



Item: V. d.

Monday, August 19, 2013

**SUBJECT: APPROVAL OF FAU LEGISLATIVE BUDGET REQUEST FOR 2014-15
FUNDING OF THE COLLEGE OF MEDICINE SIMULATION CENTER**

PROPOSED BOARD ACTION

Approve the FAU Legislative Budget Request (LBR) to the Board of Governors (BOG), which seeks funding in 2014-15 for the College of Medicine Simulation Center.

BACKGROUND INFORMATION

Sections 1001.74(12), 1011.40(1) and 1013.60 of the Florida Statutes require that each university submit an institutional budget request adhering to approved BOG guidelines. The BOG will meet on September 12, 2013 to approve the initial State University System LBR. The BOG has requested that we limit our submissions only to initiatives that were funded with non-recurring monies in 2013-14. In 2013-14, FAU received \$500,000 in non-recurring funds for the College of Medicine Simulation Center and FAU is submitting a request for \$973,000 for the 2014-15 fiscal year.

The FAU College of Medicine Simulation Center enables South Florida health professions students, medical residents, and practicing healthcare providers to practice, prepare and analyze all aspects of the chain of patient care and treatment using sophisticated human mannequin simulators and highly realistic, simulated medical scenarios. FAU currently operates two centers, one in Boca Raton and another in North Palm Beach County.

Residency programs are now requiring significant portions of the curriculum to include sophisticated simulation training. Residents are required to master advanced patient imaging, surgical and high tech evaluation instrumentation as well as hone teamwork and communication skills in a clinical environment. The current simulation center will not be able to keep pace with the changing requirements without an infusion of funds for trainers in laparoscopy, endoscopy, colonoscopy, eye/hand coordination, ultrasound, anesthesia,

OB/GYN and other essential skills. In addition, monies will also be used to replace aging equipment.

IMPLEMENTATION PLAN/DATE

FY 2014-15

FISCAL IMPLICATIONS

None

Supporting Documentation: SUS Operating Budget Forms I and II

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**State University System
Education and General
2014-2015 Legislative Operating Budget Issue
Form I**

University:	Florida Atlantic University
Issue Title:	College of Medicine Simulation Centers Enhancements
Priority Number	
Recurring Funds Requested:	\$ 0
Non-Recurring Funds Requested:	\$ 973,000
Total Funds Requested:	\$ 973,000

- I. **Description** *(Describe the service or program to be provided if this initiative is funded. Include whether this is a new or expanded service/program. If expanded, what has been accomplished with the current service/program?)*

The FAU College of Medicine simulation centers enable South Florida health professions students, medical residents and practicing healthcare providers to practice, prepare and analyze all aspects of the chain of patient care and treatment, using sophisticated human mannequin simulators and highly realistic, simulated medical scenarios. FAU currently operates 2 medical simulation training sites, one in Boca Raton and the second in North Palm Beach County.

Since the first simulation center was established over 7 years ago, the demand for training has significantly increased as a result of: (1) the growth in FAU medical school enrollment as the College of Medicine has transitioned from a regional medical campus to a four year public medical school with a total, planned enrollment of 256 students; (2) requests for access to the center by multiple South Florida nursing schools; and., (3) the training needs of South Florida healthcare professionals including nurses, medical reserve corps volunteers and paramedics/emergency medical services. Over the past 4 years, the simulation center has trained over 2,800 healthcare providers.

For FY 2013-14, the Legislature authorized \$500,000 in non-recurring funding for the FAU simulation centers to enable them to continue to meet the training needs of FAU medical students and South Florida health care professionals. These funds are being used to replace many of the centers' original mannequins and camera recording/evaluation system that are now over 7 years old.

The FAU College of Medicine has entered into a formal affiliation agreement with 5 regional community hospitals to create a unique national consortium for the collaborative and strategic planning and implementation of new residency programs. Through this consortium, the FAU College of Medicine and its hospital affiliates share all decisions related to new residency program priorities to ensure that new

residency programs are directly responsive to the state’s shortage of physicians in primary care and other critical medical specialties.

In 2014, the first FAU-sponsored residency program will open in internal medicine. Nine additional residency programs are scheduled to begin from 2015 through 2018, pending accreditation by the Accreditation Council on Graduate Medical Education (ACGME). These new residency programs will have a total of 347 residents when they reach full capacity.

Time Line for Establishment of New FAU-Sponsored Residency Programs

Residency Program:	Planned Start Date Pending ACGME accreditation	Number of Residents At Full Capacity
Internal Medicine:	June 2014	96
Awaiting institutional accreditation:		
General Surgery	July 2015	49
Emergency Medicine	July 2015	36
Psychiatry	July 2015	24
Obstetrics/Gynecology	July 2015	24
Family Medicine	July 2016	30
Neurology	July 2016	24
Physical Medicine/Rehab	July 2017	16
Pediatrics	July 2017	24
Medicine-Pediatrics	July 2018	<u>24</u>
 Total New Residency Positions		 <u>347</u>

Residency programs are now requiring significant portions of the curriculum to include sophisticated simulation training. Residents are required to master advanced patient imaging, surgical and high tech evaluation instrumentation as well as displaying teamwork and excellent communication skills in the clinical environment. The training requirements of FAU’s new residency programs will place further demands on the FAU simulation centers that cannot be met with the centers’ current training equipment. To meet residency program requirements, the simulation centers must acquire the following advanced trainers for a total non-recurring cost of \$973,000:

- Laparoscopic Surgical Trainers with 3-D Rendering - LapVr: \$115,000
- Endoscopy and Colonoscopy Trainers - EndoVR: \$135,000
- Laparoscopic Task Trainers to enhance eye/hand coordination - ProMis: \$90,000
- Ultrasound Trainers with 3-D Imaging of Ultrasound Image - Vimedix: \$160,000 including FAST Exam as Best Practices for Emergency Surgeon Training

- Ultrasound Central Line Training Models for Catheter insertion - Central Line: \$20,000
- Jugular and Femoral Vascular Access for Central Line Placement Jugular/Femoral Central Line: \$30,000
- Additional Pediatric models for Internal Medicine and Family Practice-PediSim \$64,000
- Anesthesia Machine -\$70,000
- Anesthesia support equipment (OR table, monitors, ultrasound, etc) -\$108,000
- Birthing Units for OB/GYN Training Noele Birthing Unit - \$54,000
- Facilities and Equipment modifications to support the expanded Charter - \$77,000
- Replacement of debriefing camera units (5 years old) that were originally designed as security cameras with a state of the art 5 camera recording/evaluation system at Pavilion Center = \$50,000

II. Return on Investment (*Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on enhancing marine bioscience research, indicate the anticipated outcome associated with the research, the accountability metric(s) that could be improved upon, and any expected return on investment to the State.*)

Expanding the training capacity of the FAU College of Medicine simulation centers will provide the following return on the state's investment:

- (1) Assuring an Adequate, Highly Trained Florida Physician Workforce: Where physicians complete their medical training is the best predictor of where they subsequently establish practice. For decades, Florida has ranked 45th-46th nationally in terms of residency training opportunities. As a result, many Florida medical school graduates have left the state for residency training and have never returned to Florida to practice. Competition for access to Florida residency training opportunities by Florida medical school graduates has been further exacerbated by the creation of 4 new Florida public medical schools. Beginning in 2009, the number of Florida medical school graduates began to exceed the number of first year Florida residency positions. Through the FAU GME Consortium, over 340 more physicians will be able to complete residency training in South Florida, the majority of whom are predicted to stay in state to practice. Providing residents with the ability to train at state-of-the art medical simulation centers will enable these new Florida residency programs to successfully compete at the national level for the best and brightest medical school graduates from Florida and the Nation.
- (2) Improved Patient Safety, Health Care Outcomes and Cost Reductions: Although the FAU simulation centers are only 7 years old, health professions user groups are already beginning to report improvements in patient outcomes, reduction in medical errors and cost savings including: (1) reductions in "code blue" critical patient arrests; (2) significant increases in

successful code blue outcomes; (3) reduction in rapid response intervention time and effectiveness that prevents critical patient situations from escalating; (4) reduced patient in-hospital stays; and, (5) doubling of retention rates for 2nd year nurses in 15 area hospitals. The simulation centers will continue to partner with user groups to collect data on the effect of simulation center training on health care outcomes and costs.

Residents trained at the state-of-the art FAU simulation centers will be able to acquire and refine advanced procedural skills and interpersonal attributes, using hands-on experiences in a highly realistic, simulated clinical environment that promotes their competence and confidence and greatly enhances their ability to safely and effectively use these skills with real patients in real clinical settings.

- (3) Supporting Florida’s Medical Technology Sector: The mannequins and simulators that the simulation center has purchased to date have been manufactured in Florida by Florida businesses. It is FAU’s intent to continue this commitment to supporting the state’s medical technology sector by purchasing as much of the newly acquired equipment as possible from Florida entities.

III. Facilities *(If this issue requires an expansion or construction of a facility and is on the Capital Improvement List complete the following table.):*

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.	NA			
2.				

