



October 3, 2013

Vivian S. Lee
Senior Vice President for Health Sciences
5th Floor, CNC
Campus

RE: Graduate Council Review
Department of Pharmacotherapy

Dear Vice President Lee:

Enclosed is the Graduate Council's review of the Department of Pharmacotherapy. Included in this review packet are the report prepared by the Graduate Council, the Department Profile, and the Memorandum of Understanding resulting from the review wrap-up meeting.

After your approval, please forward this packet to President David Pershing for his review. It will then be sent to the Academic Senate to be placed on the information calendar for the next Senate meeting.

Sincerely,

David B. Kieda
Dean, The Graduate School

Encl.

XC: Chris M. Ireland, Dean, College of Pharmacy
Diana I. Brixner, Chair, Department of Pharmacotherapy

The Graduate School
201 Presidents Circle, Room 302
Salt Lake City, Utah 84112-9016
(801)581-7642
FAX (801)581-6749
<http://www.gradschool.utah.edu>

The Graduate School – The University of Utah
GRADUATE COUNCIL REPORT TO THE SENIOR VICE PRESIDENT FOR
HEALTH SCIENCES AND THE ACADEMIC SENATE

March 25, 2013

The Graduate Council has completed its review of the Department of Pharmacotherapy.
The External Review Committee included:

Louis P. Garrison, PhD
Professor and Associate Director
Pharmaceutical Outcomes Research and Policy Program
School of Pharmacy
University of Washington

John E. Murphy, PharmD
Professor, Department of Pharmacy Practice and Science
Associate Dean, College of Pharmacy
University of Arizona

Dennis W. Raisch, PhD
Professor and Chair
Pharmacoeconomics, Epidemiology, Pharmaceutical Policy,
and Outcomes Research
College of Pharmacy
University of New Mexico

The Internal Review Committee of the University of Utah included:

Mary C. Beckerle, PhD
Professor and Executive Director
Huntsman Cancer Institute

Michael K. Magill, MD
Professor and Chair
Department of Family and Preventive Medicine

Ginette A. Pepper, PhD
Professor and Associate Dean for Research
College of Nursing

This report of the Graduate Council is based on the self-study report submitted by the Department of Pharmacotherapy, the findings of the internal and external review committees, the OBIA profile, and a letter written by the Chair of the department (co-signed by the Dean of the College of Pharmacy) in response to reports provided by the review committees.

DEPARTMENT PROFILE

Program Overview

The department was established in 1977 and took its current name, the Department of Pharmacotherapy, in 2005. It is one of four departments in the College of Pharmacy. It is the home to the Pharmacotherapy Outcomes Research Center (PORC), which was established in 2002 by the current Department Chair, Dr. Diana Brixner. A majority of the department's research is focused in PORC, and department funding is primarily received from pharmaceutical companies. The department sponsors an MS program and a new PhD program and these programs align with PORC focus and activities.

Dr. Brixner will vacate the chair position in July 2013, and a search for her replacement is currently in progress. She will continue to lead PORC and also serve as Director of Outcomes for the new Program in Personalized Healthcare at the University. This new program is interdisciplinary and represents a multidepartment effort to create new opportunities for collaborative research. Dr. Brixner's leadership role should expertly position the department to increase their interdisciplinary collaborations.

The department was last reviewed in October of 2005. At that time it was recommended that they increase diversity of faculty, devote more attention to faculty mentoring, and develop plans and implement their MS program followed by their PhD program. As can be seen from the summary below, the department has achieved many of the recommendations suggested by their 2005 review.

The PORC is integral to the department, particularly the graduate program. It has substantial research funding (although self-study materials provided estimates varying from approximately \$500,000 to \$4 million), primarily from industry contracts, but also a small but growing number of federal and foundation grants. These projects provide rich research experiences for the doctoral students. Returned indirect costs and direct costs from these projects fund the graduate student support. The Utah Poison Control Center (UPCC), directed by Barbara Crouch, has active research studies that may be a resource for PhD students, but are not currently utilized.

Faculty

The department has 26 faculty members: 7 tenure, 6 research track, and 13 clinical faculty. Among the tenure track faculty, 5 are full professors and 2 are assistant professors. The doctorally prepared faculty represent a variety of specialties, with only one faculty member holding a traditional PhD pharmacy degree. Other members have degrees in medical

informatics, political science, medicinal chemistry and health policy. The clinical faculty, in addition to providing direct patient care, serve on master's project/thesis and dissertation committees, and provide clinical supervision. The tenured faculty have a strong record of grants, publications, and receipt of honors and awards at the international level. For example, Dr. Brixner is former president of the International Society for Pharmacoeconomics and Outcomes Research (ISPOR). Assistant Professor Dr. Joanne LaFleur recently received the Outstanding Young Investigator award from ISPOR. The majority of faculty are female (15 of 26). The department does not have any underrepresented minority faculty members.

Faculty make substantial contributions to teaching and clinical supervision for the College's PharmD program. The department itself offers an MS/administrative residency program in Pharmacotherapy Outcomes Research and Health Policy. The department also offers a PhD in Pharmacotherapy Outcomes Research and Health Policy, which was approved by the Board of Trustees in 2011.

All faculty, even clinical faculty, are expected to conduct research. According to the external reviewers' report, faculty scholarly productivity is greater than other universities of similar stature. Although the department is strongly supported by the pharmaceutical industry, both the internal and external reviewers noticed very little federal funding but noted there was increased interest and planning for securing peer-reviewed applications. In particular, the internal reviewers strongly emphasized that investigator-initiated peer-reviewed funding is necessary to increase the departments' competitiveness at a national level, strengthen innovation, and ensure interdisciplinary collaborations to impact moving both research and education forward.

Faculty morale was reported as high and junior faculty felt the level of mentoring was appropriate. Two main concerns were voiced by faculty. The first concern related to the doctoral program and included concerns about sufficient faculty resources and stable financial support. Currently, if a single core faculty were unable to teach a course there could be significant disruption to students' progression. Additionally, the PhD student support is based on funding but faculty were concerned about the stability of the funding resource. The second primary faculty concern related to workload stress with insufficient time for research. According to the external review, this was of particular concern to faculty with heavy teaching and clinical responsibilities. Both the internal and external reviewers noted that there was a need for more faculty, particularly with expertise in health economics and to help manage the planned growth of their graduate program.

Students

The department currently has 5 PhD students in Pharmacotherapy Outcomes Research and Health Policy, 2 admitted in 2011, 2 admitted in 2012 and one transfer from the MS program. The PhD program has had between 19-24 applicants since its inception in 2011. The data on numbers of MS students reported in the department's self-study is inconsistent and numbers also vary between the internal and external review documents. Approximately 17 students enrolled in the MS program since the last review, with approximately 9 graduating and 3 withdrawing. The MS program averages 20 applicants per year. The PhD program has had between 19-24 applicants since its inception in 2011. Internal and external reviewers' interviews with students report high morale and satisfaction with the new programs.

PhD student tuition is covered under the Graduate School's Tuition Benefit Program. Students also work as Graduate Assistants or Graduate Research Assistants. Master's students in the administrative residency programs are funded by the University of Utah hospital or Intermountain Health Care.

Assessment of students' progress and learning are monitored by the Graduate Program Committee and the students' supervisory committees. MS students take a comprehensive examination in their first year. PhD students take first- and third-year comprehensive examinations. Students from both programs are required to be involved in project research, which also allows faculty to closely monitor their learning.

The Graduate Program Committee Chair meets annually with MS program directors. Additionally, the Graduate Program Committee annually reviews PhD courses and PhD student progress and performance.

Diversity

Since their last review, the department has increased the percentage of female faculty, now having 15 female faculty out of 26. In their self-study, the department acknowledges they have been unsuccessful in addressing the issue of faculty ethnic diversity. They do not have any underrepresented minority faculty members; however, they report "every effort will be made to attract women and minorities" in their search for a new chair.

Regarding student diversity, of the 20 graduate students (master's and PhD) since 2006, 8 have been female and 12 male. One is of Hispanic descent, two are African Americans, one is a Pacific Islander, two are South Asian and one is Arabic. All of the 5 currently-enrolled PhD students are international.

Program Effectiveness and Outcomes Assessment

Since the PhD program is new, there is no student placement outcome data. Outcome data provided in the self-study of MS students is inconsistent and neither internal nor external reviews could make a definitive summary. The external review document indicates that "MS/Administrative residency students are highly sought after in the job market."

Facilities and Resources

At present, the operating budget is largely supported by the research and clinical contracts. According to the external review, the level of research support for the department's missions is greater than comparable universities. The internal reviewers noted that a "common theme" derived from faculty interviews was a concern about sustained funding support from current sources for the PhD program.

At the time of this report, the department has recently moved into and occupies the entire fifth floor of the new state-of-the-art Pharmacy Research Building. Prior to the relocation, departmental units were spread across three different locations. Despite being dispersed, internal

reviewers noted that the department had done an “exemplary job of sustaining communication and collegial culture.” With the relocation, the students who were already quite involved with the PORC faculty will now have increased access to faculty, research and clinical experiences at the Utah Poison Control Center (UPCC). The PORC has substantial research funding, primarily from industry contracts. The projects provide financial support (both returned indirect and direct costs) for doctoral students as well as intensive research experiences. The PORC has 13 faculty, 8 staff (administrative assistant, project coordinator, accountant, computer professional, medical writer, senior research analyst, and 2 research associates), 6 research fellows (postdoctorates), as well as the Drug Regimen Review Center. The UPCC is directed by Dr. Barbara Crouch and is entirely supported by internal staff. UPCC has a relatively small but active series of ongoing research studies that may be a resource for PhD students, but are not currently utilized.

The Department of Pharmacotherapy has a staff of four: two administrative assistants, an accountant, project coordinator and academic program manager. Many of the faculty utilize the PORC staff and report feeling adequately supported.

COMMENDATIONS

1. The Pharmacotherapy Outcomes Research Center (PORC) is a true strength of the department. The center as well as its faculty are highly respected and well-known internationally. PORC has a sustained record of industry funding that has led to important contributions to outcomes research and support of faculty and the graduate program. Given PORC’s success, it is well positioned to respond to the growing research focus in and funding support for comparative effectiveness research and patient-centered outcomes research.
2. Faculty are dedicated, morale is high, and junior faculty report receiving strong mentorship.
3. Graduate students report satisfaction with the programs, the funded support, early experiences with research, and accessibility to faculty.
4. Dr. Brixner will continue to lead PORC, and starting July 2013 she will assume leadership of the Outcomes division of the Institute for Personalized Healthcare at the University. Her role will help position the department for new collaborative research opportunities.
5. The recent move of the department to the fifth floor of the state-of-the-art Pharmacy Research Building allows all departmental faculty, staff and students to be in a common location. This should further improve collaboration and communication.

RECOMMENDATIONS

1. Several specific suggestions were provided to help the department develop a strategy to expand from their current contract-industry-based research organization model to a model that increases their peer reviewed/investigator initiated research funding. 1) Dr. Brixner, as the new Director of Outcomes for the Program for Personalized Healthcare, should have a systematic plan to link outcomes research components to appropriate NIH-grants. 2) Increase interdisciplinary collaborations and team-based approaches across the health professions and academic departments with the goal of increasing federal and foundation research funding. 3) Build on the foundation of expertise in outcomes research to expand disciplinary impact, for example adding scholarly research related to new methodology, paradigms, tool development, and/or models.
2. For clinical faculty, the workload is high, in part due to the responsibilities of teaching in the College's PharmD program. It was suggested the department seek methods to free clinical faculty time for research and publication productivity. This could possibly include an incentive plan for clinical faculty who exhibit high productivity in research and dissemination.
3. Integrate the Poison Control Center into teaching, clinical and research missions of the department. Students and faculty are likely to benefit with increased access and collaboration with Poison Control faculty and clinicians and vice versa.
4. The graduate programs are in their early phases and the department plans a slow growth in student enrollment. It is recommended that the department establish a stable source of support for graduate student stipends.
5. A plan for expansion of the graduate programs will require the hiring of additional faculty and would also benefit the students as they would have more peer collaborations and more faculty mentors. Two areas of faculty expertise that should be considered in future faculty hires in order to benefit the graduate students are health economics and quality-of-life measurement (also called patient-reported outcomes). Additionally, the department should "advertise" the graduate program's coursework to other colleges and departments in the university with the goal of increasing class size and the richness that can come from cross-fertilization of students from other disciplines.
6. The department should take the opportunity for new faculty hires to increase the ethnic diversity among the faculty. A meeting with Evelyn Gopez (Assoc. Vice President for Inclusion) is recommended in accordance with new guidelines established by the Graduate Council. The use of annual progress reports to the Graduate School should also be considered as a way to encourage the department to work effectively towards this goal.

ACTIONS TAKEN SINCE INITIATION OF THE REVIEW

In November 2012, Dr. Brixner, Chair of the Pharmacotherapy Department, provided a letter (co-signed by the Dean of Pharmacy) to the Graduate Council describing steps they have either initiated or plans they are actively considering in response to the internal and external reviews.

1. Dr. Brixner stated that the department has increased its focus on federal and foundation research funding but stated that government funding for cost-effectiveness research is limited. In response to the recommendation for increased interdisciplinary research collaborations, the chair indicated that they currently collaborate with four other University departments/colleges and will continue this practice. As the Director of Outcomes in the Program of Personalized Health Care, Dr. Brixner intends to expand disciplinary impact. She also described two projects the department has underway that already support this effort.
2. The department currently uses a “combination of Department and research monies” to fund the graduate program. The chair maintains that commercially sponsored outcomes research remains the strongest support for their program.
3. Faculty hires as well as cross-training are likely to further support the graduate program. The department recently hired a 1.0 FTE research faculty member and three part-time research faculty members, all of whom are eligible and qualified to mentor PhD students. The hiring of a new Department Chair will likely increase the number of tenure-track faculty and expand student research opportunities. The department will consider an economist in their faculty recruitment or actively seek an affiliation from the University. In addition, the department is restructuring teaching assignments to increase cross-training and allow for more equitable distribution of effort across faculty members.
4. With the Utah Poison Control Center being located in the new space, Dr. Brixner believes it will naturally become more integrated into the program. In addition, they have a collaborative project with Humana to develop a predictive model of adverse events which involves working closely with the Poison Control Center.
5. The department will explore ways to advertise and recruit more broadly for their graduate programs. For example, they plan to promote a funded 10-week summer research fellowship program to PharmD students to expose them to research opportunities.

Submitted by the Ad Hoc Committee of the Graduate School

Lee Ellington, PhD (Chair)
Associate Professor
College of Nursing

Connie Bullis, PhD
Associate Professor
Department of Communication

Sean M. Redmond, PhD
Associate Professor
Department of Communication Sciences and Disorders

OBIA Profile – Dept. of Pharmacotherapy

2005 2006 2007 2008 2009 2010 2011

FACULTY: With Doctoral Degrees Including MFA and other terminal degrees

Full Time Tenured Faculty	5	4	4	4	4	4	5
Full Time Tenure Track	0	0	1	1	3	3	2
Full Time Auxiliary Faculty	26	22	21	24	22	28	23*
Part Time Auxiliary Faculty	1	1	1	3	2	2	2

With Masters Degrees

Full Time Tenured Faculty	0	0	0	0	0	0	0
Full Time Tenure Track	0	0	0	0	0	0	0
Full Time Auxiliary Faculty	1	4	4	3	0	3	1
Part Time Auxiliary Faculty	0	0	0	0	1	0	0

With Bachelor Degrees

Full Time Tenured Faculty	0	0	0	0	0	0	0
Full Time Tenure Track	0	0	0	0	0	0	0
Full Time Auxiliary Faculty	1	0	0	0	0	1	0
Part Time Auxiliary Faculty	2	3	1	2	0	2	0

Total Headcount Faculty

Full Time Tenured Faculty	5	4	4	4	4	4	5
Full Time Tenure Track	0	0	1	1	3	3	2
Full Time Auxiliary Faculty	28	26	25	27	24	32	26*
Part Time Auxiliary Faculty	3	4	2	5	4	4	2

FTE from A-1/S-11/Cost Study Definition

Full-Time Salaried	24	27	25	25	29	38	31
Part-Time or Auxiliary Faculty	1	2	1	2	2	1	1

OBIA Profile – Dept. of Pharmacotherapy

	2005	2006	2007	2008	2009	2010	2011
Number of Graduates							
Master's Degrees	0	0	0	2	1	3	2
Number of Students Based on Fall Third Week Semester Data**							
Enrolled in Masters Program	0	5	6	5	9	10	7
Enrolled in Doctoral Program	0	0	0	0	0	0	3
Department FTE Undergrad	50	41	41	41	44	58	52
Department FTE Graduate	179	173	174	188	205	211	215
Department SCH Undergrad	1,495	1,226	1,239	1,216	1,324	1,753	1,555
Department SCH Graduate	3,584	3,458	3,474	3,753	4,095	4,218	4,295
Undergraduate FTE per Total Faculty FTE	2	1	2	2	1	1	2
Graduate FTE per Total Faculty FTE	7	6	7	7	7	5	7
Cost Study Definitions***							
Direct Instructional Expenditures	0	0	0	0	0	0	0
Cost Per Student Fte	0	0	0	0	0	0	0
Funding							
Appropriated Funds	1,025,355	1,083,900	1,150,149	1,217,374	1,128,207	1,093,762	1,073,884

*Auxiliary faculty numbers represent a mix of paid FTE, appointed faculty, and adjunct faculty.

**Undergraduate and graduate student numbers and FTE numbers include students enrolled in the college-wide PharmD program.

***No state appropriated funds are designated for direct instructional expenditures or cost per student FTE.

Faculty Degrees represent total number of degrees awarded per faculty member

Full time faculty is >.75 fte

FTE Cost Study Definitions are the number of faculty FTE's supported by Appropriated Instructional Funding. Faculty with Administrative appointments are excluded.

Total Department FTE divides undergraduate sch by 15, graduate sch by 10

Memorandum of Understanding Department of Pharmacotherapy Graduate Council Review 2012-13

This memorandum of understanding is a summary of decisions reached at a wrap-up meeting on August 28, 2013, and concludes the Graduate Council Review of the Department of Pharmacotherapy. Vivian S. Lee, Senior Vice President for Health Sciences; Chris M. Ireland, Dean of the College of Pharmacy; Diana I. Brixner, Chair of the Department of Pharmacotherapy; Nancy A. Nickman, Professor in the Department of Pharmacotherapy; David B. Kieda, Dean of the Graduate School; and Donna M. White, Associate Dean of the Graduate School, were present.

The discussion centered on but was not limited to the recommendations contained in the Graduate Council review completed on March 25, 2013. At the wrap-up meeting, the working group agreed to endorse the following actions:

Recommendation 1: Several specific suggestions were provided to help the department develop a strategy to expand from their current contract-industry-based research organization model to a model that increases their peer reviewed/investigator initiated research funding. 1) Dr. Brixner, as the new Director of Outcomes for the Program for Personalized Healthcare, should have a systematic plan to link outcomes research components to appropriate NIH-grants. 2) Increase interdisciplinary collaborations and team-based approaches across the health professions and academic departments with the goal of increasing federal and foundation research funding. 3) Build on the foundation of expertise in outcomes research to expand interdisciplinary impact, for example adding scholarly research related to new methodology, paradigms, tool development, and/or models.

- 1) The Chair sees part one as a “top priority” and also the “most doable.” The Department has taken systematic steps to link outcomes research components to NIH and other grants. Dr. Diana Brixner’s role as the Director of Outcomes in the Program for Personalized Healthcare will expand disciplinary impact by providing avenues to pursue collaborative grants, many of which have been submitted since the review took place. Significant efforts are being made to increase the Department’s peer-reviewed/investigator research funding to work in concert with their existing contract-industry-based research, including AHRQ training submissions and PCORI submissions; several foundation grants have been awarded since the review.

- 2) New models of interdisciplinary collaborations and team-based approaches are being developed in hopes of increasing federal and foundation research funding. Dr. Brixner is a member of the Health Systems Innovation and Research (HSIR) program.
- 3) The Chair and faculty are building an international foundation of expertise in outcomes research through research collaboration with the Oncotryol-Center for Personalized Medicine in Cancer in Innsbruck, Austria. Through this collaboration, new methodologies, paradigms, tool development, and/or models will be explored. Additionally, a teaching grant is being written to the International Exchange Program Committee at the University to expand opportunities of educational exchange for students.

Recommendation 2: For clinical faculty, the workload is high, in part due to the responsibilities of teaching in the College's PharmD program. It was suggested the department seek methods to free clinical faculty for research and publication productivity. This could possibly include an incentive plan for clinical faculty who exhibit high productivity in research and dissemination.

The Chair questioned the feasibility of this recommendation because clinical faculty have major commitments and responsibilities to their patients and to the clinics in which they work. They are highly dedicated, so to free up their time in order to teach and conduct research is problematic for them. The Dean agreed to focus on and support plans for incentives and will work with the Department to explore and implement models that will facilitate clinical faculty release time.

Recommendation 3: Integrate the Poison Control Center into teaching, clinical and research missions of the department. Students and faculty are likely to benefit with increased access and collaboration with Poison Control faculty and clinicians and vice versa.

The Department agrees with this recommendation and will work to integrate the UPCC into the program. Now that the Poison Control Center is on the same floor as the Department in the new College of Pharmacy building, opportunities exist for graduate students that were not possible previously. There was a recent collaboration with Humana Health Plans to develop a predictive model for adverse events and there are plans to work closely with the UPCC to identify characteristics associated with drug overdose or misuse.

Recommendation 4: The graduate programs are in their early phases and the department plans a slow growth in student enrollment. It is recommended that the department establish a stable source of support for graduate student stipends.

Graduate students are supported through external grant funding at competitive rates. The Chair is keenly aware of the need to control student enrollment growth in relationship to available funding for their stipends, which have to be acquired through external sources. The Dean encouraged the Chair to explore the possibility of using T-32 grant funding for stipends; the Chair will follow up on his suggestion.

Recommendation 5: A plan for expansion of the graduate programs will require the hiring of additional faculty and would also benefit the students as they would have more peer collaborations and more faculty mentors. Two areas of faculty expertise that should be considered in future faculty hires in order to benefit the graduate students are health economics and quality-of-life measurement (also called patient-reported outcomes). Additionally, the department should “advertise” the graduate program’s coursework to other colleges and departments in the university with the goal of increasing class size and the richness that can come from cross-fertilization of students from other disciplines.

The Department is actively recruiting a new faculty member and is considering candidates who have expertise in health economics and quality-of-life measurement. There is a current foundation grant whereby interdisciplinary programs have been started across the Health Sciences. The Dean and Chair agree that the Department should explore the possibility of using a combined programs model to leverage funds for stipends and to increase class size and cross-fertilization.

Recommendation 6: The department should take the opportunity for new faculty hires to increase the racial/ethnic diversity among the faculty. A meeting with Evelyn Gopez (Assoc. Vice President for Inclusion) is recommended in accordance with new guidelines established by the Graduate Council. The use of regular progress reports to the Graduate School should also be considered as a way to encourage the department to work effectively towards this goal.

Gender diversity has increased quite dramatically since the last review and the international diversity of the student body is excellent, but increasing underrepresented racial/ethnic representation among the faculty and student body has proven to be more difficult. The Department will continue to work with the Diversity Advisory Board at the College level annually and agrees to meet with Dr. Gopez to enlist her ideas and recommendations on ways to increase their recruitment of underrepresented domestic students. Resources such as unconscious bias trainings for faculty search committees and the Vice President’s initiative to collect more data on searches generally in the Health Sciences are excellent steps toward increasing racial/ethnic diversity among faculty and the student body in the future.

Memorandum of Understanding
Department of Pharmacotherapy
Graduate Council Review 2012-13
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This memorandum of understanding will be followed by regular letters of progress from the chair of the Department of Pharmacotherapy to the dean of the Graduate School. Letters will be submitted until all of the actions described in the preceding paragraphs have been completed.

Vivian S. Lee
Chris M. Ireland
Diana I. Brixner
Nancy A. Nickman
David B. Kieda
Donna M. White



David B. Kieda
Dean, The Graduate School
October 3, 2013