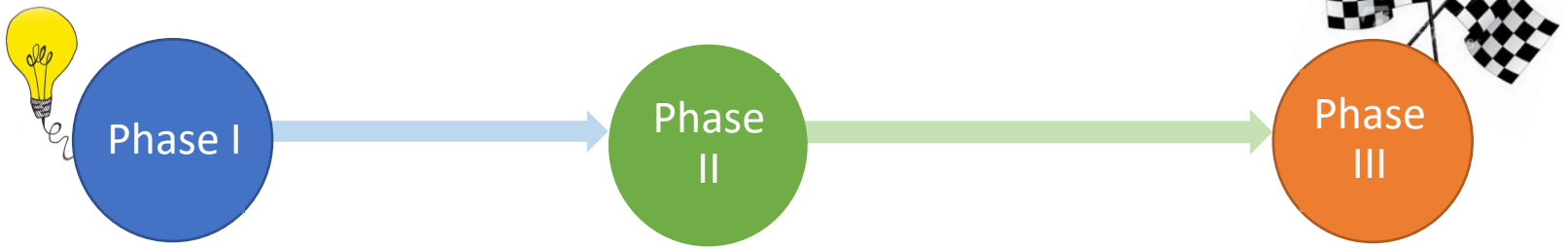
RPGs CONTD. R03 and R21 (Small Grants)

- R03 = Pilot study, feasibility; stepping stone
  - Early Career (≤ 7 yrs post terminal degree)
  - Up to $200K direct costs over 2 yrs
- R21 = innovative; high-risk; pushes the envelope; new methodology or technology
  - $275K (direct costs) for 2 yrs
  - *Not accepted by all ICs; some have specific announcements*
    - NIBIB Trailblazer - New and Early State Investigators ($400K in direct costs over 3 yrs)
- Not renewable; may not be used to supplement already-funded projects

- R15 - Academic institutions that have not been major recipients of NIH funding
  - Projects that engage undergraduate students
  - Up to 3 yrs, aggregate budgets $300K direct costs, Renewable
  - Academic Research Enhancement Award (AREA) for Undergraduate-Focused Institutions
  - Research Enhancement Award Program (REAP) for Health Professional Schools and Graduate Schools

RPGs CONTD. R15 (Undergraduate-focused)

Both SBIR & STTR include a Phase I and Phase II funding mechanism however there are many other facets to this program.



Feasibility & Proof of Concept

SBIR: R43 STTR: R41

Funding Guidelines:

$275K (Hard Cap)

$385K Waiver Topic

Timeframe:

6 months – 1 yr

Research & Development

SBIR: R44 STTR: R42

Funding Guidelines:

Up to $1.8 M (Hard Cap)

$2M Waiver Topic

Timeframe:

Up to 2 yrs

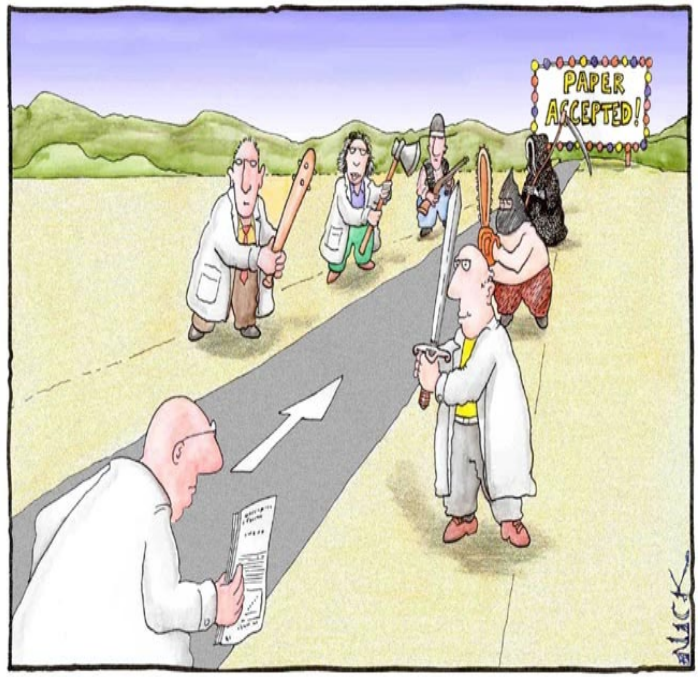
Commercialization

(not a funded phase)

RPGs CONTD. R41/R42 (STTR) R43/R44 (SBIR

Training and Career Development

- **Individual Fellowships**
  - Graduate (predoc) students (F31; also diversity) or Postdoc (F32)
  - Predoc in MD/PhD program (F30)
- **Institutional Training Grants (T32)**
  - Departmental support for specific number of and/or Postdocs
- **Career Development Mechanisms (K awards)**
  - New investigators committing to academic research careers
  - Mentored: 3-5 yrs and must commit at least 75% effort
  - Up to $100,000 salary plus minimal research support
  - Application processes may vary across NIH ICs
  - Generally, must be US citizens or non-citizen-national (Green-card holder)



Most scientists regarded the new streamlined peer-review process as "quite an improvement."

Trans-NIH Career Development

Mentored Research Scientist Development Award - K01

- Clinical-trained in targeted IC-specific area and have advanced degree (e.g., PhD)

Clinically-trained individual (e.g., MD)

- Seeking near-term training in basic research = **K08**
- Seeking training in patient-oriented research = **K23**

Mentored Quantitative Research Career Development - K25

- Quantitative or engineering background - going into biomedical research

Pathway to Independence Award (K99/R00)

Two phase award:

- 1-2 yr mentored phase as postdoc (<$90K/year)
- Transitions upon getting a bona fide tenure-track position
- Up to 3 yrs research support at <$249K/year
  - Three distinct FOAs depending on the project
    - CT Required; BESH; CT Not Allowed;
  - MOSAIC K99/R00 for postdocs from diverse backgrounds

Eligibility:

- Must be within 4 yrs of terminal degree
- Not yet in tenure-track faculty position
- Open to non-US citizens

NIH Loan Repayment Program

www.lrp.nih.gov

To repay educational debt (up to $50,000/yr)

Requires at least 2-year commitment to research

Five Loan Repayment programs:

- Clinical Research
- Pediatric Research
- Health Disparities Research
- Contraception and Infertility Research
- Clinical Researchers from Disadvantaged Backgrounds

CITIZENSHIP

U.S. CITIZEN, NATIONAL, OR PERMANENT RESIDENT

EDUCATION

DOCTORAL DEGREE (FEW EXCEPTIONS)

EDUCATIONAL LOAN DEBT

AT LEAST 20% OF ANNUAL BASE INCOME

RESEARCH FUNDING

DOMESTIC NONPROFIT, UNIVERSITY, OR GOVERNMENT;
NIH GRANT SUPPORT NOT REQUIRED

RESEARCH TIME

AT LEAST 20 HOURS/WEEK OF QUALIFIED RESEARCH

Applying to NIH

Applying to the NIH

- Investigator-initiated applications account for highest funding proportion
- Funding decisions largely driven by peer review scores
- Three annual due dates:
  February, June, and October; **vary with mechanism**
- Electronic submissions; timeline of about 9 months from submission to funding
- Guiding one's application home
  - Which Institute(s) supports this area of research?
  - Which study section has the most appropriate expertise?
- See About Grants page

NIH Applicants must designate a Funding Opportunity Announcement (FOA)

Make sure that the FOA:

- Is still active
- Includes the appropriate NIH IC that supports your research domain
- Covers the appropriate NIH funding mechanism
- Supports **Clinical Trial** Research or "Basic," as appropriate

FIND GRANTS & FUNDING INFORMATION USING NIH GUIDE

Active Funding Opportunities and Notices | rehabilitation | Search | Advanced Search

Clear All Filters
Clear Search Query

Displaying: 1 to 9 of 9 results

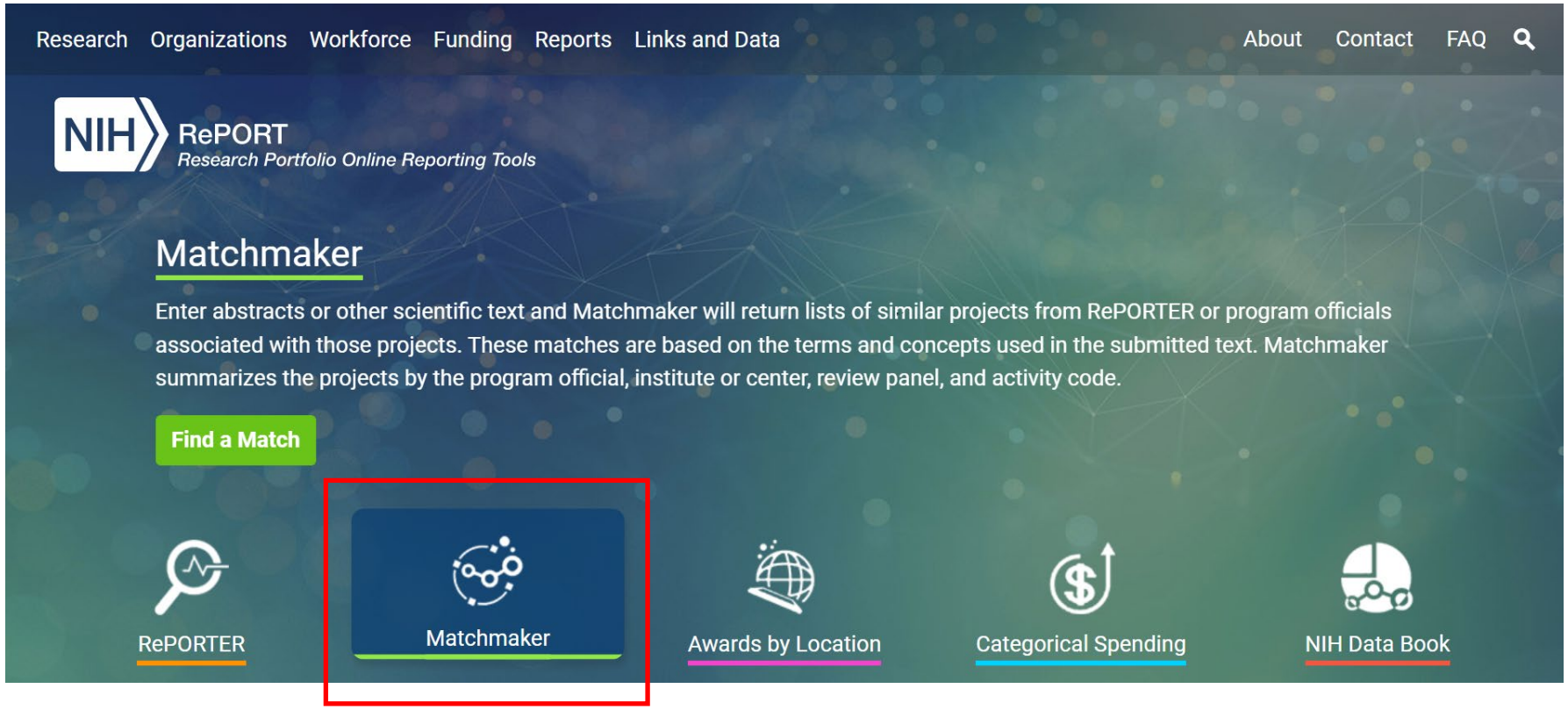
Results Per Page: 25

Export to | Share Search | Save your Search

Title	FOA/Notice Number	Issuing Organization	Release Date	Expiration Date	Activity Code
Notice of Special Interest (NOSI) Research on *Rehabilitation* Needs Associated with the COVID-19 Pandemic	NOT-HD-20-031	NICHD	Sep 29, 2020	May 8, 2023	R01, *R03*, R21
NCMRR Early Career Research Award (R03 Clinical Trial Optional)	PAR-20-042	NICHD	Oct 24, 2019	Apr 1, 2022	*R03*
NICHD Small Research Grant Program (R03 Basic Experimental Studies with Humans Required)	PA-21-231	NICHD	Apr 21, 2021	May 8, 2024	*R03*
NICHD Small Research Grant Program (R03 Clinical Trial Required)	PA-21-221	NICHD	Apr 21, 2021	May 8, 2024	*R03*

*Go to NIH Guide

Find NIH Institutes and Centers (ICs) that Match Your Area of Science



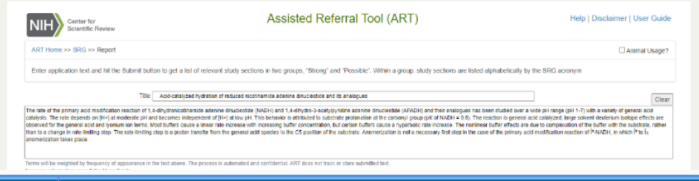
Go to NIH RePORT to find Matchmaker

Select the Best-Matched Study Section(s)

- Copy and paste title and abstract into Assisted Referral Tool
- Returns:
  - Study Sections
  - SBIR Special Emphasis Panels
  - Ranked as strong or possible

The Assisted Referral Tool (ART) was developed by the NIH Center for Scientific Review (CSR) to recommend potentially appropriate study section. The information you provide ART is only used to recommend study sections and is not stored or persisted. The recommendations made by ART are solely for the benefit of the user.

Assisted Referral Tool



Relevance	SRG	IRG	Membership	Name
Strong	AVI	VH	Roster	Atherosclerosis and Vascular Inflammation
Strong	CCHS	CVRS	Roster	Clinical Integrative Cardiovascular and Hematological Sciences
Strong	CHSB	PSE	Roster	Cancer, Heart, and Sleep Epidemiology Study Section
Possible	BBHV	VH	Roster	Basic Biology of Blood, Heart and Vasculature
Possible	CHSA	PSE	Roster	Cancer, Heart, and Sleep Epidemiology Study Section
Possible	GHD	GGG	Roster	Genetics of Health and Disease Study Section

Contact NIH Program Staff

- Identify appropriate “Program Officers” (PO)
- As introduction, email your Abstract and/or Specific Aims page
- You can discuss potential grant mechanisms, initiatives, and study sections
- Following submission, point-of-contact shifts to the “Scientific Review Officer”
- After review, PO can help interpret summary statement and likelihood of funding
  - Note: funding decisions are largely driven by applications’ scores

NIH Application Review Process

NIH Review Criteria (for R mechanisms)

- Significance
- Investigator
- Innovation
- Approach: focus on rigor & reproducibility
- Environment
- **Considerations for Clinical Trials (CT) -** The NIH has developed special application and review procedures – including CT-specific FOAs; also BESH
- Risk protection for enrolled human subjects and inclusion/exclusion criteria

Application has been Reviewed; What are next Steps?

Resubmit if less favorably scored

- Do not retreat after a single submission….
- Understand the summary statement
  - Did reviewers “get” the application or seem interested?
  - Major vs. minor criticisms?
  - Do they want to see it again?
- Chat to your program officer (leverage mentors’ insight)
- Seek feedback from colleagues/mentors
- Don’t rush the response – 1 resubmission – take your time
- Be collegial in response

Thank you!

toyin.ajisafe@nih.gov

Eunice Kennedy Shriver National Institute
of Child Health and Human Development

NSF @ NACOB

August 21, 2022

Laurel Kuxhaus, PhD

Biomechanics & Mechanobiology (BMMB) Program Director (detailed to the office of the Chief Officer for Research Security Strategy and Policy)

Stephanie George, PhD

Engineering of Biomedical Systems (EBMS) Program Director

What you can expect in this talk

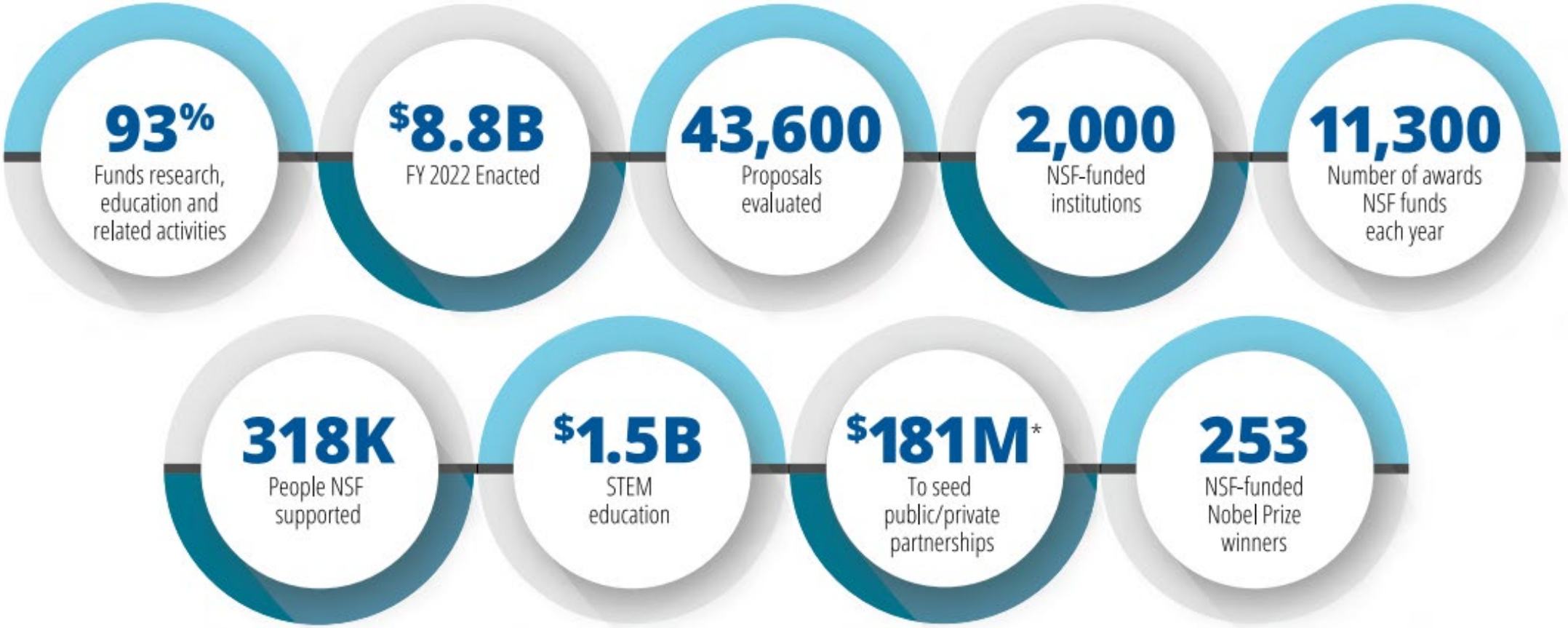
- **NSF Mission & Eligibility**
- **Proposal Preparation**
  - Biomechanics at NSF
  - Funding Mechanisms
  - How to contact the program director
- **NSF Review Process**
  - Type/membership
  - What to expect and when to expect it

NSF Mission

To promote the progress of science; to advance the national health, prosperity, and welfare; and to secure the national defense; and for other purposes.

[National Science Foundation Act of 1950, P.L. 81-507]

NSF by the Numbers



Data represents FY 2021 Actuals unless otherwise indicated.
**Corresponds to NSF investments initiated in FY 2021 and spanning multiple years.*

Eligibility (PAPPG 22-1)

- **NSF makes awards to US-based organizations**
  - ***Generally to*** Institutions of Higher Education, Non-profit non-academic organizations, for-profit organizations, state and local governments, and occasionally unaffiliated individuals.
- **Institutions decide who can serve as PI.**
  - NSF welcomes proposals on behalf of all qualified scientists, engineers, and educators.
  - The Foundation strongly encourages women, minorities, and persons with disabilities to participate fully in its programs.

Proposal Preparation

- **Identify the program (or special solicitation) for your proposed work.**
  - Read the program description (or solicitation) carefully!

- **Good-to-know: Biomechanics research is supported by multiple programs (in multiple Divisions and Directorates) at NSF.**

Programs in ENG/CMMI

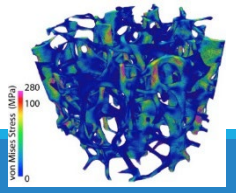
Biomechanics and Mechanobiology (BMMB)

Program Objectives:

- Fundamental biomechanics and/or mechanobiology research
- Theoretical, computational, and experimental approaches are supported

Key Components:

- Multiscale mechanics approaches are encouraged
- Integration across molecular, cell, tissue and organ domains is desirable – with link to organism-level physiology or biology



Mind, Machine, & Motor Nexus (M3X)

Program Objectives:

- Fundamental research at the intersection of mind, machine, and motor
- Integrated treatment of human intent, perception, and behavior in interaction with engineered systems mediated by motor manipulation

Key Components:

- How mind interacts with motor function in manipulation of machines
- How machine response and function shape and influence mind and motor functions

Programs in ENG/CBET

Engineering of Biomedical Systems (EBMS)

Program Objectives:

- Develop novel ideas into transformative solutions for biomedical problems
- Advance engineering and biomedical sciences, integrating the two disciplines

Key Components:

- Development of validated models of normal and pathological tissues and organ systems
- Design of systems that integrate living and non-living components for improved diagnosis, monitoring, and treatment of disease or injury
- Advanced biomanufacturing of 3D tissues and organs
- Design and subsequent application of technologies and tools to investigate fundamental physiological and pathophysiological processes

Disability & Rehabilitation Engineering (DARE)

Program Objectives:

- Develop understanding, interventions, & technologies to improve the quality of life of persons with disabilities
- Support research directed to the characterization, restoration, and/or substitution of human functional ability or cognition
- Novel engineering approaches to understanding human motion
- Understanding injury at the tissue or system-level

Programs Outside of ENG

Physiological Mechanisms and Biomechanics (BIO/IOS)

Program Objectives:

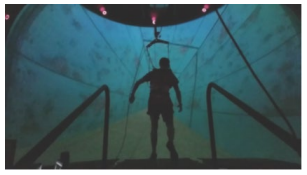
•Fundamental research to advance understanding of whole-organism functional morphology, biomechanics, and biomaterials

Perception, Action and Cognition (SBE/PAC)

Program Objectives:

•Fundamental, **theoretically motivated** research aimed at understanding typical human behavior

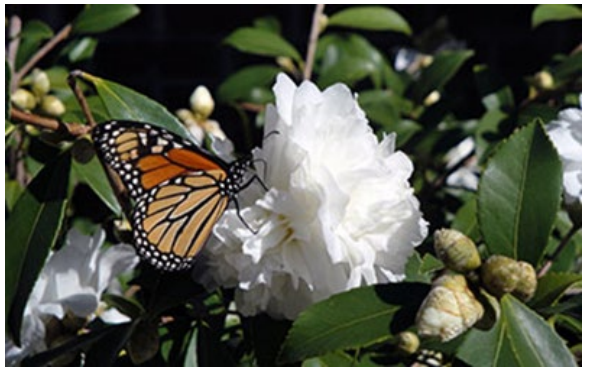
•Supports a wide range of computational and experimental approaches, including individual differences, symbolic and neural-inspired computation, ecological approaches, genetics and epigenetics, nonlinear dynamics and complex systems, et.



Physics of Living Systems (MPS/PHY)

Program Objectives:

•Theoretical and experimental research exploring fundamental physical processes that living systems utilize to perform functions in dynamic and diverse environments



Funding Mechanisms

- **Unsolicited proposals to a specific program - Standard funding mechanism for all levels of investigators**
  - Some Programs have Deadlines; ENG programs do not.

- **Solicited proposals – Responsive to a specific solicitation**
  - Typically has scientific topic or PI/Institution eligibility constraint
  - Typically has a deadline.

- ***Clinical trials?*** **NSF supports advancement of fundamental knowledge.**
  - Proof-of-concept work with humans (or animals) may be necessary for the proposed work. (Proof of clinical practice is <u>not</u> supported.)

Can I talk to the Program Director?
(Why should I do that?)

Meetings with PD's can provide researchers with good general guidance on proposal writing

Program Directors can help you connect to other opportunities.

Best Practices:

Before submission:

- Start with an email
- Include a one-page summary about the work that you want to do.

After submission:

- Reach out after receiving reviews to discuss.

Review Process

Merit Review

- ❑ 3+ reviews per proposal
- ❑ Panels are formed *de novo* each time
- ❑ Panel dates and membership are strictly confidential.
- ❑ Additional practices vary with Program, Division, Directorate

What you can expect

- 3 reviews
- A panel summary (if it was discussed in a panel)
- …in about 6 months.

Can I be a reviewer?

- Yes, once you have a terminal degree.
- Reach out to the cognizant Program Director to express your interest.

NSF Review Criteria *approved by the NSB*

Intellectual Merit:

- Does the proposed work advance and contribute knowledge in its own field or across different disciplines?
- Does the proposal involve creative and original concepts?
- Is the proposal well-conceived and organized?
- Is the PI (or team) qualified to conduct the proposed work?
- Does the team have sufficient access to resources to conduct the work?

There may also be solicitation-specific criteria; be sure to look for those!

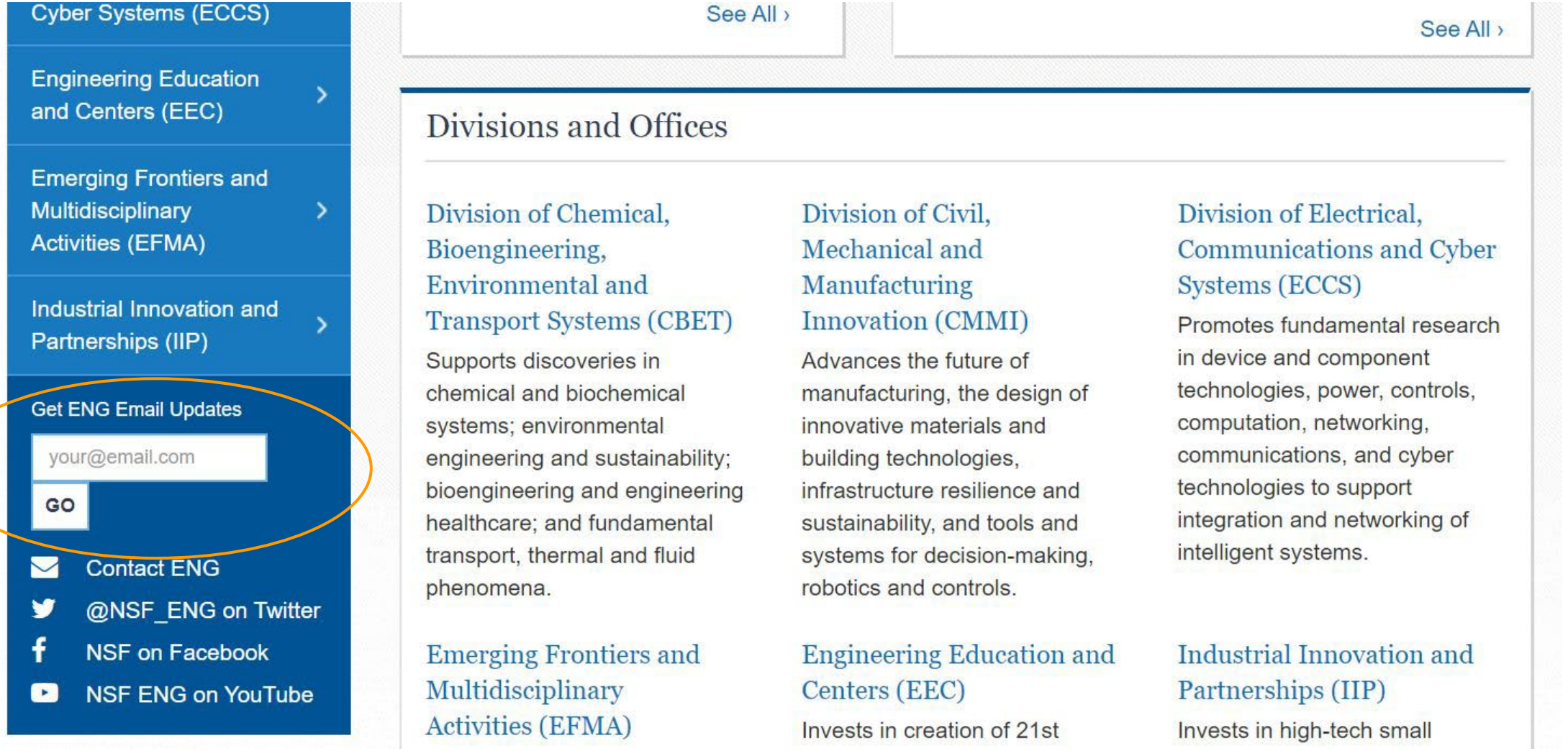
Broader Impact:

- Does the research and related activities contribute to the achievement of societally relevant outcomes?
- May include activities that:
  - Broaden participation in STEM
  - Improve STEM education
  - Increase public scientific literacy

Reviewers must consider both criteria;
NSF Program Directors must consider both criteria when making final recommendations.

https://www.nsf.gov/dir/index.jsp?org=ENG

Stay Informed—Sign Up!



Contact us with questions!

Laurel Kuxhaus, PhD

Biomechanics & Mechanobiology (BMMB) Program Director (detailed to the office of the Chief Officer for Research Security Strategy and Policy)

lkuxhaus@nsf.gov

Stephanie George, PhD

Engineering of Biomedical Systems (EBMS) Program Director

stgeorge@nsf.gov

U.S. Department of Veterans Affairs
Veterans Health Administration
Office of Research & Development

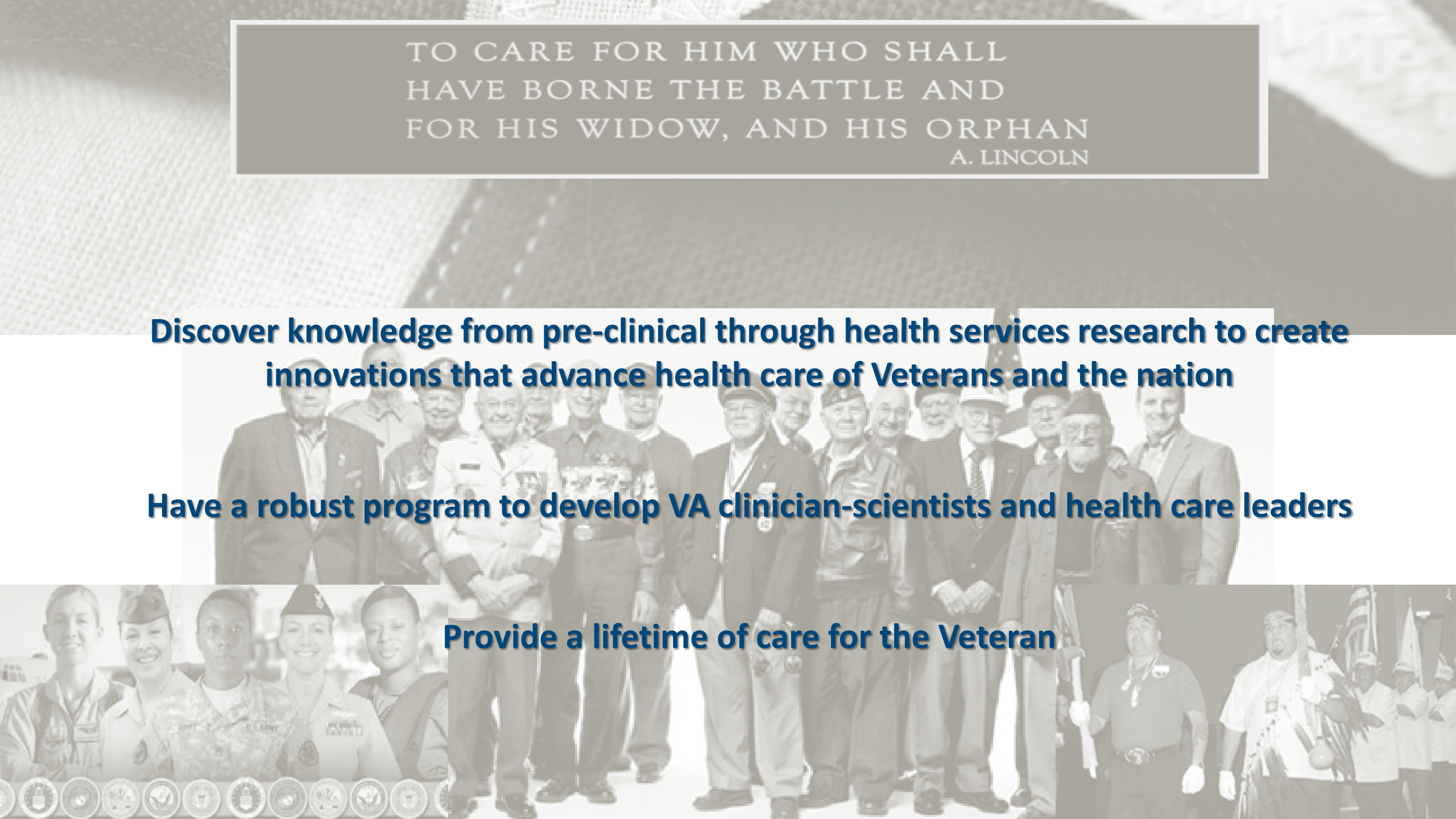
Research Funding Opportunities in the US Department of Veterans Affairs

Brian Schulz, PhD

Scientific Program Manager, Rehabilitation Engineering and Prosthetics/Orthotics
Rehabilitation Research & Development Service
Office of Research and Development

US DEPARTMENT OF VETERANS AFFAIRS (VA)

- VA provides benefits, healthcare, & burial services to US Veterans
- VA mission is to fulfill President Lincoln's promise to care for those “who shall have borne the battle” and for their families, caregivers and survivors.
- Veterans Health Administration (VHA) provides primary care, specialized care, and related medical and social support services to American Veterans
- Within VHA, **Office of Research and Development (ORD)** mission is to discover knowledge and create innovations that advance the health and care of Veterans and the nation



Discover knowledge from pre-clinical through health services research to create innovations that advance health care of Veterans and the nation

Have a robust program to develop VA clinician-scientists and health care leaders

Provide a lifetime of care for the Veteran

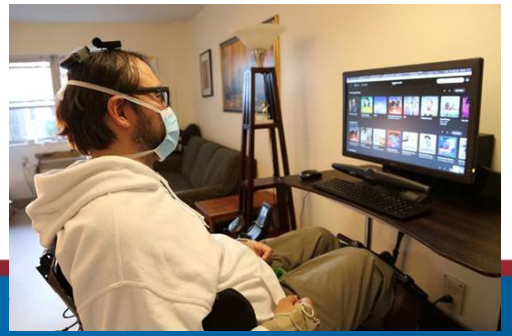
VETERANS HEALTH ADMINISTRATION (VHA)

ORD Mission: To discover knowledge and create innovations that advance the health and care of Veterans and the nation

- Largest integrated health care system in the nation
- >9 million Veterans receive care
- More than 371,000 full time health care professionals and support staff
- 171 medical centers & 102 active research sites
- Electronic Health Record and Health Informatics
- Largest single provider of graduate medical education
- Strong Academic Affiliate Network with ~15,000 medical faculty
- In FY22 $882M intramural research program dedicated to Veterans' needs -- Veterans participate in research done at VA by VA researchers

ORD FUNDING ELIGIBILITY

- Principle Investigators must hold VA 5/8ths salaried appointment (requires US citizenship) when funded (promise of appointment sufficient to apply)
- Co-Investigators not required to have minimum VA appointment or US citizenship
- Proposed research must be:
  - Relevant to Veterans (e.g. pediatric disorders likely not appropriate)
  - Conducted at a VA facility
- Most applications require approved pre-application
- Contacting a Scientific Program Manager is strongly recommended



RESEARCH FUNDED BY VA ORD

- VA research must be directed at improving the lives of Veterans through health care discovery and innovation
- Evaluated for Veteran-relevance at both scientific and programmatic stages of review
- Primarily investigator-initiated research
- Biomechanics research primarily under purview of Rehabilitation Research and Development service, but tissue- or cellular-level biomechanics studies would fall under Biomedical Laboratory Research and Development
  - Depending on specifics, biomechanics research could go elsewhere in ORD
  - Scientific Program Manager can help figure out where (and if) your study would belong

RR&D SPECIAL EMPHASIS AREAS

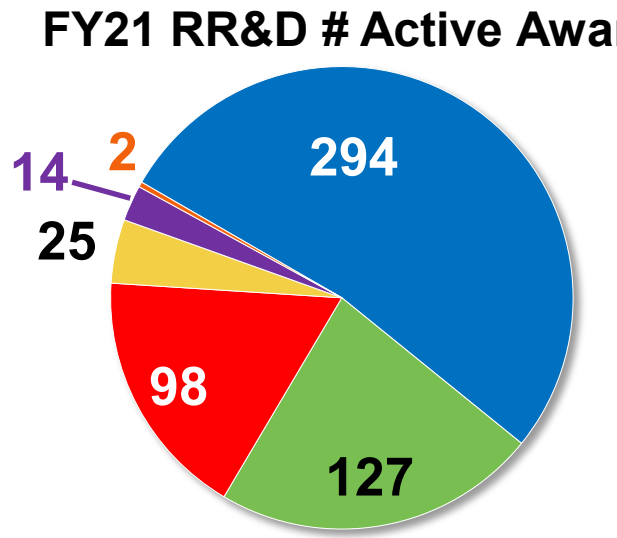
- Current RR&D Special Emphasis Areas:
  - **Prosthetic** & other assistive technology needs of **Women Veterans**
  - **Exoskeleton** research, including externally powered motorized orthoses for stroke, traumatic brain injury, or other **non-SCI/D** diagnoses
  - Non-pharmacological **activity-based interventions for chronic pain** impacting outcomes that may include pain reduction, medication use, ADL, & QoL
  - Effect of prolonged **exposure to opioids** on long-term outcomes from **traumatic brain injury**
  - **Suicide prevention** interventions that focus on Veteran **participation in life roles**
  - Studies on the **impact of COVID-19** on Veterans' physical, sensory, cognitive and psychosocial function
  - **Health Disparities** and conditions that impact underserved Veterans including but not limited to racial and ethnic minority Veterans, Veterans with disabilities, and LGBTQ+ Veterans within the context of **understanding the onset, severity, duration, rehabilitation, and recovery from disability**.

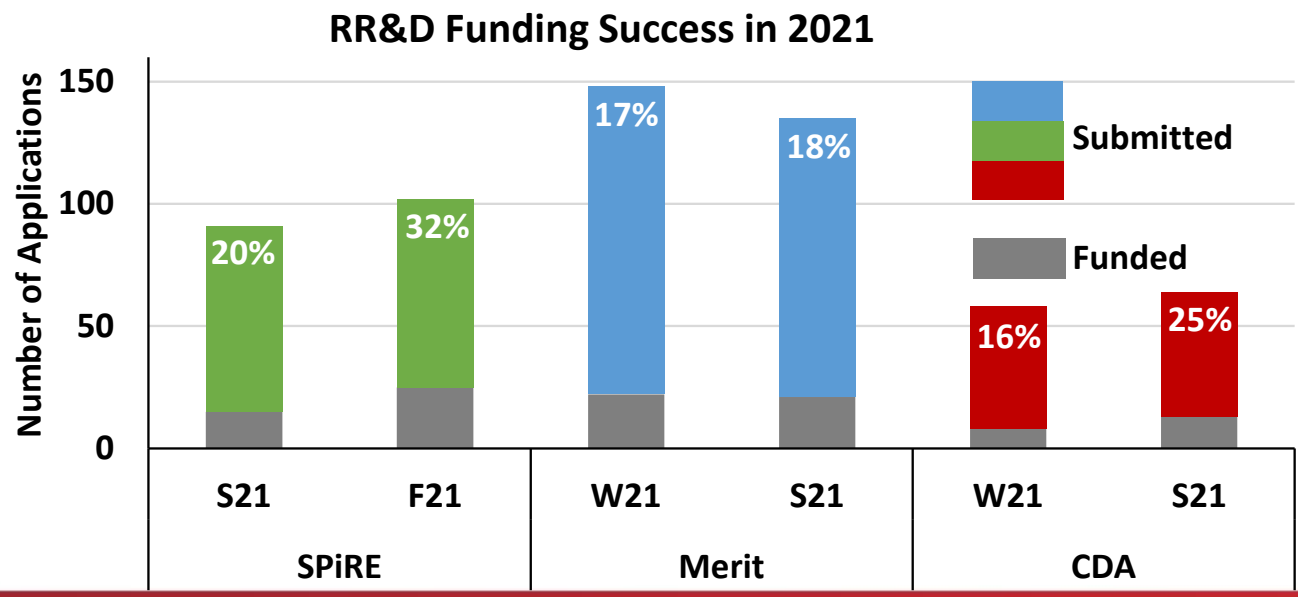
ORD AWARD TYPES (NONE PROHIBIT CLINICAL TRIALS)

ORD is intramural research program, no "granting" authority

- **Merit Awards** (I01)
  - Up to 4 years & $1.2M total
- **Small Projects in Rehab Research (SPiRE)*** (I21)
  - 1-2 years, $115K/year
- **Career Development Awards (CDA)** (IK1, IK2)
  - Up to 5 years of salary support, project funds
- **Research Career Scientists** (IK6)
  - 5 - 7 years, salary support
- **Research Award Enhancement Program/ Centers*** (I50)
  - 5 years, $440/$1.26M/yr
- **Other**
  - Service Directed Research

* RR&D only award





CDA (MENTORED) AWARD TYPES: ELIGIBILITY AND CONDITIONS*

	CDA-1 (CS/BL* & RR&D)	CDA-2	MSI
Clinician salary	9 calendar months plus 1/8th from VAMC	6-9 calendar months plus 1/8th from VAMC	6-9 calendar months plus 1/8th from VAMC
Non-clinician salary	7.5-12 calendar months	7.5-12 calendar months	7.5-12 calendar months
Project funds	$20K/yr to extend work of mentor	$75K/yr for independent work	$75K/yr for independent work
Award duration	Up to 2 years	3-5 years	3-5 years
Eligibility	Max of **2 years** beyond completion of training	Max of **5 years** beyond completion of training	As other CDAs with mentors at both MSI and VA

https://www.research.va.gov/funding/cdp.cfm

*some details vary for non-RR&D awards

PROPOSALS AND REVIEW PROCESS

- Scientific review by external peer reviewers; programmatic review is internal
- There are standing panel members, but many ad-hoc
- You can volunteer to review, but we can effectively only use US citizens
- Pre-applications used for initial eligibility screening & review planning, but also aid SPM in recruiting reviewers prior to submission of full application

- **Scientific review process differs by funding mechanism…**

Merit & CDA (mentored awards)

- In-person review panels with 3 assigned reviewers per application
- Panels meet in winter [late Feb/early March] and summer [early August]
  - Applications due ~9 weeks prior to meeting (local VA sets internal deadlines)
  - Applications in lower 1/3rd can be streamlined (not discussed; no final score)
  - Scientific Panel discusses and all members score (final score is mean)
- PI feedback
  - If discussed: final score, summary of discussion, & 3 written critiques
  - If not discussed: 3 written critiques
- Up to 3 submissions allowed

SPiRE (2-year pilots)

- Editorial review like journal articles; 3 assigned reviewers
- Reviews in **spring** [April] and **fall** [October]
  - Applications due ~3 weeks prior (local VA sets internal deadlines)
  - No streamlining or discussions
  - Only 3 possible scores only by 3 assigned reviewers
    - 2 (highly meritorious), 3 (meritorious) & 4 (needs work)
    - 7 possible final scores- 2, 2.3, 2.7, 3, 3. 7, 4.3, 4
- PI feedback: final score & 3 written critiques
- Only 2 submissions allowed

VA CONTACTS & RESOURCES

- Contact VA Colleagues, Mentors, Program Staff
- Contact Scientific Program Managers & review portfolio purviews- https://www.rehab.research.va.gov/staff/science1.html
- Local VA Research Office (they submit applications on behalf of the PI)
- ORD website http://www.research.va.gov/
  - Important Resources
  - Submission Guidelines
  - Eligibility Requirements
  - Links to RFAs on ORD intranet (if not VA, candidate can obtain from VA mentor/co-investigator)
- Search NIH RePORTER http://report.nih.gov/index.aspx and Clinical Trials.gov http://clinicaltrials.gov/ for VA funded studies

SPECIFIC ORD WEB RESOURCES

Office of Research and Development

- Funding Opportunities (VA Intranet) http://vaww.research.va.gov/funding/rfa.cfm
- Handbooks- http://www.research.va.gov/resources/policies/
- Videos of Research- https://www.research.va.gov/news/videos.cfm
- Career Development Program- http://www.research.va.gov/funding/cdp.cfm
- Rehabilitation R&D- http://www.rehab.research.va.gov/
- Health Services R&D- http://www.hsrd.research.va.gov/

U.S. Department of Veterans Affairs
Veterans Health Administration
Office of Research & Development

Questions?

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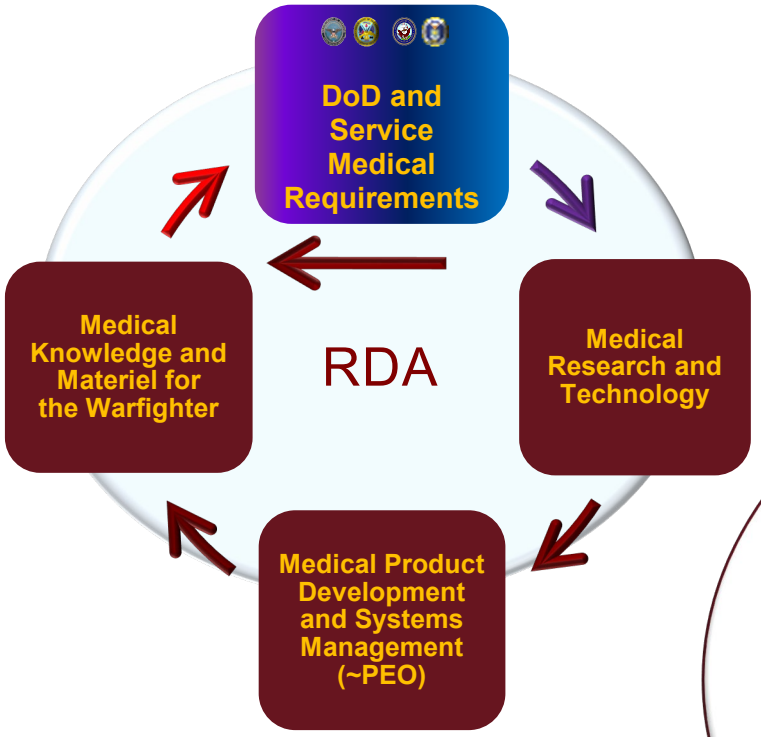
Scientific Program Manager,
Rehabilitation Engineering and Prosthetics/Orthotics
Rehabilitation Research & Development Service
Office of Research and Development

U.S. Army Medical Research and Development Command (USAMRDC)

Elizabeth Russell Esposito, PhD
Health Science Administrator
Neuromusculoskeletal Injury Portfolio Area Manager
Military Operational Medicine Research Program (MOMRP)
USAMRDC

Research, Development and Acquisition Command



A RDA command leveraging DoD, Federal, Academic, and Industry partners to advance Military medicine

As of 26 Jun 19

Program Area Directorates (Science & Technology [S&T])

Office of the Principal Assistant for Research & Technology

Program Area Directorates (PADs)

- Manage programs; do not execute programs (do not perform research and technology)
- Fund intramural and extramural research and technology
- Responsible for both the problem set and the solution set
- Devise a research strategy (program) and fund research and technology that fit the program
- Collaborate with industry, academia and professional societies

Program Coordinating Offices

- CBRN Defense Coordinating Office
- DoD Blast Injury Research Program Coordinating Office
- Joint Trauma Analysis and Prevention of Injury in Combat

Military Infectious Diseases Research Program (MIDRP)

- Vaccines & drugs to prevent parasitic diseases (malaria)
- Vaccines to prevent diarrheal diseases
- Vaccines to prevent viral diseases (dengue, hanta)
- HIV countermeasures (congressional mandate)
- Prevent & treat combat wound infections
- Protection from disease carrying arthropod vectors
- Countermeasures against emerging infectious diseases

Combat Casualty Care Research Program (CCCRP)

- Hemorrhage control and resuscitation
- Traumatic brain injury care
- Blood and blood products far forward
- Burn injury and organ support
- Tactical CCC interventions
- Extremity and maxillofacial trauma treatment
- Prolonged field care
- Regenerative Medicine
- Pain Management

Military Operational Medicine Research Program (MOMRP)

- Musculoskeletal Injury
  - Prevention
  - Assessment and Treatment
- Blunt, Blast, & Accelerative Injury
- Behavioral Health, Wellness & Resilience
- Psychiatry & Clinical Psychology Disorders
- Health, Readiness & Performance in Austere Enviros
- Fatigue, Cognitive Health & Performance
- Human Operator Health & Performance in Complex Systems
- Environmental Toxicant Exposure
- Performance Nutrition & Weight Balance
- Directed Energy Health Hazards
- Biomedical Aspects of Human Perf Opt & Enhance
- Sensory Systems(Vision, Hearing, Balance)

Medical Simulation and Information Sciences Research Program (MSISRP)

- Medical simulation
- Health information technology and informatics
- Medical capabilities to support disbursed operations

Program Area Directorates
Key Objectives

Military Infectious Diseases

- Prevent, Treat, & Manage Combat Wound Infections
  - Develop novel therapeutics and delivery technologies for combat would infections and drug-resistant bacteria

Medical Simulation and Information Sciences

- Improving Military Medical Simulation
- Health Information Technology and Informatics
- Provide Medical Assist to Support Technologies

Military Operational Medicine

- Injury Prevention & Reduction
  - Develop scientifically-based strategies and interventions to reduce the risk of musculoskeletal injury
  - Validate medical standards to optimize Operator's health and performance in Military weapons systems and equipment
- Physiological Health & Performance
  - Develop assessments/interventions to mitigate cognitive deficits posed by operationally-induced sleep loss
  - Discover novel biomedical approaches to optimize and enhance Soldier performance
- Restore Warfighters following Neuromusculoskeletal Injuries
  - Diagnose NMS Injuries in training and operational environments
  - Treat service related acute or overuse NMS injuries
  - Fully restore function and performance to Warfighters following limb trauma and amputation

Combat Casualty Care

- Prolonged Care
  - Innovate for Extremity Injury and Bone Fixation to Save Limb and Rapid Return to Combat
- Neurotrauma and Traumatic Brain Injury
  - Diagnose & Treat Acute Battlefield TBI
  - Early intervention & stabilization for Spinal Cord Injury
- Regenerate lost or damaged tissue after trauma
  - Restore form and function to injured tissues of the extremities and head/face

Laboratories and Research Centers

USAMRIID
Ft. Detrick, MD

U.S. Army Medical Research Institute of Infectious Diseases

WRAIR
Forest Glen, MD

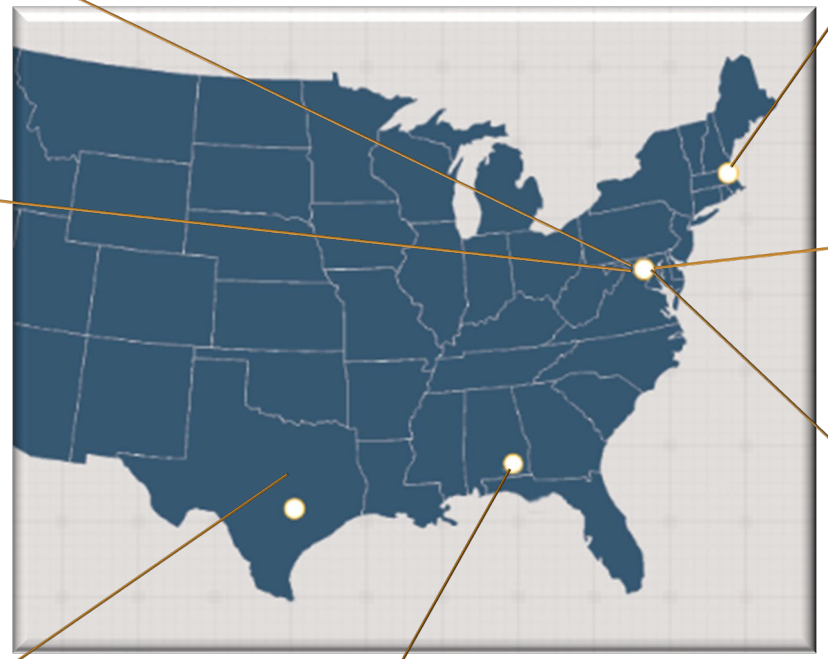
Walter Reed Army Institute of Research

- Armed Forces Research Institute for Medical Sciences (AFRIMS),Thailand, Asia
- U.S. Army Medical Research Division, JBLM
- U.S. Army Medical Research Division, Africa
- U.S. Army Medical Research Division, Georgia. Europe

USAISR
Ft. Sam Houston, TX

U.S. Army Institute of Surgical Research

- U.S. Army Dental and Trauma Research Detachment (USADTRD), Ft. Sam Houston, TX
- U.S. Army Medical Research Detachment (USAMRD), Ft. Sam Houston, TX



USAARL
Ft. Rucker, AL

U.S. Army Aeromedical Research Laboratory

USARIEM
Natick, MA

U.S. Army Research Institute of Environmental Medicine

USAMRICD
Aberdeen PG, MD

U.S. Army Medical Research Institute of Chemical Defense

USAMMDA
Ft. Detrick, MD

U.S. Army Medical Materiel Development Activity

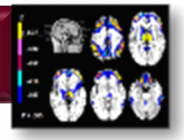
TATRC
Ft. Detrick, MD

Telemedicine and Advanced Technology Research Center

As of 11 Aug 19

Research Competencies

WRAIR
Forest Glen, MD



Walter Reed Army Institute of Research

- Infectious Diseases: Parasitic, Bacterial, Viral
- Vector Control
- **TBI Neurotrauma & Brain Dysfunction**
- Psychiatry & Clinical Psychology Disorders
- Fatigue, Cognitive Health & Performance
- Behavioral Health, Wellness, & Resilience
- Blunt, Blast, & Accelerative Injury
- Human Performance Optimization/ Enhancement – Psychological
- Environmental Toxicant Exposure

USAMRIID
Ft. Detrick, MD

U.S. Army Medical Research Institute of Infectious Diseases

- Bacterial Diseases
- Viral Diseases
- Biological Toxins

USAMRICD
Aberdeen PG, MD

U.S. Army Medical Research Institute of Chemical Defense

- Traditional & Emerging Chemical Threats
- Biological Toxins

TATRC
Ft. Detrick, MD

Telemedicine and Advanced Technology Research Center

- **TeleHealth**
- **Health Information Technology**
- **Medical Simulation & Training Systems**
- **Medical Intelligent Systems**

USARIEM
Natick, MA

U.S. Army Research Institute of Environmental Medicine

- **Musculoskeletal Injury**
- **Performance Nutrition & Weight Balance**
- **Human Performance Optimization/ Enhancement – Physiological**

USAISR
Ft. Sam Houston, TX

U.S. Army Institute of Surgical Research

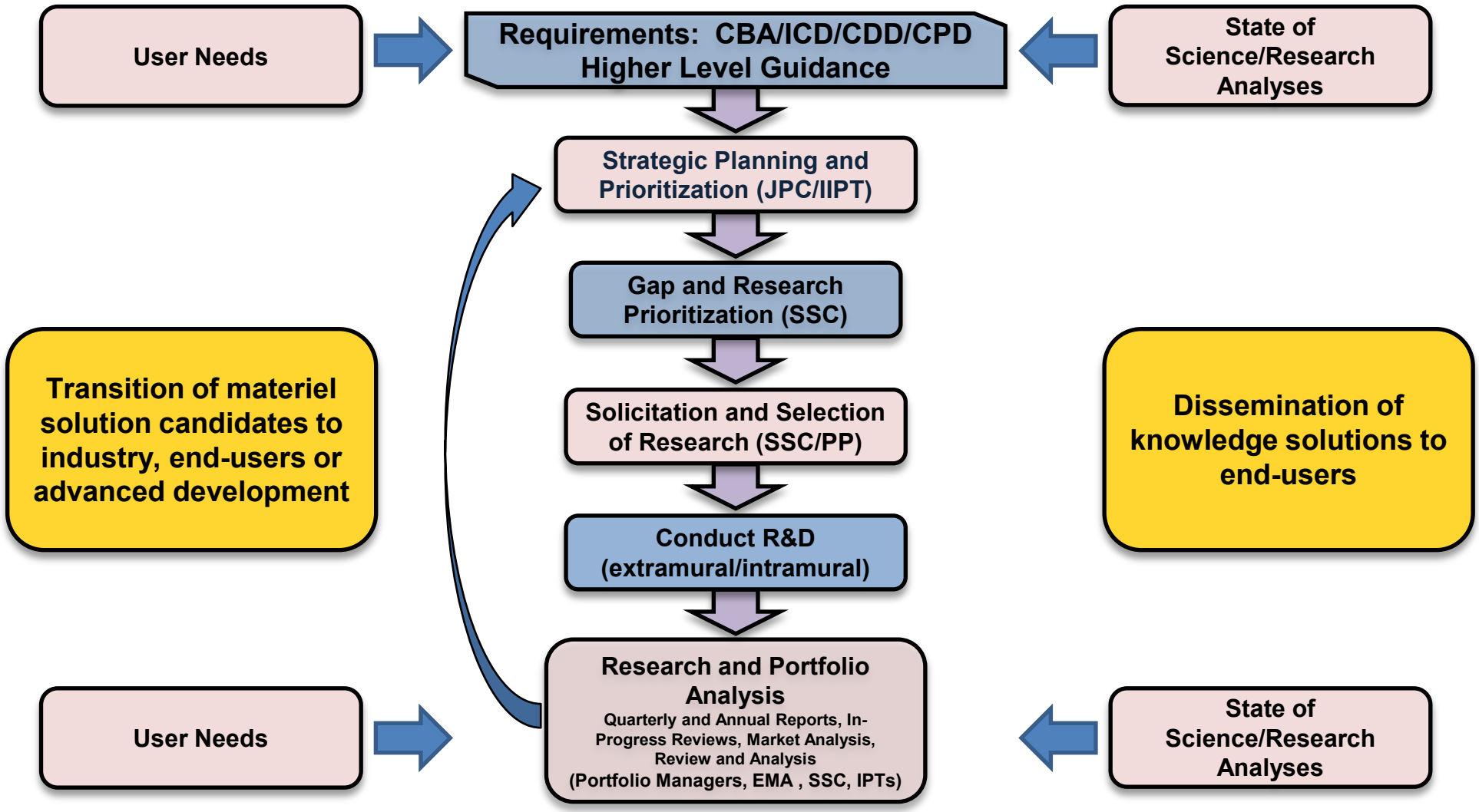
- Hemorrhage, Shock, & Coagulopathy of Trauma
- Pain
- Pre-Hospital Tactical Combat Casualty Care
- Critical Care Delivery
- Endovascular Hemorrhage Control
- **Prolonged Field Care**
- Medical Aspects of Directed Energy
- Maxillofacial Trauma
- **Extremity Trauma**
- Ocular Trauma
- Burn Injury

USAARL
Ft. Rucker, AL

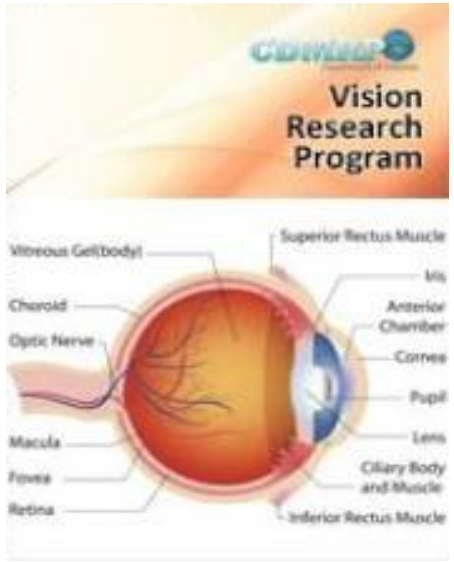
U.S. Army Aeromedical Research Laboratory

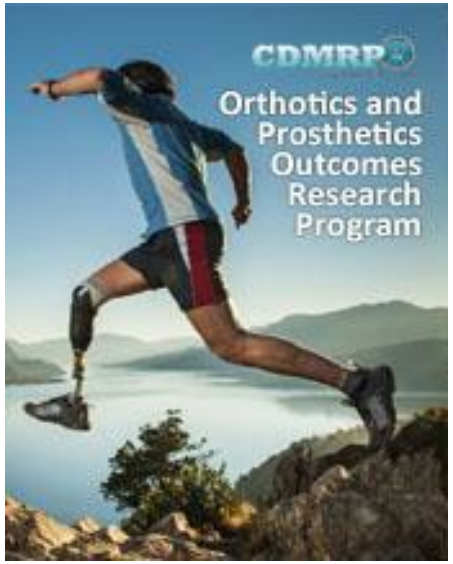
- **Human Operator Health & Performance in Complex Systems**
- **Blunt, Blast & Accelerative Injury**
- En Route Care Environment
- Crew Survival in Military Helicopters & Combat Vehicles
- Medical Aspects of Directed Energy
- **Human Performance Optimization/ Enhancement – Cognitive**

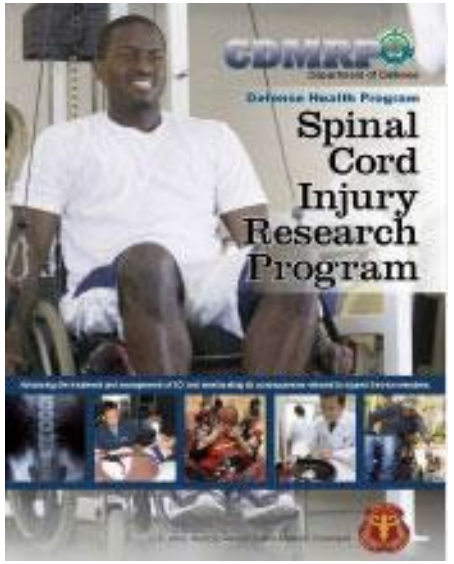
Program Development

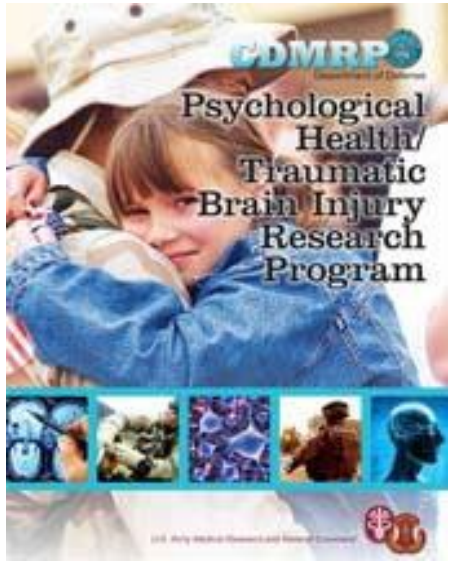


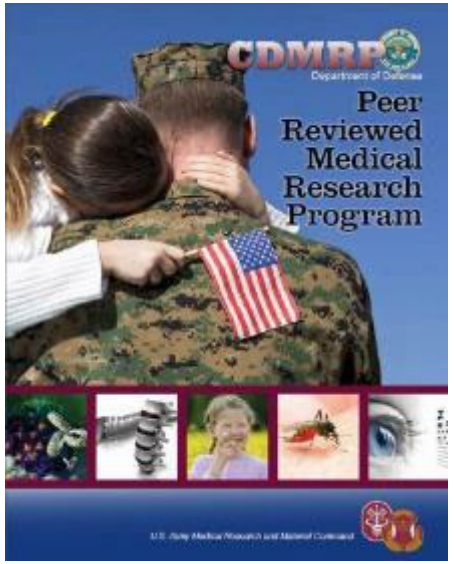
Congressionally Directed Medical Research Program

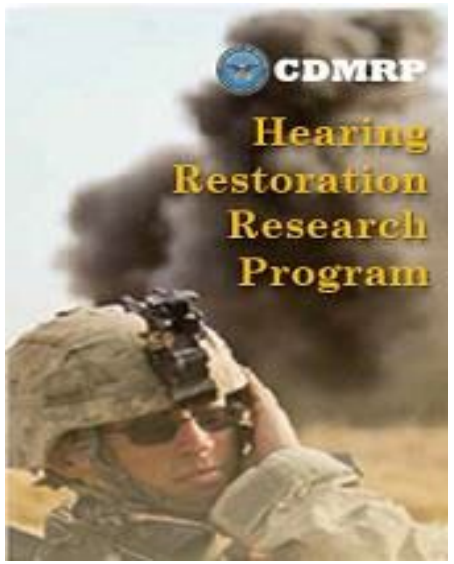












Two-Tier Review Process

To find scientifically rigorous proposals and fund those that best fulfill program goals

Peer Review Panels	Partnership ⟷	Programmatic Review Panels

- Criterion-based evaluation of full proposal
- Determination of "absolute" scientific merit
- Outcome: Written critique and scores for individual criteria and overall merit

- Comparison among proposals of high scientific merit
- Determination of adherence to intent and program relevance
- Outcome: Funding recommendations

- ❖ *No standing peer review panels*
- ❖ *No contact between reviewers and applicants*
- ❖ *Limited discussions with Program Managers after call for proposals is released*

- ❖ *No "pay line" (portfolio balance)*
- ❖ *Funds obligated up front; no out-year budget commitments (but milestones imposed)*
- ❖ *No continuation funding*

Depending on release date, complete process can take 12-18 months

Medical Technologies Enterprise Consortium (MTEC)

- USAMRDC offers funding opportunities to MTEC members through solicitations
  - Private industry, academic institutions, government agencies, and other research organizations seeking to accelerate the development of medical solutions that prevent and treat injuries and restore America's military and Veterans to full health
  - Membership covers all investigators within an institution
  - Discussions with Program Managers permitted
- Military Prototype Advancement Initiative (MPAI)
  - New as of 2021
  - Vehicle for sharing development ideas with military sponsors on a rolling basis

(2021)

USAMRMC Links for Research Topics, Announcements, and Information	
USAMRDC	https://mrdc.amedd.army.mil/
AFC	https://www.army.mil/futures
CDMRP	https://cdmrp.army.mil/
eBRAP	https://ebrap.org/eBRAP/public/index.htm
TATRC	https://www.tatrc.org/
USAMRDC BAA	https://www.usamraa.army.mil/pages/baa_forms/index.cfm
DoD SBIR/STTR	https://www.acq.osd.mil/osbp/sbir/
Defense Health Agency	https://www.health.mil/About-MHS/OASDHA/Defense-Health-Agency
MTEC	https://www.mtec-sc.org/

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U.S. Army Medical Research and Development Command
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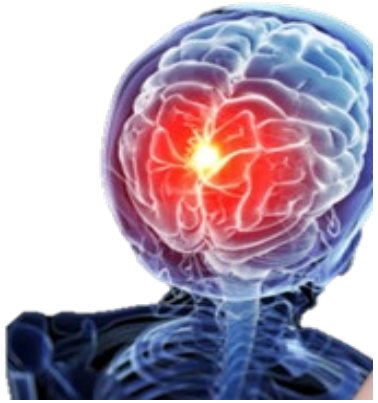
Thank You






Country	Agency	Name	Email address
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