

TUITION, FEES, EXPENSES AND FINANCIAL AID

Tuition, Fees and Expenses

The 2001-02 tuition and fees for residents of the State of Michigan are \$19,320; for nonresidents the tuition and fees are \$29,696. Tuition and fees are subject to change without notice by action of the Regents of the University. One-half of the tuition is payable at the beginning of the University's fall term, and the remaining half at the beginning of the winter term. Tuition/fees also may be paid in two installments (for example, installment due dates for 2000 were September 30 and October 31 for the fall term).

Laboratory Fees

Small fees are required in some of the laboratory courses of the first two years.

Microscopes

During the first year, microscopes are furnished for use in the basic science laboratories.

Books and Supplies

Departments will specify basic texts and instructional materials for purchase by each student.

Budgets

The total cost of medical school attendance will vary depending on living arrangements, personal needs and habits. The expenses listed reflect a modest, but adequate standard of living for the academic year. There is some allowance for discretionary expenditures but there is no provision for costs that are not directly related to school attendance.

2001-2002 Budget for First Year Students

Michigan Resident:

Tuition/Fees (est)	\$19,320
Instruments/Supplies	\$575
Books and Journals	\$1,370
Insurnace/Health Expenses	\$475
Room and Board	\$9,500
Transportation	\$2,750
Misc expenses	\$2,462
Total Expenses	\$36,452

Non-Resident:

Tuition/Fees (est)	\$29,696
Instruments/Supplies	\$575
Books and Journals	\$1,370
Insurnace/Health Expenses	\$475
Room and Board	\$9,500
Transportation	\$3,450
Misc expenses	\$2,462
Total Expenses	\$47,528

Financial Aid

Several sources of financial assistance are available to registered medical students. This assistance may be in the form of scholarships, loans, or grants-in-aid to help qualified students meet expenses. Eligibility is based on current federal, state, and University guidelines for financial aid administration. Allocation is based on demonstrated need and availability of funds.

The vast majority of these programs require parental income-asset information—regardless of a student's age, actual dependency or marital status—to determine a student's eligibility for financial assistance.

Financial aid application packets are sent to students upon their acceptance to the UM Medical School, and funds are made available at the beginning of each semester. Short-term loans are available for extreme financial emergencies.

The Financial Aid Office

UM Medical School students are consistently very pleased with the system of financial aid at Michigan. The Medical School's Financial Aid Office is well-aware of how busy medical students are, and the office staff members work to simplify the process of applying for and receiving funding. Advisors work with students in unique situations, such as those needing additional funding for child care.

Students generally find the budgets modest but sufficient to meet their needs in Ann Arbor. The Financial Aid Office has responded to student requests in the past for increased funding (for example, an additional loan is available to clinical students to cover the added cost of paying for meals while on call).

Annually, the office sponsors a financial workshop for all aid recipients in the fourth year of medical school. Invited speakers introduce students to the complexities of loan repayment as well as options and strategies. Also, all fourth-year students have a one-on-one session with the financial aid advisors to further review their outstanding loan portfolio.

Finances are rarely mentioned by UM Medical School students as a source of stress, and this is largely due to the extensive services provided by the Financial Aid Office.

For information and/or applications for financial aid, contact:

University of Michigan Medical School
Financial Aid Office
4130 Medical Science I, C-Wing
1301 Catherine Street
Ann Arbor, Michigan 48109-0611
(734) 763-4147



Technical Standards

The M.D. degree signifies that its holder is a physician prepared for entry into the practice of medicine within postgraduate training programs of diverse types. The M.D. degree is, and must remain, a broad undifferentiated degree attesting to the mastery of general knowledge in all fields requisite for the practice of medicine.

Thus, medical school graduates must possess the knowledge and skills necessary to function in a broad variety of clinical situations, and to render a wide spectrum of patient care. The University of Michigan Medical School acknowledges section 504 of the Rehabilitation Act of 1973 (Public Law 93-112), Title II of the Americans with Disabilities Act (Public Law 101-336), and the Michigan Handicappers Civil Rights Act, and ascertains that candidates for the M.D. degree must possess certain minimum technical capabilities.

The Medical School's obligations are to seek candidates who will be best able to serve the needs of society and to graduate effective and competent physicians. The following principles and technical standards will be implemented to achieve this goal.

Principles

1. Technical Standards refer to criteria that go beyond academic requirements for admission (e.g. MCAT, GPA, faculty letters) and are essential to meeting the academic requirements of the program.
2. Students with or without disabilities applying to Medical School will be expected to have met the same requirements.
3. Matriculation in Medical School assumes a certain level of cognitive and technical skill. Medical students with disabilities will be held to the same fundamental standards as their non-disabled peers. Although not all students should be expected to gain the same level of all technical skills, mastery of some skills is so essential that it must be achieved, with the assistance of reasonable accommodation where necessary.
4. Reasonable accommodations will be provided to assist in learning, performing and satisfying the fundamental standards.
5. Every reasonable attempt will be made to facilitate the progress of students where it does not compromise the Medical School standards or interfere with the rights of other students and patients.
6. Technological accommodations can be made for some handicaps in certain areas of the curriculum, but a candidate must

meet the essential technical standards so that he or she will be able to perform in a reasonably independent manner. The need for personal aids, assistance, care givers, readers, and interpreters, therefore, may not be acceptable in certain phases of the curriculum, particularly during the clerkship years.

7. When not the responsibility of the student or otherwise funded, costs of necessary accommodations should be reasonable and will be properly borne by the University.
8. Applicants and matriculants who believe that they have not received adequate consideration because of a disability may appeal to the Medical School which will review appeals on a case-by-case basis.

Technical Standards

Candidates for the M.D. degree must possess abilities and skills including those that are observational, communicational, motor, intellectual-conceptual (integrative and quantitative), and behavioral and social. The use of a trained intermediary is not acceptable in many clinical situations in that it implies that a candidate's judgment must be mediated by someone else's power of selection and observation.

I. Observation

The candidate must be able to acquire a defined level of required information as presented through demonstrations and experiences in the basic sciences, including but not limited to information conveyed through physiologic and pharmacological demonstrations in animals, microbiological cultures and microscopic images of microorganisms and tissues in normal and pathologic states. Furthermore, a candidate must be able:

- to observe a patient accurately, at a distance, and close at hand, to acquire information from written documents, and to visualize information as presented in images from paper, films, slides or video.
- to interpret x-ray and other graphic images, and digital or analog representations of physiologic phenomenon (such as EKGs) with or without the use of assistive devices.

Such observation and information acquisition necessitates the functional use of visual, auditory and somatic sensation while being enhanced by the functional use of other sensory modalities. In any case where a candidate's ability to observe or acquire information through these sensory modalities is compromised, the candidate must demonstrate alternative means and/or abilities

to acquire and demonstrate the essential information conveyed in this fashion. If the alternatives are acceptable, it is expected that obtaining and using such alternate means and/or abilities shall be the responsibility of the student.

II. Communication

A candidate must be able to speak, to hear and to observe patients by sight in order to elicit information, describe changes in mood, activity and posture, and perceive nonverbal communications. A candidate must be able to communicate effectively and sensitively with patients. Communication includes speech, reading and writing. The candidate must be able to communicate effectively and efficiently in oral and written form with all members of the health care team.

III. Motor

It is required that a candidate possess the motor skills necessary to directly perform palpation, percussion, auscultation and other diagnostic maneuvers, basic laboratory tests and diagnostic procedures. The candidate must be able to execute motor movements reasonably required to provide general and emergency medical care such as airway management, placement of intravenous catheters, cardiopulmonary resuscitation, application of pressure to control bleeding, suturing of wounds and the performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.

IV. Intellectual-Conceptual (Integrative and Quantitative) Abilities

The candidate must be able to measure, calculate, reason, analyze, integrate and synthesize. In addition, the candidate must be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities. The candidate must be able to perform these problem-solving skills in a timely fashion.

V. Behavioral and Social Attributes

The candidate must possess the emotional health required for full utilization of his/her intellectual abilities, the exercise of good judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive, and effective relationships with patients. The candidate must be able to tolerate physically taxing workloads

and to function effectively under stress. He/she must be able to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational processes.

Any applicant will be considered for admission to Medical School who demonstrates the ability to acquire the knowledge necessary for the practice of medicine, as well as the ability to perform or to learn to perform the skills as described in this document. Students will be judged not only on their scholastic accomplishments but also on their physical and emotional capacities to meet the full requirements of the school's curriculum and to graduate as skilled and effective practitioners of medicine. Each applicant will be asked to certify that he or she is able to meet the technical standards of the school.

Information on Residency Classification for Admission and Tuition Purposes

Authority

The governing board at each university in Michigan has the authority to determine residency classification guidelines for admission and tuition purposes. Therefore, residency guidelines may vary from school to school and are independent of guidelines used by other state authorities to determine residency for purposes such as income and property tax liability, driving and voting.

The following guidelines were approved by the University of Michigan's Board of Regents to take effect Spring Term 1998 and to apply to students at all campuses of the University of Michigan. The guidelines are administered by the Residency Classification Office in the Office of the Registrar at the Ann Arbor campus, 1514 LSA Building, University of Michigan, 500 S. State St., Ann Arbor, MI 48109-1382. Phone: (734) 764-1400

The Student's Responsibilities and the Residency Application Process

It is the student's responsibility to read the University Residency Classification Guidelines contained in this document and to apply for admission and register under the proper residency classification. It is also the student's responsibility to file an Application for Resident Classification for an official determination of status. Students are encouraged to consult with staff in the Residency Classification Office if they have questions or need assistance.

The admissions offices at the various schools and colleges within the University perform the initial screening for residency classification. If a student indicates Michigan resident status on the admissions application and the admissions office questions that status, the student will be classified as a nonresident and notified of the need to file an Application for Resident Classification with the Residency Classification Office. The fact that a student's claim to residency for University purposes is questioned does not necessarily mean that he or she will be ineligible; it simply means that the student's circumstances must be documented and reviewed by the Residency Classification Office. Failure on the part of admissions staff to question a student's claim to resident eligibility does not relieve the student of the responsibility to apply and register under the proper residency classification. Furthermore, the University reserves the right to audit enrolled or prospective students at any time with regard to eligibility for resident classification and to reclassify students who are registered under an improper residency classification.

Until an Application for Resident Classification is filed and approved, a student who previously attended any campus of the University of Michigan as a nonresident will continue to be classified as a nonresident at all campuses.

Upon application for admission to any campus of the University, an individual who claims eligibility for resident classification must file an Application for Resident Classification for an official determination of status if any of the following circumstances apply:

- the individual is living out of state at the time of application to the University
- either parent is living out of state (applies if the individual is 24 years of age or younger)
- the individual has attended or graduated from an out of state high school (applies if the individual is 24 years of age or younger)
- the individual has attended or graduated from an out of state high school and has been involved in educational pursuits for the majority of time since graduation from high school
- the individual has had out of state employment or domicile within the last 3 years

The above list is not exhaustive. An individual is responsible for filing an Application for Resident Classification in any situation where the individual's eligibility for residency under these Guidelines could be reasonably questioned.

Filing Deadlines

Students may apply for resident classification for any term in which they are enrolled or intend to enroll. The deadline dates for filing the Application for Resident Classification are the same for all University of Michigan schools, colleges and campuses.* The following dates apply to the term for which residency is sought. If the deadline falls on a weekend, it will be extended to the next business day.

Fall Term September 30
Winter Term January 31
For all Spring, Spring/Summer, and Summer Terms July 31

(*For the On Job/On Campus program, filing deadlines are 30 calendar days after the first scheduled day of classes.)

Documentation Which Must Be Included When Filing for Resident Classification

When filing an Application for Resident Classification, the following documentation must be included with the Application form:

- for all applicants: a copy of the driver's license of the applicant and of the person or persons upon whom the applicant is basing the claim to resident eligibility
- for all applicants: copies of the front and signature pages of the most recent year's federal and state income tax returns and W2s for the applicant and the person or persons upon whom the applicant is basing the claim to resident eligibility
- for applicants born outside the U.S.: verification of U.S. citizenship or visa status
- for applicants who are dependents: (see Residency Classification Guideline B-1), copies of the front and signature pages of the parents' most recent year's federal and state income tax returns
- for applicants whose claim to eligibility for resident classification is based on permanent, full-time employment for themselves, a parent, spouse or domestic partner: a letter from the employer, written on letterhead (including phone number), stating the position, status and dates of employment. The letter should be accompanied by a copy of the most recent pay stub showing Michigan taxes being withheld.

Applicants are also responsible for providing any other documentation necessary to support their claim to resident eligibility. Additional documentation may be requested by the Residency Classification Office.

Appeal Process

If an Application for Resident Classification is denied by the Residency Classification Office, the student may request that his or her file be reviewed by the University's Residency Appeal Committee. The appeal request must be made in writing and must be received in the Residency Classification Office within 30 calendar days of the date on the denial letter. If the deadline falls on a weekend or University holiday, it will be extended to the next business day.

All contact with the Residency Appeal Committee must be in writing. Personal contact with a member of the Committee prior to the meeting could disqualify the member from participating in the decision. A student who wishes the Committee to consider additional information must submit the information to the Residency Classification Office, in writing, with the appeal request. The information will then be forwarded to the Residency Appeal Committee with the student's file.

The student will receive a written decision from the Committee when the review is complete. Once the Residency Appeal Committee issues its decision there are no further appeals for the term covered by the application.

Misrepresentation and Falsification of Information

Applicants who provide false or misleading information or who intentionally omit relevant information in an application for admission, an application for resident classification or any other document relevant to residency eligibility may be subject to legal or disciplinary measures. Students improperly classified as residents based on this type of information will have their residency classification changed and may be retroactively charged non-resident tuition for the period of time they were improperly classified.

Residency Classification Guidelines

For University purposes, "domicile" is defined as the place where an individual intends his/her true, fixed and permanent home and principal establishment to be, and to which the individual intends to return whenever he or she is absent. These Guidelines are designed to explain how a student may demonstrate the required intent and establishment of a domicile in Michigan. An individual whose activities and circumstances, as documented to the University, demonstrate that he or she intends to be domiciled in Michigan and has, in fact, established a domicile in Michigan will be eligible for classification as a resident. An individual whose presence in the state is based on activities or circumstances that are indeterminate or temporary, such as (but not limited to) educational pursuits, will be presumed not to be domiciled in Michigan and will be classified as a nonresident. The burden of proof is on the applicant to demonstrate with clear and convincing evidence that he or she is eligible for resident classification under these Guidelines.

These Guidelines describe situations that create presumptions of resident and nonresident status. The fact that a presumption of resident status may apply to a student does not mean that the student will automatically be classified as a resident or that the student is relieved of the responsibility for filing an Application for Resident Classification. (See The Student's Responsibilities and the Residency Application Process on page 18.) To overcome a presumption of nonresident status, a student must file a residency application and document with clear and convincing evidence that a Michigan domicile has been established.

A. General Guidelines

1. **Circumstances which may demonstrate permanent domicile**
The following circumstances and activities, though not conclusive or exhaustive, may lend support to a claim to eligibility for resident classification:

- both parents (in the case of divorce, one parent) permanently domiciled in Michigan as demonstrated by permanent employment, establishment of a household and severance of out of state ties
- applicant employed in the state in a full-time, permanent position provided that the applicant's employment is the primary purpose for the applicant's presence in Michigan
- spouse or domestic partner employed in the state in a full-time, permanent position provided that the spouse's or partner's employment is the primary purpose for the student's presence in Michigan

2. **Circumstances which do not demonstrate permanent domicile**
The circumstances and activities listed below are temporary or indeterminate and, in and of themselves, do not demonstrate permanent domicile:

- enrollment in high school, community college or university
- participation in a medical residency program, fellowship or internship
- employment that is temporary or short-term
- military assignment
- employment in a position normally held by a student
- ownership of property
- presence of relatives (other than parents)
- possession of a Michigan driver's license or voter's registration
- payment of Michigan income or property taxes
- the applicant's statement of intent to be domiciled in Michigan

3. One year continuous presence

In cases where it is determined that an applicant has not demonstrated establishment of a domicile in Michigan as defined by these Guidelines, the University will require the applicant to document one year of continuous physical presence in the state as one of the criteria for determining eligibility for resident classification in any subsequent Application for Resident Classification. The year to be documented will be the one year immediately preceding the first day of classes of the term in question. The year of continuous presence is never the only criterion used for determining resident eligibility, and, in itself, will not qualify a student for resident status. If substantial and new information arises which changes the circumstances of a student's presence in Michigan and which clearly demonstrates the establishment of a Michigan domicile, the student may be immediately eligible for resident classification prior to the passage of one year.

In documenting the year of continuous physical presence in Michigan, the applicant will be expected to show actual physical presence by means of enrollment, employment, in-person financial transactions, health care appointments, etc. Having a lease or a permanent address in the state does not, in itself, qualify as physical presence. Short-term absences (summer vacation of 21 days or less, spring break and break between fall and winter term), in and of themselves, will not jeopardize compliance with the one year requirement. In determining the effect of a short term absence, the nature of the absence will be assessed to determine whether it is contrary to an intent to be domiciled in Michigan. Absences from the state in excess of the time mentioned above or failure to document physical presence at the beginning and end of the year will be considered as noncompliance with the one-year continuous presence requirement.

B. Residency Presumptions in Particular Circumstances

The fact that a presumption of resident status may apply to a student does not mean that the student will automatically be classified as a resident or that the student is relieved of the responsibility for filing an Application for Resident Classification. (See The Student's Responsibilities and the Residency Application Process on page 18.)

1. Dependent Students

For University residency classification purposes, a student is presumed to be a dependent of his or her parents if the student is 24 years of age or younger and (1) has been primarily involved in educational pursuits, or (2) has not been entirely financially self-supporting through employment.

a. Residents

i. Dependent Student — Parents in Michigan

A dependent student whose parents are, according to University Residency Classification Guidelines, domiciled in Michigan is presumed to be eligible for resident classification for University purposes as long as the student has not taken steps to establish a domicile outside of Michigan or any other action inconsistent with maintaining a domicile in Michigan.

ii. Dependent Student of Divorced Parents — One Parent in Michigan

A dependent student whose parents are divorced is presumed to be eligible for resident classification for University purposes if one parent is, according to University Residency Classification Guidelines, domiciled in Michigan. The student must not have taken steps to establish an independent domicile outside of Michigan or any other action inconsistent with maintaining a domicile in Michigan.

iii. Dependent Resident Student Whose Parents Leave Michigan

A student who is living in Michigan and who is, by University Residency Classification Guidelines, permanently domiciled in Michigan does not lose resident status if the parents leave Michigan, provided: (1) that the student has completed at least the junior year of high school prior to the parents' departure, (2) that the student remains in Michigan, enrolled as a full-time student in high school or an institution of higher education, and (3) that the student has not taken steps to establish a domicile outside Michigan or any other action inconsistent with maintaining a domicile in Michigan.

b. Nonresidents

Dependent Student — Parents not in Michigan

A dependent student whose parents are domiciled outside the state of Michigan is presumed to be a nonresident for University purposes.

2. Michigan Residents and Absences From the State

Individuals who have been domiciled in Michigan according to University Residency Classification Guidelines immediately preceding certain types of absences from the state may retain their eligibility for resident classification under the conditions listed below:

a. One Year Absence

An individual who has been domiciled in Michigan immediately preceding an absence from the state of less than one year may return to the University as a resident for admission and tuition purposes provided: (1) that the individual has maintained significant ties to the state during his or her absence, and (2) that the individual severs out of state ties upon returning to Michigan.

While a student described in this subsection is presumed to have retained his or her eligibility for resident classification, an individual who has been absent from the state in excess of one year (and who does not fall within the circumstances described at (b) - (c) below) may still be able to prove eligibility for resident classification if the student: (1) has not established a domicile outside Michigan; (2) demonstrates the continuous maintenance of a Michigan domicile throughout his or her absence (e.g., payment of Michigan taxes, maintenance of Michigan driver's license and Michigan voter's registration, active bank/business accounts, and parents still in the state); and (3) severs all out of state ties upon returning to Michigan.

b. Absence for Active Duty Military Service (Army, Navy, Air Force, Marines, Coast Guard), Missionary Work, Peace Corps or Similar Philanthropic Work

An individual who is domiciled in Michigan at the time of entry into active military duty, missionary work, Peace Corps or similar philanthropic work does not lose eligibility for resident classification as long as he or she is on continuous active duty and continuously claims Michigan as the state of legal residence for income tax purposes. Dependent children of such an individual are also eligible for resident classification, provided: (1) that they are coming to the University directly from high school or they have been continuously enrolled in college since graduating from high school, and (2) that they have not claimed residency for tuition purposes elsewhere.

c. Absence for Education or Training

An individual who is domiciled in Michigan immediately preceding an absence from the state for full-time enrollment in school or for a medical residency program, internship or fellowship does not lose eligibility for resident classification provided: (1) that the individual has maintained significant ties to the state during his or her absence (e.g., parents still in the state, payment of state taxes, active business accounts), and (2) that the individual has not claimed residency for tuition purposes elsewhere.

3. Residence Status of Immigrants and Aliens

Only persons who are entitled to reside permanently in the United States may be eligible for resident classification at the University. These individuals, like U.S. citizens, must still prove that they have established a Michigan domicile as defined in these Guidelines. Having the privilege of remaining permanently in the United States, in itself, does not entitle a person to resident classification for University purposes. The Residency Classification Office will review the circumstances of the following classes of immigrants:

- Permanent Resident Aliens (must be fully processed and possess Permanent Resident Alien card or stamp in passport verifying final approval by filing deadline for applicable term)
- Refugees (I-94 card must designate "Refugee")
- A, E (primary), G and I visa holders*

(*Based upon current law, these nonimmigrant visa classifications are the only ones that permit the visa holder to establish a domicile in the United States. The University Registrar shall update this list as changes occur in applicable law.)

PRE-CLINICAL CURRICULUM



Thank you for your interest in our program. Component II provides medical students with information required to understand disease processes. The year is divided into individual sequences which are organized in an organ system approach. Each sequence teaches the pathophysiology and clinical manifestations of the major diseases which affect that system.

Sequences are taught in a multidisciplinary fashion, and teaching is provided by faculty from several different departments. This multidisciplinary approach prepares students for clinical training by introducing the essentials of diagnosis and clinical management.

Work with simulated patients continues during the second year and students also perform supervised patient histories and physical examinations in a hospital setting.

The faculty rely on formal student input to develop and implement the most effective educational program that also accommodates different student learning styles. Our students do very well on the national licensing examination at the end of the second year, and they are well-prepared to begin clinical training in the third year.

Please direct your questions to the Office of Medical Education, via electronic mail at meded@umich.edu or by telephone at (734) 763-3265.

A handwritten signature in black ink that reads "Roger J. Grekin".

Roger J. Grekin, M.D.
Director, Component II
Professor of Internal Medicine

Thank you for your interest in the University of Michigan Medical School. I want to introduce you to our medical curriculum, which is composed of educational experiences that prepare students for medical careers ranging from primary care to the most advanced biomedical research specialties.



In the first year, Component I provides students with a basic foundation in both biomedical sciences and clinical skills. Component II is a series of disease and organ-system sequences (e.g., oncology, cardiovascular, hematology) designed to prepare students for their patient-centered clinical educational experiences in the third and fourth years.

Beginning early in Component I students work with simulated patients (individuals trained to act as real patients) and real patients as they learn to conduct medical interviews and physical examinations. This instruction involving patients is broad, and students receive feedback from the patients and faculty. First-year students also have an opportunity to participate in many hands-on laboratory and small-group learning activities.

We have adopted Satisfactory/Fail grading and weekly quizzes in Component I. This recognizes the heterogeneous backgrounds of our students as they adjust to medical school, and provides them with frequent feedback on how they are doing in their courses.

The students have prepared the course and sequence descriptions that follow. If you have questions about our program that are not addressed please contact the Office of Medical Education by electronic mail at meded@umich.edu or by telephone at (734) 763-3265.

A handwritten signature in black ink that reads "K. Sue O'Shea".

K. Sue O'Shea, Ph.D.
Director, Component I
Associate Professor of Anatomy and Cell Biology

Component I

Medical students have prepared the following descriptions of the Component I year and courses.

The primary goal of Component I (the first-year curriculum) is to provide a strong foundation in basic biomedical science and to prepare students for the detailed basic science content that will occur in a clinically-oriented framework in Component II.

The grading scale in the first year is Satisfactory (75%) and Fail. The faculty adopted this system in the first year to foster student cooperation and to allow students with very different academic backgrounds to adapt to the rigors of medical school without feeling the pressure to compete for a High Pass or Honors grade.

Evaluation in all Component I courses is based on multiple choice, matching, and true-false exams, and also laboratory and practical exams. There are weekly quizzes with questions from all courses, and midterm and final examinations in each course. Weekly quizzes encourage students to keep up with the course material on a weekly basis and also allow them to get frequent feedback on how they're doing in the courses.

Throughout the Year

Introduction to the Patient (ITTP)

(32 weeks)

The ITTP course begins early in the first year with an introduction to multicultural patient care. This experience is designed to raise the students' awareness of the different cultures they will encounter as providers of medical care. Lectures, small group discussions and encounters with simulated patients (individuals trained to portray patients) introduce students to the fundamentals of the medical interview, the physical examination and the patient experience. ITTP includes a patient-centered interdisciplinary "Human Growth and Development" sequence. Topics include physiologic and psychosocial developmental changes through the life cycle, and nutritional requirements and issues related to preventive medical care. Medical ethics, medical economics, social and cultural issues, and other topics essential to the education of physicians complete ITTP and round out the first-year curriculum.

Molecular and Cell Biology (MCB)

(22 weeks)

Students study the basic biology of cells and tissues through daily lectures, textbook reading and small group conferences (some facilitated by fourth-year medical students). In nine blocks (Introduction to the Cell, Information, Proteins, Regulation of Metabolism, Membrane Structure and Function, Signal Transduction, Neuronal

The curriculum in general is a wonderful program. I am really enjoying my first year because it is satisfactory/fail. We still want to know the material but it takes the edge off and allows the class to get to know each other, Ann Arbor and the medical school routine!

Aaleya Koreishi, Medical Student



I was amazed that the people teaching our first-year courses are the senior MDs and scientists, department chairs and authors of our class texts. Not only can they tell us what has been published in the latest journals (sometimes before actual publication), they are also accessible to and interested in students. I've found the faculty at Michigan to be encouraging and supportive, both on academic issues and students' well-being. I'm really glad I chose Michigan.

Katy Gold, Medical Student

The Introduction to the Patient (ITTP) reminds us that medicine is in part interacting with people and not just their diseases. The Introduction to Multicultural Patient Care is an excellent addition to the curriculum in that it reminds us that people are distinct individuals with many cultural beliefs that can affect their medical care. Small group discussions about these topics are excellent.

Joel Ying, Medical Student

Cells, Cell Motility and Force Generation and Extracellular Matrix), students master fundamental principles of cell biology necessary to understand both current concepts of disease and the breakthroughs that will impact medical practice throughout their careers.

Multidisciplinary Conferences (MDCs) (throughout the year)

MDCs occur two-three times a month throughout the first year. They are designed to enhance, and place in a clinical context, material learned from the courses during the previous weeks, and to introduce students to clinical decision-making skills. Formats vary and include patient presentations, panel discussions and question/answer sessions.

Fall Term

Gross Anatomy (16 weeks)

Students study anatomy via multiple modalities to suit their learning style. Required lectures and dissection labs are the basis of the course, supplemented by pre-dissected models, state-of-the-art computer-aided instructional programs, an extensive database of self-tests and detailed textbooks and atlases. An introduction to radiographic anatomy is also part of the course.

Human Genetics (8 weeks)

Geneticists provide students with an introduction to basic molecular genetics and population genetics. Discussions explore ethics involved in the emerging field of gene therapy. Specific genetics diseases are used as illustrations of basic science principles, and clinical correlations are introduced by inviting patients to participate in classroom presentations.

Pathology (7 weeks)

This is consistently one of the medical students' favorite courses in the first year. Students are able to, as the course director says, "satisfy their appetite for the strange and bizarre" as they study the basic mechanisms of disease, discover the answers to such medical trivia as, "Define a trichobezoar" and begin to learn some of the fundamental vocabulary of medicine.

Winter Term

Embryology (6 weeks)

After finishing anatomy, students gain a deeper understanding of the process of formation of the human body in embryology. Through daily lectures, readings from a textbook authored by the course director, state-of-the-art computer models and a computer database of self-test resources, students examine the basis of normal development as well as congenital anomalies and malformations. The study of the basic science

of reproduction serves as the introduction to the more clinically-oriented reproductive sequence in the second year.

Histology

(16 weeks)

Students are provided with microscopes and hundreds of prepared slides for the review of the histology of normal human tissue. Lectures and laboratory are supplemented by atlases and state-of-the-art computer models. Electron micrographs and an introduction to histopathology are also included.

Host Defense

(6 weeks)

Humans have developed defense mechanisms to cope with a world dominated by potentially harmful microbes. In Host Defense, students study the fundamentals of the inflammatory cascade and the body's reaction to foreign invasion. Also discussed are the cellular and molecular bases of allergic diseases, cancer immunology, organ transplantation, and how they relate to human disease.

Microbiology

(3 weeks)

Students learn the basis of the microbial life cycle, including principles of structure, physiology and genetics, and how these come into play during microbial interaction with a host. These studies are a preamble to the overview of specific microorganisms relevant to human disease presented in the second year.

Pharmacology

(6 weeks)

Students master the basic principles of pharmacokinetics (how drugs enter the body, how they are distributed to various sites of action, and how their actions are terminated by metabolism or secretion) and pharmacodynamics (how drugs act with receptor sites on cells, principles that affect how the intensity of drug responses is related to the drug dose, and common factors that can affect responses, such as age and genetic makeup) as a basis for understanding the mechanisms of hundreds of medications utilized in clinical practice.

Physiology

(15 weeks)

Students receive the much-anticipated introduction to the normal functioning of the human body. Sequentially they master six organ systems: circulatory, respiratory, renal, gastrointestinal, endocrine and reproductive; these studies form the basis for understanding the manifestations of disease presented in the second year.



I really look forward to the simulated patient experiences. These not only serve to develop and sharpen clinical skills in an effective manner, but also serve as a nice change of pace from the academic workload.

Dennis Tong, Medical Student

While the pre-clinical years must focus primarily on the basic science areas of medicine, the Medical School strives to include relevant clinical information and experience whenever possible. For example, as first-year medical students, we were honing our medical interviewing skills with nursing home residents while learning and practicing the physical exam with our classmates. M2s are frequently in the hospital performing histories and physicals on real patients. It's a great learning experience and good practice for the true clinical years.

Patrick Javid, Medical Student



Component II

Medical students have prepared the following descriptions of the Component II year and sequences and experiences.

There are no departmental courses in Component II. The year is organized into twelve organ system and disease-based sequences, each of which is planned and taught by an integrated multidisciplinary planning team. The sequences are presented one at a time so that students can focus on a particular system before moving on to the next. Pathology lab sessions run concurrently with class and small-group activities and focus on content carefully correlated with the sequences.

Within each sequence, detailed consideration is given to the physiology of a particular organ system, the pathology of important diseases of that system, immunologic and microbiologic aspects of those diseases, and the pharmacologic approach to them. Course material is presented in a variety of formats, including case presentations, lectures, small group discussions, laboratory sessions, computer exercises, and a range of student-centered exercises.

Occasional quizzes continue in Component II, however, each quiz is focused on the sequence taught at that time. At the end of each sequence a final exam is administered. The grading scale

in the second year is Honors, High Pass, Pass and Fail. Each sequence is graded separately and grades are based on quizzes and exams.

Following are the second-year sequences, in the order they are completed by the students.

Infectious Diseases (I.D.)

(4 weeks)

Having mastered the basics of microbial life in the first year, students start immediately reviewing the vast array of bacteria, viruses and parasites that play a role in human disease. The microbiology of each organism is examined in concert with its manifestations in the human body and treatment. Lectures are complemented by small discussion groups facilitated by infectious disease experts, hands-on laboratory experiences to gain necessary skills in culture and staining techniques, and a computer practicum to master vaccinations. The I.D. sequence serves as the foundation for infectious processes in every organ system to be studied throughout the second year.

Hematology

(3 weeks)

Among the topics studied are anemia, leukemias, lymphomas, blood dyscrasias and solid organ tumors. Lectures are complemented by small-group discussions led by hematology and oncology experts in which patient cases are discussed.

There are also laboratory sessions in which students master the skills of deciphering a blood smear and recognizing the histopathology of cancers.

Oncology

(1 week)

The molecular basis of neoplasia and fundamental principles of tumor cell biology are presented in a patient-focused format. Lectures are combined with patient presentations and case-based pathology laboratories.

Cardiovascular

(3 weeks)

A brief review of cardiovascular physiology precedes this series of presentations on essentials of cardiac pathology. Topics studied include congestive heart failure, arrhythmias, valvular disease, atherosclerosis, hypertension and shock. Pharmacologic therapy and histopathology complete the sequence. Computer simulations assist the students in an introduction to learning heart sounds and electrocardiography.

Respiratory

(2 weeks)

Directed by a faculty member who invented ECMO (extracorporeal membrane oxygenation), the respiratory sequence focuses on disease states in the respiratory system, including asthma, lung cancer, chronic obstructive pulmonary disease, cystic fibrosis and adult respiratory

distress syndrome. The basics of mechanical ventilation are discussed and important skills including analyzing blood gas values are introduced. Laboratory sessions complete the histopathology portion, and students spend a day in the hospital, rotating through intensive care units and pulmonary function labs where they gain experience with the clinical relevance of the material studied in the sequence.

Renal

(2.5 weeks)

Students learn about the characteristics and mechanisms of renal disease including such diseases as lupus, glomerulonephropathies, renal cell carcinoma and nephrolithiasis. A brief introduction to urologic disease is also included. Histopathology slides are available on the Internet and complement the laboratory sessions.

Dermatology

(1 week)

One of the goals of this sequence is to expose the students to a broad array of skin diseases and dermatologic manifestations of systemic disease. Lectures are complemented by laboratory sessions and a very popular session in which students rotate through clinical examination rooms, meeting patients with dermatologic symptoms and conditions. With each patient is a dermatology faculty member who explains the patient's skin manifestations.

The Standardized Patient Instructors benefit all students. The best way to learn an examination is to perform one, and the SPIs are very well-trained and can provide specific, immediate feedback and guidance regarding a student's performance on a physical exam. Our confidence as future physicians is bolstered by these positive interactions, and by accomplishing potentially-uncomfortable parts of the physical exam. The Standardized Patient Instructors help students to acquire a professional demeanor.

Jessica Ulbrich, Medical Student

My experiences with my clinical skills instructor in the hospital have been overwhelmingly positive. I have gained important skills examining patients, and my instructor has given me both constructive criticism and good advice to help me develop my clinical skills. The chance to learn from and get to know an experienced physician has been one I won't forget.

Paul Jawanda, Medical Student



Gastrointestinal

(2.5 weeks)

Topics include gastroesophageal reflux disease, gastric colon and esophageal cancers, diarrheal diseases, inflammatory bowel diseases and others. Small group discussions reviewing case studies with gastroenterology faculty and histopathology lab sessions are integral parts of the sequence.

Neurosciences

(7 weeks)

The sequence begins with a review and expansion of neurophysiology topics. Laboratory sessions begin with a more in-depth study of neuroanatomy, which was initially studied in the first-year anatomy course. Preserved specimens, plastinated specimens and extensive computer programs are all available for study in addition to laboratory exercises mentored by neuroanatomy faculty. The sequence progresses to cover neurologic diseases such as stroke, aneurysms, cancers, and degenerative processes. A significant part of the sequence focuses on psychiatry. A "special senses" (hearing and sight) section of the course finishes the sequence. The laboratory sessions conclude with a review of the histopathology of the spectrum of neurologic disease.

Endocrine

(2 weeks)

Topics studied include thyroid disease, parathyroid disease, diabetes and growth hormone disorders. Lectures are complemented by extensive small-group sessions with endocrinology faculty

in which case studies are discussed. Histopathology laboratories complete the curriculum.

Reproduction

(2 weeks)

Students study normal reproduction, building upon the foundation presented in the first-year Embryology course. Infertility is discussed in addition to various gynecologic diseases. Histopathology is presented in the laboratory sessions.

Musculoskeletal

(2 weeks)

Topics presented include rheumatologic disease, degenerative myopathies, and cancer of the musculature and skeleton. Histopathology is covered in the laboratory sessions. Students learn a detailed rheumatologic exam in afternoon sessions tutored by trained patients with rheumatologic disease. The program, which has received national recognition, is rated very highly by the students.

Introduction to the Patient (ITTP)

(all year)

In the second full year of this course students master the complete history and physical examination under the tutelage of individual clinical faculty who serve as clinical skills instructors. Classic cardiac and pulmonary findings are demonstrated using ambulatory patients. Male genito-urinary and female pelvic examinations are taught with the help of simulated patient instructors, who are individuals trained to portray

patients in scripted encounters with medical students. Topics related to medicine and society, sexuality, behavioral medicine, and violence in society are also presented and discussed.

Multidisciplinary Conference (MDCs)

(throughout the year)

Each Friday during Component II multidisciplinary conferences are presented by faculty from numerous departments to enhance and place in a clinical context the content learned during the week. Conferences are presented in a variety of active formats, including case presentations and panel discussions.



Simulated Patient Instructor Sessions

The UM Medical School has a four-year longitudinal program of clinical skills instruction using simulated (also known as standardized) patient instructors (SPIs) with whom medical students interact throughout medical school. SPIs are non-physicians who are trained to play a patient role in encounters with medical students, and who then provide feedback to the students. These encounters are generally one-on-one but can occur with small groups of students. Medical students meet with SPIs in progressively more demanding encounters designed to teach them content and process skills, and communication skills they will need to provide efficient and appropriate health care to patients. Some of the encounters are:

- The medical interview (first year)
- Breast and cardiac exams (first year)
- Sexually transmitted diseases/risk assessment interview (second year)
- Smoking cessation/behavior modification counseling (third year)
- Breaking bad news to the patient (third year)
- The adolescent interview (third year)

Students are enthusiastic about the SPI sessions and give them high ratings.

UNITED STATES MEDICAL LICENSURE EXAMINATION (USMLE)

STEPS 1 AND 2

UM Medical School students take the USMLE Step 1 exam after completing the second-year curriculum. Passing is a prerequisite for advancement to the clinical years. The mean performance of UM Medical School students on the Step 1 exam from 1986-1998 has been consistently above the national average.

Students take the USMLE Step 2 exam after completing the required clerkships in the third year. Passing is a requirement for graduation. Over the last nine years, the mean performance of UM Medical School students on the Step 2 exam has been consistently above the national average.



Letter from the Director, Components III and IV

Thanks very much for your interest in our medical education program at the University of Michigan Medical School. For several years I have served as Director of Components III and IV, which are the clinical years in our curriculum.

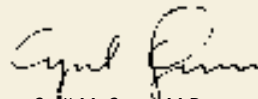
When University of Michigan medical students successfully complete the preclinical years, the focus of learning shifts from the lecture halls and laboratories to the patients you will care for in the clinics and hospitals. Third- and fourth-year medical students become a part of a team, helping to deliver high-quality health care to patients while at the same time learning to be competent physicians. Students at our Medical School rotate through many departments, and are exposed to a wide variety of experiences and disciplines.

Our students receive excellent education and training, providing them with a firm foundation upon which each may build a successful career as a physician. The curriculum is designed to help students make the transition from student to professional, to ensure that they acquire the appropriate knowledge and skills needed to be competent physicians, and to prepare them for the lifelong learning experience that is essential to their success in any medical field.

All third-year students complete the same core of required clerkships. Although within each discipline the site may vary, the educational goals are identical and the experiences very similar. At the end of the third year, students should have a broad understanding of medicine and be ready to refine their skills in the coming year.

Fourth-year students have a few required experiences, however they have a lot of flexibility in designing their schedule. They are encouraged to broaden their learning experiences by delving deeper into areas of interest, and also sampling areas in which their exposure has been limited.

The following pages have been prepared by our medical students to provide a thumbnail description of the experiences in the third and fourth years of training at the University of Michigan Medical School. I hope you find the information interesting, and if you have any questions please feel free to contact the Office of Medical Education at meded@umich.edu or (734) 763-3265.



Cyril M. Grum, M.D.

Director, Components III and IV

Professor of Internal Medicine

Associate Chair for Undergraduate Medical Education, Internal Medicine

CLINICAL CURRICULUM



My experience at the VA Hospital has been great. You get to do a lot for the patients, you have a lot of responsibility, and the doctors respect your capabilities.

Diana Sweet, Medical Student

Component III

Medical students have prepared the following descriptions of Component III clerkships and experiences.

The third year of Medical School is an exciting time for students as they formally enter the clinical phase of their education.

Component III consists of four twelve-week blocks that are spent on required clerkships within the University's core system, including the University of Michigan Hospitals, Ann Arbor Veteran's Hospital, St. Joseph Mercy Health System, William Beaumont Hospital, and the Oakwood Healthcare System.

The third-year schedule is uniform for all students in terms of experiences, however, students may rank their preferences for the order in which they take the clerkships (there are four possibilities; see diagram), for their surgical subspecialty rotation, and for different locations within the core system.

The class comes together for the weekly Seminars in Medicine which integrate clinical information and generate discussion on topics of ethical and professional concern.

Students receive information from each of the departments on expectations, clinical experiences, and how they will be evaluated. The full grading scale—Honors, High Pass, Pass and Fail—is used for the Component III clerkships.

Family Medicine

(4 weeks)

As the health care system continues to change, the family practitioner is becoming an increasingly integral part of every patient's experience with medical care. All UM medical students are required to rotate through a four-week Family Medicine experience. Assigned to various private practices and community clinics throughout southern Michigan, students gain broad experience in the comprehensive care of individuals and their families in the context of their psychosocial, economic and community environments.

Internal Medicine

(12 weeks)

Students gain broad experience in obtaining a thorough history and performing a physical examination, focusing thereafter on the essentials of diagnosis and gaining an introduction to the management of medical problems. Experiences include inpatient exposure on general medicine wards, and experiences on the pulmonary, gastro-intestinal, liver, rheumatology, nephrology, cardiology, hematology and oncology services. Many students also spend one month in outpatient clinics, rotating through general medicine and all the subspecialty clinics. The types of pathology students gain exposure to varies widely with the services they experience, however, every student will inevitably work with patients with heart disease, diabetes, asthma and the multiple disease states associated with smoking, alcoholism and obesity. Students gain exposure to x-ray

reading in a weekly lecture, use computer models to assess a broad array of diagnostic problems and take part in a simulated patient exercise to practice the methods of producing behavioral change (persuading patients to stop smoking). Daily teaching rounds and textbook reading complete the student's experience.

Neurology

(4 weeks)

Students master a detailed neurologic examination through experiences in the inpatient and outpatient settings. Neurologic diseases such as multiple sclerosis, stroke, myasthenia gravis, migraine and diabetic neuropathy are all commonly encountered, in addition to brain tumors and many less common entities. Daily teaching rounds accompany textbook reading.

Obstetrics/Gynecology

(6 weeks)

Students assigned to different locations have a range of diverse experiences centered on providing a consistent core fund of knowledge. Several weeks are devoted to obstetrics, where students learn the prepartum care of both routine and complicated pregnancies. Students get hands-on experience in routine vaginal deliveries and Caesarean sections. They then follow the mothers until discharge to learn about postpartum issues.

Exposure to infertility, teen pregnancy, diabetes and high-risk pregnancy all occur in the Obstetrics/Gynecology clerkship. Students master the routine pelvic exam, learn to identify basic pathology and assist in gynecologic surgery. Some students are also assigned to a week of gynecologic oncology. Clinical experience is complemented by a daily lecture series, mentoring by an assigned faculty member and textbook reading.

Pediatrics

(6 weeks)

Students spend one week in neonatology and the rest of the time is divided between inpatient and outpatient pediatrics. In addition to a focus on general pediatrics in the ambulatory setting, students also receive exposure to clinics in pediatric cardiology, nephrology, hematology-oncology, rehabilitation, adolescent medicine, and child abuse. On the inpatient service, students participate directly in the initial work-up of the child and the day-to-day management. As full members of the health care team, students gain broad experience in the often difficult task of the physical exam of the child. Students often build trusting relationships with children and their parents. Clinical experience is supplemented with daily teaching rounds and lectures, an extensive syllabus, textbook reading and a brief paper on a pediatrics topic chosen by the student.

The third year of medical school has been one of the most exciting experiences in my life. For the first time, we are able to interact with patients in a meaningful way. I learned a great deal about medicine by following patients and interacting with physicians at all levels of training.

Paul Park, Medical Student



The wide variety of options available during the senior year has allowed me to achieve a number of goals. I was able to schedule several electives in the two areas of surgery that I am considering for a career, which definitely helped me to focus on my career objectives. Also, the wide variety of medical subspecialties available provided me with an opportunity to “fill in” some areas that I won’t be formally exposed to again.

Amy Falor, Medical Student

As a fourth-year sub-intern, one of my most valuable experiences was having the responsibility of discussing treatment options, test results and personal concerns with my patients and their families. The experience was invaluable.

Anna Griffith, Medical Student

Psychiatry

(4 weeks)

Through exposure to inpatient, outpatient and ER settings, students learn to recognize common psychiatric illnesses in their patients including depression, anxiety disorders, schizophrenia and autism. A basic familiarity with psychiatric medications is acquired and students generally become more comfortable working with mentally ill individuals. Teaching rounds and textbook reading serve as the basis of formal learning and are complemented by a simulated patient experience focusing on alcoholism.

Surgery

(12 weeks)

Students learn to recognize the “potentially surgical patient” and learn the appropriate method of diagnosis and evaluation of the surgical problem. Students spend the majority of time on the inpatient service, following patients preoperatively, assisting in the operation and then following patients postoperatively until their discharge. General Surgery lasts eight weeks and includes two month-long rotations in either general surgery or pediatric, vascular, trauma, oncology, endocrine or gastrointestinal surgery. A third month is a surgical selective. Students may choose from neurologic, orthopedic, plastic, thoracic or urologic surgery, in addition to anesthesiology, emergency room, ophthalmology and otolaryngology. Daily lectures and textbook reading complement experiences on the wards and in the operating room.

Educational Experiences in Component III

These experiences were created to augment instruction occurring on the clinical clerkships. They are graded on a Satisfactory/Fail basis.

Seminars in Medicine

These are two-hour conferences that occur almost every Friday afternoon during the third year. They are designed to enhance patient-based learning and introduce issues in the legal, ethical, social and economic fields, and they also emphasize concepts spanning all of clinical medicine such as reading the EKG and managing IV fluids. Other examples of seminars offered include The Addicted Professional, Adolescent Risk-Taking Behavior, and Medical Malpractice.

Comprehensive Clinical Assessment (CCA)

The Comprehensive Clinical Assessment is designed to test each student's clinical skills to ensure that an acceptable level of mastery has been acquired at the completion of Component III. The CCA is thirteen to fourteen stations where students are presented with clinical issues including cardiac and ophthalmologic diseases, EKG and x-ray interpretation, and encounters with patients. Students interview and examine real and simulated patients, and in many stations are observed by a faculty member who provides immediate feedback. The CCA allows students to focus on the essential skills they are expected to possess as medical school graduates, and provides them with a formal assessment of their skills. Satisfactory performance on the CCA is required for graduation.

Component IV

Medical students have prepared the following descriptions of the Component IV experiences.

The fourth year consists of eleven four-week periods; two of which may be used as vacation months and for interviewing. Students are encouraged to seek a full and balanced combination of experiences as they pursue personal medical interests and investigate medical fields in which they have no previous experiences.

Fourth-year experiences are graded using the full grading scale of Honors, High Pass, Pass and Fail.

General requirements exist, but are not tied to specific departmental courses. Each fourth-year student must complete at least nine months of clerkships; up to three of these months may be devoted to research experiences. Students also have the opportunity to elect clerkships at hospitals throughout the country and the world. Most off-campus experiences are arranged by students and all require the approval of the appropriate clerkship director.

Basic senior requirements include:

Subinternship

In the eight-week subinternship, each fourth-year student, as an active member of the health care team, assumes major responsibility for patient care. Students enjoy the subinternship enormously because they have primary responsibility for the care of their patients, and greater autonomy in patient care decision-making. As sub-interns, students are given as much responsibility for their patients' care as is possible within legal limits.

Intensive Care Unit (ICU) Experience

Often taken concurrently with the subinternship, the ICU experience provides not only an opportunity for students to participate in the management of critically ill patients with diseases or conditions affecting multiple organ systems, but



Having the flexibility to spend several months doing rotations outside the University Hospitals enabled me to appreciate differences in approaches and philosophies regarding medicine and health care.

Araba Afenyi-Annan, Medical Student

Fourth-year students have a lot of freedom in selecting their schedules. Participating in rotations throughout the U.S. proved to be a wonderful and enriching experience.

Lela Weems, Medical Student

Whether it's spending a month with children affected with bleeding disorders or traveling to Africa to experience third world medicine, the fourth-year curriculum affords students opportunities that should not be missed.

Brian Griffith, Medical Student

The fourth year of medical school is the best for several reasons. First, the large number of electives allows you to experience a variety of medical specialties in a variety of locations. Second, the subinternship is an opportunity to experience what it's like to be a doctor with all of the responsibilities and rewards of patient care. Finally, it is the only year of medical school in which your reading is directed by patients and curiosity rather than an impending examination, making it much more interesting.

David Weissman,
Medical Student



also the opportunity to witness the profound effects of life-threatening acute illness on patients and their families. Students find the ICU to be of particular educational value because the immediate effects of treatments are frequently more evident in patients who are so unstable.

Advanced Basic Science Experience

This experience is also called Science in Clinics, and is designed to update and augment students' basic science knowledge. These rotations typically allow students to focus on one or a few specific problems in depth, which students report is very satisfying intellectually after three years of absorbing information at a breathtaking rate. Having now acquired a solid clinical base, students can appreciate the basic science underpinnings of medicine more clearly than before.

Electives

Students can choose from more than 200 electives offered at the UM and UM-affiliated hospitals, in addition to working with faculty to develop independently structured experiences. Formally-structured rotations range from trauma surgery in Detroit to developmental pediatrics to a critical review of the influence of law on medical practice. Students are encouraged to sample widely in the senior year, while also maintaining appropriate rigor, ample clinical exposure, and a suitable blend of experiences. Up to three electives may be taken nationally or internationally.

Student Evaluation of the Curriculum and Teachers

The UM Medical School asks all medical students to evaluate their educational experiences throughout all four years of medical school. Evaluation information, which is shared with the teachers, course directors, and curriculum leaders, is used to change and improve the educational program.

Input from students through evaluations has led to the following changes in recent years:

- a third-year Family Medicine clerkship,
- increased small group teaching,
- increased interactions and periodic meetings between the Component Directors and specific student groups,
- a revised examination calendar in Component II, to better fit with student schedules,
- alternative approaches to evaluation such as weekend take-home quizzes,
- student representation on the Introduction to the Patient committee.

Medical Student Representation on Committees

Medical students at the University of Michigan Medical School are invited and elected to participate in committees and organizations charged with varied and important responsibilities. Following are just a few of these groups.

Admissions Committee

The Admissions Committee is composed of over 70 Medical School faculty and students who participate in the evaluation of applicants to the UM Medical School. There are nine class representatives on the committee: three M2s, three M3s and three M4s. Each year three new M2s are chosen on the basis of an essay and an interview; the length of term is three years. Additional students are chosen each year to represent minority student organizations, and they also serve three-year terms. The students and faculty participate equally in interviewing applicants and voting on applicant status.



STUDENT INVOLVEMENT AND RESPONSIBILITIES

The student-friendly administration highly values and constructively uses student input to improve aspects of the Medical School."

**Samir Shah,
Medical Student**

As a representative for my class on the Curriculum Policy Committee, I have a chance to help voice student concerns regarding the educational program at Michigan. Not a meeting goes by without a faculty or administrative committee member turning to me and saying 'What do the students think about this?' It is a good feeling to believe change happens for us and with us, and not simply to us.

David Bundy, Medical Student

Class Advocates

The Medical School Student Council is composed of five class advocates from each of the Medical School classes who are elected by their classmates. Class Advocates are responsible for providing communication and problem resolution between their classmates and the School's administration (see also Medical School Student Council under Student Organizations).

Honor Council

Honor Council representatives are students elected by their classmates on the basis of personal integrity and ethical values. Two members from each class serve on the Honor Council, which often conducts the first (and sometimes only) level of investigation into allegations of unprofessional behavior, including cheating. In these cases, the Honor Council works closely with the Associate Dean for Student Programs.

Academic Review Boards

The Component, Course, and Clerkship Directors comprise the Academic Review Boards (ARB). The Boards review and take actions related to student progress in the curriculum. There are two ARBs, one in the basic science phase and one in the clinical phase. Four students who are Honor Council members serve on the Basic Science ARB, and four students who are Honor Council members serve on the Clinical ARB.

Component Committees

The Component I Committee is composed of the Course Directors of each basic science course, and the Component II Committee is composed of the Sequence Coordinators of each of the second-year sequences. Each committee has two student representatives. Discussions focus on curriculum content and quiz and exam schedules.

The Component III/IV Committee is composed of the Directors of the clinical clerkships and two student representatives each from the M3 and M4 classes (four total). Discussion focuses on issues of concern to medical students in clinical rotations such as evaluation of students, clerkship requirements, call schedules, and the clinical phase calendar.

Introduction to the Patient (ITTP) Committee

The first- and second-year classes each elect a representative to serve as a student advisor to the ITTP Course Director. The course was introduced with the new curriculum in 1992, and student input regarding improving the course and further integrating its topics with the pre-clinical curriculum is welcome.

Curriculum Policy Committee

The Curriculum Policy Committee is the highest-level curriculum committee in the Medical School and is responsible for setting curriculum policy. Each class elects one student to serve as a Curriculum Policy Committee representative (four total).

The Honor System

Students at the University of Michigan Medical School abide by an Honor Code, which all students sign before the first day of classes. The Honor Code was developed by students and faculty and has been revised, refined and passed from generation to generation to its present form:

As a member of the University of Michigan Medical School community I will:

- a. Strive to develop medical knowledge and skills to the best of my ability.*
- b. Demonstrate the highest standards of honesty and personal integrity, since these attributes are fundamental and essential to the medical profession.*
- c. Behave in a responsible and respectful manner toward patients, faculty, colleagues, health care workers and all others.*
- d. Address actions or practices on the part of a colleague that breach the principles of honor and integrity. If I am concerned with another student's behavior, I am bound by this code to contact the Honor Council or the Associate Dean for Student Programs.*

As mature adults and future physicians, students assume responsibility for ensuring that their own conduct and that of their colleagues meets the high standards as set forth in the Honor Code. Violations can be reported to the Honor Council, which is composed of students elected by their classmates on the basis of personal integrity and

ethical values. When investigating allegations of cheating, the Honor Council works closely with the Associate Dean for Student Programs. Allegations of cheating or unprofessional behavior can also be reported directly to an Associate Dean or to the Academic Review Board. Following review of the allegation, and particularly in cases where unprofessional behavior is alleged, a Hearing Committee can be convened to investigate the allegation and to recommend action as appropriate.

Being an elected student representative is a wonderful opportunity to make daily discoveries about the Medical School. Not only does it give me a chance to learn, but it also gives me a chance to be heard.

Lisa Long, Medical Student



COUNSELING AND STUDENT SUPPORT

Counseling

Two professional Counselors co-direct counseling and student support functions within the Office of Student Programs. One Counselor is assigned to M1/M3 students, and the other is assigned to M2/M4 students. These Counselors are available for personal counseling and referral, all kinds of general problem-solving assistance, and help with crisis management.

The Counselors also have administrative responsibilities. They manage quiz and exam deferrals; sit in on sessions of academic review boards, and work closely with the Associate Dean of Student Programs, Clerkship Directors, Component Directors and Sequence Directors to ensure the best possible learning experiences for our students. Counselors serve as responsive communication links between the students and the administration.

Academic Advising

The Medical School's Office of Academic Enrichment provides assistance with study skills, arranging study groups, and tutoring services for all medical students. Optional study groups are available for all first-year and second-year classes, and weekly quizzes enable students to accurately assess their level of knowledge and their need for assistance. Retired exam questions are made available to students in the Taubman Medical

Library's Reserve Reading Room and are also available on-line through the World Wide Web. A full-time academic counselor is available to all students for assistance.

Medical School faculty members stay after class to talk to students, and also provide their office phone numbers and office hours to the students. Many faculty are available via electronic mail for students who might have questions about a lecture, presentation, or discussion that occurred in one of the courses.

Career Development

First and Second Years

Career development begins in the first year of medical school and consists of presentations and a mentorship program. The Career Seminar Series, sponsored by the administration and the Medical Center Alumni Society, consists of ten noontime presentations which highlight a different medical specialty each week. A peer counseling program called "Big Sib, Little Sib" pairs students with more senior medical students.

The biggest mistake a medical student can make is to hesitate to ask for help if she or he is having problems. The Medical School administration has proven to me that they really care. You don't have to face problems alone.

Jeff Peterman, Medical Student



The UM Medical School ranks ninth among all medical schools in terms of NIH awards, and is well-known as an outstanding research institution. While the UM Medical School curriculum does not require research training, there is both encouragement and support for the many medical students who are interested in research as a valuable opportunity to explore scientific problems in depth and to understand laboratory techniques.

The Student Biomedical Research Program

With support from an NIH training grant, foundation grants and endowments, the Student Biomedical Research Program offers research experiences in the medical school basic science and faculty laboratories to undergraduate and medical students. Medical students who participate in the program often do so during the summer between the first and second years. The program offers a wide variety of experiences and some flexibility in scheduling, and a stipend is usually available to cover minimum living expenses. An annual student research forum is one highlight of this program.

This program, coordinated through the Office of Student Biomedical Research, also assists students in applying for research funding from many outside sources, including the March of Dimes, the American Heart Association, and the Hartford Foundation.

The HHMI-NIH Research Scholars Programs

The Howard Hughes Medical Institute-National Institutes of Health Research Scholars Program supports fellowships in biomedical research at the National Institutes of Health in Bethesda, Maryland. The Office of Student Biomedical Research Programs facilitates applications to this program. These very competitive fellowships are usually nine months to one year in length and are available to medical students who are in the second or third year at the time of application (December).

The HHMI Medical Student Research Training Program

The Howard Hughes Medical Institute supports one-year fellowships in biomedical research which may be taken in a research laboratory in an academic or research institution in the United States, chosen by the student applicant. The proposed research project must be described in the application; the Office of Student Biomedical Research assists students and facilitates the application process. These very competitive fellowships are usually nine months to one year in length and are available to medical students who are in the second or third year at the time of application (January).

RESEARCH OPPORTUNITIES

The faculty here bend over backwards to provide advice and career counseling to students. They are genuinely interested in students' experiences, their future careers and even their personal lives.

Jennifer Jorgensen, Medical Student

Leave of Absence for Research

A full year of research can be an excellent opportunity for certain medical students because it can provide an in-depth experience of sufficient magnitude to permit the student to become a full participant in the laboratory. Such an experience is most suitable for students with strong science backgrounds and some prior research experience. Students usually arrange such experiences themselves, either at the UM Medical School or at another institution where they have appropriate faculty contacts. A leave of absence must be requested and approved.

M.D./Ph.D. Programs

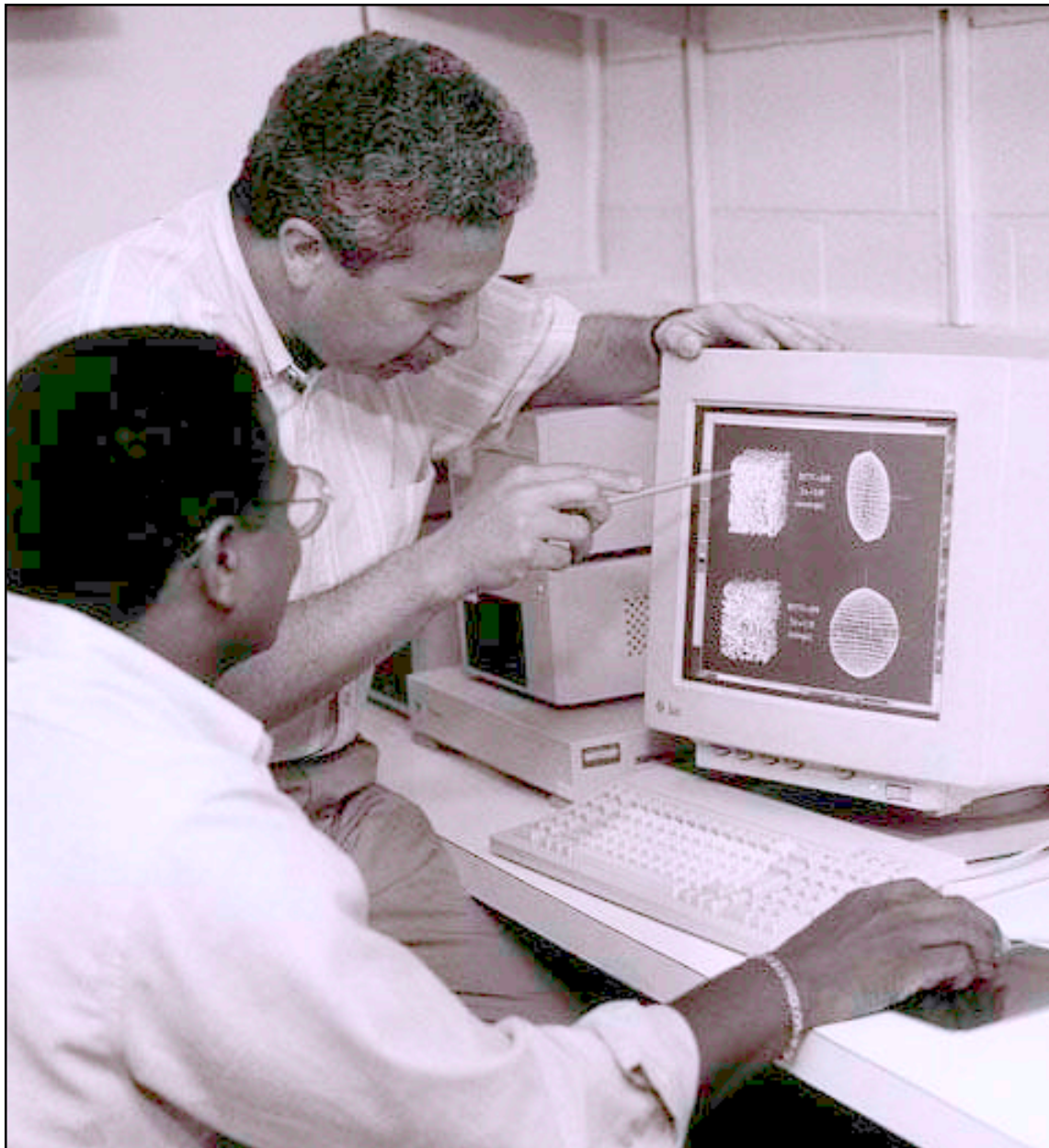
Medical students interested in combining medical studies with a doctoral degree program in one of the basic biomedical sciences are advised to discuss this interest with both the chairman of the appropriate department and the Associate Dean of Student Programs. Application is made to the selected program through the Horace H. Rackham School of Graduate Studies. Each doctoral program has its own requirements regarding admission, eligibility for candidacy, and thesis research. The biomedical doctoral programs with faculty in the Medical School are:

- Anatomy and Cell Biology
- Biomedical Engineering
- Biological Chemistry
- Biophysics
- Cellular and Molecular Biology
- Human Genetics
- Microbiology and Immunology
- Neurosciences
- Pathology
- Pharmacology
- Physiology

The Medical Scientist Training Program (MSTP)

For a complete description see page 12.





The University of Michigan Medical School has a very broad-based research environment. This means that there are a host of opportunities in both clinical and basic science research for anyone who wants to get involved. Even if you have a limited amount of time to spend in a laboratory, you can usually accomplish some research and you will certainly learn something that will help you to better understand the medical aspects of your education.

Heather Burrows, Medical Scientist Training Program,
Class of 2000

PRIMARY CARE

The University of Michigan Medical School offers outstanding and diverse experiences to students interested in primary care careers. The faculty is rich with primary care physicians who are active in patient care, teaching, advocacy, community issues and even clinical research. Every required clerkship emphasizes primary care to some degree, and all students complete a required Family Medicine clerkship. Senior medical students have a lot of flexibility in choosing a wide variety of primary care experiences on and off the UM campus.

There is great support and interest in primary care among UM medical students. They organize symposia and discussion groups to enrich their experiences at the UM Medical School, and arrange and participate in volunteer activities at UM and other local clinics.

Primary care physicians who have been exposed to the medical specialties as students are able to expertly manage the everyday health care needs of their patients, even when those needs are complex. For example, when treating a child with a kidney transplant who has presented with fever, a physician trained at the UM Medical School can make an assessment having previously seen several transplants performed, having heard lectures by top researchers in the field of transplantation, and having studied the complex management of end-stage renal disease.

In 1998, 51% of the graduating class chose primary care disciplines.



Medical student instruction takes place in facilities throughout the University of Michigan Health System. With over 30 buildings and 100 acres of land, the UM Medical Center is the world's largest one-site complex devoted to health education, research and patient care. The Medical Center classrooms, laboratories, hospitals and facilities for research serve as an on-campus focal point for preclinical and clinical instruction.

Lecture Halls

The Medical School's lecture halls have been recently renovated, making them wonderful places to learn. They now boast state-of-the-art audiovisual and computer equipment, excellent acoustics and comfortable seating.

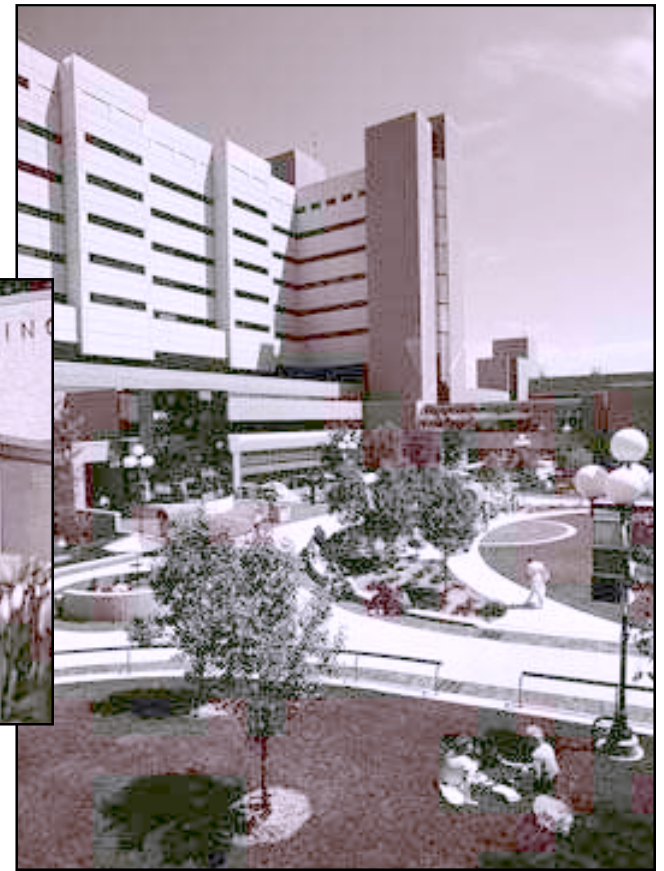
Clinical Facilities

The University of Michigan Adult Hospital opened in 1986, making it one of the newest hospitals among the major academic medical centers. The Taubman Health Center for outpatient care also opened in 1986. Medical students rotate through the Hospitals' inpatient care units, the Taubman Health Center clinics, and UM outpatient facilities throughout of Ann Arbor. The UM East Ann Arbor Health Center, designed to accommodate

patients and medical student education, opened in 1996. Affiliations with health care systems outside the UM provide excellent facilities for inpatient and especially ambulatory experiences for UM medical students. The Oakwood Health System, a regional network with 1,100 physicians and almost 2,000 beds, offers wonderful opportunities for student experiences in outpatient settings.

The Cancer Center and Geriatrics Center facility opened in 1997. This new facility houses both outpatient clinics and clinical research space for both Centers. A new Maternal and Child Health Center opened in 1995, and a third Medical Sciences Research Building opened in 1994.

STUDENT SPACE FOR EDUCATION



The lecture halls are comfortable and feature up-to-date technology that professors often use for multi-media presentations. Our best computer resource is the CAI (computer-assisted instruction) Lab, which is available to us 24 hours a day.

Samir Gupta, Medical Student

Library

The UM's Taubman Medical Library is the seventh largest in the U.S. in the number of journal titles and ninth largest in the number of book titles. There is a computerized catalog system, and resources and equipment to conduct medical searches over the Internet. The University of Michigan is the second largest user of Medline

(the largest is the National Library of Medicine). The library is committed to making electronic resources available to users on- and off-site, and recently concluded negotiations to make over 400 health sciences titles available in electronic format. Small group study space is available in the library.



Larime Photographic Cooper, Colman & Smith, Inc.

Learning Resource Center (LRC)

The Medical School's LRC is a diverse and rich resource for medical education. In the LRC's Clinical Skills Labs medical students are introduced to patient interviews and exams during encounters with simulated patients.

There are more than 50 computers available for student use within the walls of the Learning Resource Center, and another 20 are available seven days a week, 24 hours a day in the Computer Assisted Instruction (CAI) lab. Four computer stations with a laser printer are available in the Furstenberg Student Study Center, and 19 computers are available to students throughout the main hospital complex.

The LRC also houses audiovisual programs and equipment, small group meeting and study rooms, and microscopes for student use.

Hanser Photography



Furstenberg Student Study Center

A large part of this space is dedicated to medical student use only, and is accessible to the students all hours of every day. In addition to a small computer cluster, it includes a mailbox and information area, bulletin boards for student groups, a large informal lounge and a quiet study area.

The University of Michigan has one of the most beautiful hospital complexes I've ever seen. With the addition of the new Cancer and Geriatrics Center, it's even more impressive. Inside of the hospitals, you get a better sense of all that the UM Hospitals have to offer. You really feel that not only do we have comprehensive care here, but also cutting-edge care. It's a great place to be.

Sunir Garg, Medical Student

STUDENT LIFE

Housing

Medical students, including those who are married, are eligible to live in University housing located approximately one mile from the medical center, on the University's North Campus. However, most medical students rent private apartments or stay in one of several medical fraternities, located near the medical campus and most of which are on bus routes and within a 5-15 minute walk to the medical center.

For more detailed information on housing, contact:

University of Michigan
Office of University Housing
1011 Student Activities Building
Ann Arbor, Michigan 48109-1316
<http://www.housing.umich.edu>

Transportation and Parking

Medical students have a variety of free and low-cost options for travel by bus. University buses run several regular routes looping through campus from 6:45 a.m. to 7 p.m. The *Nite Owl* bus service, with more limited routes, runs from 7 p.m. to 2 a.m. September through April. Finally, *Ride Home* is available from 2 a.m. to 7 a.m. There are other low-cost popular transportation programs that serve students in and around the medical center areas.

The Office of Parking Operations coordinates and issues parking information to all UM students, and recently coordinated increased options for clinical students. However, parking options are few for medical students at or near the medical campus; walking, buses and biking are better options.

Sports and Recreation

There are several indoor sports and recreation buildings and outdoor playing fields throughout the University of Michigan campus that are available at no charge to all registered students. The recreation buildings house swimming pools, running tracks, exercise and fitness rooms with a wide variety of machines, lockers and shower facilities, gymnasiums for basketball, volleyball and badminton, weight rooms, courts for racquetball, handball, paddle ball and squash, and saunas. Outdoor play fields include courts for basketball, tennis and sand volleyball, running tracks, fields for softball, soccer, rugby, cricket and football, picnic areas and a horseshoe pit.

Intramural teams organized by medical students compete across campus with students from other UM schools. Currently, medical students participate in a variety of sports, including soccer and basketball.

Medical students are also eligible to purchase season tickets to varsity sports events.

The UM Medical School atmosphere is a lot more friendly and non-competitive than I thought it would be.

Mary Ferris,
Medical Student



Safety

Students feel relatively safe in Ann Arbor, which is a low-crime community.

Medical students are provided with information regarding crime statistics and campus safety programs and services when they enter and throughout all four years of medical school. Clinical students are provided with an overview of hospital

security, in particular, during orientation for the M3 year.

Emergency telephones are strategically located around the entire campus. The After Dark Safety Program provides medical students with free taxi service before dawn and after dusk. Students can call for an escort from libraries, parking lots, and other sites.



The friendships I have made with other medical students have had a very positive impact on my four years here. Initially, I was somewhat wary of my classmates, having heard that the University of Michigan Medical School was

full of homogeneous “gunners.” I soon found out otherwise. My class has students in their thirties and forties, some students who are parents, and some who are gay, lesbian or bisexual. I feel lucky to be in medical school with many warm, kind and open individuals.

Beth Barclay, Medical Student

STUDENT ORGANIZATIONS

Students are very involved. We work in community clinics and we organize seminars, conferences, workshops, health fairs and more. The opportunity to participate in these community projects gives us a more complete medical education.

Miguel Suarez Benet, Medical Student

Medical students at the University of Michigan are very active outside the classrooms, hospitals and clinics. They gather in formal and informal groups to engage in a wide variety of activities that greatly benefit residents of the community. UM medical student groups create and participate in educational programs and engage in activities to support specific groups such as women, children, gays, lesbians, minority students and Christians, and to address specific social problems such as substance abuse, domestic violence and smoking among teenagers.

Medical School Student Council

Five Student Advocates from each of the Medical School classes are elected to work with the student body and the administration to address issues such as library hours, parking, classroom renovations, residency interviewing, financial aid budgets and curriculum concerns. Recent programs introduced by the Student Council include pagers for students to facilitate learning in the hospital or the clinic and an advocacy group for nontraditional students. In addition to organizing class outings such as bowling, whirley-ball, and ice-skating, Student Advocates have been working with the administration to improve medical student well-being.

American Medical Association — Medical Student Section

This organization seeks to address social, political and personal issues that affect medical school students, provide a transition into life as a physician, and provide service to the community. Members are encouraged to become politically active by getting involved with the AMA on a national level.

American Medical Student Association (AMSA)

With almost 30,000 members nationally, AMSA is the largest independent organization of medical students in the country. AMSA membership gives medical students the opportunity to be involved in the Ann Arbor and medical school communities through participation in many projects and programs.

American Medical Women's Association (AMWA)

AMWA strives to provide a supportive environment for women seeking a career in medicine and to educate the university medical community about women's health issues.

Black Medical Association (BMA)

The Black Medical Association is committed to addressing the academic and social needs of African American medical students. The BMA traditionally provides its members with the opportunity to interact with minority students and faculty from the preclinical, clinical and post-doctoral levels of medical education. Likewise, BMA members are often exposed to medical issues specific to African Americans through involvement with various community outreach programs.

Christian Medical/Dental Society

The Christian Medical/Dental Society is a group of medical and dental students committed to knowing, loving, and serving Jesus Christ. The members make up a support group for students trying to live for God while attending medical and dental school.

Doctors Ought To Care (DOC)

Doctors Ought to Care (DOC) is an organization composed of medical students and physicians who seek to reverse the rising trend of smoking in children and teenagers by reaching out to these children with interactive and informative presentations about the dangers of tobacco use.

DOC hopes to broaden its program soon to include presentations on issues such as alcohol use and body image/eating disorders in teenagers.

Galens Medical Society

The Galens Medical Society has been a tradition at the UM Medical School for more than 75 years. Comprising about 125 medical students and faculty members, the Galens Society participates in and hosts many activities focused on the welfare of children of all ages in the Washtenaw County area. A major Galens activity is the Tag Days Bucket Drive during the first weekend in December. Members stand on the street corners of Ann Arbor and collect more than \$65,000 in charitable donations. These funds are then allocated to a variety of children's charities in Washtenaw county with a special focus on start-up funding for new children's groups.

Jewish Medical Student Association

JeMSA is an informal group providing social opportunities for Jewish medical students (or anyone else who is interested), as well as a forum for discussing issues related to Judaism in medicine, such as Jewish medical ethics. Activities include veggie potluck dinners, sponsorship of speakers, participation in cultural festivals, and holiday celebrations, including an annual Hanukkah party.



The support and encouragement students give to each other provide a setting where one can learn about medicine in a warm and friendly environment.

Miguel Suarez Benet, Medical Student



Latin American / Native American Medical Association (LANAMA)

The Latin American Native American Medical Association is a group of medical students with similar backgrounds who have come together to get to know and help each other through their medical careers. One goal of the group is to increase minority enrollment and interest at the Medical School.

Lesbian, Gay and Bisexual People in Medicine (LGBPM)

LGBPM promotes the health of lesbians, gays, and bisexuals via the education of health care professionals in the care needs of this population. Members encourage compassion, respect and understanding, encourage the adoption of healthful life-styles among members, promote the acceptance of lesbian, gay, and bisexual physicians, and support anti-discrimination measures which will enable lesbian, gays, and bisexuals to practice medicine for the benefit of society.

Medical Fraternities

Nu Sigma Nu, Phi Chi and Phi Rho offer housing alternatives near the medical campus for medical students. They also provide students with a great opportunity to meet others who are further along in their medical training. Nu Sigma Nu is an all-male fraternity, and Phi Chi and Phi Rho offer co-ed housing.

Medstart

Medstart was founded in 1991 by a group of medical students interested in the needs of underprivileged children. Today, Medstart is a coalition of medical, nursing, dental, law, social work, public health, education, and public policy students working together to make a difference. The goal is to educate future health care providers, child advocates, and the community about the issues facing children. Each year, Medstart sponsors a major national conference.

Medical Students for Choice

Medical Students for Choice is part of a national network of medical students who are concerned about issues related to women's reproductive health. The mission of this group is to increase student awareness of reproductive health options. By working with the administration, they seek to increase course content related to reproductive health, to organize events for exploring values and to present factual information about abortion and reproductive health. They also provide opportunities for students to visit clinics where abortions are performed and inform students of relevant issues emerging on local, regional and national levels.

Phi Delta Epsilon

Phi Delta Epsilon is an international coeducational medical fraternity founded at Cornell Medical College in 1904. It is a philanthropic and social fraternity. Members are proud of their

community service, whether it is donating clothes to a homeless shelter, helping the local Ronald McDonald House, organizing a fund raiser, or dressing up as clowns for a children's hospital carnival.

Physicians for Social Responsibility (PSR)

University of Michigan Physicians for Social Responsibility is part of a national organization of physicians and other health professionals. National PSR was started in the 1960s for physicians to take a stand against nuclear proliferation, but now takes a broader look at physicians' roles in preventing violence, including dealing with poverty and environmental pollution. The goals are to educate colleagues, other health professionals, and the community at large, and to give people a chance to work at the grassroots level on these issues.

United Asian American Medical Student Association (UAAMSA)

The goals of the UAAMSA are to provide a support network for Asian American medical students and build a sense of community, to serve as a voice for Asian Americans within the medical school, to return to and enhance surrounding communities through service, and to raise awareness of general and health care issues pertaining to Asian Americans.



STUDENT HEALTH AND WELL-BEING

Medical Student Well-Being Program

In response to student interest, the Medical Student Well-Being Program was created in 1996. The goal of this program is to acknowledge that the pursuit of medicine is at times stressful and to emphasize to students the importance of maintaining a balance between academic studies and personal well-being. There is a "Big Sib/Little Sib" mentorship program to provide incoming students with a more personal introduction to the UM Medical School. Other highlights include:

- A joint effort by the students and the administration to revamp the new student orientation to include a more dynamic introduction to UM Medical School, including a Challenge Ropes course (see photo), involvement in community service and a White Coat Matriculation Ceremony,
- Designation of a Student Well-being room in the Furstenberg Student Study Center where materials on various programs are available and where students can meet,
- A designated month to celebrate healthy life-styles, with featured guests speaking on topics such as "A Lifetime of Healthy Living,"
- A Cultural Diversity Holiday Celebration,
- "Wellness Wednesdays" initiated by the American Medical Women's Association to feature special programs and/or

speakers focusing on nutrition, exercise, stress reduction, and balancing medical school demands with family needs,

- Announcements to students about medical school, hospital, campus and community activities on topics related to health living and well-being,
- A "Post Boards" Picnic for second-year students after the USMLE Step 1 exam, sponsored by the administration and the Medical Center Alumni Society.

Immunizations

Students accepted into the University of Michigan Medical School must provide written documentation of certain immunizations or proof of immunity (e.g., dates of vaccinations or positive antibody titres) in order to complete the registration process and begin classes.

University Health Service

The University Health Service offers comprehensive outpatient medical services to students. Health concerns can be addressed in one of four medical clinics or the Nurse Clinic. Other special health care needs may be met by clinicians in the Gynecology Clinic, the Allergy and Immunization Clinic, the Eye Care Clinic and Optical Shop and the Nutrition Clinic. Most services provided by the University Health Service that are not covered by students' private health insurance will be covered by the Health Service fee.



First-year medical students on the University's Challenge Ropes Course.

Students' spouses, significant others, dependents over 14 years of age, non-enrolled students, and former students (who were enrolled within the past six years) may use the Health Service on the same basis as enrolled students; there are several payment options.

Mental Health Services

The Medical Student Mental Health Consultation Service provides medical students with prompt psychiatric evaluation, brief treatment, and assistance in finding additional treatment resources if necessary. All contacts with the program are confidential.

Health Insurance

Prior to registration, all medical students must have health care insurance coverage through the UM's GradCare health insurance program or comparable insurance coverage from another provider.

GradCare is a comprehensive health insurance program that includes coverage for office visits, emergency services, inpatient care, and other medical benefits. Premiums can be included in the Medical School Financial Aid budget through funds from external loan sources by submitting a request to the Financial Aid Office.

Disability Insurance

The UM Medical School is one of the few medical schools that pays for its students to be enrolled in a disability plan. This plan pays a monthly benefit in the event of disability, and also provides important options upon graduation from medical school. There are some restrictions on pre-existing disabilities and the type of disability.



FACULTY

Department of Anatomy and Cell Biology

Carlson, Bruce M., MD/PhD, Chair and Professor

Athey, Brian D., PhD, Assistant Professor
Barald, Kate F., PhD, Associate Professor
Benndorf, Rainer, PhD, Research Investigator
Borisov, Andrei B., PhD, Research Investigator
Brown, Susan S., PhD, Professor
Burdi, Alphonse R., PhD, Professor
Burkel, William E., PhD, Professor
Christensen, A. Kent, PhD, Professor
Clark, Kathryn I., PhD, Research Investigator
Cortright, Gerald W., PhD, Lecturer
Ernst, Stephen A., PhD, Professor
Fischer, Theodore V., PhD, Associate Professor
Fisher, Don Lowell, PhD, Associate Professor

Gest, Thomas R., PhD, Associate Professor
Glover, Roy A., PhD, Associate Professor
Gratsch, Theresa E., PhD, Research Investigator
Gumucio, Deborah L., PhD, Associate Professor
Hortsch, Michael, PhD, Assistant Professor
Jokelainen, Pentti T., MD/PhD, Associate Professor
Livant, Donna L., PhD, Assistant Professor
MacCallum, Donald K., PhD, Professor
Nnodim, Joseph O., PhD/OHRD, Lecturer
O'Shea, Kathy Sue, PhD, Associate Professor
Raymond, Pamela A., PhD, Professor
Shelden, Eric A., PhD, Assistant Professor
Thornton, Amanda J., PhD, Research Investigator
Welsh, Michael J., PhD, Professor

Department of Anesthesiology

Tremper, Kevin K., MD/PhD, Chair and Professor

Adhikary, Gaury S., OHRD, Clinical Assistant Professor
Baliga, Narayan, MD, Clinical Assistant Professor
Benedict, Patrick E., MD, Clinical Assistant Professor
Brown, Allan C., OHRD, Associate Professor
Clapich, Anthony J., MD, Lecturer
Collier, Phillip J., MD, Clinical Instructor
Crider, Bruce A., MD, Clinical Assistant Professor
Cueto, Rudy Anthony, MD, Clinical Instructor
Dalpra, Mark A., MD, Clinical Assistant Professor
D'Errico, Celia Maneri, OHRD, Clinical Assistant Professor
Dorantes, Deanna M., MD, Clinical Instructor
Dorje, Pema, OHRD, Clinical Assistant Professor
Dowling, Catherine A., MD, Clinical Assistant Professor
Finch, Jay S., MD, Professor
Green, Carmen Renee, MD, Assistant Professor
Hill, Anne Bruce, MD, Associate Professor
Huntington, John H., MD, Clinical Assistant Professor
Jose, Raji P., MD, Lecturer
Kahler, Shelly L., MD, Lecturer
Kazanjian, Paul E., MD, Clinical Assistant Professor
Klarr, Patricia S., MD, Clinical Assistant Professor
Lau, Wei Chung, MD, Clinical Assistant Professor
Learned, David W., MD, Clinical Assistant Professor
Lee, Michael D., MD, Lecturer
Lee, Peter J., MD, Clinical Instructor
Levy, Loren, MD, Assistant Professor
Lieberman, Jeremy A., MD, Clinical Assistant Professor
Malviya, Shobha V., OHRD, Assistant Professor
Mathai, Marykutty, OHRD, Clinical Assistant Professor
McLaren, Ian Douglas, OHRD, Clinical Assistant Professor
McLoughlin, Angela L., MD, Clinical Assistant Professor
Mullin, Vildan, MD, Clinical Associate Professor



Munro, Hamish M., MD, Clinical Assistant Professor
 Murad, Sharlet, OHRD, Clinical Assistant Professor
 Myyra, Robert W., MD, Clinical Assistant Professor
 Nair, Sankar A., MD, Lecturer
 Naughton, Norah N., MD, Clinical Assistant Professor
 O'Reilly, Michael, MD, Assistant Professor
 Pandit, Sujit K., PhD/OHRD, Professor
 Pandit, Uma A., OHRD, Clinical Associate Professor
 Polley, Linda S., MD, Clinical Assistant Professor
 Prabhu, Mythili A., OHRD, Lecturer
 Reynolds, Paul Irvin, MD, Clinical Associate Professor
 Riegger, Lori Quinlan, MD, Clinical Assistant Professor
 Rosenberg, Jack M., MD, Assistant Professor
 Rosenthal, Jeffrey A., MD, Clinical Assistant Professor
 Roth, Randy Scott, PhD, Clinical Assistant Professor
 Rutter, Timothy W., OHRD, Clinical Associate Professor
 Samra, Satwant K., MD, Professor
 Sanford, Theodore J., MD, Clinical Professor
 Stricker, Lori J., MD, Lecturer
 Szocik, James F., MD, Clinical Assistant Professor
 Tait, Alan, PhD, Associate Professor
 Thomas, Isaac C., MD, Lecturer
 Van Der Spek, Abraham, F. L., MD, Associate Professor
 Wahr, Joyce Ann, MD, Associate Professor
 Walton, Sarah R., MD, Lecturer
 Washington, Edward J., MD, Clinical Instructor
 Waskell, Lucy A., MD/PhD, Professor
 Wineinger, David K., MD, Lecturer
 Woodcock, Brian J., OHRD, Clinical Assistant Professor

Department of Biological Chemistry

Dixon, Jack E., PhD, Chair and Professor

Adelman, Richard C., PhD, Professor
 Aminoff, David, PhD, Professor
 Andrews, Philip C., PhD, Senior Research Scientist and Professor
 Ballou, David P., PhD, Professor
 Bergenhem, Nils, PhD, Research Investigator
 Bole, David Giles, PhD, Research Investigator
 Brown, Bette Jo, PhD, Research Investigator
 Coon, Minor J., PhD, Professor
 Datta, Prasanta K., PhD, Professor
 Engelke, David R., PhD, Professor
 Fuller, Robert S., MD, Associate Professor
 Gafni, Ari, PhD, Professor
 Goldman, Daniel J., PhD, Associate Professor
 Goldstein, Irwin J., PhD, Professor
 Guan, Kunliang, PhD, Associate Professor
 Hajra, Amiya K., PhD, Professor
 Hultquist, Donald E., PhD, Professor
 Kaufman, Randal J., PhD, Professor

Kent, Claudia M., PhD, Professor
 Ludwig, Martha L., PhD, Professor
 Massey, Vincent, PhD, Professor
 Mathews, Lawrence S., PhD, Assistant Professor
 Matthews, Rowena G., PhD, Professor
 Mulrooney, Scott B., PhD, Lecturer
 Nichols, Ruthann, PhD, Associate Professor
 Ninfa, Alexander J., PhD, Associate Professor
 Orth-Taussig, Kimberly A., PhD, Research Investigator
 Paley, Bruce A., PhD, Lecturer
 Peliska, James A., PhD, Assistant Professor
 Saper, Mark A., PhD, Associate Professor
 Schauerte, Joseph A., PhD, Research Investigator
 Seasholtz, Audrey F., PhD, Associate Professor
 Stuckey, Jeanne A., PhD, Assistant Research Scientist
 Taussig, Ronald, PhD, Assistant Professor
 Thiele, Dennis J., PhD, Professor
 Turner, David L., PhD, Assistant Professor
 Uhler, Michael D., PhD, Associate Professor
 Vatsis, Kostas P., PhD, Assistant Research Scientist
 Vojtek, Anne B., PhD, Assistant Professor
 Weinhold, Paul A., PhD, Professor
 Welihinda, Ajith A., PhD, Research Investigator
 Williams, Charles H., PhD, Professor
 Winter, Harry C., PhD, Assistant Research Scientist
 Worby, Carolyn Ann, PhD, Assistant Research Scientist
 Zand, Robert, PhD, Professor
 Zuiderweg, Erik R. P., PhD, Professor

Department of Dermatology

Voorhees, John J., MD, Chair and Professor

Anderson, Thomas F., MD, Associate Professor
 Bowen, Glen M., MD, Lecturer
 Datta, Subhash Chandra, PhD, Lecturer
 Dlugosz, Andrzej A., MD, Associate Professor
 Duell, Elizabeth A., PhD, Assistant Professor
 Elder, James Tilford, MD/PhD, Associate Professor
 Ellis, Charles N., MD, Professor
 Fisher, Gary J., PhD, Senior Associate Research Scientist
 Goldfarb, Michael T., MD, Lecturer
 Johnson, Timothy M., MD, Associate Professor
 Kang, Sewon, MD, Associate Professor
 Li, Xiao-Yan, PhD, Research Investigator and Lecturer
 Nair, Rajan P., PhD, Assistant Research Scientist
 Rasmussen, James E., MD, Professor
 Stoll, Stefan W., PhD, Research Investigator
 Talwar, Harvinder S., PhD, Research Investigator
 Wang, Timothy S., MD, Lecturer
 Wang, Zengquan, PhD, Research Investigator
 Xiao, Jia-Hao, PhD, Assistant Research Scientist

Department of Family Medicine

Schwenk, Thomas L., MD, Chair and Professor

Apgar, Barbara Sue, MD, Clinical Associate Professor
 Affinito, John H., MD, Clinical Instructor
 Alvarez, David J., MD, Clinical Instructor
 Bartelme, Ricardo R., MD, Clinical Assistant Professor
 Bassler, Mary P., MD, Clinical Instructor
 Biggs, Wendy S., MD, Clinical Instructor
 Chavey, William E., MD, Clinical Assistant Professor
 Churgay, Catherine A., MD, Clinical Assistant Professor
 Coyne, James C., PhD, Professor
 Denno, Matthew L., MD, Clinical Instructor
 Doukas, David J., MD, Associate Professor
 Elgert, Stephen D., MD, Clinical Instructor
 Eyler, A. Evan, MD, Clinical Associate Professor
 Feters, Michael D., MD, Assistant Professor
 Fonde, Karen R., MD, Clinical Assistant Professor
 Forsch, Randall T., MD, Clinical Assistant Professor
 Gallagher, Kristina M., MD, Clinical Instructor
 Gorenflo, Daniel W., PhD, Research Investigator
 Green, Lee A., MD, Associate Professor
 Housner, Jeffrey A., MD, Clinical Assistant Professor
 Kershaw, Martha O., MD, Clinical Assistant Professor
 Kiningham, Robert B., MD, Clinical Assistant Professor
 Klinkman, Michael S., MD, Associate Professor
 Krause, Christine W., MD, Clinical Instructor
 Lefever, R. Dale, PhD, Assistant Professor
 Manikas, Steven G., OHRD, Clinical Assistant Professor
 Marsh, Patricia A., MD, Clinical Instructor
 McDougale, Leon, MD, Clinical Assistant Professor
 Mooradian, Dawn E., MD, Clinical Instructor
 Murray, Kendalyn J., MD, Clinical Instructor
 Nease, Donald E., MD, Lecturer
 O'Brien, John M., MD, Clinical Associate Professor
 Peggs, James F., MD, Clinical Associate Professor
 Peters, Theresa R., MD, Clinical Instructor
 Rabideau, Michelle L., MD, Clinical Instructor
 Reed, Barbara D., MD, Associate Professor
 Reickert, Eileen M., MD, Clinical Instructor
 Richardson, Caroline R., MD, Lecturer
 Rion, Raymond J., MD, Clinical Assistant Professor
 Rockwell, Pamela G., OHRD, Clinical Assistant Professor
 Rodgers, Phillip E., MD, Clinical Instructor
 Romano, Samuel E., PhD, Lecturer
 Ruffin, Mack T., MD, Associate Professor
 Severin, John David, MD, Clinical Assistant Professor
 Sheets, Kent J., PhD, Associate Professor
 Skratek, Jean M., MD, Clinical Assistant Professor
 Sonis, Jeffrey H., MD, Assistant Professor
 Szymanski, Michael L., MD, Clinical Instructor

Velez, Lourdes, MD, Clinical Assistant Professor
Ward, Randy K., MD, Clinical Assistant Professor
Zamorski, Mark A., MD, Clinical Assistant Professor
Zazove, Philip, MD, Clinical Associate Professor

Department of Human Genetics

Gelehrter, Thomas D., MD, Chair and Professor

Baker, Diane L., Masters, Lecturer
Brewer, George J., MD, Professor
Burke, David T., PhD, Associate Professor
Camper, Sally Ann, PhD, Associate Professor
Chamberlain, Jeffrey S., PhD, Associate Professor
Gage, Philip J., PhD, Assistant Research Scientist
Innis, Jeffrey W., MD/PhD, Associate Professor
Kardia, Sharon Reilly, PhD, Assistant Research Scientist
Kurachi, Kotoku, PhD, Professor
Meisler, Miriam H., PhD, Professor
Robins, Diane M., PhD, Associate Professor
Sing, Charles F., PhD, Professor
Song, Chao-Zhong, MD/PhD, Assistant Research Scientist
Tashian, Richard E., PhD, Professor
Zerba, Kim E., PhD, Assistant Research Scientist

Department of Internal Medicine

Humes, H. David, MD, Chair and Professor

Aaronson, Keith D., MD, Assistant Professor
Adams, Paul T., MD, Clinical Assistant Professor
Aldrich, Leslie Brown, MD, Clinical Assistant Professor
Alexander, Neil Burton, MD, Associate Professor
Allen, Edward David, PhD, Research Investigator
Anderson, Robert E., MD, Clinical Instructor
Arenberg, Douglas A., MD, Assistant Professor
Armstrong, William F., MD, Professor
Askari, Frederick Kamran, MD/PhD, Assistant Professor
Ayash, Lois J., MD, Clinical Associate Professor
Bach, David S., MD, Clinical Associate Professor
Baker, James R., MD, Professor
Baker, Laurence H., OHRD, Professor
Baldwin, James Lawrence, MD, Clinical Assistant Professor
Barkan, Ariel L., MD, Professor
Barnett, Jeffrey Lee, MD, Associate Professor
Barrie, William E., MD, Clinical Assistant Professor
Bates, Eric R., MD, Professor
Beck, James M., MD, Assistant Professor
Bee, Sheila S., MD, Clinical Instructor
Beidler, David R., PhD, Research Investigator
Benson, Mark R., MD/PhD, Lecturer
Berkowitz, Sharon G., MD, Clinical Instructor

Bernstein, Steven J., MD, Associate Professor
Bielinska, Anna U., PhD, Research Investigator
Billi, John E., MD, Associate Professor
Bisognano, John David, MD, Lecturer
Blaum, Caroline S., MD, Assistant Professor
Blitz, Susan, MD, Clinical Assistant Professor
Bloembergen, Wendy Elanie, MD, Assistant Professor
Bockenstedt, Paula L., MD, Clinical Assistant Professor
Bole, Giles G., MD, Professor
Bradley, Suzanne Frances, MD, Associate Professor
Bramson, Candace Roskoph, MD, Clinical Instructor
Brenner, Dean E., MD, Professor
Bria, William F., MD, Assistant Professor
Briggs, Josephine P., MD, Professor
Brinley, F. John, MD, Clinical Assistant Professor
Brock, Thomas G., PhD, Assistant Research Scientist
Brosius, Frank C., MD, Associate Professor
Buttar, Anna B., MD, Lecturer
Carey, James E., Masters, Assistant Professor
Cease, Kemp B., MD, Associate Professor
Chapman, Daniel K., MD, Clinical Instructor
Chen, Gwo-Hsiao, PhD, Research Investigator
Chen, Yun-Ching, MD, Clinical Instructor
Chen, Zhi, MD, Assistant Professor
Chenoweth, Carol E., MD, Clinical Assistant Professor
Chey, William D., MD, Assistant Professor
Chiao, Ping-Chun, Bachelors, Assistant Research Scientist
Christensen, Paul J., MD, Assistant Professor
Cinti, Sandro K., MD, Lecturer
Clark, Nina M., MD, Assistant Professor
Clarke, Michael F., MD, Professor
Clinthorne, Neal H., Masters, Senior Associate Research Scientist
Cody, Robert J., MD, Professor
Coffey, Michael J., OHRD, Assistant Professor
Collins, Francis S., MD/PhD, Professor
Collins, Kathleen L., MD/PhD, Assistant Professor
Cooney, Kathleen A., MD, Assistant Professor
Corbett, James R., MD, Professor
Crofford, Leslie Jane, MD, Assistant Professor
Crump, John R. C., MD, Clinical Instructor
Curtis, Jeffrey L., MD, Associate Professor
Das, Sunil K., MD, Professor
Del Valle, John, MD, Professor
Dengel, Donald R., PhD, Assistant Research Scientist
Dewaraja, Yuni, PhD, Research Investigator
Dimagno, Monica McCarthy, MD, Clinical Instructor
Dreslinski, Gerald R., MD, Clinical Assistant Professor
Dubay, Daniel A., MD, Clinical Assistant Professor
Duvernoy, Claire S., MD, Assistant Professor
Eagle, Kim Allen, MD, Professor
Elta, Grace H., MD, Professor

Engleberg, N. Cary, MD/OHRD, Professor
Ensminger, William D., MD/PhD, Professor
Erba, Harry P., MD/PhD, Assistant Professor
Ernst, Robert D., MD, Clinical Assistant Professor
Farrehi, Janice Govostis, MD, Clinical Instructor
Farrell, Michael H., MD, Lecturer
Fay, William P., MD, Associate Professor
Fearon, Eric R., MD/PhD, Associate Professor
Fendrick, A. Mark, MD, Associate Professor
Ficaró, Edward P., PhD, Assistant Research Scientist
Fig, Lorraine M., OHRD, Clinical Associate Professor
Fine, Paul L., MD, Clinical Assistant Professor
Fintor, Lou J., Masters, Research Investigator
Fisher, Laurel R., MD, Clinical Instructor
Fontana, Robert J., MD, Lecturer
Fox, David A., MD, Professor
Frey, Kirk A., MD/PhD, Professor
Frohna, John G., MD, Clinical Assistant Professor
Furney, Scott L., MD, Clinical Assistant Professor
Gill, Arvin S., MD, Clinical Instructor
Ginsburg, David, MD, Professor
Gitlin, Scott D., MD, Assistant Professor
Goold, Susan Dorr, MD, Assistant Professor
Goyal, Rajiva, MD, Assistant Professor
Gradwohl, Steven E., MD, Clinical Assistant Professor
Greene, Douglas A., MD, Professor
Grekin, Roger J., MD, Professor
Gross, Milton D., MD, Professor
Gruber, Stephen B., MD, Assistant Professor
Grum, Cyril M., MD, Professor
Gumucio, Jorge J., MD, Professor
Gutsch, David E., MD, Assistant Professor
Gyetko, Margaret R., MD, Associate Professor
Hall, Karen E., MD/PhD, Assistant Professor
Halter, Jeffrey B., MD, Professor
Harris, Lisa H., MD, Lecturer
Hasan, Ahmed A. K., MD/PhD, Assistant Research Scientist
Hasler, William Lee, MD, Associate Professor
Hayward, Rodney A., MD, Associate Professor
Heaney, Deborah Speier, MD, Clinical Instructor
Herman, William H., MD, Associate Professor
Hobbs, Raymond, MD, Clinical Assistant Professor
Hofer, Timothy P., MD, Assistant Professor
Hogikyan, Robert V., MD, Assistant Professor
Holoshitz, Joseph, MD, Associate Professor
Holzman, Lawrence B., MD, Associate Professor
Homan, Dominic F., MD, Lecturer
Howell, Joel D., MD/PhD, Professor
Howlin, Diane M., MD, Clinical Assistant Professor
Hsu, Chen-Hsing, MD, Professor
Hsu, Jenny N., MD, Clinical Instructor

Huber, Thomas P., MD, Clinical Instructor
 Huffnagle, Gary B., PhD, Assistant Research Scientist
 Ike, Robert W., MD, Associate Professor
 Jaffe, Craig A., MD, Assistant Professor
 Jamerson, Kenneth A., MD, Associate Professor
 Jewett, Douglas M., PhD, Assistant Research Scientist
 Johnson, Mary M., MD, Clinical Assistant Professor
 Jourdian, George W., PhD, Professor
 Julius, Stevo, MD/PhD, Professor
 Jung, Yong-Woon, PhD, Research Investigator
 Kaminski, Mark S., MD, Associate Professor
 Kaplan, Mariana J., MD, Lecturer
 Katz, Steven J., MD, Associate Professor
 Kauffman, Carol A., MD, Professor
 Kaul, Daniel R., MD, Clinical Instructor
 Kazanjian, Powel H., MD, Associate Professor
 Kazmers, Irene Sachiko, MD, Clinical Assistant Professor
 Kerr, Eve M., MD, Assistant Professor
 Kesterson, Sean K., MD, Clinical Assistant Professor
 Kilbourn, Michael R., PhD, Professor and Senior Research Scientist
 Kirsch, Anita Helmle, MD, Clinical Instructor
 Kleaveland, Mary D., MD, Clinical Assistant Professor
 Knight, Bradley Paul, MD, Assistant Professor
 Koelling, Todd M., MD, Assistant Professor
 Koenig, Ronald Jay, MD/PhD, Professor
 Koeppe, Robert A., PhD, Professor and Senior Research Scientist
 Kolars, Joseph C., MD, Associate Professor
 Koral, Kenneth F., PhD, Senior Research Scientist
 Kou, William H., OHRD, Associate Professor
 Kovach, Julie A., MD, Assistant Professor
 Krafcik, Sonja S., MD, Clinical Assistant Professor
 Krieger, Kristen A., MD, Clinical Instructor
 Kuhl, David E., MD, Professor
 Kukowska-Latallo, Jolanta F., PhD, Research Investigator
 Kumagai, Arno K., MD, Assistant Professor
 Ladabaum, Uri, MD, Lecturer
 Laing, Timothy J., MD, Associate Professor
 Larkin, Lisa M., PhD, Assistant Research Scientist
 Lash, Robert W., MD, Assistant Professor
 Leavey, Sean F., MD, Lecturer
 Lebel, Joseph S., MD, Clinical Instructor
 Lederman, Robert J., MD, Lecturer
 Ledesai, Thuy, MD, Clinical Instructor
 Leichtman, Alan B., MD, Associate Professor
 Li, Ying, MD, Assistant Research Scientist
 Lok, Anna Suk-Fong, OHRD, Professor
 Lown, Kenneth S., MD, Assistant Professor
 Lynch, Joseph P., MD, Professor
 Mangrulkar, Rajesh S., MD, Clinical Instructor
 Margolis, Benjamin L., MD, Associate Professor
 Markovitz, David M., MD, Associate Professor

Marks, Rory Marcus, MD, Associate Professor
 Martinez, Fernando J., MD, Associate Professor
 McCort, Jane T., MD, Clinical Assistant Professor
 McCune, William J., MD, Associate Professor
 McDonagh, Kevin T., MD, Assistant Professor
 McMahon, Laurence F., MD, Professor
 McMaster, Lawrence J., OHRD, Clinical Instructor
 McMorris, Marc S., MD, Clinical Assistant Professor
 McQuillan, Mark A., MD, Clinical Associate Professor
 Merajver, Sofia D., MD/PhD, Assistant Professor
 Merchant, Juanita L., MD/PhD, Associate Professor
 Messina, Joseph M., MD, Assistant Professor
 Michaud, Gregory F., MD, Assistant Professor
 Minoshima, Satoshi, MD, Associate Professor
 Mitrovich-Lozows, Sonya M., MD, Clinical Assistant Professor
 Mizukami, Ikuko Fukuda, PhD, Research Investigator
 Moore, Bethany B., PhD, Research Investigator
 Moore, Thomas A., PhD, Research Investigator
 Morady, Fred, MD, Professor
 Mosca, Lori J., MD, Assistant Professor
 Moscucci, Mauro, MD, Assistant Professor
 Moseley, Richard H., MD, Associate Professor
 Nabel, Elizabeth G., MD, Professor
 Nabel, Gary J., MD/PhD, Professor
 Nallamothu, Brahmajee K., MD, Lecturer
 Nastelin, Jennifer G., MD, Clinical Assistant Professor
 Nelson, Marcia M., MD, Lecturer
 Nesbitt, Shawna D., MD, Assistant Professor
 Nicklas, John M., MD, Associate Professor
 Nostrant, Timothy T., MD, Professor
 Oberdoerster, Deborah A., MD, Clinical Instructor
 Obrosova, Irina G., PhD, Research Investigator
 O'Connor, Thomas Patrick, MD, Clinical Associate Professor
 Ojo, Akinlolu O., OHRD, Assistant Professor
 Ojo, Tammy Clark, MD, Clinical Assistant Professor
 Okada, Craig Y., MD/PhD, Assistant Professor
 Omenn, Gilbert S., MD/PhD, Professor
 Orsetti, Kym Elizabeth, MD, Clinical Assistant Professor
 Oscherwitz, Jon, MD, Research Investigator
 Ostafin, Elisa A., MD, Clinical Assistant Professor
 Owyang, Chung, MD, Professor
 Paine, Robert, MD, Associate Professor
 Patel, Rajesh N., MD, Clinical Instructor
 Patrias, Rebecca L., MD, Clinical Assistant Professor
 Pek, Sumner, MD, Professor
 Persky, Neal W., MD, Clinical Instructor
 Persson, Christine A., MD, Clinical Instructor
 Peters-Golden, Marc, MD, Professor
 Petruzzelli, Lilli M., MD/PhD, Assistant Professor
 Petryniak, Jerzy, MD, Research Investigator
 Petty, Elizabeth M., MD, Assistant Professor
 Phipps, Maureen G., MD, Lecturer

Pienta, Kenneth J., MD, Professor
 Pitt, Bertram, MD, Professor
 Port, Friedrich K., MD, Professor
 Punturieri, Antonello, MD/PhD, Research Investigator
 Raffel, David M., PhD, Research Investigator
 Rajagopalan, Sanjay, MD, Assistant Professor
 Ratanatharathorn, Voravit, MD, Associate Professor
 Redman, Bruce G., OHRD, Clinical Associate Professor
 Reeves, Pamela Jeanne, MD, Clinical Assistant Professor
 Reynolds, Christopher M., MD, Lecturer
 Richardson, Bruce C., MD/PhD, Professor
 Roessler, Blake J., MD, Associate Professor
 Rogers, W. Leslie, PhD, Senior Research Scientist
 Rosenblatt, Dorrie E., MD/PhD, Assistant Professor
 Rubenfire, Melvyn, MD, Professor
 Sachdev, Namita, MD, Clinical Instructor
 Saint, Sanjay K., MD, Lecturer
 San, Hong, MD, Research Investigator
 Santinga, John T., MD, Associate Professor
 Saunders, Amy F., MD, Clinical Assistant Professor
 Scheiman, James Michael, MD, Associate Professor
 Schmaier, Alvin Harold, MD, Professor
 Schott, Anne F., MD, Assistant Professor
 Schteingart, David E., MD, Professor
 Shapiro, Brahm, MD/PhD, Professor
 Shariat-Madar, Ziaeddin, PhD, Research Investigator
 Sharma, Kavita Hajela, MD, Clinical Instructor
 Shayman, James Alan, MD, Professor
 Shea, Michael J., MD, Professor
 Shreve, Paul D., MD, Assistant Professor
 Shulkin, Barry Lynn, MD, Associate Professor
 Shureiqi, Imad, MD, Lecturer
 Silver, Samuel M., MD/PhD, Clinical Associate Professor
 Simon, Richard H., MD, Professor
 Singh, Gurdev, MD, Clinical Instructor
 Sisson, James C., MD, Professor
 Sisson, Thomas H., MD, Lecturer
 Sitrin, Robert G., MD, Professor
 Skalski, Mark Joseph, MD, Clinical Assistant Professor
 Smith, David C., MD, Assistant Professor
 Snyder, Scott Eric, PhD, Research Investigator
 Solomon, William R., MD, Professor
 Soyster, Barbara C. S., MD, Clinical Instructor
 Spahlinger, David A., MD, Clinical Associate Professor
 Stack, Austin G., MD, Lecturer
 Standiford, Connie J., MD, Clinical Assistant Professor
 Standiford, Theodore J., MD, Associate Professor
 Starling, Mark R., MD, Professor
 Stern, David T., MD, Assistant Professor
 Stevens, Martin J., OHRD, Assistant Professor
 Steyer, Terrence E., MD, Lecturer
 Strickberger, S. Adam, MD, Associate Professor

Strieter, Robert M., MD, Professor
 Stross, Jeffrey K., MD, Professor
 Su, Grace L., MD, Assistant Professor
 Sullivan, Kelli A., PhD, Research Investigator
 Sumantran, Venil N., PhD, Research Investigator
 Sun, Eleanor Y., MD, Clinical Instructor
 Supiano, Mark A., MD, Associate Professor
 Swartz, Richard D., MD, Professor
 Sweet, Jeffrey L., MD, Clinical Instructor
 Takahashi, Toku, MD/PhD, Assistant Research Scientist
 Takami, Mimi S., MD, Lecturer
 Taylor, Caroline L., MD, Clinical Assistant Professor
 Terpenning, Margaret S., MD, Associate Professor
 Terrell, Linda Bjork, MD, Clinical Assistant Professor
 Thomas, Thommey P., PhD, Assistant Research Scientist
 Todd, Robert F., MD/PhD, Professor
 Todisco, Andrea, MD, Assistant Professor
 Toews, Galen B., MD, Professor
 Towns, Roberto J., PhD, Assistant Research Scientist
 Tsunoda, Yasuhiro, PhD, Assistant Research Scientist
 Turgeon, Danielle Kim, MD, Clinical Associate Professor
 Uberti, Joseph P., MD/PhD, Assistant Professor
 Urba, Susan, MD, Associate Professor
 Vallance, David K., MD, Clinical Assistant Professor
 Van Dort, Marcian E., PhD, Assistant Research Scientist
 Van Dyke, Rebecca W., MD, Professor
 Wahl, Richard L., MD, Professor
 Wang, Su He, PhD, Research Investigator
 Warber, Sara L., MD, Lecturer
 Ward, Denege A., MD, Clinical Assistant Professor
 Watkins, Paul Brent, MD, Professor
 Watts, Charles M., MD, Clinical Associate Professor
 Weder, Alan B., MD, Professor
 Weg, John G., MD, Professor
 Wei, John T., MD, Lecturer
 Weinberg, Joel M., MD, Professor
 Weintraub, Breton M., MD, Clinical Instructor
 Weiss, Stephen J., MD, Professor
 Weitzel, William F., MD, Assistant Professor
 Werns, Steven W., MD, Associate Professor
 Whelan, Chad T., MD, Clinical Instructor
 Wicha, Max S., MD, Professor
 Wieland, Donald M., PhD, Professor and Senior Research Scientist
 Wiggins, Jocelyn E., MD, Lecturer
 Wiggins, Roger C., OHRD, Professor
 Wiley, John W., MD, Associate Professor
 Williams, Brent C., MD, Associate Professor
 Woffendin, Clive, PhD, Assistant Research Scientist
 Woolliscroft, James O., MD, Professor
 Yang, Zhi Yong, Bachelors, Research Investigator
 Yarows, Steven A., MD, Clinical Assistant Professor
 Young, Eric W., MD, Associate Professor

Yung, Raymond L., OHRD, Assistant Professor
 Zimmermann, Ellen Mary, MD, Assistant Professor

Unit for Laboratory Animal Medicine (ULAM)

Ringler, Daniel H., DVM, Director and Professor

Chrisp, Clarence E., DVM, Professor
 Dirita, Victor Joseph, PhD, Associate Professor
 Dysko, Robert C., DVM, Assistant Professor
 Keller, Evan T., PhD/DVM, Assistant Professor
 Lin, Din-Lii, PhD, Research Investigator
 Rush, Howard G., DVM, Associate Professor

Department of Medical Education

Hiss, Roland G., MD, Chair and Professor

Anderson, Robert M., PhD, Senior Associate Research Scientist
 Davis, Wayne K., PhD, Professor
 Dielman, Teddy E., PhD, Professor
 Fitzgerald, James T., PhD, Assistant Research Scientist
 Gruppen, Larry D., PhD, Senior Associate Research Scientist
 Robins, Lynne S., Ph.D., Assistant Professor
 Wisdom, Kimberlydawn, MD, Assistant Professor

Mental Health Research Institute

Akil, Huda, PhD, Co-Director and

Senior Research Scientist

Watson, Stanley J., MD/PhD, Co-Director and
Senior Research Scientist

Agranoff, Bernard W., MD, Senior Research Scientist
 Bentley, John Kelley, PhD, Research Investigator
 Burmeister, Margit, PhD, Senior Associate Research Scientist
 Cross, John G., PhD, Senior Associate Research Scientist
 Fisher, Stephen K., PhD, Senior Research Scientist
 Goldman, Daniel J., PhD, Senior Associate Research Scientist
 Greden, John F., MD, Senior Research Scientist
 Hajra, Amiya K., PhD, Senior Research Scientist
 Heacock, Anne M., PhD, Research Investigator
 Lindsay, Robert K., PhD, Senior Research Scientist
 Meador-Woodruff, James H., MD, Senior Associate Research Scientist
 Morano, Maria Ines, PhD, Research Investigator
 Patel, Paresh D., MD/PhD, Research Investigator
 Seasholtz, Audrey F., PhD, Senior Associate Research Scientist
 Turner, David L., PhD, Assistant Research Scientist
 Ueda, Tetsufumi, PhD, Senior Research Scientist
 Uhler, Michael D., PhD, Senior Associate Research Scientist
 Zubieta, Jon K., MD/PhD, Assistant Research Scientist

Department of Microbiology and Immunology

Savageau, Michael A., PhD, Chair and Professor

Chang, Cheong-Hee, PhD, Assistant Professor
 Claflin, J. Latham, PhD, Professor
 Cooper, Stephen, PhD, Professor
 Deretic, Vojo P., PhD, Associate Professor
 Dunnick, Wesley, PhD, Professor
 Friedman, David I., MD, Professor
 Fuller, A. Oveta, PhD, Associate Professor
 Imperiale, Michael J., PhD, Professor
 Kirschner, Denise E., PhD, Assistant Professor
 Robertson, Erle S., PhD, Assistant Professor
 Swanson, Joel A., PhD, Associate Professor
 Swanson, Michele S., PhD, Assistant Professor
 Telesnitsky, Alice, PhD, Assistant Professor
 Yu, Hongwei, PhD, Research Investigator

Department of Neurology

Gilman, Sid, MD, Chair and Professor

Albers, James Wilson, MD/PhD, Professor
 Albin, Roger L., MD, Associate Professor
 Aldrich, Michael S., MD, Professor
 Aldridge, J. Wayne, PhD, Senior Associate Research Scientist
 Barbas, Nancy R., MD, Clinical Assistant Professor
 Beydoun, Ahmad A., MD, Associate Professor
 Casey, Kenneth L., MD, Professor
 Chervin, Ronald D., MD, Assistant Professor
 Edwards, Jonathan C., MD, Clinical Assistant Professor
 Feldman, Eva L., MD/PhD, Associate Professor
 Fink, John K., MD, Associate Professor
 Foster, Norman L., MD, Professor
 Gelb, Douglas J., MD/PhD, Clinical Associate Professor
 Greenberg, Harry Seth, MD, Professor
 Greenfield, L. John, MD/PhD, Assistant Professor
 Heidebrink, Judith L., MD, Clinical Assistant Professor
 Hickenbottom, Susan L., MD, Lecturer
 Junck, Larry R., MD, Associate Professor
 Kluin, Karen, Masters, Research Investigator
 Kushwaha, Ramesh K., Masters, Research Investigator
 Macdonald, Robert L., MD/PhD, Professor
 Malow, Beth Ann, MD, Assistant Professor
 Mikol, Daniel D., MD/PhD, Lecturer
 Morrow, Thomas J., PhD, Senior Associate Research Scientist
 Nasreddine, Wassim M., MD, Lecturer
 Passaro, Erasmo A., MD, Clinical Assistant Professor
 Paulson, Pamela E., PhD, Research Investigator
 Rainier, Shirley R., PhD, Research Investigator

Russell, James W., OHRD, Lecturer
 Selwa, Linda M., MD, Clinical Assistant Professor
 Tallaksen-Greene, Sara J., PhD, Research Investigator
 Turner, Raymond Scott, MD/PhD, Assistant Professor
 Wald, John J., MD, Clinical Assistant Professor
 Zhao, Xinping, PhD, Research Investigator

Department of Obstetrics and Gynecology

Johnson, Timothy R. B., MD, Chair and Professor

Ansbacher, Rudi, MD, Professor
 Baker, Vicki V., MD, Associate Professor
 Barclay, Mel L., MD, Associate Professor
 Blumstein, Sylvie L., MD, Clinical Instructor
 Christman, Gregory M., MD, Assistant Professor
 Delancey, John O., MD, Professor
 Domino, Steven E., MD/PhD, Lecturer
 Foster, Douglas L., PhD, Professor
 Goldberg, Edward, MD, Clinical Professor
 Haefner, Hope K., MD, Assistant Professor
 Hayashi, Robert H., MD, Professor
 Howard, Denise, MD, Lecturer
 Johnston, Carolyn M., MD, Clinical Assistant Professor
 Kercher, Marley L., MD, Clinical Instructor
 Lin, Jiayuh, PhD, Assistant Research Scientist
 Luke, Barbara J., OHRD, Professor
 Menge, Alan C., PhD, Associate Professor
 Menon, Jairam K. M., PhD, Professor
 Nicholson, Jane M., MD, Clinical Assistant Professor
 Nugent, Clark E., MD, Clinical Associate Professor
 Pipari, Anthony W., MD/PhD, Lecturer
 Pearlman, Mark D., MD, Associate Professor
 Punch, Margaret R., MD, Clinical Assistant Professor
 Quint, Elisabeth H., MD, Clinical Assistant Professor
 Randolph, John F., MD, Associate Professor
 Reynolds, R. Kevin, MD, Associate Professor
 Shadigian, Elizabeth M., MD, Clinical Assistant Professor
 Shier, Janice M., MD, Clinical Instructor
 Smith, Yolanda R., MD, Assistant Professor
 Speights, Steven E., MD, Lecturer
 Stalburg, Caren M., MD, Clinical Instructor
 Tremper, Amy L., MD, Clinical Instructor
 Van De Ven, Cosmas J. M., MD, Clinical Assistant Professor
 Zoschnick, Lauren B., MD, Clinical Assistant Professor

Department of Ophthalmology

Lichter, Paul R., MD, Chair and Professor

Adams, James L., MD, Clinical Assistant Professor
 Archer, Steven M., MD, Associate Professor
 Ayyagari, Radha, PhD, Research Investigator
 Bergstrom, Terry J., MD, Professor
 Beser, Donald S., MD, Clinical Instructor
 Beyst-Martonyi, Elnajejan, Bachelors, Lecturer
 Bruneau, Natalia V., PhD, Research Investigator
 Bush, Ronald A., PhD, Research Investigator
 Cornblath, Wayne T., MD, Clinical Assistant Professor
 Delmonte, Monte A., MD, Associate Professor
 Deretic, Dusanika D., PhD, Assistant Research Scientist
 Elner, Susan G., MD, Associate Professor
 Elner, Victor M., MD/PhD, Associate Professor
 Felius, Joost, PhD, Research Investigator
 Finkelstein, Jerome I., MD, Clinical Assistant Professor
 Frueh, Bartley R., MD, Professor
 Green, Daniel G., PhD, Professor
 Hiriyanna, Kelaginaman T., PhD, Research Investigator
 Hitchcock, Peter F., PhD, Associate Professor
 Hughes, Bret A., PhD, Associate Professor
 Johnson, Mark W., MD, Associate Professor
 Juhasz, Tibor, PhD, Senior Associate Research Scientist
 Kim, Angela W., MD, Lecturer
 Kumar, Gyanendra, PhD, Research Investigator
 Kurtz, Ron M., MD, Assistant Professor
 Lark, Kurt K., MD, Lecturer
 Martonyi, Csaba L., None, Associate Professor
 Meyer, Roger F., MD, Professor
 Moroi, Sayoko E., MD/PhD, Assistant Professor
 Musch, David C., PhD, Senior Research Scientist
 Nelson, Christine C., MD, Associate Professor
 Pollock, David A., MD, Lecturer
 Puro, Donald G., MD/PhD, Professor
 Richards, Julia E., PhD, Senior Associate Research Scientist
 Roth, Michael, MD, Clinical Assistant Professor
 Rozsa, Frank W., PhD, Research Investigator
 Saunders, Phillip L., MD, Lecturer
 Schertzer, Robert M., MD, Clinical Assistant Professor
 Sieving, Paul A., MD/PhD, Professor
 Simpson, Jennifer L., MD, Lecturer
 Soong, H. Kaz, MD, Associate Professor
 Sugar, Alan, MD, Professor
 Swaroop, Anand, PhD, Associate Professor
 Thomas, Dilip A., MD, Lecturer
 Thompson, Debra A., PhD, Associate Professor
 Thoms, Susan S., MD, Clinical Assistant Professor
 Trobe, Jonathan D., MD, Professor
 Vine, Andrew Keith, MD, Professor
 Wicker, Donna M., OHRD, Lecturer
 Yang, Michael B., MD, Lecturer

Department of Otolaryngology

Wolf, Gregory T., MD, Chair and Professor

Altschuler, Richard A., PhD, Professor and Senior Research Scientist
 Arts, H. Alexander, MD, Clinical Associate Professor
 Baker, Shan R., MD, Professor
 Bledsoe, Sanford C., PhD, Senior Associate Research Scientist
 Boyd, Charles M., MD, Lecturer
 Bradford, Carol R., MD, Associate Professor
 Carey, Thomas E., PhD, Senior Research Scientist
 Chepeha, Douglas B., MD, Lecturer
 Concus, Adriane P., MD, Lecturer
 Dolan, David F., PhD, Assistant Research Scientist
 Eisenman, David J., MD, Lecturer
 El-Kashlan, Hussam K., MD, Assistant Professor
 Garetz, Susan L., MD, Clinical Assistant Professor
 Hogikyan, Norman D., MD, Assistant Professor
 Kileny, Paul, PhD, Professor
 Kohrman, David C., PhD, Assistant Professor
 Koopmann, C. F., MD, Professor
 Krause, Charles J., MD, Professor
 Lesperance, Marci M., MD, Assistant Professor
 Lomax, Margaret I., PhD, Senior Research Scientist
 Marentette, Lawrence J., MD, Associate Professor
 Middlebrooks, John C., PhD, Associate Professor
 Miller, Josef M., PhD, Professor
 Moody, David B., PhD, Senior Research Scientist
 Myers, Larry L., MD, Lecturer
 Naficy, Sam, MD, Lecturer
 Orlandi, Richard R., MD, Clinical Assistant Professor
 Pflingst, Bryan E., PhD, Professor
 Raphael, Yehoash, PhD, Assistant Professor
 Schacht, Jochen H., PhD, Professor
 Sharma, Pramod K., MD, Clinical Assistant Professor
 Teknos, Theodoros N., MD, Assistant Professor
 Telian, Steven A., MD, Professor
 Terrell, Jeffrey E., MD, Assistant Professor
 Weatherly, Robert A., MD, Clinical Assistant Professor
 Zwolan, Teresa A., PhD, Assistant Research Scientist

Department of Pathology

Ward, Peter A., MD, Chair and Professor

Abrams, Gerald D., MD, Professor
 Annesley, Thomas M., PhD, Professor
 Appelman, Henry D., MD, Professor
 Arend, Lois J., MD, Assistant Professor and Assistant Research Scientist
 Beals, Theodore F., MD, Assistant Professor
 Blaivas, Mila, MD/PhD, Clinical Associate Professor

Bonadio, Jeffrey F., MD, Senior Associate Research Scientist
 Chamberlain, Priscilla R., MD, Clinical Instructor
 Chensue, Stephen W., MD/PhD, Associate Professor
 Cho, Kathleen R., MD, Associate Professor
 D'Amato, Constance J., Bachelors, Assistant Professor
 Davenport, Robertson D., MD, Associate Professor
 Dozmorov, Igor M., MD, Assistant Research Scientist
 Dressler, Gregory R., PhD, Assistant Professor
 England, Barry G., PhD, Associate Professor
 Fantone, Joseph C., MD, Professor
 Flint, Andrew, MD, Professor
 Friedman, Bruce, MD, Professor
 Giacherio, Donald A., PhD, Assistant Professor
 Giordano, Thomas J., MD/PhD, Assistant Professor
 Greenson, Joel K., MD, Associate Professor
 Heidelberger, Kathleen P., MD, Professor
 Hogaboam, Cory M., PhD, Research Investigator
 Johnson, Kent J., MD, Professor
 Judd, Walter J., OHRD, Professor
 Killeen, Anthony A., MD/PhD, Assistant Professor
 Killen, Paul D., MD/PhD, Associate Professor
 Knibbs, Randall Norman, PhD, Research Investigator
 Kunkel, Steven L., PhD, Professor
 Lowe, John Burton, MD, Professor
 Lowe, Lori, MD, Clinical Associate Professor
 Lukacs, Nicholas W., PhD, Assistant Research Scientist
 McKeever, Paul Edward, MD/PhD, Associate Professor
 Michael, Claire W., MD, Clinical Assistant Professor
 Midgley, A. Reese, MD, Professor
 Miller, Richard A., MD/PhD, Professor
 Mitra, Raj S., PhD, Assistant Research Scientist
 Murphy, Hedwig S., MD/PhD, Assistant Professor
 Nunez, Gabriel, MD, Associate Professor
 Oberman, Harold A., MD, Professor
 Phan, Sem H., MD/PhD, Professor
 Pierson, Carl L., PhD, Assistant Professor
 Ramsburgh, Stephen R., MD, Clinical Instructor
 Rasche, Rodolfo F. H., MD, Clinical Assistant Professor
 Remick, Daniel G., MD, Professor
 Ross, Charles Warren, MD, Associate Professor
 Rubin, Mark A., MD, Assistant Professor
 Sarma, J. Vidya, PhD, Research Investigator
 Schnitzer, Bertram, MD, Professor
 Sheldon, Susan, PhD, Assistant Professor
 Silverman, Eugene M., MD, Clinical Associate Professor
 Singleton, Timothy P., MD, Assistant Professor
 Smith, Peter L., PhD, Research Investigator
 Stoolman, Lloyd M., MD, Associate Professor
 Su, Lyndon D., MD, Clinical Assistant Professor
 Tiill, Gerd O., MD, Professor
 Varani, James, PhD, Professor

Vincenz, Claudius, PhD, Research Investigator
 Warner, Roscoe L., PhD, Research Investigator
 Warren, Jeffrey S., MD, Associate Professor
 Wojno, Kirk J., MD, Assistant Professor
 Zeigler, Mary E., PhD, Research Investigator

Department of Pediatrics and Communicable Diseases

Robillard, Jean E., MD, Chair and Professor

Ameri, Afshin, MD, Lecturer
 Andrae, Margie C., MD, Clinical Instructor
 Annich, Gail M., MD, Lecturer
 Badran, Sarah, MD, Lecturer
 Baker, James B., MD, Clinical Instructor
 Barks, John D. E., MD, Assistant Professor
 Barr, Mason, MD, Professor
 Betz, A. Lorris, MD/PhD, Professor
 Bitar, Khalil N., PhD, Senior Research Scientist
 Blackman, Stephen A., MD, Clinical Instructor
 Blackwood, R. Alexander, MD/PhD, Assistant Professor
 Bloch, Craig A., MD, Assistant Research Scientist
 Boxer, Laurence A., MD, Professor
 Bozynski, Mary Ellen A., MD, Professor
 Brown, Pamela I., MD, Clinical Assistant Professor
 Brown, Randall W., MD, Assistant Professor
 Bunchman, Timothy E., MD, Associate Professor
 Buysse, Christina A., MD, Clinical Instructor
 Castle, Valerie P., MD, Associate Professor
 Charpie, John R., MD/PhD, Assistant Professor
 Chiang, Pei-Wen, PhD, Research Investigator
 Clark, Sarah J., Masters, Research Investigator
 Clemans, Daniel L., PhD, Research Investigator
 Crowley, Dennis, MD, Clinical Professor
 Custer, Joseph R., MD, Associate Professor
 Datta, Nabanita, PhD, Assistant Research Scientist
 Dick, Macdonald, MD, Professor
 Dickinson, Chris J., MD, Associate Professor
 Donn, Steven M., MD, Professor
 El-Fouly, Mohamed H., MD/PhD, Clinical Assistant Professor
 Engert, Susan F., MD, Clinical Assistant Professor
 Ensing, Gregory J., MD, Clinical Associate Professor
 Ertel, Inta J., MD, Professor
 Faix, Roger G., MD, Professor
 Felt, Barbara True, MD, Assistant Professor
 Fessler, Kathryn B., MD, Clinical Instructor
 Flynn, Joseph T., MD, Clinical Assistant Professor
 Foster, Carol M., MD, Associate Professor
 Freed, Gary L., MD, Professor
 Gahagan, Sheila, MD, Clinical Associate Professor

Gessner, Lynn M., MD, Clinical Instructor
 Gilsdorf, Janet R., MD, Professor
 Glover, Thomas W., PhD, Associate Professor and Senior Associate Research Scientist
 Goldberg, Caren S., MD, Lecturer
 Gorski, Jerome L., MD, Associate Professor
 Grossman, Herbert J., MD, Professor
 Haftel, Hilary M., MD, Clinical Assistant Professor
 Hanash, Samir M., MD/PhD, Professor
 Hillemeier, A. Craig, MD, Professor
 Holland, Katherine D., MD/PhD, Clinical Assistant Professor
 Holmes, Ronald D., MD, Clinical Professor
 Hopwood, Nancy J., MD, Professor
 Hornbuckle, Andrea C., MD, Clinical Instructor
 Hurwitz, Martin E., MD, Clinical Assistant Professor
 Hutchinson, Raymond J., MD, Professor
 Joiner, Terence A., MD, Clinical Assistant Professor
 Kasa-Vubu, Josephine Z., MD, Assistant Professor
 Kasten-Sportes, Carol H., MD, Lecturer
 Kershaw, David B., MD, Assistant Professor
 Kirkpatrick, Garland P., MD, Clinical Assistant Professor
 Kochhar, Paramjeet K., MD, Clinical Assistant Professor
 Koeff, Steve T., MD, Associate Professor
 Kulik, Thomas J., MD, Associate Professor
 Kurnit, David Martin, MD/PhD, Professor
 Leber, Steven M., MD/PhD, Clinical Associate Professor
 Levine, John E., MD, Clinical Assistant Professor
 Linsk, Richard L., MD/PhD, Clinical Instructor
 Lloyd, Thomas R., MD, Associate Professor
 Long, Michael W., PhD, Professor and Senior Research Scientist
 Lozoff, Betsy, MD, Professor
 Ludomirsky, Achiau, MD, Associate Professor
 Markel, Howard, MD, Associate Professor
 Marshall, David Lee, MD, Clinical Instructor
 Maxvold, Norma J., MD, Clinical Assistant Professor
 Mellerick-Dressl, Dervla M., PhD, Assistant Research Scientist
 Mendelow, Dolores P., MD, Clinical Assistant Professor
 Mitchell, Joyce M., MD, Clinical Assistant Professor
 Moler, Frank W., MD, Associate Professor
 Mollen, Eileen, PhD, Clinical Assistant Professor
 Murphy, Terrance P., MD, Clinical Instructor
 Musci, Adrienne T., MD, Clinical Instructor
 Nasr, Samya Z., MD, Assistant Professor
 Neal, Charles R., MD, Lecturer
 Nelson, Martha, MD, Clinical Instructor
 Noble, Jill A., MD, Clinical Instructor
 Olson, Allan David, MD, Clinical Associate Professor
 Opiari, Lisa C., PhD, Clinical Assistant Professor
 Owings, Clyde L., MD/PhD, Associate Professor
 Padmanabhan, Vasantha, PhD, Senior Research Scientist
 Paik, Juliana S., MD, Clinical Instructor

Panahi, Parviz, MD, Clinical Instructor
 Park, Stephen M., MD, Clinical Instructor
 Petershack, Jean A., MD, Lecturer
 Ping, April Joy, MD, Clinical Instructor
 Pipe, Steven W., MD, Assistant Professor
 Pituch, Kenneth J., MD, Clinical Assistant Professor
 Ragsdale, Carol Godoshian, MD, Associate Professor
 Robertson, Patricia L., MD, Associate Professor
 Rocchini, Albert P., MD, Professor
 Roloff, Dietrich W., MD, Professor
 Rosen, David S., MD, Clinical Associate Professor
 Rosenthal, Amnon, MD, Professor
 Rubinoff, William O., MD, Clinical Instructor
 Sanders, Georgiana Marie, MD, Clinical Assistant Professor
 Sandvig, Sara J., MD, Clinical Instructor
 Sayed, Esha O., MD, Clinical Instructor
 Schumacher, Robert E., MD, Associate Professor
 Schwartz, Edward M., PhD, Associate Professor
 Sedman, Aileen B., MD, Professor
 Serwer, Gerald A., MD, Professor
 Seyfried, Jeanne M., MD, Clinical Instructor
 Shope, Thomas C., MD, Associate Professor
 Silverstein, Faye S., MD, Professor
 Smoyer, William E., MD, Assistant Professor
 Stein, Harvey S., MD, Clinical Instructor
 Swindell, Sharon L., MD, Clinical Assistant Professor
 Thoene, Jess G., MD, Professor
 Thomas, Pamela Marie, MD, Assistant Professor
 Tindall, Shauna, PhD, Clinical Assistant Professor
 Tsai, Wan Chong, MD, Lecturer
 Vazquez, Delia M., MD, Assistant Professor
 Wechsler, Daniel S., MD/PhD, Assistant Professor
 Wechsler, Stephanie Burns, MD, Assistant Professor
 Weiner, Allan D., MD, Clinical Instructor
 Yanik, Gregory A., MD, Clinical Assistant Professor

Department of Pharmacology

Hollenberg, Paul F., PhD, Chair and Professor

Bentley, John Kelley, PhD, Assistant Research Scientist
 Bharucha, Vandana A., PhD, Research Investigator
 Bittner, Mary Ann, PhD, Assistant Research Scientist
 Domino, Edward F., MD, Professor
 Fisher, Stephen K., PhD, Professor
 Gnegy, Margaret E., PhD, Professor
 Holz, Ronald W., MD/PhD, Professor
 Isom, Lori L., PhD, Assistant Professor
 Kent, Ute M., PhD, Research Investigator
 Kilgore, Kenneth S., PhD, Assistant Research Scientist
 Levy, Gerald N., PhD, Senior Associate Research Scientist

Lucchesi, Benedict R., MD/PhD, Professor
 Mancini, William R., PhD, Assistant Professor and Research Investigator
 Maybaum, Jonathan, PhD, Professor
 Neubig, Richard Robert, MD/PhD, Professor
 Osawa, Yoichi, PhD, Assistant Professor
 Pratt, William B., MD, Professor
 Remmers, Ann E., PhD, Research Investigator
 Shewach, Donna S., PhD, Associate Professor
 Schlafer, Marshal, PhD, Professor
 Simpson, Robert U., PhD, Professor
 Smith, Charles B., MD/PhD, Professor
 Traynor, John R., PhD, Senior Associate Research Scientist
 Winger, Gail D., PhD, Senior Research Scientist
 Woods, James H., PhD, Professor

Department of Physical Medicine and Rehabilitation

Leonard, James A., MD, Chair and Clinical Professor

Ayyangar, Rita N., MD, Lecturer
 Colwell, Miles O., MD, Clinical Instructor
 Evans, Jeffrey E., PhD, Clinical Assistant Professor
 Forman, Glenn M., MD, Clinical Instructor
 Geisser, Michael E., PhD, Assistant Professor
 Haig, Andrew J., MD, Assistant Professor
 Herring, Gioia Marie, MD, Clinical Instructor
 Hurvitz, Edward A., MD, Assistant Professor
 Kewman, Donald G., PhD, Clinical Professor
 Kirsch, Ned L., PhD, Clinical Assistant Professor
 Lee, Laura W., MD, Clinical Instructor
 Levine, Simon P., PhD, Associate Professor
 McDowell, Sharon K., MD, Lecturer
 Nelson, Virginia S., MD, Clinical Associate Professor
 Nobunaga, Austin I., MD, Clinical Assistant Professor
 Perez, Alejandro, MD, Lecturer
 Richardson, James K., MD, Assistant Professor
 Roberts-Atwater, Beverly, PhD/OHRD, Clinical Instructor
 Rowan, James M., PhD, Lecturer
 Schmitt, Susan C., MD, Lecturer
 Schultz, John S., MD, Clinical Assistant Professor
 Spires, Mary Catherine, MD, Clinical Assistant Professor
 Tate, Denise G., PhD, Associate Professor
 Wallborn, Agnes S., MD, Clinical Instructor
 Warschausky, Seth A., PhD, Assistant Professor
 Werner, Robert A., MD, Associate Professor
 Wirth, Nancy E., MD, Lecturer

Department of Physiology

Williams, John Andrew, MD/PhD, Chair and Professor

Argetsinger, Lawrence S., PhD, Assistant Research Scientist
 Carter-Su, Christin, PhD, Professor
 D'Alecy, Louis G., PhD, Professor
 Dawson, David C., PhD, Professor
 Faulkner, John A., PhD, Professor
 Herzog, Susan Brooks, PhD, Assistant Professor
 Karsch, Fred J., PhD, Professor
 Keyes, P. Landis, PhD, Professor
 Logsdon, Craig D., PhD, Professor
 MacDougald, Ormond A., PhD, Assistant Professor
 McReynolds, John S., MD, Professor
 Metzger, Joseph Mark, PhD, Associate Professor
 Moises, Hyman C., PhD, Professor
 Richey, Joyce M., PhD, Assistant Research Scientist
 Samuelson, Linda C., PhD, Associate Professor
 Schwartz, Jessica, PhD, Professor
 Sherman, James H., PhD, Associate Professor
 Stuenkel, Edward L., PhD, Associate Professor
 Webb, R. Clinton, PhD, Professor
 Westfall, Margaret V., PhD, Assistant Research Scientist

Department of Psychiatry

Greden, John F., MD, Chair and Professor

Abelson, James L., MD/PhD, Associate Professor
 Adams, Kenneth, PhD, Professor
 Agranoff, Bernard W., MD, Professor and Senior Research Scientist
 Akil, Huda, PhD, Professor
 Albucho, Ronald C., MD, Clinical Assistant Professor
 Aldridge, Andrew M., MD, Clinical Instructor
 Alessi, Norman E., MD, Associate Professor
 Amdur, Richard L., PhD, Clinical Assistant Professor
 Ballester, Christina B., MD, Clinical Instructor
 Barry, Kristen L., PhD, Senior Associate Research Scientist
 Berent, Stanley, PhD, Professor
 Bieliauskas, Linas A., PhD, Associate Professor
 Blos, Peter, MD, Lecturer
 Blow, Frederic C., PhD, Assistant Professor and Assistant Research Scientist
 Brower, Kirk J., MD, Associate Professor
 Buchtel, Henry A., PhD, Associate Professor
 Burmeister, Margit, PhD, Associate Professor
 Cameron, Oliver G., MD/PhD, Professor
 Carli, Thomas, MD, Clinical Associate Professor
 Carnahan, Jane M., MD, Clinical Instructor
 Chamberlain, Kenneth R., MD, Instructor
 Closser, Mary H., OHRD, Clinical Assistant Professor

Dalack, Gregory W., MD, Assistant Professor
 Davies, Douglas David, PhD, Lecturer
 De Quardo, John R., MD, Assistant Professor
 Dillon, James E., MD, Clinical Assistant Professor
 Eiser, Alan S., PhD, Lecturer
 Falit, Harvey H., MD, Lecturer
 Florence, Timothy D., MD, Clinical Instructor
 Fluent, Thomas E., MD, Clinical Assistant Professor
 Gay, Tamara L., MD, Clinical Assistant Professor
 Ghaziuddin, Mohammad, MD, Assistant Professor
 Ghaziuddin, Neera, MD, Assistant Professor
 Giordani, Bruno J., PhD, Associate Professor
 Glick, Rachel Lipson, MD, Clinical Assistant Professor
 Goldman, Mona L., PhD, Research Investigator
 Guyer, Melvin J., PhD, Professor
 Hanna, Gregory Lynn, MD, Associate Professor
 Healy, Daniel J., MD, Lecturer
 Hegedus, Andrea M., PhD, Assistant Research Scientist
 Huang, Milton P., MD, Lecturer
 Jibson, Michael D., MD/PhD, Clinical Assistant Professor
 Kales, Helen Christine, MD, Lecturer
 Kalter, Neil M., PhD, Professor
 Kamholz, Barbara A., MD, Clinical Assistant Professor
 Kerber, Kevin B., MD, Clinical Assistant Professor
 King, Cheryl A., PhD, Associate Professor
 Kloss, Raymond J., MD, Clinical Instructor
 Knesper, David J., MD, Associate Professor
 Korszun, Anna-Krysty Krystyna, MD/DDS/PhD, Assistant Professor
 Kroll, Phillip D., MD, Assistant Professor
 Kronfol, Ziad A., MD, Associate Professor
 Liberzon, Israel, MD, Assistant Professor
 Lindsay, Robert K., PhD, Senior Research Scientist
 Litow, Katherine W., MD, Clinical Instructor
 Little, Karley Y., MD, Associate Professor
 Lohr, Naomi E., PhD, Assistant Professor
 Lopez, Juan F., MD, Assistant Professor
 Mahapatra, Srinibas, MD, Clinical Assistant Professor
 Maixner, Daniel F., MD, Clinical Instructor
 Marcus, Sheila M., MD, Clinical Assistant Professor
 Meador-Woodruff, James H., MD, Associate Professor
 Mellow, Alan M., MD/PhD, Associate Professor
 Milner, Karen K., MD, Clinical Assistant Professor
 Neal, David Lee, Masters, Assistant Professor
 Nesse, Randolph M., MD, Professor
 Nitzberg, Laura Jean, Masters, Lecturer
 Olson, Eva D., MD, Clinical Assistant Professor
 Patel, Paresh D., MD/PhD, Lecturer
 Pitt, Elaine, MD, Clinical Assistant Professor
 Pomerleau, Ovide F., PhD, Professor
 Pomerleau, Cynthia S., PhD, Senior Associate Research Scientist

Quinlan, Paul E., OHRD, Clinical Assistant Professor
 Riba, Michelle B., MD, Clinical Associate Professor
 Roberts, Mary W., MD, Clinical Instructor
 Shevrin, Howard, PhD, Professor
 Silk, Kenneth R., MD, Associate Professor
 Starkman, Monica N., MD, Associate Professor
 Tandon, Rajiv, MD, Associate Professor
 Taylor, Stephan F., MD, Assistant Professor
 Tomori, Oladapo T., MD, Clinical Instructor
 Trivedi, Dushyant G., MD, Lecturer
 Tsai, Luke Y., MD, Professor
 Ueda, Tetsufumi, PhD, Professor
 Valenstein, Marcia Ann, MD, Clinical Assistant Professor
 Watson, Stanley J., MD/PhD, Professor
 Young, Elizabeth A., MD, Professor
 Zubieta, Jon K., MD/PhD, Assistant Professor
 Zucker, Robert A., PhD, Professor

Department of Radiation Oncology

Lawrence, Theodore S., MD/PhD, Interim Chair and Professor

Antonuk, Larry E., PhD, Associate Professor
 Balter, James M., PhD, Assistant Professor
 Dawson, Laura Ann, MD, Lecturer
 Debiose, David A., OHRD, Clinical Instructor
 Eisbruch, Avraham, MD, Assistant Professor
 Ethier, Stephen Paul, PhD, Associate Professor
 Fraass, Benedick A., PhD, Professor
 Hayman, James A., MD, Clinical Assistant Professor
 Holt, Jennifer L., MD, Clinical Instructor
 Kessler, Marc L., PhD, Assistant Professor
 Lam, Kwok Leung, PhD, Assistant Professor
 Lichter, Allen S., MD, Professor
 Ljungman, Mats E. D., PhD, Assistant Professor
 Martel, Mary K., PhD, Associate Professor
 McGinn, Cornelius John, MD, Assistant Professor
 McLaughlin, Patrick William, MD, Clinical Associate Professor
 McShan, Daniel L., PhD, Professor
 Pierce, Lori Jo, MD, Associate Professor
 Possert, Peter W., MD, Clinical Instructor
 Radany, Eric H., MD/PhD, Assistant Professor
 Rehemtulla, Alnawaz, PhD, Assistant Professor
 Roberson, Peter L., PhD, Associate Professor
 Sahjidak, Walter M., MD, Clinical Assistant Professor
 Sandler, Howard M., MD, Associate Professor
 Sullivan, Molly A., MD, Clinical Instructor
 Taneja, Neelam, PhD, Research Investigator
 Ten Haken, Randall K., PhD, Professor
 Wu, Shiyong, PhD, Assistant Research Scientist

Department of Radiology

Dunnick, Nicholas Reed, MD, Chair and Professor

Bailey, Janet E., MD, Lecturer
 Bland, Peyton H., PhD, Research Investigator
 Blane, Caroline Elizabeth, MD, Professor
 Bowerman, Richard A., MD, Associate Professor
 Bree, Robert L., MD, Professor
 Bude, Ronald O., MD, Associate Professor
 Carson, Paul L., PhD, Professor
 Cascade, Philip N., MD, Associate Professor
 Chan, Heang-Ping, PhD, Professor
 Chenevert, Thomas L., PhD, Associate Professor
 Cho, Kyung J., MD, Professor
 Cohan, Richard Harris, MD, Professor
 Delaney-Sathy, Lydia O., MD, Lecturer
 Deveikis, John Peter, MD, Clinical Associate Professor
 Dipietro, Michael A., MD, Professor
 Eldevik, Odd Petter, MD/PhD, Clinical Associate Professor
 Ellis, James H., MD, Professor
 Fessell, David P., MD, Clinical Assistant Professor
 Fowlkes, J. Brian, PhD, Assistant Research Scientist
 Francis, Isaac R., OHRD, Professor
 Gebarski, Stephen S., MD, Professor
 Goodsitt, Mitchell M., PhD, Associate Professor
 Gross, Barry H., MD, Professor
 Hansen, Ronnell A., MD, Lecturer
 Hayes, Curtis W., MD, Professor
 Helvie, Mark A., MD, Associate Professor
 Hernandez, Ramiro J., MD, Professor
 Hertzberg, Todd M., MD, Lecturer
 Hyde-Hoff, Donna L., MD, Lecturer
 Jacobson, Jon A., MD, Clinical Assistant Professor
 Jamadar, David A., MD, Clinical Assistant Professor
 Joyn, Lynn K., MD, Clinical Assistant Professor
 Kazanjian, Sahira N., MD, Clinical Assistant Professor
 Kazerooni, Ella A., MD, Associate Professor
 Kim, Boklye, PhD, Assistant Research Scientist
 Korobkin, Melvyn T., MD, Professor
 Kuhns, Lawrence R., MD, Professor
 Lawless, Gordon T., MD, Lecturer
 Lin, John, MD, Clinical Assistant Professor
 Longino, Marc Alan, PhD, Research Investigator
 Marn, Charles S., MD, Associate Professor
 Marshall, Kelley W., MD, Clinical Assistant Professor
 Marx, Mary V., MD, Associate Professor
 Meyer, Charles R., PhD, Professor
 Miller, J. Thomas, MD, Clinical Assistant Professor
 Miller, Douglas L., PhD, Senior Research Scientist
 Neimatallah, Mohammed A., MD, Lecturer
 Paramagul, Chintana, MD, Clinical Assistant Professor

Patel, Dakshesh S., MD, Lecturer
 Patterson, Stephanie K., MD, Clinical Assistant Professor
 Pernicano, Perry G., MD, Clinical Assistant Professor
 Petrick, Nicholas A., PhD, Assistant Research Scientist
 Platt, Joel F., MD, Associate Professor
 Prince, Martin R., MD/PhD, Assistant Professor
 Quinn, Timothy J., MD, Lecturer
 Quint, Leslie Eisenbud, MD, Professor
 Quint, Douglas J., MD, Associate Professor
 Rockwell, David T., MD, Lecturer
 Ross, Brian Dale, PhD, Associate Professor
 Roubidoux, Marilyn A., MD, Associate Professor
 Rubin, Jonathan M., MD/PhD, Professor
 Sahiner, Berkman, PhD, Assistant Research Scientist
 Silver, Dorit Adler, MD, Associate Professor
 Silver, Terry M., MD, Professor
 Sonda, Paul L., MD, Clinical Assistant Professor
 Song, Julie H., MD, Lecturer
 Strouse, Peter J., MD, Assistant Professor
 Swanson, Scott D., PhD, Assistant Research Scientist
 Varma, Manish K., MD, Lecturer
 Weadock, William J., MD, Lecturer
 Weichert, Jamey Paul, PhD, Senior Associate Research Scientist
 Weiss, Kenneth L., MD, Assistant Professor
 Williams, David M., MD, Professor
 Wilson, Todd E., MD, Assistant Professor
 Wong, Jeffrey H., MD, Lecturer

Department of Surgery

Greenfield, Lazar J., MD, Chair and Professor

Absood, Afaf G., PhD, Research Investigator
 Adelman, Susan H., MD, Clinical Associate Professor
 Asplin, Brent R., MD, Lecturer
 Austin, Edward, MD, Clinical Assistant Professor
 Barach, Eric M., MD, Clinical Instructor
 Barsan, William G., MD, Professor
 Bartlett, Robert Hawes, MD, Professor
 Beer, David George, PhD, Associate Professor
 Belville, William D., MD, Associate Professor
 Biermann, Janet Sybil, MD, Assistant Professor
 Bishop, Dennis Keith, PhD, Associate Professor
 Bloom, David A., MD, Professor
 Boczar, Michael E., OHRD, Clinical Assistant Professor
 Bolling, Steven F., MD, Professor
 Bove, Edward L., MD, Professor
 Brandt, Mary-Margar Margaret, MD, Clinical Instructor
 Bromberg, Jonathan S., MD/PhD, Professor
 Buchman, Steven R., MD, Associate Professor
 Burney, Richard E., MD, Professor

Campbell, Darrell A., MD, Professor
 Carolyn, Kathryn A., MD, Lecturer
 Carpenter, James E., MD, Associate Professor
 Cederna, Paul S., MD, Lecturer
 Chandler, William F., MD, Professor
 Chang, Alfred E., MD, Professor
 Chudnofsky, Carl Richard, MD, Assistant Professor
 Chung, Kevin C., MD, Assistant Professor
 Cimmino, Vincent M., MD, Clinical Associate Professor
 Colletti, Lisa M., MD, Associate Professor
 Colone, Pino D., MD, Clinical Instructor
 Coran, Arnold G., MD, Professor
 Corpron, Cynthia A., MD, Lecturer
 Craig, Kathryn A., MD, Lecturer
 Day, Mark L., PhD, Assistant Professor
 Dedrick, Dale K., MD, Assistant Professor
 Deeb, G. Michael, MD, Professor
 Deegan, Thomas John, MD, Clinical Instructor
 Desmond, Jeffrey S., MD, Lecturer
 Dries, David J., MD, Professor
 Dronen, Steven C., MD, Associate Professor
 East, Mary Kub, MD, Instructor
 Eckhauser, Frederic E., MD, Professor
 Ennis, Steven R., PhD, Assistant Research Scientist
 Evans, Rawden W., MD/PhD, Lecturer
 Faerber, Gary J., MD, Assistant Professor
 Farley, Frances A., MD, Assistant Professor
 Freer, James A., MD, Clinical Assistant Professor
 Freiberg, Andrew A., MD, Assistant Professor
 Gantz, Ira, MD, Associate Professor
 Garner, Warren L., MD, Associate Professor
 Geiger, James D., MD, Assistant Professor
 Gilmont, Robert R., PhD, Research Investigator
 Goh, Keow Mei, MD, Lecturer
 Goldstein, Steven A., PhD, Professor
 Golladay, Eustace S., MD, Clinical Professor
 Gomez, Hernan F., MD, Clinical Instructor
 Gordon, James A., MD, Lecturer
 Goulet, James A., MD, Associate Professor
 Graham, Linda M., MD, Professor
 Graziano, Gregory P., MD, Associate Professor
 Greenfield, Jonathan I., MD, Clinical Assistant Professor
 Haghighat, Shaghayegh H., MD, Clinical Instructor
 Hak, David J., MD, Assistant Professor
 Hallinen, Diane L., MD, Clinical Instructor
 Harmon, Carroll M., MD/PhD, Assistant Professor
 Hawn, Mary T., MD, Assistant Professor
 Hensinger, Robert N., MD, Professor
 Hinshaw, Daniel B., MD, Associate Professor
 Hirschl, Ronald B., MD, Associate Professor
 Hoff, Julian T., MD, Professor

Hollister, Scott J., PhD, Associate Professor
 Huang, Shaun Su, MD, Clinical Instructor
 Iannetoni, Mark D., MD, Assistant Professor
 Jacobs, Lloyd A., MD, Professor
 Jaggi, Franz M., OHRD, Clinical Instructor
 Jebson, Peter J. L., MD, Assistant Professor
 Keep, Richard F., PhD, Senior Associate Research Scientist
 King, Jeffrey C., MD, Clinical Assistant Professor
 Kirsh, Marvin M., MD, Professor
 Kish, Phillip E., PhD, Assistant Research Scientist
 Knol, James A., MD, Associate Professor
 Konnak, John W., MD, Professor
 Koo, Harry P., MD, Assistant Professor
 Kronick, Steven, MD, Lecturer
 Kuhn, John E., MD, Assistant Professor
 Kuzon, William Michael, MD/PhD, Associate Professor
 Kwa, Hian, MD, Lecturer
 Lee, Jason H., MD, Clinical Instructor
 Lelli, Joseph L., MD, Clinical Assistant Professor
 Li, Qiao, PhD, Research Investigator
 Lipscomb, Michael K., MD, Clinical Instructor
 Loder, Randall T., MD, Associate Professor
 Louis, Dean S., MD, Professor
 Lowell, Mark J., MD, Lecturer
 Lozon, Marie M., MD, Clinical Assistant Professor
 Macoska, Jill A., PhD, Assistant Professor
 Magee, John C., MD, Assistant Professor
 Maio, Ronald F., OHRD, Associate Professor
 Marcelo, Cynthia L., PhD, Senior Research Scientist
 Matthews, Larry S., MD, Professor
 McGillicuddy, John E., MD, Professor
 Mead, Maureen C., MD, Clinical Instructor
 Merion, Robert Mark, MD, Associate Professor
 Metrou, Mary E., MD, Clinical Assistant Professor
 Moalli, Maria R., DVM, Research Investigator
 Montie, James E., MD, Professor
 Mosca, Ralph S., MD, Assistant Professor
 Mulay, James J., PhD, Professor
 Mulholland, Michael W., MD/PhD, Professor
 Mulligan, Michael S., MD, Lecturer
 Muraszko, Karin M., MD, Associate Professor
 Neacy, Kathleen A., MD, Lecturer
 Newman, Meshach H., MD, Clinical Professor
 Nyachowe, Pascal, MD, Clinical Instructor
 Nypaver, Michele M., MD, Clinical Assistant Professor
 O'Connor, Gerald A., MD, Associate Professor
 Ohl, Dana Alan, MD, Associate Professor
 Ohye, Richard G., MD, Lecturer
 Omann, Geneva M., PhD, Associate Professor
 Orringer, Mark B., MD, Professor

Pagani, Francis D., MD/PhD, Assistant Professor
 Papadopoulos, Stephen M., MD, Associate Professor
 Pass, Helen A., MD, Assistant Professor
 Perry, Marcia A., MD, Clinical Instructor
 Polley, Theodore Z., MD, Clinical Associate Professor
 Punch, Jeffrey D., MD, Assistant Professor
 Ramnath, Suresh, MD, Clinical Instructor
 Razdan, Sanjay, MD, Lecturer
 Reed, Frank Andrew, MD, Clinical Instructor
 Rees, Riley S., MD, Professor
 Reickert, Craig A., MD, Lecturer
 Roebuck, Michael D., MD, Clinical Instructor
 Ropp, Leland J., MD, Clinical Assistant Professor
 Ross, Donald A., MD, Associate Professor
 Sagher, Oren, MD, Assistant Professor
 Sanda, Martin G., MD, Assistant Professor
 Schultz, Carol Hoiby, MD, Lecturer
 Schwab, Eric D., PhD, Research Investigator
 Scott, Phillip Alton, MD, Lecturer
 Silbergleit, Robert, MD, Lecturer
 Simeone, Diane M., MD, Assistant Professor
 Smith, David J., MD, Professor
 Smith, Howard Gary, MD, Clinical Instructor
 Sondak, Vernon K., MD, Associate Professor
 Sonnad, Seema S., PhD, Assistant Professor
 Soriano, Jose A., MD, Clinical Instructor
 Stanley, James C., MD, Professor
 Stern, Susan A., MD, Assistant Professor
 Stoyanoff, Peter J., MD, Clinical Instructor
 Sung, Randall S., MD, Lecturer
 Swaniker, Fresca C., MD, Lecturer
 Sweeney, John F., MD, Assistant Professor
 Swisher, Stephen A., MD, Lecturer
 Taheri, Paul A., MD, Assistant Professor
 Teitelbaum, Daniel H., MD, Assistant Professor
 Thompson, Norman W., MD, Professor
 Treloar, David J., MD, Clinical Assistant Professor
 Turcotte, Jeremiah G., MD, Professor
 Urbanchek, Melanie G., PhD, Research Investigator
 Van Der Meulen, Jacob H., PhD, Research Investigator
 Vander Have, Kenneth R., MD, Clinical Instructor
 Venes, Joan L., MD, Professor
 Von Lubitz, Dag K., PhD, Assistant Professor
 Wahl, Wendy L., MD, Clinical Assistant Professor
 Wakefield, Thomas W., MD, Professor
 Walton, Edward A., MD, Clinical Instructor
 Wang, Stewart C., MD/PhD, Assistant Professor
 Wang, Xu, MD, Research Investigator
 Weber, James E., OHRD, Clinical Assistant Professor
 Wilkerson, Catherine E., MD, Clinical Instructor

Wilkerson, Mark D., MD, Clinical Instructor
 Wilkerson, William M., MD, Clinical Assistant Professor
 Wilkins, Edwin G., MD, Associate Professor
 Wojtys, Edward M., MD, Professor
 Wolf, J. Stuart, MD, Assistant Professor
 Xi, Guohua, MD, Research Investigator
 Yahanda, Alan M., MD, Assistant Professor
 Yang, Guoyuan, MD/PhD, Assistant Research Scientist
 Yang, Ying-Kui, MD/PhD, Research Investigator
 Younger, John G., MD, Lecturer
 Zahos, Peter A., MD, Clinical Instructor
 Zelenock, Gerald B., MD, Professor
 Zink, Brian J., MD, Associate Professor