

Extramural Research Facilities Improvement Program (C06 grant)

Mitzi Nagarkatti

Professor, Dept. of Microbiology and Immunology

Leader - Basic Sciences

Immune Mechanisms Program, Massey Cancer Center

Medical College of Virginia Campus

Virginia Commonwealth University

Richmond, VA 23298-0678

Purpose

- Expand
- Renovate
- Remodel
- Construct new facility

an existing facility

Used in Biomedical/Behavioral Research,
Research Support and Research Training

Centers of Excellence (COE)

National Primate Research Centers (NPRC)

Scientific and Technical Review Board

- Scientific Perspective
- Engineering/Architectural Perspective
- Veterinary/Human Health Perspective

Examples of Use of Funds

- Construction of research space to accommodate growth in PHS funding or faculty recruitment.
- Conversion of shell space to research space and to provide infrastructure (core facilities)
- Renovation of antiquated facility (e.g. asbestos abatement, health and safety considerations, location of fume hoods, building codes, bioterrorism, etc.)
- Alteration to meet changing needs – thematic research focus (collaborations), development of multidisciplinary center.
- Comply with new regulations (e.g. ADA compliant; card entryways for security, AAALAC accreditation, BSL-3 facility, etc.)
- Large immovable equipment (casework, fume hoods, biological safety cabinets, autoclave)

Contd.

- Meet the PHS 2010 goals/NIH RoadMap
- Update animal facility – to house immunodeficient (e.g. SCID), knockout/transgenic mice
- Protect against natural disasters e.g. floods, earthquakes
- Conserve energy
- Install generator (to run animal facilities/essential instrumentation)
- Improve research program of underdeveloped institutions

Funds cannot be used to

- Acquire a site
- Build shell space
- Purchase moveable equipment
- Pay salaries of faculty, staff, students

Important Aspects

- Schematic design
 - Show layout of rooms and relationship with each other and with other facilities on campus on which the science depends
 - Somewhat to scale
 - Rooms labeled/investigator assignment
 - Egress routes
 - Safety issues (biohazard issues, eyewash/shower locations, ADA compliant)
 - Location of major appliances
 - Location of support facilities: e.g. restrooms, isotope work and instrumentation

Contd.

- Well-organized plan
- Administrative Structure
 - Organizational chart
 - Letter from administrative authority to allocate funds
 - Letter of 20 year commitment of space
 - Authority for allocation of space
- Nonfederal matching funds available

Other issues

- Brief background of the institution
- Major breakthroughs/strengths
- Long term goals
- Swing space during renovation
- Proximity of shared resources to the investigators
- Occupational health and safety training of personnel

Tables to be provided

- Net square feet assigned to investigator/program
- Gross square feet
- Assignment of vacated space
- Space/room
- List details of current and pending grants
 - Investigators' names
 - Start/end date
 - Title
 - Source of funding
 - Grant number
 - Amount

Animal facility

- Design/location of animal facility
- Biohazard issues
- Veterinary support
- Training and education of veterinary and technical staff
- Opportunities for continuing education
- Animal census
- Species/strain/number of animals used in each project
- Oversight of procedures
- Animal health surveillance
- IACUC composition and procedures
- Deficiencies cited by regulatory/accrediting bodies
- Gowning rooms/Protective clothing/Security/Cage and Rack Wash etc.

Justify, Justify, Justify

- Cost- provide quotes
- Space requirement for support staff, students, etc.
- Benefit to science
- Purchase of new equipment
- Level of usage of equipment

Scientific Impact

- Impact on institution's existing and future PHS-funded research projects
- Highlight research that will directly benefit
- Provide NIH formatted c.v. of major users
 - Qualifications
 - Honors
 - Publications
 - Grantsmanship
- Translational research
- Impact of research on underserved populations

Some Dos

- Do provide sufficient detail on program needs
- Do provide organized text/appendix
- Do provide adequate justification
- Do provide support letters from collaborators
- Do adhere to font size and page limitation
- Do provide required tables and adequate information on tables (e.g. increase in overall research space but research space assigned to an investigator is decreased)

And Don'ts

- Do not provide URLs for the reviewer
- Do not have disparity between text and tables
- Do not provide blueprints
- Do not provide hand-drawn non-professional line diagrams
- Do not attempt to write the grant on one's own (You need input from scientists, architects/engineers, veterinarians and administrators)

Factors considered

- Remedy deficiencies in existing research facilities
- Appropriateness of proposed facilities to meet personnel safety requirements
- Appropriateness of location and layout
- Reasonable time course, cost and sequence of construction
- Institutional commitment and support
- Capability of P.I. and staff for scientific and fiscal administration of facility.
- For institutions with limited PHS support, impact on advancement or expansion of research/research support/research training

Summary of Review Criteria

- How proposed changes will facilitate the conduct, expansion, improvement or maintenance of institutional biomedical and behavioral research
- How project will meet national health needs in research/research training/research support
- How institutional research and research training needs will be met