

# University of Florida College of Medicine – LCME - 2000

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Office For Program Evaluation & Faculty Development

## FACULTY DEVELOPMENT

### LCME 2000 Summary

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### LCME Self-Study: Summary Report

#### INTRODUCTION

The University Of Florida College Of Medicine is dedicated to preparing its students to be successful residents, and to become licensed physicians who care for the medical needs of citizens of the State of Florida, the nation, and the world. Clear goals and measurable objectives encapsulate the commitment of the college to excellence in education, research, and clinical care.

Founded in 1956, the College of Medicine (COM) is one of 23 colleges and schools at the University of Florida and one of six Health Science Center colleges. The main COM campus is contiguous with the central campus of the University of Florida in Gainesville--a north central Florida city with a population of about 202,000. The undergraduate medical education program is predominantly conducted at the main campus, with components offered at two additional sites: the Program in Medical Sciences (PIMS), on the campus of Florida State University (FSU) at Tallahassee--a city in the panhandle region of the state with a population of 268,000; and the University of Florida Health Science Center in Jacksonville (UFHSC-J)--an urban center with 1,000,000 citizens.

Kenneth I. Berns, M.D., Ph.D., was appointed dean of the COM in October 1997; he also serves as interim Vice President for Health Affairs. Under his direction, the COM makes continuous progress in accomplishing short-term goals and objectives in the areas of education, research, and health-care delivery--while positioning itself to reach long-term goals in the twenty-first century.

## **SUMMARY OF LCME CONCERNS AND RESPONSES BY THE COLLEGE OF MEDICINE**

After its March 1993 site visit, the LCME identified areas of concerns in a letter to the president of the University of Florida. The COM responded to these concerns in the 1995 progress report.

### *1. Status of the functional integration of the geographically separated Program in Medical Sciences (PIMS) at Tallahassee, and the education program at Jacksonville*

The PIMS mission was reaffirmed. A new director of PIMS was appointed and serves on the curriculum committee (CC) at the main campus in Gainesville. State funding and space for PIMS have increased. At annual joint retreats, Tallahassee and Gainesville faculty exchange educational course materials and discuss equivalency of first-year courses. American Medical Colleges Admission Services (AMCAS) is used for PIMS admissions. Student progress in PIMS is monitored continually. Improved communication between students, faculty, and staff is reinforced through orientation, receptions, and Family/Friends Day. Significant progress has been made on improving USMLE scores and pass rates.

Functional integration of the program at Jacksonville continues to increase in the areas of administration, clerkships, and opportunities for direct contact between campuses. A newly appointed senior associate dean of UFHSC-J meets regularly with the dean of the COM and senior associate dean for educational affairs. The assistant dean for medical education at Jacksonville (a newly created position) serves on the CC. Third-year clerkships have been extended to all disciplines, except anesthesiology. The use of telecommunications for common clerkship lectures, teleconferencing between clerkship directors, and library and email access via Healthnet strengthen ties between Gainesville and Jacksonville. Gainesville administrators and faculty members participate in Jacksonville Awards Day and Research Day at UFHSC-J. The role of the North Florida AHEC in program interaction has been expanded.

### *2. Role of the Curriculum Committee (CC) in the management and evaluation*

In its comprehensive education renewal plan, the CC presents strategies for defining, implementing, and evaluating the general professional education. Principles and goals of curriculum renewal were identified and approved by the CC and executive committee. Generalist medicine has become the core of the general professional education curriculum. The College of Medicine Education Center (COMEC) provides infrastructure and service to the education program and faculty development. A subcommittee of the

CC was established and has developed a plan to evaluate students, faculty, courses, and the overall education program. This plan is currently being implemented and will provide feedback to the CC, the senior associate dean for educational affairs (SADEA), and the dean.

### *3. Degree of progress in curricular renewal*

Standards for training and evaluation of COM students correlate with attainment of competencies by graduation. A clinical presentation model is the strategy for addressing basic and clinical science content and integration. An interdisciplinary longitudinal course/clerkship sequence has been established. A geriatric curriculum and a rehabilitation program have been developed.

### *4. Diversity of the student body*

Two assistant deans for minority affairs now serve on the Admissions Committee and are ex-officio members of the Academic Status Committee (ASC). The college conducts extensive recruitment efforts for the Gainesville and the PIMS at predominantly African-American colleges and universities. Collaboration between the COM and Florida A & M University enables early recruitment of African American premedical students through a Junior Honors Program. The number of students from non-white and underrepresented ethnic groups rose from 18% in 1992 to 35% in 1999. The minority scholarship program has been substantially enhanced. Endowments exceeding \$1.5 million for scholarships for needy students are being utilized.

### *5. Status of financial aid administration and assessment of student satisfaction*

The COM established its Office of Financial Aid, which provides comprehensive student services, in 1994. Ninety-three percent of medical students use the office. Senior debt counseling with amortization schedules has been extremely well received. Results of surveys show high student satisfaction.

### *6. Policies and procedures to address student concerns about stress, abuse, gender and racial harassment*

The COM established a COM Sexual Harassment Committee, which designated a counselor for students. The director of the Office of Student Counseling and Development organizes workshops dealing with stress, time management, sexual harassment, gender, and racial harassment. College of Medicine policies and procedures regarding sexual harassment are disseminated in the student catalog, handbooks, and at orientations. The college has appointed a "first-contact counselor" to assist students in dealing with these issues.

### *7. Concerns about effectiveness of personal and academic student counseling*

In 1993, the COM established the Office of Student Counseling and Development. Since then, the student advisor/mentor program has been restructured. Its workshops address such topics as stress management, sexual harassment, and racial, ethnic and gender discrimination. A faculty-training program to enhance student feedback and evaluation has been developed. Annual surveys indicate high levels of student awareness of, and satisfaction with, services provided by this office; 84% of respondents said they would use these services when need arises.

#### *8. Significant faculty concerns about career guidance and criteria for promotion and tenure*

The associate dean for continuing medical education is now the associate dean for continuing medical education and faculty development. A faculty development seminar program is conducted. The Faculty Council developed a guide for promotion and tenure for all faculty. An educational portfolio was created to help faculty members prepare for promotion and tenure, and apply for statewide Teaching Improvement Program (TIP) awards.

In summary, the COM has made significant progress in resolving issues raised during the LCME visit of March 1993. In fact, some of the resulting initiatives, such as providing on-site financial aid counseling and confidential personal counseling, have become strengths of our education program.

Functional integration of the PIMS in Tallahassee remains somewhat problematic. Many initiatives have been undertaken to assure communication between course directors, equivalency of educational experiences, and assuring that the PIMS students feel fully accepted as members of their class in Gainesville. Communication at administrative levels has been more difficult. Future LCME activities are likely to include reviewing a major change in curriculum when the PIMS expands to the second year of medical school and increases class size to 60 students, and subsequent transition to a four-year medical school with a proposed enrollment of 120 students in each class.

## **I. OBJECTIVES**

In 1997, Dean Berns asked members of the LCME self-study task force to review and update the COM Strategic Plan as part of the self-study process. Dean Berns' charge broadened participation of faculty, students and departmental chairs in appraising the status of the programs and recommending a blueprint for new directions in education, faculty development, research, clinical practice/health-care delivery, and administration/governance.

This project led to the formulation of a set of education principles, paired with relevant goals and objectives that were approved in 1998 by course and clerkship directors, student leaders, and the Executive Committee. The education goals and objectives are in three major categories: administration of the education programs, the medical student education program, and other education programs.

*Administrative Goals:*

1. Empower the centralized education unit to develop, implement and evaluate all aspects of the education programs.
2. Create a humane environment that fosters respect, professional integrity, service orientation and personal well being.

*Goals of the Medical Student Education Program:*

Since 1993, the COM has developed numerous innovations and improvements in its education program for medical students. These activities were based on 12 principles of education design that serve as yardsticks for evaluating the education program and keeping the planning and continuous renewal in alignment.

**Principle 1:** All students must be provided with a general professional education.

**Principle 2:** The education program and evaluations are based on attainment of competencies.

**Principle 3:** A conceptual framework for defining knowledge promotes learning and effective utilization of that knowledge and serves as a basis for curriculum integration.

**Principle 4:** The ability to learn independently is essential for physicians in providing quality health care throughout their careers.

**Principle 5:** For complete professional development of students, the education program must incorporate characteristics of outstanding physicians into the learning process.

**Principle 6:** Effective healthcare delivery requires the consideration of family and community contexts.

**Principle 7:** Appropriate faculty and clinical settings are crucial to students' mastery of the competencies.

**Principle 8:** The education program must respond to the emerging needs of society.

**Principle 9:** Informatics are essential for effective utilization of information by students and practitioners.

**Principle 10:** Discovery of new knowledge and solutions is integral to the medical profession.

**Principle 11:** Healthcare delivery requires individual and team efforts.

**Principle 12:** Learning and professional development require a humane environment.

Each of these principles is paired with a specific goal to guide implementation and assess quality of the program:

1. Design a core curriculum that provides the foundations of medical science and clinical practice and prepares students for the residency of their choice.
2. Develop a competency-based curriculum and evaluation system.
3. Adopt the clinical presentation model as the integrative framework.
4. Develop curriculum structure and learning methodologies that foster independent learning.
5. Develop curriculum, programs, and faculty role models to demonstrate the highest standards of professionalism.
6. Develop learning experiences to focus on family and community contexts.
7. Utilize the best teaching faculty in diverse clinical settings.
8. Develop an education program that is informed by and responsive to societal constituents.
9. Develop curriculum and services to develop students' skills in informatics.
10. Develop a curriculum that emphasizes new knowledge and discovery.
11. Develop a curriculum fostering an interdisciplinary and multi-professional approach to healthcare delivery.
12. Develop a curriculum, education program, and environment that foster students' well being and personal growth.

*Goals for Other Education Programs:*

1. Provide sufficient oversight for Graduate Medical Education (GME) programs.
2. Provide state-of-the-art Continuing Medical Education (CME) as an integral part of our health-care system.
3. Continue developing the interdisciplinary program for biomedical graduate student education.
4. Maintain a Physician Assistant Program of the highest quality.

These goals are prioritized for the college's mission-based budgeting system. Administrators communicate these goals regularly with the teaching faculty through the Internet and open-forum sessions hosted by the chair of the CC; monthly course and clerkship meetings; and meetings of the Executive Committee.

## **II. GOVERNANCE**

As one of ten institutions in the State University System of Florida, the University of Florida (UF) is regulated by the Board of Regents (BOR), whose 14 members are appointed by the governor. Each university president reports directly to the BOR.

The COM and five other health-related colleges (Dentistry, Health Professions, Nursing, Pharmacy, and Veterinary Medicine) constitute the Health Science Center (HSC). These colleges are managed by the interim vice president for health affairs, Dr. Kenneth I. Berns, MD, Ph.D., who is also the dean of the COM. Along with other HSC deans, he

reports directly to the university president and provost. The provost determines budgets for state funds and for the academic (teaching and research) activities. Patient-care earnings are managed by the individual colleges, with oversight by the interim vice-president.

To eliminate duplication and bureaucracy, the administrative units of the COM and the office of the vice president for health affairs have been combined. This blending of responsibilities increases the level of communication and cooperation between the colleges. Several administrative staff members carry out dual roles: for example, the associate dean for administrative affairs is also the assistant vice president for administration; and the assistant dean for financial affairs serves as the chief financial officer of the HSC.

As interim vice-president for health affairs, Dr. Berns meets regularly with individuals and teams to assure good communication throughout the enterprise: weekly with the HSC deans, the SHANDS HealthCare CEO, and with all senior vice president staff; monthly with the provost, top administrators of the COM and SHANDS HealthCare, all directors and higher-level officials in the vice-president's office; and quarterly in a joint meeting of the CEO of SHANDS HealthCare, the deans of the HSC colleges, and the director of the Malcom Randall Veterans Affairs Medical Center (VAMC) which is part of the North Florida/South Georgia Veterans Health System. As dean of the COM, Dr. Berns holds weekly meetings with his management group and regular meetings with the chairs of the basic science departments and the clinical departments (Florida Clinical Practice Board). In addition, the Executive Committee – composed of all department chairs and key representatives of the dean's office – meets monthly. Each of these committees also has a Faculty Council representative as a member.

SHANDS HealthCare is a clinical enterprise that owns and operates seven hospitals and manages more than 50 outpatient clinics. Its mission is to provide health care to all of north central Florida and management services to the clinics owned by the COM. The current relationship between SHANDS HealthCare and the medical school is the most cooperative and cordial in the history of the institution. Close ties exist between the clinical services of the COM and SHANDS HealthCare, particularly with SHANDS at UF. Community physicians practice at the other six hospitals. Blending of the physician practices, between academic and community physicians, remains a challenge for the future. The University of Florida SHANDS Clinics are managed by the COM and SHANDS at UF by a board of directors consisting of the clinical chairs, dean of the COM and an executive director. The college retains control over funds generated by the clinics although the non-patient care employees of the clinics are SHANDS employees.

The COM is affiliated with the VAMC, which is directly across the street from SHANDS at UF. Faculty (both clinical and research), residents, and students utilize the facility. The departmental chairs of the COM meet formally with the VAMC administrators six times a year.

Since the 1970s, the COM has been affiliated for teaching purposes with University Medical Center (UMC) in Jacksonville. Approximately 25% of medical student clinical training occurs in Jacksonville. In October 1999, UMC and Methodist Medical Center agreed to a common patient holding company, SHANDS Jacksonville. SHANDS Jacksonville has common board members with SHANDS HealthCare in Gainesville but is a separate not-for-profit corporation. There are now over 250 UF COM faculty who practice at SHANDS Jacksonville. With the SHANDS tie to Jacksonville, the COM has active plans to reorganize the college to strengthen the relationship of the two campuses. Reorganization of the office of the dean facilitates communication and consistency of policy.

### **III. ADMINISTRATION**

In October 1997, the University of Florida recruited Kenneth I. Berns, MD, Ph.D., as dean of the COM. Previously, he was professor and chairman of the Department of Microbiology and professor of Pediatrics at Cornell Medical College. Dr. Berns is active in various societies, including the Association of American Medical Colleges, and has chaired that organization. He is a member of the National Academy of Sciences and is the principal investigator on several NIH-funded grants. He actively participates in meetings of the CC. Dr. Berns is highly qualified to provide leadership for the college.

While retaining ultimate responsibility and authority for all activities within the office, the dean entrusts senior associate deans with mission management. Overlap of these responsibilities is managed informally or through the monthly dean's management group meetings. The principal operational unit of the COM is the department. Since the last accreditation, the appointment of 12 new department chairs has created an influx of talent and ideas. Chair positions are filled following national searches; such searches are in progress for Neurology, Otolaryngology and Radiology.

Clinical financial activities of billing, collection, and distribution of clinical income are managed through the Faculty Practice Plan of the COM, as designated by the Florida Clinical Practice Association (FCPA). This group is composed of the chairs of the clinical departments, the dean/vice president for health affairs, and an at-large faculty member. The group is headed by a clinical chair, who is nominated by the dean and approved by the BOR. Prospective spending plans and audits are provided annually to the staff of the BOR and the Florida Legislature. As revenue is collected, assessments are levied to support the dean's office, the clinics, and the Faculty Group Practice. The department chairs manage the remaining revenue.

Medical school administrators are effective in their positions and have the experience and training to recognize and take action to solve problems. Established committees and processes allow these administrators to serve the organizational and financial needs of the school.

**Faculty Governance, Department Chairs and Administrative Committees** The departmental orientation of the COM is being altered by the designation of institutional

centers of cancer, genetics, transplantation, cardiovascular medicine, and neurological sciences (Brain Institute). Defining the relationship between center directors, department chairs, and the dean, and between department and center faculties is significant for the future success of the medical school.

There are about 700 faculty members in Gainesville and another 250 in Jacksonville. While most of the communication between the dean's office and the faculty occurs through the traditional conduit of the chair, other significant mechanisms exist. A faculty council was formed in 1983 and the dean meets with this group several times a year. The dean meets with the Faculty Council Executive Committee each month.

Starting in 1997, the COM revised its strategic plan, which clearly articulates the priorities of the medical school and the resources that are critical to their implementation. The strategic planning process involved 12 task forces and multiple meetings of the dean with the chairs. New strategic goals, including objectives, resource schedules, and implementation tactics, have been identified for administration/governance, education, clinical practice research, and faculty development. At faculty/chair retreats, the Executive Committee, representatives of the faculty, and management of SHANDS at UF and VAMC reviewed the plan and are establishing priorities. Review by faculty and students is coordinated by the Faculty Council utilizing the college's Web site.

The faculty and staff of the medical school serve on numerous university committees and collaborate on many education and scientific projects. Several are primary investigators on research grants for other colleges, especially in HSC colleges. The committee structure of the college appears to be efficient, effective and with broad faculty representation. **Geographically Separated Campuses**

*Tallahassee Campus* The COM is responsible for the quality and equivalency of the Program in the Medical Sciences (PIMS) at FSU. This program admits 30 students who, after completion of the first year, join the class on the UF campus in Gainesville. The dean of the COM appoints and delegates responsibility to the director of PIMS. The director of PIMS reports to the SADEA at the COM and to the dean of the College of Arts and Sciences at FSU.

*Jacksonville Campus* As discussed above, the COM is actively pursuing a reorganization of the structure of this separated campus. The goal is to integrate Jacksonville and Gainesville. The dean's office functions are merging and the senior associate deans responsible for education and research in Gainesville will take responsibility for these missions in Jacksonville. The clinical service missions will remain separate as will billing and collecting functions.

#### **IV. EDUCATIONAL PROGRAM LEADING TO THE MD DEGREE**

*A. Duration and Design* The COM's education program spans four years, including 168 weeks of study (40 weeks in year I; 36 weeks in year II; 48 weeks in year III and 44 weeks in year IV). The curriculum is designed as a sequence of two years of basic

science with integrated clinical experiences, including a longitudinal course, the Essentials of Patient Care, and two years of clinical rotations and electives. Eighty-five students begin their first year at the Gainesville campus and 30 students start at PIMS. All students take classes in Gainesville during their second year. Students complete their clerkship rotations at Gainesville during their third year, except for approximately 12 weeks of their clerkships at UFHSC-J. Fourth-year students complete most of their electives either in Gainesville or UFHSC-J.

The first-year PIMS at Tallahassee offers equivalent training spanning 12 months rather than the ten-month program at Gainesville. This time frame conforms to the FSU academic calendar. The urban campus at UFHSC-J is a strength of the third-year clinical clerkships. Jacksonville rotations expose students to a wide variety of common patient problems. Curricular goals and objectives are kept constant across sites through coordination by course directors of the first-year programs in Gainesville and Tallahassee, and clerkship directors in each discipline in both Gainesville and UFHSC-J.

The COM endorses a general professional education that defines a core content of basic and clinical science that all students must master, regardless of subsequent residency choice. Maintaining this cornerstone of the education program challenges the COM to identify core content in a rapidly changing health-care environment. The design of our program is competency-based. By graduation, students must acquire competence in 12 categories of knowledge, skills and behavior. All course objectives address the attainment of these competencies.

*B. Management of the Curriculum* Since the 1993 LCME site visit, there has been continued centralized management of the curriculum. The SADEA is responsible for the management and implementation of the education program. Members of the CC are selected for their interest, experience, and expertise in medical education. In addition to appointees from the Gainesville campus, the directors of the PIMS at Tallahassee and undergraduate medical education at Jacksonville serve on the CC. Each off-site director acts as a liaison between the committee and course directors in Tallahassee and clerkship directors in Jacksonville. The SADEA holds biweekly meetings of his strategic planning group that includes the chair of the CC and associate dean of education. The CC designs the curriculum and monitors its quality. This committee establishes the conceptual basis for medical professional education; develops a master curriculum plan and a master curriculum evaluation plan; cites deficiencies and proposes improvements in curriculum quality; determines distribution of curriculum time between departments; recommends methods of balancing the various teaching modalities utilized in clerkships and courses; obtains input on curriculum development from the faculty and students; and informs the faculty of curriculum goals and plans.

### *C. Structure and Content*

*First and Second-year Courses:* Beginning with the Class of 2002 (entering fall semester 1998), a restructured weekly course calendar limits the scheduled time to a maximum of 25 student-contact hours per week. To allow maximal use of the Harrell

Professional Development and Assessment Center and other resources, the "traditional" preclinical courses for the first-year class are held five afternoons per week and sessions of the Essentials of Patient Care course (EPC) meet one morning each week. Second-year students meet five mornings per week and sessions of EPC meet one afternoon each week. This scheduling change limits the time in the classroom and frees students for events and for independent learning. During the first year, student-contact hours are distributed in teaching settings as follows: 35% in lectures, 22% in small groups or conferences, 20% in laboratories, and 23% in other settings including the preceptorship and examinations. During the second year, student contact hours are distributed as follows: 51% in lectures, 23% in small groups or conferences, 17% in laboratories, and 9% in other settings.

Most students perceive the academic load to be moderately heavy, yet manageable. The most intense time in the opinions of the students is the fall semester of the first year and the last half of the second semester of the second year. The latter may be partly due to preparing for USMLE Step 1.

*Clerkships:* The quality of teaching and evaluation among the clerkship rotations is highly rated by students. The Obstetrics & Gynecology (OB/GYN) and Anesthesiology clerkships continually receive very positive comments on the quality of teaching, evaluation, and constructive formative feedback. Moderate levels of positive comments are given with respect to the Neurology, Medicine, Psychiatry, and Interdisciplinary Generalist clerkships (IGC). The quality of teaching, evaluation, and feedback in Surgery and Pediatrics clerkships are less positive comparatively. Nevertheless, the latter clerkship has won the "Golden Apple Award" as the outstanding clerkship for the past two years. The most positive comments on time for reading and independent study are given with respect to the Psychiatry, Anesthesiology, and IGC. Moderate levels of positive comments are given for the OB/GYN, Neurology and Medicine clerkships. Students would like more time for reading and study during the Surgery and Pediatrics clerkships.

During the last LCME self-study, the COM indicated the adoption of a fourth-year requirement would include a four-week experience in the ambulatory setting. This proposal was abandoned in favor of a 12-week IGC. Time was reallocated from clerkships in Surgery, OB/GYN, Psychiatry and Pediatrics to establish the new clerkship. The IGC provides ambulatory medicine training, primarily through the use of outpatient clinics in medicine, pediatrics, and family medicine; there is also a two-week experience in geriatrics. Even with the establishment of the IGC, the level of education experiences in the ambulatory setting in the other clerkships remains relatively high. The amount of time in the ambulatory setting reported for each clerkship in descending order is IGC, 95%; Neurology, 20%; Surgery, 20%; OB/GYN, 15%; Pediatrics, 15%; Medicine, 10%; Psychiatry, 10%; and Anesthesiology, 10%.

*Electives:* Students can select from over 200 electives under the supervision and upon the approval of their advisors. The director of the elective program has final authority over all elective scheduling.

*D. Evaluation of Student Achievement and Due Process* The college continually seeks to measure each student's academic achievement and evaluate professional behavior, promote timely and specific feedback to students, identify students with academic problems, and provide support and remediation as needed. These objectives come from the following premises: 1) student evaluations must be based upon cognitive and non-cognitive course/clerkship objectives that are competency-based, 2) assessment of students' knowledge and skills should be made by methods that are similar to the ways they will use them during their careers, 3) formative and summative feedback must be incorporated into the evaluation process, 4) summative evaluations of students' learning must be based upon competency-based objectives of each course/clerkship, 5) evaluation by individuals other than teaching faculty (e.g., students [self/peers], patients, nurses) should be incorporated into the evaluation process when possible, 6) assessment of *professional behavior* and human relationship competencies must be incorporated into the evaluation process, and 7) student performance is evaluated on a two-tier system: academic grades and competence.

Care is taken to ensure that the education experiences and evaluations of students receiving their first-year instruction at Tallahassee and those taking clerkships in Jacksonville are equivalent to those obtained on the Gainesville campus. The academic progress of PIMS students is reviewed by the ASC and only students who have demonstrated acceptable progress are allowed to transfer. The clerkship director in Gainesville confers the final grade for each clerkship. Formative and summative feedback is required. Formative evaluation has proved somewhat more difficult to provide than consistent and sufficient summative feedback; efforts to improve this are constant. Both faculty and residents are encouraged to give timely feedback to students as they progress through rotations, and students are encouraged to actively seek such feedback.

The ASC reviews the overall performance of each student and determines the status of each with regard to remediation, probation, dismissal, promotion, and graduation. There are nine voting members of the ASC, including the chairperson, who is appointed by the dean; clinical and basic science faculty; one senior medical student; and one resident who is a graduate of the school. Ex-officio members include various assistant and associate deans, the chair of the medical selection committee, and all course and clerkship directors. Information upon which the ASC makes determinations are grades, competency-based data, written evaluations, professional behavior and data submitted by faculty regarding cognitive and noncognitive skills, scores on the United States Medical Licensing Examination (USMLE), and scores on Performance-Based Evaluations (PBEs).

*E. Assessment of the Overall Quality of the Program and Our Graduates*

1) USMLE. Since the USMLE was implemented in 1991, the mean Step 1 scores of UF first-time takers have been above the national mean for six of the last eight years. Since 1995, the average percentile rank of UF students has been the 62nd percentile. For seven of the eight years, the mean Step 2 scores of UF first-time takers have been above the national mean. The average percentile rank for UF students for the past four years has

been the 66th percentile. Students achieved these high levels of performance when passing scores were not required for advancement or graduation. Beginning with the Class of 2002, students are required to pass Step 1 to progress to third-year clerkship rotations. It is relevant to note that the credentials of incoming students, i.e., the MCAT scores and overall science GPAs, are near the national mean for medical school matriculants. The performances on Steps 1 and 2 are higher than would be predicted on the basis of admissions' credentials.

2) Performance of medical students on Performance Based Evaluations (PBE). The COM has used PBEs (OSCEs) to assess students' performance for more than 10 years. Three summative PBEs are given at the end of the first and second years, and at the beginning of the fourth year. Students are required to pass a PBE given at the end of the second year before they are allowed to begin their clerkship rotations. Students who perform unsatisfactorily are required to remediate and retake failed stations before they are allowed to progress. Since 1995, all students have been required to pass a fourth-year PBE before they are allowed to graduate. Formative PBEs are given during the first and third years. These clinical evaluations are given within the EPC courses in the first year and within third-year clerkships. These examinations assess the attainment of interviewing and clinical skills in the course and clerkships, which become part of the final grades.

3) Faculty observation of students' performance. Direct observation by the faculty and housestaff in all clerkship rotations is an important component of the evaluation of students. The faculty is required to give students both formative and summative feedback. At the end of each rotation, students meet with the clerkship director to review their performance including the written comments of the faculty and housestaff.

4) Evaluation of graduates by residency program directors. Beginning in the 1970s, the COM has sent surveys to residency program directors to compare the performance of our graduates with other PGY-1 housestaff. Since 1993, 61% of UF graduates are ranked in the upper third of PGY-1 housestaff.

5) Survey of Graduates. For more than 15 years, the COM has surveyed its recent alumni at post- graduation years 1, 3, and 6 for their assessment of the education experiences at the COM. The overwhelming majority of the graduates report that they believe the courses and clerkships met their training needs. In written comments, many state that they feel well prepared compared to graduates from other medical schools.

6) Evaluation of the AAMC Graduation Survey. The Class of 1999 AAMC Graduation Survey had 128 comparative questions. UF students gave ratings higher than the average for all medical schools on 82 questions, the same on 38, and lower on 8.

*F. Academic Counseling and Career Guidance* The pattern of career choice of our UF graduates has been consistent with the college's goal of establishing a strong representation in the primary-care specialties without designing a curriculum to explicitly produce primary care providers. The average percentage of graduates selecting various

residencies between 1992-98 are: Medicine, 25%; Family Practice, 14%; Surgery, 14%; Pediatrics, 12%; OB/GYN, 10%; Psychiatry, 3%; Emergency Medicine, 3%; Anesthesiology, 2%; Diagnostic Radiology, 2%; Transitional, 2%; others, <1% each.

## V. MEDICAL STUDENTS

**A. Admissions** Each fall the COM accepts an entering class of 117 students: 73 through the regular admissions process, 12 through the Junior Honors Medical Program (JHMP), 30 through the one-year PIMS at Tallahassee, and 2 through the MD/Oral Surgery Program.

The goal of our highly competitive admissions process is to select academically qualified applicants who also demonstrate non-cognitive qualities such as maturity, selflessness, and motivation. The application screening and review process assesses quantitative material; the interviews primarily explore the non-cognitive personal characteristics and communication skills to identify interviewees with the best prospect of performing well as students and physicians. Selection is the responsibility of the Admissions Committee at Gainesville. At Gainesville, the dean appoints 26 members who are recommended by the chair of the committee and the SADEA. Serving three-year, staggered terms, these committee members come from a broad range of the basic and clinical science departments, administrative staff of SHANDS at UF, and community physicians. A select group of 4th year medical students also serve on this committee. A parallel application screening and selection process is conducted for both PIMS and the JHMP with the applicant pool appropriate for the chosen program. The chair of the Admissions Committee at Gainesville participates actively in these selection processes.

Admission is a six-stage process:

1. A student applies through AMCAS. For fall 1999, a total of 1,997 applied for regular entry at Gainesville-1,044 in state, 953 out-of-state; eighty-three applied for JHMP entry at Gainesville--81 in state, 2 out-of-state; and 1,111 applied for admission at PIMS--796 in-state, 315 out-of-state.
2. In Gainesville, AMCAS applications are screened by the admissions coordinator (a full-time staff member with a BA degree) and the chair. Secondary application forms are sent to the most promising applicants (724 in 1999).
3. The chair reviews completed secondary applications to identify interviewees (a total of 314 in 1999-246 in-state, 68 out-of state).
4. Two committee members independently interview applicants. Within 4 days of the interview, the committee meets formally to discuss applicants interviewed in that cycle. Each interviewer completes a written assessment, presents the candidate, and proposes his/her assessment to the rest of the committee.
5. Committee members discuss and rate each applicant on a scale from 1-6 (6 being highest).
6. Throughout the interview process, from August to the following March, the highest-rated students receive letters of acceptance until the class is filled. Some acceptable candidates are placed on an alternate list for acceptance in response to

withdrawals. For the 1999 entering class, 125 acceptance letters were sent (31 out-of-state) to fill the class of 73 (excluding the 12 JHMP students) at the Gainesville campus.

The total enrollment of the 1999-2000 entering class at Gainesville is 37 females and 48 males. The quality of the student body is considered excellent. The entering grade point average is 3.74 and the average total MCAT score is 29.4. The students (17 females and 13 males) admitted by PIMS for the class of 1999-00 has a mean grade point average of 3.46 and average total MCAT scores of 26.9. The percentage of females in the current four classes are: 47%, first year; 49%, second year; 49%, third year; and 47%, fourth year.

The COM actively recruits members of underrepresented minority (URM) groups. As a state institution, the college accepts a few non-Florida residents, including qualified URM non-residents. During the past four years, the total enrollment of minority/African-American students in all four classes fluctuated from 4.8% in 1991-92 to 8.8% in 1998-99. The assistant deans for minority affairs conduct an aggressive recruitment program. The success of this recruitment has been improved by increased scholarship funding.

To attract highly qualified undergraduates into a medical career at the University of Florida, COM offers the JHMP. Twelve academically superior undergraduates are provisionally accepted into the COM at the completion of their sophomore year. During the junior year they enroll in three seminars taught by COM faculty and take courses on the main campus. During their senior year, they complete the first year of medical school and receive the BS degree.

Four joint programs are offered to students. Students can apply concurrently to the MD degree program and the joint degree program. For the MD/Ph.D. program, the applicant is presented by a representative from the Ph.D. faculty and discussed at a regular admissions committee meeting. There are currently 23 students in the program. A maximum of three students with a DDS or DMD degree joins the second-year class for the MD/Oral Surgery Program. There are currently 6 students in this program. Other joint programs offered by the COM are the MD-JD program in association with the UF College of Law and the MD-MBA in association with the UF College of Business. While there are no students currently enrolled in these programs, progression and promotion of a student will be overseen by a joint committee from participating colleges.

**B. Student Body** During the past seven years, the selection of students with varying cognitive and personal qualities has increased the diversity of each class. The classes' cognitive diversity is demonstrated by the number of students who have publications in assorted areas of research and a variety of degree levels conferred in assorted academic areas. The classes show personal diversity in areas of age, culture, religion, racial backgrounds and personal attributes. The attrition rate is low (one or two students per year). The scholastic and professional success of students and graduates justifies the weight given to the interview in the admission process. Based upon PIMS selection criteria, students entering through PIMS also add a unique dimension to the student body.

The addition of the combined degree students and the JHMP students brings further diversity and quality to the overall classes. Transfer students may be accepted to advanced standing if vacancies exist and they meet prescribed criteria. The chair of the admissions committee has final approval on transfer applicants.

**C. Amenities for Students** Students at the main campus in Gainesville and at the Tallahassee and Jacksonville campuses vary in their ratings of amenities. At the main campus, students are satisfied with the study space and access to computers. The student lounges are viewed as areas needing improvement. The SHANDS hospital lounge has recently been refurbished. Plans are underway to create a new 1,060-sq. ft. reading room in the COM for medical students. The current preclinical lounge is for all HSC students. Concerns regarding adequacy of parking on the Gainesville campus continue. Facilities at the UFHSC-J campus have been improved and modernized since our last self-study. The student dormitory and the hospital provide study space with computer access and adjacent parking. The student dormitory, located on the hospital campus, houses up to 44 students. The dormitory is a secured facility, with access restricted to students and appropriate service personnel. In addition to living space and bathrooms, the dormitory has a kitchen, laundry area, study area with four computers, and TV lounge. Security escorts are available within the hospital campus. Students at the Tallahassee campus are overwhelmingly pleased with study and learning facilities, and with the services provided.

**D. Minority Affairs** The COM has an Office of Minority Affairs that serves all URM students, strives to increase the enrollment of URM students in the COM, and has developed retention programs. Retention efforts include, but are not limited to, tutorial services coordinated with COMEC for all COM students; encouragement of and opportunities for student interaction at the Office of Minority Affairs; one-on-one meetings with students and assistant deans; career counseling; and distribution of books and other resources donated by recent graduates. The COM has established a minority advisory committee through which members of the local community recommend ways to increase the number of URM students, housestaff and faculty.

The goal of the COM is to reflect the diversity of the state population in our incoming classes. As of 1998, the State of Florida population by race/ethnicity was: African descent, 15%; Native American 0.4%; Hispanic/Latino, 14%. The COM has shown an increase in the percentage of URM students. In 1999, the percentage was above that of the national average for U.S. medical schools, 12% versus 8.4%.

**E. Financial Aid; Tuition and Fee Refund Policy** Established in January 1994, the COM Office of Financial Aid provides debt counseling, coordinates allocation of funds, counsels students about other sources of aid, and helps students plan for repayment. Mandatory individual counseling is done with each graduating student with debt. Scholarships and loans are available to medical students based on financial need. Need is determined from a completed Free Application for Federal Student Aid (FASFA). Each year, the COM Office of Financial Aid and the Student Financial Affairs Office on campus establish a budget that is used as the basis for estimating the students' financial

need. Financial aid checks are either mailed to the students' local addresses or are electronically deposited in the students' checking accounts. Both of these recent enhancements to the delivery system have created a more efficient system for students to receive their funding. A May 1999 survey found that more than 85% of the students were either "very" or "extremely" satisfied with the overall services of the Office of Financial Aid.

During the 1998-99 academic year, a total of \$7,428,820 was awarded to 381 medical students (84% of all students). Between federal, institutional and outside sources, loans and scholarships are available to meet the needs of the school's students. Neither the cost nor the availability of financial aid is a deterrent to student recruitment. The tuition increased from \$8,146 in 1994 to \$10,952 in 1999, representing a 34% increase in five years. Florida ranks 35 out of 73 public schools in cost of instate tuition/fees. School-funded scholarships increased substantially over the same time period, from \$110,241 in 1994 to \$313,016 in 1999. The development office continues to increase the number of donors for scholarships and loans.

The average total indebtedness of students in the 1999 graduating class was \$67,536 (national average, \$73,414). Indebtedness does not appear to impact choice of specialty. The number of graduates selecting primary care residencies has grown over the last five years. Student loan repayment and default compare with the national experience. The Stafford default rate at UF was 4.5% for 1996; the national average for 1996 was 9.6%. UF's institutional loan default rate was less than 2%.

**F. Personal Counseling; Student Health Services** In fall 1993, the COM established the Office of Student Counseling and Development to provide on-site, professional, confidential counseling services to individual students and couples. The office is staffed by a counseling psychologist. Other services provided by this office include workshops and consultation for sexual harassment concerns. Workshop topics have included stress management, test anxiety, sexual harassment, and residency application and interviewing.

Students are informed of the office's policy on confidentiality before counseling. All information disclosed during counseling sessions is confidential, except in life-threatening situations, cases of suspected abuse of children, disabled or elderly persons, or when release is otherwise required by law. In addition, utilization of counseling services does not appear on the student's academic record nor is it disclosed to faculty, administration, or others without written permission of the student. A May 1999 survey found that more than 99% of the students were either very satisfied or extremely satisfied with the services of the office.

At Jacksonville, students may arrange short-term counseling through Employee Health or they may independently contact the Employee Assistance Program. Students have the option to obtain counseling through the University of Florida campus counseling service or may contact the Department of Psychiatry for referral to a psychiatrist. At the Tallahassee campus, students may arrange short-term counseling through the Student Counseling Center.

All medical students are required to have major medical health insurance and provide proof to the Office of Student Affairs at the beginning of each academic year. An option is for students to obtain coverage through a plan offered by the University's student government. Students are encouraged to obtain disability insurance. Before registration, all students are required to present proof of immunization against measles, mumps, rubella (MMR). In the absence of such proof, they are immunized at the student health care center. In addition, the college requires proof of chickenpox, a yearly PPD, and immunization against hepatitis B prior to clinical clerkships. Explicit instruction in universal precautions is given during orientation sessions at the beginning of the first and the clerkship years. Students also receive instructions during the Surgery and OB/GYN clerkships. Laminated cards with explicit instructions are provided to all students at the beginning of the third year.

## **VI. RESOURCES**

**A. Finances** Currently, the COM ranks among the top 10% of medical schools in clinical revenue generation. With the acquisition by SHANDS HealthCare of University Medical Center and Methodist Medical Center in Jacksonville, the COM faculty can expand its clinical base for teaching and clinical research.

Funding for medical education by the State of Florida depends on the COM's ability to obtain annual appropriations from the legislature. This appropriation was \$34,987,405 for 1998-99. For 1999-2000, the legislature has designated an additional \$4,338,978 for the COM and \$842,000 for the HSC library. Tuition income does not come to the COM, but is absorbed by the state treasury. The state provides money for operation and maintenance of facilities built by outside funds donated to the state, and provides operation and maintenance for 1,000,000 gsf of COM space.

As of June 30, 1999, the COM had \$139,678,280 in endowments and \$24,946,723 in program-specific funds in the University of Florida Foundation. Endowments have increased 83% from 1996 through 1999. An additional \$10,300,000 is on deposit in the University of Florida Research Foundation. Extramural research support has grown by 68% over the past five years—from \$47.5 million in 1993-94 to \$79.8 million in 1998-99. From 1994-95 to 1998-99, total extramural funding has increased from \$64.4 million to \$112,000,000 (72%). The COM has a financial reserve of \$21,990,247 as of June 30, 1999. Hospital revenues are not part of the COM.

The financial status of SHANDS Jacksonville, the major teaching hospital affiliated with the UFHSC in Jacksonville, is less secure. However, by becoming part of the SHANDS HealthCare, it is anticipated it will achieve stability. Since the previous self-study, there has been considerable growth in the number of COM third- and fourth-year students receiving their education in Jacksonville. State general revenue is only 3.3% of the UFHSC-J budget.

Financial support for the PIMS is primarily provided from state funds through the FSU Education and General (E&G) budget. FSU has two small recurring grants that fund its

outreach program. FSU has increased its endowment level for the PIMS program, including a recent one million-dollar endowment matched by \$750,000 from the state. Tuition revenues are returned to the state revenue pool. The program received increases in direct support from the Florida legislature in 1991 and 1998. The PIMS leadership believes that the program is well situated for continuation of its current mission for the next five years.

While early in 1995 the reserves of the COM were nearly depleted, a significant financial turnaround took place during the 1996-97 academic year. As of June 30, 1999, the COM was debt-free with reserves. This financial condition should facilitate attainment of COM objectives. During the financial turnaround, the college implemented a new budgetary process, including a monthly review of expenditures by departments and units.

The main teaching hospital of the COM, SHANDS at the University of Florida, has purchased and/or leased six formerly private hospitals in Alachua and surrounding counties. Financial data is now shared between SHANDS HealthCare and the COM in an attempt to utilize funds appropriately for academic excellence; joint planning also occurs.

The University of Florida is currently undergoing a major capital campaign. High on the list of priorities for the COM is construction of two new buildings, one for the University of Florida Cancer Center and the second for the University of Florida Genetics Institute. The COM's goal for the Capital Campaign was \$100 million. That goal was exceeded by June 30, 1999, with \$101,774,525 received or committed. It appears that our capital needs have been met for the immediate future. Partial funding has already been identified and faculty groups are actively planning for a second phase in the University of Florida Brain Institute (UFBI) facility development, a Neuro-Clinical Research Center based in SHANDS at UF. As new needs surface, the COM will work with the state legislature, SHANDS HealthCare, extramural granting agencies, foundations and private donors.

**B. General Facilities** The UF HSC continues its growth from its inception in 1956 with its first building, the Medical Sciences Building at 210,625 to its present 2,759,000 gsf. In addition, the Veterans Affairs Medical Center currently provides 639,000 gsf of clinical and research space. SHANDS HealthCare, the major teaching hospital system, contributes an additional 2,000,000 gsf in clinical and support space.

The 214,000-gsf UFBI building with computer-network and multimedia facilities has recently been completed. The institute houses faculty research labs and research and teaching core facilities, including an advanced magnetic-resonance and spectroscopy facility, an optical microscopy core, a supercomputer facility, a radiosurgery and spectroscopy facility, an advanced human surgical research and training lab, a human patient simulator lab, a cognitive neuroscience core lab, a human brain tissue bank, two manufacturing practice facilities for the pharmaceutical grade production of gene delivery vector and cell/tissue transplantation sources, a BSL-3 lab, advanced animal-operating-room facilities and a pathogen-free animal facility. The Eastside Clinic, a 40,000 gsf outpatient facility, was opened in April 1998, offering medical and dental primary care to underserved patients. In addition, the facility serves as a multidisciplinary academic

setting for the health professional students of the Colleges of Medicine, Nursing, Pharmacy and Health Professions. SHANDS HealthCare has also completed a Medical Plaza and two additional floors of the Cancer Center to provide 170,000 more gsf of ambulatory care facilities.

In 1998, SHANDS Jacksonville opened a new 120,000 gsf outpatient clinic that houses 96 subspecialty clinics. The hospital's new 250,000 gsf east expansion includes 16 operating suites, a state-of-the-art central laboratory, a 68-bed newborn nursery, and an extensive labor and delivery area with 16 private birthing suites. In 1991, the Intensive Care Tower was completed; it houses specialized intensive care for cardiac, trauma, neonatal, medical, pediatric and surgical patients.

Looking to the future, major construction that will take the HSC into the next millennium includes a 150,000 gsf academic building for the Colleges of Pharmacy, Health Professions and Nursing. Major renovations will take place in the original Medical Sciences Building, Pharmacy wing and Communicore Building.

Support and administrative space are adequate. Since 1994, a new 140,000-gsf office building has housed many of the fiscal, personnel, and public relations functions of the departments and the Office of the Dean. With the reorganization of the Office of the Vice-president, 40 HSC positions were eliminated. This downsizing allowed administrative and support space to be reassigned.

The UF HSC Animal Resource Department serves the faculty's research mission. The facilities, which are accredited by the American Association for Accreditation of Laboratory Animal Care, are located in the basement of the Communicore Building, the fifth floor of the UFBI, and a 30-acre animal farm on 34th Street. A pathogen-free and transgenic mouse facility was recently completed at Progress Park in the town of Alachua, a 30-minute ride from the UF HSC campus.

Over the last three years, 2000 parking spaces have been added to the UF HSC complex by the construction of three new garages.

**Teaching Space** In support of the education mission of the COM, additional small-group classrooms and study rooms have been constructed in the Communicore Building. A classroom/teaching lab analysis, which was completed in 1998 and submitted to the provost, identified needs such as lighting, telecommunications, audiovisual, furniture, carpeting, and renovation. This report led to the allocation of funds for the audiovisual and furnishing needs of the classrooms.

For preclinical teaching (years 1 and 2), the COM has assigned rooms for its teaching programs in the Communicore Building: 1) two assigned lecture rooms (C1-17 - 1,274 gsf with 120 seats and C1-15 - 2,160 gsf with 190 seats), 2) four assigned classrooms, called Multidisciplinary Laboratories (MDLs), and 3) a 1,955 gsf space which houses the Harrell Professional Development and Assessment Center (HAC). The COM also utilizes classrooms in the UFBI. The classrooms in this new building include the John and

Loretta DeWeese Multimedia Auditorium with state-of-the-art audiovisual equipment and network ports at each of its 164 seats.

**MDLs and Small Classrooms** The 85 first-year medical students, who begin their preclinical work in Gainesville, share a 5,190 gsf room that can be separated by folding doors into 4 separate classrooms. This space is currently used as a home base for each student, laboratory space for the teaching of cell and tissue biology and neuroscience, and as small group space for various courses. Three additional 1,000 gsf laboratories (Multipurpose Laboratories - MPLs) are used for laboratory sessions. Second year students have three MDLs (each with approximately 2,070 gsf) for small-group teaching sessions, additional classrooms outside of the Communicore Building are also utilized. Adequate space is available for most planned teaching activities but, on occasion, events have been scheduled at less desirable times to meet classroom needs. During the third and fourth years, teaching is primarily in the clinical setting, in conference room space assigned to clinical departments and in small conference rooms in clinical areas.

In the fall of 1998, the COM experimented with a "paperless semester" during which all testing and evaluation was Internet-based. This approach was well accepted by students and faculty. Sufficient computers are in place in the MDLs to seat 70 students for testing allowing an entire class of 120 students to be tested in two shifts. These same computers will be used for instruction in a "virtual classroom."

**Harrell Professional Development and Assessment Center (HAC)** The HAC opened in 1996 and is primarily used by the COM. The HAC is presently utilized by faculty to teach and assess the interviewing and clinical skills of medical students during all four years of the education program. The patient rooms and conference rooms are equipped with two closed-circuit, color television cameras and microphones which are linked to the control room. Future expansion of the HAC is being planned as demand for its use grows.

**Medical Test Center for USMLE** The University of Florida has been selected as one of seven medical school-based testing centers by NBME for computer-based administration of USMLE Steps 1, 2, and 3.

### **Jacksonville**

The four-story Learning Resource Center (LRC) was completed in 1991. It contains conference rooms, a 309-seat auditorium with extensive audiovisual capabilities, a media center, the UFHSC-J library, faculty and administrative offices, and the faculty clinic. Five conference rooms, each accommodating 50 people, are located on the ground floor. A new Distance Learning Center will be located on the second floor of the LRC. Another teleconference classroom is already utilized. An additional 5,808 gsf of classroom space is available within the clinical departments.

### **PIMS**

In the past three years, the PIMS has obtained Florida State University grants for major renovations and upgrades to the anatomy teaching laboratory, histology laboratory and its primary teaching classrooms. All are equipped with Ethernet connections, computers,

video projectors, and multiple arrays of other audiovisual equipment. The audiovisual, computer, and information systems within the Learning Center are current and more than adequate.

**C. Faculty** The Faculty Council is an influential group that makes recommendations to COM administration on a regular basis. Representatives are elected from the faculty at large and one is selected from each department. The faculty has sufficient numbers and specialties to fulfill our teaching and clinical missions. Though proud of its current research faculty, the COM looks forward to expanding our basic and clinical science faculty by generation of multiple high-impact, extramurally funded research and training grants.

Key appointments in the COM are made following an internal and/or external search in compliance with the university's affirmative action guidelines. Significant effort is made to secure the best-qualified candidate for appointed positions, taking into consideration the resources available. The geographical location of the COM and its excellent reputation greatly facilitates the recruitment of faculty members. The ability to interact with colleagues in multiple departments within the COM and throughout the university is a real plus. Retention of faculty members is always important, as is diversity of the faculty, which lags behind that of the student body.

The individual chief of service, department chair, and/or the dean generally performs evaluation of faculty members. Evaluation criteria have been revised over the last two years to more accurately reflect the duties performed by the individual. Compensation is to be directly related to success in completion of the goals laid out in the evaluation process. The criteria for promotion and tenure have been recently revised to reflect the course set by the university leadership.

The professional growth and scholarship of faculty are fostered through several methods. Faculty development is considered a primary responsibility of each department chair. They assist the faculty in the development of skills in each area of a faculty member's assignment. These may include teaching, research, administration, and patient care. Several of the clinical departments assign or make available senior faculty mentors to advise new and junior faculty members on research, scholarly activities, and grant preparation. Within the COM, the Office of Continuing Medical Education and Faculty Development coordinates a series of lectures and workshops aimed at enhancing faculty scholarship. There also is an active Faculty Development Advisory Committee. Faculty, who wish to improve their teaching effectiveness, may also participate in programs sponsored by the University Center for Excellence in Teaching.

Two incentive programs encourage faculty members to continue to enhance their skills in teaching and productivity in research. The Teaching Improvement Program (TIP) places major emphasis on the quality of instruction at the university. The Professorial Excellence Program (PEP) rewards faculty based on their accomplishments and continuing productivity since promotion to the rank of professor. These awards increase

the base salary rate of recipients by \$5000. Each year, two to three COM faculty members are given TIP awards, and 10 to 12 faculty members earn PEP awards.

The faculty of the COM has an opportunity for involvement in institutional decision-making in a variety of venues. The Faculty Council facilitates this involvement by appointing voting members to key boards and committees including: the SHANDS HealthCare Board of Directors, the Faculty Group Practice Board of Directors, the Faculty Clinical Practice Association, the COM Executive Committee, and the Executive Fiscal Affairs Committee. Many non-chair faculty members serve as medical directors in the Outpatient Clinics. Faculty Council representatives served on the college's strategic planning committee and coordinated faculty review of the plan via the World Wide Web (WWW).

The Faculty Council president regularly sends email messages to the faculty and solicits their suggestions for improvement. A survey document in which faculty members can report their level of satisfaction on several issues was mailed. The mechanisms used to inform the faculty include distribution of news through departmental chairs, meetings with the dean and associate deans, weekly news releases in the Friday Evening Post, and via the Faculty Council.

**D. Library** The UFHSC library, built in 1974, is one of the largest health science libraries in the southeast. Its collections have been superb (210,000 journal volumes and 77,000 book titles). For 1999-2000, the state legislature appropriated an additional \$842,000 for acquisitions of new titles. The library purchases photocopies of articles as an alternative to subscribing to little-used journals. The monograph and audiovisual collections have been significantly expanded and updated in the last two years. Study space and seating have been condensed to provide room for computers, teleconference facilities, and teaching space. The stack capacity is 95% full; within the next two years, storage or discarding may be required. In its most recent space analysis, the Florida Department of Education recommended a 24,000 gsf addition to the UFHSC library. The library also has received special funding from the Florida Center for Library Automation to upgrade and expand the number of computers available in the informatics lab and the library. The audiovisual equipment is adequate now, but much of it will be replaced within the next few years.

At UFHSC-J, the library has 30,000 journal volumes and 5,900 book titles. The main campus in Gainesville provides access to bibliographic databases. Students have computer access to library holdings from non-library sites, including on-line databases and external databases. The medical student dormitory facility currently houses a study hall with four high-end computers with network connections. In 1999, individual network connections will be provided for each dormitory bedroom, so that student laptops can access the network. Within the hospital, the call quarters contain a medical student learning center, again with full connectivity with the Internet and medical school.

The PIMS library meets the standards endorsed by the Medical Library Association. The Dirac Science Library (610 book titles) is adequate for a major research university and

even though they have faced budget cutbacks in the past, the interlibrary loan process works very well. Students on the FSU campus have 24-hour access to the PIMS Learning Center, which includes the library and its array of computer-aided instructional materials.

**E. Computer Information Services Resources** The Office of Medical Informatics provides direct support of computer-assisted instruction (CAI) for most first- and second-year courses at the COM. This support can be divided into two categories: a) content development, including instructional design, image capture and content delivery; and b) services such as online evaluations, calendars, and grade reporting. The commitment of the faculty to CAI and medical informatics, is exemplified by the large number of CAI programs developed at the COM. Many of these teaching packages and Internet-based authoring tools are used by faculty and students at other institutions. Most CAI packages used are required parts of various courses throughout the four-year curriculum. Students have the option to purchase CD-ROM versions of required teaching material for home use. Several computer-based examinations have been employed in first- and second-year courses.

Course directors, faculty, and administration are firmly committed to further enhancement of information technology. The HSC was recently awarded an Integrated Advanced Information Management Systems (AIMS) grant, which should further improve the integration of information resources into the daily lives of our students, faculty and staff. A program to develop software for hand-held computers used by third- and fourth-year students on their clinical rotations has been initiated.

The Human Patient Simulator is a computer-driven clinical teaching tool developed in the Department of Anesthesiology. It is now marketed world wide. Medical students have responded favorably to the conversion to simulator-based laboratories, conferring the 1997 Golden Apple Award for Excellence in clinical teaching to the Department of Anesthesiology.

**F. Clinical Teaching Activities** Adequate clinical resources are available to the COM for educating medical students. The three major teaching hospitals are SHANDS at UF, the Veterans Affairs Medical Center Gainesville, and SHANDS Jacksonville.

SHANDS at UF, a 570-bed tertiary care hospital, admitted 25,366 patients in 1998-99. Equipment at SHANDS at UF is state-of-the-art and all specialties of medicine are practiced at this facility. In the University of Florida ambulatory clinics, 350,000 patients were seen in 1998-99.

The Veterans Affairs Medical Center is a 287-bed hospital facility in which there were 9500 admissions in 1998-99; 500,000 patients were seen in the VAMC ambulatory clinics.

SHANDS Jacksonville, a 528-bed hospital, admitted 24,200 patients in 1998-99; 271,000 were seen in the clinics.

The COM has multiple clinics not only on its main campuses in Gainesville and Jacksonville, but it has decentralized many of its specialty clinics in Gainesville and it has a large primary care network both in Duval County and Alachua County. In addition, there are electives available for medical students at other sites throughout the State of Florida. The Department of Community Health and Family Medicine (CHFM) has clinics in outreach locations throughout Alachua and the surrounding counties. CHFM also has multiple primary care clinics throughout Duval County. A number of community faculty are available to teach in our programs. All community physicians, who teach in COM programs, hold part-time clinical or courtesy faculty appointments. The dean, upon the recommendation of the appropriate department chair, makes these appointments. This requires a completed application, supporting documents and letters of recommendation. The performance of this faculty is evaluated annually prior to re-appointment.

At the UFHSC-J, there are extensive ambulatory experiences developed for medical student education in primary care. The Department of CHFM sponsors six sites where third-year medical students are assigned; Internal Medicine has four private physician offices that provide educational opportunities for third-year students; Pediatrics has three community preceptors who participate in the third-year rotations. In addition, Psychiatry and Neurology have hospital-based, ambulatory clinics with a large volume of patients and rich educational opportunities for the required third-year rotations.

The General Clinical Research Center (GCRC) at the University of Florida is one of 75 NIH GCRCs at academic medical centers in the United States. The center maintains a robust training program that engages pre-professional undergraduate students, medical students and fellows in departments and colleges throughout the HSC. The over \$2 million annual budget of the GCRC makes it the largest federal grant award to the University. Through cost sharing of patient-oriented research with extramurally funded investigators, the GCRC typically leverages an additional \$5-10 million per year in federal and nonfederal support.

Since 1992, the curriculum has included a clinical experience in the first semester of medical school. During the last two weeks of the Fall semester students are assigned on a one-on-one basis to a primary care physician in north Florida. All of the preceptors participate on a voluntary basis and are recruited from the disciplines of general pediatrics, general internal medicine and family practice. Approximately 80 preceptors are utilized each year, who combine to donate 500 teaching hours on an annual basis. This program is made possible by an excellent North Florida AHEC program.

In the traditional sense, PIMS does not have clinical teaching facilities because it offers only the first year of medical school. However, its curriculum includes extensive clinical experiences. During the summer term students participate in the Migrant Health Clinic and the Neighborhood Health Clinic which serve the homeless and indigent members of the community. During the fall and spring terms, PIMS students complete at least 30 hours of clinical experience at the Family Practice Residency program of Tallahassee Memorial Hospital with a resident and alternate the next semester with a primary care community physician.

## VII. GRADUATE EDUCATION-BASIC SCIENCE

Graduate Programs: The major PhD-degree granting program within the COM is the Interdisciplinary Program (IDP) in Biomedical Sciences, which began in 1996. The IDP features a college-wide recruiting and admissions process, a CC, a common first-year core curriculum, mentor selection that is devoid of departmental boundaries, and six interdepartmental advanced concentrations. Faculty members acquire students through their association with one or more of the IDP advanced concentrations. The Biochemistry & Molecular Biology Department has also maintained its independent PhD graduate program which will be phased out during the next year. The major Masters (MS) degree programs in the COM are the Biotechnology Program and the Clinical Chemistry Program that are run through the Departments of Molecular Genetics and Microbiology and Pathology and Laboratory Medicine respectively. PhD and MS degrees are also granted through joint programs with the Colleges of Engineering, Business and Law.

Approximately 219 students are currently enrolled in the COM PhD and MS programs, matching the highest enrollment in recent history. Eighty-five percent of the students are enrolled in doctoral programs and 129 of these are IDP students. Their ranks increased in the fall of 1999, when at least 53 students entered the IDP ranks either as new students or transfers from other institutions. The number of degrees awarded each year closely matches that of new enrollees, thus manifesting a balanced enrollment with relatively low attrition. The average time to achieve the PhD degree is 5.5 years, which compares favorably with national standards. Oversight of the Graduate Programs: Graduate programs in the COM are ultimately under the auspices of the UF Graduate School. At the COM level, the programs are monitored through monthly meetings of the IDP Faculty Advisory Board and the Basic Science Chair's Council on Graduate Education, both groups coordinated by the associate dean for graduate education (ADGE), who reports to the SADEA. Faculty supervisory committees monitor students' progress during their PhD or MS studies, and ensure timely progress towards the degree without sacrifice of quality in education, and oversee academic dismissal, if warranted.

**Graduate Faculty:** Faculty within COM basic science departments achieve graduate faculty status following nomination to the graduate school by the department chair. Faculty in clinical science departments must have a joint appointment with a basic science department in order to achieve this status. There are 240 graduate faculty who are committed to graduate education, and this number is increasing with the recruitment of new faculty.

**Graduate Program Review:** The BOR reviews graduate programs on a five-year cycle. For this purpose, the BOR hires two out-of-state consultants: a lead consultant, who participates in review of several SUS programs, and a university consultant, who is nominated by the institution being evaluated. For the COM, the ADGE coordinates the internal portion of the review. This review is a complete analysis of our graduate program, including (but not limited to) evaluation of the faculty, trainees, alumni and role of the program in the education of medical students. The graduate program was last reviewed by the BOR in 1997.

In addition, the ADGE may request a comprehensive internal review of graduate education. The last comprehensive self-study was conducted by the advisory board in 1994-95 and focused primarily on a 1991 recommendation by a Task Force on Graduate Education to form an IDP.

**Graduate Program:** Essential Aspects and Value to Medical training: The recruiting process monitors the availability of faculty advisors to ensure adequate training and appropriate financial support for the graduate students. Sufficient numbers of advisors and financial support through federal RO1 and training grants are available. The financial health of the college and support from the university through the graduate growth initiative has made funding for graduate education more than adequate.

The graduate programs in the COM are a vital part of the medical-school research mission. Most non-faculty, non-technical research personnel in the COM are graduate students, rather than postdoctoral fellows. Thus, the maintenance of a high-quality graduate program goes hand in hand with maintenance of high-quality research in the college. At the same time, the administration and faculty are ever mindful that the educational needs of the students must not be subordinated to the research goals of the college and that a delicate symbiosis between education and research must be cultivated.

Participation of Graduate Students in Medical Teaching: Graduate students occasionally support the faculty in medical student education by participating in laboratory instruction, in small-group discussions and quizzes, and as tutors. No major teaching responsibilities are assigned to graduate students. Medical students benefit from increased personal attention and interaction with graduate students, without sacrificing access to the experience and expertise of the faculty. The presence of graduate and postdoctoral fellows in teaching situations increases the efficiency of laboratory and small-group work and serves the medical students' need for assistance in independent-study settings.

## **VIII. GRADUATE MEDICAL EDUCATION**

The COM sponsors 517 residents in 57 residency training programs in Gainesville, 253 residents in 21 programs in Jacksonville, and 27 residents in two programs in Pensacola, Florida. Graduate medical education (GME) activities in Gainesville and Pensacola are administered on a day-to-day basis by an associate dean; a manager, who deals with ACGME-compliance issues; and a housestaff affairs coordinator, who interacts with residents on issues ranging from loan deferment to referrals for confidential counseling. GME in Jacksonville is administered by the assistant dean for educational affairs.

The Graduate Medical Education Committees (GMEC) in Gainesville and Jacksonville review all residency programs at the mid-cycle of the Residency Review Committees' (RRC) accreditation period to evaluate compliance with both the institutional requirements and program requirements of the Accreditation Council for Graduate Medical Education (ACGME) and the relevant RRCs. In addition, the GMECs evaluate educational objectives, adequacy of educational and financial resources supporting the objectives, efficacy of program objectives, and responses to citations from previous

ACGME letters of accreditation and internal reviews. Written summaries of these reviews are presented to program directors, department chairs, and the SADEA. An education subcommittee in Pensacola deals with local issues and reports to the chair of the GMEC and the program director in Gainesville. In December 1997, the ACGME completed a site survey on the Gainesville campus. For the second consecutive time, the institution received a full five-year accreditation with no deficiencies noted. In February 1998, the ACGME completed the institutional review of the Jacksonville campus. The institution received a three-year accreditation.

The number of residents in Gainesville and Jacksonville has been stable for several years. There are no plans to reduce their number. Recent consolidations in the SHANDS HealthCare system provide more opportunities for both resident and student education, enhancing the variety of experiences. There are no core clerkship sites in Gainesville without residency programs. Core clerkship rotations in Jacksonville without residency programs are in Neurology and Psychiatry. On both these rotations, faculty members make a special effort to involve themselves in student education, and both experiences are highly rated.

The clinical enterprise of SHANDS HealthCare remains robust at UF. The institution is committed to providing the resources necessary to maintain facilities, equipment and support services to enhance the education mission. The number and variety of patients remain adequate for the size and structure of the training programs.

The primary clinical site for all ACGME accredited educational programs of the UFHSC-J is SHANDS Jacksonville. An important educational contribution comes from the partnership with Baptist/St. Vincent's Health System and Wolfson Children's Hospital. There is also an extensive network of UF satellite practices that provide educational opportunities in primary-care ambulatory settings.

Through departmental instruction programs, residents learn how to teach and evaluate medical students. A recent COMEC grant has enabled development of a new institutional program at Jacksonville to improve residents' teaching skills. To further emphasize the importance of student teaching, most departments have established teaching awards for their residents. These competitive honors remind residents that their teaching is being evaluated and that the department values their contributions. The Alumni Association and medical students themselves also sponsor awards for excellence in teaching by residents. The Alumni Association gives a substantial gift to the outstanding resident teacher in each major program. At the senior-faculty banquet, the graduating class presents the Hugh M. Hill Award to the outstanding resident teacher; this is a cherished award. In Jacksonville, campus-wide teaching awards are presented each June to the best resident and faculty teachers.

## **IX. CONTINUING MEDICAL EDUCATION**

The mission of the Office of Continuing Medical Education and Faculty Development (OCMEFD) is to provide practicing physicians with high-quality experiences that impart

new knowledge, teach new skills, and develop appropriate physician-patient relationships. The OCMEFD strives to achieve its mission by working with clinical departments and individual faculty members to develop seminars, workshops, review courses, and other education activities that further the goal of optimum patient care. The OCMEFD also works with SHANDS HealthCare to provide education activities to physicians practicing in distant settings.

In the 1998-99 academic year, the OCMEFD produced 152 activities for more than 15,000 participants. A CME Advisory Committee reviews all proposed offerings to ensure they are sufficiently accurate, balanced and free of bias, and meet the standards of the COM. The CME program is evaluated in terms of overall effectiveness and achievements of the mission at an annual CME retreat.

The CME program contributes to the education of medical students in numerous ways. It contributes directly to the development of the COM-wide education infrastructure by purchasing electronic, photographic, and multimedia software and equipment that are used in medical student education. Experience in CME is often used to shape the context, methods, and results of undergraduate medical education. Needs assessment evaluations are used to identify knowledge, skills, and abilities deserving more emphasis in the undergraduate curriculum. A COM-wide effort to emphasize the practice of medicine in a managed-care environment was recently introduced based upon experience gained in CME activities and the education needs of our stakeholders. Distance-learning modalities developed through CME are adapted to the undergraduate program. Student evaluation of instruction and external measures of achievement indicates that these efforts are successful. Medical students regularly participate in CME activities. Third- and fourth-year students are invited and sometimes required to attend departmental grand rounds and case conferences. Students are recruited and paid to assist in instructional design and development activities. Students are also invited to attend CME conferences without charge or at greatly reduced registration fees.

Future plans include the development of a Distance Education Network to link COM physicians located in rural clinics to the main campus for participation in education activities. More Internet-based educational activities are planned to accommodate the needs of COM physicians, alumni, and community physicians.

The University of Florida Comprehensive Assessment and Remedial Education Center (UF CARES), launched in 1997, provides personalized assessment based upon the physician's practice when requested by the Florida Board of Medicine. Assessments include simulated patients, chart-stimulated recall exercises, written tests, and computer-based testing. The COM plans to continue with the development and improvement of this program.

## **X. RESEARCH**

Research Funding: Substantial evidence indicates that the COM is fulfilling its research mission of educating and training scientists and fostering discovery in science, medicine

and health care. Extramural research funding at the COM has been steadily increasing in the past three years. The total from all extramural sources in 1998-1999 was \$112 million. In 1997-1998 the total awarded for research was \$106.3 million (which including a one-time award of \$5.9 million by the UFBI). Subtracting the strictly research-directed dollars from the total extramural funding, the base research funding has risen each year. In 1995-1996 the base funding was \$56.1 million; in 1996-1997, \$67.5 million, and in 1998-1999, \$79.8 million. Increased industrial funding continues to rise, but the major funding comes from NIH, at \$45.3 million in 1998-1999.

Sources of Funding: Industrial funding rose 70.8% this year, to \$22.2 million. Revenue from clinical trials is a growing area of funding, which increased from \$8.8 million in 1995-1996 to \$18.3 million in 1998-1999. Within the NIH institutes, NIAID (Allergy and Infectious Disease) grants \$5.5 million and the NHLBI (Heart, Lung and Blood) grants \$5.6 million, in FY 1998-99. The COM Program Project Grants are funded from NIA, NINDS, NIDDK, divisions of NIH. Specialized Centers are funded from NHLBI and NIAID. The Clinical Research Center is supported by a grant from NCRR.

**Future Prospects:** There have been some losses this year with movement of faculty to other institutions, including a substantial Program Project Grant, but new appointments within the COM may compensate for this. The dean has recruited a new director of the Cancer Center, Dr. Stratford May, who will bring additional faculty members to develop cancer research intensively in future years. James Crawford, Ph.D., has been appointed to the chair of Pathology and will be recruiting research-oriented faculty. Several new faculty have been recruited in basic science and clinical departments. The strategic plan is being updated to emphasize research in the following areas: cancer, diabetes, neuroscience, genetics, immunology and clinical trials. The UFHSC-J campus will become increasingly important in clinical research.

**Research Infrastructure:** The infrastructure for supporting research is largely directed by the Office of Research Affairs (ORA), but the departments have responsibility and freedom to support research from within their budgetary and space resources. Department chairs are responsible for allocating department funds to research and the recruitment of new faculty. The ORA runs competitions for distribution of extra funds to faculty and the senior associate dean controls space assignments. The COM financial infrastructure has made possible the recruitment of new faculty, the purchase of equipment, the renovation of laboratories and the establishment of centers. The COM received for the second consecutive time a \$1,800,000 Howard Hughes Institute-Biomedical Support Program award to support medical research and medical education for junior faculty, start-up, core facilities, major equipment, pilot research projects, and bridge funding.

**Clinical Trials:** An Office for Clinical Trials has been established on the Gainesville and UFHSC-J campuses. This office supports the development of clinical trials and encourages industrial support.

**Clinical Research Center:** The COM has a 2.6 million-dollar (FY 1998-99) NIH funded Clinical Research Center.

**Indirect Cost Returns:** Each department receives return on indirect costs from the Research and Graduate Programs (RGP) of 10% to the principal investigator, 7.5% to the investigator's department, and 7.5% to the college (\$724,626 in 1998-99). In addition, competitions for College Incentive Fund (\$3,018,139) based on money received by COM from RGP are allocated on a competitive basis related to the needs of the COM.

**UF Brain Institute:** The UFBI houses the departments of Neuroscience, Neurological Surgery, Neurology, AND Psychiatry. The National High Field Magnetic Laboratory provides space for research for other faculty in the COM. The UFBI attracts funds to support research related to all aspects of the brain and nervous system.

**Departmental Role:** Some clinical departments have appointed a full-time research director or, in CHFM and Orthopaedics, a research committee. Most departments have shared research space for use by their research faculty in the department. Basic science departments emphasize the availability of shared equipment, dedicated laboratories, library and conference rooms for the support of research. Clinical departments emphasize the use of clinical dollars to support new faculty, computer cores and networking facilities. Departments with endowed chairs - Neurological Surgery, Neurology, Medicine, Ophthalmology, and Psychiatry, bring leading researchers into the COM. Many departments have program grants and separate institutes. The Institute for Wound Research OB/GYN, Gene Therapy Center in Microbiology, the Vision Center in Ophthalmology, the Hypertension Center in Physiology, and the new facilities of the UFBI benefit multiple departments.

**Faculty Incentive:** The Faculty Compensation Plan boosts incentive for research in all departments. First implemented in 1998, this plan allows the use of research funds to increase success in obtaining grant support. Several departments have a faculty committee to evaluate performance. Their evaluation is transmitted in the chairperson's annual letter and affects salary and space allocation. This new program raises certain questions: How can we maintain an incentive program for excellent teachers with poor research performance? Will research value be measured only by research-dollar support? Answers to these issues are left to the discretion of the departments as they evaluate the annual performance of each faculty member.

**Graduate Program:** Related to the faculty research enterprise is the IDP, a highly successful program that recruits high quality graduate students. The interaction of basic scientists and clinical scientists is strong. There are 28 PhD.s in the clinical departments and 100 PhD.s in the basic science departments.

**Departmental Interactions:** In a survey of the twenty-three departments of the COM, sixteen departments reported that over a five-year period, their faculty members were co-authors on 3,000 joint publications between clinical and basic science faculty. Some clinical departments have a high number of basic scientists (e.g. Ophthalmology) and several departments report a high rate of faculty interaction with other departments.

Seventeen departments also reported interactions with research programs elsewhere on campus. These include the National High Magnetic Field Laboratory, the Center for Exercise Science, the Department of Chemistry, the Biomedical Engineering Program, the Center for Environmental and Human Toxicology, the Center for Research in Women's Health, Nuclear and Radiological Engineering, Journalism and Communications and the Whitney Marine Laboratory.

**Centers:** The COM encompasses both interdisciplinary institutes on campus and 26 centers of excellence. There has been substantial growth of funding for programs and centers (e.g., P01, P50). In 1995-1996 the total annual amount was \$2.2 million, in 1998-1999 the total had risen to \$6.2 million. This includes Program Project Awards for the Center on Aging, a joint venture between the College of Pharmacy and COM on novel drugs for Alzheimer's Disease. The COM has two program project grants (PPG) on spinal cord injury, one on AAV-mediated gene transfer in the nervous system, and another on high-risk genotypes in insulin-dependent diabetes. Several faculty participate in a (P30) Center Core grant, Vision Research Center from NEI. A P42 from NIEHS is a cross-college study on the toxicology of chlorinated compounds directed by the College of Pharmacy. A Specialized Center (P50) grant is for the investigation of gene therapy in lung and cardiovascular disease and the Center for the Study of Emotion and Attention is supported by NIMH. An M01 grant supports the Clinical Research Center. Other centers include the Cancer Center, Hypertension Center, Diabetes Center, Immunology and Transplantation Center, Alcohol Research Center and the Health Policy Research Center. The UFBI is a unique center with its own facility.

**Medical Students and Research:** Medical students participate in research through three funded programs. The Medical Student Summer Research Training Program, supported by NIH, enables students, particularly at the end of the first year, to experience research and become more closely involved with professors in research laboratories. The American Heart Association Medical Student Research Fellowship Program allows students to take one year leave of absence from their medical training and devote their time entirely to research. All of the students who have completed this program have graduated with honors in research and obtained their first-choice residency. A summer program offers minority students, some of who are new medical students, an introductory course in research including advisement from a variety of faculty mentors. The SADEA utilizes AMA-ERF funds to support any otherwise unfunded student who develops a hypothesis-driven research proposal, and pays for half the expenses for any student whose research has been chosen for presentation at a national or international scientific meeting. During the past four years, three medical students have been selected to the Howard Hughes Medical Institute at the NIH. The MD/PhD Program runs on national Medical Student Training Program (MSTP) principles: Upon completion of the first two years of medicine, students enter a PhD program for three to five years of dissertation research, followed by the last two years of MD training.

## **XI. MEDICAL SCHOOL DEPARTMENTS**

Currently there are 23 departments in the COM. While heterogeneous in size, composition of faculty, and mission, they share exceptional strength and vitality. In most departments, the number of faculty members and programs are growing.

Since the arrival of Dean Kenneth Berns in October 1997, new chairs in Neurological Surgery, Psychiatry, Pathology and Biochemistry and Molecular Biology have been appointed. Interim chairs lead the departments of Radiology and Emergency Medicine; the interim chair of the newly created Department of Emergency Medicine is the first department chair to be established on the Jacksonville campus. Search committees have been appointed to recruit new chairs of Neurology, Otolaryngology, and Radiology.

### **A. Principal Basic Science Departments**

Education and research comprise the principal missions of the seven basic science departments: Anatomy and Cell Biology, Biochemistry and Molecular Biology, Health Policy and Epidemiology, Molecular Genetics and Microbiology, Neuroscience, Pharmacology and Therapeutics, and Physiology.

**Department of Anatomy and Cell Biology** In the Department of Anatomy and Cell Biology, faculty efforts are 49% teaching (20% medical), 42% research, 1% service, and 8% administration. Ten full-time faculty members share the responsibility of teaching two major first-year courses, four electives for medical students, and additional courses for physician assistant students and students in the College of Dentistry. The department's strength remains its commitment to high-quality teaching and the development of enriching educational experience for its students. The addition of new faculty should allow the medical curriculum to incorporate rapid advances in cell biology in such areas as cell cycle control, oncogenesis and signal transduction. For seven consecutive years, graduating senior classes have conferred their Golden Apple Award upon Anatomy and Cell Biology (for providing the best course, gross anatomy, in their basic science curriculum).

**Department of Biochemistry and Molecular Biology** In Biochemistry and Molecular Biology, faculty efforts are 43% teaching (12% medical), 45% research, 2% service, and 10% administration. Twenty-two faculty members teach medical, dental, undergraduate, and graduate students. The average teaching load per faculty member is greater than that of most faculty in other basic science departments, except in the Department of Anatomy and Cell Biology. The recent recruitment of a new chair and four new faculty members will help reduce this load. With the start of the IDP program, the average number of graduate students selecting faculty from this department as their dissertation advisors dropped from nine students/year to two students/year. Therefore, the department was permitted to recruit graduate students in both the departmental and the IDP graduate programs. As a result, 16 new graduate students and three transfer students selected departmental faculty during the 1998-99 academic year. In future years, it is anticipated that all graduate students will be admitted through an expanded and modified IDP.

**Department of Health Policy and Epidemiology** The Department of Health Policy and Epidemiology is principally involved in research and academic programs that interface with both the COM and SHANDS HealthCare. Faculty efforts are 5% teaching (<1% medical), 85% research, 5% service, and 5% administration. The department currently has five PhD faculty members. At the present time, there are no graduate programs in the department.

**Department of Molecular Genetics and Microbiology** In the Department of Molecular Genetics and Microbiology, faculty efforts are 26% teaching (9% medical), 65% research, 2% service, and 7% administration. Currently a full-time faculty of 15 teaches medical, dental, pharmacy, and graduate students. The faculty is also active in the development of the IDP. The ever-increasing importance of molecular biology in basic medical science, combined with the track record of achievement by the faculty, will ensure the prominence of this department in the development of the research and education enterprise of the COM into the next millennium.

**Department of Neuroscience** In the Department of Neuroscience, faculty efforts are 20% teaching (18% medical), 71% research, 5% service, and 4% administration. The department has a faculty of 20. Each faculty member has a primary teaching assignment in at least one of three neuroscience courses. Departmental strengths are its education programs in the medicine, dentistry and veterinary science curricula; solid research funding; clear mission statement; productive senior faculty; and state-of-the-art facilities. The three primary areas of research are the effects of alcohol on the nervous system, spinal cord injury and repair, and molecular and cellular neurobiology. There is some concern that an increasing number of faculty members spend more time on the attainment and management of grants than on the professional development and teaching of junior faculty, postdoctoral fellows, and students.

**Department of Pharmacology and Therapeutics** In the Department of Pharmacology and Therapeutics, faculty efforts are 31% teaching (15% medical), 55% research, 3% service, and 11% administration. There are 10 full-time, tenure-track faculty members. Research is focused on the central themes of signal transduction and drug discovery. Faculty members have expressed these concerns: the need for increased extramural salary support, budgets that restrict new initiatives, responses to equipment failures, retirement pay, and coverage of rising costs for fixed needs and externally mandated changes.

**Department of Physiology** In the Department of Physiology, faculty efforts are 25% teaching (15% medical) and 75% research. The department expects its 11 full-time faculty members to strike a balance between teaching and research at a level of 25% and 75%, respectively. In the 1997-1998 fiscal year, the department was ranked ninth nationally for research dollars per faculty member by the Association of Chairs of Physiology Departments (ACODP). Major research areas include gene therapy for hypertension, myocardial ischemia and obesity. Developmental physiology and fetal development, transport physiology, vascular biology, and fluid and electrolyte balance are also areas of emphasis. One faculty member was the basic science teacher of the year and another the University of Florida faculty/scholar of the year.

## **B. Principal Clinical Departments**

The clinical departments of the COM form two groups: those with major responsibility for medical student instruction and clerkships (Anesthesiology, Community Health & Family Medicine, Medicine, Neurology, Obstetrics and Gynecology, Pediatrics, Psychiatry, Radiology, and Surgery) and those involved principally in the elective and selective program of the fourth year (Neurological Surgery, Ophthalmology, Orthopedic Surgery, Otolaryngology, Radiation Oncology). All departments have strong GME programs and most conduct productive research programs.

**Department of Anesthesiology** The Department of Anesthesiology has 52 faculty and is divided into nine separate sections within the department including adult and pediatric critical care medicine, and pain management. Faculty spends approximately 7% of their time teaching undergraduate medical students and 59% in resident teaching and simultaneous clinical service work, 19% in research and 10% in administration. This department strives to provide exemplary clinical care in anesthesiology and achieve excellence in undergraduate, graduate, and postgraduate teaching. The department has 63 residents and 12 fellows in training. The department graduates have board examination pass rate of 99%. Research foci include cardiac and neuronal electrophysiology and respiration, molecular biology, medical simulation, clinical cardiac pharmacology, and a variety of clinical trials in the operating rooms and intensive care units. As is true of many clinical departments, Anesthesiology is experiencing a reduction in reimbursement of professional fees associated with managed care programs. This has impacted considerably on the faculty salary scale and protected time available for research.

**Department of Community Health and Family Medicine** In the Department of Community Health and Family Medicine, 29 faculty members in Gainesville spend an estimated 36% of their time teaching medical students, 12% instructing residents, 38% in clinical service and 9% in research. The primary mission of the department is to develop an outstanding academic environment for education, research, and clinical practice in family medicine. Like many clinical departments, there is pressure to generate more income by increasing productivity, scrutinizing billing and collection activities, and expanding extramurally funded research activities. In Jacksonville, this department has 17 full-time faculty members. The teaching of medical students accounts for 10% of faculty effort and the teaching of residents for 60%.

**Department of Medicine** With 150 full-time faculty on the Gainesville campus, the Department of Medicine is the largest department in the COM. An estimated 30% of faculty time is involved in teaching, 33% in research, 29% in clinical service, and 8% in administration. During a typical academic year, 329 medical students are taught required subjects and electives. In addition, 121 physician's-assistant students receive instruction from the faculty. GME involves 25 first-year residents and 40 second- and third-year residents. In addition, the department is responsible for the education of 55 postdoctoral fellows. More than 90% of the candidates who complete their residency training pass the American Board of Internal Medicine, thus placing the program in the upper 15th percentile of all internal medicine training programs. The department has a strong

teaching program at all levels, a generally excellent clinical program, and a research program that requires additional growth and commitment of resources to place it in the top 25% of all medical schools in the United States. The department has 38 full-time faculty members on the Jacksonville campus where the teaching of medical students accounts for 10% of faculty effort, with 50% devoted to the teaching of residents.

**Department of Neurology** In the Department of Neurology, 11 faculty members spend approximately 9% of their time teaching medical students, 28% in resident teaching, 53% in clinical service, 19% in research, and 10% in administration. Excellence in clinical care, teaching, and research are departmental goals. Achievement of these goals is documented by growth in referrals, recognition of faculty for clinical excellence, large numbers of high-quality publications, success in the resident match, success of the residents, evaluations from the students, and the excellent performance of students on standardized exams. The education efforts of the department include a neurology residency program, the clinical neurophysiology residency program, and a behavioral neurology fellowship. Medical student education includes teaching the neurology portion of "Clinical Diagnosis," the two-week Neurology Clerkship, and a Neurology clinic-and-consultation-service elective. Faculty members have expressed concern about increases in the clinical and administrative workloads that result in decreased time for education and research programs. In Jacksonville, the department has six full-time faculty members. The teaching of medical students accounts for 10% of faculty effort and the teaching of residents from other departments, 5%.

**Department of Obstetrics and Gynecology** The department has 18 full-time faculty and four major divisions: endocrinology/infertility, gynecology, maternal-fetal medicine, and gynecologic oncology. Faculty time is allocated as follows: approximately 7% to medical student teaching, 12% to resident teaching, and 4% to teaching other students. The department exists to provide the highest quality education and training in reproductive and gynecologic health care for women to medical students, residents, and other health professionals. The department has received the Golden Apple Teaching Award five times, from 1991 through 1995. In Jacksonville, the department has 12 full-time faculty members. The teaching of medical students accounts for 5% of faculty effort, the teaching of residents from other departments, 45%.

**Department of Pathology** The Department of Pathology, Immunology and Laboratory Medicine is committed to quality medical education, performing state-of-the-art diagnostic pathology and conducting meaningful research. The department may be considered a basic science department because of its commitment to research and graduate student education, and as a clinical department because of its involvement in resident education and clinical service. There are 50 full-time faculty members in Gainesville. An estimated 25% of total faculty time is devoted to teaching medical students, residents, graduate students, and postdoctoral fellows, 25% to research, 41% to clinical service, and 9% to administration. The department has four divisions: Anatomic Pathology, Clinical Pathology, Experimental Pathology and Immunology, and Administration. The department in Jacksonville has 10 full-time faculty members.

**Department of Pediatrics** The departmental mission is to provide an environment conducive to education, research, and high-quality patient care. The Gainesville department has 66 full-time faculty members. It is estimated that 23% of total faculty time is devoted to teaching, 26% to research, 34% to clinical service, and 17% to administration. The department has a strong research program. The department has invested heavily in molecular genetics and gene therapy and has traditionally had strong programs in cardiology, diabetes, neonatology, neurology, and pulmonology. Pediatrics has received the Golden Apple Teaching Award in 1996, 1998, and 1999. At Jacksonville, the department has a full-time faculty of 44 whose teaching efforts for medical students and residents are 2% and 23%, respectively.

**Department of Psychiatry** The Department of Psychiatry is committed to the achievement and maintenance of excellence in clinical care, teaching and research. The 27 full-time faculty members spend approximately 21% of their time teaching, 24% in research, 50% in clinical service and 5% in administration. Faculty members had teaching responsibilities for 417 medical students in various settings during the past academic year. They also are involved in the teaching of physicians assistant students, allied health students, and 33 residents.

**Department of Radiology** This department is composed of 28 faculty members who spend approximately 9% of their time teaching medical students, 40% teaching residents, 8% teaching postdoctoral fellows, and 20% in research. Medical student teaching by this department is highly regarded with 80% of each class over the past seven years rating the teaching of the faculty as good to excellent.

**Department of Surgery** The Department of Surgery's mission is to provide quality surgical education, patient care, resident instruction and clinical and basic research. The department is comprised of the Divisions of General Surgery, Pediatric Surgery, Plastic and Reconstructive Surgery, Thoracic and Cardiovascular Surgery, Urology, and Vascular Surgery. The department has 36 faculty members. Educational efforts are divided between graduate and undergraduate missions. The department trains 58 residents and fellows. The residency program is highly competitive and always filled. In Jacksonville, the department has 18 full-time faculty members. The teaching of medical students accounts for 8% of faculty effort and the teaching of residents for 65%.

The Departments of Emergency Medicine, Neurological Surgery, Ophthalmology, Orthopedic Surgery, Otolaryngology, and Radiation Oncology participate in preclinical courses and fourth-year electives. The Departments of Ophthalmology and Orthopaedics offer one-week sequences in a clinical diagnosis course during the second year.

**Department of Emergency Medicine** The department has 20 full-time faculty members with the acting chair based in Jacksonville. The teaching of medical students accounts for 2% and the teaching of residents for 23% of faculty effort. This department emphasizes research in emergency-care outcomes, error reduction, mathematical modeling, and the effects of health-care financing on emergency medical care.

**Department of Neurological Surgery** The Department of Neurological Surgery strives to provide excellent patient care, sustain an outstanding education program, and contribute to scientific advancement of the specialty. The department consists of eight full-time faculty members. Five percent of the department effort is spent teaching medical students. Resident education and training of fellows represent 47% of the faculty effort. In Jacksonville, the department has three full-time faculty members. The teaching of residents accounts for 10% of their effort.

**Department of Ophthalmology** This department has 18 faculty members. The goals of the department are to establish excellent education programs, to serve as a tertiary-care referral site for ophthalmologists, to develop and maintain highly productive research programs, and to create an environment in which faculty members can succeed in all aspects of their academic careers. Faculty spend 2% of their time teaching medical students, 30% teaching residents, 2% teaching postdoctoral fellows, and 16% teaching other students. Forty percent of faculty effort is assigned to research.

**Department of Orthopaedic Surgery** The department is composed of 13 full-time faculty members whose time is allocated to: 13% teaching (2%, medical students), 13% research, and 66% clinical service.

**Department of Otolaryngology** Currently the Department of Otolaryngology has 6.5 faculty in tenure-track positions. All faculty members are involved in teaching residents and medical students. The teaching of medical students accounts for 4% of faculty effort; the teaching of residents for 39%. Although the department has always been involved in the training of medical students, this role was expanded in the 1998-99 academic year to span all areas--from teaching human anatomy to surgery. At Jacksonville, the department has two full-time faculty members.

**Department of Radiation Oncology** The Department of Radiation Oncology has 15 full-time faculty. The faculty fulfills its mission of providing excellent patient care, conducting clinical and basic research, teaching, and participating in national activities. Approximately 55% of faculty time is spent in clinical service and 25% involves clinical teaching of residents and medical students. The department generates about 7% of its budget from extramural research awards. The COM offers one of the best training programs in radiation oncology in the nation; its graduates have excelled in the field. Potential problems faced by the department include the unpredictability of financing, loss of faculty members due to a lack of competitive salaries, and difficulty in obtaining requisite research space. There are three faculty members in Jacksonville.

## **SUMMARY**

The data gathered for this self-study reveals several principal strengths of the COM and its education program, along with some concerns.

### **Strengths**

The COM has many strengths, but the following, we believe, are exceptional.

### **Institution**

The dean provides robust leadership. He is highly rated by the faculty in areas of teaching and research. The administrative relationship between the COM and SHANDS HealthCare is open and strong. A hardworking cadre of chairpersons enjoys the confidence of the faculty. The COM's mission-based budgeting database is complete and useful.

Faculty, staff and students are dedicated and productive. The research facilities in the Academic Research Building and UFBI are excellent. Faculty and students view the education programs in graduate education in basic sciences, GME, CME, and the Physician Assistant Program as excellent.

### **Education Program Leading to the MD Degree**

Students and faculty view the education administrative leadership as excellent. The CC is active, empowered, and progressive. The teaching faculty is innovative and dedicated, and is committed to the education mission. The student body is highly qualified.

Facilities in diverse settings bolster the offerings and quality of COM programs. The UFHSC-J urban campus provides highly rated clerkships and clinical experiences, clinical sites that facilitate a general professional education, and a high volume of patients. The HAC receives stellar marks for performance-based teaching and evaluation. The anesthesiology human simulator and the computer simulation laboratory typify the importance of state-of-the-art technology to the COM. The COM's Office of Medical Informatics provides progression towards a paperless environment and the development of CAI-produced materials.

### **Concerns**

#### **Institutions**

The COM continues to face challenges. There is still substantial dependence on clinical income, which compromises protected time for academic development of clinical faculty, as well as dependence on allocation of state general revenue to fund salaries and operating funds in many basic science departments. Planning for integration with the newly acquired Jacksonville facilities represents a challenge and opportunity.

### **Education Program Leading to the MD Degree**

Although student performance in the PIMS compares favorably with students in Gainesville, the COM desires swifter progress in the functional integration of the PIMS with the education administration.

More space and better-equipped facilities would enhance the COM experience. The existing classrooms and laboratories are aging and there is still limited space for small

group teaching. The expansion of third- and fourth- year programs at UFHSC-J is dependent on student housing. Despite continual monitoring of the safety of students at all campuses, students at UFHSC-J would like more assurance of safety when walking between the student dormitory and SHANDS Jacksonville.

Sufficient clinical sites for the general professional education of the students is an issue in surgery and to a lesser degree in pediatrics. Most complaints pertain to providing a general surgery experience for all students on the third-year rotation. Expanding the use of sites in Jacksonville and the community can ameliorate this situation for COM students.

### **Recommendations**

To bolster its strengths and meet the challenges that affect the education, research, and clinical missions of the COM, aggressive fundraising efforts must be continued to support endowed professorships, develop programs, expand facilities, and acquire equipment. Recurring and non-recurring appropriations from state general revenue to enhance the activities of the COM must be sought. Clinical departments should work closely with SHANDS HealthCare to enhance the quality and magnitude of clinical programs for teaching and to generate professional-fee revenue to support department activities. The COM must continue to reallocate existing space and resources to faculty members based on uniformly applied funding formulas and program emphasis.

In conclusion, the COM has accomplished many of the goals and objectives stated in its last strategic plan. The COM is a strong force in education, research, and health-care delivery. As in the past, the COM expects to transform its challenges into assets by addressing them squarely, with vigor, creativity, and flexibility. The vision shared by the dean and all constituents of the University of Florida COM will define new paths to greater advancement.

## **Office for Program Evaluation and Faculty Development**

### **Faculty Development**

- [-Faculty Orientation](#)
- [-Master Educator Fellowship](#)
- [-Medical Education Week](#)
- [-Society of Teaching Scholars](#)
- [-Educational Grand Rounds](#)
- [-Residents as Educators](#)
- [-Club Med](#)

- [-UF RIME](#)
- [-Exemplary Teachers Program](#)
- [-Faculty Resources](#)
- [-EduGator Newsletter](#)

## **Program Evaluation**

- [-Evaluation Subcommittee](#)
- [-Course and Clerkship Assessment](#)
- [-Guidelines for Annual Course and Clerkship Reports](#)
- [-Evaluation Data of Courses and Clerkships](#)
- [-LCME Standards of Accreditation](#)
- LCME 2000 Summary
- [-Code of Ethics](#)
- [-Annual Reports](#)

## **Helpful Links**

- [-Meet Our Staff](#)
- [-Contact Information](#)
- [-WebCT Vista](#)

## **Search**

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## **Other UF Resources**

- [COM Directory](#)
- [COM Departments](#)
- [UF Directory](#)
- [MedInfo Server](#)
- [HSC Library](#)
- [HSC Website](#)
- [UF Web Sites](#)
- [myUFL \(login\)](#)
- [COM Jacksonville](#)

Updated: Aug 09, 2005 at 10:46AM :: E-Mail Contact: [Program Evaluation, Faculty Development](#)

Location: Health Science Center, Room M135 :: Phone: (352) 273-5755, Fax: (352) 392-

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Location: [http://www.med.ufl.edu/oea/opfd/program/lcme\\_summary.shtml](http://www.med.ufl.edu/oea/opfd/program/lcme_summary.shtml)

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