High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT) 2023 Seed Grant Call for Applications

Device Background and Funding Opportunity Summary
High-Resolution peripheral Quantitative Computed Tomography (HR-pQCT) is now available in the outpatient Adult CTRC to obtain non-invasive 3D images at the distal tibia and distal radius of humans for clinical in vivo assessments of volumetric bone mineral density and parameters of bone quality (e.g., microarchitecture, geometry, porosity, and biomechanics). XtremeCT II HR-pQCT scanner images have a very small isotropic voxel size (60.7 μm) and very low radiation dose (≤5 μSv per scan/anatomical site) so the device can be used for studies performed in adult, adolescent, and pediatric populations.

These seed grants are intended to increase utilization of this new instrument and can only be used for HR-pQCT scanning/analysis. They are supported by the CCTSI, the Vice Chancellor of Research, and Pediatric Endocrinology at Children’s Hospital Colorado.

Seed Grant Award Information
Up to four seed grants in the amount of $10,000 each are available through this competitive application process. One of the four awards is specifically for investigators performing child health related research. The duration of the award is 1 year (April 2023 – March 2024).

Important Dates
11.14.2022 Release of Call for Applications
2.15.2023 Applications due
3.2023 Applications Reviewed
4.1.2023 Start of Seed Grant Award Funding

Eligibility
Applicants must hold full-time faculty appointments or postdoctoral/postgraduate appointments on the CU Anschutz Medical Campus or its affiliates (e.g., Veterans Administration, Children’s Hospital of Colorado, CU Denver). Faculty at any academic rank are eligible (e.g., Instructor, Assistant Professor, Associate Professor, Professor). Each applicant is only eligible for one award per cycle. All funded projects must have approval from COMIRB, or other relevant administrative agency.
Application Components
All applications must contain the following items. Incomplete applications will not be reviewed.

- **Cover Page** (1-page): Must include the following
  - Project Title
  - Investigators: name, title, affiliation, contact information (please provide this information for the PI and all co-investigators)
  - Sample size and anticipated number of scans
  - Anticipated timeline
  - Project Overview (2-3 sentences): use laymen’s terms to describe the overall goal, anticipated outcomes
  - Abstract (250 word limit): concise summary of the project

- **Research Plan** (2-pages):
  - Specific aim(s)
  - Background, significance and innovation of the project
  - Approach including experimental design, sample size with data/statistical analysis, feasibility and timeline.

- **References** (no page limit)
- **NIH Biosketch of principal investigator** (5 pages max)
- **Budget with budget justification** (1 page each): Clearly define one-year seed grant expenses and source(s) of additional outside support. Please note that the $10,000 seed grant funding can only be used for costs related to HR-pQCT scan acquisition and analysis.

Submission Information
Please upload all application components in 1 combined PDF on the following website:
https://redcap.ucdenver.edu/surveys/?s=878T8P9EDPXKKMLC

Contacts
The HR-pQCT Leadership Team is here to help you with any questions regarding the device and application process. If you have any questions, please contact the HR-pQCT Leadership Team:
- Faculty Director: Julio Carballido-Gamio, PhD
- Core Director: Wendy M. Kohrt, PhD
- Technical Director: R. Dana Carpenter, PhD
- Medical Director: Christine M. Swanson, MD, MCR

HR-pQCT Funding Information
The HR-pQCT device was acquired via successful grant applications to the NIGMS (S10 OD028453) and the University of Colorado’s Strategic Infrastructure for Research Committee (SIRC) in 2019. Please remember to cite this grant (S10 OD028453) in any publication that utilized the HR-pQCT device!