The objective of the Clinic Core is to provide resources to enable interdisciplinary clinical investigation in AKI that will advance our understanding of the pathophysiology and pathogenesis of human AKI, ascertain genetic contributions for susceptibility and prognosis of AKI, enhance our diagnostic specificity and expand our preventive and therapeutic approaches for this disorder. This objective will be implemented in three specific aims:

(i) To facilitate and support the design and conduct of clinical research in AKI with appropriate tools to collect and record information for detailed analysis, including assays for AKI related biomarkers.

(ii) To provide comprehensive datasets of well characterized patients and controls that are available to multiple sources for data mining and outcomes research.

(iii) To give access to comprehensive databases of patients with AKI through an electronic information system.

The specific aims of the BR are to:

• Provide expertise in data management and analysis of research project data

• Assisting in the preparation of project reports and presentations and manuscripts

• Assist the Administrative Core in scientific review of projects

• Contribute relevant statistical developments via publication and presentation

The primary objective of the BR is to provide statistical and biometric support to the research projects, pilot projects and projects of the O’Brien Center.

The specific aims of the administrative core are to:

(i) To facilitate and support the design and conduct of research projects with appropriate tools to collect and record information for detailed analysis, including assays for AKI related biomarkers.

(ii) To provide comprehensive datasets of well characterized patients and controls that are available to multiple sources for data mining and outcomes research.

(iii) To give access to comprehensive databases of patients with AKI through an electronic information system.

The major goals of Core B are to provide investigators with a resource for animal models, small animal imaging and renal physiology studies relevant to AKI.

The specific aims of Core B are to:

1. Establish a state-of-the-art small animal imaging facility.
2. Conduct studies to evaluate the role of imaging in AKI.
3. Study the role of imaging in AKI using mouse models of AKI.
4. Study the role of imaging in AKI using large animal models of AKI.

The major goals of Core C are to provide investigators with a resource for animal models, small animal imaging and renal physiology studies relevant to AKI.

The specific aims of Core C are to:

1. Establish a state-of-the-art small animal imaging facility.
2. Study the role of imaging in AKI using mouse models of AKI.
3. Study the role of imaging in AKI using large animal models of AKI.

The major goals of the Pilot and Feasibility study Program are to provide sufficient resources and training for pilot investigators to promote additional funding of AKI-related research through extramural mechanisms.

Eligibility criteria:

• New independent investigators (Instructor or Assistant Professor) who do not have current or past NIH research support (R01 level).

• Established investigators who have not worked in the field of AKI but want to explore a novel concept related to AKI or apply their expertise to a problem in this area.

Solicitation of the Pilot and Feasibility Proposals:

Request for Proposals (RFP) will be circulated four months prior to the award date (usually August 1) that will be distributed to all UAB-UCSD faculty by posting in local newsletters, notices boards, and distributed to all members of the Extended Research Base by e-mail. A two-phased application process will be used.

1. Facilitate interactions between Center members

2. Enhance the pipeline of students interested in careers in academic nephrology

3. Develop the renal scientific expertise of trainees and junior investigators in AKI research, utilizing a portfolio of training programs and didactic coursework designed to enhance kidney-related research across the continuum of research endeavors

4. Work synergistically with existing training grants to enhance the environment of training

5. Foster the maturation of scientific images to maintain rigor, reproducibility and transparency

6. Conduct a campus-wide迷你 O’Brien Center Lecture Series

7. Sponsor targeted symposia and workshops that respond to the needs of Center members and that introduce new ideas and technologies

8. Provide for new methods development, technology acquisition, and development of novel lines of investigation by sponsoringilig new workshops and hands-on training

9. Utilize a web-based interface to facilitate communication and dissemination of information

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