Facilities and OTHER Resources

*R15 Guidelines: Facilities and Other Resources: Include the following information:*

* *A profile of the students of the applicant institution/academic component and any information or estimate of the number who have obtained a baccalaureate degree and gone on to obtain an academic or professional doctoral degree in the health-related sciences during the last five years (SEE BELOW).*
* *A description of the special characteristics of the institution/academic component that make it appropriate for an AREA grant, where the goals of the AREA program are to: (1) provide support for meritorious research; (2) strengthen the research environment of schools that have not been major recipients of NIH support; and (3) expose available undergraduate and/or graduate students in such environments to research. Include a description of the likely impact of an AREA grant on the PD(s)/PI(s) and the research environment of the institution/academic component.*
* *Although it is expected that the majority of the research will be directed by the applicant investigator and conducted at the grantee institution, limited use of special facilities or equipment at another institution is permitted.  For any proposed research sites other than the applicant institution, provide a brief description of the resources.*
* *If relevant, a statement of institutional support for the proposed research project (e.g., equipment, laboratory space, release time, matching funds, etc.).*

**please delete the above before submission**

**FACILITIES:**

**(*pi/TEAM specific information of personal facilities/resources)***

**PI/Team Student Profiles *(A profile of the students of the academic component and any information or estimate of the number who have obtained a baccalaureate degree and gone on to obtain an academic or professional doctoral degree in the health-related sciences during the last five years)***

**Laboratory:**

**Animal:**

**Computer: *(pi/team should put any special available software in this section)***

**Office: *(again if there is any thing special it could go here)***

**Clinical: *as needed (specific description below, but can delete information if not needed***

**Other Relevant Spaces (i.e. machine shop, elec. etc.)**

**OTHER RESOURCES:**

**SIUE Research Environment**

Through the NIH Biomedical/Biobehavioral Research Administration Development (BRAD) Award (G11HD080220) from the Eunice Kennedy Shriver National Institute of Child Health & Human Development, SIUE is poised to offer faculty and staff every opportunity to grow and succeed in research endeavors. Through the program **B**uilding **R**esearch **I**nitiatives to **D**evelop **G**rant **E**xcellence (**BRIDGE**), SIUE is given the opportunity to develop collaborations and training opportunities for faculty, staff and research administrators. The current collaborations include members of a steering committee from Washington University in St. Louis, Southern Illinois University School of Medicine, St. Louis University, and University of Missouri in St. Louis. These collaborations are helping to enhance current staff and faculty expertise in grant submissions in the biomedical and biobehavioral research to federal, state, and other not for profit agencies. Faculty training, especially for New Investigators, is in development with support from SIUE’s partnerships to support and promote success for new investigators, particularly those in biomedical and biobehavioral research.

The aims of SIUE’s NIH BRIDGE award will increase the ability of the Office of Research and Projects (ORP) to assist with pre-award, post-award, and compliance issues; increase the number of faculty pursuing external support for Biomedical/Biobehavioral Research (BBR); as well as facilitate collaboration across disciplines and between faculty at SIUE and other regional universities with strong BBR programs, Washington University in St. Louis, St. Louis University, University of Missouri St. Louis, and the SIU School of Medicine. The resulting research activity, learning prospects, and collaboration will provide SIUE faculty with opportunities to become more prepared in seeking external funding for BBR research.

Laboratory

SIUE has invested $300 million since 2006 modernizing its educational and research spaces and has made additional substantial investments updating educational and research equipment. In that time, SIUE built:

* the Biotechnology Laboratory Incubator to support the Department of Biological Sciences, the Department of Chemistry, and the School of Pharmacy and house SIUE’s Laboratory for Spatial Analysis, which is a unique interdisciplinary resource that provides geographic imaging systems (GIS) capabilities to use in large-scale mapping studies of socioeconomic and environmental factors that impact health and welfare
* a new Science Building with labs for biology and chemistry research
* new animal care facilities for research in pharmacy, kinesiology, and biology.

The table below shows the research and clinical space available for the largest biomedical and biobehavioral disciplines.

Selected SIUE research and clinical space.

|  |  |  |  |
| --- | --- | --- | --- |
| Location | Units | Research Laboratory Space (ft2) | Clinical Space (ft2) |
| Alton | School of Dental Medicine | 16,421 | 14,360 |
| Alumni Hall | School of Nursing | 5,537 | 735 |
| University Park | School of Pharmacy | 7,786 |  |
| Founders Hall | Department of Psychology | 1,438 | 2,919 |
| Science Building West | Departments of Biological Sciences and Chemistry | 56,642 |  |

Clinical

The following clinics relevant to the project are available at SIUE. They are overseen by qualified, experienced faculty. They are open to SIUE faculty, staff, and students as well as community members.

SIUE clinics relevant to BBR.

|  |  |
| --- | --- |
| Unit | Clinic |
| School of Dental Medicine | Dental Clinic |
| Department of Psychology | Attention and Behavior Clinic |
| Department of Kinesiology and Health Education | Weight Management Clinic |
| Department of Kinesiology and Health Education | Physical Activity Clinic |
| Department of Special Education and Communication Disorders | Speech, Language, and Hearing Clinic |
| East St. Louis Center | Dental, Eye, and Community Nursing Clinics |

Animal

SIUE has the following four compliant animal care facilities.

* Science Building West. This state-of-the-art, brand new facility (opening in 2013) includes a 300-square-foot aquarium room and 1800-square-foot vivarium. There are five animal holding rooms, two behavior observation rooms, one procedure room, one preparation and cage washing room, and one storage room. Special features include a cage washer, autoclave, separate procedure room, programmable lights and temperature, central air supply for aquarium room, positive pressure in holding rooms to keep pathogens out, and video security system. Animals that are currently studied include mice (store-bought and genetically modified), freshwater fishes (wild-caught), freshwater invertebrates (wild-caught), frogs (at all developmental stages, native and store-bought), and lizards (wild-caught and store-bought).
* School of Pharmacy. The School of Pharmacy has a total lab area of 850 sq. ft. It includes a 100-square-foot facility with a state-of-the-art surgical area and self-contained animal modules (SCAM) where rats are housed. An 80 square-foot facility holds a multi-level SCAM where mice are housed. The modules are constructed of Plexiglas and contain a special ventilated caging system where air going into the cages is ventilated by HEPA filters as is the air exhausted from the cages into the room (Lab Products, RAIR HD Super Mouse 750™ Ventilated Micro&#8208;Isolator® Unit).
* Department of Kinesiology. A 47.9-square-foot state-of-the-art surgical area and SCAM are located in the Vadalabene Center where mice are housed. The modules are constructed of Plexiglas and contain a special ventilated caging system where air going into the cages is ventilated by HEPA filters as is the air exhausted from the cages into the room.
* School of Dental Medicine. The 500 square-foot animal care facility at the School of Dental Medicine has recently been updated with a new cage washer, anesthesia chamber and a room with a controlled light source. Currently, rats and mice are housed in this facility.

Other

*Ethical Compliance Program*

SIUE has a fully compliant ethical compliance program that operates out of the Office of Research and Projects within the Graduate School. The following review committees have well-established procedures and well-trained members with the expertise and experience necessary to carry out their duties.

* Institutional Animal Care and Use Committee (IACUC). All research involving the use of animals must be reviewed and approved by the IACUC. The IACUC conducts semi-annual program review and facility inspection, as required by the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals, the *Guide for the Care and Use of Laboratory Animals* 8*th* Edition, and the Animal Welfare Act regulations, as applicable. All personnel participating on projects using animals must complete the Collaborative Institutional Training Initiative (CITI) online training for the care and use of animals in research. The IACUC ensures that laboratory animals receive humane care and the use of treatment in accordance with the highest ethical standards, laws, regulations and policies governing animal research. The IACUC reviews and, if warranted, addresses any animal-related concerns raised by the public or any SIUE employee or student. The IACUC consists of eight members, including a veterinarian, a community member who is not affiliated with SIUE, one member who is classified as a non-scientist, and five members who are classified as scientists.
* Institutional Biosafety Committee (IBC). All research and educational activities involving the use of biohazardous materials must be reviewed and approved by the IBC. Biohazardous materials include any infectious agent presenting a risk or potential risk to the well-being of man or animals, either directly through infection or indirectly through disruption of the environment, including bacteria, fungi, parasites, viruses, rickettsiae, tumor cell lines, and recombinant DNA. Personnel participating on projects using biohazardous materials must complete training to ensure the safe handling of the materials. The IBC is composed of six members—four SIUE faculty and staff from various disciplines and two non-affiliated members from the local community.
* Institutional Review Board (IRB). All research involving the use of human subjects must be reviewed and approved by the IRB. All personnel involved in human subject research must complete CITI human subject training. Both thesocial-behavioral and Clinical IRBs assure that all of the following conditions exist: risks to subjects are minimized; risks are reasonable in relation to benefits, if any, to subjects and to advancement of knowledge; selection of subjects is equitable; informed consent will be sought; informed consent will be documented; where appropriate, the research plan makes adequate provision for monitoring the data collected to ensure safety of subjects; there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data; where any of the subjects are likely to be vulnerable to coercion or undue influence, additional safeguards have been included in the study to protect subjects. The IRB consists of nine members with varying backgrounds to promote complete and adequate review of research activities commonly conducted by the institution and has the professional competence necessary to review the specific research activities assigned to it.
* Financial Conflict of Interest Committee (FCOIC). Investigators on all proposals to and awards from funding sponsors that require compliance with PHS FCOI regulations must submit financial disclosures to the FCOIC and complete CITI FCOI training. The FCOIC reviews all investigator and sub-recipient investigator financial disclosures to determine if a significant FCOI exists plus develops and implements management plans as needed to manage FCOIs. The committee is composed of seven faculty members representing the units primarily impacted by the FCOI regulations (i.e., units with biomedical and biobehavioral research).

*Office of Research and Projects (ORP)*

The SIUE ORP consists of pre-award, post-award, and compliance staff. Support includes assistance with finding funding opportunities and internal and external collaborators, interpreting guidelines and regulations, developing and managing budgets, negotiating confidentiality agreements and contracts, preparing and executing subawards, and navigating compliance processes. ORP also provides education and outreach to faculty and staff internal funding to support scholarly activities.

**SIUE Student Profile:**

SIUE students are a unique blend of undergraduate, graduate, and professional degrees. As noted in the institutional Mission Statement, “…our comprehensive and unique array of undergraduate and graduate programs develops professionals, scholars and leaders who shape a changing world.” <http://www.siue.edu/about/mission.shtml>. All units on campus encourage and feature many student-focused programs that enhance student learning and research experiences.

One program of note is the Undergraduate Research and Creative Activities (URCA) Program <http://www.siue.edu/urca/>. The URCA Program at SIUE encourages, supports (including financially), and enables students to participate in research and creative activities at the undergraduate level. An undergraduate research or creative activity experience enhances the quality of the baccalaureate experience by giving students opportunities to engage in scholarship, to interact with faculty, and to connect more fully in the educational process of discovering and creating. In cooperation with the academic departments at SIUE, the URCA Program recruits eligible students as URCA Associates and URCA Assistants.

Students at the School of Dental Medicine experience opportunities involving hands-on experiences with helping approximately 8000 patients per year in a main clinic located at the school in Alton and a community clinic located in East St. Louis, Illinois. Another experience occurs in the SIU School of Dental Medicine on the Annual Research Day. During Research Day students participate in the annual Student Table Clinic Competition.  Winners of the competition earn opportunities to present their research at research competitions throughout the country.

<http://www.siue.edu/dentalmedicine>

School of Pharmacy incorporates an experiential approach to education and promotes experiences for students to work alongside faculty members and preceptors. These opportunities afford students first hand involvement with faculty with nationally recognized industry experience, research innovations, and educational leadership.

Support for student learning, experiences, and opportunities are priority at all levels of the institution. In particular, the Graduate School hosts a spring Research Symposium that includes student poster and oral presentations and awards. This one-day event is an opportunity for students to present their research to the SIUE community at large. The Graduate School also offers travel support to graduate students and students in professional degree programs for dissemination of the student’s research at one national, state, or local professional conference.

A majority of SIUE faculty members regularly publish with their students in peer-reviewed journals (SIUE is currently in the process of implementing an institution-wide program to help track faculty products that will also include tracking student involvement on the projects).