

Introductions for today's webinar: Who we are



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Agenda for this presentation

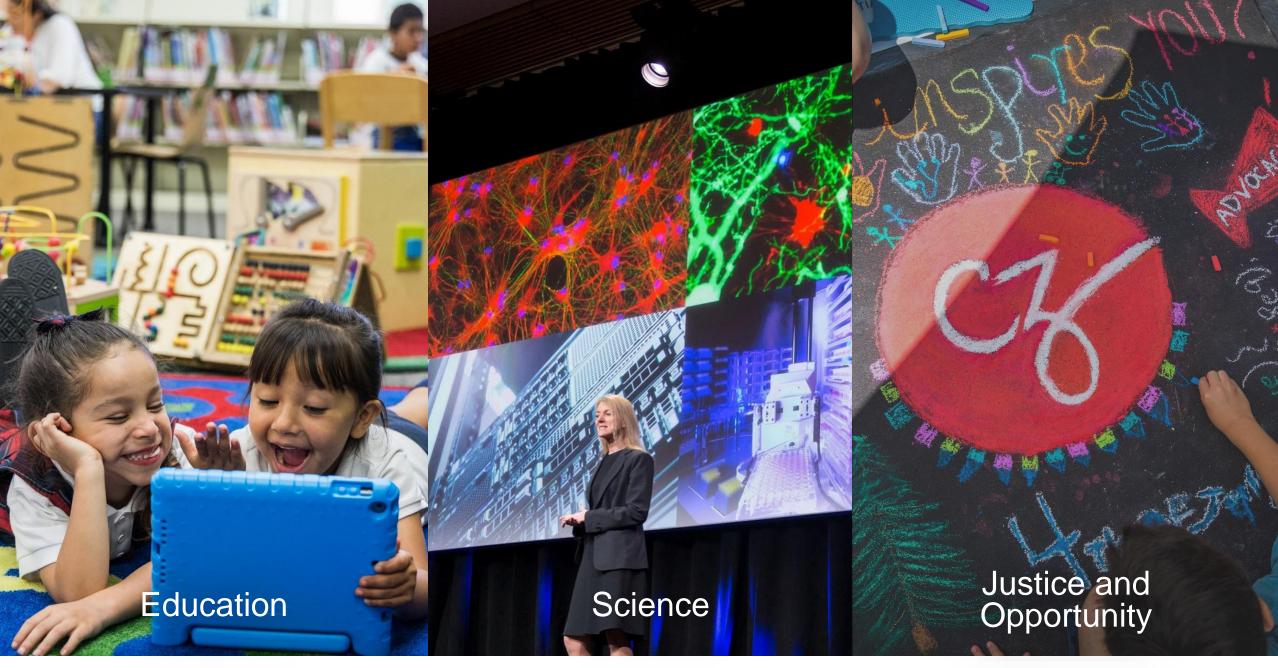
For ZOOM technical challenges: abakker@chanzuckerberg.com

- Welcome and introduction
- o CZI Science: Who we are, how we think and work
- CZI's approach to neurodegenerative disease
- Neurodegeneration Challenge Network:
 - New neurodegeneration funding opportunity
 - FAQ and Q&A

Questions during the presentation?

- We will be taking questions submitted through the Q&A Function on Zoom during the presentation.
- You do not need to wait until the end of the presentation to submit a question.







Chan Zuckerberg Science

Supporting science and technology that will make it possible to cure, prevent, or manage all diseases by the end of the century

Chan Zuckerberg Science

80 years

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Chan Zuckerberg Science

80 years

Supporting science and technology that will make it possible to cure, prevent, or manage all diseases by the end of the century

10 years

Accelerating biomedical science by developing new tools and technologies and supporting open, collaborative models of research

ACCELERATING BIOMEDICAL RESEARCH



PEOPLE COLLABORATIONS COMMUNITY

EXPERIMENTAL SCIENTISTS
COMPUTATIONAL BIOLOGISTS
ENGINEERS
CLINICIANS



TECHNOLOGY TOOLS

EXPERIMENTAL TOOLS
ANALYTIC METHODS
DATA
PLATFORMS
COLLABORATION TOOLS

ROBUST - RELIABLE SCALABLE - SHAREABLE



CULTURE

SUPPORT FOR SCIENCE CHANGING THE CULTURE OF SCIENCE OPEN SCIENCE

CZI Science Initiative – Program Areas

Single Cell Biology Neurodegeneration Computational Biology Imaging Transformative Technology

Open Science



META



Patient Driven Research



Movement for Science



Diversity in Science



CZI Neurodegeneration Challenge Network

Why Neurodegeneration?

Major unmet medical need, socio-economic burden and profound human toll

A broad class of disorders spanning the lifespan (not just Alzheimer's, Parkinson's, ALS, ...)

No effective therapies to prevent, cure or treat most neurodegenerative disorders

Still major gaps in our understanding of the mechanisms underlying these diseases

CZI's vision & approach to neurodegeneration

- Foundational biology emphasis on basic science
 - break down disease and discipline siloes
 - reconceptualize neurodegenerative disease: as a broad disease class involving more than the brain and neurons
- Bringing new people and ideas into the field
 - empowering the next generation of scientists
- Building and supporting interdisciplinary, collaborative teams
 - o basic scientists, clinicians, computational biologists, engineers
- Building and disseminating robust tools & platforms
 - o experimental tools, methods, data, analysis and computational tools
- Culture of Science
 - o support for open science; new models for collaboration, training, rewards/incentives
 - working with likeminded partners

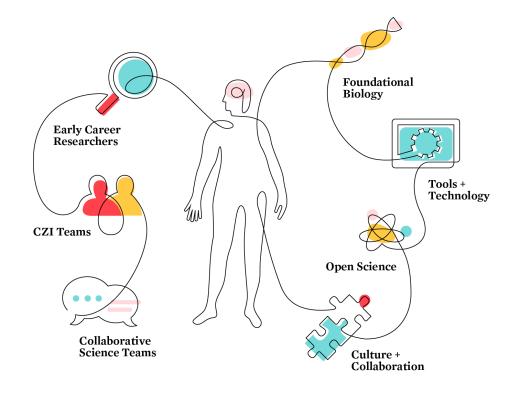
Neurodegeneration Challenge Network

Launched in 2018:

Ben Barres Early Career Acceleration awards Collaborative Science awards

Challenge Network Goals

- 1. Advance the fundamental science of neurodegeneration
- 2. Attract new talent and innovative ideas to the neurodegeneration field
- **3. Open science:** model and community of practice for how interdisciplinary, collaborative, open science research, that brings together scientists, clinicians, and engineers, can accelerate science



"A network that is more than the sum of its parts"

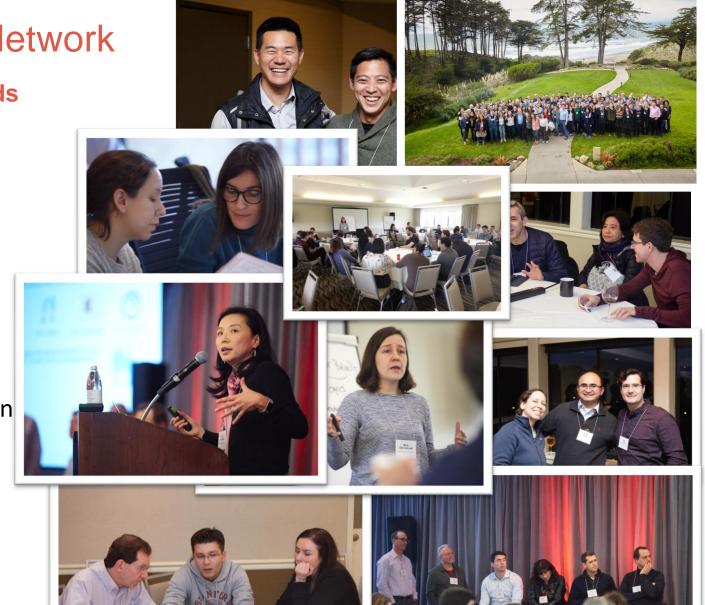
Neurodegeneration Challenge Network

Ben Barres Early Career Acceleration awards Collaborative Science awards

17 Early Career Investigators
9 Collaborative Science teams
48 Investigators, including 16 clinicians
150 + students, postdocs, staff scientists

Projects cover a wide range of diseases
AD, PD, ALS, FTD, HD...
general mechanisms across neurodegeneration

Using diverse experimental approaches cell biology, genomics, neuroscience, biochemistry, stem cells, comp bio, immunology, bioengineering



Neurodegeneration Challenge Network Where are the Challenge Network Labs?

California Institute of Technology

Cold Spring Harbor Laboratory

Cambridge University-Cambridge, UK

Columbia University

Duke University

Harvard Medical School; Wyss Institute-HMS

Johns Hopkins School of Medicine

Karolinska, Stockholm University-Stockholm,

Sweden

Mt. Sinai-Icahn School of Medicine

Pacific Northwest National Laboratory

Salk Institute

Stanford University

University of California-Los Angeles

University of California-San Diego

University of California-San Francisco

University of Florida

University of Pennsylvania-School of Medicine

University of Texas-Austin

University of Texas-Southwestern

University of Utah

Vanderbilt University

VIB, KU, IMEC- Leuven, Belgium

Washington University

FIND OUT MORE about NDCN investigators, teams and projects:

https://chanzuckerberg.com/science/programs-resources/neurodegeneration-challenge/

LAUNCHING the NEXT PHASE of the **Neurodegeneration Challenge Network**

Collaborative Pairs Pilot Projects

Join the Neurodegeneration Challenge Network NDCN Collaborative Pairs

Goals for the NDCN Collaborative Pairs funding award:

- NEW IDEAS: Motivate and support innovative, bold, transformative new ideas that address fundamental challenges in neurodegenerative disease biology
- 2) TALENT: Attract new talent and expertise to the ND field
- 3) COLLABORATION: Catalyze new collaborative teams
- 4) COMMUNITY: Expand the Neurodegeneration Challenge Network community

Join the Neurodegeneration Challenge Network NDCN Collaborative Pairs

Application deadline: January 14, 2020

Phase 1: Pilot projects to support pairs of collaborators/teams

- Fixed \$150,000/ total project budget for 18 month pilot. Including no more than 15% indirect costs
- o Encouraging new entrants to the field: no previous work in neurodegeneration required
- One member of team must be early or mid-career career
- Clinician researchers are strongly encouraged to apply
- o 18-month pilot: assemble team, develop project plan, start project
- We expect to award up to 30 pilot project grants

Phase 2: Project development awards

- 1 year into pilot: pilot projects are eligible for evaluation for 4 year project development award
- We expect to select 1/3 of pilots for further project development awards.
- \$400,000/total project costs per year, 4 years. Total: \$1.6M over 4 years

Both Phase 1 and 2: Collaborative Pair teams will benefit from the interactions, collaborations, program support of the Neurodegeneration Challenge Network and NDCN program staff

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs Application Process

Application deadline: January 14, 2020

Scientific Scope

- We're looking for bold, creative, out-of-the-box ideas that aim to tackle critical questions and bottlenecks related to mechanisms of neurodegenerative diseases
- Fundamental biology, basic science with clear relevance to human disease biology
- Projects focused on understanding disease risk, triggers, mechanisms of progression are all within scope
- Broad scope of neurodegenerative diseases, with preference to questions/approaches that have potential for impact across multiple diseases
- New ideas, early stage projects are strongly encouraged: no preliminary data is required

Out of Scope for this RFA:

o projects focused on translational, clinical trials or therapeutic/drug development

For more information: chanzuckerberg.com/science/science-funding

Eligibility

- Both principal investigators must hold a PhD, MD or equivalent degree.
- Both investigators must have an academic appointment and be in an independent faculty position or equivalent
- Clinician scientists are strongly encouraged to apply
- International applications are encouraged
- Collaborations may be from the same or different institutions
- At least one of the applicants must be an early-career (0-6 years) or mid-career investigator (6-10 years) at the time of application
- No previous experience in neurodegeneration is required: We strongly encourage applications from investigators new to the field, with relevant interdisciplinary training and experience in disciplines outside of neurodegeneration

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs Application Process

Application deadline: January 14, 2020

Other eligibility criteria

- There may be more than one application from each institution.
 However, each eligible investigator may only apply to one or be part of one Collaborative Pairs application
- The Collaborative Pairs RFA is aimed at motivating new collaborations. While it is permissible for applicants to have worked together, the pair cannot have received significant joint funding together

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs Open Science, community policies and practices

Application deadline: January 14, 2020

- Data, publication, and dissemination policies: To accelerate scientific discovery and collaboration, CZI supports a consent, sharing, and publication policy for open and rapid dissemination of research results, including methods, data and reagents, and a policy for software development that maximizes accessibility, reuse, and shared development
- Publications: publications related to this funded work must be submitted to a preprint server, such as bioRxiv before the first submission to a journal. Experimental protocols should be made publicly available through a protocol sharing service, such as protocols.io
- Reagent sharing: Resources and reagents developed with this funding support should be available for rapid dissemination to the community, where possible in an accessible community repository
- Consent: All human tissues/samples should be adequately and fully consented to permit full sharing of the resulting data and tools
- Intellectual property rights: CZI does not require assignment of IP and supports and promotes policies that enable results/ technologies to have the broadest reach and impact. See website for specific policies

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs Application Process

Application deadline: January 14, 2020

- Application deadline: January 14, 2020, 5 pm (pacific)
- Applicants must submit via our grant application portal, SurveyMonkey Apply.
 Please familiarize yourself with the application portal and process in advance of submission. https://apply.chanzuckerberg.com/
- **Both applicants are required to fill out the application. One should be designated as "primary PI" and will coordinate the submission process.
- ** Each application must have institutional sign-off at the time of application.
- Application: 1000-word narrative proposal including question being addressed, summary of proposal for pilot and larger project; description and bio of applicants. No preliminary data is required. See guidelines for specific proposal instructions
- No budget is required for the pilot awards

For more information: chanzuckerberg.com/science/science-funding

How to Apply

log in to our application portal (SurveyMonkey Apply) https://apply.chanzuckerberg.com/

Application deadline: January 14, 2020

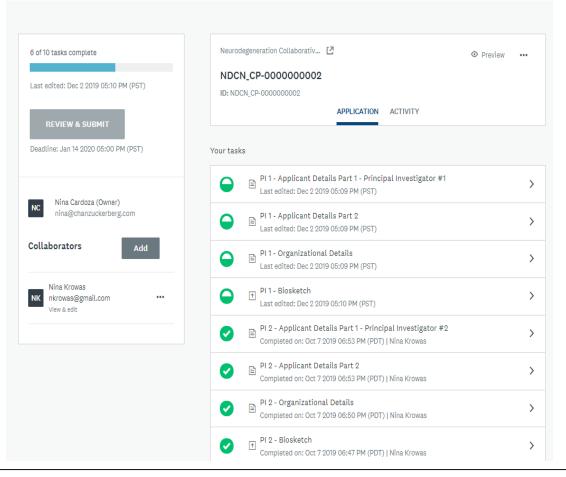
Chan Zuckerberg Initiative

Neurodegeneration Collaborative Pairs

Chan Zuckerberg Initiative

The Chan Zuckerberg Initiative (CZI) invites applications for a new Request for Applications (RFA) for collaborative pilot projects (Neurodegeneration Challenge Network Collaborative Pairs Pilot Project Awards) to support pairs of investigators and their teams to explore innovative, interdisciplinary approaches for addressing key challenges in the biology of neurodegenerative diseases. Awards are \$150,000 in total costs per collaborating pair, and successful pilots will be eligible to apply for additional four-year project development grants. Collaborative Pairs teams will benefit from the support and resources of the CZI Neurodegeneration Challenge Network.

Opens
Oct 10 2019 09:00 AM (PDT)
Deadline
Jan 14 2020 05:00 PM (PST)



For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs

Application deadline: January 14, 2020

Phase 1: Pilot Projects

Review and selection process

- Review and selection: applications will be reviewed by internal CZI scientific program staff and external expert reviewers. Final decisions will be made by CZI staff in consultation with our scientific advisors.
- Criteria for evaluation and selection:
 - Scientific quality, creativity and rigor of the proposed work. We are looking for innovative, bold, potentially transformative proposals
 - Potential impact of the work for addressing critical field bottlenecks in the field
 - The quality of the scientific team and how this collaboration leverages complementary strengths and expertise
 - Potential of the work to open up new research directions and/or bring new approaches to critical problems across the neurodegeneration field
 - Potential of the team to contribute to the collaborative, open science goals of the Neurodegeneration Challenge Network

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs

Application deadline: January 14, 2020

Phase 2: Project Development Grants

Evaluation and selection criteria

- Pilot project review: all pilot projects will have opportunity for review for
 4-year project development awards
- Criteria for evaluation and selection:
 - Scientific quality, creativity and rigor of the proposed work
 - Project plan for second phase
 - Learnings from the pilot period: How do the pilot learnings inform the roadmap for the next phase?
 - Preliminary data, resources generated, other outputs (protocols, data sets)
 - Potential impact of the work for addressing critical field bottlenecks
 - Team: How well does the team work together? In Phase 2, the team can be expanded or modified to address the next phase of research
 - Open science: How has the team contributed to the open science goals of the Challenge Network?

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs FAQs

Application deadline: January 14, 2020

- Does "independent faculty appointment" mean tenure track? Not necessarily. Tenure track
 is just one example of independence. Your institution ultimately determines if you meet the
 criteria for independence. For eligibility questions, contact sciencegrants@chanzuckerberg.com
- l'm a clinician. Can I apply as a part of a collaborating pair? Absolutely! Provided that you meet the criteria of having an independent faculty position or equivalent. Clinicians and clinician-scientists are a critical part of the Challenge Network and we welcome your contributions
- Can post-docs or fellows apply? Investigators must have an independent faculty position or equivalent, and one member of the collaborating pair needs to be early or mid-career
- Questions about whether you qualify as early or mid-career? Your institution can help you
 determine whether you qualify as early or mid-career, but please also contact
 sciencegrants@chanzuckerberg.com

For more information: chanzuckerberg.com/science/science-funding

NDCN Collaborative Pairs FAQs

Application deadline: January 14, 2020

- o **Is this RFA open to international applications?** Yes! Absolutely
- Does the team need to be from the same institution? Teams do not need to be from the same institution or geographic location, but the RFA does require that the team have not received funding together previously
- Is it really true that no experience in neurodegeneration and no preliminary data is required? That's right! This RFA is designed to catalyze new collaborations and motivate innovative, out of the box ideas
- What do you include in neurodegeneration—is this just AD, PD, ALS? We view ND
 as a broad class of disorders, spanning the life-span, from childhood to old-age, of
 varied mechanisms and pathobiology

For more information: chanzuckerberg.com/science/science-funding



THANK YOU FOR JOINING US TODAY!

RFA instructions: detailed information and instructions for this RFA:

https://chanzuckerberg.com/rfa/ndcn-collaborative-pairs/

Grant application portal: please familiarize yourself with the online grants management portal, well in advance of submission. You can start a place-holder application in advance of submitting your final application

https://apply.chanzuckerberg.com/

Still have questions? if you have specific questions for this RFA that have not been addressed, please email us at:

sciencegrants@chanzuckerberg.com

Learn more about the Neurodegeneration Challenge Network:

https://medium.com/@cziscience

https://chanzuckerberg.com/science/programs-resources/neurodegeneration-challenge/

