ITCR Education Resource (UE5)

RFA-CA-19-042
ITCR Education Resource

Mission: To conduct activities that engage the research and informatics community to use and extend the ITCR technologies

Provide **in depth courses and workshops** on topics in cancer informatics using the ITCR tools as exemplars

Provide guidance and support for informatics tool developers to **optimize informatics tool usability and user support**

RFA-CA-19-042
Receipt date December 19, 2019

Motivation

Ensure ITCR tools are adapted and used by cancer research community

• Education in cancer informatics for cancer researchers

• Increase usability and user support of ITCR tools

Intended to complement and amplify the outreach and support conducted by individual ITCR development teams
Cancer Informatics Courses

• Goal: Provide in-depth training in cancer informatics utilizing ITCR tools as exemplars

• Course attributes
  • Varied in complexity and format
  • Together should cover the breadth of domains represented by ITCR
  • May include hands-on training as appropriate
  • May include both previously and currently supported ITCR tools

• Target audience: Cancer researchers, across all career stages
  • Proposed courses may target different scientific background or informatics experience

• Anticipated outcomes
  • Researchers are better able to incorporate informatics analyses in their research
  • Increase awareness and dissemination of ITCR tools
Examples of Cancer Informatics Topics

• Multi-omics analysis for cancer driver gene discovery
• Lineage analysis of cancer cell populations to understand tumor evolution in the development of drug resistance
• Integrated genomic analysis of racial disparities in cancer development and response to therapy
• Facilitating analysis and interpretation of impact of genetic variations or mutations on disease risk or outcomes
• Accessing and utilizing EHR data for epidemiology studies
Courses in Optimizing Tool Usability and User Support

• Goal: Provide guidance to ITCR development teams for improving informatics tool usability and user support

• Course attributes
  • Topics that support improving the usability, robustness, maintainability, and utilization of tools and resources
  • Target the needs of ITCR development teams
  • Variety of approaches encouraged

• Target audience: Currently funded ITCR development teams

• Anticipated outcomes
  • Improved usability and user support of ITCR tools
  • Increased usage of ITCR tools
Examples of Topics in Optimizing Tool Usability and User Support

• Increasing and improving user engagement in support of user-driven design
• Increasing tool adoption and dissemination
• Improving user support through tool documentation, tutorials, and examples analyses
• Approaches to enable researchers to use multiple informatics tools to perform integrative analyses
Research Education Program Plan

• Overall vision for the ITCR Education Resource
  • Organizational structure and components
  • Collaboration with ITCR development teams

• Proposed multifaceted program
  • Goals and objectives of the courses
  • Innovative approaches, formats, and variations in course complexity
  • Timeline for course development
  • Revision plan, based on evaluation and feedback
Research Education Plan: Cancer Informatics Courses

• How the courses will enable researchers to incorporate informatics analyses into their research programs
• Breadth and depth
• How ITCR tools will be incorporated
• Strategy for partnering with ITCR development teams
• Ability to supply data to conduct courses
Research Education Plan: Optimizing Informatics Tool Usability and User Support

• How the proposed topics will aid ITCR development teams
• How priority topics will be selected
Considerations for Currently Funded ITCR Investigators

- Currently funded ITCR investigators ARE eligible to apply
- Because of the emphasis on collaboration with ITCR development teams, applicant teams may reach out to you for partnership, letters of support, proposed faculty, etc.
New ITCR Program Structure

Algorithm Development

Early-Stage Development

Advanced Development & Dissemination

Sustainment

R21: $275k direct over 2 years

U01: $300k/year for 3 years

U24: $600k/year, up to 5 years

U24: no cap, up to 5 years

10% annual set-aside for collaborations

Competitive Revisions: To support tool adoption and implementation (R01, U01, U24)

ITCR Education Resource (UE5): $750k/year, up to 5 years
Pre-Application Webinar! (NOT-CA-19-071)
October 30, 2:00pm – 3:30pm ET
Pre-register through WebEx
(will be recorded)

Questions?
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