OFFICE of CANCER GENOMICS

NATIONAL INSTITUTES OF HEALTH

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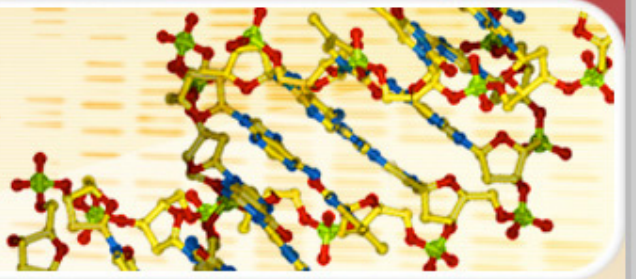

The Cancer Target Discovery and Development Network

RFA CA-12-006

Pre-submission Meeting

April 24, 14:30 – 16:30

Bethesda, MD

Conference "dos and don'ts"

The dial in number: 1-877-647-3411, PIN code: 6825846373

Url: https://webmeeting.nih.gov/ca12-006/

- **DO identify yourself (name and institution) when asking a question**
- **DO keep your phone on mute to reduce background noise**
  - *6 mutes the phone; if a phone is muted *6 will "unmute"
- **DO NOT put the phone on hold since some Institutions have taped content, use mute instead**
  - **FYI-should we hear music and/or advertisements, we will have to disconnect ALL the attendees and everyone will need to call back in (the only option possible since discussion is not possible with the background noise)**

Agenda

14:30 – 14:45 p.m. ***CTD² Overview***
Daniela S. Gerhard, Ph.D.
Director, Office of Cancer Genomics

14:45 – 15:00 p.m. ***Review Process***
Dr. Marvin Salin
Special Review and Logistics Brach
Division of Extramural Activities

15:00 – 15:15 p.m. ***Grant Administration***
Mr. Michael S. Zarkin
Grants Management Specialist
Office of Grants Administration

15:15 p.m. –> ***Q & A***

https://webmeeting.nih.gov/ca12-006/

Examples of NIH Investment in Large Projects of Genomic Research

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- Therapeutically Applicable Research to Generate Effective Treatment (TARGET)
- The Cancer Genome Atlas (TCGA)
- Cancer Genome Anatomy Project/Cancer Genome Characterization Initiative (CGAP/CGCI)
- Genome-wide association studies (GWAS) of common and complex diseases and follow-up
- Others

Data generated is available to the research community

Molecular Characterization of Cancer is Essential but not Sufficient

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- **Each tumor has hundreds to thousands genomic alterations**
  - Chromosomal changes: amplifications, deletions, translocations
  - Epigenetic changes
  - Mutations

- **Little is known about the cellular function of most genes, much less how sequence variants and mutations affect them**
  - Distinguishing initiating vs. driver vs. passenger mutations
    - Drivers are defined as genes involved in tumor maintenance
    - Evidence is accumulating that multiple subclones exist within a tumor and their frequency varies between patients
  - Genomic alterations result in cancer within specific context
    - Cell of origin
    - Other molecular alterations in genes that may have synergistic or antagonistic impact

CTD^2: A Bridge from Genomics to Therapeutics

General Information

- **Mechanism of Support: U01 Cooperative Agreement**
  - Description: To support a discrete, specified, circumscribed project to be performed by the named investigator(s) in an area representing hers/his/their specific interest and competencies.
  - 6-8 applications may be funded in FY2013, for a period of up to 4 years
  - The new grantees will join the current CTD^2 Network http://ocg.cancer.gov/programs/ctdd.asp
- **Up to 2 applications from an Institution, except from those institutions which already have a CTD^2 member (list found on the web site listed above**
- **Use of de-identified human genome data: E4 exemption is required**
- **Data and Resource sharing plans are required**
  - The approach that was developed by the CTD^2 members is at http://ctd2.nci.nih.gov/CTD2dataReleasePolicy.pdf

Goals for the CTD^2 Network

- **The systematic identification of novel potential targets that may inspire future development of therapeutic applications**
  - The target candidates must be identified and characterized through exploration of the genomic and other molecular alterations
- **High throughput approaches to the identification of small molecules that can be used to study the biology of cancer types and targets**
- **As genomic data become available from TARGET, TCGA, CGCI, ICGC etc., they will be added**

  - Be nimble, flexible and open to new opportunities

Concept Examples (from RFA)

- Identification of challenging, unconventional, or rarely addressed targets such as those involved in specific protein-protein interactions, specific protein-DNA interactions, regulatory RNA functions and others
- Prediction of mechanism(s) of resistance, primary or acquired, to therapy based on patients' genetic background and cancer-specific alterations
- Determination of the complex dependencies within each cancer type and the identification of combination of targets which could be exploited for therapeutic interventions
- Exploration of targets/target combinations suitable for possible synthetic lethality-based approaches, determination of the underlying mechanisms and/or identification of biologically modulators
- Development of probes, e.g., small molecules or micro RNAs (miRNAs), that modulate the targets (and their function) in the specific cell types, and the environment, in which the cancer(s) occur

Important Dates

- **Letter of Intent to NCI** **May 21, 2012**
  - The PD, Daniela S. Gerhard Ph.D.

    gerhardd@mail.nih.gov

    AND
  - The SRO, Adriane Stoica Ph.D

    stoicaa2@mail.nih.gov

- **Application due date** **June 21, 2012**
- **Review** **Early fall 2012**
- **Awards** **April 2013**

Questions?

Note: Slides and information from today's teleconference will be posted on the OCG web site: ocg.cancer.gov

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