REISSUE WITH CLARIFICATION OF CRITERIA

REQUEST FOR PROPOSALS: PILOT GRANTS

USE OF TUMOR GENOMIC EVALUATION FOR CLINICAL DECISION-MAKING

REVISED APPLICATION DEADLINE: January 7, 2014

AWARD INFORMATION

The Case Comprehensive Cancer Center will provide seed money to foster collaborations and to promote and increase institution-wide capacity and competitiveness in the use of human tumor genomic evaluation for translational investigation. Based on the quality of the applications, 2-3 awards of up to $75,000 will be awarded to investigators who intend to gather preliminary data to be used in seeking future independent funding. Case Comprehensive Cancer Center members with a faculty appointment at all levels (eligible to apply for independent nationally competitive research grants) are encouraged to apply. Proposals from both junior and senior investigators are encouraged. It is expected that these grants will represent translational efforts to support the ultimate goal of treatment selection based upon tumor genomic characterization.

The feasibility of real-time comprehensive high throughput genomic analysis (exome, RNAseq, gene list) has improved to the point where routine application to clinical management can be envisioned. However, many issues remain before widespread adoption is possible, and most cancer center members have not delved into this new technology. These include platform development and validation, genomic data interpretation for clinical application, definition of “actionable” findings, and utility of findings for prognostication, risk assessment, and treatment decisions. Proposals should take maximum advantage of new scientific discoveries and technologies and contribute to advances in Precision Medicine. Demonstrated feasibility to develop into a fully-funded, independent research project within two years will be required and is part of the application. Projects submitted for review must be distinct from current funded research. Extension of ongoing genomic sequencing projects into new areas is also not the priority of this RFA. Each proposal should be explicitly translational, and must involve tumor and or blood tissues from patients. Availability of such tissues should be addressed, although if needed, the investigator may request that these tissues be collected prior to the award, and the cancer center biorepository will review that feasibility.

ELIGIBILITY

The impact of this RFA on genomic research and Precision Medicine will need to be demonstrated, therefore eligibility requires that the research involve tumor tissues (and possibly blood in addition to tumor tissue) from patients. In addition, applicants must be Cancer Center members with faculty appointments, demonstrate intent to apply for national funding within a defined timeline, and describe new research that could not be achieved without the collaboration. Postdoctoral fellows, graduate students and research associates are not eligible to apply for these pilot grants.
PROJECT SCOPE

Proposed research must be cancer-related, and must address how the genomic analysis would have future clinical impact, either through a change in prognosis, treatment decision, risk assessment, or other intervention.

REVIEW CRITERIA

Proposals will be reviewed by a committee of Cancer Center faculty, including Senior Leaders, who in addition to reviewing the science, will also review the interactions of proposed collaborators. The review committee will provide a written report to Cancer Center leadership, who will give final approval, and feedback to each applicant. Awardees will utilize the high throughput genomics sequencing core in the Department of Genetics and Genome Sciences. If a “send out” is planned, the need should be stated.

Required elements for all proposals include:

- Sequencing feasibility based on sample access and sequencing requested. Applicants are encouraged to contact the genome sequencing core.
- Clear demonstration of clinical relevance.
- Linking of the genomic sequencing results performed in the pilot grant with future clinical impact. While the specific research proposal need not directly involve patient decision making, the linkage must be clear. Examples may include identification of genomics-based prognostic markers, mutations that would predict a treatment change, genomic changes that would predict treatment futility, risk of disease or progression, etc.
- All proposals should have a high likelihood of generating data that will support subsequent application for project (e.g. R01)-level funding. The pathway and timeline towards an NIH grant should be clearly described.
- Collaborations – it is expected that most proposals will be multi-investigator and reflect a team science approach
- Identified pathologist and bioinformatician included on the project.

Review Criteria

- **Significance.** Does the study address an important problem related to cancer? If the aims of the project are achieved, what is the potential impact on cancer research, which could include clinical outcomes and response to treatment?

- **Approach.** Is the feasibility of the project adequately addressed? Are the conceptual framework, design, method and statistical analysis adequately developed and appropriate? Has an appropriate team of investigators been assembled?

- **Investigators.** Is the investigator(s) appropriately trained and well suited to carry out this work? Have appropriate collaborators with complimentary expertise been identified? Is there adequate time to conduct the planned work? Is the project linked to a clinical trial or defined population?
- **Plan for National Funding.** Has the investigator(s) developed a timeline and plan for national funding on a topic that is likely to be competitive?

- **Overall Evaluation.** How does the project relate to the Case Comprehensive Cancer Center’s scientific priorities in genomics? Will investigator(s) be able to achieve benchmarks as noted in the study timeline? What are the main strengths and weaknesses of the proposal?

- **Innovation.** Are novel concepts, approaches or methods included in the project? Are the aims innovative and original? Does the project challenge existing paradigms or develop new methodologies or technologies?

- **Sample access status.** The application should state the status of regulatory submissions for access to tissues through the home institution and or the Tissue Biorepository, including but not limited to submission of a tissue request from and an IRB submission. The award will not be made until these approvals are forthcoming.

### APPLICATION AND SUBMISSION INSTRUCTIONS

#### I. COVER PAGE

Please provide a cover page that includes the following information:
- Project Title
- Principal Investigators and co-Investigators: Name, Degree(s), Academic Rank, Department/School, Email Address, Mailing Address, Telephone Number
- Identified pathologist and bioinformatics participation

#### II. DESCRIPTION OF RESEARCH PROPOSED (5 PAGES TOTAL, SECTIONS A-D)

A. Specific Aims
B. Significance
C. Background statement regarding the collaboration and impact of the research/Preliminary Studies
D. Experimental Design and Methods
F. Literature Cited

Include biosketch for each investigator on the team. Appendix material will not be accepted.

#### III. BUDGET AND JUSTIFICATION

Provide an itemized budget and brief narrative justification. The budget should reflect the time, effort and activity commitment from all collaborations (although no salary support will be provided to members).

**Allowed Expenditures**
- Research supplies and animal maintenance
- Salaries of research personnel
- Use of Cancer Center core facilities including genomics, biostatistics and bioinformatics
- Genomic analysis, whether performed by internal cores or commercial entities
- (the cancer center reserves the right to allocate part of the award for sequencing)
- Stipends for graduate students if their role is to promote and sustain the project as part of their thesis work
• Domestic travel when necessary to carry out the proposed research program, but not to attend meetings
• Equipment costing less than $2,000

Expenditures NOT allowed:
• Salary of principal investigators
• Secretarial/administrative personnel
• Honoraria and travel expenses for visiting lecturers
• Tuition
• Travel to meetings
• Books and periodicals
• Membership dues
• Office and laboratory furniture
• Office equipment and supplies
• Rental of office or laboratory space
• Recruiting and relocation expenses
• Non-medical services to patients
• Per diem charges for hospital beds
• Construction, renovation, or maintenance of buildings/laboratories

Allocation of funds will require an approved IRB protocol.

IV. ADDITIONAL INFORMATION

Please contact Kristin Waite, PhD (kristin.waite@case.edu) for additional information.

V. SUBMISSION OF APPLICATIONS

Please submit applications as an e-mail attachment to Kristin Waite (kristin.waite@case.edu) by Tuesday, January 7, 2014.

VI. POST-AWARD REQUIREMENTS

Grantees are required to:

1) Submit a Progress Report at the completion of the grant year summarizing major activities and research findings;
2) Provide information on subsequent grant funding associated with the research initiated from this pilot support as well as related publications in each of the succeeding four years;
3) Acknowledge support and institutional affiliation with Case CCC on resulting publications (i.e., This research was supported by pilot funding from the Case Comprehensive Cancer Center (P30 CA043703);
4) Present results at the Case CCC Scientific Series when requested; and
5) Share research and patient data and resources as required by NIH Data Sharing policy.
6) All funds will need to be expended within 10 months of the award to comply with NIH carry-over policies.

The Cancer Center will consider requests for a second year of funding based on progress, scope and plans for national funding.