

**COORDINATING COMMISSION
FOR POSTSECONDARY EDUCATION**

140 N. 8th Street, Suite 300
Lincoln, NE 68508

Telephone: (402) 471-2847
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PROPOSAL FOR NEW INSTRUCTIONAL PROGRAM

Form 92-40

SECTION I

Institution Submitting Proposal: University of Nebraska Medical Center
Title of Program: Interdisciplinary Graduate Program in Biomedical Sciences
CIP Code: 26.0102
Organizational Unit in which program will be located:
College of Medicine

Name of contact person in the event additional information is needed: Dr. Susan M. Fritz

Telephone: 402-472-5242

Degree, Diploma, or Certificate to be offered (use separate submittal for each level):

Interdisciplinary Graduate Program in Biomedical Sciences

Proposed date to initiate program: When approved by the Coordinating Commission

List the location(s) where this program will be offered: UNMC

If the program has a projected ending date, please so indicate:

Date approved by Governing Board: October 9, 2015

(Attach all documents related to this proposal upon which the Governing Board made its decision to approve the proposal.)

Chief Executive Officer's or other Authorized Officer's signature: _____


Susan M. Fritz

Proposal for Modified Instructional Program; The Interdisciplinary Graduate Program in Biomedical Sciences

This proposal is for the reorganization of six University of Nebraska Medical Center (UNMC) PhD-granting programs into one PhD training program, with six subprograms with the goals of increasing efficiency by consolidating overlapping activities, increasing admissions and training consistency between related programs, and increasing interdisciplinary integration. The current six UNMC PhD programs being merged are those directed by the College of Medicine's basic science departments, Dept. Biochemistry and Molecular Biology (BMB); Dept. Cellular and Integrative Physiology (CIP); Dept. Genetics, Cell Biology and Anatomy (GCBA); Dept. Pathology and Microbiology (PM); and Dept. Pharmacology and Experimental Neuroscience (PEN) and the Cancer Research Graduate Program (CRGP) which is directed by the Eppley Cancer Institute.

I. Descriptive Information

1. Proposing institution: University of Nebraska Medical Center
2. Name of proposed program: Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS)

3. Degrees/credentials to be awarded graduates of the program: PhD

4. Other programs offered in this field by this institution:

Other bench science PhD training programs at UNMC in the area of biomedical research are the Pharmaceutical Sciences Graduate Program (PSGP) and the Medical Sciences Interdisciplinary Area (MSIA). Faculty in departments that do not have degree-granting programs, e.g. the clinical departments and the Monroe Meyer Institute (MMI), participate in graduate training through courtesy appointments in a basic science department, or through the MSIA graduate program.

5. CIP Code: 26.0102

6. Administrative units for the program: The program will be administered by the College of Medicine (COM), the Eppley Institute for Research in Cancer and Allied Diseases and the COM's basic science departments.

7. Proposed delivery site: UNMC campus

8. Date approved by governing board: Pending

8. Proposed date the program will be initiated: Fall term 2016

9. Description:

The primary training students receive in the IGPBS is extensive research training in the laboratory of their thesis advisor. In the IGPBS, the six interdisciplinary subprograms will each be administered by one of the five basic science departments in the College of Medicine or by the Eppley Institute (Cancer subprogram). These six units will also provide additional training in the form of didactic coursework, journal clubs and seminars. Thus, this program will mostly use the current administrative structure and resources. While these units will administer the sub-programs (or focus areas), the faculty participating in training students can be graduate faculty from any UNMC department who perform research in the corresponding focus area. There are more than 120 research faculty members who will be the IGPBS faculty. All trainees under the IGPBS umbrella will be PhD.

IGPBS focus areas and their relationship to UNMC departments:

<u>Interdisciplinary Graduate Programs</u>	<u>Administrative Sponsor</u> (& examples of participating depts.)
1) Integrative Physiology & Molecular Medicine	Cellular and Integrative Physiology {CIP} (Pharmacology and Experimental Neuroscience {PEN})
2) Immunology, Pathology & Infectious Disease	Pathology and Microbiology {PM} (PEN, Genetics Cell Biology and Anatomy {GCBA}, Eppley Inst.)
3) Biochemistry & Molecular Biology {BMB}	BMB (Eppley Inst., GCBA, Munroe Meyer Institute {MMI})
4) Molecular Genetics and Cell Biology	GCBA (Eppley Inst., PM, MMI)
5) Cancer Research	Eppley Inst. (BMB, GCBA, PM)
6) Neuroscience	PEN (MMI, Neurologic Sciences, CIP, GCBA)

The coursework program of study for students in the IGPBS will vary according to the individual focus area within the IGPBS in which students participate. This curriculum will be fairly similar to that currently used for students in the six current graduate programs that will form the IGPBS. However, in some cases, this reorganization will enable the further development of training that is focused on the corresponding interdisciplinary theme. For example, Immunology, Genetics and Neuroscience would each have a more focused and developed interdisciplinary curriculum. Advanced coursework will be defined by the individual focus area. All modifications of the currently approved program of studies in the restructured six sub-graduate programs will require approval by the individual sub-program, the IGPBS, and UNMC's Graduate Council.

Goals of the proposed reorganization:

The first goal of the proposed reorganization is to provide stronger interdisciplinary training in UNMC's major research themes. By making research theme sub-programs at the College of Medicine/Eppley Institute level, all faculty members in our major research themes should be able to equally participate in their relevant interdisciplinary training areas. For example, cancer research is the primary focus of the Eppley Institute's Cancer Research Graduate Program, but cancer research is also a major strength in three other departmental graduate programs (BMB, GCBA, and PM). Thus, a stronger, and more interdisciplinary cancer research training program, would be formed by all having all relevant cancer research faculty from the Eppley Institute, BMB, GCBA, and PM participate in one sub-program focused on cancer research. This would provide students more training opportunities, a larger faculty to develop advanced courses, and a deeper and more focused seminar series and journal clubs. Likewise, UNMC's other major

interdisciplinary research themes, Genetics, Neuroscience, Immunology, Integrative Physiology, would also benefit from broader faculty participation than just faculty that are predominately from one department.

By strengthening interdisciplinary training through the proposed reorganization, we feel that we can better train students for truly interdisciplinary research and at the same time improve UNMC research infrastructure by generating larger interdisciplinary faculty training units which have a stronger focus on our major research themes. This should also increase collaborations between laboratories, further enriching the training experiences.

A second goal of reorganization of the current graduate programs is to provide greater consistency in high academic standards for admissions criteria, coursework standards, comprehensive exams, dissertation evaluation, and workforce preparation. As a health sciences center, much of our graduate training is from the National Institutes of Health (NIH) funding rather than teaching assistantships. There is an increasing awareness and emphasis by NIH on the workforce needs and training requirements for biomedical research PhD training. Indeed, there have been specific panel recommendations that NIH support for PhD training be limited to NIH training grants and not investigator-initiated research grants. Thus, it will be important for UNMC to ensure that our biomedical PhD training has high, consistent, nationally-competitive standards with mechanisms in place to ensure and document successful training and workforce preparation. In the proposed program, all admissions will require acceptance by a single committee and additional acceptance by the corresponding sub-program. We are also implementing other common standards for comprehensive and thesis exams and providing supplemental training opportunities to enhance career preparation (e.g. business and teaching skills).

A third goal of the IGPBS is to increase external funding for graduate training. The National Institutes of Health (NIH) is the largest funding source for training Biomedical Scientists. With NIH's emphasis on interdisciplinary training, UNMC's departmental graduate programs historically have been at a disadvantage in competing for NIH training grants. The proposed merger will strengthen our position for obtaining training grants by having a larger common pool of applicants and entering students, by strengthening our interdisciplinary training, and facilitating program-wide recruiting and training enhancements (e.g. career preparation training).

A fourth goal of our graduate program reorganization is to make our graduate recruiting more competitive nationally. With greater focus on our strength areas (Cancer, Immunology, Neuroscience, etc.) and by providing increased interdisciplinary training in these areas, the programs will be stronger and hence more attractive. Other medical schools that have implemented interdisciplinary training programs report an increase in the number and quality of applications. Thus, this system appears to have become the norm and appears to put us at a disadvantage by not adopting this approach.

II. Review Criteria

A. Centrality to Role and Mission

The proposed program is fully consistent with UNMC's role and mission as defined in the Comprehensive Statewide Plan for Postsecondary Education for UNMC (pages 7-34). UNMC has a designated responsibility for training biomedical scientists for the State of Nebraska. The currently approved programs fulfill this responsibility, but with the

reorganization of these six programs, we feel that we can train better biomedical scientists. At the same time, this reorganization will enhance the biomedical research infrastructure of UNMC, another identified UNMC mission.

B. Evidence of Need and Demand

Need for the program

Institutional need. With faculty primarily busy outside the laboratory in teaching, service, grant/paper writing, grant reviews, etc., having an apprenticing expert in the laboratory is essential to the function and growth of the lab. In a recent evaluation of students recruited by UNMC's Biomedical Research Training Program (BRTP, a smaller PhD entry program for US students going into the six UNMC PhD programs being merged in this proposal), we found that in the last 8 years, BRTP students have contributed to more than 200 peer-review scientific publications. More importantly, of these publications, the former BRTP students were the first author in the majority of these publications even though the average number of authors per paper was > 6. This is a strong indication that the students being recruited and trained at UNMC are major contributors to UNMC's research mission which is supporting a research enterprise of > \$100 million / year.

We examined biomedical science graduate programs associated with the College of Medicine in universities that are offered in states that are members of the Midwestern Higher Education Compact and/or are contiguous with the state of Nebraska (see Appendix 1). There are 32 universities in states that are members of the Midwestern Higher Education Compact and/or are contiguous with the state of Nebraska that offer biomedical science graduate programs that are linked to their medical school. These universities and programs offer the most meaningful comparison for our purposes, because the proposed creation of the Interdisciplinary graduate program in biomedical sciences at UNMC involves the reorganization of the 5 graduate programs that are currently housed in the basic science departments that are part of the College of Medicine (plus the graduate program housed in the Eppley Institute).

Of these 32 universities, just 7 (including UNMC) offer primarily department-based graduate programs that independently recruit graduate students. By contrast, nearly half of the universities (14 out of 32), offer primarily interdisciplinary, interdepartmental graduate programs that recruit students using a single common entry mechanism. Thus, the reorganization of our basic science graduate programs into the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS) would put us more in line with the majority of graduate programs in states that are members of the Midwestern Higher Education Compact and/or are contiguous with the state of Nebraska. Students selecting biomedical PhD programs have indicated preference for programs which provide a wider selection of laboratories and interdisciplinary opportunities.

Regional need. As of 2013, there were more than two dozen biotechnology companies in eastern Nebraska. Collectively this private sector activity represents ~\$300 million/year in research and development. Biotechnology is an important economic driver for Nebraska. In the State of Nebraska, there are only three institutions that provide PhD level biological or biomedical research training, UNMC, UNL, and Creighton University's School of Medicine. Of these, UNMC is significantly larger in terms of biomedical research activity. UNMC receives most of the total NIH funding for the State of Nebraska.

Demand for the program – student interest in the proposed program.

The programs to be reorganized have been established for > 40 years, with the exception of the CRGP which was approved in 2004. As evidenced by many 5-year reviews, the programs have been successful and have a long history of strong student interest. In the time since their founding, all of these programs have grown significantly in their number of applicants and number of entering students. In the past two years, all six of these programs have received a 5-year review, which has documented the increase in the quality and quantity of the applicant pool. Currently UNMC's six basic science graduate programs have ~ 200 students. In the 3-year period 2011-2013, there were 563 applications to the PhD portion of these programs and 97 of these students entered UNMC's basic science PhD programs. Of these PhD applicants, 185 were from US citizens, thus an average of 62 US student applications per year.

For the 8-year period from fall of 1998 through fall of 2005, the six PhD programs averaged 35 applications per year from US students. Thus, we have had a 77% increase in applications in recent years. The growing number of applications, and increasing number of matriculating students, indicates an interest and need for training in the biomedical sciences at UNMC. The IGPBS expects to enroll 30 to 35 students each year in the proposed program for PhD study with a goal of approximately 60 - 70% of the students being US citizens. With our recent growth, we are planning now to focus on increasing the quality of the program rather than further expanding the program.

C. Adequacy of Resources.

Currently available resources will be sufficient for accomplishing the goals of the proposed graduate program merger. The College of Medicine, its six basic science departments, and the Eppley Institute currently administer the six graduate training programs that are proposed to be merged into one common program. While the six focus areas within the IGPBS will retain much of the same administrative structure as the current six independent graduate programs, there will be some activities that could be better handled as a single, larger program. In particular, recruiting, admissions, common curriculum management, and career development activities would be more effectively, and more efficiently, performed as a single large program than as six smaller, independent programs. Currently, recruiting and admissions for this group of six graduate programs is being performed by the six independent programs as well as by BRTP. The formation of the IGPBS, would replace the BRTP and its resources will be used to support the recruiting activities of the IGPBS. The responsibilities of the IGPBS would be expanded somewhat over the current BRTP activities. However, each subprogram will need to maintain some administrative structures under the new expanded interdisciplinary subprograms that the students will function in after year 1, and the current resources will be used for this support.

Faculty and Staff Resources

The proposed reorganization will require no additional staff and only partial additional support for a current faculty member. The current staff person who is the BRTP Coordinator will become the IGPBS Coordinator and have similar responsibilities to their prior position. This person is primarily responsible for the recruiting activities, but also helps monitor progress of the 8-10 first-year BRTP students in their rotations and classes. As students become affiliated with one of the six sub-programs, administrative responsibility for the students would shift from the central IGPBS office to appropriate

individual sub-program. These five departmental based programs currently receive UNMC College of Medicine support for their graduate programs and this support would remain. Likewise, the Cancer Research Graduate Program, supported by the Eppley Institute will continue to support the administration of the Cancer graduate program. Each of the six individual department/institute graduate programs commit approximately 1 FTE of staff time for the daily administration of students in their graduate programs (~ 30 to 45 students each) and approximately 25% to 50% of a faculty FTE for directing the departmental graduate program. These resources are currently, and will continue to be, provided by the Dean of the College of Medicine or by the Eppley Institute.

Currently, the BRTP recruits only among US students for a target class of 8-10 students. The IGPBS would recruit both US and international students with a target class of 30 - 35 per year. With an increase in the number of 1st year students to be interviewed and managed by the IGPBS, over that managed by the BRTP, we propose to have two faculty Co-Directors cover the program instead of one. Currently the BRTP Director supervises student recruiting, admissions, and manages the 1st year students. In the IGPBS, we propose two Co-Directors, one faculty level director would be responsible for the recruiting process and another Co-Director for the supervision of students who have entered the program. These faculty are NIH-funded researchers who have additional teaching and administrative responsibilities. This additional expense to add a Co-Director would be an administrative supplement of ~ \$15,000. The research faculty who will be participating in this program receive all of their salary and research funding through other mechanisms; this program does not support additional faculty salaries or research supplies.

The restructuring of these six graduate programs itself does not require new funding. However UNMC is increasing its strategic investment in graduate education at the same time these programs are being restructured. Because of the strategic importance of graduate students to UNMC's research mission, UNMC's Chancellor Gold and College of Medicine Dean Britigan have pledged additional funds (\$500,000) from research indirect cost returns from research conducted by the researchers in the participating laboratories to enable graduate stipends for students in the IGPBS during this first year while the students are uncommitted to a laboratory. These funds are anticipated to result from overall increases in the University's external funding portfolio.

Physical Facilities and Location of the proposed program – existing resources at UNMC will be used, since this is primarily a reorganization. Graduate student training at UNMC is primarily performed in the research laboratories within the Durham Research Center (DRC) I & II buildings, the Lied Transplant Center, the Eppley Institute's two research buildings, the Monroe Meyer Institute, Wittson Hall, and in research laboratories at the Omaha VA. Within the next two years the Buffett Cancer Center research building with 98 additional laboratories will be added.

Budget Projections - for the first 5 years of the program (see Tables 1 & 2). In addition to the budget numbers detailed in Tables 1 & 2, the Dean of the College of Medicine provides support in the respective departmental operating budgets for administrative staff and partial faculty support for the daily administration of the departmental PhD programs. Likewise, the Eppley Cancer Institute also provides faculty

and staff support for operating the Cancer Research Graduate Program. These support mechanisms and responsibilities will remain unchanged.

D. Avoidance of Unnecessary Duplication

Since the programs being reorganized have existed for many years, and this is primarily a reorganization, there will be no duplication. Nebraska's two medical schools, UNMC and Creighton University's School of Medicine provide most of the biomedical PhD training in the state. In addition, University of Nebraska - Lincoln School of Veterinary and Biomedical Sciences offers a PhD in Integrative Biomedical Sciences. The UNL program is mostly focused on virology and collaborates closely with related UNMC faculty in training PhD students in this area.

E. Consistency with the Comprehensive Statewide Plan for Postsecondary Education

Following each statewide plan for postsecondary education goal below, we describe in brief how the reorganization of the existing individual graduate programs into the IGPBS is not only consistent with the comprehensive statewide plan for postsecondary education, but improves our ability to meet the goals of this statewide plan.

Meeting the Needs of Students

◆Nebraska colleges and universities will provide their graduates with the skills and knowledge needed to succeed as capable employees and responsible citizens.

Science in the 21st century is becoming more and more interdisciplinary. Therefore, to better train students for science careers, we need to provide them with training that is more interdisciplinary; the IGPBS will help us to more effectively achieve this goal.

Meeting the Needs of the State

◆Higher education in Nebraska will be responsive to the workforce development and ongoing training needs of employers and industries to sustain a knowledgeable, trained and skilled workforce in both rural and urban areas of the state.

To better train students for science careers in the full range of employer and industries in our state, we need to provide strong interdisciplinary training. The development of the IGPBS will help us to more effectively achieve this goal.

◆Institutions will contribute to the health and prosperity of the people and to the vitality of the state through research and development efforts, technology transfer and technical assistance, and by attracting external funds to support these activities.

Graduate students represent the major workforce on extramurally funded research at UNMC, and thus graduate education is absolutely critical to the research enterprise at our institution. However, compared to peer institutions with similar levels of extramural funds, UNMC has been comparatively unsuccessful in obtaining T32 (institutional predoctoral and postdoctoral training awards from NIH). One major reason for our lack of success in obtaining T32 awards appears to be our current graduate programs structure; NIH has indicated that it does not want to support traditional, departmental graduate programs. Rather, NIH uses the T32 mechanism to support interdepartmental, interdisciplinary

graduate education programs. Thus, in order to maintain our existing level of extramural funds, as well as to obtain additional extramural support in the form of T32 awards, it is essential for us to reorganize our graduate programs in such a way that will foster the development of interdepartmental, interdisciplinary graduate education programs

Meeting Needs by Building Exemplary Institutions

◆Each Nebraska institution will fulfill its role and mission in an exemplary manner and will compare favorably with peer institutions.

As noted above, the majority of our peer institutions have already transitioned to graduate programs that include a common entry mechanism (or umbrella program) that feed into a number of interdisciplinary (rather than departmental) graduate programs. Thus, the reorganization that we propose with the creation of the IGPBS will allow us to compare more favorably with our peer institutions in the realm of graduate education in the biomedical sciences by providing improved interdisciplinary training.

◆Higher education in Nebraska will be effective in meeting the needs of students and the state, will be efficient in its expenditure of the state's resources, and will be accountable for developing and sustaining exemplary teaching, learning, research, and public service.

The reorganization of the several existing, departmental graduate programs into the IGPBS with a common entry mechanism and common admissions criteria, will allow us to more effectively to recruit the highest quality students to our graduate programs. In turn, recruiting high caliber graduate students will enhance the research mission of the university and provide a stronger pool of future biomedical researchers and teachers for Nebraska.

Meeting Educational Needs through Partnerships and Collaboration

◆Higher education institutions will work as partners with one another and with other entities whenever appropriate to share resources and deliver programs cooperatively to enhance learning opportunities for Nebraska residents.

The reorganization of the several existing, departmental graduate programs into the IGPBS with a common entry mechanism will allow us to work closer together rather than compete with one another in our efforts to recruit the highest quality students to our graduate programs. Furthermore, we can more effectively interact as a single entity with various undergraduate institutions to enhance graduate education opportunities for students at these institutions. Similarly, as a single, large entity we can more effectively interact with potential industry partners for developing internships or research collaborations. Such collaborations can provide critical benefits to students, the university and the private sector.

Appendix 1

Integrated Graduate Program in Biomedical Sciences: General structure of the curriculum

I. Students committed to individual graduate programs take courses as required by their specific graduate program.

II. Students not yet committed to an individual program (uncommitted students) take a common core curriculum in the first semester and then, if still uncommitted at the beginning of the second semester, they must register for two of six optional courses in the second semester.

Curriculum:

1st Semester:

- 1) Fundamentals of Biomolecules (3 credit hours)
- 2) Molecular Cell Biology (3 credit hours)
- 3) Fundamentals of Receptors and Cell Signaling (1 credit hour)
- 4) Recitation (1 credit hour)

2nd Semester: Each of the six participating programs would offer one 1 to 3 credit hour course (if they so choose). Uncommitted students would be required to take at least two of these optional courses.

- 1) Structural Biology (2 cr enzymology and thermodynamics material from 821, crystallography etc.)
- 2) Immunology (maybe one cr hour from 824 or make it a 2 cr with additional infectious diseases material).
- 3) Neuroscience (2 cr) from BRTP 824 and PEN 822
- 4) Cancer Biology (1 cr from BRTP 824, could be increased to 2 or 3 credit.
- 5) Genetics (1 cr from BRTP 823, could be increased to 2 credit.
- 6) Systems Physiology (new 2 cr course)
- 7) Bioinformatics (2 credit hours)

TABLE 1: PROJECTED EXPENSES - MODIFIED/INTEGRATED ORGANIZATIONAL UNIT
 Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS)

Personnel	FY2016 Year 1		FY2017 Year 2		FY2018 Year 3		FY2019 Year 4		FY2020 Year 5		Total	
	FTE	Cost	FTE	Cost								
Faculty ¹	0.3	\$30,000	0.3	\$30,900	0.3	\$31,827	0.3	\$32,782	0.3	\$33,765	0.3	\$159,274
Non-teaching staff: Professional ¹	1	\$42,000	1	\$43,260	1	\$44,558	1	\$45,895	1	\$47,272	1	\$222,985
Graduate assistants ^{2,3}	11	\$561,000	11	\$561,000	11	\$561,000	11	\$561,000	11	\$561,000	11	\$2,805,000
Non-teaching staff: support												
Subtotal	12.3	\$633,000	12.3	\$635,160	12.3	\$637,385	12.3	\$639,677	12.3	\$642,037	12.3	\$3,187,259
Operating												
General Operating ⁴		\$68,000		\$69,700		\$71,443		\$73,229		\$75,059		\$357,431
Equipment												\$0
New or renovated space												\$0
Library/Information												\$0
Resources												\$0
Other												\$0
Total Expenses	12.3	\$701,000	12.3	\$704,860	12.3	\$708,828	12.3	\$712,906	12.3	\$717,096	12.3	\$3,544,690

¹ Faculty and staff salaries are incremented 3% annually.

² Graduate assistantships are typically 0.49 FTE. This investment would fund ~22 assistantships.

³ As is customary at UNMC, tuition remission is provided to students with basic-science graduate assistantships. Therefore, no tuition expense or revenue is shown.

⁴ Includes office, recruiting/advertising, computing/computing services and training expenses.

TABLE 2: REVENUE SOURCES FOR PROJECTED EXPENSES

Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS)

	FY2016 Year 1	FY2017 Year 2	FY2018 Year 3	FY2019 Year 4	FY2020 Year 5	Total
Integration of Existing Funding ¹	\$212,835	\$212,835	\$212,835	\$212,835	\$212,835	\$1,064,175
Required New Public Funds						\$0
1. State Funds						\$0
2. Local Funds						\$0
Tuition and Fees ²						\$0
Other Funding						\$0
Graduate Student Stipends (Student's First Year) ³	\$500,000	500,000	500,000	500,000	500,000	\$2,500,000
						\$0
						\$0
Total Revenue	\$712,835	\$712,835	\$712,835	\$712,835	\$712,835	\$3,564,175

¹ Funding made available by integrating the smaller Biomedical Research Training Program into the IGPBS.

² As is customary at UNMC, tuition remission is provided to students with basic-science graduate assistantships. Therefore, no tuition expense or revenue is shown.

³ Program enhancement using funds controlled by the College of Medicine and the UNMC Chancellor. Subsequent student stipend funding is obtained from institutional and PI grants.

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October 12, 2015

Dr. Michael Baumgartner
Executive Director
Coordinating Commission for
Postsecondary Education
140 N. 8th Street, Suite 300
Lincoln, NE 68509

RECEIVED
OCT 15 2015
Coordinating Commission
for Postsecondary Ed.

Dear Michael:

Enclosed is a copy of the proposal to integrate six UNMC PhD-granting programs in the College of Medicine into one PhD training program creating the Interdisciplinary Graduate Program in Biomedical Sciences with six subprograms. The proposal was approved by the Board of Regents at the October 9, 2015 meeting. Also enclosed is the Proposal for New Instructional Program Form 92-40.

Please do not hesitate to contact me if you have any questions.

Sincerely,



Susan M. Fritz
Executive Vice President and Provost

Enclosure

c: Chancellor Jeffrey Gold
Vice Chancellor Dele Davies
Dean Bradley Britigan, College of Medicine

TO: The Board of Regents
Academic Affairs

MEETING DATE: October 9, 2015

SUBJECT: Integration of six University of Nebraska Medical Center (UNMC) PhD-granting programs in the College of Medicine into one PhD training program with six subprograms

RECOMMENDED ACTION: Approval is requested to integrate six UNMC PhD-granting programs in the College of Medicine into one PhD training program creating the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS) with six subprograms

PREVIOUS ACTIONS: December 12, 1981 – The Board approved the MS/PhD program in Pharmacology in the Graduate College of the University of Nebraska.

November 11, 2005 – The Board approved the name change of the Department of Pharmacology to the Department of Pharmacology and Experimental Neuroscience. President Milliken also approved the name changes of the MS and PhD degrees from Pharmacology to the MS and PhD degrees in Pharmacology and Experimental Neuroscience.

August 7, 2004 – The Board approved the new MS and PhD program in Cancer Research at UNMC.

The PhD programs in Biochemistry and Molecular Biology; Cellular and Integrative Physiology; Genetics, Cell Biology and Anatomy; and Pathology and Microbiology were established prior to modern records of Board approvals.

EXPLANATION: UNMC proposes merging the PhD programs directed by the College of Medicine's basic science departments, Biochemistry and Molecular Biology; Cellular and Integrative Physiology; Genetics, Cell Biology and Anatomy; Pathology and Microbiology; Pharmacology and Experimental Neuroscience; and the Cancer Research Graduate Program which is directed by the Eppley Cancer Institute, into the Interdisciplinary Graduate Program in Biomedical Sciences (IGPBS). This merger will:

- 1) *Provide stronger interdisciplinary training in UNMC's major research themes by a) enabling all faculty from contributing Departments to equally participate in their relevant interdisciplinary training areas, b) enabling better training of students for truly interdisciplinary research and c) increasing collaborations between laboratories, further enriching the training experiences;*
- 2) *Provide consistency in high academic standards for admissions criteria, coursework, comprehensive exams, dissertation evaluation, and workforce preparation;*
- 3) *Increase external funding for graduate training by having a larger common pool of applicants and entering students, facilitating program-wide recruiting and training enhancements (e.g. career preparation training);*
- 4) *Make our graduate recruiting more competitive nationally.*

This proposal has been reviewed by the Council of Academic Officers. This proposal also has been reviewed and recommended for approval by the Academic Affairs Committee.

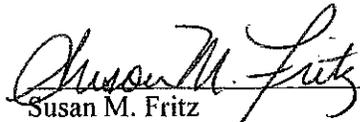
PROGRAM COST: \$701,000 first year (\$3,544,690 over five years) (see page 10)

SOURCE OF FUNDS: No new state funding is required; existing fund sources have been combined from the six separate programs, the College of Medicine, and the UNMC Chancellor.

SPONSORS: H. Dele Davies
Vice Chancellor for Academic Affairs

Jeffrey P. Gold, Chancellor
University of Nebraska Medical Center

RECOMMENDED:



Susan M. Fritz
Executive Vice President and Provost

DATE: September 16, 2015