

ITEM: \_\_\_\_\_

**UNIVERSITY OF FLORIDA  
BOARD OF TRUSTEES**

**NEW DEGREE PROPOSAL:** Master of Science degree with a major in Animal Molecular and Cellular Biology, Interdisciplinary (CIP 26.0204)

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**OTHER SUS INSTITUTIONS OFFERING SAME PROGRAM:**

None

**PROPOSED BOARD ACTION**

Approval of the M.S. degree with a major in Animal Molecular and Cellular Biology

**DEMONSTRATED NEED FOR PROGRAM**

Currently, the Bureau of Labor Statistics estimates that biological and medical scientists will experience greater than average growth in positions between now and 2010. According to the The Biotechnology Industry Association, from 1992-2001, the number of biotechnology companies increased from 1231 to 1457, annual revenues increased from 8.1 billion dollars to 28.5 billion dollars, and employment increased from 79,000 to 191,000. In industries related to biotechnology, employment during the same period increased from 230,000 to 535,000. According to Kelly Management Services, the total number of people working in biotechnology worldwide is expected to rise from about 400,000 people at present to 750,000 by 2011. Employment opportunities in biotechnology include positions for scientists, engineers, regulatory specialists, clinicians, and business people. Meeting the needs for trained scientists in disciplines necessary for biotechnology (molecular biology, cell culture, drug design, embryology, etc.), as well as for people who can function in allied fields (i.e. regulatory affairs) will mean that the United States must increase the number of graduates with M.S. degrees in biotechnology. The need to increase the number of scientists in animal biotechnology has also been recognized by the United States Department of Agriculture. Persons with graduate degrees in animal molecular and cell biology are needed for many careers in the field of animal biotechnology including research and teaching in animal biology, veterinary medicine, and human health.

**BACKGROUND INFORMATION**

The M.S. degree in Animal Molecular and Cellular Biology is a natural progression from the existing Interdisciplinary Concentration in AMCB that was created in 1993, which has successfully graduated 21 Ph.D. students and 5 M.S. students to date. The M.S. option was more recently added in 2001. This program is supported by the colleges of CALS, CLAS, CVM and COM, but is open to graduate students from all colleges. Faculty with expertise from across all animal disciplines, including physiology, immunology, genetics, cell biology, molecular biology and animal management will assist in offering this degree program. Emphasis is on providing a strong interdisciplinary program to train scientists in understanding the principles of molecular and cellular biology and their application to problems in animal and human health, animal production and biotechnology.

**RELATIONSHIP TO THE UNIVERSITY'S STRATEGIC PLAN**

The proposal fits the UF strategic plan, which has listed Biological Sciences as a major priority for the University. The AMCB program will further enhance existing graduate programs in Animal Sciences, Veterinary Medicine, Medicine, Zoology and other Biological Science-related programs at UF, by offering outstanding graduate courses, journal colloquy and research seminars in life sciences. Additionally, the diverse background of the interdisciplinary faculty of the AMCB will give students opportunities to gain further insights into a multitude of educational, collaborative, and career opportunities in the Life Sciences.

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**UNIVERSITY OF FLORIDA M.S. with a Major in AMCB**

**SUMMARY INFORMATION**

**Projected FTE and headcount are:**

	<b>Projected Headcount</b>	<b>Student FTE</b>	<b>Faculty Headcount</b>	<b>Faculty FTE</b>
<b>First Year</b>	<b>13</b>	<b>11.31</b>	<b>13</b>	<b>1.30</b>
<b>Second Year</b>	<b>16</b>	<b>13.92</b>		
<b>Third Year</b>	<b>22</b>	<b>19.14</b>		
<b>Fourth Year</b>	<b>22</b>	<b>19.14</b>		
<b>Fifth Year</b>	<b>29</b>	<b>25.23</b>	<b>14</b>	<b>1.40</b>

**Additional Comments:**

**Supporting Documentation Included:** None

**Other Support Documents Available:** Full proposal approved by the Graduate Council

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