



UNIVERSITY OF SOUTH FLORIDA  
Office of the President

January 9, 2009

Dr. Mark Rosenberg  
Chancellor  
Florida Board of Governors  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Chancellor Rosenberg,

I thank you for your letter of December 15, 2008 in which you summarize the feedback you have received from Board members related to our proposed Doctor of Pharmacy program. I recognize that the proposed pharmacy program requires both BOG approval and State Legislative action as it is a professional program leading to licensure. Our goal is to prepare and submit our application for pre-candidacy, to the Accreditation Council for Pharmacy Education, no later than Spring 2010.

While we are also pleased with the support expressed by many members of the Board of Governors, we are acutely aware of the questions that some have understandably raised relative to the difficult economic climate with which we are faced. As you know, that was the primary reason I asked the BOG, at the November meeting, to defer consideration of USF's Doctor of Pharmacy (PharmD) degree proposal until January 2009.

Since that time, we have carefully re-worked our proposal to ensure that we present a realistic business plan to support a program that will be essential to meeting workforce and economic development goals, in an area of critical need, for the State of Florida, and the Greater Tampa Bay Region. We plan to review this revised proposal with Governor Frank Martin, Chair of the Academic Program Review Team of the Subcommittee on Academic Programs, Research, and Economic Development, of the Strategic Planning and Academic and System Oversight Committee (SPASOC) and others, with a mind to ensuring that we have appropriately addressed members' questions.

As you have recognized, Florida continues to witness a growing demand for licensed pharmacists, one that cannot be met through current productivity across the two existing programs in the State University System, and the three high cost private university programs. Expanding affordable opportunities for Florida residents to pursue an accredited PharmD degree, in a metropolitan setting, is a high priority for USF and is integral to the University's Strategic Plan for 2007-2012. We believe that the addition of this program will reduce the exodus of intellectual and scientific talent to other states. Moreover, the establishment of a School of Pharmacy (within USF's College of Medicine, in much the same way as the School of Physical Therapy and Rehabilitation Sciences) is expected to not only contribute to high-skilled, high-wage job creation and economic development but also to increase USF's success in competing for federal research contracts and grants.

Our revised proposal is strongly supported by the retail, clinical (hospitals) and research sectors, as they recognize the importance of educating a highly skilled and high wage earning workforce across the state and region. We fully anticipate that private giving, in support of the proposed program, will grow well beyond the \$1.0 Million that has already been received and is earmarked for the program. Of course, the School will be closely aligned with USF's *Florida Center of Excellence in Biomolecular Identification and Targeted Therapeutics*, and our existing industry partners (including SRI, Draper Labs, and Romark).

As you will see from the enclosed package of support materials, we now plan to enroll our first class (of 50 students) in Fall 2011. Planning costs will be borne by USF, with no state funds requested in the 2009 legislative session (for FY 2009/2010). During the 2010 legislative session, we will request \$575,000 in non-recurring funds for FY 2010/2011. Beginning in FY 2011/2012, we will request \$400,000 in recurring enrollment funds and \$1.0 Million in non-recurring funds, to support an additional 75 students. In Year 3 of program implementation, we will begin enrolling 100 new students annually, bringing the School of Pharmacy to full capacity of 400 students in 2016/2017. Resident tuition, at the outset, will be \$15,100 annually, with 10% annual incremental increases in each of the first few years.

We believe that we have taken careful heed of concerns raised earlier, and have developed a proposal that reasonably addresses a serious regional and state workforce shortfall, in a meaningful and timely fashion, even in these challenging economic times. As with BOG approval of the new medical schools, and at the guidance of BOG staff, we have developed a set of annual performance accountability benchmarks intended to track institutional progress, to provide the BOG with a level of comfort, and to protect public and private investments.

Please don't hesitate to contact me or Ralph Wilcox should you have any questions or require additional information.

Sincerely,



Judy Genshaft  
President

- Encl.**
- #1 Proposed Timeline for Implementation of the PharmD degree
  - #2 An Overview of the Proposed Doctor of Pharmacy Degree
  - #3 Business Plan for the Proposed PharmD degree
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  - #7 An Assessment of Pharmacist Workforce Needs in the Greater Florida Area
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  - #9 Updated Request to Offer a New Degree Program: Doctor of Pharmacy

**cc.** Sheila McDevitt, Chair, Florida Board of Governors  
Frank Martin, Florida Board of Governors  
Rhea Law, Chair, USF Board of Trustees  
Dottie Minear, Senior Associate Vice Chancellor, Academic and Student Affairs  
Ralph C. Wilcox, Provost and Senior Vice President, USF

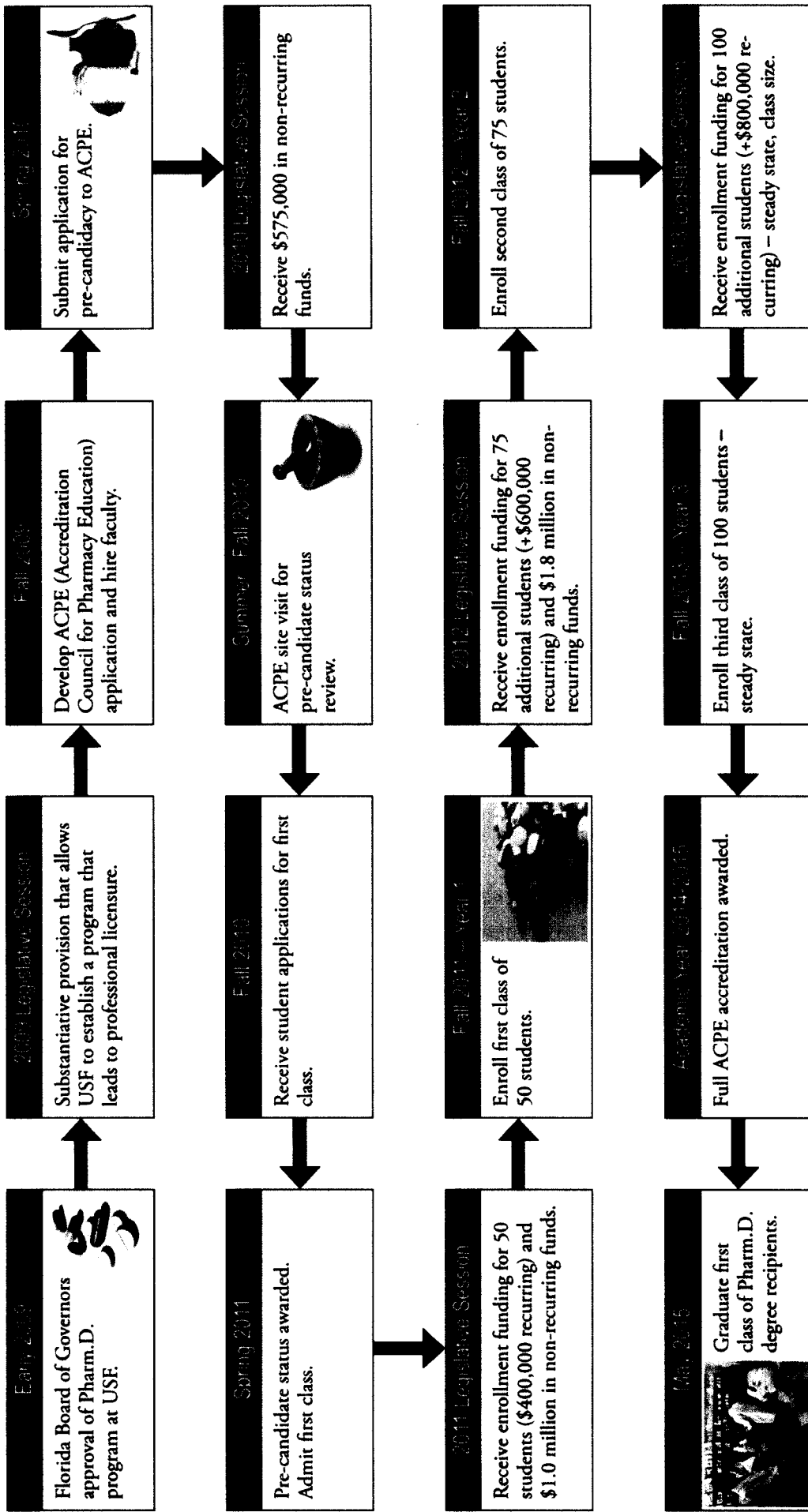
PROPOSED TIMELINE FOR

# IMPLEMENTATION OF THE PHARM.D. DEGREE

AT THE UNIVERSITY OF SOUTH FLORIDA



UNIVERSITY OF SOUTH FLORIDA





## **An Overview of the Proposed Doctor of Pharmacy Degree – Clarifying the Case for Program Approval –**

- **USF's Doctor of Pharmacy (PharmD) degree proposal is consistent with (a) national trends, (b) the priorities of Enterprise Florida, (c) the Florida Board of Governors' Strategic Plan, 2005-2013 (Adopted 6/9/05), and (d) USF's Strategic Plan, *Transforming Higher Education for Global Innovation, 2007-2012* (Adopted 5/31/07). The PharmD degree is an essential component to achieving the workforce and economic development goals in a field of critical need across the Greater Tampa Bay Region and State of Florida.**
- **The proposed PharmD degree program supports each of the BOG's four goals:**
  - **Access to and production of degrees.**
  - **Meeting statewide professional and workforce needs.**
  - **Building world-class academic programs and research capacity.**
  - **Meeting community needs and fulfilling unique institutional responsibilities.**
- **The proposed PharmD is the entry-level, first professional degree and, like the Doctor of Physical Therapy, is the basis for candidates to sit for the licensing examination.**
- **Florida will witness a growing demand for more licensed pharmacists in the coming years as the State's population grows and continues to age (with the nation's highest percentage of residents over 65), and experiences the retirement of many registered pharmacists. According to Florida's Agency for Workforce Innovation, demand for pharmacists increases 3.31% annually, amounting to 931 average openings annually. Current annual degree productivity (assuming 90% retention) approximates 382 of 425 (at UF and FAMU) and, eventually, 310 of 345 (at Nova Southeastern, Palm Beach Atlantic and Lake Erie) for 692 degrees awarded, creating an annual shortfall of 239 licensed pharmacists. USF's high demand graduates will contribute to the State's and BOG's goal of educating a more highly skilled and high wage earning workforce (with starting salaries projected to exceed \$100,000 annually).**
- **Florida registers the second highest unmet demand for pharmacists in the South Atlantic States (behind North Carolina), and is fifth nationally. Compared to other large states, Florida (4) falls short in the number of accredited Doctor of Pharmacy programs: California = 7, Texas = 6, New York = 5, Pennsylvania = 6, and Ohio = 6 with each state having one more program in candidate status.**
- **Pharmacists prepare and dispense therapeutic drugs; educate health care professionals, patients and the general public about the appropriate use of drugs; conduct pharmaceutical research and work in industrial positions which involve the manufacture, marketing and advertising of pharmaceuticals. USF's proposed PharmD program will meet the growing needs of the Pharmacy retail, clinical and research sectors.**
- **USF will address a serious regional, state and national workforce shortfall by delivering a nationally accredited (by the Accreditation Council for Pharmacy Education, ACPE), terminal professional degree program (Doctor of Pharmacy or PharmD), essential for pharmacy licensure in the State of Florida.**
- **Because the PharmD degree leads to state licensure, the program requires approval by the USF Board of Trustees, the Florida Board of Governors, and the Florida State Legislature. Legislative approval during the 2009 Legislative Session will allow submission of the ACPE pre-candidacy application in Spring 2010, with full accreditation projected for 2014-15.**
- **Recognizing the current economic difficulties faced by the State, planning costs will be borne by USF including the use of \$1.0 M already received in a private gift for this program. USF is committed to raising another \$1.8 M (from additional private, corporate, industry and other sources) prior to implementation of the program. Furthermore, USF intends to leverage existing faculty resources in the basic and clinical sciences. This is important since **waiting for the economy to strengthen before program approval and implementation will create a more than four-year lag until the first graduates/licensed pharmacists join the marketplace.****

- **Beginning in Fiscal Year (FY) 2010/11 (Planning Year 3), USF will request approximately \$575,000 in non-recurring funds from the state legislature to support the program. Beginning in FY 2011/12 (Year 1 of program implementation), USF will request \$400,000 in recurring enrollment funds, and \$1.0 M in non-recurring funds.**
- At the recommendation of BOG staff, and consistent with approval of the new medical schools, **USF has developed a set of Annual Performance Accountability Benchmarks** intended to track institutional progress.
- **Tuition (in Year 1 of program implementation, 2011-2012) is set at \$15,100, with 10% annual increases**, compared with approximately \$11,500 annually at UF today (in-state tuition and fees) and \$26,000+ at Palm Beach Atlantic, Nova Southeastern, and Lake Erie College of Osteopathic Medicine. Presently, resident tuition and fees in other states range from \$10,600 at the University of Texas, Austin, to \$12,500 at the University of Georgia, \$13,000 at the University of North Carolina Chapel Hill, and \$14,500 at The Ohio State University.
- USF's School of Pharmacy will represent the third such program in the State University System (after UF and FAMU), **providing affordable access to a high quality professional licensure program for qualified Florida residents. It will be Florida's first public School of Pharmacy located in a metropolitan area, which is important since an increasing number of students find themselves place bound in these difficult economic times.**
- **Current demand for admission to PharmD programs in Florida far exceeds available spaces.** The American Association of Colleges of Pharmacy Report (2007) identifies 2,004 applicants for 275 spaces at UF, and 1,242 applicants for 150 spaces at FAMU. **The addition of a new School of Pharmacy will reduce the outflow of intellectual and scientific talent from Florida to other states.**
- **The proposed PharmD degree program is an integral part of USF's *Strategic Plan, 2007-2012* and is consistent with the University's vision of becoming eligible for membership of the Association of American Universities (AAU). 22 of 34 public AAU-member institutions deliver the PharmD degree.** USF is a member of the 20 institution-strong Health Professions Education Collaborative (HPEC), of the Institute for Healthcare Improvement (IHI), dedicated to comprehensive, interdisciplinary, collaborative learning, research and clinical services in healthcare. **Nearly all HPEC institutions have pharmacy programs as well as medicine, nursing and public health.**
- **USF's charter class of PharmD students will enroll in Fall 2011 with the first graduates entering the workforce in 2015. The first class is planned for 50 students; with 75 students in Year 2, and 100 students annually thereafter, bringing it to full capacity of 400 students in 2016-2017.**
- **The newly created School of Pharmacy will be academically "housed" in the USF College of Medicine** (as the School of Physical Therapy and Rehabilitation Sciences is currently), and will increase continuing education and professional development opportunities for practitioners in the Tampa Bay Region. **The School of Pharmacy will utilize current instructional and laboratory space.** A privately-funded building (estimated at approximately \$60 M) will be added to USF's Facility Enhancement Challenge Grant Program (FECGP) for FY 2015-16.
- **The new School of Pharmacy will complement the already outstanding health sciences profile at USF.** Joint instructional programs between the Colleges of Medicine, Nursing, Public Health, and the College of Arts and Sciences (Department of Chemistry) are planned. Clinical Pharmacy faculty will provide clinical services with various medicine departments to create a truly interdisciplinary clinical teaching environment.
- **Collaborative opportunities will be increased between USF Health and hospitals in the Tampa Bay Region** (for example, Moffitt Cancer Center, Tampa General Hospital, All Children's Hospital, and the James Haley VA Hospital), including postgraduate education (residencies and fellowships).
- **Research collaborations will be facilitated with USF's Florida Center of Excellence in *Biomolecular Identification and Targeted Therapeutics*** and School of Pharmacy faculty will work closely with the Department of Chemistry, home to an internationally recognized program in drug discovery, and via industry partnerships with SRI, Romark, Draper Labs, and Merck to support cutting edge research and technology transfer through pharmaceutical development.
- Consistent with the performance expectations of a top-tier, national research university, it is projected that **basic science faculty in the School of Pharmacy will be awarded more than \$2.0 M annually, in competitive federal research funding**, no later than Year 4 (2014-2015) of program implementation.

USF PharmD Business Plan  
 FBOG Table 2P  
 Summary Costs for Proposed Doctor of Pharmacy

FINANCIAL SUMMARY (Constant 2008 Dollars)	Existing Resources	Planning Year					Classes begin	Year 6 2016-17	Year 7 2017-18	Year 8 2018-19
		Year 1 2009-10	Year 2 2009-10	Year 3 2010-11	Year 4 2010-11	Year 5 2011-12				
<b>I &amp; R EXPENSES</b>										
Faculty Salary and Benefits		\$551,800	\$1,265,234	\$1,997,592	\$3,736,481	\$4,691,776	\$5,185,934	\$5,272,257	\$5,685,424	\$6,110,984
A&P Salary and Benefits		\$0	\$97,500	\$100,425	\$103,438	\$197,542	\$203,467	\$209,572	\$215,859	\$222,335
USPS Salary and Benefits		\$0	\$123,500	\$166,205	\$346,692	\$448,092	\$513,535	\$528,940	\$544,809	\$561,153
Other Personnel Services		\$0	\$0	\$31,320	\$62,640	\$93,960	\$125,280	\$656,660	\$756,660	\$806,660
Expenses		\$25,000	\$95,938	\$304,158	\$499,700	\$584,576	\$1,615,504	\$1,687,289	\$1,725,357	\$1,740,957
Operating Capital Outlay		\$0	\$4,500	\$19,500	\$60,000	\$76,500	\$40,000	\$81,157	\$83,591	\$86,100
Electronic Data Processing							\$290,000	\$367,500	\$430,000	\$430,000
Library resources and staff										
Special Categories										
<b>Total I&amp;R Expenses:</b>		\$25,000	\$652,238	\$1,809,892	\$4,808,951	\$6,092,445	\$8,052,515	\$9,862,095	\$9,496,699	\$10,013,189
<b>START-UP INVESTMENTS</b>										
I&R Labs										
Distance Learning Equipment				\$87,500	\$75,000	\$50,000	\$500,000	\$1,000,000	\$1,000,000	\$500,000
Investment 3										
<b>Total Start-up Investments:</b>		\$0	\$0	\$87,500	\$225,000	\$50,000	\$500,000	\$1,000,000	\$1,000,000	\$500,000
<b>FACILITIES INVESTMENTS</b>										
School of Pharmacy										
Building 2										
Other										
<b>Total Facilities Investments:</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Gross Pharmacy School Funds Required</b>		\$25,000	\$652,238	\$1,897,392	\$2,964,358	\$4,858,951	\$8,552,515	\$9,862,095	\$10,496,699	\$10,513,189
<b>RECEIPTS</b>										
Tuition					\$755,000	\$2,076,250	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000
Community donations	\$1,000,000				\$300,000					
Industry donations			\$652,238	\$347,762	\$500,000					
Contract and Grant (NET)					\$500,000					
Other	\$25,000									
<b>Total Receipts:</b>	\$1,025,000	\$25,000	\$652,238	\$1,322,762	\$1,555,000	\$2,076,250	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000
<b>Net Pharmacy School Funds Required</b>		\$0	\$0	\$574,630	\$1,409,358	\$2,782,701	\$2,614,765	\$3,010,845	\$3,188,699	\$3,205,189
<b>STATE APPROPRIATIONS</b>										
Recurring										
Headcount G.R. Appropriation					\$400,000	\$1,800,000	\$2,600,000	\$3,000,000	\$3,200,000	\$3,200,000
Per Headcount Appropriation					\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Non-Recurring										
G.R. Special Appropriation					\$1,009,358	\$1,782,701				
PECO										
State Match - Contributions										
<b>FEDERAL APPROPRIATIONS*</b>										
Faculty Hiring Schedule										
Basic Science Faculty					4.00	2.00	1.00	2.00	2.00	2.00
Clinical Science Faculty					2.00	11.00	8.00	8.00	2.00	2.00
Other					1.00	2.00	1.00	2.00	2.00	2.00
<b>Total I&amp;R Faculty:</b>	0.00	0.00	3.00	6.00	7.00	15.00	8.00	0.00	2.00	2.00
<b>Cumulative I&amp;R Faculty:</b>					16.00	31.00	39.00	40.00	42.00	44.00
Students		0	0	0	50	125	225	325	400	400
Tuition/% Increase					\$15,100	\$16,610/10%	\$18,270/10%	\$18,270/0%	\$18,270/0%	\$18,270/0%

USF PharmD Business Plan  
FBOG Table 2P  
Summary Costs for Proposed Doctor of Pharmacy

**I&R Expenses:**

Faculty Salary and Benefits includes all faculty costs and represents the basic costs needed for the start-up of a newly accredited Pharmacy program which is self-sustainable. Staff Salary and Benefits includes all expected costs needed to fully support a newly accredited Pharmacy program at a self-sustainable level. OPS includes expected salaries for temporary staff, students, Graduate Assistants, and affiliated faculty. Expenses include expected Academic and Administrative costs for general operations of a fully accredited Pharmacy program, including ongoing electronic and technological support specific to the program and faculty start-up packages. OCO includes expected ongoing Academic and Administrative costs for equipment needs that are specific to the program.

**Start-up Investments:**

I&R Labs - estimated equipment cost for 25 Instructional labs @ \$2,500 each and 15 Research labs @ \$10k each; expansion in 2014-15 reflects increased research. Distance Learning - estimated equipment costs for implementing the distance learning component of the program in order to reach a wider student base.

**Facilities Investments:**

The development plan for the Pharmacy program calls for a campaign goal of \$29.7M to be matched by the Facility Enhancement Challenge Grant Program (FECGP) for the planning, construction, and equipment costs of a new facility to house the program. Expectation that facilities planning will begin 2015-16. In the interim, existing space will be allocated to the program until the new facility is ready.

**Gross Pharmacy School Funds Required:**

This is the minimum amount needed to fund the costs for start-up and continual operations of the Pharmacy program at a financially sustainable level.

**Receipts:**

Tuition is based on a professional fee model using a 10% annual increase which results in a tuition rate of \$15,100 for the entering 2011-12 class. The rate of tuition increase will be re-evaluated for 2014-15 (the 4th year of program admissions). Community Donations: \$1M of existing resources is pledged by USF to partially fund the costs in Planning years 1 - 3 of the program. An additional \$.03M is being sought to support the new USF School of Pharmacy. Industry Donations: \$1M is being sought from local industry leaders who have expressed interest in supporting and partnering with the new USF School of Pharmacy. Other: \$0.5M is pledged by USF Health to partially fund the costs in Planning years 1 - 3 of the program.

**State Appropriations:**

Recurring headcount appropriations were calculated using the level at which current funding formula model is typically funded, are cumulative, and include the indirect support costs needs for the Pharmacy program.

**Federal Appropriations:**

Federal Contract and Grant funds generated by Basic Science Faculty (\$.25M/fac).

**Students:**

Maximum program enrollment of 400 is attained by Year 6 of the program (2016-17).



<p style="text-align: center;"><b>MEASUREMENT AREAS ASSOCIATED WITH ACCOUNTABILITY CATEGORIES FOR PHARMACY EDUCATION IMPLEMENTATION AT USF</b></p>
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**A. Operating Business Plan**

*Legislative Budget Request; 10-year Financial Plan; Public and private dollars; Tracking private donations as funding sources for pharmacy education; Need for additional resources to support growing pharmacy education efforts.*

1. I & R Planned Expenses
2. Start - Up Investment
3. Private Donations
4. Match Dollars
5. Resident Tuition per Student
6. Tuition Received
7. Legislative Budget Request (state dollars)
  - a. Recurring
  - b. Non - Recurring

**B. Facilities Acquisition**

*Resources needed for implementation, and associated timeline.*

1. Facilities Investment
2. Facilities Enhancement Challenge Grant Program (FECGP)

**C. Accreditation**

*Steps and timeline related to ACPE preliminary, provisional, and full accreditation*

1. Progress on elements of minimum requirements for preliminary accreditation
2. Receipt of preliminary accreditation and associated measures
3. Receipt of provisional accreditation and associated measures
4. Receipt of full accreditation and associated measures

The accreditation process is expected to officially begin once program approval is attained from the FL BOG. Ongoing contact has been established with ACPE concerning the approval and application submission processes. Once approved, the



initial leadership team will begin the steps of acquiring necessary information to successfully complete the application documents, which will be sent to the ACPE Board of Directors to receive Pre-Candidate status. On-going site evaluations from ACPE accreditation teams is expected to occur.

#### **D. Curriculum**

*Pharmacy education affiliations/ sponsorships/ relationships; review of estimate as to when action is likely to be seen with regard to pharmacy education/ timeline.*

1. Pharmacy education issues
2. Number of Hospitals affiliated with pharmacy school
3. Number of research affiliations with pharmacy school

#### **E. Enrollment/ Growth/ Recruitment**

*Items to be tracked following receipt of preliminary ACPE accreditation; Meeting projected enrollments.*

1. Enrollment Projections
2. Number of Applicants
  - a) Number of Applicants by race/ethnicity
  - b) Number of Accepted Applicants by gender
  - c) Number of Applicants by First Professional Degree Programs
3. Number of Matriculants
  - a) Number of Matriculants by race/ethnicity
  - b) Number of Matriculants by gender
  - c) Number of Matriculants by First Professional Degree Programs
4. Number of Faculty Members
  - a) Number of Faculty Members by race/ethnicity
  - b) Number of Faculty Members by gender
  - c) Number of Faculty Members by rank
  - d) Number of Faculty Members by academic specialty (Basic, Clinical, Other)
5. Number of students per faculty member

*With respect to data concerning race/ ethnicity/ gender/ resident status, and students entering a first-professional degree program, there is not an intention to have pre-established benchmarks, but rather to establish fair and equitable opportunities for all applicable demographic groups. These metrics will be continuously evaluated, and data provided to ACPE, AACP, FL BOG, USF, and Dept. of Education for the purpose of programmatic assessment and improvements, if necessary.*

#### **F. Graduation Rates**

1. Expected graduation rates per enrolled class

**G. Post Graduate Activities**

1. Professional Board of Pharmacy pass rates of graduates
2. Track professional employment activities
  - a) Retail
  - b) Hospital
  - c) Industry
3. Pharmacy Residency/ Fellowships
4. Continuing Professional/ Graduate Education (non-pharmacy related)
5. Average starting salaries
  - a) Retail
  - b) Hospital
  - c) Industry

**H. Federal Expenditures (C & G)** (NIH, NSF, AHA, etc)

Accountability Measures for PharmD Program at USF

Performance Indicators	Type of Measure	Data Source	GOAL 2008-09	COP Performance 2008-09	GOAL 2009-10	GOAL 2010-11	GOAL 2011-12	GOAL 2012-13	GOAL 2013-14	GOAL 2014-15	GOAL 2015-16	GOAL 2016-17	GOAL 2017-18	GOAL 2018-19
<b>A. Operating Budget Plan</b>														
1. I & R Planned Expenses	BOG		\$25 K	\$25 K	\$0.65 M	\$1.8 M	\$2.7 M	\$4.8 M	\$6.1 M	\$8.1 M	\$8.9 M	\$9.5M	\$10M	\$10.5M
2. Start-Up Investment						\$87.5K	\$0.2M	\$50K	\$0	\$0.5M	\$1M	\$1M	\$0.5M	\$0
3. Private Donations	USF		\$0.5 M	\$1 M		\$0.5 M	\$0.5 M	\$0.8 M	\$0.8 M	\$0.8 M	\$0.8 M	\$0.8 M	\$0.8 M	\$0.8 M
4. Match Dollars	BOG					TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
5. Resident Tuition/Student	BOG/USF						\$15 K	\$16.6 K	\$18.3 K	\$18.3 K	\$18.3 K	\$18.3 K	\$18.3 K	\$18.3 K
6. Tuition Received	BOG/USF						\$0.76 M	\$2.1 M	\$4.1 M	\$5.9 M	\$6.9 M	\$7.3 M	\$7.3 M	\$7.3 M
7. Legislative Budget Request (state dollars)														
a. Recurring							\$0.4 M	\$ 1 M	\$1.8 M	\$2.6 M	\$ 3 M	\$3.2 M	\$3.2 M	\$3.2 M
b. Non-recurring							\$0.57 M	\$1.8 M						
<b>B. Facilities Acquisition</b>														
1. Facilities Investment	BOG													
2. FHCOP Match														
<b>Ongoing Capital Campaign (Goal- \$29.7 Million by 2014-15)</b>														
<b>Campaign Funds Matched</b>														
<b>C. Accreditation</b>														
1. Minimum preliminary accreditation requirements progress	ACPE													
2. Receipt of preliminary accreditation and associated measures	ACPE													
3. Receipt of provisional accreditation and associated measure	ACPE													
4. Receipt of full accreditation and associated measures	ACPE													

Accountability Measures for PharmD Program at USF

Performance Indicators	Type of Measure	Data Source	GOAL 2008-09	COP Performance 2008-09	GOAL 2009-10	GOAL 2010-11	GOAL 2011-12	GOAL 2012-13	GOAL 2013-14	GOAL 2014-15	GOAL 2015-16	GOAL 2016-17	GOAL 2017-18	GOAL 2018-19
<b>D. Curriculum</b>	BOG/USF													
1. Pharmacy education issues	BOG				FL BOG Approval	Establish Leadership/Faculty on Campus	Implement curriculum-1st class	Implement Clinical Faculty Activities	Successful Clinical Placement of Students	Graduate Baseline Class	Initiate Honors Program	Implement Research Division	Transitional research	Transitional research
2. Number of Hospitals affiliated with pharmacy school	BOG				3	4	7	8	10	10	10	10	10	10
3. Number of research affiliations with pharmacy school	BOG				0	0	0	1	1	1	2	3	3	3
<b>E. Recruitment/Enrollment</b>	USF					Begin Student Recruitment/Admissions Processes	Student Recruitment/Admissions	Student Recruitment/Admissions	Student Recruitment/Admissions	Student Recruitment/Admissions	Initiate Honors Program	Student Recruitment/Admissions	Recruitment/Admission	Recruitment/Admission
1. Enrollment Projections	BOG				0	50	125	225	325	375	400	400	400	400
2. Number of Applicants	BOG				0	600-900	900-1100	1000-1100	1100-1200	1300	1400	1500	1500	1500
a. Number of Applicants by race/ethnicity (White/AA/Asian/Latino/Other)	BOG	To Be Evaluated and Reported												
b. Number of Applicants by gender (Women/ Men)	BOG	To Be Evaluated and Reported												
c. Number of Applicants by First Professional Degree Program	BOG	To Be Evaluated and Reported												
3. Number of Matriculants	BOG					50	125	225	325	375	400	400	400	400
a. Number of Matriculants by race/ethnicity (White/AA/Asian/Latino/Other)	BOG	To Be Evaluated and Reported												
b. Number of Matriculants by gender (Women/ Men)	BOG	To Be Evaluated and Reported												
c. Number of Matriculants by First Professional Degree Program	BOG	To Be Evaluated and Reported												
4. Number of Faculty Members	USF				3	9	16	31	39	40	42	44	46	
a. Number of Faculty Members by race/ethnicity	USF	To Be Evaluated and Reported												
b. Number of Faculty Members by gender	USF	To Be Evaluated and Reported												

Data Collected to be reported Annually to ACPE, AACCP, FL BOG, USF, & USF Health

Data Collected to be reported Annually to ACPE, AACCP, FL BOG, USF, & USF Health

Accountability Measures for PharmD Program at USF

Performance Indicators	Type of Measure	Data Source	GOAL 2008-09	COP Performance 2008-09	GOAL 2009-10	GOAL 2010-11	GOAL 2011-12	GOAL 2012-13	GOAL 2013-14	GOAL 2014-15	GOAL 2015-16	GOAL 2016-17	GOAL 2017-18	GOAL 2018-19
c. Number of Faculty Members by rank	USF	Prof			1	2	2	3	3	4	4	6	8	10
		Assoc			2	3	6	10	12	13	13	15	16	18
		Asst			0	4	8	18	24	23	22	21	20	18
d. Number of Faculty Members by academic specialty (Basic, Clinical, Other)	USF	Basic			0	3	7	9	9	9	9	10	12	13
		Clinical			0	2	4	15	23	24	24	24	24	24
		Other			3	4	5	7	7	7	7	8	8	9
5. Number of Students per Faculty Member	USF			N/A	N/A	3.84/1	4.62/1	6.7/1	8.55/1	10.0/1	11.0/1	11.0/1	11.0/1	
<b>F. Graduation Rates</b>	USF													95%
<b>G. Post-Graduate Activities</b>														
1. Professional Board of Pharmacy pass rates of graduates	USF													95%
2. Track professional employment activities														96%
a. Retail	USF													60
b. Hospital	USF													15
c. Industry	USF													5
3. Pharmacy Residency/ Fellowship	USF													15
4. Continuing Professional/ Graduate Education (non Pharmacy related)	USF													5
5. Average Starting Salaries														
a. Retail	USF													\$104 K
b. Hospital	USF													\$102 K
c. Industry	USF													\$115 K - \$120 K
<b>H. Research Expenditures (C &amp; O)</b>	NIH, NSF, AHA		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2.25 M	\$2.25 M	\$2.25 M	\$2.25 M	\$2.25 M

**Professional Relations/  
Collaborations Established**

**Florida Board of Governors**

**Request to Offer a New Degree Program**

University of South Florida  
University Submitting Proposal

August 2011  
Proposed Implementation Date

USF School of Pharmacy  
Name of College or School

\_\_\_\_\_  
Name of Department(s)

Pharmacy  
Academic Specialty or Field

Doctor of Pharmacy CIP 51.2099  
Complete Name of Degree  
(Include Proposed CIP Code)

**The submission of this proposal constitutes a commitment by the university that, if the proposal is approved, the necessary financial resources and the criteria for establishing new programs have been met prior to the initiation of the program.**

<u>June 12, 2008</u>	<u>Judy Kerskaft</u>	<u>7/2/08</u>
Date Approved by the University Board of Trustees	President	Date
<u>[Signature]</u>	<u>[Signature]</u>	<u>7/2/2008</u>
Signature of Chair, Board of Trustees	Vice President for Academic Affairs	Date

Provide headcount (HC) and full-time equivalent (FTE) student estimates of majors for Years 1 through 5. HC and FTE estimates should be identical to those in Table 1. Indicate the program costs for the first and the fifth years of implementation as shown in the appropriate columns in Table 2. Calculate an Educational and General (E&G) cost per FTE for Years 1 and 5 (Total E&G divided by FTE).

Implementation Timeframe	Projected Student Enrollment (From Table 1)		Projected Program Costs (From Table 2)		
	HC	FTE	Total E&G Funding	Contract & Grants Funding	E&G Cost per FTE
Year 1	50	50	\$2,164,358	N/A	\$43,287*
Year 2	125	125			
Year 3	225	225			
Year 4	325	325			
Year 5	375	375	\$9,851,250	2,250,000	\$26,270

\* Amounts are derived from Table 2P as follows:  
General Revenue (Recurring and Non-recurring) + tuition

*Note: This outline and the questions pertaining to each section must be reproduced within the body of the proposal to ensure that all sections have been satisfactorily addressed.*

## **INTRODUCTION**

### **I. Program Description and Relationship to System-Level Goals**

- A. Briefly describe within a few paragraphs the degree program under consideration, including (a) level; (b) emphases, including concentrations, tracks, or specializations; (c) total number of credit hours; and (d) overall purpose, including examples of employment or education opportunities that may be available to program graduates.**

Initial considerations for a Doctor of Pharmacy program at the University of South Florida (USF), and more specifically USF Health, were generated in 2004 as part of the USF Health Sciences Center 10-year projection for new and expanded programs at the USF Health Sciences Center. USF has been designated a Research I institution by the former Board of Regents, and is a Carnegie I Research Institution, with the intent that USF will place increasing emphasis on graduate and professional education in order to meet the expanding needs of the Tampa Bay region, and the state of Florida. The profession of pharmacy has been widely recognized as a very necessary and integral component of the health care system. It is now widely *anticipated and expected* by USF Health faculty that all of the colleges at USF Health will benefit from the addition of a Doctor of Pharmacy program. Pharmacy as a discipline and as a profession co-exists extremely well with all other health professions disciplines; pharmaceutical and medicinal agents are profoundly important for health care to be administered by health care professionals, and for basic science researchers to continue their quest for new discoveries. Further, the administration, maintenance, purchasing, monitoring, and removal of pharmaceutical agents represent one of the most important public health initiatives that exist within the entire healthcare arena. USF Health currently teaches components of the pharmacy discipline throughout all of its colleges by non-pharmacists, revealing the significance of the pharmacy profession to all components of health initiatives that affect the public. The addition of a Doctor of Pharmacy program at USF will serve to strengthen teaching and educational endeavors throughout the Health Sciences Center, improve opportunities for research, and add to the delivery of critical healthcare resources to the citizens of Florida, and more particularly to the citizens of the Tampa region.

#### **(a) Level**

The degree program under consideration will produce graduates with a terminal professional degree; that degree will be the Doctor of Pharmacy degree. This is a four-year professional degree, and is currently the only degree type that is sanctioned by the official accrediting body for the profession of pharmacy, the Accreditation Council for Pharmacy Education.

It is fully expected that joint degree programs will eventually develop between the Doctor of Pharmacy program and other colleges within USF Health. While attainment of a joint degree will not be mandatory for students entering the pharmacy program, it is expected to eventually be a very strong factor in assisting potential applicants to make a decision about which pharmacy professional degree program they will choose to receive their professional training.

(b) Emphases, including concentrations, tracks, or specializations

A stated objective of the creation of a Doctor of Pharmacy program at USF Health will be to address the workforce issues of the state of Florida and of the nation. The stated emphasis of this degree program will be the creation of clinician pharmacists. The individuals graduating from the program will be eligible for state licensure from the Boards of Pharmacy throughout the United States, with a majority seeking licensure from the state of Florida. With this particular terminal degree, additional concentrations, tracks, or specializations will not be required as a condition for attaining the degree.

(c) Total number of credit hours

The total number of credit hours proposed for the USF Health Doctor of Pharmacy program will be approximately *140 - 145 hours*. This is in line with other colleges of pharmacy throughout the United States, and within the state of Florida. When applied to a curriculum based on semesters, this corresponds to approximately 17-18 credit hours per semester for a total of eight semesters. Variances in the number of credit hours applied to each student for graduation will depend upon elective courses, or traditional courses with variable hours selected by the student.

(d) Overall purpose, including examples of employment or education opportunities that may be available to program graduates.

Current data shows that there is a significant shortage of pharmacists in the state of Florida, as well as nationally. Independent workforce analyses reveal that the state of Florida is at the higher end of the shortages scale. (Pharmacy Manpower Project, Inc; accessed 08/20/07 - <http://www.pharmacymanpower.com/state.html> PMP, Inc. is a non-profit comprised of 13 national pharmacy associations that study workforce trends in pharmacy profession.) Traditional roles of pharmacists continue to expand as pharmacists are called upon to serve as medication experts on hospital health care teams. Increasingly, pharmacists are also called upon to serve in a primary care role. For example, the current language in the Florida Statutes of the pharmacy profession refers to pharmacists as primary care providers. Pharmacist clinicians are involved with primary care providers (physicians, nurse practitioners, etc...) through collaborative practice agreements to provide clinical services with medication management of chronic disease states such as hypertension and diabetes. The profession of pharmacy also offers professional flexibility, including entrepreneurial opportunities for pharmacists in retail ownership; other pharmacy health-related careers include the pharmaceutical industry; employment in academic institutions; careers in managed-care organizations; nursing home consultant services; health-systems administrative positions; and nuclear pharmacy. This is a special consideration when considering the pharmacy-related health care needs of the state of Florida. The creation of the Doctor of Pharmacy program at USF Health will seek to create pharmacists to serve all of these needs.

Further analysis of student demographics at the various colleges of pharmacy within the state of Florida, as well as other colleges and schools of pharmacy around the country, shows an ever-increasing number of female students enrolled (See Appendix A- Table 54). The profession of



pharmacy offers unique flexibility, allowing for part-time schedules, which is very appealing to female health care professionals possibly seeking to have families. This may ultimately have the net effect of decreasing pharmacist workforce numbers. A Doctor of Pharmacy program at USF Health would serve to meet the challenges of possible pharmacist work force shortages that may be created by a part-time workforce.

**B. Describe how the proposed program is consistent with the current State University System (SUS) Strategic Planning Goals. Identify which goals the program will directly support and which goals the program will indirectly support. (See the SUS Strategic Plan at <http://www.flbog.org/StrategicResources/> )**

The proposed Doctor of Pharmacy professional degree program is consistent with the State University System Strategic Plan that was approved in the year 2005. The strategic plan for the State University System was developed by the Florida Board of Governors, and the proposed Doctor of Pharmacy professional degree program expressly meets the following goals:

- a. Meeting statewide professional and work force needs.
- b. Access to and production of health related degrees.
  - i. Critical needs in health care.

In Appendix I of the Board of Governors Approved Accountability Measures: the following statements are noted:

II. Production of bachelor’s, master’s, professional, and doctoral degrees	Increasing the number of degrees granted.
III. Meet statewide professional and workforce needs	Producing more degrees in education, the health professions, programs that promote economic development, programs involving emerging technologies, and other high-wage / high-demand areas.

**The following statements are also captured from the Board of Governors State University System Strategic Plan:**

**I.B.1-2 Critical needs in education and health care**

In the State University System Strategic Plan, the two areas identified as critical state needs are health care and education.

As stated in the State University System Strategic Plan, the profession of pharmacy is identified as an area of critical shortage that could negatively affect health care in key patient care areas. The proposed Doctor of Pharmacy degree program supports the strategic direction of the University of South Florida’s strategic plan to “Advance Collaborative Learning and Discovery to improve health in the community,” and specifically “to advance Health Professions Education.” Within the realm of the USF Health - College of Medicine, basic scientists and clinicians work together with a goal of creating a collaborative learning community, and the addition of a USF Doctor of Pharmacy program can only serve to enhance and complement its current disciplines.

## **I.B.2. Critical needs: Health Care**

In its July 2000 report, "Shortages of Allied Health Professionals", the Florida Hospital Association documents that hospitals are experiencing shortages in other key patient care positions, such as in Pharmacy and Medical technology. Various national reports and research on the national pharmacist workforce indicate a continuing shortage of pharmacists. (Pharmacy Manpower Project, Inc; accessed 08/20/07 - <http://www.pharmacymanpower.com/state.html> PMP, Inc. is a non-profit comprised of 13 national pharmacy associations that study workforce trends in pharmacy profession.) Reasons for the shortage include a marked increase in medication use, the aging of the baby boomer generation, and the emergence of more clinical activities within pharmacies.

The state of Florida leads the nation in the percentage of the population over the age of 65; this number is expected to significantly increase by the year 2015. (U.S. Census Bureau, Population Division, Interim State Population Projections, 2005. Internet Release Date: April 21, 2005) The majority of these potential patients will require medication therapy as part of their healthcare, services commonly expected to be performed by trained pharmacists. With recent changes in Medicare, and more specifically with the initiation of the prescription medication plan as part of the national Medicare plan (Medicare Part D), pharmacist's involvement in the pharmacy services for seniors has greatly increased. Medication Therapy Management (MTM) related to Medicare Part D, immunization programs, and medication formulary counseling all represent expanded services that are now provided to seniors by pharmacists.

Efforts by the Florida Board of Pharmacy to increase the number of pharmacists in the state by easing restrictions on licensure from other states have not relieved the workforce shortages that exist within the state of Florida. The Florida Pharmacy Association (FPA) reports that of the 22,000 registered pharmacists in Florida, only 16,000 maintain a Florida address. Roles of pharmacists continue to expand as the healthcare needs in primary care and hospital settings expand.

## **INSTITUTIONAL AND STATE LEVEL ACCOUNTABILITY**

### **II. Need and Demand**

- A. Need: Describe national, state, and/or local data that support the need for more people to be prepared in this program at this level. Reference national, state, and/or local plans or reports that support the need for this program and requests for the proposed program which have emanated from a perceived need by agencies or industries in your service area. Cite any specific need for research and service that the program would fulfill.**

The demand for trained pharmacy professionals has grown rapidly in recent years, related in part to the rapid growth of health care delivery systems, growth of the pharmaceutical industry, and Florida's rapidly growing elderly population. (See Attached Pharmacist Workforce Analysis- State of Florida) New roles are developing for pharmacists with active involvement in drug therapy decision-making and education for patients throughout the lifespan. Development of a Doctor of Pharmacy degree program at USF is planned to meet Florida's workforce need for increased doctorally prepared pharmacy professionals for both industry and care of the public. The program will meet the standards of the Accreditation Council for Pharmacy Education (ACPE) and will build

on synergies currently available in the Health Science Center for faculty, other instructional personnel, and clinical opportunities with the numerous clinical affiliates. Further synergies are planned with various other academic units throughout the University of South Florida; this will be explained in greater detail later in the proposal. There is not a full service School or College of Pharmacy in the Tampa Bay and Southwest Florida region and thus USF will meet a large unmet need and capitalize on existing strengths of the Health Science Center.

The **Institutes Of Medicine (IOM)** summit committee identified five core **competencies** needed for all health professionals, as summarized in the following statement: "All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches and informatics." The five core competencies as stated in the IOM report are:

1. Providing patient-centered care;
2. Working in interdisciplinary teams;
3. Employing evidence-based practice;
4. Applying quality improvement
5. Using informatics

The profession of pharmacy currently implements and supports all of the competencies listed in the IOM report. The academic pharmacy community in many cases has been the leader in implementing and endorsing many of these competencies, which has served to strengthen the pharmacy professions' position as a vital component in all health-related systems. The USF Health academic profile does not currently include the profession of pharmacy; its addition will only serve to strengthen all of the other health-related disciplines and academic centers currently in existence within USF Health, and will foster advancement of any future health-related programs that may be implemented at USF Health. The impetus for the existence of a Doctor of Pharmacy program at USF Health is clearly supported by this leading national report.

An analysis of the projected population census for various states in the country shows that the state of Florida, currently fourth in terms of population compared to other states, will overtake the state of New York and become the third largest state in the country. This change represents approximately an additional 2.5 million people residing in the state of Florida by the year 2015. The U.S. Department of Labor-Bureau of Labor statistics reveals a sharp increase in the demand for pharmacists nationwide by the year 2015, ranging from 18% to greater than 60% in the most prevalent industries requiring pharmacist labor (Dept. of Labor website). The state of Florida is currently a popular destination for persons of retirement age, and as this population continues to age, the health care needs will continue to increase. The state of Florida is the current national leader in percentage of the population over the age of 65; this percentage of the population is expected to significantly increase by the year 2015. (U.S. Census Bureau, Population Division, Interim State Population Projections, 2005. Internet Release Date: April 21, 2005). (See **Appendix B- Population Data**) The majority of these potential patients will require medication therapy as part of their healthcare, services currently performed by trained pharmacists.

With the increased influx of large businesses into the state of Florida, the influx of employees from

outside the state of Florida will continue to increase. As the health care needs of Floridians continue to grow, there will be virtually no aspect of health care that will not involve advanced pharmacotherapeutic therapies. According to Florida's Agency for Workforce Innovation, demand for pharmacists increases 3.31% annually. This increasing demand on the health care system will precipitate increasing use of pharmacists to assist health care teams and health care provisions.

Currently, the American Association of Colleges of Pharmacy (AACCP) currently sponsors an ongoing analysis of workforce needs in all 50 states in the United States of America. This workforce analysis, referred to as the Aggregated Demand Index (ADI), is the widely accepted validated analysis for colleges of pharmacy throughout the country (See Appendix C- Workforce Data). The ADI is a national survey about pharmacist shortage that is updated monthly; this data is provided by panelists whose organizations are directly involved in hiring pharmacists throughout the country. It uses a rating scale to indicate the shortages and needs of various states throughout the country; the scale ranges from 1 to 5, with 1 representing a high surplus and 5 representing the highest demand for pharmacist positions. At the original time of this publication, *Florida's ADI was 4.61*, placing Florida above the national average of **4.05**. An attempt by the Florida Board of pharmacy to relax restrictions on licensure reciprocity with other states has been unable to meet the needs of pharmacist shortages throughout the state of Florida. Since initiation of licensure by endorsement through the Florida State Board of Pharmacy in the year 2003, the demand for pharmacists in the state of Florida has steadily grown. All of this combined information clearly displays the necessity for creation of pharmacists by our state university system.

Emphasis will be placed upon USF Doctor of Pharmacy faculty to be involved in research endeavors throughout USF Health. The addition of pharmacy faculty to assist in research will allow increased opportunities for entrepreneurial types of research models currently not in existence. The USF Health Clinical Research Center will utilize pharmacy faculty to promote and direct clinical research for all USF Health researchers. Entrepreneurial collaboration with the existing USF Centers of Excellence would be enhanced by the presence of the USF Doctor of Pharmacy degree program, potentially leading to the development of innovative medications. Creation of additional doctoral programs would be emphasized.

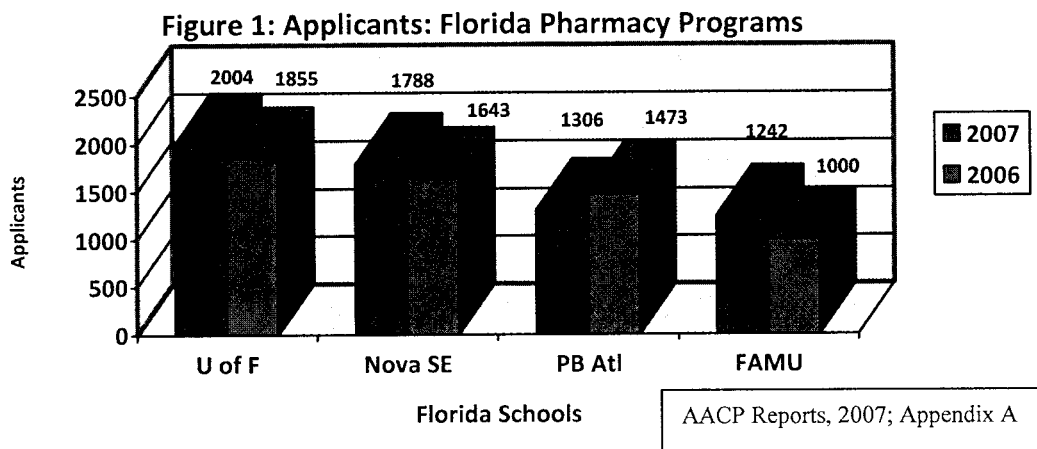
Significant opportunities exist to expand research with pharmacy faculty with the creation of Pharmacy-Based Research Networks, a growing trend among academic pharmacy programs throughout the nation. Clinical Trial research models and continued expansion of entrepreneurial models will be enhanced from increased partnerships with pharmaceutical and business industries. Continued expansion of research-based programs and opportunities for students enrolled in USF Health would occur with a USF Doctor of Pharmacy degree program.

An emerging area within health care that currently exists is the area of Pharmacogenetics and Pharmacogenomics. In the Tampa area, there are opportunities to partner with the James A. Haley Veterans Administration Hospital for the purpose of training health professions students in the sciences surrounding Pharmacogenomics. There is an opportunity to make Pharmacogenomics a core course in the pharmacy curriculum that will be developed. Further, with the ever-increasing demand to create research-trained clinicians, research will also be a focal point of a curriculum that will be developed. By developing a pharmacy program that emphasizes the science of Pharmacogenomics,

increased translational clinical research, and special emphasis on geriatric populations, USF Health will be filling a critical need with regard to public health within the state of Florida.

**B. Demand: Describe data that support the assumption that students will enroll in the proposed program. Include descriptions of surveys or other communications with prospective students.**

There is a significant student demand for entrance into the pharmacy profession according to the AACP’s reports of the number of student applications to the current colleges of pharmacy in the state of Florida. These reports reveal an extremely high demand for the pharmacy profession. All of the colleges of pharmacy receive applications in excess of 1000 annually; the University of Florida and Nova Southeastern report application numbers in excess of 2000 and 1700 applicants, respectively. (See Figure 1) The University Florida currently enrolls approximately 300 students into its entry-level Doctor of Pharmacy program; the other colleges of pharmacy enroll approximately 100 to 150 students into an entry- level class. These numbers also represent application rates that exist at colleges and schools throughout the country as reported to the AACP by member schools. These enrollment numbers very likely represent the maximum student capacity that each individual program can effectively manage per their available faculty and financial resources.



At the University of South Florida-main campus, there is a very vibrant learning community of health pre-professional students seeking admissions into the health professions. Because of the presence of the USF College of Medicine and the USF College of Nursing, many of the students prepare themselves for entry into one of these two programs. With the addition of a Doctor of Pharmacy program, many of the health professions students may also seek to gain entrance into a Doctor of Pharmacy program. Currently, undergraduate students on the main campus of USF are seeking to initiate a formal pre-pharmacy organization. These students have already contacted Dr. Kevin B. Sneed with the intention of inquiring about his availability to provide his services as an adviser to the organization. This interest on the part of pre-pharmacy students on the main campus of the University of South Florida further serves notice that has a strong interest in entry into the pharmacy profession. USF Health has continued to engage pre-professional students from the main campus, and has put forth an initiative known as the **Emerging Health Professions** program. A

Doctor of Pharmacy degree program at USF Health will certainly become a focal point of interest to students that have an interest in the pharmacy profession.

An increasing number of female students are enrolling in colleges of pharmacy in Florida according to an analysis of student demographics. The profession of pharmacy offers unique flexibility and the potential for part-time positions. This flexibility is appealing to female health care professionals possibly seeking to have families or balance their family and career pursuits. The part time scheduling and flexibility may ultimately have the net effect of decreasing pharmacist workforce numbers. This is a special consideration when considering the pharmacy-related health care needs of the state of Florida. A Doctor of Pharmacy degree program at USF Health will serve to address the challenges of possible pharmacist work force shortages that may be created by a part-time workforce.

- C. If similar programs (either private or public) exist in the state, identify the institution(s) and geographic location(s). Summarize the outcome(s) of any communication with such programs with regard to the potential impact on their enrollment and opportunities for possible collaboration (instruction and research). Provide data that support the need for an additional program.**

In the state of Florida there are currently five pharmacy education programs (See Table 1 Below). Two are public institutions (the University of Florida, and Florida A&M University). The other three pharmacy programs are private entities (Nova Southeastern University, Palm Beach Atlantic University, and Lake Erie College of Medicine →Pharmacy). The University of Florida College of Pharmacy is located in Gainesville, FL; U of F also maintains three additional 4-year branch campuses in the cities of Jacksonville, Orlando, and St. Petersburg. The Florida A&M University College of Pharmacy is located in Tallahassee Florida; there are pharmacy practice branch divisions that exist in Jacksonville, Miami, and Tampa. These pharmacy practice branch divisions for Florida A&M College of Pharmacy are currently used as clinical training divisions for their graduating fourth-year professional students, and do not represent full four-year campuses offering full pharmacy curricular instruction. *The U of F College of Pharmacy- St. Petersburg campus and the Florida A&M College of Pharmacy- Tampa Division are at their anticipated maximum student capacity that each individual program can effectively manage per their currently available faculty and financial resources.* Nova Southeastern University College of Pharmacy exists in Fort Lauderdale and West Palm Beach. Palm Beach Atlantic University College of Pharmacy exists in Boca Raton, Florida. And the Lake Erie College of Medicine/School of Pharmacy is a new school located in Bradenton, FL. With its first entering class beginning in August 2007, they are in Candidate Status with the pharmacy accrediting agency, ACPE, and do not currently appear on any databases produced by AACP. It is not expected that opening a Doctor of Pharmacy program at USF will prove to be an impedance to the enrollment endeavors of any of the colleges of pharmacy that exist within the state of Florida. The overwhelming numbers of applications to all of the colleges of pharmacy strongly suggest that there is a very qualified applicant pool to fill all of the enrollment requirements for each college of pharmacy.

There are several distinctive characteristics that represent the five current colleges of pharmacy that exist in the state of Florida. Of the five programs listed, only the Nova Southeastern College of Pharmacy is located in a major urban area (Fort Lauderdale, Florida); all of the other main campuses

are located in more rural areas by comparison. The Nova Southeastern College of Pharmacy, which is private, is also part of a larger health sciences complex. None of the other private colleges of pharmacy are part of a comprehensive health sciences educational system.

The following table summarizes the information previously presented in narrative form:

<b>Colleges of Pharmacy currently in the state of Florida</b>	<b>Campus Locations- includes satellite operations</b>	<b>Professional Student Enrollment/ class</b>	<b>Annual Tuition (approximate)</b>	<b>Number of Applicants/ year</b>
<b>Public Institutions</b>				
<b>University of Florida COP</b>	Main Campus- Gainesville <u>Satellite Campuses-</u> <ul style="list-style-type: none"> <li>o St. Petersburg</li> <li>o Orlando</li> <li>o Jacksonville</li> </ul>	~ 275	~ \$11,346	~ 2000
<b>Florida A&amp;M University COPPS</b>	Main Campus- Tallahassee <u>Divisions-</u> <ul style="list-style-type: none"> <li>o Tampa</li> <li>o Jacksonville</li> <li>o Miami</li> </ul>	~ 150	~ \$ 4,000- first 2 professional years  ~ \$ 10, 500- last 2 professional years	~ 1,200
<b>Private Institutions</b>				
<b>Nova Southeastern University COP</b>	Ft. Lauderdale West Palm Beach Puerto Rico	~ 120 N/A N/A	~ 20,000	~ 1,700
<b>Palm Beach Atlantic University</b>	Boca Raton	~ 100	~ 29,000	~ 1,400
<b>LECOM</b>	Bradenton	75- 1 <sup>st</sup> year 125- ongoing	~ 28,000	N/A
Information gathered from American Association of Colleges of Pharmacy (AACCP)				

**Table 1**

The University of Florida College of Pharmacy is currently the only public university college located within an existing Health Science Center, complete with a comprehensive health sciences program profile.

The University of South Florida College of Medicine (USF) and the University of Florida (UF) College of Pharmacy had previously discussed in an innovative collaboration to potentially offer a joint PharmD program/degree in Tampa. The relationship between USF and UF extends beyond initiating a joint degree. During the past several years, USF and UF have discussed several joint collaborative projects. These projects are varied in their interest, very innovative, and represent a true spirit of joint collaboration to advance the academic, research and clinical missions of both

universities. The University of Florida currently has a regional instructional pharmacy site in St. Petersburg that offers an entry-level four-year curriculum for the terminal PharmD degree. It is a natural progression for USF Health to initiate professional pharmaceutical education in addition to the other professional degree programs currently available. In the future, there will likely be areas of joint interest from which both programs may benefit.

Currently, the Florida A&M University College of Pharmacy and Pharmaceutical Sciences (FAMU COPPS) has active affiliation agreements with USF Health. For greater than ten years, FAMU COPPS students have been actively engaged in clinical learning endeavors on the campus of USF, in particular with the USF College of Medicine. FAMU has provided clinician pharmacists to various departments with USF Health (Department of Family Medicine, and the Department of Psychiatry), and USF Health has provided clinical practice sites, office space, administrative support, and information technology support to the FAMU pharmacy faculty at no additional direct costs. In exchange, the FAMU pharmacy faculty have provided collaborative clinical services to the respective departments, and engaged the medical students and medical residents in interdisciplinary educational endeavors. This affiliation agreement remains in place, and is a prime example of collaboration between universities.

The Tampa area experiences a very high demand for clinical sites for professional pharmacy students from not only within Florida, but from schools outside of the state of Florida. This high demand is the result of having numerous teaching hospital facilities and outpatient clinical sites within the greater Tampa Bay area, all of which currently service the USF College of Medicine (See Appendix D). Other pharmacy programs such as UF, FAMU and Nova Southeastern have been the beneficiaries of the enhanced number of clinical sites in the Tampa area. Additional students from USF would not be expected to enter these clinical sites until the year 2012 as part of their Introductory Pharmacy Practice Experience (IPPE); during the program implementation phase additional clinical sites will need to be attained, with clinical teaching resources redistributed among the colleges of pharmacy that currently utilize Tampa as a service area for their students. Currently, all of the colleges of pharmacy within the state of Florida make earnest attempts to coordinate their activities together by meeting to discuss strategies for scheduling students for clinical activities.

*It will be the full intention of the USF Doctor of Pharmacy degree program to supply clinical pharmacy instructors to the Tampa area to engage the USF professional students in clinical pharmaceutical education.* Currently, only the Florida A&M University College of pharmacy offers clinical instructors for the purpose of training their own students; all of the other colleges of the pharmacy rely upon the hospitals and clinics to supply clinical pharmacy educators. With critical human resource allocation geared towards clinical faculty, the USF Doctor of Pharmacy degree program will allow for minimal impact on other clinical faculty resources currently being used by the other colleges of pharmacy in the Tampa area. Subsequently, the addition of a USF Doctor of Pharmacy degree program could serve to ease the pressure and responsibility for training pharmacy students in the hospitals in the Tampa area.

Various programmatic infrastructure components are also in place to support initiating the pharmacy program to be located at USF Health. Continued interactions with the University of Florida College of Pharmacy and the Florida A&M College of Pharmacy will continue to be assessed while the



endeavor of creating a Doctor of Pharmacy program at USF Health is implemented.

- D. Use Table 1 (A for undergraduate and B for graduate) to categorize projected student headcount (HC) and Full Time Equivalents (FTE) according to primary sources. Generally undergraduate FTE will be calculated as 40 credit hours per year and graduate FTE will be calculated as 32 credit hours per year. Describe the rationale underlying enrollment projections. If, initially, students within the institution are expected to change majors to enroll in the proposed program, describe the shifts from disciplines that will likely occur.

Table 1-B - Appendix E illustrates an approximation of the demographics of the students that would be expected to enroll in a USF Doctor of Pharmacy program. During the initial entering classes, it is expected that a substantial number of students applying will have a previous health pre-professional Associates or Bachelors degree from the University of South Florida, or from another State of Florida university. As previously mentioned, there is a vibrant health-professions undergraduate population at USF, and the opportunity to enter the pharmacy profession will be very appealing to these students. It is expected that there will be a number of non-traditional students that will seek admission. These students likely represent individuals that were engaged in pre-professional education as a means of entering an alternate profession from their current place of employment. These students are older than the traditional student that entered college from high school, and may have been involved in the health professions in another capacity.

During the third entering pharmacy class, and in subsequent years, the number of students with previous bachelors degrees will continue to increase. This estimation is gathered from data collected from AACP on the demographics of students applying to pharmacy programs throughout the United States (Table 2). The AACP reports that greater than 50% of applicants have a previous baccalaureate degree; and approximately 20 % of applicants have at least 3 years of college experience, but have not yet attained a degree. This represents greater than 60% of students expected to apply to a USF Doctor of Pharmacy degree program shown in Table 1B- Appendix E. This also represents USF being located in a major urban setting in the state of Florida, separate from the two other state university colleges of pharmacy.

Distribution of 2006–07 Applications by Gender and Previous Postsecondary Experience of Applicant (represents data, some incomplete, submitted by 95 schools)

Postsecondary Experience	Male	Female	Gender Not Specified	Total	Percent
0 years of college	4680	6848	58	11537	12.8%
1-2 years of college/No Degree	3157	4778	77	8012	8.9%
Associate Degree	913	1259	11	2183	2.4%
3 or more years of college/No Degree	7332	10421	338	18101	20.8%
Baccalaureate Degree	17785	28370	1310	47464	52.5%
Master's Degree	1037	1307	66	2410	2.7%
Doctoral Degree	301	319	27	647	0.7%

Table 2- AACP Data- Distribution of 2006-07 Applications by Gender and Previous Postsecondary Experience of Applicant

With the current health related pre-professions undergraduate degrees offered at USF, there is not an expectation that there will be a significant shift of students from one degree program to the proposed Doctor of Pharmacy degree program. A modest number of students may attempt this degree program shift, and is represented in Table 1B- Appendix E.

**E. Indicate what steps will be taken to achieve a diverse student body in this program, and identify any minority groups that will be favorably or unfavorably impacted. The university's Equal Opportunity Officer should read this section and then sign and date in the area below.**

The selection of students into the USF Doctor of Pharmacy degree program will be based on selecting the most qualified students. Ethnicity and race will be masked on the students' applications.

A new Doctor of Pharmacy degree program at the University of South Florida will present a very unique opportunity to provide a diverse student enrollment profile. USF will take several measures to foster a diverse student population. Some of these measures include:

- I. Attempts will be made to produce a diverse faculty population which will create role models for aspiring pharmacy students. All qualified applicants will be encouraged to apply for positions within the USF Doctor of Pharmacy degree program. An appropriately qualified administrative committee charged with the selection of faculty members will be encouraged to seek diversity of all types with regards to faculty appointments.
- II. Continued efforts will be made to expose high school and college students to career opportunities in the profession of pharmacy. Currently, USF Health participates in various AHEC initiatives to expose many underrepresented minority students per year to health careers available at USF Health. Participation in health career fairs currently sponsored several times throughout the year by AHEC will provide ample opportunities for students to examine and seek admission into the USF Doctor of Pharmacy degree program.
- III. Community outreach endeavors within the city of Tampa will also provide exposure for various student applicants to gain exposure to USF Health, and more specifically the USF Doctor of Pharmacy degree program. The profession of pharmacy has always been noted to be a big participant in community health endeavors, and this exposure by USF Health and the USF Doctor of Pharmacy degree program will continue to expose underrepresented students to opportunities that may become available to this population of students.

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Equal Opportunity Officer

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Date

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### III. Budget

- A. Use Table 2 to display projected costs and associated funding sources for Year 1 and Year 5 of program operation. Use Table 3 to show how existing Education & General funds will be shifted to support the new program in Year 1. In narrative form, summarize the contents of both tables, identifying the source of both current and new resources to be devoted to the proposed program. (Data for Year 1 and Year 5 reflect snapshots in time rather than cumulative costs.)**

The Table 2P represents all of the planning years, beginning in the academic year 2008-09, and extending into the academic year 2010. The table displays the summary costs for the proposed doctor of pharmacy program extending out to the year 2018-2019. During planning years two and three, private funds will be used to implement the program; during this time the initial hiring of administration and faculty will occur. This team will be charged with planning and implementing the curriculum and administrative functions for the pharmacy program. No state appropriations will be sought until fiscal year 2010-2011, with \$575,000 in non-recurring funds requested. Beginning in fiscal year 2011-2012, we will request \$400,000 in recurring enrollment funds and \$1 million in non-recurring funds, to support an additional 75 students. In year three of program implementation, we will begin enrolling 100 new students annually, eventually bringing the pharmacy program to a capacity of 400 students. University resources and private funds will be sufficient to implement the program in the initial planning stages during planning years 1, 2, and 3.

Recurring state appropriation funding will be used to support new faculty lines, A&P, and USPS positions. Because of accreditation concerns, the vast majority of faculty is expected to be hired during the years 1 & 2 in the enrollment phase. This is necessary to cover early clinical instruction that is mandated by the ACPE (pharmacy accrediting agency). It is fully expected that the faculty, through dedicated research and teaching mentoring programs, will be able to compete for extramural contract and grants by year four of program implementation. It is also expected that program's initiation funding will be provided from the legislature. Since this is a separate professional degree program to be implemented at the University of South Florida, a separate funding pro forma must be demonstrated for accreditation to the ACPE Board of Directors.

- B. If other programs will be impacted by a reallocation of resources for the proposed program, identify the program and provide a justification for reallocating resources. Specifically address the potential negative impacts that implementation of the proposed program will have on related undergraduate programs (i.e., shift in faculty effort, reallocation of instructional resources, reduced enrollment rates, greater use of adjunct faculty and teaching assistants). Explain what steps will be taken to mitigate any such impacts. Also, discuss the potential positive impacts that the proposed program might have on related undergraduate programs (i.e., increased undergraduate research opportunities, improved quality of instruction associated with cutting-edge research, improved labs and library resources).**

The proposed degree program is a professional program, and would not be expected to have a negative impact upon undergraduate resource programs at the University. There is no expectation that there will be any negative impact on enrollment rates, or utilization of adjunct faculty or

teaching assistants that may participate and undergraduate teaching activities. The faculty of the proposed pharmacy program will actually enhance opportunities for undergraduate students to be engaged in extracurricular activities (i.e.-mentorship programs, research programs, shadowing programs, etc.). For example, the current undergraduate program in the Department of Chemistry will benefit from the presence of a pharmacy program because of the potential for enhanced business and industry relationships that will be generated through the faculty of pharmacy program. All life science undergraduate programs shall receive a benefit in the way of increased opportunities for career choices, exposure to guest lectures from pharmacy faculty, and planned student-faculty relationship building programs.

With respect to any other impacts upon related undergraduate programs, the proposed pharmacy program will be expected to maintain teaching loads, and faculty teaching efforts are not expected to be impacted. Collaborations between existing departments (department of chemistry, college of nursing, college of public health, etc.) will be for the benefit of faculty with regards to professional relationships, research interests, and University-wide competitive submissions for projects (Centers of Excellence, etc.).

**C. Describe other potential impacts on related programs or departments (e.g., increased need for general education or common prerequisite courses, or increased need for required or elective courses outside of the proposed major).**

There is not an expectation for an impact on related programs or departments. The various health professional degrees currently in existence at USF Health have very similar pre-professional requirements. Thus, there will not be an increased need for general education or common prerequisite courses, or required or elective courses beyond what is currently available at the University of South Florida.

**D. Describe what steps have been taken to obtain information regarding resources (financial and in-kind) available outside the institution (businesses, industrial organizations, governmental entities, etc.). Describe the external resources that appear to be available to support the proposed program.**

The president of the University of South Florida has secured private funds in the amount of \$1 million to implement the program during planning years two and three. Additional funding is expected to occur once the program has been approved by the Board of Governors. Currently, potential private donors have expressed reservations at providing funding for a program that has not reached the program approval stage from the state Board of Governors. There is an expectation that additional industry donations will be secured by the year 2011-2012. USF Health administration continues to aggressively work with the Executive Director of Development at USF Health to identify potential sources of financial resources for the proposed pharmacy program. A strategic plan is currently being developed with the Chief Development Officer from USF Health to seek attainment of new outside financial resources specifically for the USF Doctor of Pharmacy program.

#### IV. Projected Benefit of the Program to the University, Local Community, and State

**Use information from Table 1, Table 2P, and the supporting narrative for “Need and Demand” to prepare a concise statement that describes the projected benefit to the university, local community, and the state if the program is implemented. The projected benefits can be both quantitative and qualitative in nature, but there needs to be a clear distinction made between the two in the narrative.**

USF has been designated a Research I institution by the former Board of Regents, and is a Carnegie I Research Institution, with the intent that USF will place increasing emphasis on graduate and professional education in order to meet the expanding needs of the Tampa Bay region, and the state of Florida. Numerous publications and independent study groups around the country have identified the profession of pharmacy as being of critical shortages. The proposed Doctor of Pharmacy program enhances and complements USF Health in its quest to provide outstanding health care to the Tampa Bay region, and the state of Florida. USF Health is already being identified as a community leader with regards to health care delivery, and creation of the USF Doctor of Pharmacy program only enhances the University's efforts to continue to provide the Tampa Bay region with outstanding health care quality while serving the needs of students and pharmacy faculty.

Health, Research, and Education are of paramount importance to USF Health. With the addition of pharmacy faculty and staff, even greater health care, increased research, and outstanding education will be achieved. As shown in Figure 1 earlier in this document, and in Table 1B, student demand for this degree program is expected to be very high. State enrollment growth dollars, tuition collections, and private fundraising campaigns are expected to sustain this program from years 1 through 5. Following year 5, with normal tuition increases seen in other degree programs, continued enrollment at the proposed level, and continued efforts with regards to private fundraising campaigns, it is fully expected that the program will be self-sustaining from year six. This also takes into account normal and expected recurring state funding support throughout the existence of the program.

USF Health is taking extraordinary strides to meet the health care workforce needs of the state of Florida, and of our nation. Currently, USF Health is comprised of the College of Medicine, College of Nursing, College of Public Health, and the School of Physical Therapy. All of these programs have national prominence; and all are striving to get even better. The addition of pharmacy faculty will significantly enhance the research interests of USF Health, while being a welcome addition to the teaching and learning opportunities for all of the healthcare professions at the University of South Florida. With the creation of a USF Doctor of Pharmacy program, the addition of pharmacy practice faculty will serve to assist the healthcare endeavors of USF's medical physicians, nurses, nurse practitioners, and physical therapy practitioners. Pharmacy practice faculty's participation in health care will occur at all of the affiliate organizations through which USF practitioners currently provide health care. With the creation of the Centers for Advanced Health Care, North and South campuses, additional clinical training sites will be provided for pharmacy faculty to achieve their required healthcare endeavors. USF Health continues to seek ways to add to the educational, health, and research profile of its colleges. *All faculty will be expected to be engaged in research endeavors, especially in collaboration with the other health disciplines within USF Health.* External grants and contracts will be sought by pharmacy faculty, adding further to the overall research profile of USF.

The addition of a USF Doctor of Pharmacy program will add prominently to the USF Health community.

Currently, USF Health is intimately involved in community endeavors. Recently, USF researchers from the Lawton and Rhea Chiles Center for Healthy Mothers and Babies at USF Health were a pivotal part in producing legislation geared towards reducing infant mortality in the state of Florida. Numerous other departments at USF Health have been significantly involved within the community, with a particular focus in reducing health care disparities with regards to cardiovascular, cancer, and social disparities within the state of Florida. Currently, USF Health pharmacy academic clinicians are actively engaged in health disparities activities and research throughout the Tampa community. Partnerships and research projects are currently and constantly being developed with Tampa area organizations, especially non-profit organizations, to provide needed social services and activities in the areas of enhancing knowledge of cardiovascular and cancer risks, and proper pharmaceutical care utilization. The addition of a USF Doctor of Pharmacy program will significantly assist USF Health in addressing the needs of the Tampa community, and the public health needs of the state of Florida.

**V. Access and Articulation – Bachelor’s Degrees Only**

- A. If the total number of credit hours to earn a degree exceeds 120, provide a justification for an exception to the policy of a 120 maximum and submit a request to the BOG for an exception along with notification of the program’s approval. (See criteria in BOG Regulation 6C-8.014)**

N/A.

- B. List program prerequisites and provide assurance that they are the same as the approved common prerequisites for other such degree programs within the SUS (see Common Prerequisite Manual <http://www.facts.org>). The courses in the Common Prerequisite Counseling Manual are intended to be those that are required of both native and transfer students prior to entrance to the major program, not simply lower-level courses that are required prior to graduation. The common prerequisites and substitute courses are mandatory for all institution programs listed, and must be approved by the Articulation Coordinating Committee (ACC). This requirement includes those programs designated as “limited access.”**

**If the proposed prerequisites they are not listed in the Manual, provide a rationale for a request for exception to the policy of common prerequisites. NOTE: Typically, all lower-division courses required for admission into the major will be considered prerequisites. The curriculum can require lower-division courses that are not prerequisites for admission into the major, as long as those courses are built into the curriculum for the upper-level 60 credit hours. If there are already common prerequisites for other degree programs with the same proposed CIP, every effort must be made to utilize the previously approved prerequisites instead of recommending an additional “track” of prerequisites for that CIP. Additional tracks may not be approved by the ACC, thereby holding up the full approval of the degree program. Programs will not be entered into the State University System Inventory until any exceptions to the approved common prerequisites are approved by the ACC.**

N/A

- C. If the university intends to seek formal Limited Access status for the proposed program, provide a rationale that includes an analysis of diversity issues with respect to such a designation. Explain how the university will ensure that community college transfer students are not disadvantaged by the Limited Access status. NOTE: The policy and criteria for Limited Access are identified in BOG Regulation 6C-8.013. Submit the Limited Access Program Request form along with this document.**

N/A

- D. If the proposed program is an AS-to-BS capstone, ensure that it adheres to the guidelines approved by the Articulation Coordinating Committee for such programs, as set forth in Rule 6A-10.024 (see Statewide Articulation Manual <http://www.facts.org>). List the prerequisites, if any, including the specific AS degrees which may transfer into the program.**

N/A

## **INSTITUTIONAL READINESS**

### **VI. Related Institutional Mission and Strength**

- A. Describe how the goals of the proposed program relate to the institutional mission statement as contained in the SUS Strategic Plan and the University Strategic Plan.**

As previously mentioned, the proposed Doctor of Pharmacy professional degree program is consistent with the State University System Strategic Plan that has been approved in the year 2005. The strategic plan for the State University System was developed by the Florida Board of Governors, and expressly meets the following goals:

- c. Meeting statewide professional and work force needs.
- d. Access to and production of health related degrees.
  - i. Critical needs in health care.

As stated in the State University System Strategic Plan, the profession of pharmacy is identified as an area of critical shortage that could negatively affect health care in key patient care areas. The proposed Doctor of Pharmacy degree program supports the strategic direction of the University of South Florida's strategic plan to "Advance Collaborative Learning and Discovery to improve health in the community, "and specifically "to advance Health Professions Education." Within the realm of the USF Health - College of Medicine, basic scientists and clinicians work together with a spirit of collaborative learning, and the addition of a USF Doctor of Pharmacy program can only serve to enhance and be complementary to its current disciplines.

With regard to the University of South Florida Strategic Plan, the proposed Doctor of Pharmacy Program strategically aligns with all of the published USF Strategic Goals 2007-2012:

#### **Goal 1**

**Expanding world-class interdisciplinary research, creative, and scholarly endeavors.**

The proposed pharmacy program will expand the interdisciplinary breadth of research currently underway as part of the USF health initiatives, and will support the ongoing projects of the USF Centers of Excellence.

#### **Goal II**

**Promoting globally competitive undergraduate, graduate and professional programs that support interdisciplinary inquiry, intellectual development, knowledge and skill acquisition, and student success through a diverse, fully- engaged, learner-centered campus environment.**

The proposed pharmacy program will produce a curriculum that is cutting-edge and innovative, substantially adding to interdisciplinary inquiry, intellectual development, and enhanced student participation in a curriculum that will be patient-centered and technologically advanced

#### **Goal III**

**Expanding local and global engagement initiatives to strengthen and sustain healthy communities and to improve the quality of life.**

The goals and mission of the proposed pharmacy program will be to engage in activities that promote and create healthy communities through outreach programs, intradepartmental collaborations, and participation in public health endeavors.

#### **Goal IV**

**Enhancing all sources of revenue, and maximizing effectiveness in business practices and financial management to establish a strong and sustainable economic base in support of USF's growth.**

The proposed pharmacy program will create entrepreneurial activities and research initiatives with the pharmaceutical industry, and other entrepreneurial entities currently associated with the University of South Florida

- B. Describe how the proposed program specifically relates to existing institutional strengths, such as programs of emphasis, other academic programs, and/or institutes and centers.**

#### **Interdepartmental Plan for Collaboration**

The proposed doctor of pharmacy program will coalesce well with the other colleges within USF Health. The additional faculty that will be recruited will enhance opportunities for collaborative research initiatives and collaborative teaching endeavors. Many of the existing departments within the College of Medicine will be the very same departments that will be serving a USF Doctor of Pharmacy program. There is an earnest attempt on the part of various departments to create a truly



unique collaborative partnership that will cross traditional barriers between departments typically utilized at various universities throughout both the state of Florida and the country.

The American Association of Colleges of Pharmacy developed the Center for the Advancement of Pharmaceutical Education (CAPE) Guidelines to assist colleges of pharmacy in their assessment/evaluation activities (See Appendix A- Educational Outcomes). The 2004 CAPE Educational Outcomes identify three broad domains of education for pharmacy school curricula: 1) Pharmaceutical Care; 2) Systems Management; and 3) Public Health. In most colleges of pharmacy around the country, entire departments are developed to address these outcomes. USF Health, through many of its existing departments and colleges, already possesses all the resources necessary to address the educational outcomes outlined by AACP. Rather than having to establish entire separate departments within a pharmacy program at USF, we propose that collaborative efforts with other departments and colleges throughout the University of South Florida be used to meet these educational outcomes as defined by the AACP. While issues will have to be worked out between departments and colleges throughout USF, initial discussions with all departments and colleges involved have been very favorable for joint collaborative teaching endeavors. Faculty from within a USF Doctor of Pharmacy program can be shared with other colleges and departments to assist teaching endeavors of both entities, in particular in the areas of Systems Management and Public Health. The presence of existing departments and colleges throughout USF and USF health is an advantage that the University of South Florida has over many existing colleges of pharmacy, both in the state of Florida and throughout the country. The notion of interdepartmental collaboration has been very attractive for many of the departments and colleges that have been approached in preparation for a USF Doctor of Pharmacy program.

Examples of plans for interdepartmental collaboration are as follows:

1. **College of Public Health-** accredited colleges of pharmacy usually maintain a Social, Economic, and Administrative Sciences division. The professors responsible for teaching and conducting this portion of the curriculum share the same discipline and background as professors within our USF College of Public Health. We propose a mechanism of shared faculty resources between the proposed Doctor of Pharmacy program and USF College of Public Health with the following programs:
  - a. *Social and Administrative Sciences-* processes for both colleges will be responsible for teaching the following disciplines within the pharmacy curriculum:
    - i. Public Health (Pharmacoepidemiology)
    - ii. Pharmacy Management courses
    - iii. Biostatistics
  - b. *Pharmacy Administrative Residency-* a postgraduate administrative pharmacy residency has been proposed to be run jointly between USF Health, Tampa General Hospital, and Moffitt Cancer Center. This will involve graduate pharmacy training, as well as graduate academic studies. Currently, the graduate degree thought to best fit this program will be the Masters of Healthcare Administration (MHA). TGH and Moffitt Pharmacy administrators have identified a deficit in leadership training for

the pharmacy profession's future leaders. The goal of this residency program will be to provide a structured post-graduate experience for the administrative pharmacy resident that will provide them with the necessary supervised training to become outstanding health-system administrators; the Master's component of the residency will serve to enhance the training and marketability of the pharmacy residents. While the proposed USF Doctor of Pharmacy program will be the administrator of the residency program, the MHA graduate degree will be conferred by the USF College of Public Health. Tampa General Hospital and Moffitt Cancer Center will be the administrators of the pharmacy administrative residency program.

- i. Tampa General Hospital - Administrative Pharmacy Residency
    - ii. Moffitt Cancer Center - Administrative Pharmacy Residency
    - iii. USF College of Public Health- Masters in Healthcare Administration
  - c. Systems Management- courses currently exist within the College of Public Health to meet this particular objective of the CAPE guidelines. Pharmacy faculty will be responsible for course coordination and teaching of this educational outcome, while also providing core support to other courses within the College of Public Health. Educational goals of this outcome are to manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel to promote health.
2. **College of Medicine-** proposed USF Doctor of Pharmacy program faculty, in addition to clinical adjunct pharmacy faculty, will assist in portions of teaching for other colleges throughout the USF Health. Proposed teaching collaborations include:
  - a. Clinical Instruction- Pharmacology course(s); clinical cases, small group discussions
  - b. Clinical Services- Various Medical Departments
3. **College of Nursing-** the current academic nursing facility houses Center for Applied Clinical Skills laboratory. It has been proposed that students from the pharmacy program would participate in joint clinical skills sessions with both nursing students and medical students. More specifically, clinical skills would be honed in mock code situations, as well as simulated critical care scenarios in the hospital critical care simulation suite. Joint physical assessment skills labs would also be implemented.
4. **Department of Chemistry-** the chemistry department on the main campus of the University of South Florida has faculty that may be available to serve in a teaching and research capacity with the proposed USF Doctor of Pharmacy program. (i.e.-\_Department of Chemistry-contains several medicinal chemists). Rather than produce a separate medicinal chemistry division within the proposed USF Doctor of Pharmacy program, collaborative teaching and research could exist between the USF Doctor of Pharmacy program and the USF Department of Chemistry on the main campus of USF. Proposed collaborations for education and research include the following:
  - a. Medicinal Chemistry Professors- teaching, research in USF COP
  - b. CMD5- Center for Molecular Diversity in Drug Design, Discovery and Delivery- collaborative research for innovation and entrepreneurial endeavors.

5. **Department of Pharmacology-** We propose that modest numbers of pharmacology faculty would be added to the USF Doctor of Pharmacy program since there already exists an entire pharmacology unit within the USF Department of Molecular Pharmacology and Physiology. This will serve the purpose of adding to the existing pharmacology faculty without increasing their already high teaching workloads. Collaborative research projects would be an expectation for those professors jointly appointed to both educational units.

The recruitment of clinical pharmacy faculty will provide clinical services throughout various areas in both USF Health and the Tampa teaching hospitals and outpatient clinics. This will serve another important initiative of the College of Medicine by adding interdisciplinary models of providing health care. The increased number of faculty that the Doctor of Pharmacy program will provide will foster academic enrichment and scholarship throughout all of the colleges that currently exist within USF Health.

The proposed USF Doctor of Pharmacy program will begin the process of nurturing developing relations between USF Health and the undergraduate departments on the main campus of the University of South Florida. Since the USF Doctor of Pharmacy program will be a professional degree program, there will be no direct impact on the undergraduate degree programs; course load, scheduling, and overall FTE issues will be worked out. However, there exists potential for an increasing number of USF undergraduate students to possibly enroll in the pharmacy program because of the presence of the USF Doctor of Pharmacy program on campus. The health professions learning communities currently in position on the main campus of the University South Florida offer a well-trained applicant pool from which of the USF Doctor of Pharmacy program could draw applicants. And with the **Emerging Health Professions** endeavor currently in progress through collaborative efforts of USF Health and University of South Florida College of Arts and Sciences, there will be additional opportunities for USF students.

- C. **Provide a narrative of the planning process leading up to submission of this proposal. Include a chronology (table) of activities, listing both university personnel directly involved and external individuals who participated in planning. Provide a timetable of events necessary for the implementation of the proposed program.**

The planning process for this proposed Doctor of Pharmacy program began in May 2007. It was initiated by a series of meetings between Dr. Klasko, VP of USF Health, Dr. Haney, Associate Vice President of Development for USF Health, and Dr. Kevin Sneed, Assistant Dean and Clinical Director of the newly created Division of Clinical Pharmacy. Dr. John Curran, Associate Dean of Academic Affairs for USF Health, also played an integral role in the initial phases of the proposal. Since this is a new professional degree program, the creation of this proposal is the initial endeavor. Pursuant to recommendations from the Board of Governors of the state of Florida, we contacted an outside consultant to perform a workforce analysis of the need for pharmacists within the state of Florida.

This proposal was submitted to the USF Provost, the USF Graduate Education Council and the Health Affairs Management Council in January 2008. Following approval from the various councils, it was submitted to the USF Board of Trustees for approval (June, 2008). It was submitted for

consideration by the Board of Governors August 2008 for consideration by the Board of Governors during their December meeting.

In addition to approval by the Florida Board of Governors, it will then go before the Florida legislature for approval (as this is a program leading to professional licensure) during the 2009 legislative session. Once approved, the remainder of 2009 and year 2010 will be planning and implementation for the addition of faculty, renovation of buildings for didactic teaching and clinical teaching purposes. Admissions processes will begin in 2010, with the initial class entering in the fall of 2011.

### Planning Process

Date	Participants	Planning Activity
May 3, 2007	Dr. S. Klasko, Dr. Patricia Haynie	Initial Planning meeting
April 16, 2007	Dr. Klasko, Dr. Haynie, Dr. Sneed, Steve Blair, John Ekarius, Dr. Ralp Wilcox	Program planning
April 20, 2007	USF- Haynie, Klasko, Sneed, Wilcox Uoff- Mike Brodeur, CFO, Assoc. Dean Bill Millard, Executive Associate Dean Jennifer Williams, Assist. Dean, St. Petersburg Campus Bill Riffie, Dean, Pharmacy	Discussion of joint degree program, terms of agreement
April 23, 2007	Phone call – USF Participants: Drs. Haynie, Klasko, Sneed, Kathleen Moore, John Ekarius UF Participants – Laura Barton, Mike Brodeur, Bill Millard, Sven Normann, Bill Riffie, Jennifer Williams	Discussion of joint degree program, Term Sheet developed, agreed upon.
April 26, 2007	Phone call – USF Participants: Drs. Haynie, Klasko, Sneed, Kathleen Moore, John Ekarius UF Participants – Laura Barton, Mike Brodeur, Bill Millard, Sven Normann, Bill Riffie, Jennifer Williams	Developed Florida Board of Governors Letter of Intent; finalized document to be sent to FL BOG.
May 10, 2007	Dr Haynie, Dr. Sneed	Review FL BOG Letter of Intent,
May 24, 2007	Tallahassee Visit-Dr. R.E. LeMon: USF Participants: Drs. Haynie, Moore and Sneed; UF Participants: Bill Riffie; Jennifer Williams; Mike Brodeur; Sven Normann FL BOG- Dr. RE LeMon,	Joint PharmD Program discussed with FL BOG members, terms of agreement between USF and UF discussed; impact on other universities discussed, next course of action for both universities
June 13, 2007	Dr. Haynie and Dr. Sneed met with Dr. Jurgens (Pfizer, Inc)	Discussed implementation of industry curriculum components into an eventual USF COP

### Events Leading to Implementation

Date	Implementation Activity
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August 22, 2007	Negotiate with Consultant for Workforce analysis.
August 28, 2007	Roundtable meeting, USF Graduate Executive Curriculum Committee
December 2007	Recruitment of adjunct clinical pharmacy faculty to the newly created Division of Clinical Pharmacy from Tampa area hospitals.
January 17, 2008	External Consultants perform curriculum and program assessment for Graduate Education Council
January 23, 2008	Doctor of Pharmacy Proposal submitted to the USF Graduate Council
February 28, 2008	Meeting with USF Graduate Education Council
June 12, 2008	Approval by USF Board of Trustees
August 2008	Proposal submitted to Florida Board of Governors
November 2008	USF PharmD proposal voluntarily withdrawn by USF administration at Board of Governors meeting.
January 2009	USF PharmD proposal presented by USF administration seeking approval by the FL Board of Governors to continue program planning and begin pre-accreditation process.

## VII. Program Quality Indicators - Reviews and Accreditation

**Identify program reviews, accreditation visits, or internal reviews for any university degree programs related to the proposed program, especially any within the same academic unit. List all recommendations and summarize the institution's progress in implementing the recommendations.**

At this time, no full accreditation process has been initiated with respect to a Doctor of Pharmacy program at the University of South Florida. The organization responsible for accrediting all colleges of pharmacy in the United States is the Accreditation Council for Pharmacy Education (ACPE.) A distinct feature of the ACPE is the recognition that the professional program will be evaluated on the extent to which it accomplishes its stated goals and is consistent with the concept that pharmacy is a unique, personal service profession and the health science field. This notion promotes diversity among colleges of pharmacy across the country.

External reviewers, one from the newly created college of pharmacy at the University of Texas A&M –Kingsville, the other from the Ohio State University College of Pharmacy, were retained to perform an external review of the proposal to be submitted to the Graduate Education Council on January 17, 2008. An executive summary of this external review is provided (Appendix G).

The creation of a Doctor of Pharmacy degree program at USF Health will require approval by the USF Health Graduate Education Council, USF Board of Trustees, and the state Board of Governors prior to submission of an application to the ACPE Board of Governors. The proposed entering class that will begin in Fall 2011 will allow sufficient time to implement all pre-accreditation standards set forth by the ACPE Board of Directors. ACPE publishes their recommend timeline for program approval (see appendix H.)

## VIII. Curriculum

**A. Describe the specific expected student learning outcomes associated with the proposed program. If a bachelor' and in s degree program, include a web link to the Academic**

**Learning Compact or include the document itself as an appendix.**

The primary expected student learning outcomes associated with the proposed doctor of pharmacy program will be a curriculum which prepares the student for professional licensure with a Board of Pharmacy in the United States. Secondary learning outcomes will include preparing students to provide health-related services, both clinical and administrative, throughout numerous areas within the healthcare arena, especially as it pertains to public health initiatives. The curriculum will provide opportunities for students to learn and achieve ability-based outcomes in both didactic and experiential courses. Pharmacy education has created a set of standards for all accredited colleges and schools throughout the country. The Center for the Advancement of Pharmaceutical Education (CAPE) created the standard learning objectives for colleges and schools of pharmacy in the United States. These learning objectives have been adopted by all of the colleges and schools of pharmacy that have membership with the American Association of Colleges of Pharmacy (AACP) {See Appendix A- Educational Outcomes.} The CAPE Outcomes include a series of educational outcomes meant to assist and guide colleges of pharmacy in molding their respective programs, and have emerged as the prevailing learning outcomes for all pharmacy education. Students and educators utilize the CAPE Educational Outcomes for an objective example of what their education should provide, as well as obtain a sense of the current “role of a pharmacist.” The most recent revision of the CAPE Educational Outcomes has produced three sole educational outcomes: (1) Pharmaceutical Care; (2) Systems Management; and (3) Public Health. Definitions of each educational outcome as supplied by the AACP- CAPE guidelines are as follows:

1. **PHARMACEUTICAL CARE** Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an inter-professional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving pharmaceutical, biomedical, socio-behavioral, and clinical sciences that may impact therapeutic outcomes.
2. **SYSTEMS MANAGEMENT** Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.
3. **PUBLIC HEALTH** Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an inter-professional team of health care providers.

Upon completion of the pharmacy program, pharmacy graduates should be proficient in all three of these broad educational outcomes as a result of successfully completing the pharmacy curriculum.

**B. Describe the admission standards and graduation requirements for the program.**

The proposed admission standards for the USF Doctor of Pharmacy degree program will be very similar to other colleges and schools of pharmacy, both in the state of Florida and around the

country. Completion of all pre-professional coursework with a minimum pre-professional GPA of **3.0** will be required. For admission into pharmacy professional programs, a minimum of an Associate of Arts Degree, or higher degree, with all corresponding pre-professional coursework must typically be attained by the student. Each applicant must take the Pharmacy College Admission Test (PCAT), with a qualifying minimum score in the **65th** percentile. All applicants will be expected to submit their application to PharmCAS (a national centralized application service for colleges and schools of pharmacy), which will include their official transcripts and PCAT scores. Two or three letters of recommendation will be required, along with a personal profile and essay.

As previously mentioned, all pre-professional coursework will be required. An Associate of Arts degree or a higher degree will not necessarily be required for admission, but will allow the applicant the best opportunity to submit a competitive application. Pre-professional course work typically takes a minimum of two years at the undergraduate level. Trends in colleges of pharmacy point to requiring a possible third pre-professional year. Additionally, some AACP member schools propose that students seeking the professional pharmacy degree be required to possess the equivalent of a baccalaureate degree prior to admission. The final outcome of pre-professional course work will be decided by the administration of the new program once installed.

Pre-pharmacy course requirements include the following: Chemistry-the General Chemistry I and General Chemistry II with labs; Organic Chemistry- Organic Chemistry I and Organic Chemistry II with labs; Biological Sciences-Biology I and Biology II; Anatomy and Physiology I and II with labs; Physics I and II; Calculus I; English; and Speech or Communications.

Graduation requirements for the USF Doctor of Pharmacy degree program will be successful completion of all courses, within a designated period of time, to be determined by the founding Dean and administrative staff. Successful completion of all course work will include all clinical rotations, and all didactic course work with a "C" grade or higher. This is important since the degree leads to possible professional licensure with state Boards of Pharmacy.

- C. Describe the curricular framework for the proposed program, including number of credit hours and composition of required core courses, restricted electives, unrestricted electives, thesis requirements, and dissertation requirements. Identify the total numbers of semester credit hours for the degree.**

The Doctor of Pharmacy curricula throughout the accredited colleges and schools of pharmacy have begun to focus on a patient-centered learning model that represents the changing paradigm of pharmaceutical care throughout the country. Standard number 10 of the ACPE Standards and Guidelines states that the professional curriculum must be four years in length, or the equivalent credit hours and contact hours. The proposed length of the study for the Doctor of Pharmacy professional degree program at USF Health is four years. Each year will coincide with the academic year currently implemented by the University of South Florida, and divided by semesters. It is anticipated that the curriculum will have nine semesters, with 6 semesters comprised of 16-week course instruction, and three semesters of advanced pharmacy practice experiential training. The total number of course credits is anticipated to be approximately 140 – 145 hours. This may vary according to elective courses selected by the professional students.

While the doctor of pharmacy professional degree program offers a terminal degree at the doctoral level, there is no research-based dissertation requirement for the professional doctorate degree. However, it is anticipated that research requirements may be built into the curriculum.

The Doctor of Pharmacy professional degree program is anticipated to be divided into three distinct pedagogical segments. The first year will comprise basic science foundational instruction; this will include pharmaceutical sciences, principles of pharmacology, and human anatomy and physiology-related sciences. The next two years of the curriculum will focus on patient-centered learning, with more advanced pharmacology principles, and special emphasis on pharmacotherapeutics. These years represent the “clinician-building” phase for students. During the initial three years, the pedagogical approach will be one of a “**vertical-integration**” of learning in which all courses taught initially will be consistently integrated into subsequent courses. This approach will include integration of basic sciences, along with patient-centered learning, and utilizing principles of evidence-based medicine.

The fourth professional year will begin in the summer semester immediately following the sixth semester, and will initiate the advanced pharmacy practice experience for the students. This year will comprise 1440 hours of clinical instructional training at clinical sites throughout the Tampa Bay region. This total number of clinical instructional training hours represents **25%** of the curriculum, and is mandated by AACP for accreditation. Particular utilization of teaching hospitals throughout the region and the new Centers for Advanced Healthcare, campuses North and South, will be achieved.

Other required components of the curriculum will include courses in public health, pharmacy management, and other administrative and social sciences. Collaboration with the USF College of Public Health will assist with achieving these components.

**The mission of the Doctor of Pharmacy professional degree program:**

To create health care clinicians trained in the discipline of pharmacy that will provide health care services to meet the needs of the citizens of the Tampa Bay region, the state of Florida, and nationally. The curriculum will place emphasis in the areas of pharmaceutical care services, Pharmacogenomics/Pharmacogenetics, clinical research, public health, and geriatrics. The pharmacy teaching faculty of the Doctor of Pharmacy professional degree program will be involved in clinical care, collaborative clinical research, and creation of outstanding, innovative pedagogical techniques for student learners.

- D. Provide a sequenced course of study for all majors, concentrations, or areas of emphasis within the proposed program.**

**Proposed USF Doctor of Pharmacy  
Professional Degree Curriculum**

**PY1- Fall**

<b>Course</b>	<b>Class</b>	<b>Credit Hours</b>
	Pharmaceutics I	3



	Pathophysiology	4
	Clinical Biochemistry	3
	Pharmaceutical Skills I	3
	Pharmacy Calculations	2
	Drug Information/ Literature Evaluation	2
<b>Total</b>		<b>17</b>

### PY1- Spring

Course	Class	Credit Hours
	Pharmaceutics II	2
	Medical Microbiology and Immunology	3
	Introduction to Principles of Drug Action	4
	Principles of Public Health/ Pharmacoepidemiology	3
	Pharmaceutical Skills II	3
	IPPE	2
	Patient Assessment	1
<b>Total</b>		<b>18</b>

### PY2- Fall

Course	Class	Credit Hours
	Pharmacotherapeutics I	4
	Biopharmaceutics	3
	Pharmacokinetics/ Pharmacodynamics I	3
	Healthcare Administration & Economics	2
	Pharmaceutical Skills III	3
	IPPE	2
<b>Total</b>		<b>17</b>

### PY2- Spring

Course	Class	Credit Hours
	Pharmacotherapeutics II	4
	Pharmaceutical Skills IV	3
	Pharmacokinetics/ Pharmacodynamics II	3
	Principles in Geriatric Pharmacotherapy	2
	Evidence-Based Medicine/ Biostatistics	3
	IPPE	2
<b>Total</b>		<b>17</b>

### PY3- Fall

Course	Class	Credit Hours
	Pharmacotherapeutics III	4

	Pharmaceutical Skills V	4
	Research Methods	2
	Pharmacogenetics/ Pharmacogenomics	3
	Elective Course	3
	IPPE	2
<b>Total</b>		<b>18</b>

**PY3- Spring**

Course	Class	Credit Hours
	Pharmacotherapeutics IV	4
	Pharmaceutical Skills VI	4
	Jurisprudence	2
	Non-Prescription Medications	2
	Elective Course	3
	IPPE	2
<b>Total</b>		<b>17</b>

**PY4- Summer**

Course	Class	Credit Hours
	Clinical- APPE (COM, HOS, GER)	8
	Clinical Research/ Patient Assessment Forum	4
<b>Total</b>		<b>12</b>

**PY4- Fall**

Course	Class	Credit Hours
	Clinical- APPE (AMB, MED, ELE)	16
<b>Total</b>		<b>16</b>

**PY4- Spring**

Course	Class	Credit Hours
	Clinical- APPE (CC, AdvAmb, ELE)	16
	Board Review Capstone- Online	1
<b>Total</b>		<b>17</b>

E. Provide a one- or two-sentence description of each required or elective course.

**Year One (PY1)- Semester One**

**Pharmaceutics I and Laboratory - 4 credits**

Fundamental biological and physicochemical principles important for the formulation, preparation, stability, and performance of pharmaceutical dosage forms (compounding). A weekly laboratory session required

**Pharmacy Calculations - 2 credits**

Teaches mathematics encountered in the practice of pharmacy, focused on calculating proper dosages of medication for a patient. Topics include unit systems and conversions, the calculation of doses and other calculations involved in dispensing and compounding.

**Pathophysiology- 4 Credits**

An in-depth study of the disease processes that affect human anatomy and physiology function. Special emphasis on cell and molecular biology, inflammatory process, and Gross anatomy disease states. Discussed by organ systems.

**Pharmaceutical Skills I- 3 Credits**

Preliminary discussion of pharmaceutical care techniques, including the history of pharmacy, professional communication tactics, professional behavior, and cultural competency.

**Clinical Biochemistry- 3Credits**

Focus on the structure, chemistry and function of macromolecules and their building blocks, i.e., amino acids, carbohydrates, nucleotides and fatty acids. Major metabolic and catabolic pathways will be discussed in relation to drug action. Enzyme kinetics and regulation, and bioenergetics will be presented.

**Drug Information/Literature Evaluation- 2 Credits**

Teaches students the various databases used for drug information inquiries, and includes both text and web-based media. Students are instructed in the principles of evaluating drug literature.

**Year One (PY1)- Semester Two****Pharmaceutics II and Laboratory - 4 credits**

Emphasis on institutional pharmacy and sterile techniques (TPN, IV preparation, etc). The weekly laboratory session continues to complement classroom topics and to hone students' technical skills. A weekly laboratory session required.

**Medical Microbiology and Immunology – 3 credits**

Comprehensive study of the field of medical microbiology and the immune system. Includes review of infectious microbes and the clinical consequences of infection. Immunology focuses on the structure and function of the individual components of the immune system, and manipulation of immune system in medicine.

**Patient Assessment- 1 Credit.**

Teaches the student how to perform physical assessment of patients in a clinical setting. Includes blood pressures, medical device teaching, examination of skin structures, and assessment of internal organ function.

**Principles of Public Health/Pharmacoepidemiology- 3 Credits**

Introduction to epidemiological studies of patients, import cultural components of society, and the biostatistical analysis of epidemiologic studies.

**Pharmaceutical Skills II- 3 Credits**

Continued discussion of pharmaceutical care techniques, will emphasis upon subjects taught and pharmaceuticals, microbiology, and patient assessment.

**Introductory Pharmacy Practice Experience- 2 Credits**

Continuation of introductory experiences exposing pharmacy students to the principles of pharmaceutical care. Conducted in a clinical setting under the supervision of a licensed pharmacist.

**Introduction to Principles of Drug Action- 4 Credits**

Initial discussion of principle of pharmacology, and their application to anatomy and physiology function. Special emphasis on medication receptor recognition, introductory pharmacology, specific organ system, and variations of medications at receptor sites.

**Year Two (PY2)- Semester Three**

**BioPharmaceutics – 2 credits**

Involves the time course of medications in the body with reference to their absorption, distribution, metabolism, and elimination. Discussion concerning formulation factors involved in drug delivery and availability to comprehend the basic principles in the optimization of dosing regimens.

**Pharmacotherapeutics I- 4 Credits**

Applied principles of pharmacotherapy patient management of specified organ systems. Organ systems and covered include cardiology, nephrology, gastroenterology.

**Pharmacokinetics/Pharmacodynamics I- 3 Credits**

Combines basic science and clinical perspectives in the application of physiology, pharmaceuticals, mathematics, and clinical assessment to understand the movements of medications administered to individual patients. Basic formulas are examined and applied to enable the student to initiate, monitor and optimize drug regimens to achieve desired therapeutic outcomes.

**Healthcare Administration & Economics-2 Credits**

Discusses components of the entire health care system, including the administrative components, and the financial influences that are determinants of patient care. Includes principles of public administration, economic indicators, and public health principles.

**Pharmaceutical Skills II- 3 Credits**

This is a skills course designed to be complementary to Pharmacotherapeutics I, and Pharmacokinetics/Pharmacodynamics I. Special emphasis placed upon patient management, medication literature evaluation, and patient-centered application.

**Introductory Pharmacy Practice Experience- 2 Credits**

Continuation of introductory experiences exposing pharmacy students to the principles of pharmaceutical care. Conducted in a clinical setting under the supervision of a licensed pharmacist.

**Year Two (PY2)- Semester Four****Pharmacokinetics/Pharmacodynamics II- 3 Credits**

Continues principles taught in the Pharmacokinetics/ Pharmacodynamics I course. Special emphasis placed upon and in-patient medication management, and advanced monitoring techniques.

**Pharmacotherapeutics II- 4 Credits**

Applied principles of pharmacotherapy patient management of specified organ systems. Organ systems and covered include Pulmonary, neurology, and psychiatry.

**Pharmaceutical Skills IV- 3 Credits**

This is a skills course designed to be complementary to Pharmacotherapeutics II, and Pharmacokinetics/Pharmacodynamics II. Special emphasis placed upon patient management, medication literature evaluation, and patient-centered application.

**Introductory Pharmacy Practice Experience- 2 Credits**

Continuation of introductory experiences exposing pharmacy students to the principles of pharmaceutical care. Conducted in a clinical setting under the supervision of a licensed pharmacist.

**Principles in Geriatric Pharmacotherapy-2 Credits**

Introduces the student learner to specific geriatric pharmacotherapy issues, including medication administration issues, aging processes, and social issues of the elderly. Course content will include changing demographics in the country, and in particular the state of Florida.

**Evidence-Based Medicine/Biostatistics-3 credits**

Teaches advanced application in the evaluation of medical literature, and assesses appropriate statistical analysis of medical literature for translation into patient care. This is an introductory course into research methods

**Year Three (PY 3)- Semester Five****Pharmacotherapeutics III- 4 Credits**

Applied principles of pharmacotherapy patient management of specified organ systems. Organ systems and covered include hematology/ oncology, infectious diseases.

**Pharmaceutical Skills V- 3 Credits**

This is a skills course designed to be complementary to Pharmacotherapeutics III. Special emphasis placed upon patient management, medication literature evaluation, and patient-centered application.

**Research Methods-2 Credits**

students will be taught the basic components of initiating clinical research. Includes building a proposal, research ethics, requirement for federal funding agencies, and exercises resulting in the completion of a research proposal for evaluation and grading.

**Pharmacokinetics/Pharmacogenomics- 3 Credits**

Introductory experience to genetic determinants in response to drugs and other chemicals in humans and animals. Shall include instruction of the latest clinical research, and future applied applications of the discipline.

**Introductory Pharmacy Practice Experience- 2 Credits**

Continuation of introductory experiences exposing pharmacy students to the principles of pharmaceutical care. Conducted in a clinical setting under the supervision of a licensed pharmacist.

**Year Three (PY 3)- Semester Six**

**Pharmacotherapeutics IV- 4 Credits**

Applied principles of pharmacotherapy patient management of specified organ systems. Organ systems and covered endocrine, dermatology, and skeletal/muscle disorders.

**Pharmaceutical Skills VI- 3 Credits**

This is a skills course designed to be complementary to Pharmacotherapeutics IV. Special emphasis placed upon patient management, medication literature evaluation, and patient-centered application

**Jurisprudence- 2 Credits**

This course will provide a basis for practice and begin the student's preparation for licensing exams. The course will explore the details of both federal and state pharmacy law.

**Non-Prescription Medications- 2 Credits**

Provides opportunities for patient counseling, proper utilization, monitoring, and potential adverse reactions associated with over-the-counter medications. Particular emphasis on the geriatric population.

**Introductory Pharmacy Practice Experience- 2 Credits**

Continuation of introductory experiences exposing pharmacy students to the principles of pharmaceutical care. Conducted in a clinical setting under the supervision of a licensed pharmacist.

## **Year Four (Advanced Professional Practice Experiences- APPE)- Required Rotations**

### **Summer Semester**

#### **Community Care – 4 credits**

The required Community Care Pharmacy clerkship further develops the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a licensed pharmacist. The student experiences the various functions of a pharmacist in a community care pharmacy setting.

#### **Hospital / Institutional Care – 4 credits**

The required Hospital / Institution Pharmacy further develops the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a licensed pharmacist in a hospital / institutional pharmacy setting.

#### **Geriatric Care – 4 credits**

The required Geriatric Pharmacy clerkship is designed to further develop the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a preceptor in a geriatric clinical care setting. Utilization of regional consultant pharmacists shall be required; settings may include nursing homes, and assisted living facilities.

#### **Clinical Research/Patient Assessment Form- 2 Credits**

Students will complete clinical practices involve a patient assessment; the capstone course and clinical research will be conducted, including completed mock research proposal.

## **Year Four (Advanced Professional Practice Experiences- APPE)- Required Rotations**

### **Fall/ Spring Semesters**

#### **Ambulatory Care – 4 credits**

The required Ambulatory Care Pharmacy clerkship is designed to further develop the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a preceptor in an ambulatory pharmacy setting.

#### **General Medicine – 4 credits**

The required General Medicine clerkship further develops the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a preceptor in a general medicine pharmacy setting.

#### **Critical Care – 4 credits**

The required Ambulatory Care Pharmacy clerkship is designed to further develop the student's knowledge and understanding of pharmacy practice through providing direct patient care under the supervision of a preceptor in a critical care clinical setting. Utilization of area hospitals shall be required.

#### **Elective Rotations- TBA- 8 Hours**

- F. For degree programs in the science and technology disciplines, discuss how industry-driven competencies were identified and incorporated into the curriculum and identify if any

**industry advisory council exists to provide input for curriculum development and student assessment.**

USF Health currently partners with several pharmaceutical companies. Representatives from various pharmaceutical companies have come forward with a willingness to participate in the creation of the curricular design of a new Doctor of Pharmacy program at USF. While a formal industry advisory council does not currently exist to provide input into curricular development, key input from various individuals employed by a number a pharmaceutical companies, retail stores, and hospitals with work experience and intellectual input have been welcomed to provide dialogue concerning creation of the proposed curriculum. As curricular development continues, input from pharmaceutical industry representatives will continue to be a valued resource.

- G. For all programs, list the specialized accreditation agencies and learned societies that would be concerned with the proposed program. Will the university seek accreditation for the program if it is available? If not, why? Provide a brief timeline for seeking accreditation, if appropriate.**

The University of South Florida, and more specifically USF Health, will seek accreditation for the USF Doctor of Pharmacy program from the Accreditation Council for Pharmacy Education (ACPE).

The accreditation process is as follows:

- 1) Prepare initial application for submission to the ACPE.
- 2) Selection of a founding Dean for a new Doctor of Pharmacy program.
  - a. Responsible for completion of pre-accreditation status document.
  - b. The document includes financial data, program infrastructure, and other information.
- 3) *Pre-Accreditation Status*- with this status may be achieved by one of the two following statuses:

**Pre-candidate**- A new program that has no students enrolled but has a Dean may be granted Pre-candidate accreditation status. The granting of Pre-candidate status indicates that a College or School's planning for the Doctor of Pharmacy program has taken into account ACPE standards and guidelines and suggests reasonable assurances of moving to the next step, that of Candidate status. Granting of Pre-candidate status brings no rights or privileges of accreditation.

**Candidate**- A new program that has students enrolled but has not had a graduating class may be granted Candidate status. The granting of Candidate status denotes a developmental program, which is expected to mature in accord with stated plans and within a defined time period. Reasonable assurances are expected to be provided that the program may become accredited as programmatic experiences are gained, generally, by the time the first class has



graduated. Graduates of a class designated as having Candidate status have the same rights and privileges as graduates of an accredited program.

4) Accreditation by ACPE Board of Directors.

**H. For doctoral programs, list the accreditation agencies and learned societies that would be concerned with corresponding bachelor's or master's programs associated with the proposed program. Are the programs accredited? If not, why?**

The Accreditation Council for Pharmacy Education is the sole accrediting body for all colleges and schools of pharmacy in the country. All accredited colleges and schools of pharmacy seek admission to the AACP (the American Association of Colleges of Pharmacy), and become active members in the governance of colleges and schools of pharmacy across the country. All new colleges or schools of pharmacy will have the option of offering only the Doctor of Pharmacy degree, and therefore corresponding bachelor's and/or master's programs are not a major consideration with this degree program.

**I. Briefly describe the anticipated delivery system for the proposed program (e.g., traditional delivery on main campus; traditional delivery at branch campuses or centers; or nontraditional delivery such as distance or distributed learning, self-paced instruction, or external degree programs). If the proposed delivery system will require specialized services or greater than normal financial support, include projected costs in Table 2. Provide a narrative describing the feasibility of delivering the proposed program through collaboration with other universities, both public and private. Cite specific queries made of other institutions with respect to shared courses, distance/distributed learning technologies, and joint-use facilities for research or internships.**

The anticipated delivery system for the proposed program will be a combination of traditional and innovative technologies available at USF Health. Traditional classroom lecture by a professor or other qualified individual will be utilized for various subjects. Laboratory sciences will be conducted in person and appropriate lab space. It is proposed that all lectures will be videotaped and available for podcast to students in the professional degree program. It may be necessary to utilize faculty from locations outside of the College Pharmacy, most notably on the main campus of USF in other departments (i.e. Chemistry). If this were to be the case, webcasting of a professor may be utilized to facilitate lecturing to students in a classroom setting from his office across campus, and this could also be captured for playback on podcast or webcast. It has been noted in various teaching disciplines around the country that videotaped lectures available on the web are viewed multiple times throughout the semester by students. This method increases contact time between the instructor and the student learner without utilizing additional instructor teaching hours.

Initial discussions and inquiries have been made with other state universities with regard to teaching and instruction with available technologies. Most notably, the University of Florida has a pharmacy program and St. Petersburg on the campus of St. Petersburg College. There may be opportunities for joint teaching with this program, but at this time no plans have been initiated or finalized.

**IX. Faculty Participation**

- A. Use Table 4 to identify existing and anticipated ranked (not visiting or adjunct) faculty who will participate in the proposed program through Year 5. Include (a) faculty code associated with the source of funding for the position; (b) name; (c) highest degree held; (d) academic discipline or specialization; (e) contract status (tenure, tenure-earning, or multi-year annual [MYA]); (f) contract length in months; and (g) percent of annual effort that will be directed toward the proposed program (instruction, advising, supervising internships and practica, and supervising thesis or dissertation hours).

See Appendix E- Table 4

- B. Use Table 2 to display the costs and associated funding resources for existing and anticipated ranked faculty (as identified in Table 2). Costs for visiting and adjunct faculty should be included in the category of Other Personnel Services (OPS). Provide a narrative summarizing projected costs and funding sources.

It is currently expected that the initial faculty hires will be tenure-earning or tenured faculty. There is not currently an expectation that has cost associated with visiting or adjunct faculty. Initial reallocation of funds from university development and carry-forward funds will be used to support faculty salaries and benefits, as well as staff and OPS positions. Enrollment growth dollars and the expected professional tuition fee for students will comprise the remaining funding sources. In year three of enrollment, the car pro forma calls for class size to double to 100 students; this is necessary to meet the final cost of hiring the additional faculty needed to support the program. Further, this increase in enrollment will serve to begin the process of reimbursement for the initially reallocated funds.

- C. Provide the number of master's theses and/or doctoral dissertations directed, and the number and type of professional publications for each existing faculty member (do not include information for visiting or adjunct faculty).

This is a new degree program not yet in existence; N/A

Faculty Name	Theses	Dissertations	Professional Publications
Kevin B. Sneed			<ol style="list-style-type: none"> <li>1. <b>Atherosclerosis: Assessment of Biochemical Predictors and Corresponding Therapies.</b> George, A and Sneed KB – <i>US Pharmacist- Vol 30, No. 2, February 2005</i></li> <li>2. <b>Use and Utility of a Community Health Screening.</b> Young Y., Jones A, Sneed KB, - <i>Florida Pharmacy Today- Vol 67, No. 11, November 2004</i></li> <li>3. <b>Acute Congestive Heart Failure Induced by Rofecoxib.</b> Robert J. Campbell and</li> </ol>

			<p><b>Kevin Sneed</b>, - <i>Journal of the American Board of Family Practice- Vol. 17, No. 2, March 2004</i></p> <p>4. <b>Compliance with Recommendations for Lipid Management among Patients with Type 2 Diabetes in an Academic Family Practice.</b> Gavin Putzer, Richard Roetzheim, Arnold M. Ramirez, <b>Kevin Sneed</b>, H. J. Brownlee, Jr, and Robert J. Campbell. <i>Journal of the American Board of Family Practice- Vol. 17, No. 2, March 2004</i></p> <p>5. <b>Prevalence of Patients with Type 2 Diabetes Mellitus Reaching the American Diabetes Association's Target Guidelines in a University Primary Care Setting.</b> Gavin Putzer, Richard Roetzheim, Arnold M. Ramirez, <b>Kevin Sneed</b>, H. J. Brownlee, Jr, and Robert J. Campbell. <i>Southern Medical Journal- Vol. 97, No. 2, February 2004</i></p> <p>6. <b>The Research Follies. Sneed KB, Roetzheim RJ-</b> <i>Florida Pharmacy Today- Vol 66, No. 11, November 2003</i></p> <p>7. <b>Enfuvirtide: A Novel Agent for Inhibiting the Entry of HIV-1 into Immune Cells.</b> Eraikhuemen N, Branch III E, Boston N, Honeywell M, <b>Sneed KB</b> - <i>P&amp;T, Vol. 28 No. 9, September 2003.</i></p> <p>8. <b>Sneed, KB, and Gonzalez, E. Diabetes Mellitus Induced by Atypical Antipsychotics.</b> <i>Journal of the American Board of Family Practice, Vol. 16 No.3 May-June 2003.</i></p> <p>9. Herold A, <b>Sneed KB</b>, <b>Treatment of a Young Adult Taking Gamma Butyrolactone (GBL) in a Primary Care Clinic.</b> <i>The Journal of the American Board of Family Practice- Vol. 15 No. 2 Mar-Apr 2002.</i></p> <p>10. <b>Assessment of the Pharmacist's Knowledge Concerning Herbal Products.</b> Scrivens J, Clayton R D, Braun W, Branch E, <b>Sneed K B</b> <i>Florida Journal of Health Systems Pharmacy, 18 (4), April 2001.</i></p>
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			<p>11. <b>How Prepared are Pharmacists for Counseling Asthma Patients.</b>  Houng H, Ho V, Luong T, <b>Sneed K</b>, Scrivens J  <i>Florida Journal of Health Systems Pharmacy, 18 (2), August 2000.</i></p> <p><b>Text Book:</b></p> <p>1. <b>A to Z Quick Pocket Guide: Complementary and Alternative Therapies for Primary Care Practitioners.</b>  Fanning JJ, Haber S, published May 2002  (<a href="http://www.gnahec.org/Products.asp">http://www.gnahec.org/Products.asp</a>)  Handbook- ISBN# 0-9712143-0-1  Sneed KB- Editorial Board, Consultant</p> <p><b>Manuscripts Accepted: (Peer-reviewed)</b></p> <p>1. <b>MRSA Nasal Colonization in Professional Football Athletes.</b> Coris, E, et al., <u>Sneed, KB</u>- Accepted by Clinical Journal of Sports Medicine, April 2007.</p> <p><b>Abstracts/ Poster Presentation (Peer-reviewed- Published/ Accepted)</b></p> <p>1. <b>An Evaluation of the Utility of PBMC PCR Testing for Chlamydia in Subjects with Suspected Chronic Chlamydia-Induced Reactive Arthritis</b> Carter JD, Espinoza LR, Inman RD, <u>Sneed K</u>, Ricca L, Valeriano J, Vasey FB, Oszust C, Snelgrove J, Hudson AP; American College of Rheumatology Scientific Meeting, Boston, MA November 2007</p> <p>2. <b>Synovial Tissue PCR Analysis for Chlamydia in Subjects with Suspected Chronic Chlamydia-Induced Reactive Arthritis: An Evaluation of Predictive Factors.</b> Carter JD, Espinoza LR, Inman RD, <u>Sneed K</u>, Ricca L, Valeriano J, Vasey FB, Oszust C, Snelgrove J, Gerard H, Hudson AP; American College of Rheumatology Scientific Meeting, Boston, MA November 2007</p> <p>3. <b>Screening of Men for Osteoporosis in a Primary Care Setting.</b> Zwygart K, Roetzheim R, <u>Sneed KB</u>, Kotun D,</p>
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			<p>Gonzalez E North American Primary Care Research Group (NAPCRG) 2007 Annual Meeting Vancouver, British Columbia, October 2007 (Poster presentation-accepted)</p> <p>4. <b>Screening of Men for Osteoporosis in a Primary Care Setting.</b> Zwygart K, Roetzheim R, <u>Sneed KB</u>, Kotun D, Gonzalez E Florida Academy of Family Physicians Annual Meeting, Family Medicine Research Poster Presentation-Florida Academy of Family Physicians Destin, FL November 11, 2006 (Poster presentation)</p> <p><b><u>Presentation of Papers/Major Speeches:</u></b></p> <p>1. Zwygart K, Roetzheim R, <u>Sneed K</u>, Kotun D, Gonzalez EC. Screening of men for osteoporosis in a primary care setting. American Academy of Family Physicians Scientific Assembly 2007. Chicago, Illinois. October 3 – 6, 2007. (accepted)</p>
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**D. Provide evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service. Such evidence may include trends over time for average course load, FTE productivity, student HC in major or service courses, degrees granted, external funding attracted, as well as qualitative indicators of excellence.**

This is a new degree program not yet in existence; N/A

**X. Non-Faculty Resources**

**A. Describe library resources currently available to implement and/or sustain the proposed program through Year 5. Provide the total number of volumes and serials available in this discipline and related fields. List major journals that are available to the university's students. Include a signed statement from the Library Director that this subsection and subsection B have been reviewed and approved for all doctoral level proposals.**

The USF Tampa Campus and Health Sciences Center libraries have extensive holdings of books that support the pharmacy professional education. See Appendix F for list of holdings that accompanies original proposal. Additional copies available on request. The Shimberg Library resources include 23,501 books, subscriptions to 2,710 journals of which 65 specifically pertain to Pharmacy. Addendum with detail attached.

**B. Describe additional library resources that are needed to implement and/or sustain the program through Year 5. Include projected costs of additional library resources in Table 3.**

Minimal additional resources are expected to be needed. Current available health sciences resources should be very accommodating for a pharmacy curriculum. There may be a total of less than 10 additional journals, pharmacy-discipline specific, that may be needed. Some additional texts may be needed as well, however this is expected to be negligible as well. Cost projections for recurring additional journal subscriptions and databases fees resources are estimated to be \$20,000 annually with an additional \$ 3,000 to \$ 5,000 for texts and reference materials. Founded in 1971, the University of South Florida Shimberg Health Sciences Library serves the students, faculty and staff of the Colleges of Medicine, Nursing, Public Health and School of Physical Therapy. In addition, the library strives to serve affiliated clinical health professionals, health care consumers, and residents of the State of Florida seeking health related information. The library's mission is to support Health Science Center educational and research activities by facilitating access to information and teaching lifelong learning skills. The Shimberg Library strives for superior quality in all services and programs.

The collection of materials includes 150,709 bound volumes, 23,501 book titles, 2710 journal subscriptions of which 65 pertain to Pharmacy, 315 curriculum-related software and interactive multimedia, and over 400 health related databases of which 47 include pharmacy resources. Currently 85% of journal subscriptions are received in electronic format. New products are reviewed and purchased as funds permit to support new technologies such as PDA devices.

As a result of agreements and consortial arrangements with the USF Libraries System, The State University Library System (SULS), the Consortia of Southern Biomedical Libraries (CONBLS) and the Southern Chapter of the Medical Library Association, students and faculty have access to resources such as Science Direct, Web of Knowledge, thousands of multi-disciplinary e-journals, e-books and electronic thesis. USF Health students and faculty have borrowing privileges and full access to all online resources owned by the 5 libraries in the USF Library System. In addition, holders of USF library cards have borrowing privileges at all 11 state university libraries in Florida.

Library hours are Monday - Friday: 7:30 AM -11PM, Saturday 10AM-11PM, Sunday Noon-11PM. Extended hours are always provided during exam periods and whenever students request additional hours in support of special projects. The library is open and staffed 358 days a year.

The Shimberg Health Science Library Home Page [www.hsc.usf.edu/library](http://www.hsc.usf.edu/library) is the preferred point of entry for off campus students and faculty for 24/7 access to all electronic resources. Instructions for remote access and an F AQ section are on the library web page.

Other library services available online for remote users include online book renewals, interlibrary loan requests and online book hold requests. With the electronic document delivery service all interlibrary loan articles and photocopies can be sent to an email address or delivered as a URL for web based pick up.

**See Appendix F for Signature Page** \_\_\_\_\_  
Library Director Date

**C. Describe classroom, teaching laboratory, research laboratory, office, and other types of space that are necessary and currently available to implement the proposed program through Year 5.**

Presently, there is not a designated location that could house a USF Doctor of Pharmacy program. However, there are several proposed locations that will be very sufficient in housing the USF pharmacy program. There currently exists space within the College of Medicine and the College of Nursing that may provide acceptable classroom space for the pharmacy program. The space will be sufficient for the first three years of the program; as shown in table 1, the first two classes will comprise approximately 50 students in each class, with a third class increased to approximately 75 students. As the inaugural class enters the fourth year for clinical rotations, it would be expected that the fourth entering class will be approximately 100 students. There is laboratory space that could be used for laboratory teaching of pharmacy professional students. Between these two locations, educational space would be distributed in the following into categories: administrative, faculty offices, large and small classrooms, student resource rooms, and the student lounge.

This location will be sufficient for pharmacy professional students as they enter the inaugural class. With the USF Centers for Advanced Healthcare-South campus, and with adjacent office space, pharmacy students will have a full cadre of clinical teaching locations at their disposal. With sufficient access to retail and in-patient pharmacies, this will allow for compliance with introductory pharmacy practice experiences (IPPE) in USF owned and affiliate locations. Pharmacy faculty assigned to provide clinical care at the Centers for Advanced Health Care-North campus and at Tampa General Hospital will have easy access to their clinical teaching sites under this proposal.

With the updated ACPE curricular standards, and with paradigm shifts that have occurred within pharmacy curricular education throughout the country, there is less demand on bench research space for research teaching within the pharmacy curriculum. There currently exist sufficient laboratory teaching areas for pharmacy professional students of the future. The clinical laboratory teaching space currently available on the main campus of the medical school, and with laboratory space available on the Tampa campus, either location will prove to be very sufficient for the needs of laboratory teaching of pharmacy professional students.

The nearby professional office space will provide sufficient space for administrative and faculty members. The building is currently wired for utilization of online services, which will connect faculty with the main medical campus. Further, online teaching services will be available within the office space. For didactic teaching, large and small classrooms will be available, and student resource rooms and student lounges, could also be made available.

The office space located in nearby professional buildings/ medical office complex meets all requirements of ADA for accessibility and the provision of bathroom facilities for the expanded number of faculty, staff, and students proposed with the implementation of the pharmacy program.

It should be clearly stated that this is currently only a proposal for potential space; other physical facilities may be made available, and space allocation would ultimately be decided by the Vice President of USF Health.



- D. Describe additional classroom, teaching laboratory, research laboratory, office, and other space needed to implement and/or maintain the proposed program through Year 5. Include any projected Instruction and Research (I&R) costs of additional space in Table 2. Do not include costs for new construction because that information should be provided in response to X (J) below.**

Beginning in year three of the pharmacy curriculum, the entering class would increase to approximately 100 students. It is proposed at this time that there will possibly be available space on the main medical campus. To accommodate the increased number of pharmacy students, the administration may seek to have the pharmacy faculty and pharmacy students join the health profession students at the main medical campus, located in north Tampa. The currently available teaching laboratories and research laboratories will be sufficient to house the increased number of students. As various clinical disciplines continue to vacate currently available clinical space on the main medical campus, and relocate themselves into the Centers for Advanced Health Care-North campus, additional space will be available to house pharmacy professional students. This has been proposed to current space and project managers of USF Health.

Scheduling of pharmacy students with current teaching laboratories will be necessary for this to be accomplished. Current space could be easily renovated to accommodate pharmacy teaching laboratories, complete with compounding labs, clinical skills, labs, patient interaction teaching space. The current teaching clinical skills lab will easily accommodate pharmacy professional students with their patient counseling activities.

- E. Describe specialized equipment that is currently available to implement the proposed program through Year 5. Focus primarily on instructional and research requirements.**

The current clinical skills laboratory located within USF Health/USF College of Nursing offer state-of-the-art clinical activities teaching laboratory space for professional students. With patient assessment clinical space, and with currently available bench lab space located at the medical school, the only expected limitation for use of these facilities would be scheduling to accommodate all professional students currently using these locations. Currently available specialized equipment the implement the proposed program through year five will accommodate pharmacy professional students.

- F. Describe additional specialized equipment that will be needed to implement and/or sustain the proposed program through Year 5. Include projected costs of additional equipment in Table 2.**

A model pharmacy clinical skills lab could be constructed to further advance the teaching discipline of pharmacy on the Main campus. A model pharmacy would allow pharmacy professional students to enhance needed clinical skills in a retail and an in-patient pharmacy setting. The specialized equipment necessary will include scales, computers with appropriate pharmacy software, and a mock laminar flow hood. Much of the equipment would be expected to be donated from area hospitals; minimal transformation would be needed to achieve this clinical skills lab. There are plans to conduct some of the clinical skills labs in virtual classrooms. At this time projected costs are not available.

**G. Describe any additional special categories of resources needed to implement the program through Year 5 (access to proprietary research facilities, specialized services, extended travel, etc.). Include projected costs of special resources in Table 2.**

Many of the faculty that will be needed to implement a pharmacy program would be expected to be very young clinicians. Travel to pharmacy association meetings, such as the American Association of Colleges of Pharmacy (AACCP) annual meeting, will benefit these professors by exposing them to the industry and academic developments and trends in pharmacy-related education.

Resources to provide teaching seminars to the young faculty will also benefit pharmacy faculty. Academicians should be supported in their quest to become better teachers. The USF Health Office of Curricular Medical Education currently offers trained educators that teach the medical school faculty on methods to improve teaching. Similar resources could be used to facilitate teaching seminars for the new Doctor of Pharmacy program faculty.

Additional research equipment will be needed and associated with the recruitment of faculty. Specific equipment items cannot be identified at this time, but the College of Medicine and USF have previously worked with other colleges to accommodate the needs of newly recruited faculty. These details are a focus of the search, interview, and appointment process. It is expected that a \$5,000 to \$10,000 equipment budget will be needed for the recruitment of each new Doctor of Pharmacy program faculty member, to relocate and establish their plan for scholarship at USF. This has been identified in the attached program financial proforma as OCO expenditure.

**H. Describe fellowships, scholarships, and graduate assistantships to be allocated to the proposed program through Year 5. Include the projected costs in Table 2.**

The addition of fellowships, scholarships, and graduate assistants to the proposed program will likely be contingent upon grants and contracts awarded to the faculty. This will be defined by the pharmacy administration and the faculty once established.

**I. Describe currently available sites for internship and practicum experiences, if appropriate to the program. Describe plans to seek additional sites in Years 1 through 5.**

See Appendix D

Clinical training sites are very important for accreditation purposes for a doctor of pharmacy program. Many of the clinical training sites currently used by the medical school would also be very adequate for use for experiential training of pharmacy students. Not all the clinical training sites currently available for the medical students would be appropriate for use by the pharmacy students; following program approval, experiential director would be hired to secure additional training sites as necessary to meet the needs of the program beginning in the third professional year of the current proposed pharmacy curriculum.

**J. If a new capital expenditure for instructional or research space is required, indicate where this item appears on the university's fixed capital outlay priority list. Table 2 includes only**

**Instruction and Research (I&R) costs. If non-I&R costs, such as indirect costs affecting libraries and student services, are expected to increase as a result of the program, describe and estimate those expenses in narrative form below. It is expected that high enrollment programs in particular would necessitate increased costs in non-I&R activities.**

As previously stated, the USF pharmacy program will utilize current instructional and laboratory space. A privately-funded building (estimated at approximately \$60 million) will be added to the USF Facility Enhancement Challenge Grant Program ( FECGP) for year 2015-2016.

TABLE 1-B  
PROJECTED HEADCOUNT FROM POTENTIAL SOURCES  
(Graduate Degree Program)

Source of Students (Non-duplicated headcount in any given year)*	Year 1		Year 2		Year 3		Year 4		Year 5	
	HC	FTE	HC	FTE	HC	FTE	HC	FTE	HC	FTE
Individuals drawn from agencies/industries in your service area (e.g., older returning students)	5	5	10	10	30	30	50	50	50	50
Students who transfer from other graduate programs within the university**	5	5	15	15	20	20	25	25	30	30
Individuals who have recently graduated from preceding degree programs at this university	20	20	55	55	90	90	125	125	145	145
Individuals who graduated from preceding degree programs at other Florida public universities	10	10	25	25	45	45	65	65	75	75
Individuals who graduated from preceding degree programs at non-public Florida institutions	0	0	0	0	0	0	0	0	0	0
Additional in-state residents***	10	10	20	20	35	35	50	50	60	60
Additional out-of-state residents***	0	0	0	0	5	5	10	10	15	15
Additional foreign residents***	0	0	0	0	0	0	0	0	0	0
Other (Explain)***	0	0	0	0	0	0	0	0	0	0
<b>Totals</b>	<b>50</b>	<b>50</b>	<b>125</b>	<b>125</b>	<b>225</b>	<b>225</b>	<b>325</b>	<b>325</b>	<b>375</b>	<b>375</b>

- \* List projected yearly cumulative ENROLLMENTS instead of admissions
- \*\* If numbers appear in this category, they should go DOWN in later years.
- \*\*\* Do not include individuals counted in any PRIOR category in a given COLUMN.

USF PharmD Business Plan  
FBOG Table 2P  
Summary Costs for Proposed Doctor of Pharmacy

FINANCIAL SUMMARY (Constant 2008 Dollars)	Existing Resources	Planning	Planning	Planning	Classes								
		Year 2008-09	Year 2009-10	Year 2010-11	begin Year 2011-12	Year 2 2012-13	Year 3 2013-14	Year 4 2014-15	Year 5 2015-16	Year 6 2016-17	Year 7 2017-18	Year 8 2018-19	
<b>I &amp; R EXPENSES</b>			\$551,800	\$1,265,234	\$1,997,582	\$3,736,481	\$4,891,776	\$5,185,934	\$5,272,257	\$5,685,424	\$6,110,984	\$6,548,322	
Faculty Salary and Benefits			\$0	\$97,500	\$100,425	\$103,438	\$197,542	\$203,467	\$209,572	\$215,859	\$222,335	\$229,004	
A&P Salary and Benefits			\$0	\$123,500	\$188,205	\$246,692	\$448,092	\$513,535	\$528,940	\$544,809	\$561,153	\$577,988	
USPS Salary and Benefits			\$0	\$0	\$31,320	\$62,640	\$93,960	\$125,280	\$656,660	\$756,650	\$806,660	\$806,660	
Other Personnel Services		\$25,000	\$95,938	\$304,158	\$412,316	\$499,700	\$584,576	\$1,815,504	\$1,697,259	\$1,725,357	\$1,740,957	\$1,757,028	
Expenses		\$0	\$4,500	\$19,500	\$31,500	\$60,000	\$76,500	\$78,795	\$81,157	\$83,591	\$86,100	\$88,885	
Operating Capital Outlay								\$40,000	\$48,750	\$55,000	\$55,000	\$55,000	
Electronic Data Processing								\$290,000	\$367,500	\$430,000	\$430,000	\$430,000	
Library resources and staff													
Social Categories													
<b>Total I&amp;R Expenses:</b>		\$25,000	\$652,238	\$1,309,892	\$2,739,358	\$4,808,951	\$6,082,445	\$6,052,515	\$6,862,095	\$9,498,899	\$10,013,189	\$10,493,687	
<b>START-UP INVESTMENTS</b>				\$87,500	\$75,000	\$50,000	\$500,000	\$1,000,000	\$1,000,000	\$500,000			
I&R Labs					\$150,000								
Distance Learning Equipment													
Investment 3													
<b>Total Start-up Investments:</b>		\$0	\$0	\$87,500	\$225,000	\$50,000	\$0	\$500,000	\$1,000,000	\$1,000,000	\$500,000	\$0	
<b>FACILITIES INVESTMENTS</b>													
School of Pharmacy													
Building 2													
Other													
<b>Total Facilities Investments:</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
<b>Gross Pharmacy School Funds Required</b>		\$25,000	\$652,238	\$1,897,392	\$2,064,358	\$4,858,951	\$6,052,445	\$8,532,515	\$9,862,095	\$10,498,899	\$10,513,189	\$10,493,687	
<b>RECEIPTS</b>					\$755,000	\$2,076,250	\$4,110,750	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000	\$7,308,000	
Tuition	\$1,000,000		\$652,238	\$347,762	\$300,000	\$500,000							
Community donors				\$500,000	\$500,000								
Industry donations													
Contract and Grant (NET)													
Other	\$25,000	\$25,000		\$475,000									
<b>Total Receipts:</b>	\$1,025,000	\$25,000	\$652,238	\$1,322,762	\$1,555,000	\$2,076,250	\$4,110,750	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000	\$7,308,000	
<b>Net Pharmacy School Funds Required</b>		\$0	\$0	\$574,630	\$1,409,358	\$2,782,701	\$1,981,695	\$2,814,765	\$3,010,845	\$3,188,899	\$3,205,189	\$3,185,687	
<b>STATE APPROPRIATIONS</b>													
Recurring					\$400,000	\$1,000,000	\$1,800,000	\$2,600,000	\$3,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
Headcount G.R. Appropriation					\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	
Per Headcount Appropriation													
Non-Recurring				\$574,630	\$1,009,358	\$1,782,701							
G.R. Special Appropriation													
PECO													
State Match - Contributions													
<b>FEDERAL APPROPRIATIONS*</b>								\$2,250,000	\$2,250,000	\$2,250,000	\$2,250,000	\$2,250,000	
Faculty Hiring Schedule													
Basic Science Faculty				3.00	4.00	2.00							
Clinical Science Faculty				2.00	2.00	11.00	8.00	1.00		2.00	2.00	2.00	
Other			3.00	1.00	1.00	2.00			0.00	2.00	2.00	2.00	
<b>Total I&amp;R Faculty:</b>	0.00	0.00	3.00	6.00	7.00	15.00	8.00	1.00	0.00	2.00	2.00	2.00	
<b>Cumulative I&amp;R Faculty:</b>			3.00	9.00	16.00	31.00	39.00	40.00	40.00	42.00	44.00	46.00	
Students		0	0	0	50	125	225	325	375	400	400	400	
Tuition % Increase					\$15,100	\$18,610/10%	\$18,270/16%	\$18,270/0%	\$18,270/0%	\$18,270/0%	\$18,270/0%	\$18,270/0%	

USF PharmD Business Plan  
FBOG Table 2P  
Summary Costs for Proposed Doctor of Pharmacy

**I&R Expenses:**

Faculty Salary and Benefits includes all faculty costs and represents the basic costs needed for the start-up of a newly accredited Pharmacy program which is self-sustainable.

Staff Salary and Benefits includes all expected costs needed to fully support a newly accredited Pharmacy program at a self-sustainable level.

OPS includes expected salaries for temporary staff, students, Graduate Assistants, and affiliated faculty.

Expenses include expected Academic and Administrative costs for general operations of a fully accredited Pharmacy program, including ongoing electronic and technological support specific to the program and faculty start-up packages.

OCO includes expected ongoing Academic and Administrative costs for equipment needs that are specific to the program.

**Start-up Investments:**

I&R Labs - estimated equipment cost for 25 Instructional labs @ \$2,500 each and 15 Research labs @ \$10k each; expansion in 2014-15 reflects increased research.

Distance Learning - estimated equipment costs for implementing the distance learning component of the program in order to reach a wider student base.

**Facilities Investments:**

The development plan for the Pharmacy program calls for a campaign goal of \$29.7M to be matched by the Facility Enhancement Challenge Grant Program (FECGP) for the planning, construction, and equipment costs of a new facility to house the program. Expectation that facilities planning will begin 2015-16. In the interim, existing space will be allocated to the program until the new facility is ready.

**Gross Pharmacy School Funds Required:**

This is the minimum amount needed to fund the costs for start-up and continual operations of the Pharmacy program at a financially sustainable level.

**Receipts:**

Tuition is based on a professional fee model using a 10% annual increase which results in a tuition rate of \$15,100 for the entering 2011-12 class. The rate of tuition increase will be re-evaluated for 2014-15 (the 4th year of program admissions).

Community Donations: \$1M of existing resources is pledged by USF to partially fund the costs in Planning years 1 - 3 of the program. An additional \$0.3M is being sought to support the new USF School of Pharmacy.

Industry Donations: \$1M is being sought from local industry leaders who have expressed interest in supporting and partnering with the new USF School of Pharmacy.

Other: \$0.5M is pledged by USF Health to partially fund the costs in Planning years 1 - 3 of the program.

**State Appropriations:**

Recurring headcount appropriations were calculated using the level at which current funding formula model is typically funded, are cumulative, and include the indirect support costs needs for the Pharmacy program.

**Federal Appropriations:**

Federal Contract and Grant funds generated by Basic Science Faculty (\$.25M/yr).

**Students:**

Maximum program enrollment of 400 is attained by Year 6 of the program (2016-17).

**TABLE 4  
ANTICIPATED FACULTY PARTICIPATION**

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
A	Name, PharmD Pharmacy	Professor Dean	Tenure	Fall 2009	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
A	Name, PhD Pharmacology	Professor Pharmacologist	Ten-Earn	Fall 2009	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
A	Name, PhD Medicinal Chemistry	Professor Medicinal Chemist	Tenure	Fall 2009	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmacy	Professor Assoc. Dean	Tenure	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PharmD Pharmacy	Professor Assoc. Dean	Tenure	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmacy	Professor Assist. Dean	Ten-Earn	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmacology	Assoc. Professor Pharmacologist	Ten-Earn	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmacology	Asst. Professor Pharmacologist	Ten-Earn	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Biochemistry	Assoc. Professor Biochemist	Ten-Earn	Fall 2010	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmaceutics	Assoc. Professor Pharmaceutics	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Pharmaceutics	Asst. Professor Pharmaceutics	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PhD Anatomy/ Physiology	Asst. Professor Physiologist	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, MPH Public Health	Asst. Professor Public Health	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, MPH Academic Discipline	Asst. Professor Public Health	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, MS/ PhD Academic Discipline	Asst. Professor Biostatistician	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PharmD Pharmacy	Assoc. Professor Medicine	Ten-Earn	Fall 2011	12	1.00	100.00%	1.00	12	1.00	100.00%	1.00
B	New Hire, PharmD Pharmacy	Asst. Professor Medicine	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
B	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00

Worksheet Table 4 Faculty

**TABLE 4  
ANTICIPATED FACULTY PARTICIPATION**

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
B	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
B	New Hire, PharmD Pharmacy	Asst. Professor Medicine	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Medicine	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Geriatrics	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Geriatrics	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Geriatrics	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Critical Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Critical Care	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Assoc. Professor Infectious Disease	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Assoc. Professor Pediatrics	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PhD Pharmacogenetics	Asst. Professor Genomicist	Ten-Earn	Fall 2012					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Medicine	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Medicine	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Geriatrics	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Geriatrics	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00

Worksheet Table 4 Faculty



**TABLE 4  
ANTICIPATED FACULTY PARTICIPATION**

Faculty Code	Faculty Name or "New Hire" Highest Degree Held Academic Discipline or Speciality	Rank	Contract Status	Initial Date for Participation in Program	Mos. Contract Year 1	FTE Year 1	% Effort for Prg. Year 1	PY Year 1	Mos. Contract Year 5	FTE Year 5	% Effort for Prg. Year 5	PY Year 5
C	New Hire, PharmD Pharmacy	Asst. Professor Critical Care	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Critical Care	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Assoc. Professor Heme-One	Ten-Earn	Fall 2013					12	1.00	100.00%	1.00
C	New Hire, PharmD Pharmacy	Asst. Professor Ambulatory Care	Ten-Earn	Fall 2014					12	1.00	100.00%	1.00
<b>Total Person-Years (PY)</b>								<b>16.00</b>				<b>40.00</b>

Faculty Code	Source of Funding	PY Workload by Budget Classification	
		Year 1	Year 5
A	Existing faculty on a regular line	9.00	40.00
B	New faculty to be hired on a vacant line	0.00	0.00
C	New faculty to be hired on a new line	7.00	0.00
D	Existing faculty hired on contracts/grants	0.00	0.00
E	New faculty to be hired on contracts/grants	0.00	0.00
<b>Overall Totals for</b>		<b>Year 1 16.00</b>	<b>Year 5 40.00</b>

Worksheet Table 4 Faculty

## **Appendix A**

### **American Association of Colleges of Pharmacy (AACCP) Tables**



Profile of Pharmacy Students  
Fall 2005

TABLE 53: SUMMARY OF ENROLLMENTS IN FIRST PROFESSIONAL DEGREE (BACCALAUREATE, PHARM.D.1) PROGRAMS BY RACE/ETHNICITY 1984 TO 2005

Year	Black or African American <sup>a</sup>		Hispanic or Latino <sup>a</sup>		Asian or Native Hawaiian or Other Pacific Islander <sup>a</sup>		American Indian or Alaska Native <sup>a</sup>	
	N	% Change from Previous Year	N	% Change from Previous Year	N	% Change from Previous Year	N	% Change from Previous Year
1984 <sup>b</sup>	1098	7.8%	763	-3.0%	1086	17.8%	37	-11.9%
1985	1664	NA	927	NA	1410	NA	42	NA
1986	1647	-1.0%	1018	9.8%	1740	23.4%	39	-7.1%
1987	1729	5.0%	1055	3.6%	2000	14.9%	45	15.4%
1988	1891	9.4%	1089	3.2%	2362	18.1%	78	73.3%
1989	1983	4.9%	1096	0.6%	2706	14.6%	81	3.8%
1990	2103	6.1%	1118	2.0%	3346	23.7%	85	4.9%
1991	2395	13.9%	1055	-5.6%	3540	5.8%	98	15.3%
1992	2340	-2.3%	1088	3.1%	4135	16.8%	96	-2.0%
1993	2380	1.7%	1143	5.1%	4731	14.4%	128	33.3%
1994	2582	8.5%	1171	2.4%	5408	14.3%	128	0.0%
1995	2548	-1.3%	1150	-1.8%	5695	5.3%	151	18.0%
1996	2529	-0.7%	1140	-0.9%	6152	8.0%	147	-2.6%
1997	2632	4.1%	1130	-0.9%	6451	4.9%	150	2.0%
1998	2757	4.7%	1157	2.4%	6741	4.5%	160	6.7%
1999	2697	-2.2%	1086	-6.1%	6414	-4.9%	156	-2.5%
2000	3132	16.1%	1255	15.6%	7392	15.2%	137	-12.2%
2001	3407	8.8%	1322	5.3%	7405	0.2%	179	30.7%
2002	3826	12.3%	1466	10.9%	8263	11.6%	168	-5.1%
2003	4183	9.3%	1605	9.5%	8991	8.8%	191	13.7%
2004 <sup>c</sup>	3784	---	1691	---	9103	---	210	---
2005 <sup>d</sup>	3703	-2.1%	1778	5.1%	9690	6.1%	234	11.4

<sup>a</sup> U.S. citizen or permanent resident

<sup>b</sup> Totals for 1980 - 1984 are for enrollments in final three years of program only

<sup>c</sup> Not able to calculate percent change due to change in how data is reported by select institutions

<sup>d</sup> Totals for 2005 include Pharm.D.1 enrollments only

TABLE 54: SUMMARY OF ENROLLMENTS IN FIRST PROFESSIONAL DEGREE (BACCALAUREATE, PHARM.D.1) PROGRAMS BY GENDER 1984 TO 2005

Year	Male			Female			Total Enrollment	
	N	% of Total	% Change from Previous Year	N	% of Total	% Change from Previous Year	N	% Change from Previous Year
1984	10345	44.4%	-5.8%	12967	55.6%	7.1%	23312	1.0%
1985	10685	43.0%	3.3%	14135	57.0%	9.0%	24820	6.5%
1986	10628	41.4%	-0.5%	15015	58.6%	6.2%	25643	3.3%
1987	10907	40.0%	2.6%	16385	60.0%	9.1%	27292	6.4%
1988	11382	39.4%	4.4%	17509	60.6%	6.9%	28891	5.9%
1989	11350	38.4%	-0.3%	18210	61.6%	4.0%	29560	2.3%
1990	11198	37.6%	-1.3%	18599	62.4%	2.1%	29797	0.8%
1991	11219	37.0%	0.2%	19095	63.0%	2.7%	30314	1.7%
1992	11543	36.6%	2.9%	19976	63.4%	4.6%	31519	4.0%
1993	12117	36.8%	5.0%	20821	63.2%	4.2%	32938	4.5%
1994	12243	36.7%	1.0%	21110	63.3%	1.4%	33353	1.3%
1995	12221	36.6%	-0.2%	21194	63.4%	0.4%	33415	0.2%
1996	11966	36.2%	-2.1%	21093	63.8%	-0.5%	33059	-1.1%
1997	11652	35.8%	-2.6%	20877	64.2%	-1.0%	32529	-1.6%
1998	11777	35.6%	1.1%	21313	64.4%	2.1%	33090	1.7%
1999	11411	35.1%	-3.1%	21126	64.9%	-0.9%	32537	-1.7%
2000	11763	34.1%	3.1%	22718	65.9%	7.5%	34481	6.0%
2001	12253	34.1%	4.2%	23632	65.9%	4.0%	35885	4.1%
2002	12815	33.0%	4.6%	26087	67.0%	9.1%	38902	8.4%
2003	14264	33.1%	11.3%	28783	66.9%	10.3%	43047	10.7%
2004 <sup>a</sup>	14696	33.5%	---	29212	66.5%	---	43908	---
2005 <sup>b</sup>	16069	34.5%	9.3%	30458	65.5%	4.3%	46527	6.0%

<sup>a</sup> Not able to calculate percent change due to change in how data is reported by select institutions

<sup>b</sup> Totals for 2005 include Pharm.D.1 enrollments only

TABLE 1: TOTAL NUMBER OF APPLICATIONS<sup>a</sup> TO FIRST PROFESSIONAL DEGREE PROGRAMS 2003-04 AND 2004-05

College	Sept '03 - Aug '04			Sept '04- Aug '05			Change '03-'04 to '04-'05		
	M	F	Tot <sup>b</sup>	M	F	Tot <sup>b</sup>	M	F	Tot
Auburn (1)	263	443	714	261	351	620	-0.76%	-20.77%	-13.17%
Samford (1)	493	878	1387	369	684	1067	-25.15%	-22.10%	-23.07%
Midwestern-Glendale (1)	511	752	1288	613	848	1500	19.96%	12.77%	16.46%
Arizona	132	233	365	179	302	481	35.61%	29.61%	31.78%
Arkansas	75	160	235	77	158	235	2.67%	-1.25%	0.00%
Loma Linda	115	213	327	98	189	287	-14.78%	-11.27%	-12.23%
Touro	NA	NA	NA	143	429	572	NA	NA	NA
California-San Diego (1)	331	681	1043	310	713	1059	-6.34%	4.70%	1.53%
California-San Francisco (1)	362	810	1214	369	865	1272	1.93%	6.79%	4.78%
Pacific (2)	655	1279	1934	718	1172	1890	9.62%	-8.37%	-2.28%
Southern California (2)	426	860	1317	412	866	1278	-3.29%	0.70%	-2.96%
Western (1)	341	691	1054	393	842	1272	15.25%	21.85%	20.68%
Colorado (1)	312	575	902	400	697	1130	28.21%	21.22%	25.28%
Connecticut (1)	271	380	651	173	294	475	-36.16%	-22.63%	-27.04%
Howard (1)	290	535	841	378	618	1016	30.34%	15.51%	20.81%
Florida A&M	NR	NR	NR	NR	NR	NR	NA	NA	NA
Nova Southeastern (1)	492	826	1347	584	1018	1643	18.70%	23.24%	21.97%
Palm Beach Atlantic (2)	525	841	1393	561	881	1473	6.86%	4.76%	5.74%
Florida (1)	660	1138	1834	705	1104	1855	6.82%	-2.99%	1.15%



TABLE 2: DISTRIBUTION OF 2004-05 APPLICATIONS BY GENDER AND RACE/ETHNICITY OF APPLICANT (represents data, some incomplete, submitted by 91 schools)

Race/Ethnicity	Male	Female	Gender Not Specified	Total	Percent
White <sup>a</sup>	12955	19084	744	32783	41.4%
Black or African American <sup>a</sup>	1997	3139	308	5444	6.9%
Hispanic or Latino <sup>a</sup>	1149	1890	56	3095	3.9%
Asian, Native Hawaiian or Other Pacific Islander <sup>a</sup>	8085	14299	627	23011	29.1%
American Indian <sup>a</sup>	105	177	7	289	0.4%
Other <sup>a,b</sup>	3710	6360	759	10829	13.7%
Foreign <sup>c</sup>	1391	1996	297	3684	4.7%
Total	29392	46945	2798	79135	

<sup>a</sup> U.S. citizen or permanent resident

<sup>b</sup> Includes students for whom ethnic origin is unknown

<sup>c</sup> Nonpermanent resident/citizen of a country other than the U.S.

TABLE 3: DISTRIBUTION OF 2004-05 APPLICATIONS BY GENDER AND STATE OF RESIDENCY OF APPLICANT (represents data, some incomplete, submitted by 89 schools)

Residency	Male	Female	Gender Not Specified	Total	Percent
In-State Resident	13121	22178	1342	36641	47.5%
Out-of-State Resident	15275	23357	1930	40562	52.5%

TABLE 4: DISTRIBUTION OF 2004-05 APPLICATIONS BY GENDER AND PREVIOUS POSTSECONDARY EXPERIENCE OF APPLICANT (represents data, some incomplete, submitted by 84 schools)

Postsecondary Experience	Male	Female	Gender Not Specified	Total	Percent
0 Years of College	4115	6114	21	10250	14.6%
1-2 Years of College/No Degree	3055	4962	305	8322	11.8%
Associate Degree	918	1451	18	2387	3.4%
3 or More Years of College/No Degree	6409	10415	113	16937	24.0%
Baccalaureate Degree	11217	18660	687	30564	43.4%
Master's Degree	689	854	41	1584	2.2%
Doctoral Degree	146	239	8	393	0.6%



## PREFACE

### 2004 CAPE Educational Outcomes *Supplements*

The 2004 CAPE Educational Outcomes delineated terminal ability outcomes for pharmacy graduates in terms of three practice functions:

- Pharmaceutical Care
- Systems Management
- Public Health
- 

General and professional abilities were integrated within this structure to demonstrate that general abilities should be taught and assessed within various professional contexts at multiple points of the curriculum. In previous versions of the CAPE Outcomes, general abilities (thinking, communication, valuing and ethical decision making, social and contextual awareness, social responsibility, social interaction, self learning) were listed separately at the end of the document.

The 2004 CAPE Outcomes were intended to guide curriculum development and assessment and to assist students in making connections between their learning experiences and the practice of pharmacy. Recognizing this, the American Council of Pharmaceutical Education (ACPE) incorporated the 2004 CAPE Outcomes into the 2007 Accreditation Standards and Guidelines.

Compared to the 1998 and 1994 CAPE Outcomes, the 2004 Outcomes were abbreviated to more clearly demonstrate to pharmacy constituents and the public what a pharmacist is able to do during professional practice upon graduation. Detailed enabling outcomes were largely omitted from the document. The development of enabling or developmental outcomes that are discipline- and course-specific may facilitate better understanding of the relationship between all curricular coursework and the terminal outcomes. It is important to demonstrate that achievement of abilities requires more than delivery of content; an ability is composed of knowledge, skills, and attitudes/values/habits. All components of the ability must be taught, practiced, and assessed if the ability is to be achieved.

These *Supplements* were created to provide pharmacy faculty with suggested discipline-specific language that clearly describes the knowledge, skills, and attitudes/values/habits that students should develop to achieve the terminal practice outcomes. The *Supplements* are intended to serve as an additional resource for faculty in developing and assessing assess curricula, courses, and learning experiences directed toward achieving the 2004 CAPE Educational Outcomes. The *Supplements* themselves are not meant to provide teaching strategies or to serve as an assessment tool but to provide a resource with which to develop teaching strategies and assessment instruments. The *Supplements* attempt to clarify outcomes; faculty, curriculum committees, and assessment committees can use the *Supplements* to create practice opportunities, criteria, and assessment tools to ensure that the outcomes are achieved.

George E. MacKinnon III, Ph.D., R.Ph.  
Vice President of Academic Affairs  
December 2006

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AMERICAN ASSOCIATION  
OF COLLEGES OF PHARMACY

Center for the Advancement of Pharmaceutical Education

## Educational Outcomes 2004

AACP, the national organization representing and supporting colleges and schools of pharmacy and their faculties, is committed to education and scholarship for improving drug therapy.

## **Educational Outcomes**

1. **PHARMACEUTICAL CARE** Provide pharmaceutical care in cooperation with patients, prescribers, and other members of an interprofessional health care team based upon sound therapeutic principles and evidence-based data, taking into account relevant legal, ethical, social, economic, and professional issues, emerging technologies, and evolving pharmaceutical, biomedical, sociobehavioral, and clinical sciences that may impact therapeutic outcomes.
  - a. Provide patient-centered care.
    - i. Design, implement, monitor, evaluate, and adjust pharmaceutical care plans that are patient-specific and evidence-based.
    - ii. Communicate and collaborate with prescribers, patients, care givers, and other involved health care providers to engender a team approach to patient care.
    - iii. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, their families, and other involved health care providers.
    - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
    - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact patient-specific therapeutic outcomes.
  - b. Provide population-based care.
    - i. Develop and implement population-specific, evidence-based disease management programs and protocols based upon analysis of epidemiologic and pharmaco-economic data, medication use criteria, medication use review, and risk reduction strategies.
    - ii. Communicate and collaborate with prescribers, population members, care givers, and other involved health care providers to engender a team approach to patient care.
    - iii. Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to other health care providers and to the public.
    - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
    - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact population-based, therapeutic outcomes.
2. **SYSTEMS MANAGEMENT** Manage and use resources of the health care system, in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel, to promote health; to provide, assess, and coordinate safe, accurate, and time-sensitive medication distribution; and to improve therapeutic outcomes of medication use.



- a. Manage human, physical, medical, informational, and technological resources.
  - i. Apply relevant legal, ethical, social, economic, and professional principles/issues to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of patient care.
  - ii. Communicate and collaborate with patients, prescribers, other health care providers, and administrative and supportive personnel to engender a team approach to assure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in the provision of patient care.
  - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
  - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact management of human, physical, medical, informational, and technological resources in the provision of patient care.
- b. Manage medication use systems.
  - i. Apply patient- and population-specific data, quality assurance strategies, and research processes to assure that medication use systems minimize drug misadventuring and optimize patient outcomes.
  - ii. Apply patient- and population-specific data, quality assurance strategies, and research processes to develop drug use and health policy, and to design pharmacy benefits.
  - iii. Communicate and collaborate with prescribers, patients, caregivers, other involved health care providers and administrative and supportive personnel to identify and resolve medication use problems.
  - iv. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
  - v. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may impact medication use systems, to develop use and health policy, and to design pharmacy benefits.

3. **PUBLIC HEALTH** Promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers.

- a. Assure the availability of effective, quality health and disease prevention services.
  - i. Apply population-specific data, quality assurance strategies, and research processes to develop identify and resolve public health problems.
  - ii. Communicate and collaborate with prescribers, policy makers, members of the community and other involved health care providers and

- administrative and supportive personnel to identify and resolve public health problems.
  - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
  - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may affect the efficacy or quality of disease prevention services to amend existing or develop additional services.
- b. Develop public health policy.
- i. Apply population-specific data, quality assurance strategies, and research processes to develop public health policy.
  - ii. Communicate and collaborate with prescribers, policy makers, members of the community and other involved health care providers and administrative and supportive personnel to develop public policy.
  - iii. Carry out duties in accordance with legal, ethical, social, economic, and professional guidelines.
  - iv. Maintain professional competence by identifying and analyzing emerging issues, products, and services that may affect public health policy, to amend existing or develop additional policies.

## Appendix B Population Data

**Table 3: Interim Projections: Ranking of States by Projected Percent of Population Age 65 and Older: 2000, 2010, and 2030**

2000 State	2000 Percent	2000 Rank	2010 State	2010 Percent	2010 Rank	2030 State	2030 Percent	2030 Rank
<b>United States</b>	12.4	(x)	<b>United States</b>	13.0	(x)	<b>United States</b>	19.7	(x)
Florida	17.6	1	Florida	17.8	1	Florida	27.1	1
Pennsylvania	15.6	2	West Virginia	16.0	2	Maine	26.5	2
West Virginia	15.3	3	Maine	15.6	3	Wyoming	26.5	3
Iowa	14.9	4	Pennsylvania	15.5	4	New Mexico	26.4	4
North Dakota	14.7	5	North Dakota	15.3	5	Montana	25.8	5
Rhode Island	14.5	6	Montana	15.0	6	North Dakota	25.1	6
Maine	14.4	7	Iowa	14.9	7	West Virginia	24.8	7
South Dakota	14.3	8	South Dakota	14.6	8	Vermont	24.4	8
Arkansas	14.0	9	Connecticut	14.4	9	Delaware	23.5	9
Connecticut	13.8	10	Arkansas	14.3	10	South Dakota	23.1	10
Nebraska	13.6	11	Vermont	14.3	11	Pennsylvania	22.6	11
Massachusetts	13.5	12	Hawaii	14.3	12	Iowa	22.4	12
Missouri	13.5	13	Delaware	14.1	13	Hawaii	22.3	13
Montana	13.4	14	Alabama	14.1	14	Arizona	22.1	14
Ohio	13.3	15	Rhode Island	14.1	15	South Carolina	22.0	15
Hawaii	13.3	16	New Mexico	14.1	16	Connecticut	21.5	16
Kansas	13.3	17	Wyoming	14.0	17	New Hampshire	21.4	17
New Jersey	13.2	18	Arizona	13.9	18	Rhode Island	21.4	18
Oklahoma	13.2	19	Missouri	13.9	19	Wisconsin	21.3	19
Wisconsin	13.1	20	Oklahoma	13.8	20	Alabama	21.3	20

Interim Projections of the Total Population for the United States and States: April 1, 2000 to July 1, 2030							
Geographic Area	Census April 1, 2000	Projections July 1, 2005	Projections July 1, 2010	Projections July 1, 2015	Projections July 1, 2020	Projections July 1, 2025	Projections July 1, 2030
<b>United States</b>	<b>281,421,906</b>	<b>295,507,134</b>	<b>308,935,581</b>	<b>322,365,787</b>	<b>335,804,546</b>	<b>349,439,199</b>	<b>363,584,435</b>
Alabama	4,447,100	4,527,166	4,596,330	4,663,111	4,728,915	4,800,092	4,874,243
Alaska	626,932	661,110	694,109	732,544	774,421	820,881	867,674
Arizona	5,130,632	5,868,004	6,637,381	7,495,238	8,456,448	9,531,537	10,712,397
Arkansas	2,673,400	2,777,007	2,875,039	2,968,913	3,060,219	3,151,005	3,240,208
California	33,871,648	36,038,959	38,067,134	40,123,232	42,206,743	44,305,177	46,444,861
Colorado	4,301,261	4,617,962	4,831,554	5,049,493	5,278,867	5,522,803	5,792,357
Connecticut	3,405,565	3,503,185	3,577,490	3,635,414	3,675,650	3,691,016	3,688,630
Delaware	783,600	836,687	884,342	927,400	963,209	990,694	1,012,658
District of Columbia	572,059	551,136	529,785	506,323	480,540	455,108	433,414
Florida	15,982,378	17,509,827	19,251,691	21,204,132	23,406,525	25,912,458	28,685,769
Georgia	8,186,453	8,925,796	9,589,080	10,230,578	10,843,753	11,438,622	12,017,838
Hawaii	1,211,537	1,276,552	1,340,674	1,385,952	1,412,373	1,438,720	1,466,046
Idaho	1,293,953	1,407,060	1,517,291	1,630,045	1,741,333	1,852,627	1,969,624
Illinois	12,419,293	12,699,336	12,916,894	13,097,218	13,236,720	13,340,507	13,432,892
Indiana	6,080,485	6,249,617	6,392,139	6,517,631	6,627,008	6,721,322	6,810,108
Iowa	2,926,324	2,973,700	3,009,907	3,026,380	3,020,496	2,993,222	2,955,172
Kansas	2,688,418	2,751,509	2,805,470	2,852,690	2,890,566	2,919,002	2,940,084
Kentucky	4,041,769	4,163,360	4,265,117	4,351,188	4,424,431	4,489,662	4,554,998
Louisiana	4,468,976	4,534,310	4,612,679	4,673,721	4,719,160	4,762,398	4,802,633
Maine	1,274,923	1,318,557	1,357,134	1,388,878	1,408,665	1,414,402	1,411,097
Maryland	5,296,486	5,600,563	5,904,970	6,208,392	6,497,626	6,762,732	7,022,251
Massachusetts	6,349,097	6,518,868	6,649,441	6,758,560	6,855,546	6,938,636	7,012,009
Michigan	9,938,444	10,207,421	10,428,683	10,599,122	10,695,993	10,713,730	10,694,172
Minnesota	4,919,479	5,174,743	5,420,636	5,668,211	5,900,769	6,108,787	6,306,130
Mississippi	2,844,658	2,915,696	2,971,412	3,014,409	3,044,812	3,069,420	3,092,410
Missouri	5,595,211	5,765,166	5,922,078	6,069,556	6,199,882	6,315,366	6,430,173
Montana	902,195	933,005	968,598	999,489	1,022,735	1,037,387	1,044,898
Nebraska	1,711,263	1,744,370	1,768,997	1,788,508	1,802,678	1,812,787	1,820,247
Nevada	1,998,257	2,352,086	2,690,531	3,058,190	3,452,283	3,863,298	4,282,102
New Hampshire	1,235,786	1,314,821	1,385,560	1,456,679	1,524,751	1,586,348	1,646,471
New Jersey	8,414,350	8,745,279	9,018,231	9,255,769	9,461,635	9,636,644	9,802,440
New Mexico	1,819,046	1,902,057	1,980,225	2,041,539	2,084,341	2,106,584	2,099,708
New York	18,976,457	19,258,082	19,443,672	19,546,699	19,576,920	19,540,179	19,477,429
North Carolina	8,049,313	8,702,410	9,345,823	10,010,770	10,709,289	11,449,153	12,227,739
North Dakota	642,200	635,468	636,623	635,133	630,112	620,777	606,566
Ohio	11,353,140	11,477,557	11,576,181	11,635,446	11,644,058	11,605,738	11,550,528
Oklahoma	3,450,654	3,521,379	3,591,516	3,661,694	3,735,690	3,820,994	3,913,251
Oregon	3,421,399	3,596,083	3,790,996	4,012,924	4,260,393	4,536,418	4,833,918
Pennsylvania	12,281,054	12,426,603	12,584,487	12,710,938	12,787,354	12,801,945	12,768,184
Rhode Island	1,048,319	1,086,575	1,116,652	1,139,543	1,154,230	1,157,855	1,152,941
South Carolina	4,012,012	4,239,310	4,446,704	4,642,137	4,822,577	4,989,550	5,148,569
South Dakota	754,844	771,803	786,399	796,954	801,939	801,845	800,462
Tennessee	5,689,283	5,965,317	6,230,852	6,502,017	6,780,670	7,073,125	7,380,634
Texas	20,851,820	22,775,044	24,648,888	26,585,801	28,634,896	30,865,134	33,317,744
Utah	2,233,169	2,417,998	2,595,013	2,783,040	2,990,094	3,225,680	3,485,367
Vermont	608,827	630,979	652,512	673,169	690,686	703,288	711,867
Virginia	7,078,515	7,552,581	8,010,245	8,466,964	8,917,395	9,364,304	9,825,019
Washington	5,894,121	6,204,632	6,541,963	6,950,610	7,432,136	7,996,400	8,624,801
West Virginia	1,808,344	1,818,887	1,829,141	1,822,758	1,801,112	1,766,435	1,719,959
Wisconsin	5,363,675	5,554,343	5,727,426	5,882,760	6,004,954	6,088,374	6,150,764
Wyoming	493,782	507,268	519,886	528,005	530,948	529,031	522,979

**Suggested Citation:**

Table A1: Interim Projections of the Total Population for the United States and States: April 1, 2000 to July 1, 2030

Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005.

Internet Release Date: April 21, 2005

## **Appendix C**

### **Pharmacist Workforce Data**



UNIVERSITY OF SOUTH FLORIDA

AN ASSESSMENT OF **Pharmacist**  
**Workforce Needs**

IN THE GREATER FLORIDA AREA



# AN ASSESSMENT OF Pharmacist Workforce Needs IN THE GREATER FLORIDA AREA

## National Trends

Pharmacy, with more than 230,000 practitioners today, is the third-largest health profession in the United States after nurses (2.4 million) and physicians (830,000).

## Projected Shortages and Causes

Research on the national pharmacist workforce points to a continuing shortage of pharmacists, related to the continuing growth in medication use, the aging of the baby boomers, and the emergence of more clinical activities within pharmacies. A 2002 needs analysis projected that there will be a shortage of 157,000 pharmacists by 2020. Surveys that track shortage levels showed that there was a slow downward trend in the severity of shortages up until fall 2005, followed by higher shortage levels during 2006 and a return to lower levels during the last year. Changes in shortage levels appear to parallel the growth rate of prescription medications.

A recent study increased estimates of the current and future pharmacist supply. The higher estimates were based on three trends: older pharmacists remaining in the workforce longer albeit on a part-time basis; an educational expansion involving both the founding of new schools and the expansion of existing programs; and slightly higher estimates of international pharmacy graduates. By contrast, the increasing percentage of pharmacists who are female creates a downward trend in effective supply since female pharmacists work part-time more frequently.

## Expanding Career Options for Pharmacists

Increasing numbers of pharmacists are working in nontraditional positions. For example, career options have emerged with medication-use programs within managed care organizations and health plans; Medicare's adoption of a prescription drug benefit; Medicaid programs' prescription-drug benefit; and any healthcare provision that includes a formulary for medications and outcomes analysis for medication use.

Within traditional pharmacy practice, clinical activities have expanded with the universal adoption of the Doctor of Pharmacy (PharmD) degree as the entry-level educational requirement for pharmacy practice. The growth of postgraduate pharmacy residencies has also had an effect. The PharmD degree includes additional biomedical and clinical training that enables pharmacists to assume more clinical and management responsibilities. Younger pharmacists are trained in providing educational and monitoring services for chronic diseases, administering immunizations, and offering medication management services for Medicare patients.

In institutions, pharmacists are being added to transplant units, critical-care units, emergency departments, oncology services, and other areas where intensive medication therapy management is enhanced by pharmacy expertise. To fill these roles, pharmacists require advanced training, which is generally acquired through formal postgraduate professional education in pharmacy residencies. The number of accredited pharmacy residencies nationally has expanded from about 1,000 annually 10 years ago to over 1,500 annually; and specialized residencies (a second year with a focus in a specific area such as critical care) have increased concomitantly. The Board of Pharmaceutical Specialties (BPS) offers certification examinations in five practice areas, and board-certified pharmacists are increasing in each of these areas: pharmacotherapy (3,191), oncology (557), nutrition (348), psychiatric pharmacy (463), and nuclear pharmacy (495).

## Multiple Factors Driving Workforce Demand

### GROWING PART-TIME AND FEMALE WORKFORCE

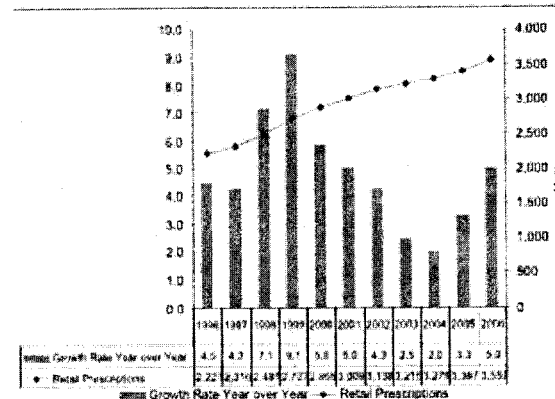
The Bureau of Health Professions' pharmacist supply model estimates that 3,911 pharmacists will retire in 2007. This number will gradually increase to 4,562 in 2020. Recent studies have shown that since 2000, pharmacists are remaining in the workforce longer, and more are working part-time. Retiring pharmacists are predominantly males; this is significant because male pharmacists have traditionally worked more than female pharmacists.

The increasing female pharmacist workforce is an important supply issue because women pharmacists have consistently worked fewer hours than their male counterparts, in order to care for their families. Recent surveys show women pharmacists working 0.81 FTE on average, compared to male pharmacists at 0.91 FTE. The current pharmacy student population is about two-thirds female. In supply modeling it is estimated that the part-time participation will reduce the "headcount" workforce by about 15 percent.

### RECENT INCREASES IN PRESCRIPTION VOLUME

The demand for pharmacists is closely tied to the number of retail prescriptions. Prescription volume continues to grow each year, but the growth rate has varied greatly in the last 10 years, as shown in the table below. The growth rate hit its highest level in 1999 and fell steadily to about 2 percent in 2004. Growth increased again in 2005 and 2006.

FIGURE 1. ANNUAL GROWTH AND GROWTH RATE OF RETAIL PRESCRIPTIONS: 1996-2006.



Source: Knapp and Caltice, *New pharmacist supply projections: Lower separation rates and increased graduates boost supply estimates.* J Amer Pharm Assoc. 2007;47:463-70.

## BEYOND PRESCRIPTIONS: THE GROWING ROLE OF THE PHARMACIST

When we think of the traditional pharmacist, dispensing medication is the first thing that comes to mind. Pharmacists now help manage medication therapy, work related to Medicare Part D. Many immunization programs are now administered through community pharmacies. Pharmacists are also active in chronic disease medication-management programs and elsewhere, as noted above.

Florida will be particularly challenged to meet baby boomer health demands—especially medication use management because the elderly consume prescription medications disproportionately.



#### AGING BABY BOOMERS

Counterbalancing the increased supply of pharmacists is the aging baby boomer generation, which will increase the demand for pharmacy services. For example, people under 65 annually consume 10.1 prescriptions on average, while those 65 years and over consume 23.5 prescriptions on average. The oldest baby boomers have not yet reached 65 years, where medication consumption increases significantly.

#### FILLING THE GAPS: THE PHARMACY TECHNICIAN

There are approximately 277,600 certified pharmacy technicians in the United States. These allied health workers play an important role in increasing productivity in pharmacies. A 2004 state-level study showed that technicians generally complement pharmacists rather than substitute for them; that is, there are more technicians where there are more pharmacists.

#### GROWTH OF THE BIOTECH INDUSTRIES

The number of pharmacists working in drug development is relatively small. Pharmacists sometimes play roles in clinical trials, but not often. The principal relationship between the biotech industry and the pharmacist workforce is that pharmacists are clinically involved in the use of expensive and potentially dangerous biotech drugs in hospitals and elsewhere. Oral dosage forms of biotech drugs, such as oral oncology medications and transplant maintenance medications, are now readily available. The biotech industry acknowledges the significant role that community pharmacies and pharmacists play in helping patients use these medications effectively.

#### TECHNOLOGY'S EFFECTS ON PHARMACY DEMAND

Pharmacists play a significant role in medication error reduction. New technologies, for example, electronic prescription generation and transmission, increase pharmacist productivity and reduce medication errors. Generally, where technology is introduced on a large scale, for example, in the Veterans Affairs system and in Kaiser Permanente, pharmacists have been re-deployed to clinical roles in chronic disease clinics where their activities have been shown to be cost effective.

### Expansion of Pharmacy Educational Programs

In the last decade, new pharmacy programs, expansion of existing programs and development of distance-learning campuses have increased the number of pharmacy seats across the nation. The Accreditation Council for Pharmacy Education reports that the expansion of existing programs is generating even more new pharmacists than new schools and colleges are.

### Do Things Look Better or Worse in Florida?

#### DEMAND FOR PHARMACISTS IN FLORIDA

Florida is located in the South Atlantic Division of the Southern Region. The table below presents Aggregate Demand Index (ADI) data for the South Atlantic states and compares these data to national averages. The ADI is a monthly, national survey of the unmet demand for pharmacists ([www.pharmacymanpower.com](http://www.pharmacymanpower.com)). The survey is conducted by having panelists, selected by their direct involvement in hiring pharmacists, submit monthly ratings for each state where they hire pharmacists, based on this five-point scale:

5 = High demand; difficult to fill open positions.

4 = Moderate demand; some difficulty filling open positions.

3 = Demand in balance with supply.

2 = Demand is less than the pharmacist supply available.

1 = Demand is much less than the pharmacist supply available.

Ratings are aggregated, and a population-weighted average is determined for the month; they are also available at the regional, divisional, and state levels.

### Demand Levels for Pharmacists in South Atlantic States

REGION	POPULATION 2006	ADI JUNE 2007
United States	299,398,484	4.13
<b>South Region</b>	<b>109,083,752</b>	<b>4.22</b>
South Atlantic Division	57,143,670	4.21
<b>Delaware</b>	<b>853,476</b>	<b>3.80</b>
District of Columbia	581,530	3.71
<b>Florida</b>	<b>18,089,888</b>	<b>4.43</b>
Georgia	9,363,941	3.88
<b>Maryland</b>	<b>5,615,727</b>	<b>4.00</b>
North Carolina	8,856,505	4.57
<b>South Carolina</b>	<b>4,321,249</b>	<b>4.14</b>
Virginia	7,642,884	4.00
<b>West Virginia</b>	<b>1,818,470</b>	<b>3.89</b>

Source: U.S. Census Bureau. 2006 Population Estimates

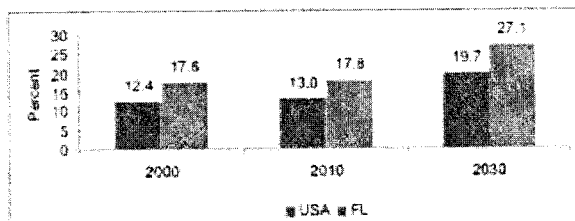
The ADI data show that the South generally, the South Atlantic Region and the state of Florida have demand levels higher than national averages. In the South Atlantic states, Florida has the second highest unmet demand for pharmacists behind North Carolina. In June 2007, Florida ranked fifth nationally in the unmet demand for pharmacists.

#### AGING BABY BOOMERS POSE A SPECIAL CHALLENGE FOR FLORIDA

Census Bureau projections rank Florida as the highest-ranking state for the percentage of residents 65 years and older in each of the years 2000, 2010 and 2030. The percentage of elderly residents will continue to climb over the period. By 2030, 27.1% of Florida's population will be 65 years or older while across the U.S., the percentage is only 19.7%. Given the higher utilization of all health services by the elderly, Florida will be particularly challenged to meet baby boomer health demands—especially medication use management because the elderly consume prescription medications disproportionately.



## Percentage of Population 65 years or older, U.S. and Florida: 2000, 2010 and 2030



Source: U.S. Census Bureau, Population Division, *Interim State Population Projections, 2005*.

### FLORIDA'S EDUCATIONAL PROGRAMS ARE PRODUCING MORE PHARMACISTS

Florida has four pharmacy schools granting the Doctor of Pharmacy (PharmD) degree: Florida A&M and University of Florida, both publicly supported institutions, and Nova Southeastern and Palm Beach Atlantic, which are private institutions. Data from the American Association of Colleges of Pharmacy show that in 2006, University of Florida had the greatest number of PharmD graduates

(371), followed by Nova Southeastern (231), Florida A&M (116) and Palm Beach Atlantic (54).

The table below shows that 9,555 pharmacists earned PharmD degrees in 2006. Of these 9,040 were entering the workforce for the first time; the remainder were already pharmacists who either continued training or returned to school to earn the PharmD degree—now the national standard for entering practice. In Florida, there were 772 PharmD graduates: 602 entry-level PharmDs and 170 pharmacists upgrading their education to the PharmD level.

The table shows that nationally and in the South Atlantic states, there has been substantial growth in graduating pharmacists since 1999. During the 1990s, Florida generated only 17 graduates per million population while the national average was 28. By 2006, Florida's average had grown to 33 graduates per million population, exceeding the national average of 30. An important caveat to graduate growth in Florida and the South Atlantic states generally is that a substantial percentage of graduate growth (28% for Florida and 13% for the South Atlantic states) is attributable to pharmacists upgrading their education and professional skills by going back for PharmD degrees. This percentage compares to 6% nationally.

Unlike many other states, Florida's growth in pharmacy graduates has been primarily due to program expansion. Palm Beach Atlantic University is the only new school in Florida and its class size is relatively small.

### Trends in Pharmacy Graduates: 1999 and 2006

State	Population Estimate 2006	Graduates 1999	Annual Average Number of Graduates per 1,000,000: 1990-1999	PharmD Graduates 2006	Annual Average per Number of Graduates 1,000,000: 2006
United States	299,398,484	7,080	28	9,555	30
South Atlantic States	57,143,670	1,057	24	1,933	34
Delaware*	853,476	0	0	0	0
District of Columbia	581,530	63	98	82	141
Florida	18,089,888	263	17	772	33
Georgia	9,363,941	214	31	292	31
Maryland	5,615,727	98	18	158	22
North Carolina	8,856,505	179	30	227	22
South Carolina	4,321,249	73	35	147	34
Virginia	7,642,884	93	14	183	22
West Virginia	1,818,470	74	42	72	40

\*Note: Delaware does not have a school of pharmacy.

Source: Cooksey JA, Walton SM, Stankewitz T, Knapp KK. Pharmacy school graduates by state and region: 1990-1999. *J Am Pharm Assoc.* 2003;43:463-9.

### Summary

Florida is poised for significant population growth during the next decades and will remain the state with the highest percentage of population over 65. The elderly rely heavily on medications and medication-related services to maintain health and prevent complications from existing chronic conditions. Pharmacists play important roles in medication use and are therefore important to managing Florida's future population health needs.

At present, Florida appears to continue to experience a shortage of pharmacists that is more serious than national averages. This situation is observed despite a significant expansion in pharmacist graduates from Florida colleges of pharmacy. Florida appears to be ahead of other states in growing pharmacy programs prior to the heaviest impact of baby boomer aging and immigration to warmer climates. Florida also appears to be ahead of other states in improving the clinical skills and knowledge of pharmacists through post-graduate attainment of the PharmD degree.

## Appendix D

### USF COM Clinic Teaching Sites

#### Teaching Sites and Affiliates of the USF College of Medicine

The following locations are sites which are owned, leased or under contract for clinical teaching and research conducted by faculty of the University of South Florida College of Medicine.

USF Asthma, Allergy Immunology Clinical Research Unit  
13801 Bruce B. Downs Blvd.  
Tampa, FL 33613

USF Dialysis Center  
10770 N. 46<sup>th</sup> Street, A-100  
Tampa, FL 33617

USF Endoscopy and Surgery Center  
12901 Bruce B. Downs Blvd., MDC 69  
Tampa, FL 33612

USF Ears, Nose & Throat Center (located at 2020 Laurel Drive)  
Mail: 12901 Bruce B. Downs Blvd., MDC 73  
Tampa, FL 33612

USF Eye Institute (located at 2020 Laurel Drive)  
Mail: 12901 Bruce B. Downs Blvd., MDC 21  
Tampa, FL 33612

USF Psychiatry Center and Institute for Research in Psychiatry  
3515 E. Fletcher Avenue  
Tampa, FL 33613

USF Medical Clinic  
12901 Bruce B. Downs Blvd.  
Tampa, FL 33612

Harbourside Medical Towers  
4 Columbia Drive  
Tampa, FL 33606

Hyde Park Pulmonary Center  
217 South Cedar  
Tampa, FL 33606

17 Davis Professional Building  
17 Davis Boulevard  
Tampa, FL 33606

Suncoast Gerontology Center  
10770 North 46th Street  
Tampa, FL 33617

Various clinical facilities as designated by the State of Florida Department of Health pursuant to the services agreements with USF College of Medicine, including but not limited to Children's Medical Services (CMS) approved facilities. Locations of some known/identified CMS facilities include:

CMS Fort Myers  
9981 Health Park Circle  
Suite #110  
Fort Myers, FL 33908

CMS Lakeland  
4718 Old Highway 37  
Lakeland, FL 33813

CMS Naples  
1665 Medical Blvd.  
Naples, FL 34110

CMS North Park  
6800 N. Dale Mabry  
Tampa, FL 33614-3984

CMS Sarasota (clinics held at All Children's Specialty Care of Sarasota as shown under ACH on following page)

CMS St. Petersburg  
3251 3rd Avenue North  
Suite #130  
St. Petersburg, FL 33713

University Health Center  
13601 N. 22<sup>nd</sup> Street  
Tampa, FL 33613

CMS RPICC/OB satellite clinics include:

Joyce Ely Health Center  
205-14<sup>th</sup> Avenue S.E.  
Ruskin, FL 33570

Summit Health Care  
10605 U.S. Highway 301  
Dade City, FL 33526

Polk County Health Department Women's Center  
950 First Street  
Bartow, FL 33830

The following institutions are affiliated as teaching facilities of the University of South Florida College of Medicine as of November 1, 2007. Three categories of affiliations are identified in written agreements as follows:

MAJOR AFFILIATES (principal teaching institutions which usually involve multiple training programs):

All Children's Hospital

801 6th Street South  
St. Petersburg, FL 33701

All Children's Specialty Care Center

5640 Main Street  
New Port Richey, FL 34652

All Children's Specialty Care of Sarasota

5881 Rand Boulevard  
Sarasota, FL 34238

All Children's Specialty Care of Tampa & SurgiKid

12220 Bruce B. Downs Boulevard  
Tampa, FL 33612

All Children's Specialty Care Center

3310 Lakeland Hills Blvd.  
Lakeland, FL 33805

All Children's Specialty Care Center

4550 Colonial Blvd.  
Fort Myers, FL 33912

Bay Pines Veterans Administration Hospital

VA Medical Center  
10000 Bay Pines Blvd.  
Bay Pines, FL 33744

James A. Haley Veterans Administration Hospital

13000 Bruce B. Downs Blvd.  
Tampa, FL 33612

H. Lee Moffitt Cancer Center and Research Institute

12902 Magnolia Drive  
Tampa, FL 33612

Tampa General Hospital

2 Columbia Drive  
Davis Islands  
Tampa, FL 33606

[Includes medical office buildings at One Davis and  
17 Davis Boulevard]

TGH Ambulatory Clinics

Genesis, Family Care Center, Specialty Center at Healthpark all located at

5802 30<sup>th</sup> Street North  
Tampa, FL 33610

Family Care Center-Midtown

701 W. Kennedy Blvd.  
Tampa, FL 33606

**LIMITED AFFILIATES** (institutions which usually involve single training programs or a small number of trainees):

Aesthetic Dermatology, P.A.  
349 North US Highway 27  
Clermont, FL 34711

Allergy, Asthma & Immunology Associates of Tampa Bay  
13801 Bruce B. Downs Blvd.  
Suite 502  
Tampa, FL 33613

Ambulatory Surgery Center  
4500 Fletcher Avenue  
Tampa, FL 33612

Arbors at Tampa  
2811 Campus Hill Drive  
Tampa, FL 33612

Arthritis Research Institute of America, Inc., The  
300 South Duncan Avenue  
Suite #240  
Clearwater, FL 33755

Baycare Health System, Inc.  
16331 Bay Vista Drive  
Clearwater, FL 33760

Includes the following Hospitals but services can only be rendered through individual Program Agreements.  
Hospitals

are listed separately herein if Program Agreements are in effect.

Mease Countryside Hospital  
Mease Dunedin Hospital  
Morton Plant Hospital  
St. Anthony's Hospital  
St. Joseph's Hospital/St. Joseph's Women's Hospital  
South Florida Baptist Hospital

Bayfront Medical Center  
701 6th Street South  
St. Petersburg, FL 33701

Bay Health Center  
404 North Alexander St.  
Plant City, FL 33566

Bayside Pediatrics, P.A.  
8370 Hillsborough Avenue  
Tampa, FL 33615

Brandon Ambulatory Surgery Center  
514 Eichenfeld Drive  
Brandon, FL 33511

Brandon Regional Hospital  
119 Oakfield Drive  
Brandon, FL 33511

Catholic Charities, Diocese of St. Petersburg, Inc.  
2021 E. Busch Blvd.  
Tampa, FL 33612

Clearwater Orthopedics, P.A.  
516 Lakeview Rd.  
Villa V  
Clearwater, FL 33756

Cleveland Clinic Florida  
3000 W. Cypress Creek Road  
Ft. Lauderdale, FL 33309

Columbia Center for Special Surgery  
4650 4<sup>th</sup> Street North  
St. Petersburg, FL 33703

Communicare, Inc.  
P.O. Box 18020  
Clearwater, FL 33762

Community Health Centers of Pinellas, Inc.  
1310 22<sup>nd</sup> Avenue South  
St. Petersburg, FL 33705

Community Hospital  
5637 Marine Parkway  
New Port Richey, FL 34656

Comprehensive Occupational Medicine for Business and Industry  
4 Columbia Drive, Suite 815  
Tampa, FL 33606

Countryside Surgery Center  
3291 N. McMullen Booth Rd.  
Clearwater, FL 33761

Desoto Memorial Hospital  
900 N. Robert Avenue  
Arcadia, FL 33821

Edinborough Health Care  
1061 Virginia Avenue  
Dunedin, FL 34698

Edward White Hospital  
2323 19<sup>th</sup> Avenue North  
St. Petersburg, FL 33713

Fairwinds Treatment Center  
1569 South Fort Harrison  
Clearwater, FL 33756

Florida Agricultural & Mechanical University (Tallahassee)  
3500 E. Fletcher Avenue, Suite 234 (local address)  
Tampa, FL 33613

Florida Hospital (Adventist Health Systems)  
601 E. Rollins  
Orlando, FL 32803

Florida Hospital Zephyrhills, Inc.  
7050 Gall Blvd.  
Zephyrhills, FL 33541-1399

Florida Medical Clinic  
38135 Market Square  
Zephyrhills, FL 33540

Florida Orthopedic Institute Surgery Center, LLC  
13060 Telecom Parkway  
Temple Terrace, FL 33637

Gulf Coast Dermatology, P.A.  
7547 Jacque Road  
Hudson, FL 34667

Halifax Medical Center  
303 N. Clyde Morris Blvd.  
Daytona Beach, FL 32115

Health Point Medical Group  
406 Reo Street  
Tampa, FL 33609

Health Resource Alliance of Pasco, Inc.  
P.O. Box 2305  
Dade City, FL 33526

Helen Ellis Memorial Hospital  
P.O. Box 1487  
1395 South Pinellas Avenue  
Tarpon Springs, FL 34688-1487

Helios Pain & Psychiatry Center  
3262 Cove Bend Drive  
Tampa, FL 33613

Hillsborough County, Florida  
Hillsborough County Medical Examiners Office  
601 East Kennedy Blvd.  
Tampa, FL 33602

Hillsborough County Developmental Center  
14219 Bruce B. Downs Blvd.  
Tampa, FL 33613

Hillsborough County Health Department (See Attachment 1 for list of all current Hills. County Health Centers)  
1105 E. Kennedy Blvd.  
Tampa, FL 33602

A. G. Holley Hospital  
1199 Lantana Road  
Lantana, FL 33462

Infectious Disease Research Institute  
4620 Habana Avenue N.

Suite 203  
Tampa, FL 33614

Judeo Christian Health Clinic  
4120½ N. MacDill Avenue  
Tampa, FL 33607

Kindred Hospital-Central Tampa (formerly Vencor Hospital-Central Tampa)  
4801 North Howard Street  
Tampa, FL 33603

Kindred Hospital-Bay Area (formerly Vencor Hospital-Tampa)  
4555 Manhattan Avenue  
Tampa, FL 33611

Lakeland Regional Medical Center, Inc.  
1324 Lakeland Hills Blvd.  
P.O. Box 95448  
Lakeland, FL 33804

Lakeland Surgical and Diagnostic Center, LLP  
115 South Missouri Avenue  
Suite #101  
Lakeland, FL 33815

Lakeside Occupational Medical Centers, P.A.  
1400 East Bay Drive  
Largo, FL 33771

Largo Medical Center  
201 14<sup>th</sup> St. SW  
Largo, FL 33770

LifeLink Foundation, Inc.  
409 Bayshore Blvd.  
Tampa, FL 33606

LifePath Hospice & Palliative Care, Inc.  
12973 Telecom Parkway  
Suite 100  
Tampa, FL 33637

Manatee County Rural Health Services, Inc.  
5600 Bayshore Road  
Palmetto, FL 34221

**Manatee Memorial Hospital**

206 Second Street East  
Bradenton, FL 34208

Medero Medical Caring for Workers  
1109 SW 10<sup>th</sup> Street  
Ocala, FL 34474

**Memorial Hospital**

2901 Swann Avenue  
Tampa, FL 33609

Metropolitan Ministries, Inc.  
2002 N. Florida Avenue



Tampa, FL 33602

Morton Plant Hospital (part of Baycare Health System, Inc.)  
300 Pinellas St.  
Clearwater, FL 33756

Program Agreements  
Family Med. Residency Program

Munroe Regional Medical Center  
131 SW 15th Street  
Ocala, FL 33474

Orlando Regional Healthcare System (includes Arnold Palmer Hospital for Children)  
86 W. Underwood Street, Suite 100  
Orlando, FL 32806

Palms of Pasadena Hospital  
1501 Pasadena Avenue South  
St. Petersburg, FL 33707

Pediatric Health Care Alliance  
P.O. Box 25437  
Tampa, FL 33622

Physician Care Clinical Research, LLC  
1931 South Tuttle Avenue, Suite 1  
Sarasota, FL 34239

Premier Surgery Center  
37834 Medical Arts Court  
Zephyrhills, FL 33541

Sarasota Memorial Health Care System (part of Sarasota County Public Hospital Board,  
1700 S. Tamiami Trail includes Sarasota Memorial Hospital)  
Sarasota, FL 34239

Shriners Hospital for Crippled Children  
Tampa Unit  
12502 Pine Drive North  
Tampa, FL 33612

Spring Hill Regional Hospital and Brooksville Regional Hospital (part of Hernando HMA, Inc.)  
P.O. Box 37  
Brooksville, FL 34605-0037

St. Joseph's Hospital – (part of Baycare Health System, Inc.)

Program Agreements

3001 W. Dr. Martin Luther King Blvd.  
Pediatric Nephrology  
includes St. Joseph's Women's Hospital-3030 W. Dr. MLK Blvd.  
Tampa, FL 33607

St. Joseph Hospital of Port Charlotte, Inc.  
2500 Harbor Blvd.  
Port Charlotte, FL 33952

**St. Petersburg Medical Clinic**  
1099 Fifth Avenue North  
St. Petersburg, FL 33705

**St. Vincent's Medical Center**  
2708 St. John's Avenue  
Jacksonville, FL 32205

**Suncoast Community Health Centers, Inc. (formerly Ruskin Migrant & Community Health Ctr.)**  
2814 14th Avenue S.E.  
P.O. Box 1347  
Ruskin, FL 33570

**Suncoast Pediatrics, P.A.**  
1395 West Bay Dr.  
Largo, FL 33770

**Tallahassee Memorial HealthCare, Inc.**  
1301 Hodges Drive  
Tallahassee, FL 32308

**Tampa Community Health Center, Inc.**  
1702 E. 17th Avenue  
Tampa, FL 33605

**Town & Country Hospital, L.P.**  
6001 Webb Road  
Tampa, FL 33615-3291

Program Agreements

**University Community Hospital, Inc.**  
3100 East Fletcher Avenue  
Tampa, FL 33613-4688  
Diseases)

OB/Gyn (Reprod. Endo; General)  
Pediatrics (Audiology; Infectious

DIO (Gyn Onc; Radioactive Iodine)  
Surgery (Orthopaedic; Breast Care)  
Internal Med./CRISP (Cardiology)

**University of Florida**  
College of Medicine  
P.O. Box 100176  
Gainesville, FL 32610-0176

**Watson Clinic LLP**  
1600 Lakeland Hills Blvd.  
Lakeland, FL 33805

(includes) **Watson Clinic South**  
1033 N. Parkway Frontage Rd.  
Lakeland, FL 33803

**COLLABORATIVE AFFILIATES** (institutions for which a unique expertise or service is being provided by faculty and which may or may not involve trainees):

Brandon Outreach Clinic  
517 N. Parsons Avenue  
Brandon, FL 33510

Johnnie B. Byrd, Sr. Alzheimer's Center and Research Institute  
**15310 Amberly Drive, Suite 320**  
**Tampa, FL 33647**

Cardiac Surgical Associates LLP 603 7 <sup>th</sup> Street South Suite 450 St. Petersburg, FL 33701	<u>Corporate Office address</u> 6006 49 <sup>th</sup> Street North Suite 310 St. Petersburg, FL 33709
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Comprehensive NeuroScience, Inc. (formerly Clinical Studies Ltd.)  
9887 4<sup>th</sup> Street North, Suite 200  
St. Petersburg, FL 33702

Drug Abuse Comprehensive Coordinating Office, Inc. (DACCO)  
1920 E. Hillsborough Ave., Suite 200  
Tampa, FL 33610

Florida Orthopedic Institute  
4175 Fowler Avenue  
Tampa, FL 33617

Omni Medical Center for Women  
706 W. Platt Street  
Tampa, FL 33606

Pediatric Cardiology Associates  
880 6th Street South, Suite #280  
St. Petersburg, FL 33701

Phoenix Houses of Florida  
5620 Fowler Ave.  
Suite 8  
Temple Terrace, FL 33617

Stetson University College of Law (Educational purposes only)  
1401 61<sup>st</sup> Street South  
St. Petersburg, FL 33707

Weinberg Village  
6617 Gunn Highway  
Tampa, FL 33625

Wesley Chapel Women's Care, Inc.  
2734 Windguard Circle  
Wesley Chapel, FL 33543

Updated: 8/1/06

ATTACHMENT 1

HILLSBOROUGH COUNTY HEALTH DEPARTMENT CENTERS

**Specialty Care Center**

1105 E. Kennedy Blvd.  
Tampa, FL 33602  
PH: (813) 307-8064  
FAX: 273-3721  
Mike Wagner, Administrator

**Sulphur Springs Health Center**

8605 N. Mitchell  
Tampa, FL 33604  
PH: (813) 307-8054  
FAX: 975-2148  
Ryan Pedigo, Administrator

**North Hillsborough Health Center**

9827 N. Sheldon Rd.  
Tampa, FL 33635  
PH: (813) 307-8053  
FAX: 554-5090  
Ryan Pedigo, Administrator

**TB Center**

8515 N. Mitchell Ave.  
Tampa, FL 33604  
PH: (813) 307-8047  
FAX: 975-2014  
Mike Kilcomons, Disease Control Manager

**Floyd Kelton Health Center**

4704-B West Montgomery Avenue  
Tampa, FL 33616  
PH: (813) 307-8055  
FAX: 272-7172  
Suzanne Horn, Administrator

**Plant City Health Center**

302 N. Michigan Ave.  
Plant City, FL 33566  
PH: (813) 307-8057  
FAX: 757-3963  
Carlos Mercado, Administrator

**Joyce Ely Health Center**

205 – 14<sup>th</sup> Avenue S.E.  
Ruskin, FL 33570  
PH: (813) 307-8056  
FAX: 671-7755  
Carlos Mercado, Administrator

**Immunization Department**

Crosstown Business Center  
4951-B E. Adamo Drive, Suite 210  
Tampa, FL 33605  
PH: (813)307-8077  
FAX: 274-1940  
Margaret Ewen, RN, BSN, MSPH

**Downtown Center**

1105 E. Kennedy Blvd.  
Tampa, FL 33602  
PH: (813)307-8000

**University Health Center**

13601 N. 22<sup>nd</sup> Street  
Tampa, FL 33613  
PH: (813)307-8058  
FAX: (813)975-2119  
Suzanne Horn, Administrator  
Vital Statistics  
PH: (813)307-8002

**Women, Infants & Children  
(WIC) PH: (813)307-8074**

**Appendix F**  
**Library Resources**

- ✓ Shimberg Library Pharmacy Journals
- American Hospital Formulary Service Drug Information
- American journal of health-system pharmacy
- American journal of pharmaceutical education
- Archiv der Pharmazie
- Arzneimittel-Forschung. Drug research
- Australian prescriber
- Biological & pharmaceutical bulletin
- Brazilian Journal of Pharmaceutical Sciences
- Canadian Pharmacists Journal
- Chemist and druggist
- Clinical research and regulatory affairs
- CPJ: Canadian Pharmaceutical Journal
- Current drug delivery
- Current pharmaceutical design
- Daru: journal of Faculty of Pharmacy, Tehran University of Medical Sciences
- Drug benefit trends
- Drug Discovery Today
- Drug topics
- Florida pharmaceutical journal
- Florida pharmacy today
- Formulary
- Indian journal of pharmaceutical sciences
- International Journal of Pharmaceutics
- International journal of pharmacy education and practice
- Journal of biopharmaceutical statistics
- Journal of CGMP compliance
- Journal of Clinical Pharmacy and Therapeutics
- Journal of International Medical Research
- Journal of managed care pharmacy
- Journal of Oncology Pharmacy Practice
- Journal of pharmaceutical sciences
- Journal of pharmacy & law
- Journal of pharmacy & pharmaceutical sciences
- Journal of Pharmacy and Pharmacology
- Journal of pharmacy practice
- Journal of the American Pharmacists Association
- New Community pharmacy
- P&T
- Pharmaceutical executive
- Pharmaceutical Journal
- Pharmaceutical Research
- Pharmaceutical technology
- Pharmacological Research
- Pharmacotherapy
- Pharmacy and pharmacology communications
- Pharmacy education
- Pharmacy Management (UK)
- Pharmacy News
- Pharmacy Post
- Pharmacy practice
- Pharmacy times

## Pharmacy Related Databases We Provide Access to

Beilstein Crossfire Database  
Biological and Agricultural Index  
BioMed Central  
BIOSIS Previews  
Cambridge Scientific Abstracts  
CancerLit  
CINAHL: Cumulative Index to Nursing & Allied Health Literature  
Clinical Evidence (BMJ)  
Clinical Trials.gov  
Cochrane Library  
DailyMed  
Entrez: The Life Sciences Search Engine  
ENZYME Enzyme Nomenclature Database  
Facts and Comparisons  
Genome (Entrez)  
Genome Reviews  
GenomeNet  
Health Reference Center-Academic  
JSTOR  
LexisNexis Academic  
MD Consult  
National Guideline Clearinghouse  
Natural Medicines Comprehensive Database  
NIAID Clinical Trials Database  
NIOSH Databases  
PubChem  
PubMed  
ScienceDirect  
SciFinder Scholar (Online version of Chemical Abstracts)  
StatRef  
Taxonomy  
Thomas Register  
TOXNET-  
    **Toxicology Databases:**  
    [HSDB®](#) (Hazardous Substances Data Bank)  
    [IRIS](#) (Integrated Risk Information System)  
    [ITER](#) (International Toxicity Estimates for Risk)  
    [CCRIS](#) (Chemical Carcinogenesis Research Information System).  
    [GENE-TOX](#) (Genetic Toxicology)  
    [Tox Town](#)  
    [Household Products Database](#)  
    [Haz-Map®](#)  
    [TOXMAP](#)  
    [LactMed](#) (Drugs and Lactation)

Toxicology Literature

TOXLINE®

DART®/ETIC (Development and Reproductive  
Toxicology/Environmental Teratology Information Center)

Toxics Release Inventory (TRI)

Chemical Information

ChemIDplus

Web of Science

Databases We Should Review for Adding

EMBASE

ChemWeb

ENZYME Enzyme Nomenclature Database?

First Consult

International Pharmaceutical Abstracts (IPA)

Micromedex

Natural Standards



## **Appendix G- External Consultant Review**

**University of South Florida  
Program Review of the  
Doctor of Pharmacy Degree Proposal**

**Submitted By: Dr. Barry Bleidt & Dr. Kenneth Hale  
January 29, 2008**

In order to become a pharmacist, one must obtain a Doctor of Pharmacy (PharmD) degree from an accredited College of Pharmacy. This college must be independent and under the supervision of a CEO Dean. The professional degree program must be at least four years (eight academic semesters) in length. A pre-pharmacy component of at least two years in length is required to meet the pre-requisites to enter a professional degree program. Before the first students can be admitted, the college must obtain "Pre-Candidate" status with the Accreditation Council for Pharmacy Education (ACPE).

Two outside, independent consultants, with a high degree of expertise in academic pharmacy matters, were invited from comparable institutions. Dr. Kenneth Hale, Assistant Dean for Professional and External Affairs from the College of Pharmacy at the Ohio State University and Dr. Barry Bleidt, Professor and Associate Dean of Academic Affairs from the Texas A&M Health Science Center's Irma Lerma Rangel College of Pharmacy arrived in Tampa on Wednesday, January 16, 2008 and spent the following day reviewing documents, touring facilities, and meeting key personnel associated with the University of South Florida's proposed new College of Pharmacy. Our report on the feasibility of the University of South Florida opening a new College of Pharmacy follows.

**Background**

A key factor in determining the need for opening a new College of Pharmacy is the demand for its graduates. A study was commissioned by USF Health to perform an assessment of pharmacist workforce needs in the greater Florida area. The report covered several key points relating to the need for a pharmacy program in the Tampa Bay area affiliated with the University of South Florida.

The report described multiple factors driving the increase in the demand for pharmacists. Among the reasons cited for the current and projected workforce shortage of pharmacists were:

- Growth in the number of part-time practitioners. The number of pharmacists retiring annually is projected to increase 16% to about 4,562/year by 2020. The retiring pharmacists will predominately be male (who have traditionally worked more hours per week than their female counterparts), and the majority of new pharmacy graduates are women.
- The expanding role of the pharmacist. Over the past several decades, pharmacists have begun to perform many other functions beyond that which is traditionally understood in community and institutional practice settings. Pharmacists are involved in public health activities (e.g., immunizations), active in chronic medication therapy management programs, and practice in non-traditional settings in growing numbers (e.g., pharmaceutical industry, Food and Drug Administration and other governmental agencies, and as clinical pharmacists in a variety of recognized specialties).

Another key factor in the rising demand for pharmacists is the projected increase in the volume of prescription drugs dispensed. Some of the causes of this growth are:

- Recent increases in prescription volume. The demand increased 5% in 2006 to about 3.5 billion prescriptions.
- Aging baby boomers. As this generation ages, the number of people over 65 will grow tremendously. Patients 65 and older consume an average of 23.5 prescriptions per year as compared to a 10.1 average for those under 65. The aging of the U.S. population will significantly increase consumption of prescription drugs.

The report also indicated that Florida has the second highest demand level for pharmacists in the South Atlantic states, just behind North Carolina. These factors, combined with the projections for Florida's population growth, especially in the percentage of those over 65 (27.1% of the population in 2030), help fuel an expected increase in demand for pharmacists over the coming decades.

Florida's population demographics support the need for additional professional programs in pharmacy. As an example, Ohio, a smaller state in population, has six Colleges of Pharmacy, with a seventh being proposed. With only four pharmacy programs in Florida currently producing graduates, it is evident that another program is needed in the state. Initiating a program in a large metropolitan region like Tampa makes sense. There is no doubt about the workforce demand for the graduates of the proposed program.

### **Curriculum**

The proposed professional curriculum constitutes four years and about 145 semester credit hours of study, and it includes a full year devoted to Advanced Pharmacy Practice Experiences (APPE's) in compliance with current accreditation standards. It is designed in an integrated fashion, contains the necessary foundations in the biomedical and clinical sciences, has a good mix of public health classes, and includes robust Introductory Pharmacy Practice Experiences (IPPE's) to give students practical experience early in their studies.

Admissions standards and requirements are in place that promote student progression through the curriculum to build the knowledge, skills, attitudes, and values required of a pharmacist. Given the support evident at USF, we believe that students should be able to graduate on time and pass the national licensing exam. There appears to be no reason why a student should have difficulty making it through the program. There are many cooperative resources and support programs on campus, and the outside affiliated institutions appear eager and able to meet the needs of the College of Pharmacy for early and advanced practice experiential sites.

The curriculum is based upon expanded pre-pharmacy requirements so that students would begin the program with a stronger science base and be better prepared to start an intensive professional program. Additionally, the way in which the pre-pharmacy requirements are designed opens up additional hours within the professional curriculum for students to "track" into specialty areas and take courses that would apply toward dual degrees. This model is forward thinking and is uniquely designed to attract the next generation of college students (the Millennials) into the program. These factors should make USF very competitive with other programs in the state and could make the College stand out as a center of excellence in pharmacy education.

### **Clinical Training Sites**

Contemporary pharmacy practice and education are inherently patient-centered. Practices such as "pharmaceutical care" and "medication therapy management services" have recently evolved to transform this profession in institutional as well as community settings

toward practices that entail more intense interactions with other health professionals, the education of patients, monitoring and modification of medication therapies, and helping to ensure optimal health outcomes. Therefore, pharmacy education in the 21<sup>st</sup> Century requires (by accreditation standards as well as societal need) a substantial amount of experiential training in various practice settings (e.g., hospital/institutional, community/ambulatory, managed care, etc.). Approximately 25% of PharmD curricula are consumed by part-time Introductory Pharmacy Practice Experiences during the first three years of a four-year program and full-time Advanced Pharmacy Practice Experiences during the final year. This need for high-quality experiential training sites is one of the most challenging issues in pharmacy education as the number of colleges of pharmacy increases.

USF appears to be well positioned in this regard. We are impressed by the breadth and depth of existing health care facilities in the Tampa Bay area, as well as the potential to develop new innovative training sites. The eight area teaching hospitals provide a rich base for the required and elective clinical rotations for students. We met with pharmacy directors from Tampa General Hospital and the Moffitt Cancer Center and were specifically told that both institutions would consider USF as their primary affiliations if a new College of Pharmacy is initiated. This will be important for establishing a protected and committed experiential core for the new college. The area pharmacy residency network is also an important driver of practice innovation and provides another critical frame in the experiential teaching heuristic.

We believe the existing and developing clinical training sites in the area to be one of the primary reasons that the development of a College of Pharmacy at USF makes sense. It would not be prudent to attempt such an endeavor if these sites were not available.

### **Financial Resources Review**

During the visit, we were furnished with an estimated funding summary. This document presented financial projections based on an enrollment of 50 students for the first two years and 100 thereafter. Faculty salary costs were established at the fiftieth percentile of the American Association of Colleges of Pharmacy Annual Survey of Faculty Salaries. Thirty-six faculty members were projected to be hired in both the clinical and basic biomedical sciences.

It should be noted that hiring faculty will be a primary focal point of the ACPE accreditation visits as more new schools open and the faculty shortage is exacerbated. The faculty salary figures may need to be adjusted in the next year or so, but at present they are representative. The collaborative environment that exists at USF will be an excellent selling point in attracting high quality faculty.

Costs are well estimated and the revenues conservatively projected. The budget included infrastructure expenses for library resources and information technology support. It also included funds for faculty recruiting, building up the research infrastructure, and instructional laboratory and distance learning equipment. The projected breakeven point is in the third year of student enrollment in the program. One potential weakness of USF's budget projections for the new program is the failure to include the costs for experiential training. These costs will not be substantially incurred until the fourth year of the curriculum, but it will be important to take them into consideration.

The financial plan is solid, based on conservative estimates, and provides a strong basis for opening a College of Pharmacy at USF. The budget projections were impressive for a state program with mostly in-state tuition, and the proposed pharmacy program appears to be a high priority in USF Health's development efforts. Both consultants would urge USF to ask for professional tuition authority as it moves forward with opening its pharmacy program. It was quite apparent that a similar funding request has been

advantageous to the Physical Therapy program, even during periods of low state funding. This model makes logical sense for the pharmacy program as well.

### **Health Sciences Center Infrastructure/Program Readiness**

Health care in the United States has transitioned toward a much more cooperative culture, and future health practices are likely to be increasingly collaborative in nature. Therefore, it makes the most sense to establish new pharmacy education programs in universities where other health profession students are trained as well. The existence of Colleges of Medicine, Nursing, and Public Health, as well as a School of Physical Therapy and Rehabilitation Sciences at USF provides the interdisciplinary teaching and scholarly context necessary for a progressive College of Pharmacy in today's health environment. We were struck by the passion and innovative thinking exhibited by the leaders of the existing colleges in USF Health. You are lucky to have this type of academic health leadership on your campus. We were also struck by their enthusiasm for the establishment of a College of Pharmacy. Each existing unit seemed to be eager for the collaborative possibilities posed by the addition of a College of Pharmacy in USF Health. In fact, they considered the lack of a College of Pharmacy to be a liability.

Pharmacy practitioners in the area seem supportive of the prospect of establishing the new College of Pharmacy as well. Every representative we encountered from the practice community seemed genuinely excited about engaging with USF's new program as a clinician, instructor, or researcher. This will bode well for your educational enterprise, it will help attract innovative practitioners to the area, and it is critical for the ultimate success of your programs and students.

### **Doctor of Pharmacy Program Innovativeness**

We are intrigued by the opportunity at USF to develop an innovative Doctor of Pharmacy program that could differentiate it from other programs in the region. USF's research strengths, area practice sites, preexisting professional colleges, pharmacy graduate program aspirations, plans to use cutting-edge educational technology, and a perceived culture of collaborative/interdisciplinary learning provide an exciting context for the education of pharmacy students. Other resources in specific areas such as pharmacogenomics and public health could also make significant contributions to the new college if utilized in innovative ways. The program proposal incorporates both disciplines as core curricular components. We would also encourage strong connections to the research and clinical practice expertise in pharmacogenomics at the James A. Haley VA Hospital, as well as taking advantage of the opportunity to integrate public health principles throughout the new doctoral curriculum. It is clear that pharmacogenomics/pharmacogenetics will change the practice of medicine and pharmacy, and some of the most pressing issues in our field relate to medication safety and the staggering evidence relating to the incidence of adverse drug events in our health care system. The latter concerns are also among the most important public health dilemmas of our time. USF has the opportunity to integrate related training for PharmD students to allow them to better understand these public health needs at the same time they acquire the pharmaceutical knowledge base to help solve them.

These phenomena are laid against an institutional emphasis on interdisciplinary scholarship and learning, as well as a "longitudinal passion" in USF Health for innovation. Other phrases used by those we met to describe this climate included: "we are walking the walk, not talking the talk" (referring to interprofessional education and practice) and "USF doesn't want to build 'me too' professional programs." This attitude is infectious, and we perceive it to be sustainable.

### **Interdisciplinary Collaborations**

One of the most impressive things we encountered on the site visit to USF was the forward thinking attitude relating to interdisciplinary activities. The Department of Chemistry has a critical mass of medicinal chemists eager to collaborate with a College of Pharmacy, several of whom work with natural products in drug development. They also have established a Center for Molecular Diversity, Drug Design, Discovery and Delivery, and they have expressed a desire to work with the Clinical Pharmacy Division in bringing possible drug products into clinical trials.

The College of Nursing also expressed a strong need in their program for collaborations with a College of Pharmacy. They have a state-of-the-art patient simulation lab, currently work collaboratively with the College of Medicine and Physical Therapy program, and wondered aloud why a College of Pharmacy was not opened fifteen years ago. The positive attitude of the nursing program toward collaborations with a College of Pharmacy in an interdisciplinary approach to educating both nurses and pharmacists is another positive prognostic for a pharmacy program at USF.

The College of Public Health spoke highly of potential collaborations with a new pharmacy program. They discussed their ability to help teach in certain disciplines (including health policy and management) and the desire to offer joint degrees. Possible research collaborations were also mentioned. The College of Medicine also spoke positively of the need for a College of Pharmacy at USF. It was very refreshing to hear from young as well as seasoned medical faculty members about the new paradigm of interdisciplinary teams to treat patients and their desire to work with a College of Pharmacy so that students and faculty alike can work together.

The increasingly interdisciplinary nature of medical, nursing, and pharmaceutical education and practice make the addition of a College of Pharmacy a natural evolution in USF Health's growth. Existing interdisciplinary collaborations appear to be positive, real, and viable. These partnerships will enable a new College of Pharmacy at USF to attract good students and high quality faculty, make it a much stronger and viable program, and adds to the "it makes sense" philosophy toward starting a Doctor of Pharmacy degree program at the University of South Florida.

### **External Programs**

Several other external programs provide additional opportunities for innovation and programmatic distinction. For example, the implementation of graduate programs in the new college would be facilitated by existing programs in related disciplines such as chemistry, pharmacology, public health, and nursing, in what was described as the second fastest growing research medical center in the country. The proposed combined Masters of Healthcare Administration (MHA) with an administrative residency is an excellent example of a needed resource for impacting pharmacy's emerging leadership crisis in a way that combines pharmacy faculty, interest among the practice community and an academic structure in public health. Developments in clinical research constitute another external resource of interest. College of Pharmacy expertise could be married to developing programs in investigational drug services and clinical research in ways that could generate research opportunity, a potential revenue stream, and student training sites. The USF Health vision for building combined degree program options for students in the College of Pharmacy is yet another predictor of success. Progressive students will be attracted by the possibility of combining PharmD training with PhD or Masters programs in chemistry (drug discovery) and public health, as well as in the pharmaceutical sciences.

### **Conclusion**

Each and every person we met, within and outside of the University, was enthusiastic and highly supportive of opening this new program. We heard, on more than one occasion, the sentiment that USF should have established a pharmacy program years ago. Looking at all of the factors, facilities, and outside partnerships, the University of South Florida is poised and prepared to open a new College of Pharmacy. It appears to be a natural fit with established programs at the University and a "no brainer" in the context of the interdisciplinary mindset we found during our visit. USF is forward thinking, especial in the health disciplines, and the future bodes well for a College of Pharmacy that would be a part of USF Health.



Sheila M. McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

December 19, 2008

Cc: Governor Frank Martin, Chair, Academic Programs Team, Strategic Planning and Academic and System Oversight Committee;  
Mark B Rosenberg, Chancellor; John Delaney, President-in-Residence, UNF; Judy L Genshaft, President, USF

Dear Ms. McDevitt:

We are writing this letter in support of the proposed USF Doctor of Pharmacy Program. This program would be positive for the community and the State. Healthcare is advancing and changing at a rapid pace. The growth in those requiring healthcare each year continues as well. Patients are presenting with more advanced health conditions, and more complex therapies that are more difficult to manage. It is well known there is a shortage of several healthcare practitioners, including pharmacists, nurses and physicians. Well trained pharmacists are needed to not only perform their own duties, but to support the practice of other healthcare professionals. Medical error reports and medication safety concerns are increasing both within the healthcare profession and with the U.S. public and regulatory bodies. The increased use of more potent and toxic pharmaceuticals makes medication safety an increasingly important factor that can best be addressed by having closer pharmacist scrutiny over every aspect of medication therapy. Perhaps most important of all, patient non-adherence to therapy plans is the primary reason for treatment failure and disease progression. Pharmacist involvement directly with patients to provide education and therapy monitoring is the most effective way to ensure patient compliance. All of this supports the need for adequate numbers of appropriately trained pharmacists.

The USF proposal is very impressive, taking advantage of the several high level practitioners that already exist at Tampa Bay area practice sites. In their statement "The Future of Pharmacy: 2015 Initiative", The American Society of Health-System Pharmacists (ASHP) has identified the development of future pharmacy leaders as the single most important challenge over the next few years. USF has the facilities and potential faculty to offer outstanding clinical training, mentoring and development of pharmacy leaders. This will be accomplished through progressive curriculum and with shared faculty from other USF colleges, such as Public Health.

We believe the USF Doctor of Pharmacy Program will provide the following benefits to the Tampa Bay area:

1. Additional pharmacists will be trained to address the current shortage of practitioners,
2. The academic opportunities provided will increase our ability to attract pharmacists with high academic goals,
3. The quality of pharmaceutical care provided will increase with the addition of new academicians and their influence on both existing and new practitioners,
4. Increasing the number of high level practitioners will have a positive economic impact on the Tampa Bay economy, and
5. The research that will emulate from this venture will support the growing research effort already established, supporting Tampa's efforts to become a world renowned pharmaceutical / medical research center.

This project has our highest support, and we are committed to helping make it a success.

Sincerely,

William S Dalton, PhD, MD  
President and CEO

Philip E Johnson, MS, RPh, FASHP  
Director of Pharmacy



A Comprehensive Cancer  
Center Designated by the  
National Cancer Institute

Department of Pharmacy  
Philip E Johnson MS RPh FASHP, Director  
12902 Magnolia Drive  
Tampa, Florida 33612-9497  
Phone: (813) 745-3967  
Cell: (813) 484-1171  
Fax: (813) 745-3994  
Phil.johnson@moffitt.org





# ST. JOSEPH'S HOSPITAL

ST. JOSEPH'S-BAPTIST HEALTH CARE

*A Member of St. Joseph's-Baptist Health Care*

January 7, 2009

Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Ms McDevitt;

We are writing this letter to support of the proposed University of South Florida (USF) Doctor of Pharmacy Program.

St. Joseph's Hospital is committed to serving the healthcare needs of our community and part of that requires well trained healthcare practitioners to provide the care. The benefits and risks of medications in all healthcare settings create a vital role for well trained pharmacists. Development of such a program at USF would provide local access to pharmacy students wishing to train within our facilities or train in our post-graduate ASHP-accredited pharmacy residency program. Inevitably, this would result in a pipeline of well trained pharmacists familiar with our facilities able to deliver quality care.

We also value the collaboration we have with USF and our health system and continue to explore areas of synergy. The Doctor of Pharmacy program would be a good addition to these areas of cooperation to meet the health care needs of our community.

We also recognize that a Doctor of Pharmacy program that is in such close proximity to St. Joseph's Hospital would assist our current pharmacists in improving their competencies and bring the potential for new and innovative programs to our health system. This program would provide ample opportunity for adjunct faculty positions bringing the knowledge gained in practice to the classroom. Teaching would help us provide a stimulating dimension to our pharmacist's current practice for better job satisfaction and retention. The potential for collaborative research for improvements to health care delivery among disciplines may also be a natural outcome of this program's since many other health related programs are offered by USF.

For these reasons, we support this program and will contribute to its success.

Sincerely,

Lorraine Lutton  
Chief Operating Officer

Michael J. Magee, M.S., R.Ph.  
Director of Pharmacy



Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

December 30, 2008

Dear Ms McDevitt;

We are writing this letter to convey support for the proposed University of South Florida Doctor of Pharmacy program. There are a number of reasons that we believe this is program will be successful. The demand for pharmacy and other health care services in the United States will increase in the coming decades because of our aging population. An increase in the demand for pharmacy services will exacerbate the current shortage of pharmacists and may result in our inability to meet societal needs. The practice of pharmacy has evolved into a profession whose mission is to provide direct patient care, necessitated by a combination of an aging society with chronic diseases along with the approval of more and more complex drug therapy. Thus in addition to the current shortage of pharmacists, there is a need to significantly expand the pharmacy work force with appropriate education and training to fulfill the mission of direct patient care.

In order to fulfill this mission, we need more than just an increased number of pharmacy graduates. We need to train pharmacists who are prepared to embrace their expanding role in providing patient care, pursue clinical research endeavors, and provide leadership in medication management issues. The Tampa Bay area is uniquely positioned to provide rich training opportunities for doctor of pharmacy students. Tampa General Hospital fully supports the development of the Doctor of Pharmacy program and we believe that our pharmacy practice model is ideal for training future pharmacy practitioners in all facets of practice.

Sincerely,

A handwritten signature in black ink, appearing to read "Ron Hytoff", with "(For RH)" written in parentheses below it.

Ron Hytoff,  
President and CEO

A handwritten signature in black ink, appearing to read "Maja G. Gift", with a horizontal line extending to the right.

Maja G. Gift,  
Director of Pharmacy

cc: Governor Frank Martin, Chair, Academic Programs Team, Strategic Planning and Academic and System Oversight Committee; Mark B Rosenberg, Chancellor; John Delaney, President-in-Residence, UNF; Judy L Genshaft, President, USF; Stephen Klasko, MD, Dean, College of Medicine, USF; Deana Nelson, Executive Vice President/COO, Patient Services Administration, Tampa General Hospital.



Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

December 22, 2008

Dear Governor McDevitt;

Our company is providing this strong letter of support for the proposed University of South Florida pharmacy program. Sweetbay Supermarket and USF Health has maintained a very healthy relationship for the past two years, with the result being that our company has placed pharmacies in both of their recently opened Centers for Advanced Health Care outpatient clinics. The opportunity to be involved in the health care of patients with USF Health is especially rewarding since it aligns very well with our company's commitment to promote healthy lifestyles for the community. USF Health's proposal to open a pharmacy school is very forward thinking and timely, given the projected expansion of the population in the state of Florida over the next five years. We understand that this pharmacy program will place particular emphasis on geriatric pharmacotherapy, as well as cutting-edge individualized medicine. We are pleased to be partners with USF as they embark on this new health-care educational venture.

With the onset of the baby boomer generation beginning to enter the Medicare patient roles, Medication Therapy Management (MTM) services for patients will become far more prevalent and necessary. Well-trained pharmacists will be needed to assist patients with the very complex medication regimens are now being prescribed by health-care practitioners. The average American over the age of 55 is now consuming at least six medications per day; many of our elderly consume far more than this on a daily basis. The possibility for medication errors and dangerous drug interactions will become more prevalent with each passing year. Pharmacists will be called upon to serve in an interdisciplinary health care role in an attempt to avoid serious medication errors for patients. USF Health will provide an outstanding clinical training ground for future pharmacists to learn to communicate with other health care practitioners and patients. Workforce shortages of pharmacists in the future will only prove to be more costly to the entire health care system, and more importantly, more costly for individual patients. Outstanding training for future pharmacists will be needed to address these very serious issues, and the proposed pharmacy program at USF Health will provide highly trained pharmacists to address the workforce shortages that currently exist.



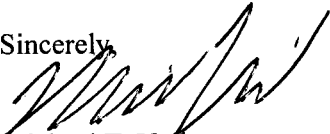
3801 Sugar Palm Drive • Tampa, Florida 33619  
T (813) 620-1139 • F (813) 627-9766

With regards to benefits to the Tampa area, a USF pharmacy program will provide the following:

- 1) Increased access to an affordable pharmacy education for students wishing to enter the pharmacy profession;
- 2) Pharmacy graduates to address workforce shortages relative to the population in Florida;
- 3) High wage earning potential for graduates as they enter the pharmacy profession in the state of Florida, providing positive economic impact;
- 4) Increased opportunities for entrepreneurial collaborations between companies and a USF pharmacy program;
- 5) Additional pharmacist clinicians to assist in providing health care to the growing elderly population in the Tampa region.

Sweetbay Supermarket has as its mission to support educational endeavors, assist with community programs that promote healthy living, and provide healthy living alternatives to our customers. Our mission strategically aligns with USF Health and their proposed Doctor of Pharmacy program. We view this proposal as an investment for the state of Florida, and provide very strong support to our health care partners, USF Health, in their endeavor.

Sincerely,



Michael T. Vall  
President and Chief Operating Officer  
Sweetbay Supermarket

Cc: Governor Frank Martin, Chair, Academic Programs Team, Strategic Planning and Academic and System Oversight Committee;  
Mark B Rosenberg, Chancellor  
John Delaney, President-in-Residence, USF  
Judy L Genshaft, President, USF



Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

December 22, 2008 Dear

Ms McDevitt;

Our company is providing this strong letter of support for the proposed University of South Florida doctor of pharmacy program. The University of South Florida Health Sciences Center has made place increasing emphasis upon clinical activity in medical research. More specifically, during the past five years, USF Health has had increasing success in the area of clinical and translational research in the medical sciences. These research advances have been seen throughout the various colleges at USF Health, resulting in numerous Research Centers of Excellence. This has created a public- private entrepreneurial partnership with our company. The proposed Doctor of Pharmacy program at USF will strengthen educational and research relationships, leading to increased opportunities for economic development for the university and the Tampa region.

Interdisciplinary health-care teams will be required in the future for the safe and advanced administration of medications to patients in health care settings. Pharmacists will be important members of future health care teams; their presence will be required for both clinical activities and research. Well-trained pharmacists shall be required in all facets of the delivery of healthcare, including drug discovery and design, clinical trial management, and patient education. USF Health will create a quality pharmacy education program to meet all of these needs of the healthcare community.

Xcelience is an independent formulation development company, providing customized global solutions to the biotechnology and pharmaceutical industries. We are committed to serving the needs of our clients in a timely, efficient, and well managed process that is fully integrated and unparalleled in the industry. The opportunity to work with future USF pharmacy faculty and students will exist with the creation of this program. This program should be view as an investment in the future of the Florida economy, and more specifically, the Tampa Bay region. Partnerships with academic institutions has been very important for the growth of our company, and the creation of the USF Doctor of Pharmacy degree program promises to enhance our ability to continue the relationship that we have already established with USF.

Pharmacists graduating from this program will be highly trained in the delivery of healthcare and patient education. This program may also lead to the creation of graduate programs in the pharmaceutical sciences, including drug discovery and design. Partnerships with companies such as Xcelience are strategically important to the future growth of USF Health.



The proposed USF doctor of pharmacy program will add a very necessary component to the very rich profile of health education programs currently in existence. The addition of highly trained pharmacist clinicians to the workforce, as well as addition of pharmacy faculty to the teaching, research, and learning opportunities for all health-care professions at USF Health, are certainly worth an investment of resources from the state of Florida.

This endeavor has our highest support, and we are committed to helping to make it a success.

Sincerely,

A handwritten signature in black ink, appearing to read 'D.H.', with a long horizontal flourish extending to the right.

Xcelience  
Derek Hennecke  
President & CEO

Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

January 6, 2009

Dear Ms. McDevitt:

Our company is providing this strong letter of support for the proposed University of South Florida doctor of pharmacy program. The University of South Florida Health Sciences Center has made enormous strides during the past decade with regards to clinical activity in medical research. More specifically, during the past five years, USF Health has placed increasing emphasis on clinical and translational research in the medical sciences. These research advances have been seen throughout the various colleges at USF Health, resulting in numerous Research Centers of Excellence. Further, various other departments at the University of South Florida have established themselves as Centers of Excellence, establishing a foundation upon which public-private entrepreneurial partnerships may be established. With healthcare changing at a very rapid pace, more complex healthcare teams will be required in the future for the safe and advanced administration of medicinal agents to patients that these discoveries will one day serve. The healthcare teams of the future are expected to be interdisciplinary in nature, and comprehensive with regards to the various disciplines required to safely and effectively manage patient care. Among the numerous healthcare practitioners required for both clinical activities and research are pharmacists. Well-trained pharmacists will be required in all facets of the delivery of healthcare, including drug discovery and design, policy management, clinical trial management, patient education and administration, and physician and nurse interfacing, education, and support. USF Health is well positioned to deliver a top-quality pharmacy education program to meet all of these needs of the healthcare community.

The proposed University of South Florida doctor of pharmacy program will provide numerous advantages to an already outstanding health education profile at USF Health. For example:

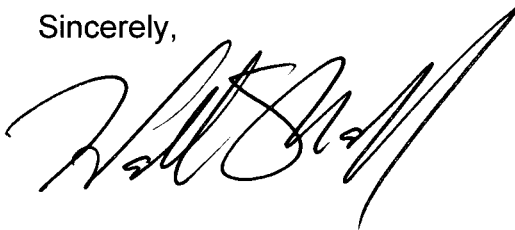
1. Pharmacist-clinicians will be created to address the current shortage of pharmacists in Florida;
2. Faculty from the proposed program would be involved in clinical and research endeavors throughout USF Health, lending key expertise to clinical research teams throughout the entire research profile;

3. Addition of pharmacy faculty to assist in research would allow increased opportunities for entrepreneurial types of clinical and research models;
4. Opportunities for pharmacy faculty and students to collaborate with researchers in drug discovery, clinical trial management, and patient recruitment and education would exist with the development of a pharmacy education program.
5. Expansion of entrepreneurial models will be enhanced from increase partnerships with pharmaceutical and business industries that currently partner with USF Health.
6. Expansion of research-based programs and opportunities for students would occur not only for future pharmacy students, but for students throughout the various components of USF Health.

The proposed USF doctor of pharmacy program will add a very necessary component to the very rich profile of health education programs currently in existence. The addition of highly trained pharmacist clinicians to the workforce, as well as addition of pharmacy faculty to the teaching, research, and learning opportunities for all healthcare professions at USF Health, are certainly worth an investment of resources from the state of Florida.

This endeavor has our highest support, and we are committed to helping to make it a success.

Sincerely,

A handwritten signature in black ink, appearing to read 'Habib Skaff', written in a cursive style.

Habib Skaff, Ph.D.  
Chief Executive Officer  
Intezyne Technologies, Inc.

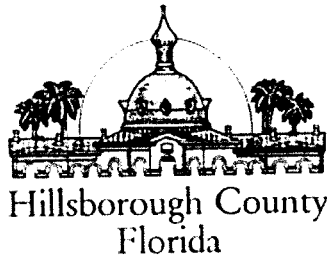


# BOARD OF COUNTY COMMISSIONERS

Chairman  
Ken Hagan, District 2

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Mark Sharpe, District 7

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Kevin White, District 3  
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Patricia G. Bean  
County Administrator

Renée Francis Lee  
County Attorney

Jim Barnes  
Internal Performance Auditor

Jan. 8, 2009

Sheila M. McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines St., Ste. 1614  
Tallahassee, FL 32399-0400

Dear Ms. McDevitt:

As County Commissioner for Hillsborough County, I am pleased to offer this strong letter of support for the proposed University of South Florida (USF) doctor of pharmacy program.

The University of South Florida Health Sciences Center has made enormous strides over the past decade with regards to clinical activity in medical research. More specifically, during the past five years, USF Health has placed increasing emphasis on clinical and translational research in the medical sciences. These research advances have been seen throughout the various colleges at USF Health, resulting in numerous Research Centers of Excellence. Additionally, other departments at USF have established themselves as Centers of Excellence, building a foundation upon which public-private entrepreneurial partnerships may be established.

With healthcare changing at a very rapid pace, more complex healthcare teams will be required in the future for the safe and advanced administration of medicinal agents to the patients these discoveries will one day serve. The healthcare teams of the future are expected to be interdisciplinary in nature and comprehensive with regards to the various disciplines required to safely and effectively manage patient care.

Among the numerous healthcare practitioners required for both clinical activities and research are pharmacists. Well-trained pharmacists shall be required in all facets of the delivery of healthcare, including drug discovery and design; policy management; clinical trial management; patient education and administration; and physician and nurse interfacing, education, and support. USF Health is well positioned to deliver a top-quality pharmacy education program to meet all of these needs of the healthcare community.

-- MORE --

P. O. Box 1110 Tampa, Florida 33601

Phone: (813) 272-5660

[www.hillsboroughcounty.org](http://www.hillsboroughcounty.org)

*An Affirmative Action/Equal Opportunity Employer*

**USF HEALTH  
PAGE 2  
JAN. 8, 2009**

The proposed University of South Florida doctor of pharmacy program will provide numerous advantages to an already outstanding health education profile at USF Health. For example:

1. Pharmacist-clinicians will be created to address the current shortage of pharmacists in Florida.
2. Faculty from the proposed program would be involved in clinical and research endeavors throughout USF Health, lending key expertise to clinical research teams throughout the entire research profile.
3. Addition of pharmacy faculty to assist in research would allow increased opportunities for entrepreneurial types of clinical and research models.
4. Opportunities for pharmacy faculty and students to collaborate with researchers in drug discovery, clinical trial management, and patient recruitment and education would exist with the development of a pharmacy education program.
5. Expansion of entrepreneurial models will be enhanced from increased partnerships with pharmaceutical and business industries that currently partner with USF Health.
6. Expansion of research-based programs and opportunities for students would occur not only for future pharmacy students, but for students throughout the various components of USF Health.

The proposed USF doctor of pharmacy program will add a very necessary component to the very rich profile of health education programs currently in existence. The additions of highly trained pharmacist clinicians to the workforce, as well as the addition of pharmacy faculty to the teaching, research and learning opportunities for all healthcare professions at USF Health, are certainly worth an investment of resources from the State of Florida.

This endeavor has my highest support, and the County is committed to helping make it a success. If you should have any questions, please do not hesitate to contact my office at (813) 272-5735.

Sincerely,



Mark Sharpe  
Hillsborough County Commissioner, Dist. 7



## Talent Services & Campus Relations

Ben Thankachan R.Ph.

Senior Manager – Eastern U.S.

Wal-Mart Stores - Health and Wellness

702 SW 8th Street  
Bentonville, AR 72716-0195  
Phone 479.586.0715  
ben.thankachan@wal-mart.com  
www.walmartstores.com/careers

January 8, 2009

Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Ms. McDevitt;

I am writing to express my support for the proposed doctor of pharmacy degree program at USF Health. With the number of prescriptions being filled increasing significantly each and every year, and the number of quality pharmacists graduating each year increasing incrementally, it goes without saying that it would help to provide better and more affordable healthcare for the residents of Florida and the country as a whole. As a company we are constantly seeking ways to help increase access and affordability for quality healthcare. I feel that a school with USF's reputation would only help us in achieving this goal by producing excellent pharmacist practitioners to serve the citizens of Florida. These graduating pharmacists would help to offer both consistent patient care and follow up in many locations, while decreasing the risk of prescription errors and medication related adverse events.

I respectfully ask you to consider the appropriate allocation of resources from the state of Florida in order to make this initiative a reality.

Sincerely,

A handwritten signature in black ink, appearing to read "Ben Thankachan".

Ben Thankachan, RPh  
Sr Manager – Health & Wellness Recruiting  
Wal-Mart Stores, Inc.

January 8, 2009

Sheila M. McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Ms. McDevitt,

Our company is providing this strong letter of support for the proposed University of South Florida doctor of pharmacy program.

The University of South Florida Health Sciences Center has made enormous strides during the past decade with regards to clinical activity in medical research. More specifically, during the past five years, USF Health has placed increasing emphasis on clinical and translational research in the medical sciences. These research advances have been seen throughout the various colleges at USF Health, resulting in numerous Research Centers of Excellence. Further, various other departments at the University of South Florida have established themselves as Centers of Excellence, establishing a foundation upon which public-private entrepreneurial partnerships may be established.

With healthcare changing at a very rapid pace, more complex health-care teams will be required in the future for the safe and advanced administration of medicinal agents to the patients that these discoveries will one day serve. The healthcare teams of the future are expected to be interdisciplinary in nature, and comprehensive with regards to the various disciplines required to safely and effectively manage patient care. Among the numerous healthcare practitioners required for both clinical activities and research are pharmacists. Well-trained pharmacists shall be required in all facets of the delivery of healthcare, including drug discovery and design, policy management, clinical trial management, patient education and administration, and physician and nurse interfacing, education, and support. USF Health is well positioned to deliver a top-quality pharmacy education program to meet all of these needs of the healthcare community.

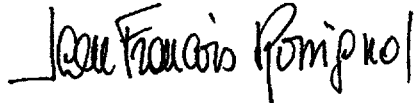
The proposed University of South Florida doctor of pharmacy program will provide numerous advantages to an already outstanding health education profile at USF Health. For example:

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5. Expansion of entrepreneurial models will be enhanced from increased partnerships with pharmaceutical and business industries that currently partner with USF Health; and
6. Expansion of research-based programs and opportunities for students would occur not only for future pharmacy students, but for students throughout the various components of USF Health.

The proposed USF doctor of pharmacy program will add a very necessary component to the very rich profile of health education programs currently in existence. The addition of highly trained pharmacist clinicians to the workforce, as well as addition of pharmacy faculty to the teaching, research, and learning opportunities for all health-care professions at USF Health, are certainly worthy of an investment of resources from the state of Florida.

This endeavor has our highest support, and we are committed to helping to make it a success.

Sincerely yours,  
ROMARK LABORATORIES, L.C.

A handwritten signature in black ink that reads "Jean-François Rossignol". The signature is written in a cursive, flowing style.

Jean-François Rossignol, M.D., Ph.D., F.R.S.C.  
Stanford University Consultant Professor of Medicine  
Chairman and Chief Science Officer



6 January 2009

Sheila M. McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Governor McDevitt:

We are Allscripts-Misys Healthcare Solutions, Inc., and we are writing this letter to support a very important endeavor of the University of South Florida. We are providing an enthusiastic letter of support to the Florida Board of Governors for the proposed University of South Florida Doctor of Pharmacy program. We are partners of USF Health on various healthcare endeavors, and would like to share with the Board of Governors important points of consideration.

USF Health has quickly emerged as a leader in healthcare innovation and technological advances during the past five years. Strategically, USF Health has made committed efforts to emphasize the implementation of healthcare information technology, and is a leader in the emergence of personalized medicine. Because of increased consumer demand for greater coordination of care, USF Health recognizes the importance of promoting patient safety with advances in technology and continued promotion of educational programs.

Allscripts as a company is the clear leader in software, services, information and connectivity solutions that empower physicians and other healthcare providers to deliver best-in-class patient safety, clinical outcomes and financial results. With the increase in medication utilization by patients, the role of interdisciplinary teams will become even more important as our population continues to age. We believe that well-trained pharmacists will be called upon to be leaders in the transformation to e-prescribing practices by all health care providers. The end result will be improved efficiency and safety for patients throughout the country. The goals of Allscripts, Inc. align strategically with the clinical and innovative interests of USF Health, and the proposed USF Doctor of Pharmacy program will become an important component to achieve scientific advances for USF Health and its partners.



The creation of a pharmacy program at USF Health will add significantly to the already outstanding profile at USF health. The students and faculty from the pharmacy program will provide interdisciplinary leadership as health care continues to evolve in areas of patient safety, education, research, and technology. Further, the pharmacy program will provide substantial economic development opportunities for the University, the Tampa Bay area, and the state of Florida.

We are in strong support of the creation of the USF Health Doctor of Pharmacy program. Thank you for your time to review this supportive letter for the USF Health venture.

Sincerely,

A handwritten signature in black ink, appearing to read "Glen Tullman".

Glen E. Tullman  
Chief Executive Officer

Cc: Governor Frank Martin, Chair, Florida Board of Governors  
Mark B Rosenberg, Chancellor  
John Delaney, President-in-Residence, UNF  
Judy L Genshaft, President, USF



Department of Veterans Affairs  
James A. Haley Veterans' Hospital  
13000 Bruce B. Downs Boulevard  
Tampa FL 33612

January 8, 2009

In Reply Refer To: 673/113

Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Governor McDevitt;

James A. Haley Veterans Administration Hospital- Department of Pathology is proud to provide this letter of support for the proposed University of South Florida Doctor of Pharmacy program. Our two institutions have maintained a very close relationship for many years, and this endeavor by the University aligns with our healthcare missions for improving the health quality of patients.

USF Health has become as a leader in healthcare innovation. During discussions extending back over the past year, we understand that the proposed Doctor of Pharmacy program will place particular curriculum emphasis upon pharmacogenetics and pharmacogenetics. The James A. Haley VA hospital is on the cutting edge of providing pharmacogenetics services to our patients, not only here in the Tampa area, but throughout the entire southeast region of the United States. We are excited about the possibility to partner with the University of South Florida in the development of this portion of the curriculum. The opportunity to play a part in the development of a pharmacogenetics curriculum with the proposed program can only serve to improve our ability to provide such services to our patients. Future research opportunities will also be created in this emerging area of health-care technology. Because of increased demand for health-care services, USF Health recognizes the importance of promoting patient safety with advances in technology and continued promotion of educational programs.

Here in the VA setting, it is very common to have interdisciplinary healthcare teams provide clinical services to patients. Clinical pharmacists play a very integral role on these health care teams. As we look to the future, we will be expanding these interdisciplinary healthcare teams, and more specifically the role the pharmacist, in the areas of individualized medicine for patients. While this is a very technologically advanced form of health-care, we believe that the future begins now, and that the proposed USF Health pharmacy program will play a critical role in the development of future health care modalities.

We maintain a healthy relationship with several pharmacy programs currently, and will welcome the participation of future USF pharmacy students into our setting. Further, the creation of a pharmacy program at USF Health will add significantly to the already outstanding academic

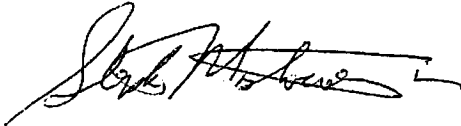


Page 2

health care profile at USF Health. Also, the pharmacy program will provide substantial economic development opportunities for the University, the Tampa Bay area, and the state of Florida.

The James A. Haley Hospital-Department of Pathology strongly supports the creation of the USF Health Doctor of Pharmacy program.

Sincerely,



Stephen M. Mastorides, M.D.

---

Assistant Professor of Pathology  
University of South Florida  
Chief, Pathology and Laboratory Medicine Service (673/113)  
James A. Haley Hospital  
13000 Bruce B. Downs Blvd.  
Tampa, FL 33612  
Tel: 813-972-7525  
Fax: 813-978-5827  
Email: Stephen.Mastorides@va.gov

cc: Governor Frank Martin, Chair, Florida Board of Governors  
Mark B Rosenberg, Chancellor  
John Delaney, President-in-Residence, UNF  
Judy L Genshaft, President, USF



**Dr. Leonard Polizzotto**  
Marketing & Strategic Business Development

January 9, 2009

Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Dear Ms McDevitt;

Draper Laboratory strongly supports the proposed University of South Florida doctor of pharmacy program. The University of South Florida Health Sciences Center has made enormous strides during the past decade with regards to clinical activity in medical research. More specifically, during the past five years, USF Health has placed increasing emphasis on clinical and translational research in the medical sciences. These research advances have been seen throughout the various colleges at USF Health, resulting in numerous Research Centers of Excellence. Further, various other departments at the University of South Florida have established themselves as Centers of Excellence, establishing a foundation upon which public-private entrepreneurial partnerships may be established. With health care changing at a very rapid pace, more complex health-care teams will be required in the future for the safe and advanced administration of medicinal agents to the patients that these discoveries will one day serve. The health care teams of the future are expected to be interdisciplinary in nature, and comprehensive with regards to the various disciplines required to safely and effectively manage patient care. Among the numerous health-care practitioners required for both clinical activities and research are pharmacists. Well-trained pharmacists shall be required in all facets of the delivery of healthcare, including drug discovery and design, policy management, clinical trial management, patient education and administration, and physician and nurse interfacing, education, and support. Draper's new center for BioMEMS at USF, researching and developing implantable MEMS devices for improved healthcare, will include new drug delivery systems. The proposed pharmacy program would nicely complement Draper and the USF medical school in these efforts and greatly increase the probability of success of these new systems.

USF Health is well positioned to deliver a top-quality pharmacy education program to meet all of these needs of the healthcare community. The proposed University of South Florida doctor of pharmacy program will provide numerous advantages to an already outstanding health education profile at USF Health. For example:

1. Pharmacist-clinicians will be created to address the current shortage of pharmacists in Florida;

2. Faculty from the proposed program would be involved in clinical and research endeavors throughout USF Health, lending key expertise to clinical research teams throughout the entire research profile;
3. Addition of pharmacy faculty to assist in research would allow increased opportunities for entrepreneurial types of clinical and research models;
4. Opportunities for pharmacy faculty and students to collaborate with researchers in drug discovery, clinical trial management, and patient recruitment and education would exist with the development of a pharmacy education program.
5. Expansion of entrepreneurial models will be enhanced from increase partnerships with pharmaceutical and business industries that currently partner with USF Health.
6. Expansion of research-based programs and opportunities for students would occur not only for future pharmacy students, but for students throughout the various components of USF Health.

The proposed USF doctor of pharmacy program will add a very necessary component to the very rich profile of health education programs and R&D activities currently in existence. The addition of highly trained pharmacist clinicians to the workforce, as well as addition of pharmacy faculty to the teaching, research, and learning opportunities for all health-care professions at USF Health, are certainly worth an investment of resources from the state of Florida.

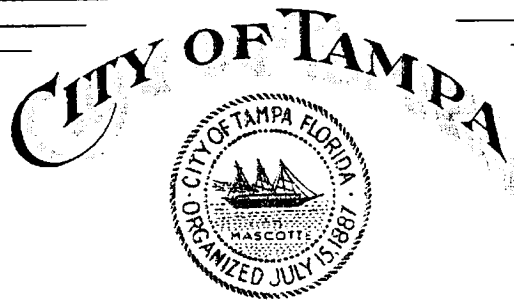
This endeavor has our highest support, and we are committed to helping to make it a success.

Sincerely,

A handwritten signature in blue ink that reads "Len Polizzotto". The signature is written in a cursive, flowing style.

Len Polizzotto

LP/psb



January 12, 2009

**Pam Iorio, Mayor**

The Honorable Sheila M McDevitt, Chair  
Florida Board of Governors  
State University System  
325 West Gaines Street, Suite 1614  
Tallahassee, FL 32399-0400

Re: Support for USF Doctor of Pharmacy Program

Dear Chair McDevitt,

Thank you and your colleagues on the Board of Governors for approving a Ph.D in History at the University of South Florida. The addition of this most crucial academic area will play a role in moving our wonderful University to an even higher level.

It has been brought to my attention that one of the other programs on that meeting's agenda had been deferred. Please know that the City of Tampa supports the proposed USF Doctor of Pharmacy degree program. This initiative will have a direct and positive impact on our community. Health care is vitally important yet we are suffering from a pharmacist shortage. This is the trend nationally as well as in the City of Tampa.

Florida's affordable current public university Pharmacy programs are turning away hundreds of qualified applicants. In addition, many Tampa Bay area residents cannot move to Gainesville or Tallahassee so they do not consider a career in Pharmacy as an option. Florida needs a metropolitan-based program and Tampa is the logical site. Our city's rich and diverse demographic undoubtedly will improve the pool of minority PharmD students, since many of those potential qualified applicants are place-bound.

Thank you for this opportunity to comment. And, again, please let your colleagues know how much we appreciated their approval of the History Ph.D. With the recent opening of our Tampa Bay History Center, students will have access to many resources in the pursuit of their degree.

Finally, if there is anything I can do to assist you and the Board in your efforts to improve our State University System, do not hesitate to call.

Sincerely,

Pam Iorio

USF PharmD Business Plan  
 FBOG Table 2P  
 Summary Costs for Proposed Doctor of Pharmacy

<b>FINANCIAL SUMMARY</b> <i>(Constant 2008 Dollars)</i>												
	Existing Resources	Planning Year	Planning Year	Planning Year	Classes begin							
		Year 1 2008-09	Year 2 2009-10	Year 3 2010-11	Year 1 2011-12	Year 2 2012-13	Year 3 2013-14	Year 4 2014-15	Year 5 2015-16	Year 6 2016-17	Year 7 2017-18	Year 8 2018-19
<b>I &amp; R EXPENSES</b>												
Faculty Salary and Benefits			\$551,800	\$1,265,234	\$1,997,592	\$3,736,481	\$4,691,776	\$5,185,934	\$5,272,257	\$5,685,424	\$6,110,984	\$6,549,322
A&P Salary and Benefits			\$0	\$97,500	\$100,425	\$103,438	\$197,542	\$203,467	\$209,572	\$215,859	\$222,335	\$229,004
USPS Salary and Benefits			\$0	\$123,500	\$166,205	\$346,692	\$448,092	\$513,535	\$528,940	\$544,809	\$561,153	\$577,988
Other Personnel Services			\$0	\$0	\$31,320	\$62,640	\$93,960	\$125,280	\$656,660	\$756,660	\$806,660	\$806,660
Expenses		\$25,000	\$95,938	\$304,158	\$412,316	\$499,700	\$584,576	\$1,615,504	\$1,697,259	\$1,725,357	\$1,740,957	\$1,757,028
Operating Capital Outlay		\$0	\$4,500	\$19,500	\$31,500	\$60,000	\$76,500	\$78,795	\$81,157	\$83,591	\$86,100	\$88,685
Electronic Data Processing								\$40,000	\$48,750	\$55,000	\$55,000	\$55,000
Library resources and staff								\$290,000	\$367,500	\$430,000	\$430,000	\$430,000
Special Categories												
<b>Total I&amp;R Expenses:</b>		\$25,000	\$652,238	\$1,809,892	\$2,739,358	\$4,808,951	\$6,092,445	\$8,052,515	\$8,862,095	\$9,496,699	\$10,013,189	\$10,493,687
<b>START-UP INVESTMENTS</b>												
I&R Labs				\$87,500	\$75,000	\$50,000		\$500,000	\$1,000,000	\$1,000,000	\$500,000	
Distance Learning Equipment					\$150,000							
Investment 3												
<b>Total Start-up Investments:</b>		\$0	\$0	\$87,500	\$225,000	\$50,000	\$0	\$500,000	\$1,000,000	\$1,000,000	\$500,000	\$0
<b>FACILITIES INVESTMENTS</b>												
School of Pharmacy Building 2												
Other												
<b>Total Facilities Investments:</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Gross Pharmacy School Funds Required</b>		\$25,000	\$652,238	\$1,897,392	\$2,964,358	\$4,858,951	\$6,092,445	\$8,552,515	\$9,862,095	\$10,496,699	\$10,513,189	\$10,493,687
<b>RECEIPTS</b>												
Tuition					\$755,000	\$2,076,250	\$4,110,750	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000	\$7,308,000
Community donations	\$1,000,000		\$652,238	\$347,762	\$300,000							
Industry donations				\$500,000	\$500,000							
Contract and Grant (NET)												
Other	\$25,000	\$25,000		\$475,000								
<b>Total Receipts:</b>	\$1,025,000	\$25,000	\$652,238	\$1,322,762	\$1,555,000	\$2,076,250	\$4,110,750	\$5,937,750	\$6,851,250	\$7,308,000	\$7,308,000	\$7,308,000
<b>Net Pharmacy School Funds Required</b>		\$0	\$0	\$574,630	\$1,409,358	\$2,782,701	\$1,981,695	\$2,614,765	\$3,010,845	\$3,188,699	\$3,205,189	\$3,185,687
<b>STATE APPROPRIATIONS</b>												
<b>Recurring</b>												
Headcount G.R. Appropriation					\$400,000	\$1,000,000	\$1,800,000	\$2,600,000	\$3,000,000	3,200,000	3,200,000	3,200,000
Per Headcount Appropriation					\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
<b>Non-Recurring</b>												
G.R. Special Appropriation					\$1,009,358	\$1,782,701						
PECO												
State Match - Contributions												
<b>FEDERAL APPROPRIATIONS*</b>								\$2,250,000	\$2,250,000	\$2,250,000	\$2,250,000	\$2,250,000
<b>Faculty Hiring Schedule</b>												
Basic Science Faculty				3.00	4.00	2.00						
Clinical Science Faculty				2.00	2.00	11.00	8.00	1.00		2.00	2.00	2.00
Other			3.00	1.00	1.00	2.00						
<b>Total I&amp;R Faculty:</b>	0.00	0.00	3.00	6.00	7.00	15.00	8.00	1.00	0.00	2.00	2.00	2.00
<b>Cumulative I&amp;R Faculty:</b>			3.00	9.00	16.00	31.00	39.00	40.00	40.00	42.00	44.00	46.00
<b>Students</b>		0	0	0	50	125	225	325	375	400	400	400
<b>Tuition/% Increase</b>					\$15,100	\$16,610/10%	\$18,270/10%	\$18,270/0%	\$18,270/0%	\$18,270/0%	\$18,270/0%	\$18,270/0%

\* Source of funds TBD - the university will include in fundraising priorities and/or identification of other sources; feasibility of requesting non-recurring state resources will be discussed with BOG at appropriate time in the future.

**Narrative to Explain Budget Information****I&R Expenses:**

Faculty Salary and Benefits includes all faculty costs and represents the basic costs needed for the start-up of a newly accredited Pharmacy program which is self-sustainable.

Staff Salary and Benefits includes all expected costs needed to fully support a newly accredited Pharmacy program at a self-sustainable level.

OPS includes expected salaries for temporary staff, students, Graduate Assistants, and affiliated faculty.

Expenses include expected Academic and Administrative costs for general operations of a fully accredited Pharmacy program, including ongoing electronic and technological support specific to the program and faculty start-up packages.

OCO includes expected ongoing Academic and Administrative costs for equipment needs that are specific to the program.

**Start-up Investments:**

I&R Labs - estimated equipment cost for 25 Instructional labs @ \$2,500 each and 15 Research labs @ \$10k each; expansion in 2014-15 reflects increased research.

Distance Learning - estimated equipment costs for implementing the distance learning component of the program in order to reach a wider student base.

**Facilities Investments:**

The development plan for the Pharmacy program calls for a campaign goal of \$29.7M to be matched by the Facility Enhancement Challenge Grant Program (FECGP) for the planning, construction, and equipment costs of a new facility to house the program. Expectation that facilities planning will begin 2015-16. In the interim, existing space will be allocated to the program until the new facility is ready.

**Gross Pharmacy School Funds Required:**

This is the minimum amount needed to fund the costs for start-up and continual operations of the Pharmacy program at a financially sustainable level.

**Receipts:**

Tuition is based on a professional fee model using a 10% annual increase which results in a tuition rate of \$15,100 for the entering 2011-12 class. The rate of tuition increase will be re-evaluated for 2014-15 (the 4th year of program admissions).

Community Donations: \$1M of existing resources is pledged by USF to partially fund the costs in Planning years 1 - 3 of the program. An additional \$.03M is being sought to support the new USF School of Pharmacy.

Industry Donations: \$1M is being sought from local industry leaders who have expressed interest in supporting and partnering with the new USF School of Pharmacy.

Other: \$0.5M is pledged by USF Health to partially fund the costs in Planning years 1 - 3 of the program.

**State Appropriations:**

Recurring headcount appropriations were calculated using the level at which current funding formula model is typically funded, are cumulative, and include the indirect support costs needs for the Pharmacy program.

**Federal "Appropriations":**

Federal Contract and Grant funds generated by Basic Science Faculty (\$.25M/fac).

**Students:**

Maximum program enrollment of 400 is attained by Year 6 of the program (2016-17).