

## Cancer Research Collaboration of Excellence (CRCE) Awards

The purpose of this funding opportunity is to establish and fund the Cancer Research Collaboration of Excellence (CRCE) program at the Johnson Cancer Research Center (JCRC) at Kansas State University. CRCEs are intended to support integrated, multi-project research programs with a well-defined, central research focus on cancer. Our vision of a CRCE is a program consisting of interrelated cancer research projects, each capable of standing on its own scientific merit but complementing the other projects in the CRCE. The overall goal of the program is for each CRCE to develop into a PO1-type extramural grant with a focus on basic cancer research with suggested areas of fundamental biology of specific cancer types, cancer diagnosis, pre-clinical therapy development and a vision for application of these results.

The CRCE grant applicant will submit the proposal using the electronic application process available on the JCRC website. To streamline the review process, a MANDATORY letter of intent will be due **Oct. 1, 2020**. Please provide the following information: CRCE Title, PI and affiliation, Sub Project Titles (list all), Subproject CO-PIs and affiliation.

The complete CRCE grant application will be due **Oct. 15, 2020**. The application will include a narrative describing the proposed CRCE and the scientific activities that are proposed using the section formats indicated below. Strong justification and rationale for the formation of the CRCE is required. The CRCE application must include a minimum of two individual research projects that contribute to the scientific objective. Each individual research project should reflect a distinct, separate, scientifically meritorious research effort led by an independent investigator. In addition, the individual projects should be clearly interrelated and synergistic so that the research ideas, efforts, and outcomes of the program as a whole will offer a distinct advantage over pursuing the individual projects separately. Clinical trials are allowed but must be part of a larger CRCE cancer focus and must be clearly integrated into the basic and/or applied science of the CRCE. The use of shared resources is encouraged to facilitate scientific interaction and interdisciplinary collaboration.

Format of application:  
Research Strategy

- 1) Overview: The CRCE overview section describes the **overall significance, innovation and approach** of the CRCE application and should highlight the program's conceptual unity by describing the cancer-relevant, scientific problems to be addressed and laying out the research strategy. The CRCE overview section should include a description of the major research objectives and strategic plan. The applicant should explain how the proposed projects and shared resources will be coordinated and work together to address the overall goals and aims of the CRCE. This section must clearly outline the synergy of the CRCE program and describe how the CRCE will be more effective than if the

projects were performed independently. In particular, the Research Strategy should describe how the proposed projects and shared resources will be used by the individual projects.

- 2) Research Program proposals (separate sections to be included for each individual research project): Describe the proposed cancer-relevant research and how it will contribute to meeting the CRCE goals and objectives, and explain the rationale for selecting the methods to accomplish the specific aims. This section should be hypothesis driven and address the normal NIH sections including Significance, Innovation, and Approach with pitfalls and alternatives. In addition, each program proposal should declare the basic and/or translational cancer significance of the proposed work and define the goals that will address these points:
  - Specify the contributions of each independent research project to the Program objectives
  - Provide a research project flow chart for each stand-alone project
  - Provide an estimated timeline for the first phase of the self-sustaining individual projects which will ultimately cascade to the long-term objectives.
  - Integrate the key milestones for the project flowcharts into a flowchart for the CRCE program
  - In addition to the standard scientific description, the interactions among projects and core facilities should be described within each project.
  
- 3) Budget: A detailed budget should be included for the entire project. Enough detail should be provided to allow a scientific expert to judge if the budget is appropriate. In particular, does the budget allow for the successful execution of the proposed work? Grant budgets will be up to **\$50,000** per year up to two years total funding. (Renewal will be at the completion of a satisfactory progress report at the end of year one.) A major emphasis of the CRCE in the context of a multi-project application involves the synergism of projects.

The goal of the Johnson Cancer Research Center is to enhance the scientific knowledge, ideas, and outcomes obtained through the cooperative interactions of the individual projects. The proposed merger of complementary skills, perspectives, and resources of the CRCE has the potential to produce outcomes greater than would otherwise be achieved. Examples of synergy include, but are not limited to generating hypotheses supported by new data which could not be readily generated in a single laboratory : implementation is achieved, for example through sharing data, samples, reagents, cell lines, subject population(s), technologies, research approaches, data management/analytical tools, and model organisms, which may impact the direction of science and research outcomes in the CRCE.

Each project within CRCE application and the CRCE application as a whole will be extramurally reviewed. Projects will be scored on significance and scientific merit, innovation, the approach, personnel, facilities and budget, CRCE synergy, and specific milestones. The CRCE application will be scored similarly with the addition of the overall

likelihood of the project to develop into a PO1-type extramural grant. Applications are due electronically **Oct. 15, 2020**.

Applicants are required to prepare applications as a single PDF file with 11 point Ariel font. Other file formats will not be accepted and incomplete or poorly written applications will be administratively withdrawn prior to review. The following information will be included in the indicated order:

1. Descriptive title of proposed activity
2. Name(s), departments, campus address(es) and telephone number(s) of the PI and collaborating PIs
3. Names of other key personnel
4. Participating departments
5. Budget and justification (no more than 1 page per research project)
6. Overview, CRCE project vision, rationale for the creation of the CRCE, synergy and interaction of the projects (no more than 2 pages, including citations)
7. Project description (no more than 5 pages for each included project, including citations)
8. Please provide the names, affiliation and contact information of 5 experts (off KSU campus) who can review this application and don't have a conflict of interest with your program (no co-authorships, share grant applications or significant professional collaborations within the last 5 years.)
9. NIH-style biosketches (5-page max) of PI and collaborating PIs. Include a single biographical sketch for each individual person listed in the application regardless of the number of projects in which they participate.
10. Research & Related Other Project Information (include all approvals for Biohazards, Radiation Hazards, Human Subjects and Vertebrate Animals)
11. Facilities and Other Resources (no more than 1 page per project and not to be used to circumvent the 5-page project description)

Contact Dr. Sherry D. Fleming, Director, Johnson Cancer Research Center for questions regarding this request for application (RFA). Letter of intent is due **Oct. 1, 2020**. Complete Applications are due electronically **Oct. 15, 2020**. Both use the electronic submission process available on the JCRC website.