

AACR American Association
for Cancer Research*

ANNUAL MEETING
2024 • SAN DIEGO



APRIL 5-10
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Cancer Immunoprevention Network (CIP-Net)

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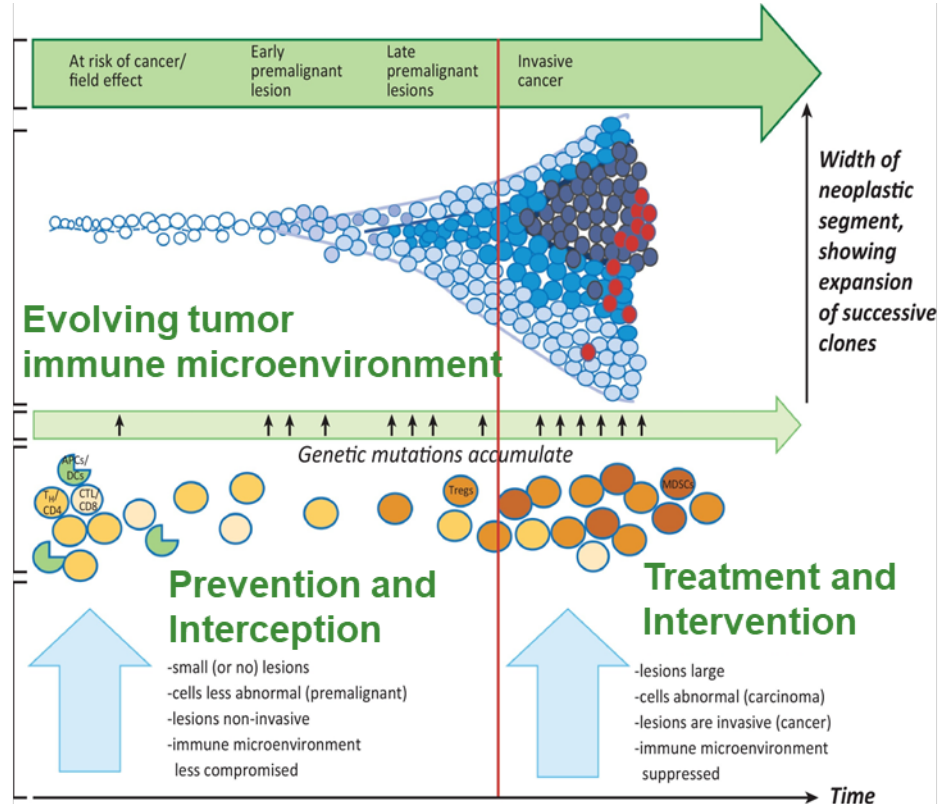
Disclosure Information

No financial relationships to disclose.

Carcinogenic Progression: Opportunities for Immunoprevention

High Risk Cohorts

- 1) Inherited cancer predisposition individuals
- 2) Individuals with precancers
- 3) Individuals exposed to occupational/ environmental carcinogens
- 4) Special populations (e.g., MGUS)
- 5) Cancer survivorship cohorts



Scientific Objectives

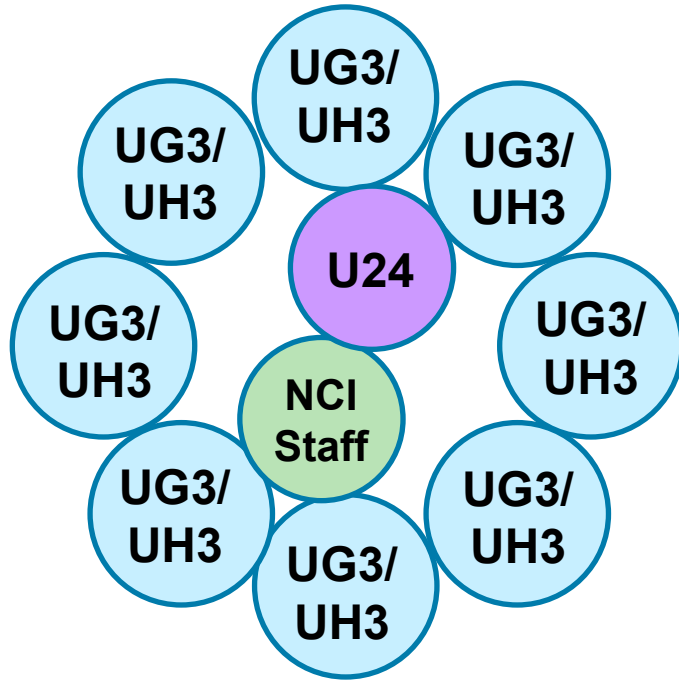
- The overarching goal of the Cancer Immunoprevention Network (CIP-Net) is to support a deeper understanding of basic mechanisms of immunoprevention, discover novel immunoprevention strategies, and foster a community of cancer immunoprevention researchers
- This initiative builds on the aspirational Cancer Moonshot Immunology Working Group goal **“to prevent cancers before they occur”**
- The extraordinary success with recent mRNA vaccines and makes it timely to address cancer immunoprevention strategies.
- Meets an **emerging scientific opportunity** to complement recent immunoprevention clinical trials (in humans and dogs) by building a research pipeline of discovery science in basic mechanisms of immunoprevention

Key Definitions for CIP-Net

- **Cancer immunoprevention:** Cancer immunoprevention is the prevention of invasive cancer onset (not recurrence) with immunological means such as vaccines or immunomodulatory agents.
- **Cancer interception:** Cancer interception is defined as the disruption of the oncogenic process during the precancer stage before the development of invasive cancer (not recurrence).
- **Higher-risk populations, higher-risk cohorts:** These are individuals with an increased risk of cancer such as those with hereditary cancer syndromes (HCS) and precursor abnormalities that place individuals at higher risk of cancer, e.g., precancer.
- **Precision cancer prevention and interception:** Precision cancer prevention-interception refers to an approach employing cancer preventive-interceptive interventions individually tailored for different higher-risk populations as defined above.



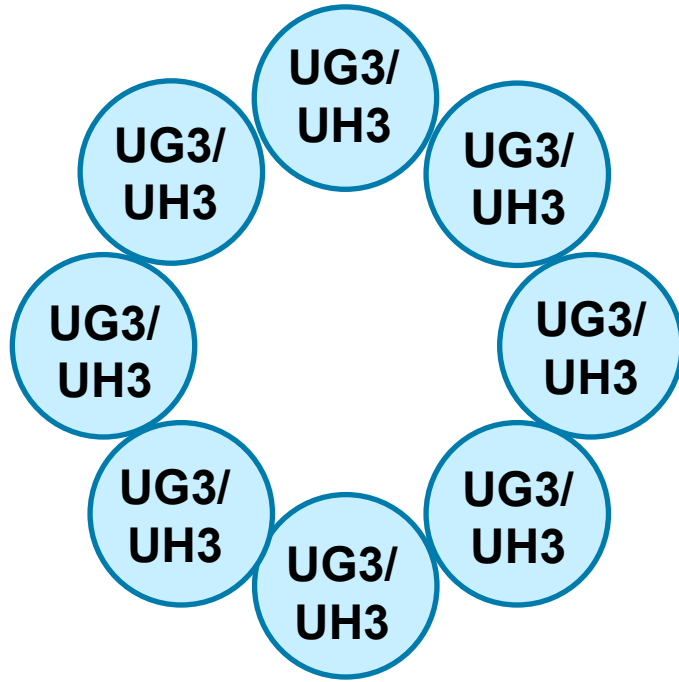
CIP-Net Structure: U24 and UG3/UH3



U24 Data and Resource Coordinating Center :

- Enhance CIP-Net data, resource sharing (e.g., biospecimens), and collaborations
- Provide bioinformatic and analytical support
- Increase awareness through scientific communications and meetings
- Conduct scientific outreach to build immunoprevention bridges across complementary cancer research communities
- Foster early career scientist development

RFA-CA-23-029: CIP-Net UG3/UH3 Research Projects

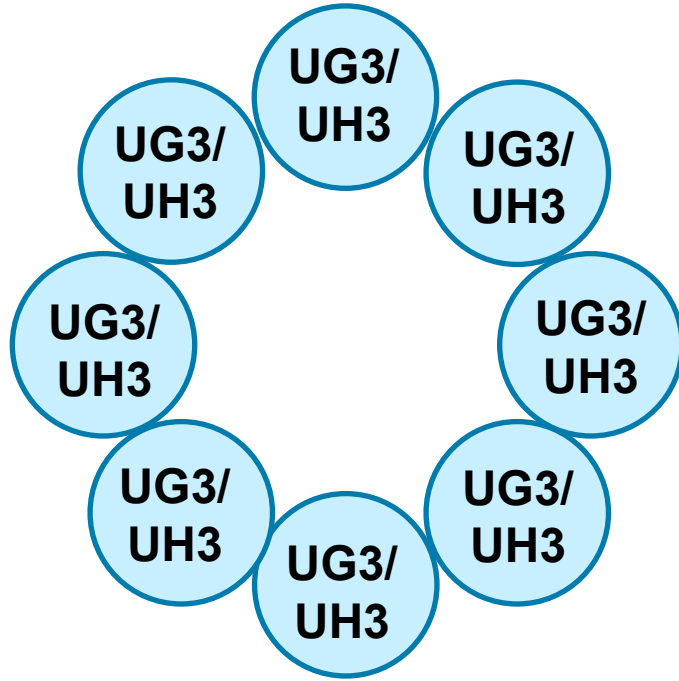


UG3/UH3 Research Projects:

- UG3: Discovering and investigating novel immune pathways, mechanisms, and innovative targets for immunopreventative intervention
- Milestone driven transition evaluation by NCI Staff
- UH3: Validation and deeper mechanistic interrogation of pathways, development, or preclinical testing to evaluate mechanisms, efficacy and potential side-effects

<https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-23-029.html>

CIP-Net UG3/UH3 Research Projects



RFA-CA-23-029:

- Letter of Intent (Optional): 30 days prior to the application due date
- Application Due Date: **July 3, 2024**
- Scientific Merit Review: Nov 2024
- Advisory Council Review: Jan 2025
- Earliest Start Date: April 2025

<https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-23-029.html>

RFA-CA-23-029: CIP-Net UG3/UH3

Research Project Examples

Research may include, but not limited to:

- Discover novel immunoprevention pathways and targets
- Elucidate immune responses to the earliest stages of carcinogenesis
- Preclinical development and testing of interventions (agents/vaccines)
- Investigate mechanisms of efficacy and potential side-effects of precision cancer prevention-interception strategies
- Immunoprevention models development and optimization
- Immune mechanisms of preventive cancer vaccines and immunomodulatory agents

CIP-Net UG3/UH3

Phased Innovation Structure

- **UG3 phase research projects:** de novo discovery of immune pathways, immunoprevention mechanisms, or preclinical investigation of new vaccines or immunomodulatory targets or agents with the potential for the development of immunopreventive interventions
- Achievement of the UG3 milestones will be necessary for the transition to the UH3 phase.
- **UH3 phase research projects:** further evaluation of efficacy, immune mechanisms of action, validation of actionable targets, and/or further preclinical development

CIP-Net UG3 Phase to UH3 Phase Transition

- Utilization of milestones is a key characteristic of this NOFO
- Applications must include well-defined milestones for the UG3 phase and annual milestones for the UH3 phase
- Milestones for the UG3 phase must be objectively defined and quantifiable with clear go/no-go criteria to demonstrate the proposed milestones were met at the time of the transition request
- UG3 to UH3 transition criteria include:
 - ✓ successful completion of established milestones during the UG3 phase;
 - ✓ demonstration of the feasibility for the proposed UH3 research; and
 - ✓ extent to which UG3 phase activities support the aims of the UH3

RFA-CA-23-029: Application Elements

- **Specific Aims:** Describe the overall goals for the entire application
- **Research Strategy:** Applicants should describe both the UG3 phase and the UH3 phase in the same application using the standard sub-sections of Research Strategy (please refer to RFA), 12 page limit
- **Milestones and Timelines:** A timeline including milestones is required for all phases of the application (UG3/UH3)

<https://grants.nih.gov/grants/guide/rfa-files/RFA-CA-23-029.html>

RFA-CA-23-029: Application Review Criteria

- Standard NIH Review Criteria
- Specific RFA review criteria listed in Section V:
 - Significance
 - Investigators
 - Innovation
 - Approach
 - Environment
 - Milestones Plan

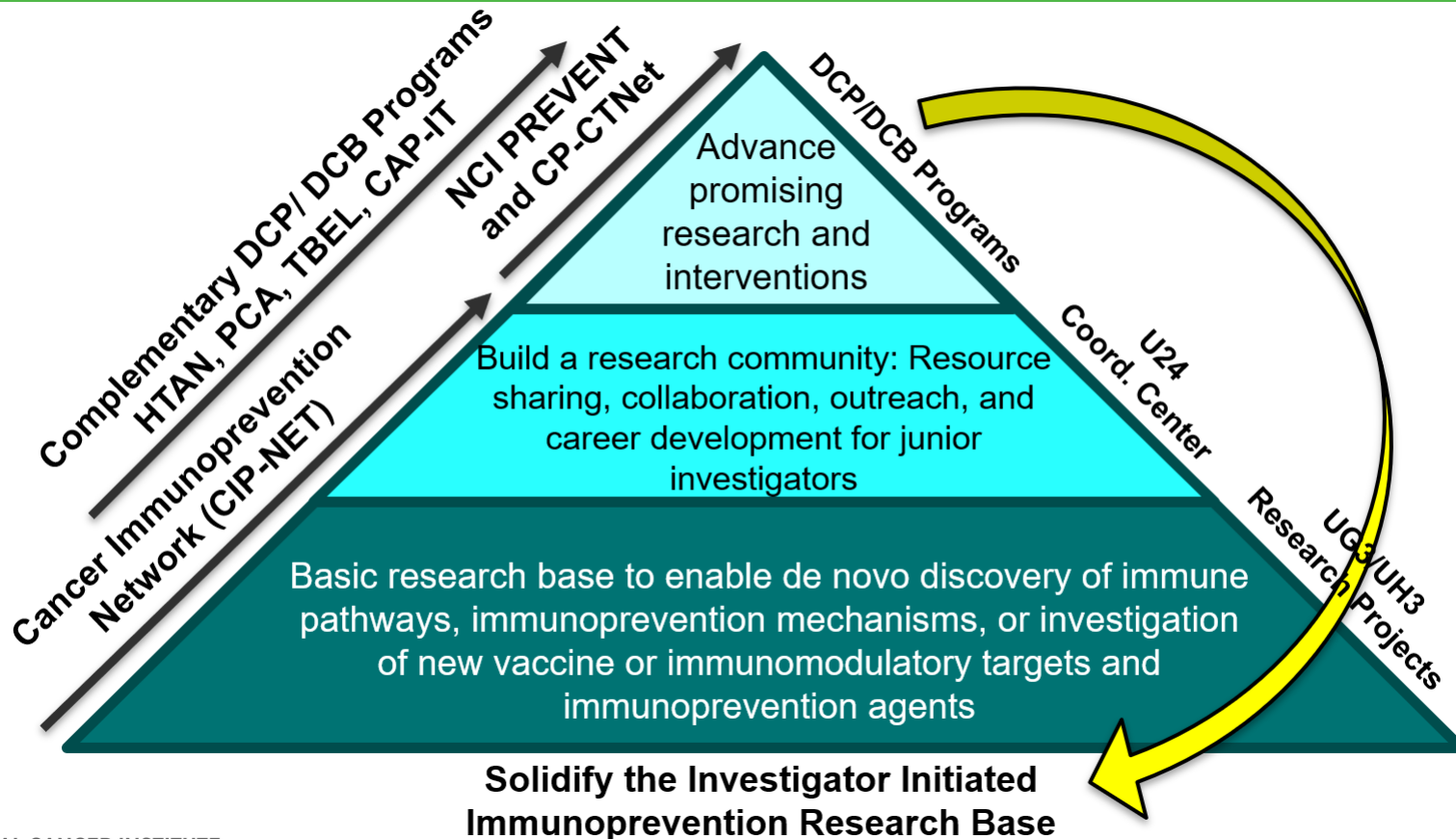
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RFA-CA-23-029: Application Review Criteria (cont'd)

- Standard NIH Review Criteria
- Specific RFA review criteria listed in Section V:
 - Significance
 - Investigators
 - Innovation
 - Approach
 - Environment
 - Milestones Plan

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Building the Cancer Immunoprevention Research Continuum



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Contact Us! CIP-Net@mail.nih.gov

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