

### **Outline**



- ART program
  - The Big Picture, Erwin Gianchandani, NSF assistant director for Technology, Innovation and Partnerships (NSF TIP)
- Goals and vision
- What does ART support?
- Research translation readiness levels (RTRL)
- Program structure & funding
- Eligibility & review criteria
- Become a reviewer
- Proposal(s) should be submitted in accordance with the solicitation, latest NSF Proposal & Award Policies & Procedures Guide (PAPPG) and other guidance available on NSF website.



### **Program Contacts**



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## **NSF ART Program**





### **Vision and Goals**



#### Vision

 Greatly expand the capacity for and scale of research translation and technology transfer at IHE's across United States.

#### Goals

- Enable and catalyze accelerate research translation across all disciplines.
- Develop resources to effectively train students, post doctoral researchers, and faculty in entrepreneurship, technology transfer and other activities that ultimately stimulate economic growth and enhance our competitiveness.
- Train individuals to engage with a wide range of career opportunities.

## **Catalyzing Research Translation**



### **Today**

- Research translation driven by highly motivated individual faculty.
- Requires institutional infrastructure and support – not available everywhere.
- Low levels of translation activity outside a few IHEs.
- "Disconnected islands of translation"

### With ART

- Research translation as a natural organic next step for foundational research.
- Build and grow Institutional capacity and associated infrastructure.
- High levels of research translation outcomes everywhere in the long term.
- "Interconnected community of translation practitioners"

#### **Research Translation Readiness Level**

- U.S. National Science Foundation Accelerating Research Translation
- High RTRL

- Smaller pockets of research and innovation
- No or very small tech transfer office
- Very limited patenting, licensing and entrepreneurship activities



#### Medium RTRL

- Overall high volume of research and innovation but low research translation
- Few and inconsistent good industryuniversity partnerships
- Small tech transfer office
- Clear IP related policies and procedures
- Few patents, licenses, some startups etc.

- Very high volume of research and innovation
- Sustained and large-scale partnerships with industry and others
- Robust tech transfer office, accelerators, incubator related activities.
- Clear IP policies, significant patenting, licensing and entrepreneurship activities
- Educational and training resources related to entrepreneurship, tech transfer. (Tracks 3, 4)
- Experience in coordination of continuing education tech transfer related programs for small businesses, start-ups, working collaboratively with other IHE (Track 5)

### **What Does ART Support?**



Build and strengthen capacity

Institutional infrastructure to build and sustain capacity for research translation.

Learn-by-action: faculty, students and postdoctoral fellows

Education and Training

Research Translation Specific seed projects to exercise translational research processes, policies and pathways within IHE.

## **ART Program Details**



- Anticipated type of award: standard grant, continuing grant or cooperative agreement.
- Up to \$175 million anticipated overall funding amount.
- Up to 40 awards total (subject to availability of funds and quality of proposals received):
  - Track 1 (ACT): up to 20 awards
  - Track 2 (GROW): up to 10 awards
  - Track 3 (RESOURCE): up to 5 awards
  - Track 4 (ET): up to 4 awards
  - Track 5 (CART): up to 2 awards

### **Track 1: ACT (Low RTRL)**



### **Accelerating Technology Transfer**

- Aimed at IHEs with a low to medium level of overall research and can demonstrate
  potential for identifying and acting on opportunities for economic benefits by starting to
  build capacity for innovation translation.
- The proposal must be led by and focused on outcomes of one IHE.
- Each Track 1 award is expected to be up to a total of \$3 million for 3 years.

### **Track 2: GROW (Medium RTRL)**



### **Growing Capacity for Research Translation**

- Aimed at IHEs with a high level of research, with high potential and desire to substantially elevate the overall level of research translation.
- Each Track 2 award may be budgeted for up to a total of \$6 million for 4 years.

# Track 3: RESOURCE (High RTRL)



#### **Technology Transfer Resource Centers**

- Goal: Launch a network of regional Technology Transfer Resource Centers (RESOURCE) serving multiple IHEs in a region.
- Aimed at IHEs or non-profits with strong research translation capacity/experience and desire to grow regional technology transfer and mentor other IHEs.
- Each Track 3 award is expected to be up to a total of \$8 million for 4 years.

# Track 4: ET (High RTRL)



#### **Education and Training**

- Goal: Development of resources for education and training in research translation, entrepreneurship, startup formation, commercialization, industry collaboration, product development and engaged scholarship.
- Aimed at IHEs or non-profits with a strong research translation ecosystem and/or demonstrated experience in entrepreneurial education and training, product development, technology transfer and industry partnerships.
- Each Track 4 award is expected to be up to a total of \$3 million for 3 years.

# **Track 5: CART (High RTRL)**



#### **Coordinating Accelerating Research Translation**

- Goal: Support the creation of a unifying center that facilitates and coordinates an integrated platform for coordinating, evaluating and monitoring the progress of Track 1 and Track 2 teams.
- Aimed at IHEs or non-profits with a strong research translation ecosystem and/or demonstrated experience in entrepreneurial education and training, product development, technology transfer and industry partnerships.
- The Track 5 CART awards are expected to be up to a total of \$3 million for 5 years.

### **Research Translation Readiness Level**



#### **High RTRL**

Track 3 RESOURCE Track 4 ET Track 5 CART



Track 2 GROW

Track 1 ACT

**Low RTRL** 

## **Eligibility Information**



#### Who can submit proposals?

- Track 1 and 2 IHEs
- Track 3, 4 and 5 IHEs or Non-profits

#### Who may serve on the proposal team?

- It is expected that the PI is a member of senior leadership team at the proposing organization.
- A representative of technology transfer office or equivalent is strongly encouraged to be at least a Co-PI.
- The PI, Co-PIs, or any other senior/key personnel must hold an appointment at an organization that is eligible to submit as described under "Who May Submit Proposals".

## **Proposal Submission Limitation**



#### There is a limit on the number of proposals that each organization can submit.

- An eligible IHE can submit a maximum of one proposal for Track 1 or 2 (but not both).
- For Tracks 3, 4, and 5, an eligible organization can submit a maximum of one proposal per Track.
- Applicants for Track 1 and 2 are NOT eligible to submit proposal to Track 3, 4, and 5 and vice versa.

### **Proposal Content**



#### In general, proposals should clearly address:

- Vision, goals and strategy
- Opportunities and gaps
- Outcomes
- Sustainability plan
- Evaluation plan
- Timeline of activities

Supplementary documents are needed. Please see the solicitation for details.

# Track specific review criteria



• Tracks 1 (ACT) and 2 (GROW): Does the proposal clearly define as to how the IHE will increase its RTRL over the course of the award and then sustain and grow beyond the award duration?

• Track 3 (RESOURCE): Does the proposal present a compelling case that the lead organization will help boost the capacity for research translation for other low RTRL IHEs and within the region with a clear plans for its sustainability.

# Track specific review criteria



• Track 4 (ET): A clear plan for developing and disseminating education and training material for undergraduate, graduate students, postdoctoral researchers, and faculty around research translation and entrepreneurship.

• For Track 5 (CART): Capability and plan of lead organization in creating a coordinated activities in areas related to entrepreneurship, technology transfer, development of educational and training resources for Track 1, 2, 3 and 4.

### **Review Criteria**



### Additional solicitation specific review criteria for ALL tracks

- Does the lead organization and the overall proposal show a strong alignment with the intent of the track to which it is submitted?
- The NSF ART program will support only those proposals that show a clear and strong alignment with the goals of the track to which they are submitted.

Please read the solicitation closely for specific review criteria for individual tracks.

# **ART Program Details**



• Up to 40 awards total (subject to availability of funds and quality of proposals received):

Track 1
ACT

**Low RTRL** 

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