INSTRUCTIONS for Applying

This is NOT a grant application - if successful, funds will not be transferred to your institution to support your project. Rather, this is an application to access the scientific capabilities and resources of the NCI with the goal of moving promising cancer chemopreventive agents into clinical testing. If successful, you will partner with the NCI in developing a drug development pipeline. Depending on the drug development stage of your agent, it will be optimized and tested in appropriate task(s) with the goal of filing an IND with the US FDA and entering it into clinical testing.

General Instructions

Applications to the PREVENT Program are evaluated for clinical need, feasibility, alignment with NCI mission, novelty, and scientific merit.

Applications must be submitted in an Adobe Acrobat® PDF file format to: NCIPREVENT@mail.nih.gov

Clearly indicate in the body of the proposal what you would like the NCI to provide in form of resources in response to this application.

Required Documents

1. PREVENT Concept Application

The concept application document should not exceed 5 pages and should outline the scientific nature and rationale of the proposed project and should include the following:

- **Background:** Provide a summary of the field sufficient to allow an appropriate understanding of the scientific and medical context from which the opportunity emerges. Describe the target, targeted cellular pathways, and molecular mechanisms of action, if known. Please be concise and specific; it is not necessary to address cancer incidence.

- **Hypothesis:** Include a clear statement of the hypothesis(es) to be tested and define the objectives of the proposal. Specifically, address the *scientific merit* of your proposal by providing supporting evidence from the field. Provide evidence to validate the target and/or the intervention approach based on *in vitro*, *in vivo*, or clinical studies from your research or literature. Provide a summary of the key experiments you have conducted to date; manuscripts and supporting material can be included as an appendix. Include an assessment of safety and therapeutic index, if possible. When available, include information on the competitive landscape and comparator efficacy studies.

- **Research Strategy and Specific Request:** Clearly describe the intended research strategy defining the specific activities requested from the NCI with the proposal; if the research activities necessary to move the concept forward to the clinic are not established or clear, please indicate this. Include specific details as necessary to demonstrate that the project has been well thought out (for example, if requesting assistance in the development of a pharmacodynamic assay, include a description of the

analyte to be measured, strategy for biospecimen acquisition, assay platform, etc.). Address the feasibility of the proposed research strategy.

- **For preclinical drug development projects**, describe the proposed screening strategy, readiness of the primary assay, and any supporting secondary assays available, including structure-based, virtual, and selectivity assays. Supporting data can be included as an appendix. For new molecular entities, describe the development status of the compound and optimization strategy (for guidance, please refer to the PREVENT Stage Gates). Indicate whether the compound has undergone medicinal chemistry optimization; if not, describe the proposed strategy. Describe available enzymatic, cell-based, and ADME assays, and where appropriate, access to a structure-based drug design platform, available PK and PK/PD assays and clinical readiness of the assays. Include an evaluation of functional activity, potency, and PK/PD relationship, with an emphasis on therapeutic index, if available; supporting data can be included as an appendix. *Specify the expected resources or expertise required from the NCI PREVENT Program to facilitate advancement of the agent into first-in-human studies.*

  Please also indicate whether you have had meetings with the FDA.

  Examples of resources that can be provided by NCI include, but are not limited to:

  - *In vitro* and *in vivo* preclinical pharmacology and efficacy studies
  - Preclinical Investigational New Drug (IND)-directed GLP toxicology studies
  - Identification and evaluation of intermediate biomarkers
  - Scale-up cGMP and non-cGMP production of an investigational agent
  - PK and PK-PD modeling to optimize dosing regimen
  - Formulation optimization for enhanced bioavailability and clinical usefulness
  - Analytical method development for investigational agents in bulk form and in biological fluids and tissues
  - Stability testing for bulk and formulated material
  - Regulatory support
  - Consultation for planning of clinical trials

- Proof-of-concept or first-in-human studies
- Other resources to support drug development

- **Justification:** Provide a statement to indicate whether your proposal adequately addresses unmet needs in cancer prevention. *Specify how the proposed agent or approach will advance clinical practice.*

- **Uniqueness:** Include a statement about how the proposed agent or intervention differs from existing cancer preventative interventions. Address the novelty of the concept with respect to the target and approach and indicate the likelihood of the concept advancing into the clinic without the assistance of the NCI PREVENT Program.

2. Appendices

- **Intellectual Property (IP) Information:** The applicant should include a list of any patents issued or pending with respect to either the agent or to any non-commercially available technology/material required for the development of the agent. In the event that an application requires the use of non-commercially available technology/equipment that is patented by a third party, the applicant must provide documentation that the patent holder does not object to the applicant's use with the proposed project. (For additional information on different patent and licensing mechanisms applicable to studies of third-party agents, see the IP and Data Access page).

  Each PREVENT application must include the information described below signed by an authorized staff member overseeing IP and/or technology transfer at the applicant's institution. This verifies that he/she has reviewed the PREVENT request and that the technology is or is not eligible for consideration by the PREVENT Program. If the technology is found not to be eligible for use as outlined in the PREVENT application, and it is central to the investigator's proposal, submission to the PREVENT Program is not encouraged.

  The following information is requested:

  I. Details of all the following rights which your institution owns and that are used in the project (the "institution's IP"):
     - Patents and patent applications
     - Registered trademarks, applications for registered trademarks, and other marks
     - Registered designs, applications for registered designs, and significant other designs
     - Significant know-how
     - Significant copyright works and other IP rights

II. Details of all employees, consultants, and other parties involved in the development of the institution's IP related to the PREVENT project submission. (Are there contributors outside the institution, and if so, what was their role in development?)

III. A complete list and brief description of all agreements with third parties related to the PREVENT project submission:
   - Granting rights to those third parties under the institution's IP
   - Granting rights under third-party IP to the institution

IV. A complete list and brief description of all confidentiality agreements with third parties related to the PREVENT project proposal

V. Details of any:
   - Claims made by third parties against the institution related to the project proposal that the institution has infringed a third party's IP rights
   - Circumstances where a third party has or may have infringed the institution's IP or other IP used in the institutions' business related to the project proposal

- **Current Support:** Please provide a list of current funding sources. For applicants in academia, this would include current grants from both government and non-government sources, and any research resources provided directly from their institution. Individuals working directly for the government should provide an annual budget for their laboratory and any additional outside funding sources.
- **Principal Investigator Biosketch:** The principle investigator biosketch should follow the NIH standard format. In the list of PI publications, please highlight any that are directly related to proposed project by preceding them with a double asterisk (**).
- **Additional Documentation as Appropriate:** If appropriate, additional information can be submitted such as preliminary or supporting data.
- **Other Appendices:** Appendices should be limited to papers in press and preliminary data. Please do not include PDF files of PowerPoint presentations or entire RO1 grant applications.