



SOM 09-10

Academic Departments

Three decades ago, UMMS held commencement ceremonies for its first class. Since then, more than 2,900 students have graduated to become health care professionals in virtually all fields of medicine and research. As an institution dedicated to the highest academic and ethical standards, our students expect effective preparation for the world of health care, which is changing at an unprecedented rate. To help students hone those skills required in the complex health care environment of the 21st century, UMMS has assembled a superior, dedicated faculty, supported by a strong foundation of academic departments that are continually evolving to meet the needs of our medical students, so they may realize their full potential as practitioners and researchers.

Anesthesiology

Biochemistry & Molecular Pharmacology

Cancer Biology

Cell Biology

Emergency Medicine

Family Medicine & Community Health Medicine

Cardiovascular Medicine

Dermatology

Diabetes

Endocrinology & Metabolism

Gastroenterology

General Internal Medicine

Geriatric Medicine

Hematology/Oncology

Hospital Medicine

Infectious Disease & Immunology

Medicine/Pediatrics

Palliative Medicine

Preventive and Behavioral Medicine

Pulmonary, Allergy & Critical Care

Renal Medicine

Rheumatology

Transfusion Medicine

Molecular Genetics & Microbiology

Molecular Medicine

Neurobiology

Neurology

Obstetrics & Gynecology

Ophthalmology

Orthopedics & Physical Rehabilitation

Otolaryngology

Pathology

Pediatrics

Physiology

Psychiatry

Quantitative Health Sciences

Radiation Oncology

Radiology

Surgery

Cardiothoracic Surgery

General Surgery

Minimally Invasive Surgery
(Endosurgery)

Bariatric Surgery

Neurosurgery

Organ Transplantation

Pediatric Surgery

Plastic & Reconstructive Surgery

Surgical Oncology

Thoracic Surgery

Trauma and Surgical Critical
Care Services

Urology

Vascular Surgery

*Information on pages 43-97 is
provided by the departments and
is current as of January 1, 2009.*

Anesthesiology

Anesthesiology's research efforts include studies into the:

- treatment of septic shock and acute respiratory distress syndrome and strategies to reduce catheter-related blood-stream infections;
- near-infrared spectroscopic measurement of hematocrit and of tissue pH, pO₂ and oxygen saturation to use as guides for resuscitation; and
- biofilm formation on implanted medical devices.

The Department of Anesthesiology provides both third- and fourth-year medical students with a variety of educational experiences related to the perioperative management of patients. These include pre-operative evaluation, intra-operative management and post-operative care, including care in the SICU, in which the department is actively involved.

Rotations for third- and fourth-year students provide a practical experience in the fundamentals of airway management, endotracheal intubation, regional anesthetics and invasive monitoring. These rotations also focus on the pharmacology and physiologic alterations associated with the administration of an anesthetic. Students are exposed to the techniques of general anesthesia administration, as well as to a range of regional anesthetic procedures including spinal, epidural, intravenous and peripheral nerve blocks. Students learn ancillary methods of patient management during surgery, such as fluid and electrolyte replacement, acid base balance, controlled hypotension and cardiopulmonary bypass.

Third-year students gain experience at the University Campus, where they are exposed to trauma, cardiac, vascular, orthopedic, pediatric and off-site anesthesia cases, among others. Basic lectures on pre-operative patient assessment, choice of anesthesia and techniques of administration are presented to students who elect to take the anesthesiology rotation during the third-year surgical clerkship.

Fourth-year elective rotations are designed to meet the needs of the medical student. In addition to required rotation time at the University Campus, students are given the option of rotating at any or all of our other residency training sites, in order to gain an exposure to a wide variety of anesthesia clinical settings. Sites include the UMass Memorial Medical Center Hahnemann Campus for ambulatory/regional anesthesia experience, the Memorial Campus for obstetric anesthesia and chronic pain management experience and the University Campus SICU.

A fourth-year student rotation focused on the management of critically ill surgical patients is also available. In addition, students have the option to participate in basic science investigations on biofilm formation by bacteria that are the common causes of device-related infections, and clinical studies that investigate the use of near-infrared spectroscopy to monitor tissue pH, oxygen saturation and PO₂ in critically ill patients and various experimental therapies in the treatment of the acute respiratory distress syndrome and sepsis.

We welcome students to spend time with us and learn about the intricacies of anesthesiology, as well as the multiple career paths available within the specialty.

Anesthesiology Faculty

Professor and Chair

Stephen O. Heard, BSE, Princeton, 1975; MD, Texas, 1978

Professors

Mark Dershwitz, BA, Oakland, 1974; MD, PhD, Northwestern, 1982

Babs Soller, BS, Union College, 1975; MA, Princeton, 1977; PhD, 1980

***Steven N. Treistman**, BA, SUNY Binghamton, 1967; PhD, North Carolina, 1972

Clinical Professors

Danna Peterson, MB, ChB, Edinburgh, 1967

Shubjeet Kaur, BS, Delhi, 1978; MBBS, Mualana Azad, 1983

Clinical Associate Professors

Peter J. Foley, BA, New Hampshire, 1980; MS, Ball State, 1982; PhD, Purdue, 1986; MD, Medical College of Wisconsin, 1981

Farajallah Habib, MD, Alexandria, 1972

R. Brian Hennessey, BS, Tufts, 1976; MD, UMass Worcester, 1980

John Pullerits, MD, Toronto, 1975

Manisha S. Desai, MBBS, Baroda, 1982

Assistant Professors

Gustavo Angaramo, MD, University of Buenos Aires Medical School, 1988

Mahmoud Aliouche, MD, Algiers, 1992

Nicholas J. Barnard, BS, Guy's Hospital Medical, 1970; MBBS, 1973

Agata A. Boland, MD, Warsaw Medical, 1982

Richard J. Breed, BS, MIT, 1973; MD, UMass Worcester, 1979

Bronwyn Cooper, AB, Harvard, 1986, MD, Albany Medical College, 1991

Elifce O. Cosar, MD, Sukurova, 1990

Eleanor M. Duduch, BS, Stonehill, 1979; MD, UMass Worcester, 1984

Khalidoun Faris, MD, Aleppo, 1991

Gilbert Fishbein, BA, Boston, 1978; MD, 1982

Monica Ganatra, AB, Harvard, 1999; MD, MPH, Tufts, 2003

Christian González, BS, Florida; 1997, MD, Ponce, Puerto Rico, 2002

Geoffrey Hart, BA, Emory, 1976; MD, Thomas Jefferson, 1981

Chandra S. Joshi, MBBS, Christian Medical, 1980

* joint appointment

(continued)

(Anesthesiology Faculty continued)

Stephen P. Kapaon, BA, Brandeis, 1980; MD, St. Louis, 1984

Issam Khayata, Aleppo, 1992

Diana Kouznetsov, MD, Moscow Medical Academy, 1998

J. Lance Lichtor, MD, University of Chicago, 1977

Astrid Liland, MD, Bergen, 1967

Raimondas Matulionis, MD, Vilnius, Lithuania, 1989

Christian Mueller, MD, Rostock University Medical School, 1992

Mohammed Mushtaque, MD, MBBS, Dow Medical College, Karachi, Pakistan, 1975

Alan Orquiola, MD, De La Salle University College of Medicine, 1998

Andrew Proos, BS, New Hampshire, 1979; MD, UMass Worcester, 1983

Steven Salt, BS, Rensselaer, 1976; MD, UMass Worcester, 1981

Mark Schlanger, DO, New York College of Osteopathic Medicine, 1990

Julie Selbst, MD, Illinois/Chicago, 1997

Shaheen Shaikh, MBBS, Poona, India, 1987; MD, 1990

Zafar Siddiqui, MD, King George Medical College, 1987

Sudershan Singla, MBBS, Punjab, India, 1978; MD, 1983

Spiro Spanakis, BA, Holy Cross, 1996; DO, New England/Biddeford, 2000

Borovan Ung, MD, Miami, 1992

Anil Vyas, MD, Government Medical College, India, 1972

Jens Matthias Walz, MD, Eberhard Karls University, 1999

Alexandr Zilber, RN, Odessa, Ukraine, 1993; MD, 1999

Research Assistant Professor

Cuong Vuong, PhD, Eberhard Karls University, 2000

Biochemistry & Molecular Pharmacology

Biochemistry & Molecular Pharmacology's notable faculty include:

- two Howard Hughes Medical Institute investigators;
- a recipient of the Schering-Plough Award from the American Society of Biochemistry and Molecular Biology;
- a Pew Scholar and W. M. Keck Foundation Distinguished Young Scholar;
- two recipients of the Burroughs Wellcome Fund Career Awards in Biomedical Sciences;
- investigators awarded a five-year, \$7.5 million NIH program grant focused on drug resistance in HIV protease and rational inhibitor design; and
- a chair elected to a two-year term as president of the Protein Society.

The Department of Biochemistry & Molecular Pharmacology provides medical students with an understanding of the molecular mechanisms underlying normal and disease processes in humans and the fundamental principles and biochemical and physiological bases of action for the major classes of drugs.

To accomplish this, the first-year Medical Biochemistry course is designed to incorporate the fundamental concepts of biochemistry in a series of lectures, clinical correlations, medical vignettes, problem-solving sessions and problem-based cases.

The second year consists of the two-semester Pharmacology course that familiarizes students with the most commonly prescribed drugs, as well as an understanding of the mechanism of action of the major classes of drugs. Key topics in the course include: general principles, drug actions on peripheral neuroeffector and other organ systems, chemotherapy and the effect of drugs on the central nervous system.

Biochemistry & Molecular Pharmacology Faculty

Professor and Chair

Arthur F. and Helen P. Koskinas Professor of Biochemistry & Molecular Pharmacology
C. Robert Matthews, BS, Minnesota, 1968; MS, Stanford, 1969; PhD, 1974

Professor and Vice Chair

Reid Gilmore, BS, New Mexico, 1973; MS, Illinois, 1976; PhD, 1980

Professors Emeriti

Neal C. Brown, DVM, Cornell, 1962; PhD, Yale, 1966

Sumner H. Burstein, BS, MIT, 1953; MS, Brandeis, 1955; PhD, Wayne State, 1959

Francis J. Chlapowski, BA, UMass Amherst, 1965; PhD, Michigan State, 1969

Jean-Pierre Flatt, BS, Gymnase Cantonal Lausanne, 1952; PhD, 1959

Thomas B. Miller Jr., BA, George Peabody, 1966; PhD, Vanderbilt, 1970

Carel Mulder, BS, University of Leiden, 1951; PhD, Leiden, 1955

Distinguished Professor

Quentin H. Gibson, MBA, Cambridge, 1941; MD, 1944; PhD, 1947

Professors

Howard Hughes Medical Institute Investigator; H. Arthur Smith Chair in Cancer Research

***Roger J. Davis**, BA, Cambridge, 1979; MPhil, 1980; MA, PhD, 1983

Howard Hughes Medical Institute Investigator; Lambi and Sarah Adams Chair in Genetic Research

***Michael R. Green**, BS, Wisconsin, 1974; MD, PhD, Washington, 1981

Howard Hughes Medical Institute Investigator

Melissa Moore, BS, College of William and Mary, 1984; PhD, MIT, 1989

Howard Hughes Medical Institute Investigator; Gretchen Stone Cook Chair in Biomedical Sciences

Phillip D. Zamore, BA, Harvard, 1986; PhD, 1992

Vitold Arnett Professor of Cell Biology

Thoru Pederson, BA, Syracuse, 1963; PhD, 1968

Anthony Carruthers, BS, Manchester, 1977; PhD, London King's College, 1980

***Michael P. Czech**, BA, Brown, 1967; MA, Duke, 1969; PhD, Brown, 1972

* joint appointment

***Mark Dershwitz**, BA, Oakland, 1974;
MD, PhD, Northwestern, 1982

***Stephen J. Doxsey**, BS, Connecticut, 1977;
PhD, Yale, 1987

Kendall Knight, BA, Clark, 1975; PhD,
California, 1981

***David G. Lambright**, BS, UMass Lowell;
PhD, Stanford, 1992

Martin G. Marinus, BS, Otago, 1965; PhD, 1968

John R. McCullough, BA, Brooklyn, 1970;
PhD, SUNY Downstate, 1980

***Craig L. Peterson**, BS, Washington, 1983;
PhD, California, 1988

Alonzo H. Ross, BA, Cornell, 1972; PhD,
Stanford, 1977

William E. Royer Jr., BS, Pennsylvania State,
1976; PhD, Johns Hopkins, 1984

Celia A. Schiffer, BA, Chicago, 1986;
PhD, California/San Francisco, 1992

Lawrence J. Stern, BA, Cornell, 1983;
PhD, MIT, 1989

Zuoshang Xu, MD, Shanghai, 1982;
PhD, Washington, 1990

Adjunct Professor

George E. Wright, BS, Illinois, 1963; PhD, 1967

Associate Professors

Job Dekker, BS, Utrecht, 1993; PhD, 1997

William R. Kobertz, BS, California/Berkeley,
1992; PhD, MIT, 1998

Charles G. Sagerström, BA, Macalester, 1987;
PhD, Stanford, 1993

Research Associate Professors

James Evans, Ohio State; Northeastern

Omanand Koul, BS, Jammu and Kashmir, 1966;
MS, Banaras Hindu, 1968; PhD, 1974

Sun Tam, BS, Boston College, 1984; PhD,
Boston, 1990

Assistant Professors

Balaji Bhyravbhatla, BS, Delhi, 1986; MS,
1988; MS, UMass Boston, 1990; PhD,
Brandeis, 1997

Daniel Bolon, BS, New Hampshire, 1995; PhD,
Yale, 2001

***Zdenka Matijasevic**, BS, University of Zagreb,
1971; PhD, 1981

***Haley Melikian**, BS, UMass Amherst, 1983;
PhD, Emory, 1995

Stephen C. Miller, BS, Wisconsin, 1991;
PhD, California/San Francisco, 1998

Mary Munson, BA, Washington, 1989;
PhD, Yale, 1996

Oliver Rando, BA, Harvard, 1995; MD/PhD,
Stanford, 2002

Nicholas R. Rhind, BA, BS, Brown, 1989;
PhD, California/Berkeley, 1995

Sean Ryder, BS, Duke, 1997; PhD, California
Institute of Technology, 2002

Scot A. Wolfe, BS, California Institute of Tech-
nology, 1990; MA, Harvard, 1992; PhD, 1996

Research Assistant Professors

Akbar Ali, BS, Punjab University, 1991;
PhD, University of Karachi, 2001

Osman S. Bilsel, BA, Rochester, 1986;
PhD, Washington, 1991

Hong Cao, BS, Beijing, 1984; MS, Tsinghua,
1987; PhD, Hiroshima, 1996

John D. Leszyk, BS, SUNY Oswego, 1984;
PhD, Clarkson, 1987

Elisabet C. Mandon, BA, National (Laplata),
1982; MA, 1983; PhD, 1987

Jill A. Zitzewitz, BA, Carthage, 1986;
MS, Washington, 1988; PhD, 1991

Adjunct Assistant Professor

Alice A. Gardner, BS, Fontbonne, 1990;
PhD, St. Louis, 1998

Adjunct Research Assistant Professor

Jeffrey C. Nichols, BS, Texas Tech, 1988;
PhD, Rice, 1995

Instructors

Li Li, BS, Fudan University, 1987; PhD,
University of Hong Kong, 1999

Ralph Zottola, BS, SUNY Binghamton,
1985; PhD, UMass Worcester, 1995

Research Instructor

Daniel Kelleher, BA, Holy Cross, 1969

* joint appointment

"I chose UMass Medical School because I could sense that the faculty and students have great camaraderie. There is an emphasis on team learning."

Annie Kruger
MD/PhD student

Annie received a master's of science in public health degree from Harvard and then worked in the pharmaceutical consulting industry before pursuing a medical degree. She is looking forward to becoming a full-time physician-scientist and has received a taste of both clinical medicine and research at UMMS that has helped reveal her path. "The curriculum teaches you how to ask questions no matter what field you choose."

Cancer Biology

The Department of Cancer Biology is distinguished by:

- a clear mission to understand basic and fundamental molecular abnormalities of human cancer; and
- a productive integration with interdisciplinary and transdepartmental cancer programs sponsored by the UMass Cancer Center, a unique venue to quickly and safely translate achievements from the basic sciences into novel opportunities for the prevention, diagnosis and treatment of human cancer.

The Department of Cancer Biology was established in 2002 to provide the strongest basic science platform for cancer research at the University of Massachusetts Medical School. Housed on the fourth floor of the Aaron Lazare Medical Research Building, the department strives to develop outstanding basic research programs in all the fundamental cellular, molecular and genetic mechanisms involved in the malignant transformation and development of human cancer. Research areas represented in the department include the molecular analysis of cell proliferation and cell cycle checkpoints; the study of genes implicated in cellular motility and signal transduction; the elucidation of mechanisms that underlie tumor cell invasion and metastatic dissemination; the identification and functional analysis of cancer stem cells; and the establishment of genetic models of human cancer, especially acute leukemia and breast cancer.

Faculty members in the department are also actively engaged in the UMass Cancer Center, an interdisciplinary and transdepartmental initiative that combines outstanding clinical care, cutting-edge research, and wide-ranging preventive and behavioral studies to provide cancer care to oncology patients in our communities.

Cancer Biology Faculty

Professor and Chair

Eleanor Eustis Farrington Chair in Cancer Research

Dario C. Altieri, MD, Milan, 1981

Professor and Vice Chair

Arthur M. Mercurio, BS, Rutgers, 1975; PhD, Columbia, 1981

Professors

Ali and John Pierce Chair in Pediatric Hematology/Oncology

***Peter E. Newburger**, BA, Haverford, 1970; MD, Harvard, 1974

Eric H. Baehrecke, BS, UMass Amherst, 1986; MS, Texas A&M, 1988; PhD, Wisconsin, 1992

Chung-Cheng Hsieh, BS, National Taiwan, 1976; MPH, 1978; SM, Harvard, 1980; DSc, 1985

Lucia Languino, PhD, Negri Institute of Pharmacology, 1984

Associate Professors

Steven Grossman, BA, Princeton, 1984; PhD, Chicago, 1989; MD, 1991

Michelle A. Kelliher, BA, Smith, 1981; MS, Yale, 1985; PhD, Tufts, 1991

Stephen Lyle, BA, Chicago, 1988; MS, 1988; PhD, 1993; MD, 1995

Leslie M. Shaw, BS, Trinity, 1987; PhD, Harvard, 1994

** joint appointment*

Assistant Professors

Sharon B. Cantor, BS, Michigan, 1990; PhD, Tufts, 1997

Jianyuan Luo, BS, Peking, 1986; MS, 1990; PhD, Kentucky, 1999

Junhao Mao, BA, Zhejiang University, China, 1993; PhD, Rochester, 2002

Karl Simin, BS, Michigan, 1989; PhD, Utah, 2001

Merav Socolovsky, BA, Cambridge, 1983; MBBS, University College, 1986; PhD, Cambridge, 1993

Hayla Sluss, BA, Wheaton, 1988; PhD, UMass Worcester, 1998

Research Assistant Professors

Hira Lal Goel, MSc, Kurukshetra, 1998; PhD, NIPER, 2002

Hoi Pang Low, BS, Campbell University, 1982; MS, Georgia, 1990; PhD, Georgia, 1996

Paul Mak, BS, Boston, 1978; PhD, Northwestern, 1984

Instructors

Byoung Heon Kang, BS, Kaist, 1995; MS, Postech, 1997; PhD, 1999

Seema Paliwal, BS, Rohilkhand University, 1990; MS, Deemed University, 1993; PhD, Delhi University, 1999

Adjunct Faculty

David S. Garlick, BA, Brandeis, 1980; DVM, Tufts, 1985

Irwin Leav, BA, Ohio, 1959; DVM, 1965



Cell Biology

The Department of Cell Biology is notable for:

- a rank of 14 nationwide for research among medical school cell biology departments for the last 12 years;
- faculty consistently recognized for excellence in medical education; and
- its position as the lead department for human embryonic stem cell research and interdepartmental research program grants investigating nuclear structure and cancer, and cell structure and musculoskeletal disease.

Research in the Department of Cell Biology combines the use of molecular, cellular and *in vivo* genetic approaches to address structure-function relationships associated with control of cell growth and cell differentiation. Signal transduction mechanisms, cell motility, tumor suppression and metastasis, chromatin structure, as well as subnuclear assembly of the regulatory machinery that mediates the developmental expression of proliferation and tissue-specific genes in lineage committed cells and human embryonic stem cells, are investigated. The department provides training for MD, PhD and MD/PhD students in the underlying genetic, molecular and cellular bases of diseases, including muscular dystrophy, cancer, diabetes, osteopetrosis, osteoporosis, central nervous system defects and kidney disease.

Faculty bring their expertise into the first-year classroom as teachers of gross anatomy, neuroscience, histology, cell biology and human genetics—with all involving molecular, cellular and developmental concepts. They provide students with the opportunity to directly observe the normal structure of the human body at the gross and cellular levels, and to relate this experience to normal function and clinical problem solving.

Throughout the four-year curriculum, faculty contribute to additional courses, clerkships and electives that further prepare students for clinical practice. Departmental research and teaching programs emphasize interdisciplinary collaborations with colleagues in clinical and in other basic science departments.

Cell Biology Faculty

Professor and Chair

Gerald L. Haidak, MD, and Zeldia S. Haidak
Professor of Cell Biology

Gary S. Stein, BA, Hofstra, 1965; MS, 1966;
PhD, Vermont, 1969

Professor and Vice Chair for Medical Education

Susan B. Gagliardi, BA, Radcliffe, 1965; PhD,
Harvard, 1971

Professor and Vice Chair

Anthony N. Imbalzano, BA, Pennsylvania, 1986;
PhD, Harvard, 1991

Professors Emeriti

Sam L. Clark, MD, Harvard, 1949

Geraldine F. Gauthier, BS, Massachusetts
College of Pharmacy, 1954; MS, 1955; AM,
Radcliffe, 1956; PhD, 1962

Distinguished Professor

Sheldon Penman, BS, Pennsylvania State,
1954; PhD, Columbia, 1958

Professors

Howard Hughes Medical Institute Investigator;
Blais University Chair in Molecular Medicine

***Craig C. Mello, BS, Brown, 1982; PhD,**
Harvard, 1990

George F. Booth Chair in the Basic Sciences

George B. Witman III, BA, California/Riverside,
1967; PhD, Yale, 1972

***Neil Aronin, BA, Duke, 1970; MD, Pennsylvania,**
1974

***Kethandapatti C. Balaji, MD, Madras Medical**
College (India), 1986

***Alexei Bogdanov, BA, Moscow State University,**
1981; MS, 1983; PhD, All-Union Cardiology
Research Center, 1989

Roger W. Craig, BS, Sydney University (Australia),
1969; PhD, King's College (London), 1975

***Stephen J. Doxsey, BS, Connecticut, 1977;**
PhD, Yale, 1987

***Raymond M. Dunn, BS, WPI, 1978; MD,**
Albany Medical, 1982

Harvey M. Florman, BA, Rutgers College, 1972;
PhD, Pennsylvania, 1982

***Mark I. Furman, BA, Emory, 1983; MD, 1987**

Deborah Harmon Hines, BS, LeMoyne-Owen,
1970; PhD, Tennessee, 1977

***Sharesh Kaushal, BS, Yale, 1983; MD, Johns**
Hopkins, 1988, PhD, MIT, 1993

***Lucia Languino, BS, University of Bari (Italy),**
1981; PhD, Negri Institute, Milan, 1981

Jeanne B. Lawrence, BA, Stephens, 1973;
MS, Rutgers, 1975; PhD, Brown, 1982

***Mary Lee, AB, Harvard-Radcliffe, 1979;**
MD, SUNY Buffalo, 1983

Jane B. Lian, BS, Fordham, 1965; MS,
Rochester, 1967; PhD, Boston, 1972

Elizabeth J. Luna, BA, Southern Illinois, 1972;
PhD, Stanford, 1977

Gerald A. Schwarting, BS, Connecticut, 1969;
PhD, Munich, 1974

Greenfield Sluder, AB, Middlebury, 1968;
PhD, Pennsylvania, 1976

Janet L. Stein, BS, Elizabethtown, 1968;
MA, Princeton, 1971; PhD, 1975

***Yu-li Wang, BS, National Taiwan, 1973;**
PhD, Harvard, 1980

Merrill K. Wolf, BA, Yale, 1945; MD, Case
Western Reserve, 1956

***Robert B. Zurier, BS, Rutgers, 1955;**
MD, Texas/Southwestern, 1962

Adjunct Professors

Daniel Baran, BS, Boston College; MD,
Rochester, 1973

Zvi Bar-Shavit, BS, Hebrew, 1973; MS,
Weizmann Institute, 1976; PhD, 1981

Martin A. Montecino, MS, University of Concep-
cion (Chile), 1991; PhD, UMass Worcester, 1996

Abdul R. Shakoobi, BS, Punjab, 1960; MS,
1962; DS, Hohenheim, 1972

* joint appointment

(continued)

(Cell Biology Faculty continued)

Associate Professors

Athena Andreadis, BA, Harvard, 1977; PhD, MIT, 1984

John M. Cooke, AB, Providence, 1966; PhD, UMass Amherst, 1976

***Andrew H. Fischer**, BS, Cornell, 1979; MD, Brown, 1984

***Daniel Z. Fisher**, BA, Swarthmore, 1982; PhD, Rockefeller, 1987; MD, Cornell, 1988

***Anne M. Gilroy**, BA, Rhode Island, 1974; MA, San Jose State, 1980

***Yicktung T. Ip**, BS, National Defense, 1984; PhD, Iowa, 1989

***Marci Jones**, BA, Johns Hopkins; MD, Vermont College of Medicine, 1994

Stephen N. Jones, BA, Virginia, 1982; PhD, Vanderbilt, 1987

***Daniel Kilpatrick**, BA, California/San Diego, 1974; PhD, Duke, 1980

***Joan Mannick**, AB, Harvard-Radcliffe, 1980; MD, Harvard, 1985

Jeffrey A. Nickerson, BS, Michigan State, 1976; PhD, 1985

***Cristiana Rastellini**, BS, Camillo Benso Conte di Cavour (Italy), 1986; MD, University of Rome, 1992

Andre J. van Wijnen, BS, Utrecht, 1983; MSc, 1986; PhD, UMass Worcester, 1991

***Zuoshang Xu**, MD, Shanghai, 1982; PhD, Washington, 1990

Research Associate Professors

Paul R. Odgren, BS, UMass, 1989; PhD, UMass Worcester, 1995

Kelly P. Smith, BA, Hendrix, 1981; MS, North Texas State, 1984; PhD, Texas, 1991

John L. Woodhead, BS, Massey, 1972; MS, 1974; PhD, 1979

Adjunct Associate Professors

***Pamela S. Becker**, AB, Harvard-Radcliffe, 1979; PhD, MD, Harvard, 1986

Steven B. Koevary, BA, CUNY/Queens, 1977; PhD, Mount Sinai, 1981

Assistant Professors

***Zheng Z. Bao**, BS, Fudan University (China), 1986; PhD, Illinois/Urbana, 1993

Jeanne D. Keller, AB, Radcliffe, 1951; MD, Boston, 1955

David S. Lapointe, BA, Pennsylvania, 1970; PhD, Florida, 1979

Maria A. Morabito, PhD, University La Sapienza (Italy), 1979

***Mary Munson**, BA, Washington University in St. Louis, 1989; PhD, Yale, 1996

***Nicholas R. Rhind**, BA, BS, Brown, 1989; PhD, California/Berkeley, 1995

Jaime Rivera, BS, Universidad Autonoma de Nuevo Leon (Mexico), 1990; PhD, Texas Health Science Center/Houston, 1997

***Jie Song**, BS, Fudan University, Shanghai, 1995; PhD, Michigan State, 1999

Hong Zhang, BS, Fudan University (China), 1991; PhD, Michigan State, 1998

Research Assistant Professors

Paul J. Fanning, BS, Merrimack, 1986; PhD, Harvard, 1999

Lisa Hall, BA, Colorado College, 1988; PhD, California/Davis, 1996

Gregory H. Hendricks, BS, Arizona State, 1976; MS, 1983; PhD, Vermont, 2000

Timothy Henion, BS, SUNY, 1986; PhD, Medical College of Pennsylvania, 1996; MS, Roswell Park, 1999

Melissa J. Jungnickel, BSc, Newcastle, 1993; PhD, 1999

Karl-Ferdinand Lechtreck, PhD, University of Cologne (Germany), 1991

Xiang-Dong Li, BS, East China University of Science and Technology, 1990; PhD, Shanghai Institute of Biochemistry, Chinese Academy of Science, 1996

Mai Luong, BA, Middlebury, 1995; PhD, UMass Worcester, 2003

Zdenka Matijasevic, BS, Zagreb, 1971; MS, 1976; PhD, 1982

Jitesh Pratap, BS, Delhi, 1989; MS, 1992; PhD, Punjab, 1998

Keith A. Sutton, BS, Edinburgh, 1991; PhD, 1995

Adjunct Assistant Professors

Amjad Javed, BS, Government College (Pakistan), 1987; MS, University of the Punjab (Pakistan), 1990; PhD, 2001

Ronald Ignatz, BA, Washington & Jefferson, 1975; PhD, Pittsburgh, 1984

Instructors

Stephen Baker, BS, Worcester State, 1976; MS, UMass Amherst, 1983

Tripti Gaur, MS, Pant University of Agriculture & Technology (India), 1996; PhD, University of Delhi (India), 2002

Mohammed Q. Hassan, BS, Bidhan Chandra Krishi, 1986; DVM, Indian Veterinary Research Institute, 1989; PhD, Indian Institute, 1995

Rajini Mudhasani, BS, Osmania, 1993; MS, Pune, 1996; PhD, Cleveland State, 2004

Shirwin Pockwinse, BA, New Hampshire, 1969

Norio Takizawa, BS, Hokkaido, 1992; MS, 1994; PhD, 1997

Yumi Uetake, BSc, Japan Women's University, Tokyo, 1994; MS, Ochanomizu University (Japan), 1996; PhD, 1999

Ronglin Xie, MD, China Medical, 1978; MS, 1988

Sayed K. Zaidi, BS, Punjab University (Pakistan), 1995; MS, 1998; PhD, 2003

Voluntary Faculty

David Hill, BS, Montana, 1989; PhD, Washington State, 1998

* joint appointment



Emergency Medicine

The Department of Emergency Medicine holds the distinction of:

- being one of the beneficiaries of a dramatic \$129 million renovation of the emergency department on the University Campus of UMass Memorial Medical Center, completed in 2006;
- having the busiest single aircraft air ambulance service in the country;
- caring for more than a 135,000 patients annually;
- having several specialized divisions with fellows in Ultrasound, Disaster Medicine and Emergency Management, Toxicology, Prehospital Care and;
- having a strong basic science and clinical research program.

The knowledge of life supportive measures as well as the recognition and management of common medical emergencies are fundamental for all medical students. Emergency Medicine faculty are committed to these priorities by providing instruction through lectures, workshops and bedside teaching throughout the four-year curriculum. The department offers career guidance and support by acting as individual advisors and preceptors as well as holding panel discussions several times a year.

During the first two years of study, faculty teach a variety of courses including Basic Life Support, Physical Diagnosis II (PDII) and enrichment electives in wilderness medicine. Students can opt to utilize the emergency department as their teaching site in PDII. The department also instructs with other disciplines in the Care for the Seriously Ill, Pharmacology and Cultural Awareness courses. A career in Emergency Medicine can be explored with faculty who are longitudinal program preceptors and advisors or by attending informative events coordinated with the student Emergency

Medicine Interest Group (EMIG). Hands-on experiences in the simulation lab, suturing, airway and splinting workshops are offered during the academic year. Additionally, research and international emergency medicine opportunities are available. In the third year students spend a portion of their core surgery and pediatric outpatient experiences in the emergency department, participating in patient evaluations.

The department offers eight clerkships per month for fourth-year medical students to gain a broad understanding of acute care medicine. During this rotation, students play primary roles in patient assessment and care, develop problem-solving skills as well as learn a variety of procedures. Emphasis is placed on providing students with exposure to a wide range of conditions including those that are life-threatening and their immediate management. Prehospital experience including paramedic ambulance rides can also be included. The department also sponsors an emergency medicine research elective for fourth-year students that pairs the student with one of our research faculty in the laboratory or clinical areas of interest.

Emergency Medicine Faculty

Professor and Chair

Gregory A. Volturo, BS, Rutgers, 1978; MD, Loyola/Stritch, 1982

Professor Emeritus

Richard V. Aghababian, BA, Harvard, 1970; MD, UMass Worcester, 1974

Professors

Christopher H. Linden, BA, Amherst College, 1975; MD, UMass Worcester, 1979

Francis P. Renzi, BA, Saint Anselm, 1974; MD, UMass Worcester, 1981

Associate Professors

Edward W. Boyer, BA, Vanderbilt, 1983; MA, Columbia, 1984; PhD, 1988; MD, 1995

Romolo J. Gaspari, BS, George Washington, 1991; MD, Tufts, 1997

Constance G. Nichols, BS, King College, 1979; MD, Bowman Gray School of Medicine, 1983

Eric W. Schmidt, BS, Northeastern, 1979; MD, UMass Worcester, 1983

Mary C. Burke, BA, Williams, 1979; MD, Boston, 1983; MHA, Clark, 1995

Robert P. Ferm, BA, Amherst College, 1977; MD, Yale, 1981

Assistant Professor and Vice Chair of Clinical Operations

Peter Paige, BS, LeMoyne College, 1985; MD, SUNY Syracuse, 1989

Assistant Professors

Harry Arters, BA, Assumption College, 1990; DO, Kirksville College of Osteopathic Medicine, 1995

Steven B. Bird, BS, Yale, 1991; MD, Northwestern, 1995

David Blehar, BS, Brandeis, 1998; MD, UMass Worcester, 2002

Gideon Bosker, BA, Pennsylvania, 1972; MD, Washington, 1976

David E. Brush, BA, Miami, 1994; MD, Dartmouth, 1999

Michael Butler, BS, Tufts, 1989; MD, Texas Health Science, 1996

Ravi Channappa, BS, Bangalore University, 1994; MD, Kempegowda Institute of Medicine, 1988

L. Bryan Cheshire, BS/MS, South Alabama, 1987; MD, 1991

James Courtney, BS, St. Michael's College, 1993; DO, New England College of Osteopathic Medicine, 2003

Michael A. Coyne, BA, Holy Cross, 1980; MD, UMass Worcester, 1984

Jeffrey Cukor, BS, Tufts, 1990; MD, UMass Worcester, 1994

Joseph J. Currier, BA, Harvard, 1989; MD, Albany Medical School, 1994

Chad E. Darling, BS, Pittsburgh, 1993; MD, Dartmouth, 1997

James A. Fitch, BA, UMass Amherst, 1989; MD, UMass Worcester, 2001

Gayle M. Galletta, BS, Georgetown, 1991; MS, 1992; MD, 1997

(continued)

(Emergency Medicine Faculty continued)

Marc A. Gautreau, BA, UMass Amherst, 1986; MA, Chicago Medical, 1991; MD, 1995

Katherine Harrison, BA, Yale, 1993; MD, UMass Worcester, 2001

Corey Harrison, BSc, Allegheny College, 1995; MD, SUNY Buffalo, 1999

Ronald Hayden, BA, Williams College, 1980; MD, Cincinnati College of Medicine, 1985; MBA, Illinois, 1990

Christian Heinis, BS, UMass Lowell, 1995; MA, Chicago Medical School, 1996; MD, 2000;

Debra W. Heitmann, BA, NYU, 1985; MS, Pennsylvania, 1989; MD, 1994

Christina Hernon, BS, UMass Amherst, 1994; MD, UMass Worcester, 2002

Michael Hochberg, BA, Pace, 1996; MD, SUNY Buffalo, 2000

Katharyn Kennedy, MBBCH, University College of Dublin, 1986

Andre B. Markarian, BS, Cornell, 1991; MD, Mount Sinai, 1996

Mariah McNamara, BA, Vermont, 1998; MD, 2002

Alexander Matolcsy, BS, Georgetown, 1966; MD, University of Vienna; 1975

Robert F. McCarron, BA, Boston, 1969; MD, UMass Worcester, 1982

Anthony Montoya, BA, San Jose State, 1993; MD, Pittsburgh, 2003

Marie T. Mullen, BA/BS, Texas A&M, 1991; MD, Texas Health Science, 1995

Elyssa Aronson Pellish, BA, Yale, 1998; UMass Worcester, 2001

David Polan, BA, Cornell, 1998; MD, Jefferson Medical College, 2004

Marc Restuccia, BS, Boston College, 1980; MD, UMass Worcester, 1984

Sean Rhyee, BS, Michigan, 1996; MPH, 1998; MD, Rush University, 2002

Joyce Rosenfeld, BS, Illinois, 1979; MS, DePaul, 1982; MD, Mount Sinai, 1988

Ajeet J. Singh, BA, Drew, 1981; MD, Tennessee, 1988

Veera Sudireddy, MD, Siddhartha Medical College, 1987

James Sullivan, BA, Johns Hopkins, 1986; MD, Robert Wood Johnson School of Medicine, 1995

Joseph Tennyson, BS, Framingham State, 2001; MD, UMass Worcester, 2005

Stacey N. Weisberg, BA, Rochester, 1995; MD, New Jersey Medical School, 1999

Ann Marie Testarmata, BS, UMass Amherst, 1977; MD, UMass Worcester, 1981

Paul A. Zgurzynski, BS, Boston College, 1991; MD, Georgetown, 1995

Instructors

George E. Deering, BS, UMass Amherst, 1973; MD, UMass Worcester, 1977

Janine Gould, BA, Holy Cross, 1985; DO, New England College of Osteopathic Medicine, 1990

Jonathan Grayzel, BA, Wesleyan, 1985; MA, Illinois, 1988; MD, Harvard, 1995

Allison E. LaRusso, BA, Saint Anselm, 1988; MD, UMass Worcester, 1999

Michelle Mendoza, BA, NYU, 2001; MD, 2005

Brian Mongillo, BA, Yale, 1982; MD, Tufts, 1989

Cynthia Moon, BA, Wellesley, 1998; MD, St. Louis, 2004

Christopher Rosenbaum, BA, Holy Cross, 1999; MD, Loyola, 2005

Steven F. Siraco, BS, UMass Amherst, 1986; MA, 1988; MD, UMass Worcester, 1992

Robert Srebnik, BA, SUNY Buffalo, 1976; MD, University of Rome Faculty of Medicine and Surgery, 1982

David S. St. Laurent, BS, Providence College, 1980; MD, UMass Worcester, 1985

Birendra K. Sinha, MD, Prince of Wales Medical College, 1974

Gregory Steinberg, BS, Tufts, 1985; MD, UMass Worcester, 1997



Family Medicine & Community Health

The Department of Family Medicine & Community Health's faculty are:

- recognized nationally and by the University for their commitment to public service and community health;
- pioneers in community-based medical education; and
- nationally renowned leaders in faculty development.

One of the founding departments of UMass Medical School, the Department of Family Medicine & Community Health offers students a wide variety of educational, research and service activities. The department was ranked 14th among the nation's medical schools by *U.S. News & World Report* in its "2010 America's Best Graduate Schools" issue. Family Medicine faculty include a large number of family physicians working in a variety of settings across Central Massachusetts, ranging from urban and rural health centers to more traditional private practice settings.

Health care provided to underserved populations is also a major focus of the department. In Community Health, faculty interests include population medicine, prevention, evidence-based medicine, health care for the homeless and health policy. A leader in providing primary care and community-based educational experiences for the Medical School, the department's undergraduate programs include involvement in several courses during the first and second years, such as the Physician, Patient and Society course, Epidemiology and the Community Medicine clerkship.

In addition to serving as student advisors, faculty members precept students in the Longitudinal Preceptorship Program, which places students with a practicing family physician in the community for several sessions each semester, allowing them to interact with patients and develop their interviewing skills. Faculty members also support the interclerkship programs dedicated to special issues such as domestic violence, environmental health and health care policy. For students interested in learning more about family practice, the department supports a student-run Family Medicine Interest Group, which meets several times each year.

Research opportunities in the department are varied, and student involvement is supported by several summer work study programs which have led to publication, national presentations and international experiences. Service opportunities include programs that link international health experiences with specialized educational tracks, designed to enhance cultural awareness.

The department's major predoctoral focus for the third year is sponsorship of the six-week Family Practice clerkship. A required experience for all students, this clerkship places students in community-based practices. Sites include community health centers, family medicine residency training sites, HMOs and private practices. The department also sponsors the four-year Pathway on Serving Underserved and Multicultural Populations and the Rural Health Scholars Program, as well as graduate training programs in family medicine, sports medicine, preventive medicine, hospital medicine and general dentistry.

A variety of fourth-year electives are available to students interested in exploring additional areas of family medicine and community health. These include preceptorships in urban underserved areas, rural medicine, student health, Indian Health Service and global health. A subinternship in Family Practice is also available. Additionally, the department participates in the Senior Scholars Program, allowing students to choose from numerous areas of interest.

Family Medicine & Community Health Faculty

Professor and Chair

Daniel H. Lasser, BA, SUNY Buffalo, 1970; MD, 1974; MPH, Harvard, 1987

Professor Emerita

***Mary K. Alexander**, BS, Vermont, 1971; EdD, UMass Amherst, 1985

Professors

Dr. John Meyers Professor of Primary Care Medicine

***Jerry H. Gurwitz**, AB, Dartmouth, 1978; MD, UMass Worcester, 1983

Linda F. Weinreb, BA, Washington, 1977; MD, Hershey, 1981

Robert A. Baldor, BS, Vermont, 1977; MD, 1983

Lucy M. Candib, BA, Radcliffe, 1968; MD, Harvard, 1972

***Marjorie A. Clay**, BA, Oklahoma, 1969; MA, Northwestern, 1971; PhD, SUNY Buffalo, 1981

Joseph R. DiFranza, BS, UMass Amherst, 1976; MD, UMass Worcester, 1981

***Stephen H. Gehlbach**, AB, Harvard, 1964; MD, Case Western Reserve, 1968; MPH, North Carolina, 1973

Michael A. Godkin, BS, London, 1968; MS, Ohio State, 1972; PhD, Clark, 1977

Jay S. Himmelstein, BA, Johns Hopkins, 1974; MD, Maryland, 1978; MPH, Harvard, 1980; MS, 1982

Jennifer Kelsey, BA, Smith, 1964; MPH, Yale, 1966; MPhil, 1968; PhD, 1969

Mark E. Quirk, BA, Bates, 1974; MEd, Boston College, 1975; EdD, Clark, 1982

Carole C. Upshur, BA, Southern California, 1969; EdM, Harvard, 1970; EdD, 1975

Joel Weissman, SB, MCP, MIT, 1976; PhD, Brandeis, 1987

Clinical Professors

F. Alexander Blount, BA, Wesleyan, 1967; EdD, UMass Amherst, 1976

***Leonard J. Morse**, BA, American International, 1951; MD, Maryland, 1955

* joint appointment

(continued)



“Our faculty is young and energetic and already has achieved world renown, including top honors in diabetes, bone and mineral metabolism and the growing number of HHMI faculty.”

Neil Aronin, MD

Professor of Medicine,
Cell Biology and Physiology

UMass Medical School boasts five investigators of the prestigious Howard Hughes Medical Institute within its collaborative faculty ranks. “A sense of excitement pervades the campus,” says Dr. Aronin. “Research at UMMS has far-reaching effects in science and clinical application, as evidenced by the recent awards to faculty of the Nobel Prize in Medicine and the Lasker Award.” Aronin emphasizes that student involvement in the Medical School’s varied programs provides a foundation upon which faculty study new ideas for improving clinical practice and understanding mechanisms of disease.

(Family Medicine & Community Health continued)

Adjunct Professors

Roger Bibace, BA, British Columbia, 1949; PhD, Clark, 1957

Sharon Cermak, BS, Ohio, 1969; MS, Boston, 1971; EdD, 1981

N. Lynn Eckhert, BA, Denison, 1964; RN/MS, New York Medical, 1966; MD, SUNY Buffalo, 1970; MPH, Johns Hopkins, 1973; DrPH, 1981

Aviva Must, BA, NYU, 1976; MS, Tufts, 1987; PhD, Tufts, 1992

David Schottenfeld, AB, Hamilton, 1952; MD, Cornell, 1956; MSc, Harvard, 1963

David Sugarman, AB, Clark, 1974; MS, Yeshiva, 1976; PhD, 1982

Associate Professors

Patricia H. Bazemore, BA, Radcliffe, 1962; MD, Yale, 1966

Suzanne Cashman, BA, Tufts, 1969; MS, Cornell, 1974; ScD, Harvard, 1980

Robin E. Clark, BA, Appalachian State, 1974; MA, Connecticut, 1979; PhD, Brandeis, 1991

G. Dean Cleghorn, BA, Lee College, 1973; MS, Knoxville, 1977; EdD, 1978

Allard E. Dembe, BA, Vanderbilt, 1974; MA, Cornell, 1977; DS, UMass Lowell, 1994

Frank J. Domino, BA, Drew, 1982; MD, Texas, 1988

Michael C. Ennis, BA, Williams, 1979; MD, Rochester, 1983

Warren J. Ferguson, BS, UMass Amherst, 1977; MD, Boston, 1981

***Kenneth E. Fletcher**, BA, DePauw, 1968; MFA, Iowa, 1977; MS/PhD, UMass Amherst, 1988

Shannon Jenkins, BA, North Carolina, 1993; MD, East Carolina, 1999

Roger S. Luckmann, BA, Yale, 1971; MD, Boston, 1976; MPH, California, 1986

***Joanne Nicholson**, AB, Syracuse, 1973; MS, Pennsylvania State, 1976; PhD, 1979

Darlene M. O'Connor, BA, Westfield State, 1976; MA, Southern Illinois, 1981; PhD, Brandeis, 1987

***Edward Peskin**, BA, Wisconsin, 1970; MD, Washington, 1974

Samuel Pickens, BA, Hope, 1950; MD, Wayne State, 1954

Glenn Pransky, BS, Johns Hopkins, 1977; MD, Tufts, 1981; MPH, Harvard, 1985

Michele P. Pugnaire, BS, McGill, 1976; MD, 1980

David Rosenfield, BA, Northwestern, 1967; MD, 1970

Barry Saver, BS, Yale, 1976; AM, Harvard, 1979; MD, Columbia, 1983; MPH, Washington, 1989

* joint appointment

Joseph R. Stenger, BA, Yale, 1975; MD, Connecticut, 1979

Charles P. Sweet, BA, Oberlin, 1971; MD, Boston, 1976; MPH, 1990

Clinical Associate Professors

Stephen T. Earls, BA, George Washington, 1970; MD, 1973

Phillip O. Fournier, BA, Clark, 1981; MD, Tufts, 1986

Jeremy Golding, BA, Washington, 1983; MD, Case Western Reserve, 1987

Keith R. Hilliker, BA, Vermont, 1969; MD, 1974

***David M. Keller**, AB, Princeton, 1979; MD, Harvard, 1983

Beth K. Mazyck, BS, Oregon, 1979; MD, George Washington, 1984

Peter C. McConarty, BA, Harvard, 1969; MD, Rochester, 1973

Sara G. Shields, AB, Harvard-Radcliffe, 1984; MD, California/San Francisco, 1989; MS, Brown, 1994

Anthony Valadini, BA, Syracuse, 1971; MD, SUNY Upstate, 1975; MS, New York Institute of Technology, 1988

Research Associate Professors

J. Lee Hargraves, MA, Montana, 1985; PhD, Boston College, 1994

Judith A. Savageau, BS, Northeastern, 1977; MPH, Yale, 1980

Adjunct Associate Professors

Jeffrey M. Borkan, BA, Michigan, 1979; MA, Case Western Reserve, 1982; MD, 1984; PhD, 1987

Linda Simoni-Wastila, BS, North Carolina, 1985; MPH, 1987; PhD, Brandeis, 1993

Randy F. Wertheimer, BA, Swarthmore, 1971; MD, Boston, 1977

Robert J. Wellman, BA, California/Los Angeles, 1965; MS, Long Island, 1973; PhD, Connecticut, 1982

Assistant Professors

Sassan Abdollahzadeh, BS, UMass Amherst, 1983; MS, Kansas, 1986; PhD, Clark, 1992

Ronald N. Adler, BS, Tufts, 1982; MD, UMass Worcester, 1989

Mohammed Alhabbal, MD, Damascus University (Syria), 1994

Genevieve G. Anand, MBBS, Seth GS Medical, 1989; MPH, UMass Amherst, 2002

Nicholas Apostoleris, BA, Swarthmore, 1987; MA, Wesleyan, 1994; PhD, Clark, 2000

Carolyn Augart, BS, UMass Amherst; MD, UMass Worcester, 1999

Lakshmi Babu, MD, Kempegowda Institute of Medicine, Bangalore Univ. (India), 2005

Robert A. Babineau, Jr., BA, Notre Dame, 1969; MD, Tufts, 1973

Katherine C. Barnard, BA, Brown, 1995; MD, UMass Worcester, 2000

Jeffrey D. Baxter, BA, Rochester, 1991; MD, Washington, 1996

Nancy D. Berube, BS, WPI, 1981; MD, UMass Worcester, 1985

***Paul J. Block**, BA, Brandeis, 1973; MD, Boston, 1977

James B. Broadhurst, BA, Williams, 1974; MHA, Virginia Commonwealth, 1978; MD, Medical College of Virginia, 1982

Lisa Harrington Carter, BA, North Carolina, 1993; MD, 1999

***Matilde Castiel**, BS, California State, 1977; MD, California, 1982

Felix Chang, BA, San Jose La Salle College, 1975; MD, Universidad de Guayaquil (Ecuador), 1986

Arabinda Chatterjee, MD, Calcutta, 1976; MS, 1979

Vasilios Chrisostomidis, BA, Holy Cross, 1996; DO, New England College of Osteopathic Medicine, 2000

Alan B. Chuman, BA, SUNY Binghamton, 1973; MA, Pittsburgh, 1975; MPH, 1976

Linda Clark, BA, Brandeis, 1988; MD, Eastern Virginia, 1995

Christine Clements-Stein, BSc, Northeastern, 1979; MPH, Boston, 1982; PhD, Brandeis, 1999

Jacalyn Coghlin-Strom, BA, Middlebury, 1971; MD, Michigan, 1977; MPH, UMass Amherst, 1988

Matthew J. Collins, BA, UMass, 1990; MD, Howard, 1997

James F. Comes, BEd, Toledo, 1964; MSLS, Case Western Reserve, 1971; EdD, Ball State, 1978; MS, 1990

Gerald P. Corcoran, BS, Boston College, 1961; MD, Vermont, 1965

Macario Corpuz, BS, Far Eastern University, 1983; MD, 1988

Kathleen M. Corrigan, BS, Providence, 1979; MD, Brown, 1993

Reynold J. Dahl, BA, Augustana, 1973; MD, Minnesota, 1976

Philip DeChavez, MD, Pennsylvania, 1999

Silvia DeGirolamo, MA, Suffolk, 2007; PsyD, Chicago School of Psychology, 2004

Dianna Deignan, MD, Robert Wood Johnson Med. School, 2004

Konstantinos E. Deligiannidis, BA, Harvard, 1997; MS, Boston, 2000; MD, UMass Worcester, 2004

Malabika Dey, MD, NRS Medical College of Calcutta, 1993

Martin D. Devine, BS, UMass Lowell, 1986; MS, Arizona, 1991; MD, 1995

Dennis M. Dimitri, BA, Clark, 1975; MD, George Washington, 1979

Cheryl Divito, BA, Boston, 1997; DO, New England College of Osteopathic Medicine, 2002

Gina E. D'Ottavio, MD, UMass Worcester, 1982

Anna R. Doubeni, BS, Gordon, 1990; MD, Temple, 1995

Chyke A. Doubeni, MBBS, Lagos (Nigeria), 1987; MPH, UMass Amherst, 2004

Scott C. Early, MD, Dartmouth, 1986

Eloise Edgings-Pryce, MBBS, West Indies, 1980

Alan M. Ehrlich, BS, Rensselaer, 1980; MD, Medicine & Dentistry, 1984

Elizabeth A. Erban, BS, UMass Amherst, 1990; MD, UMass Worcester, 1994

Paul Esielionis, BS, Southeastern Massachusetts, 1977; MD, UMass Worcester, 1984

***Leon Fay**, MD, Cornell, 1977

***Louis E. Fazen III**, BA, Northwestern, 1965; MD, 1969; MPH, Johns Hopkins, 1973

Emily Ferrara, BS, Boston, 1980; MA, Lesley College, 2002

Leonard M. Finn, BA, Tufts, 1970; MD, UMass Worcester, 1974

Judy Fleishman, BA, Boston, 1979; PhD, Texas, 1986

Kristin Foley, BS, Bates, 1993; DO, New England College of Osteopathic Medicine, 2001

Sharon E. Fox, BA, Duquesne, 1991; PhD, Illinois, 1996

Erik J. Garcia, BA, Wesleyan, 1985; MD, Hahnemann, 1991

***Maria Garcia**, BA, Rutgers, 1984; MD, Pennsylvania Medical, 1994

Brenda Geddis-Comrie, BA, Yale, 1979; MD, SUNY/Buffalo, 1986

Jeffrey Geller, BS, UMass Amherst, 1992; MD, Tufts, 1996

Gerald S. Gleich, BA, Boston, 1975; MD, UMass Worcester, 1984

Pamela Grimaldi, BA, Quinnipiac, 1993; DO, New England College of Osteopathic Medicine, 1998

***Elizabeth Gundersen**, BS, William and Mary, 1994; MD, Virginia, 2000

***Jasen Gundersen**, BS, Fairfield, 1996; MD, Connecticut, 2000

Lisa S. Gussak, BS, Tufts, 1987; MD, Connecticut, 1994

John E. Harrington, AB, Holy Cross, 1972; MD, Case Western Reserve, 1976

Andrew Harris, BA, George Washington, 1983; MPH, Columbia, 1990; PhD, NYU, 2003

Ranjeesh S. Hazarika, MD, Gauhati, 2000; MS, Harvard, 2002

* joint appointment

(continued)

(Family Medicine & Community Health continued)

Yasmin Hirji, MD, American (Beirut), 1981

Kim D. Houde, AB, Mt. Holyoke, 1979; MS, Yale, 1981; MD, UMass Worcester, 1988

Pablo Hernandez Itriago, BS, San Ignacio, 1988; MD, Venezuela, 1996

Caren Jacobson, BS, Boston, 1975; MD, Case Western Reserve, 1990

Eydie I. Kasendorf, BA, UMass Boston, 1978; MA, Clark, 1982; PhD, 1992

Tracy Kedian, BS, McGill, 1992; MD, UMass Worcester, 1996

Candace J. Kim, BA, Colby, 1998, MD, American (British West Indies), 2002

Anita L. Kostecki, AB, Brown, 1987; MD, UMass Worcester, 1992

Eugene A. Lalancette, BS, Holy Cross, 1956; PhD, Cornell, 1960; MD, Penn, 1970

Roxanne Latimer, BS/BA, Pepperdine, 1993; MD, Boston, 2001

Marsha A. Lavoie, SB, MIT, 1976; MS, California/Berkeley, 1983; MD, 1985

Ann G. Lawthers, BA, Wellesley, 1974; MS, Harvard, 1979; DS, 1986

James Ledwith, BS, William and Mary, 1979; MD, Medical College of Virginia, 1983

Kathryn Lee, MD, Boston, 1999

Susan M. Lett, BS, Saint Anselm, 1973; MD, Medical College of Virginia, 1980; MPH, Harvard, 1987

Wen-Chieh Lin, BS, Chung Yuan, 1988; MS, Rensselaer, 1993; MS, Minnesota, 1996; PhD, 2000

Mary E. Lindholm, BA, Pennsylvania, 1985; MD, 1989

Charmaine Lobo, MD, Baylor, 1997

Rebecca Lubelczyk, BA, Vassar, 1992; MD, UMass Worcester, 1996

Robert Luby, BA, Dartmouth, 1985; MD, Columbia, 1989

Heather Mackey-Fowler, MD, SUNY Upstate; 2003

Kiame J. Mahaniah, MD, Thomas Jefferson University, 1997

Lee A. Mancini, BA, Harvard, 1995; MD, Jefferson Medical, 2000

Kathy Mariani, BS, Notre Dame, 1989; MD, Miami, 1994

David M. Matson, BA, Assumption, 1978; DMD, Tufts, 1981; MBA, Nichols, 1992

Bela T. Matyas, MD, California/San Diego, 1985

Joseph J. Mendola, BA, Boston College, 1969; MS, St. Louis, 1972; PhD, 1981

Terence Moran, BS, McGill, 1982; MD, Vermont, 1987

Valerie Moreland, BA, Point Loma, 1990; MD, Oklahoma, 1998

Daniel J. Mullins, BS, Cornell, 2000; MA, Spaulding, 2003; PsyD, 2006

Keith E. Nokes, MD, Connecticut, 1998

Mary Kay Nordling, BA, George Washington, 1992; MD, 1998

Daniel O'Donnell, BS, Siena, 1977; MD, Georgetown, 1981

Julie F. Ozaydin, MD, Tufts, 1994

Susan J. Pasquale, BA, UMass Lowell, 1975; PhD, Connecticut, 1990

Ellen Charmaine M. Pastrano, BS, St. Louis, 1997; MD, 2001

James S. Pease, BA, Morningside, 1970; MD, Minnesota, 1974; MPH, Harvard, 1978

Valerie F. Pietry, BA, Johns Hopkins, 1983; MS, MIT, 1985; MD, Dartmouth, 1989

Stacy Potts, BS, Vermont, 1994; MD, 1998

Ronald P. Preston, PhD, Yale, 1977

Christine M. Purington, BS, Tufts, 1976; MD, 1986

Melissa Rathmell, BS, MIT, 1984; MD, UMass Worcester, 1999

Parvane Rashidi-Birgani, MD, Shahid Beheshti University, Iran, 1993

Michael A. Reyes, BA, Boston, 1988; MA, 1988; MD, Loyola, 1998

Katherine Riggert, DO, New England College of Osteopathic Medicine, 2004

Blair Roberts, MS, Columbia, 1982; MPH, 1983; MD, Case Western Reserve, 1987

Christine Rooney, BA, Holy Cross, 1989, MD, UMass Worcester, 1995

Jeanne M. Rousseau, BA, Brandeis, 1984; DO, New England College of Osteopathic Medicine, 1990

Pierre A. Rouzier, BS, California/Davis, 1979; MD, Southern California, 1984

Laurel A. Ruzicka, MD, UMass Worcester, 1995

Stanley E. Sagov, MD, Capetown, 1967; BA, New England Conservatory of Music, 1973

Monisha Sarin, MBBS, Maulana Azad (India), 1984

Jeffrey Satnick, BA, Indiana, 1978; MD, Universidad Autonoma de Barcelona, 1982

Alexandra A. Schultes, BA, Wellesley, 1983; MD, UMass Worcester, 1987

Heidi Shah, BS, Yale, 1993; MD, Maryland, 1997

J. Martin Shanahan, BS, Nichols College, 1991; JD, Suffolk, 1998, MS, Harvard, 2002

Theodore M. Shoemaker, BA, New College, 1969; MD, Rochester, 1985; MS, 1985

Hugh Silk, MD, McMaster University, 1998

Elizabeth A. Siraco, BA, Wellesley, 1988; MD, UMass Worcester, 1994

Val W. Slayton, BA, Harvard, 1981; MPP, 1987; MD, 1987

Steven D. Staugaitis, BA, St. John's, 1973; MA, 1975; PhD, 1980

J. Herbert Stevenson, BA, Vermont, 1993; MD, 1998

Sheila Stille, BA, Rochester, 1986; DMD, Connecticut, 1992

Deborah A. Sullivan, BA, Boston College, 1991; MD, UMass Worcester, 1995

Martha Sullivan, BS, WPI, 1977; DDS, Case Western Reserve, 1983

Lise J. Tardif, BS, Laval, 1985; MD, 1989

Trinidad Tellez, BA, Harvard, 1985; MD, Dartmouth, 1997

Evan Teplow, BS, Middlebury, 1985; MD, Dartmouth, 1992

Stephen Toploski, BS, Brandeis, 1991; MD, Maryland, 1995

Sheila Trugman, BA, Brandeis, 1975; MD, Boston, 1979

Aaron W. Way, DO, Lake Erie College of Osteopathic Medicine, 2005

Sharada Weir, BA, Memorial (Newfoundland), 1991; MA, Toronto, 1992; DPhil, Oxford, 1998

Bernard A. Westerling III, BA, Holy Cross, 1969; MD, Tufts, 1973

***Peter B. Wilson**, BA, Swarthmore, 1979; MD, Rush, 1984

Ed Zaccaria, BS, Tufts, 1981; MD, George Washington, 1987

Mary L. Zanetti, BS, North Adams State, 1980; MEd, UMass Amherst, 1999; EdD, 2002

Clinical Assistant Professors

Mark Snowise, MD, Tufts, 1996

Rodd G. Stockwell, MD, SUNY Stony Brook, 1998

Research Assistant Professors

Carol Curtin, BA, Trinity, 1980; MSW, Boston, 1982

Elaine R. Martin, BA, Boston, 1975; MSLS, Chicago, 1976; DA, Simmons, 2005

Adjunct Assistant Professors

Wayne Altman, BA, Brandeis, 1990; MD, UMass Worcester, 1994

Robert C. Bradbury, BS, Holy Cross, 1967; MS, George Washington, 1971; MS, Ohio State, 1973; PhD, 1975

Courtney I. Jarvis, PharmD, Mass College of Pharmacy, 2000

Matthew Silva, PharmD, Mass College of Pharmacy, 2001

Heidi Standish, MS, Dalhousie, 1995; PhD, Oregon State, 1999

* joint appointment

Affiliates

Danuta J. Antkowiak, MD, Poznan, 1981
Gary H. Asher, BS, Randolph-Macon, 1967; MD, Medical College of Virginia, 1971
AI Bashevkin, BS, Connecticut, 1973; MSW, Boston, 1978
Alan J. Calhoun, BA, Wittenberg, 1971; MD, SUNY, 1975
Neil F. Cannon, BS, Fairfield, 1968; MD, Maryland, 1972
Jeffrey Cohen, BA, CCNY, 1971; MD, New York Medical, 1989
Paul M. Epstein, BS, CUNY, 1973; MD, George Washington, 1978
Paul H. Etkind, BA, Clark, 1974; MPH, Yale, 1976
William G. Ferrarone, BA, Holy Cross, 1978; MS, Simmons, 1983; PhD, California School of Professional Psychology, 1989
Sunita Godiwala, MBBS, Grant Medical, 1981
Paul L. Hart, MD, Memorial University, Newfoundland, 1993
Michael E. Huppert, BA, St. John's, 1969; MPH, Michigan, 1971
Michael S. Kaplan, BA, Columbia, 1973; MD, Rochester, 1977
***Cheong H. Kim**, MD, Seoul, 1963
Marilyn P. Leeds, BA, Brandeis, 1975; MPH, Michigan, 1976
Monica Lowell, BA, Brown, 1977
Francis J. McLaughlin, BA, MB, Dublin, 1974
Dean A. Morrel, BA, Drew, 1982; DO, University of Osteopathic Medicine, 1986
Keith C. Nabil, BA, California/San Diego, 1976; MD, Southern California, 1980
Edwin M. Ortiz, BA, Ineramerican, 1953; MD, Georgetown, 1957
Ronald F. Pike, BA, Assumption, 1971; MD, Rome, 1976
Dominick F. Roto, DO, New England College of Osteopathic Medicine, 1989
Richard J. Rubin, BS, Iowa, 1970; MD, Chicago Medical, 1974
Richard A. Rudnick, BA, Swarthmore, 1974; MD, Boston, 1979
Rochelle Weber, BA, Wellesley, 1974; MD, Washington, 1978
Susan M. Young, BS, Boston, 1986; MD, UMass Worcester, 1991

Instructors

Janet C. Abrahamian, MD, Leeds, 1979
Sarah T. Adams, BS, St. John's, MA, Anna Maria College, 2001
Rani Alexander, MD, Boston, 2000
Shaun Alfreds, BS, UMass Amherst, 2000; MBA, Maine, 2003

Sheryn Mikhail Angelis, MS, St. George University of Medicine, 1999
Frances M. Anthes, BA, Assumption, 1973, MSW, Connecticut, 1986
Katherine J. Atkinson, MD, UMass Worcester, 1996
Frederick Baker, BA, Boston, 1985; MD, Howard, 1991
Christopher I. Bechara, MD, Rush Medical College, 1998
Nancy K. Berley, MD, Albert Einstein College of Medicine, 2002
Ellen E. Bernard, DO, New England College of Osteopathic Medicine, 1999
Jeffery D. Blake, MD, University of Western Ontario, 1984
William J. Blake, MD, New York Medical, 1947
Christina Blejan, MD, Bucharest, 1987; MPH, UMass, 2001
Alexandra Bonardi, BS, McGill, 1991; MS, Columbia, 1994; MHA, Suffolk, 2001
Kelton M. Burbank, MD, UMass Worcester, 1991
Michael Burdulis, BA, Tufts, 1992; MD, UMass Worcester, 1998
Miguel F. Cabrera, MD, National University of Truhillo, 1975
Joanne Calista, BA, Harvard, 1984; MS, Columbia, 1991
Carol S. Cancro, MD, Brown, 1993
Nita Chatterjee, MD, Srinagar (India), 1975
Michael Chin, BA, Harvard, 1993; MD, UMass Worcester, 2000
Thomas Clay, DO, Kirksville College of Osteopathic Medicine, 1975
M. Kevin Cozzi, BA, Kansas, 1992; MD, 1996
Linda Cragin, BA, Tufts; MS, Harvard
Andrea Damour Martinucci, MD, Georgetown, 1990
Joseph F. Daigneault, MD, UMass Worcester, 1990
Jennifer Davis Carey, AB, Harvard, 1978; EdM, 1979; EdD, 1995
Michael L. Dern, MD, Boston, 1977
Lori DiLorenzo, BS, Cornell, 1994; MD, Pennsylvania, 1998
Joan Dolan, BSN, Worcester State, 1982; MSN, UMass Worcester, 1987
Leah E. Doret, MD, UMass Worcester, 2003
Deborah L. Drexler, BS, Boston, 1981; JD, Northeastern, 1992
Tricia Droney, BA, Virginia Polytechnic, 1979; MPH, UMass, 1990
Kimberly Ebb, MD, Emory, 1994
Ronald G. Ebb, MD, Boston, 1999

Daniel H. Ervin, DO, Ohio College of Osteopathic Medicine, 1990
Carmen P. Fater, MD, Temple, 1987
Zoila T. Feldman, MS, Harvard, 1979
Gerald J. Fitzpatrick, MD, Autonomous (Guadalajara), 1987
William Foley, BA, Holy Cross, 1995; DO, New England College of Osteopathic Medicine, 2001
Paula Fontaine, BA, Connecticut, 1991; DPM, Barry, 1995
Murray Frank, BA, NYU, 1951; MSW, Columbia, 1954; PhD, Brandeis, 1974
Daniel F. Freitas, BS, Boston College, 1984; MD, Brown, 1988
Robert A. Friedman, MD, New York Medical College, 1980
Ingrid Fuller, MD, Glasgow, 1987
Donna M. Gallagher, BS, Emmanuel, 1978; MS, Simmons, 1983
Imeda A. Garcia, MD, University of Santos Tomas, 1992
Matthew Gardiner, MD, Pennsylvania, 1996
Theresa Glenn, BA, Smith, 1992; MPH, UMass Amherst, 1995
Kathy Opal Goff, MD, UMass Worcester, 1996
Lois Green, BA, Bryn Mawr, 1952; MPA, Clark, 1978
Kent Greenwood, MD, Tufts, 1986
Jill Grimes, BS, Baylor, 1988; MD, 1991
John P. Gusha, BA, Assumption, 1980; BS, WPI, 1980; DMD, Boston, 1984
Heather-Lyn A. Haley, BA, Worcester State, 1989; MA, UMass Amherst, 2001; PhD, 2003
Aysha Hameed, MD, Kakatiya Medical College, Osmania University, 1978
David Havlin, MD, Ohio State, 1980
Theodor T. Herwig, MD, Cincinnati, 1987
Heidi Holland, BA, UMass Amherst, 1986; MEd, UMass Boston, 1991
Debra Hurwitz, BSN, UMass Dartmouth, 1978; MBA, Rhode Island, 1983
Dilip M. Jain, MD, M.R. Medical, 1983
Kenneth Janes, MD, Tufts, 1968
Darla Karos, MD, University of Medicine and Dentistry of New Jersey, 1986
Stefan Karos, MD, University of Medicine and Dentistry of New Jersey, 1986
Mary Ellen Keough, BA, American, 1970; MPH, Boston, 1980
Inna Ketsler, MD, Texas, 1987
Jennifer W Labonte, BS, UMass, 1993; MD, UMass Worcester, 1997
Stephen K. Lane, MD, UMass Worcester, 1998
Anna Langman, MD, Ben Gurion, Israel, 1998

* joint appointment

(continued)

(Family Medicine & Community Health continued)

Leonard Levin, BS, Boston, 1984; MS, Simmons, 1996; MA, Andover Newton Theological School, 2003

Lisa A. Levine, MD, UMass Worcester, 1987

Stephen J. Levine, AB, Cornell, 1968; MD, SUNY Buffalo, 1972

Richard Levrault, DO, Philadelphia College of Osteopathic Medicine, 1980

***Roberick Lewin**, DMD

George Lewinnek, MD, Harvard, 1967

Shippen Li, MD, UMass Worcester, 1987

Ernest P. Liacopoulos, BA, Clark, 1984; DDS, Georgetown, 1989

Tomas F. Lichauco, MD, University of Philippines College of Medicine, 1982

Benjamin Lieberman, BA, Tufts, 1994; MD, Tel Aviv, 1998

Thomas J. Linberg, MD, Ross University School of Medicine, 2000

Gregory Little, MD, Texas, 1994

Linda Long-Bellil, BA, Yale, 1984; JD, Boston, 1987; MA, Brandeis, 2000

Michael Lowney, DO, New England College of Osteopathic Medicine, 1982

Myron Maron, BA, Boston, 1971; MD, 1977

Cara Marshall, BS, Florida, 1993; MD, 1996

Stephen A. Martin, BA, Williams, 1991; EdM, Harvard, 1996; MD, Harvard, 2002

Edith H. Mas, BA, Radcliffe, 1964; MS, Columbia, 1969

Jeanne Mase, MD, UMass Worcester, 1990

Elizabeth McGovern, BS, Haverford, 1991; MD, Pittsburgh, 1997

Jaquelyn R. McKean, MD, UMass Worcester, 1997

Ellen McMahon, BS, Tufts, 1994; MD, Dartmouth-Brown, 1998

Holly K. Michaelson, MD, Temple, 1997

Donald Miller, MD, SUNY Downstate, 1981

Valerie Molinaro-Gudas, RN, St. Mary's School of Nursing, 1966; BS, 1972; OD, NE College of Optometry, 1974

Robert R. Moore, BS, Mount Allison, 1981; MS, MIT, 1983; PhD, 1986; MD, UMass Worcester, 1992

Lisa M. Morris, MS

***Helene K. Murphy**, MEd.

Zainab A. Nawab, MD, Rural Medical College, University of Pune, 1996

Dan S. Nguyen, MD, UMass Worcester, 1998

Meeta S. Nguyen, MD, Utah, 1996

Lisa Noble, BA, Wesleyan, 1987; MEd, UMass, 1990; MD, UMass Worcester, 1997

Glennon J. O'Grady, BS, Holy Cross, 1981; MD, Tufts, 1985

Margaret O'Hagan, MD, UMass Worcester, 1996

Gabriel J. Ochoa, BS, Instituto Colombiano de Educacion, 1961; DDS, Universidad de Antioquia, 1968; CAGS, Temple, 1980

Miguel Olmedo, AS, Bunker Hill, 1994; BSN, UMass Boston, 1996; MS, 2000

Nancy E. Otovic, MPH, Tufts, 1986; MD, St. George's, 1995

Naveen Pandaraboyina, MD, Gandhi (India), 1991

Faith Hailward Paterson, BA, Queen's University, 1981; MD, McMaster, 1992

James A. Peterson, BS, UMass Amherst, 1978; MD, UMass Worcester, 1988

Michele Pici, DO, New York College of Osteopathic Medicine, 1986

Michael Polseno, BA, Clark, 1976; DC, Palmer College of Chiropractic Medicine, 1979

Lyn Riza, BA, Beloit, 1980; MS, Fitchburg State, 1997

Jan Rockwood, MD, UMass Worcester, 1986

Katherine Rosenfield, MD, George Washington, 1991

Shiva Saboori, MD, Tufts, 1988

Leyla Sahin, MD, Alberta, 1992

Elizabeth Saich, BA, Harvard, 1994; MD, UMass Worcester, 2000

Lana J. Sargent, BS, UMass Amherst, 1998; RN, Regis College, 2003; FNP, 2004; GNP, 2005

Kristin N. Schofield, BA, Rutgers, 1993; MD, Jefferson Medical, 1997

Gregory R. Seiler, MD, UMass Worcester, 1994

William S. Shaw, BS, Pennsylvania State, 1983; PhD, San Diego State, 1998

Robert Shelton, Jr., MD/PhD, Virginia, 1985

Laura K. Silk, MD, UMass Worcester, 2000

Henry Simkin, MD, Boston, 1983

***Stephen J. Smith**, BA, Williams, 1983; MD, UMass Worcester, 1987

Jonathan E. Snider, BA, Brandeis, 1992; MD, Albert Einstein, 1996

Roger L. Snow, BA, Missouri, 1969; MD, North Carolina, 1974

Natasha N. Sodhi, BS, Dalhousie, 1987; MD, 1991

Edward D. Sprague, BS, Bates, 1974; MD, Vermont, 1979

Cindy H. Steinberg, BA, Brandeis, 1990; MD, UMass Worcester, 1994

John Stevenson, BS, California, 1992; MD, Albany, 2001

Rodd Stockwell, BA, Harvard, 1991; MD, SUNY Stony Brook, 1992

Barbara Sullivan, BSN, Rhode Island College, 1979; MS, UMass Amherst, 1995

Jean C. Sullivan, BA, Mount Holyoke, 1977; JD, Boston, 1984

Lisa D. Sweeney, BA, Holy Cross, 1989; MD, UMass Worcester, 1994

Julia L. Terry, BA, Wellesley, 1963; MPH, Boston, 1984

Babatunde Thomas, BA, Brown, 1994; MD, Tufts, 2000

Andrew J. Ting, BS, Michigan, 1988; MPH, MA, Boston, 1991; MD, 1996

Audrey A. Tracey, MD, Boston, 1995

Michael Tutty, BA, Western New England College, 1994; MA, Clark/UMass Worcester, 1996

Tammy E. Vargas, MD, Universidad Nacional Pedro, 1987

Beverly F. Wedda, BA, Holy Cross, 1983; MD, Uniformed Services University of the Health Sciences, 1987

Oren Weisberg, MD, Yeshiva, 1998

Thomas Weisman, BA, Haverford, 1975; MS, MIT, 1980; MD, Cincinnati, 1984

Jennifer W. Weyler, MD, The Medical College of Pennsylvania, 1992

Colette Whitby, MD, Brown, 1996

Edison Wong, MD, Columbia, 1991

John L. Worden IV, MD, UMass Worcester, 1996

***Fifield P. Workum**, MD, Columbia, 1969

Sarah F. Zakaria, MD, Quaid-E Azam Medical College, Islamia University, 1995

Wankin J. Yu, BA, Harvard, 1979; MD, Rochester, 1983

Clinical Instructors

Penelope J. Dillon, BA, Rochester, 1972; BS, 1974; MS, Pace, 1985

Laura M. Garber, BA, Boston, 1985; MD, Yale, 1993

Adjunct Instructors

Sarah E. Anderson, AB, Vassar College, 1997; MS, Tufts, 2002; PhD, Tufts, 2006

J. Matthew Sholl, BA, Bucknell, 1993; MD, Dartmouth, 1997

Giselle A. Thornhill, BA, Princeton, 1980; MD, Boston, 1987; MPH, Harvard, 1994

Janet L. Wale, BSc, Melbourne, 1966; MSc, Melbourne, 1970; PhD, Leeds, 1975

Robert Weitzman, MD, Albany, 1982

* joint appointment

Lecturers

Maria Angeles, BS, University of Philippines; MD, University of the East (Philippines), 1983

Delores Burroughs-Biron, RN, Leominster, 1978; BA, Fitchburg, 1980; MS, UMass Lowell, 1986

Lawrence A. Churchville, MD, Montpellier, 1979

Leora Fishman, BA, Barnard, 1974; MD, SUNY Stony Brook, 1978

Ruth Hertzman-Miller, BA, Harvard, 1992; MPH, UCLA, 2001

Nicholas J. Rencricca, MD, UMass Worcester, 1991

Angela J. Rubineau, BS, MIT, 1990; MPH, North Carolina, 1998; MD, Yale, 2000



Medicine

The Department of Medicine consists of:

- Eighteen subspecialty and general medicine divisions, each of which is successful and growing in key areas, including clinical practice, teaching and research;
- more than 730 full- and part-time faculty members; and
- the major expansion of centers of excellence programs in oncology, cardiovascular disease, musculoskeletal disease and diabetes mellitus.

The Department of Medicine participates extensively in and promotes broadly the education of medical students in several venues and across the undergraduate curriculum by fostering faculty leadership as course directors, classroom teachers, inpatient and outpatient clinical educators, mentors and advisors, and as lecturers in clinical and basic research seminars. Department faculty teach students to develop a comprehensive and in-depth understanding of the pathophysiology of disease; techniques for history taking, physical examination and generation of a differential diagnosis and management plans; the impact of illness on the patient; and wellness promotion and disease prevention. Throughout the four-year curriculum, the department works to ensure that students are well-trained in general internal medicine, are exposed to key aspects of the subspecialties of Medicine, and are prepared clinically and academically for internship and residency in all disciplines.

The Department of Medicine introduces first-year students to medical interviewing and clinical problem-solving in the Physician, Patient and Society (PPS-I) course. In the Longitudinal Preceptorship Program, first-year students serve as observers in General Internal Medicine offices and participate in the first phase of Physical

Diagnosis (PD-1), which emphasizes normal physical findings and their relationship to anatomy and physiology.

Faculty members are involved extensively in the second-year curriculum. They direct and staff the Physical Diagnosis course (PD-II) in which second-year students are taught the elements of history-taking and physical examination of patients with a variety of diseases. They assist in the PPS-II course, wherein students begin to develop clinical skills including the generation of problem lists, differential diagnoses, management plans, admission notes, medical orders and progress notes, as well as in critical analysis and use of medical literature. In addition, department faculty members play major teaching and leadership roles in interdepartmental courses, including Medical Microbiology, Biology of Disease and Pharmacology. Faculty members also teach in the Caring for the Seriously Ill selective and the Therapeutics elective.

Third-year students participate in a comprehensive 12-week clerkship in Medicine, comprising eight weeks in the inpatient setting and four weeks in a primary care internal medicine office setting. A rigorous core curriculum is provided through regularly scheduled conferences and seminars. Selective opportunities are provided in medicine subspecialties as well. Department faculty members serve as small group facilitators for third-year Interclerkship programs. A senior geriatrician is director of the End of Third Year Assessment program and directs curriculum integration in the UMMS Simulation Center.

The majority of fourth-year students select Medicine as the discipline for their required subinternship experience; this inpatient block provides students with more advanced, challenging and responsible roles in patient management than the third-year clerkship. The department also provides electives for fourth-year students in a variety of disciplines, including cardiovascular medicine, dermatology, diabetes, endocrinology, gastroenterology, general medicine/primary care, geriatric medicine, hematology/oncology, infectious diseases,

preventive/behavioral medicine, pulmonary medicine, renal medicine and rheumatology, as well as in intensive care medicine. Research opportunities are provided in medical subspecialties and general medicine through the Senior Scholars Program. The department encourages students to participate in laboratory-based and clinical research projects during their time in medical school.

Medicine Faculty

Professor and Chair

Richard M. Haidack Professor of Medicine
Robert W. Finberg, AB, Chicago, 1971;
 MD, Albert Einstein, 1974

Professors and Vice Chairs

Barbara and Nathan Greenberg Chair in Biomedical Research

Elliot J. Androphy, AB, Brandeis, 1975;
 MD, Rochester, 1979

Richard M. Forster, BA, Colby, 1981;
 MD, UMass Worcester, 1988

Richard H. Glew, AB, Harvard, 1965;
 MD, Johns Hopkins, 1969

Julia D. Andrieni, BA, Vassar, 1983;
 MD, SUNY Stony Brook, 1996

Professors Emeriti

William and Doris Krupp Professor of Medicine

Aldo A. Rossini, BS, Dayton, 1963; MD,
 St. Louis, 1968

Jeffrey D. Bernhard, AB, Harvard, 1973;
 MD, 1978

Richard L. Bishop, BS, Tufts, 1962; MD, 1966

Neil R. Blacklow, BA, Harvard, 1959; MD,
 Columbia, 1963

Mary E. Costanza, AB, Radcliffe, 1958;
 MA, MD, Rochester, 1968

Charles H. Emerson, BS, Randolph-Macon,
 1963; MD, Virginia, 1967

Jon Kabat-Zinn, BS, Haverford, 1960; PhD,
 MIT, 1971

***Liberto Pechet**, MD, Hebrew, 1952

Robert B. Zurier, BS, Rutgers, 1955; MD,
 Texas Southwestern, 1962

***Irma O. Szymanski**, MD, Helsinki, 1958

Robert B. Zurier, BS, Rutgers, 1955; MD,
 Texas Southwestern, 1962

Professors

Barbara Helen Smith Chair in Preventive and Behavioral Medicine

Judith K. Ockene, BS, CCNY, 1964; MA, 1966;
 MEd, Boston College, 1974; PhD, 1979

* joint appointment

Gladys Smith Martin Chair in Oncology

Alan G. Rosmarin, AB, Vassar, 1977;
 MD, UMDNJ-Rutgers, 1981

Edward Budnitz, MD, Professor of Cardiovascular Medicine

Joel M. Gore, BA, Brandeis, 1971; MS, Boston,
 1974; MD, Calgary, 1977

Dr. John Meyers Professor of Primary Care Medicine

Jerry H. Gurwitz, AB, Dartmouth, 1978;
 MD, UMass Worcester, 1983

David J. and Barbara D. Milliken Professor of Preventive Cardiology

Ira S. Ockene, BS, CCNY, 1962; MD, Albert
 Einstein, 1966

Athanasius A. Anagnostou, MD, Aristotelian,
 1968; MA, Brown, 1984

Neil Aronin, BA, Duke, 1970; MD,
 Pennsylvania, 1974

Gerard P. Aurigemma, BA, Harvard, 1975;
 MD, 1979

Doreen B. Brettler, BA, Mt. Holyoke, 1967;
 MD, Stanford, 1973

Sarah H. Cheeseman, AB, Mt. Holyoke, 1969;
 MD, Wisconsin, 1973

Marjorie A. Clay, BA, Oklahoma, 1969; MA,
 Northwestern, 1971; PhD, SUNY Buffalo, 1981

David M. Clive, BA, NYU, 1970; MD, Case
 Western Reserve, 1976

“Even though UMass Medical School is top-ranked, the students are non-competitive. They and the faculty want you to succeed. It’s a lot of work, but strength comes from within yourself, not in response to everyone else.”

Naomi Lawrence-Reid
 Class of 2011

Naomi served as Student Body Committee co-president and provided input to the Medical School’s curriculum redesign project. One change she is excited about is the opportunity for students to explore numerous electives earlier on in their education rather than after their third year is complete. “There is an important part of learning that can’t be taught in the classroom, and that is the doctor-patient experience.”

Jennifer S. Daly, BA, Sarah Lawrence, 1973; MD, Columbia, 1978

Deborah M. DeMarco, BS, Long Island, 1976; MA, California, 1979; MD, NYU, 1983

***James G. Dobson**, BS, Central Connecticut State, 1965; MA, Wesleyan, 1967; PhD, Virginia, 1971

***William A. Durbin**, BA, Dartmouth, 1968; MD, Columbia, 1972

Richard T. Ellison III, BA, Virginia, 1973; MD, Hahnemann, 1977

A. Gray Ellrodt, BA, Princeton, 1970; MD, New York Medical, 1975

Francis A. Ennis, AB, Boston College, 1960; MD, Tufts, 1964

Anthony L. Esposito, BA, Bowdoin, 1970; MD, Tufts, 1974

Walter H. Ettinger Jr., AB, Ohio Wesleyan, 1974; MD, Johns Hopkins, 1978; MBA, Wake Forest, 1997

Edward D. Folland, BA, Yale, 1966; MD, Harvard, 1970

William H. Gaasch, BS, Michigan, 1959; MD, 1963

***Michael A. Godkin**, BS, London, 1968; MS, Ohio State, 1972; PhD, Clark, 1977

Robert J. Goldberg, BS, UMass Amherst, 1972; MS, Tufts, 1973; PhD, Johns Hopkins, 1978

Douglas T. Golenbock, BS, Michigan/Ann Arbor 1975; MD, 1980

Ellen M. Gravalles, MD, Columbia, College of Physicians and Surgeons, 1981

Dale L. Greiner, BS, Iowa, 1974; PhD, 1978

***Jay S. Himmelstein**, BA, Johns Hopkins, 1974; MD, Maryland, 1978; MPH, Harvard, 1980; MS, 1982

***Robert E. Humphreys**, BA, Yale, 1964; PhD, 1969; MD, 1970

Richard S. Irwin, BS, Tufts, 1964; MD, 1968

Jennifer L. Kelsey, BA, Smith, 1964; MPH, Yale, 1966; MPhil, 1968; PhD, 1969

Hardy Kornfeld, BA, Bennington College, 1974; MD, Boston, 1978

Stuart M. Levitz, BA, NYU, 1975; MD, 1979

Craig M. Lilly, BS, Oregon, 1980; MD, Oregon Health Sciences, 1984

J. Mark Madison, BA, Carleton, 1975; MD, Harvard, 1979

Mary E. Maloney, BA, Connecticut College, 1973; MD, Vermont College, 1977

***Alan D. Michelson**, MBBS, Adelaide, 1973

Theo E. Meyer, MBChB, Pretoria, 1976; DPhil, Oxford, 1993

John P. Mordes, AB, Harvard, 1969; MD, 1973

Linda A. Pape, BA, SUNY Potsdam, 1965; MD, Medical College of Pennsylvania, 1972

John A. Paraskos, BS, Tufts, 1960; MD, 1964

Rashmi V. Patwardhan, MBBS, Bombay, 1973; MD, 1976

Robert A. Phillips, MD, PhD, Mount Sinai, 1980

Peter A. Rice, BS, Yale, 1964; MD, Pennsylvania, 1969

Alan Rothman, BA, Boston, 1979; MD, 1983

***Katherine F. Ruiz de Luzuriaga**, BS, MIT, 1978; MS, 1980; MD, Tufts, 1984

Peter B. Schneider, AB, Harvard, 1955; MD, 1959

***L. Michael Snyder**, AB, Brown, 1957; MD, Chicago Medical, 1962

David H. Spodick, AB, Bard, 1947; MD, New York Medical, 1950

Oscar E. Starobin, AB, Harvard, 1950; MD, 1954

John L. Stock, AB, Cornell, 1972; MD, Harvard, 1976

Jeffrey S. Stoff, BS, Hobart, 1964; MD, SUNY Buffalo, 1968

Gyongyi Szabo, MD, Debrecen, 1984; PhD, Hungarian Academy of Sciences, 1991

Bonnie H. Weiner, BA, Mills College, 1970; MD, Oregon, 1974

Robert Weinstein, MD, NYU, 1975

Karen Wiss, BA, Texas, 1980; MD, 1985

Jane G. Zapka, BA, Skidmore, 1966; MS, UMass Amherst, 1969; ScD, Harvard, 1978

John K. Zawacki, BA, Holy Cross, 1963; MD, Tufts, 1968

Clinical Professors

Robert M. Black, BS, Pittsburgh, 1969; MD, Washington, 1975

Laszlo-Vasile Leb, MD, Tirgu Mures, 1957

Leonard J. Morse, BA, American International, 1951; MD, Maryland, 1955

William G. Muller, AB, Harvard, 1972; MD, Vermont, 1976

Marjorie Safran, AB, Rochester, 1970; MD, SUNY Downstate, 1977

Mark J. Scharf, BA, Chicago, 1978; MD, Emory, 1982

Robert A. Yood, BA, Yale, 1970; MD, Oregon, 1974

Research Professors

***Frederick A. Anderson Jr.**, BS, BA, Tufts, 1971; MS, WPI, 1975; PhD, 1984

Edward H. Leiter, BS, Princeton, 1964; MS, Emory, 1966; PhD, 1968

Leonard D. Shultz, BA, Northeastern, 1967; PhD, UMass, 1972

Adjunct Professors

Martin I. Broder, MD, Case Western Reserve, 1961

* joint appointment

Patty S. Freedson, BS, Michigan, 1975; MS, 1976; PhD, 1980

Stephen H. Gehlbach, AB, Harvard, 1964; MD, Case Western Reserve, 1968; MPH, North Carolina, 1973

Adjunct Research Professors

Girish J. Kotwal, BS, Bombay University, 1976; MS, 1978; PhD, McMaster, 1985

Robert J. Nicolosi, BS, Saint Anselm, 1967; MS, New Hampshire, 1968; PhD, 1971

Associate Professors

Eric J. Alper, BS, Brown, 1989; MD, UMass Worcester, 1993

Raj K. Anand, MBBS, King George's, 1958; MD, Lucknow, 1962

Richard H. Angoff, BA, Pennsylvania, 1970; MD, Georgetown, 1974

Peter H. Bagley, BA, Columbia, 1975; MD, George Washington, 1980

Graham F. Barnard, BS, Southampton, 1972; PhD, 1975; MD, Stanford, 1985

Joseph R. Benotti, AB, Holy Cross, 1970; BMS, Dartmouth, 1972; MD, Harvard, 1974

Charles A. Birbara, AB, Harvard, 1958; MD, McGill, 1962

Rita Bortell, BS, Florida, 1975; MS, 1981; PhD, 1987

Ricardo A. Cordon, BA, San Carlos, 1960; MD, 1967

Sybil L. Crawford, BS, Carnegie-Mellon, 1983; MS, 1985; PhD, 1988

Henri F. Cuénoud, BS, Calvin, 1971; MD, Geneva, 1977

Frederick J. Curley, BA, Harvard, 1976; MD, UMass Worcester, 1980

Seth T. Dahlberg, BA, Williams, 1977; MD, 1981

Kathryn L. Edmiston, BA, Chicago, 1978; MD, 1982

James E. Fanale, BS, Pennsylvania State, 1973; MD, Chicago Medical, 1976

Alan P. Farwell, BA, Vermont, 1977; MD, UMass Worcester, 1984

Terry S. Field, BA, Tufts, 1967; MS, Instructional Systems, 1971; MPH, Boston, 1988; DSc, 1993

Daniel Z. Fisher, BA, Swarthmore, 1982; PhD, Rockefeller, 1987; MD, Cornell, 1988

Sharone Green, BA, Queens, 1983; MD, Eastern Virginia, 1986

Leslie R. Harrold, AB, Mt. Holyoke, 1988; MD, UMass Worcester, 1992

JeanMarie Houghton, BA, Rutgers, 1985; MD, New Jersey, 1989; PhD, 2001

Eric W. Jacobson, BS, Illinois, 1979; MD, Rush, 1983

Elise A. Jacques, BA, Anna Maria, 1969; MD, Medical College of Pennsylvania, 1973

(continued)

(Medicine Faculty continued)

Daniel H. Libraty, BS, California/Los Angeles, 1985; MD, California/San Diego, 1989

Shan Lu, MD, Nanjing, 1982; PhD, UMass Worcester, 1990; MHA, Clark, 1991

William L. Marshall, BA, Harvard, 1982; MD, Columbia, 1986

Richard G. Masson, AB, Providence, 1963; MD, Albany Medical, 1967

Dominic J. Nompleggi, AB, Georgetown, 1972; MS, 1974; PhD, 1977; MD, 1982

Lori A. Pbert, BA, Connecticut, 1982; MA, West Virginia, 1985; PhD, 1988

George W. Reed, BA, Washington College, 1975; PhD, Maryland, 1983

Milagros C. Rosal, BA, Catholic, 1981; MS, Nova, 1986; MS, 1989; PhD, 1992

Lawrence S. Rosenthal, BS, Trinity, 1981; MA, Clark, 1984; PhD, 1987; MD, Albert Einstein, 1990

Saki F. Santorelli, BA, Western Kentucky, 1970; MA, Lesley, 1983; EdD, UMass Amherst, 1992

Jang B. Singh, MBBS, Delhi, 1964

Nicholas A. Smyrnios, BS, Tufts, 1981; MD, Albany Medical, 1985

Guenter L. Spanknebel, MD, Friedrich Alexander, 1958

Frederick A. Spencer, AB, Dartmouth, 1985; MD, McGill, 1991

Andrew J. Sussman, BA, Harvard, 1987; MD, 1991; MBA, Boston, 1997

Dennis A. Tighe, BA, Pennsylvania, 1982; MD, UMass Worcester, 1986

Katherine S. Upchurch, AB, Sweetbriar, 1972; MD, Duke, 1976

Harvey Zimble, BS, Michigan, 1968; MD, Illinois, 1972

Clinical Associate Professors

Abigail C. Adams, BS, UMass Boston, 1975; MD, UMass Worcester, 1980

Howard J. Alfred, BA, Trinity, 1970; MD, SUNY Downstate, 1974

Nancy E. Bennet, BA, Harvard, 1972; MD, 1979

Robert E. Bessette, BA, Holy Cross, 1961; MD, Georgetown, 1965

Albert A. Crimaldi, BS, Providence, 1970; PhD, Pittsburgh, 1976; MD, 1982

Steven M. Davis, BA, Vermont, 1976; MD, 1980

Stephen B. Erban, AB, Brown, 1980; MD, Pennsylvania, 1984

George H. Eypper, BS, Yale, 1967; MD, Vermont, 1976

Pang-Yen Fan, BA, Boston, 1981; MD, 1985

John A. Ferriss III, BS, Nasson, 1973; MD, Jefferson Medical, 1977

Allen W. Filiberti, BS, SUNY Stony Brook, 1972; MD, Mount Sinai, 1978

Mitchell J. Gitkind, BA, UMass Amherst, 1981; MD, UMass Worcester, 1985

David S. Hatem, BS, Boston College, 1981; MD, Tufts, 1985

Mary R. Hawthorne, BA, Holy Cross, 1977; MD, UMass Worcester, 1981

David A. Kaufman, BS, McGill, 1974; MD, Queen's, 1980

Karen G. Kelly, BA, Swarthmore College, 1973; MD, Yale, 1977

Glenn R. Kershaw, BA, Gettysburg, 1968; MD, Medical College of Wisconsin, 1974

Robert A. Klugman, BS, Wisconsin, 1973; MD, UMass Worcester, 1977

Peter E. Krims, BA, Clark, 1978; MD, Boston, 1982

Steven A. Leveston, MD, Louisville, 1973

John M. Levey, BA, Princeton, 1983; MD, Texas, 1987

Lynn Li, BA, Brandeis, 1971; MD, Harvard, 1975

Nancy Y. Liu, BA, Oberlin, 1977; MD, Case Western Reserve, 1982

Jane A. Lochrie, BSN, Boston College, 1972; MD, UMass Worcester, 1983

John P. Lock, BA, Assumption, 1968; MD, St. Louis, 1972

Philip A. Lowry, BA, Harvard, 1977; MD, Yale, 1981

Brian J. Mady, BS, Bucknell, 1982; MD, New York Medical, 1986

Gertrude W. Manchester, BS, Tufts, 1973; MD, Yale, 1978

Andrew J. Miller, BA, Vermont, 1973; MD, UMass Worcester, 1979

Richard A. Palken, BS, Tufts, 1980; MD, 1988

Behzad Parhizgar, BS, Shiraz, 1969; MD, 1974

John R. Person, BA, Dartmouth, 1969; MD, New York Medical, 1973

Karen L. Peterson, BA, Brown, 1983; MD, Columbia, 1987

Mark C. Pettus, AB, Boston, 1979; MD, UMass Worcester, 1983

Stephen M. Pezzella, BA, Holy Cross, 1969; MD, St. Louis, 1973

***Phyllis Pollack**, BS, Michigan, 1972; MD, Harvard, 1977

Joel H. Popkin, BA, New York, 1970; MD, SUNY Downstate, 1974

John I. Reed, BA, Williams, 1973; MD, Rochester, 1977

James J. Rooney, MD, New York Medical, 1974

Howard J. Sachs, BA, Clark, 1981; MD, SUNY Stony Brook, 1985

Stacia R. Sailer, BS, Wesleyan, 1984; MD, Jefferson Medical, 1988

Ninad N. Samant, BS, SUNY Stony Brook, 1986; MD, SUNY Syracuse, 1990

Oren P. Schaefer, BS, Cornell, 1980; MD, Dartmouth, 1986

***Carolyn E. Schwartz**, BA, California, 1982; MA, Connecticut, 1985; DS, Harvard, 1990

Christopher W. Seidler, BA, Hampshire, 1982; MD, Rutgers, 1986

William J. Shine, BA, Boston, 1980; MS, Hahnemann, 1983; MD, UMass Worcester, 1987

Ilia Shlimak, BA, Brandeis, 1986; MD, UMass Worcester, 1990

Jerome I. Starr, BS, Michigan, 1963; MD, 1966

Michael Thompson, BA, Colby, 1979; MD, UMass Worcester, 1986

John M. Tumolo, BS, Tufts, 1976; MD, Boston, 1980

Wahid Wassef, BA, Boston, 1980; MD, 1984

Bruce R. Weinstein, BS, Duke, 1975; MD, SUNY Downstate, 1980

Mark M. Wilson, BA, Assumption, 1980; MD, UMass Worcester, 1987

Charles I. Wohl, BA, Franklin and Marshall, 1967; MD, Pittsburgh, 1972

Research Associate Professors

Evelyn A. Kurt-Jones, BS, Tufts, 1974; PhD, Connecticut, 1983

David V. Serreze, BS, Maine, 1979; MS, 1982; PhD, 1990

Adjunct Associate Professor

Richard R. Liberthson, BS, Cornell, 1963; MD, Chicago Medical, 1968

Adjunct Research Associate Professor

Ellen F. Fynan, BS, Maine, 1986; PhD, Jefferson Medical, 1991

Assistant Professors

George Abraham, MBBS, Christian Medical, 1988; MD, 1992

Philip Adamo, BS, Fordham, 1978; MD, Noreste, 1982

Ammar Al-Zoubi, MD, Aleppo, 1988

David A. Albert, BA, George Washington, 1991; MD, UMass Worcester, 1996

Omar Ali, MD, Tufts, 1996

Glenn W. Allison, BA, Brandeis, 1983; MD, Boston, 1985; DPhil, 1991

Tony Almakdisi, MD, University of Damascus Medical School, 1992

Caroline B. Alper, BS, UMass Boston, 1987; MD, UMass Worcester, 1993

Curuchi Anad, MD, Calcutta University, 1985

Susan E. Andrade, BS, Rhode Island, 1988; ScD, Harvard, 1994

Julia D. Andrieni, BA, Vassar, 1983; MD, SUNY Stony Brook, 1996

* joint appointment

- Joseph A. Antaki**, BS, Florida, 1983; MD, Miami, 1987
- Nadeem Anwar**, BS, Aitchison College (Pakistan), 1983; MBBS, Punjab, 1989
- Jayashri R. Aragam**, MD, Bangalore, 1978
- Paula J. Aucoin**, BA, Catholic, 1973; MD, Georgetown, 1977
- Elizabeth T. Austin**, BA, Mount Holyoke, 1985; MA, Concordia, 1992; DPsy, Denver, 1999
- Pamela M. Baggeroer**, BA, Cornell, 1987; MD, UMass Worcester, 1991
- Zheng Z. Bao**, BS, Fudan, 1986; PhD, Illinois, 1993
- Kurt G. Barringhaus**, BA, Washington, 1990; MD, St. Louis, 1995
- Kern J. Bayard**, BS, Tufts, 1978; MD, UMass Worcester, 1988
- Clifford J. Behmer**, MS, MIT, 1978; MD, UMass Worcester, 1985
- Michael M. Bergman**, BS, UMass Amherst, 1978; MD, Tufts, 1982
- Paul Berman**, BA, Michigan, 1959; MD, Syracuse, 1963
- Kanishka Bhattacharya**, MBBS, Calcutta, 1983
- Bonnie J. Bidinger**, BA, Cornell, 1994; MD, 1998
- Gordon T. Bird**, BS, Union, 1968; MD, Albany/Union, 1972
- Michael B. Blackman**, AB, Brown, 1987; MD, 1997; MBA, Michigan, 1990
- Noel A. Blagg**, AB, Oberlin, 1968; MD, Boston, 1974
- June M. Blanco**, BS, UMass Amherst; MD, UMass Worcester, 1995
- Paul J. Block**, BA, Brandeis, 1973; MD, Boston, 1977
- Elaine Z. Borgen**, BS, Bentley, 1985; MA, Harvard, 1996; PhD, Massachusetts School of Professional Psychology, 2000
- Irene B. Bosch**, BS, Central De Venezuela, 1985; PhD, Harvard, 1994
- Naomi F. Botkin**, BA, Harvard, 1991; MD, Yale, 1998
- Talal J. Bou-Harb**, MD, St. Joseph Faculty, 1991
- *Carol A. Bova**, BS, Salem State, 1979; MS, UMass Worcester, 1988; PhD, Boston College, 1998
- William M. Bradbury**, BS, Sacred Heart, 1978; MD, Connecticut, 1985; MBA, 2000
- Becky A. Briesacher**, BA, California/Berkeley, 1986; MA, Williams, 1988; PhD, Maryland, 2001
- Clifford A. Browning**, AB, Holy Cross, 1971; MD, Jefferson Medical, 1975
- Scott L. Brownstein**, BS, Syracuse, 1983; MS, Georgetown, 1984; MD, 1989
- Jeffrey B. Burl**, BA, Assumption, 1969; MS, Southern Connecticut, 1971; MD, Brussels, 1977
- John F. Burnham Jr.**, BA, Colby, 1969; MD, Noreste, 1979
- Maureen M. Burns**, BA, Holy Cross, 1988; MD, UMass Worcester, 1993
- Donald P. Burt**, BS, Trinity, 1973; MD, New Jersey, 1983
- Rebecca P. Caine**, AB, Cornell, 1992; MD, Pennsylvania, 1998
- Lisa T. Canter**, BA, Pennsylvania, 1984; MD, Tufts, 1988
- Daniel Carlucci**, BA, Cornell, 1983; MD, UMass Worcester, 1987
- James F. Carmody**, PhD, Iowa, 1971
- Maria A. Casal**, BS, Stonehill, 1983; MD, UMass Worcester, 1987
- Matilde Castiel**, BS, California State, 1977; MD, California/San Francisco, 1982
- Jason J. Chen**, BS, Shangdong, 1982; MA, Columbia, 1985; MPhil, 1988; PhD, 1991
- David Chiriboga**, MD, Universidad Central del Ecuador, 1988; MPH, UMass Amherst, 1993
- Nidhi Chojar**, MD, Punjab, 1993
- Te-Hui W. Chou**, BS, Tunghai, 1978; PhD, Clark, 1984
- Arthur A. Church**, AB, Boston, 1964; MD, George Washington, 1968
- Mary Dawn T. Co**, BA, Bryn Mawr, 1989; MD, Medical College of Pennsylvania, 1994
- Daniel M. Cohen**, BA, Vassar, 1990; MD, Tufts, 1996
- Joseph H. Cohen III**, AB, Dartmouth, 1979; MD, Medical College of Pennsylvania, 1984
- Joel L. Colker**, BS, Yale, 1957; MD, Cornell, 1961
- Ursula P. Collinson**, MD, Albert-Ludwigs, 1991
- Raffaella M. Colzani**, MD, Milan, 1990
- Thomas Consolati**, BA, Colgate, 1988; MD, UMass Worcester, 1993
- Kyle Ann Cooper**, MD, Harvard, 1985
- William F. Corbett**, BA, Boston, 1978; BS, 1979; MD, UMass Worcester, 1983
- William J. Crooks IV**, BS, Notre Dame, 1975; MS, 1978; MD, Tufts, 1982
- Paula M. Cullinane**, BS, Stonehill, 1980; MD, Boston, 1988; MPH, 1993
- Brian P. Cunningham**, BA, Yale, 1965; MD, Pennsylvania, 1969
- Peter J. Dain**, ScB, Brown, 1981; MS, Rochester, 1984; MD, UMass Worcester, 1991
- *Andrew W. Danyluk**, BA, Rutgers, 1977; MD, Johns Hopkins, 1981
- John Darrah**, BS, St. Joseph, 1962; MD, Pennsylvania, 1966
- Raul E. Davaro**, MD, Buenos Aires, 1984
- John A. Day Jr.**, AB, Harvard, 1973; MD, Cornell, 1981
- Michael J. Deleo Jr.**, AB, Harvard, 1976; MD, UMass Worcester, 1980
- Maria B. Delrosario**, BS, Dickinson, 1982; MD, Pennsylvania State, 1988
- William J. DeMarco**, AB, Holy Cross, 1980; DO, New England College of Osteopathic Medicine, 1984
- Christine J. Donahue**, BA, Williams, 1989; MD, UMass Worcester, 1995
- Susan E. Donohue**, BA, Mt. Holyoke, 1984; MD, Boston, 1988
- Daniel M. Doyle**, AB, Holy Cross, 1973; MD, UMass Worcester, 1978
- Thomas Dunendorfer**, MD, Goethe (Germany), 1987
- Kimberly D. Eisenstock**, MD, UMass Worcester, 2002
- Ashraf F. Elkerm**, MD, Alexandria, 1982
- Raul B. Endriga**, AA, St. Thomas, 1953; MD, 1958
- Julian Esteban**, BS, Phillipines, 1986; MD, 1989; MS, Michigan, 2001
- Michael F. Ethier**, BS, Worcester State, 1971; MS, 1978; PhD, WPI, 1996
- Sharon C. Eypper**, BS, Wayne State, 1978; MD, Michigan, 1982
- John A. Ferullo**, AB, Harvard, 1972; MD, Vermont, 1975
- David R. Fields**, BA, Virginia, 1980; MD, Medical College of Virginia, 1984
- David R. Finck**, BA, Columbia, 1970; MD, Tufts, 1974
- Melissa A. Fischer**, BA, Columbia, 1988; MD, NYU, 1996; MA, Stanford, 2001
- Katherine A. Fitzgerald**, BS, Cork, 1995; PhD, Trinity, 1999
- *Alan J. Flint**, BA, Tufts, 1985; MD, Pittsburgh, 1989; MPH, California/Berkeley, 1995
- Petra Flock**, MD, Heinrich-Heine (Germany), 1992
- Mario F. Flores-Cardillo**, MD, Universidad de Carlos de Guatemala, 1992
- James M. Flynn**, BS, UMass Amherst, 1987; MD, UMass Worcester, 1992
- Katherine K. Fong**, BA, Rochester, 1975; MD, SUNY Buffalo, 1979
- Richard M. Forster**, BA, Colby, 1981; MD, UMass Worcester, 1988
- Ellis M. Fribush**, AB, Hamilton, 1955; MD, Albany Medical, 1959
- Julia M. Gallagher**, BA, Amherst, 1986; MD, UMass Worcester, 1995
- Heather L. Gallo**, BS, MIT, 1986; MD, UMass Worcester, 1991
- Maria Garcia**, BA, Rutgers, 1984; MD, Pennsylvania Medical, 1994
- Thomas Gassert**, MD, University of Medicine and Dentistry of New Jersey, 1992
- V. Susan George**, MD, National (Singapore), 1989
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Jeffrey A. Gordon, BA, Brandeis, 1989; MD, UMass Worcester, 1993

Renu S. Goyal, MD, Karnataka, 1991

Sanjeev B. Goyal, MBBS, Bombay, 1990

Joshua M. Greenberg, BA, Pennsylvania, 1973; MD, Hahnemann, 1977

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Lawrence L. Greenwald, BA, Bucknell, 1983; MD, SUNY Syracuse, 1989

Douglas L. Groves, BS, Maine, 1983; MD, McGill, 1992

Daniel Guilbert, BA, Boston, 1972; MD, Vermont, 1976

Ish Gupta, BS, Tufts, 1993; DO, Lake Erie College of Osteopathic Medicine, 1999

Richard A. Haas, BS, MIT, 1973; MD, California/San Francisco, 1977

Robert C. Harizi, BA, Boston, 1977; MD, 1981

Harry Hartford, BSc, McGill, 1970; MD, 1974

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William O. Hartzell, MD, Virginia, 1992

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Philip Henneke, MD, Freie Universitaet Berlin (Germany), 1994

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Richard J. Horner, BA, Dartmouth, 1966; MD, Harvard, 1969

Edmund Hornstein, BA, Vermont, 1981; DO, New England College of Osteopathic Medicine, 1987

John T. Hosey, BA, Hofstra, 1978; MD, Creighton, 1985

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Edward B. Jaffe, BA, Clark, 1967; MS, Harvard, 1969; MD, Cincinnati, 1972

Jay Jahanmir, BA, Washington, 1978; ME, Cornell, 1981; MD, St. George's, 1999

Timothy A. Johnson, BA, Williams, 1985; MD, Connecticut, 1992

Michael Jolie, BS, Trinity, 1993; MD, UMass Worcester, 1997

Mona S. Kaddis, MD, Ein Shams, 1969

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Howard D. Kirshenbaum, AB, Harvard, 1970; MD, 1974

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Devika Kommineni, MBBS, Mysore, 1995

Scott E. Kopec, BA, Boston, 1985; MD, Rush, 1989

Jonathan D. Krant, BA, Johns Hopkins, 1976; MPH, 1979; MD, UMass Worcester, 1983

Stephen J. Krinzman, BA, Wesleyan, 1986; MD, Miami, 1990

Kenneth H. Kronlund, BS, Tufts, 1977; MD, UMass Worcester, 1981

Vinay Kumar, MBBS, King George, 1979; MD, 1983

Shubra Kumar-Bradley, BA, SUNY Binghamton, 1994; MD, SUNY, 1998

Joseph Kuruvilla, MBBS, Armed Forces Medical, 1981

Daniel S. Kusick, BS, Union, 1978; MD, Tufts, 1985

Roseanne C. Labarre, BS, Fairfield, 1984; MS, Connecticut, 1984; MD, Johns Hopkins, 1988

Brian Laliberte, BS, Rensselaer, 1984; MD, New York Medical, 1990

Nancy R. LaPelle, BA, Pennsylvania, 1966; MA, Cornell, 1968; MA, Fielding Institute, 1993; PhD, 1997

Ching-Hsien Lee, MD/PhD, National Taiwan University

Patricia Lehmann, BA, Dublin, 1974; MBBCh, Trinity, 1978

Stephenie C. Lemon, BS, UMass, 1995; MS, UMass Amherst, 1999; PhD, Brown, 2002

Richard S. Lerner, BA, Columbia, 1985; MD, Tufts, 1989

Nikki A. Levin, BA, Harvard, 1987; PhD, MIT, 1993; MD, California, 1997

William K. Levy, MD, Yale, 1976

Lisa A. Lewis, BS, Clemson, 1989; MA, SUNY Buffalo, 1993; PhD, 1996

Yan Li, MD, Beijing, 1986

Yanhua Li, MD, Beijing Medical, 1982

Egil Lien, MS, Norwegian Institute of Technology, 1992; PhD, Faculty of Medicine, 1998

Peter C. Lindblad, AB, Middlebury, 1974; MS, Georgia, 1975; MD, UMass Worcester, 1983

David P. Lyons, BA, Columbia, 1979; MD, Cornell, 1983

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Christine O. MacGinnis, BS, Boston, 1991; DO, New England College of Osteopathic Medicine, 1996

Joshua Macomber, BA, Emory, 1992; MD, UMass Worcester, 1996

Emmanuel C. Maduakor, BS, UMass Boston, 1988; MA, Brandeis, 1990; MD, George Washington, 1996

Michael C. Malinics, BS, Scranton, 1982; DO, Philadelphia College of Osteopathic Medicine, 1986

Samir Malkani, MBBS, All India Institute of Medicine, 1987; MD, 1989

Sukhpal S. Mann, MBBS, Armed Forces Medical (India), 1987

Gordon S. Manning, BA, MD, Boston, 1980

Kathleen Mazor, BA, UMass Amherst, 1979; MS, Eastern Washington, 1985; EdD, UMass Amherst, 1993

Michael J. McCormick, BS, California/Berkeley, 1984; MD, Vanderbilt, 1989

Sarah M. McGee, BS, Villanova, 1979; MD, New York Medical, 1983

Michael R. McInerney, BS, Union, 1978; MD, UMass Worcester, 1982

Savant Mehta, MBBS, All India Institute of Medicine, 1984; MD, 1989

Nicholas M. Mercadante, AB, Pennsylvania, 1976; MD, St. Louis, 1980

Philip Merriam, BS, Worcester State, 1971; MPH, Clark, 1982

Daniel Miller, BA, Harvard, 1962; MD, NYU, 1966

Pamela E. Miller, AB, Brown, 1968; MD, Pittsburgh, 1972

Morris M. Milman, BA, SUNY Binghamton, 1973; MD, Albany Medical, 1980

Mark D. Modell, MS, Institute of Fine Mechanics, 1969

John Modica, BA, Villanova; MD, St. George's, 1983

Jahan J. Montague, BA, Tufts, 1991; MD, Albany Medical, 1995

Harold R. Moore, BA, Colorado State, 1975; MS, UMass Amherst, 1977; MD, UMass Worcester, 1981

Michael P. Mortelliti, MD, Vermont, 1995

Boris A. Murillo, MD, Royal & Ponti, 1990

Elizabeth A. Murphy, BA, Holy Cross, 1988; MD, Boston, 1995

Putchu R. Murthy, MBBS, Kakatiya Medical College, 1985

- Stephen Nelson**, BA, Roger Williams, 1973; MS, Rhode Island, 1980; DO, New England College of Osteopathic Medicine, 1984
- Michael C. Newstein**, BS, Cornell, 1984; MD, PhD, Brown, 1992
- Gary O. Norian**, BS, Tufts, 1992; MD, UMass Worcester, 1996
- Mary O'Brien**, BA, Holy Cross, 1987; MD, SUNY Stony Brook, 1991
- William T. O'Connor**, BA, Holy Cross, 1970; MD, Creighton, 1974
- Paulo J. Oliveira**, BA, Tufts, 1992; MD, UMass Worcester, 1997
- Nneka Onwubueke**, MBBS, Lagos, 1990
- Sean P. O'Reilly**, BS, Miami, 1996; MD, UMass Worcester, 2000
- Luigi Pacifico**, BA, Brandeis, 1983; DO, Health Sciences, 1988
- Sherry Lynn Pagato**, BA, Oakland, 1995; MA, Western Michigan, 1998; PhD, 2001
- Anthony A. Pellegrino**, BS, MIT, 1974; MS, 1974; MD, UMass Worcester, 1981
- Larry J. Pellish**, BS, Union, 1968; MD, NYU, 1972
- Richard D. Perera**, AB, Princeton, 1954; MD, New York Medical, 1958
- Nancy E. Phillips**, AB, California, 1974; PhD, Colorado, 1980
- Bilal Piperdi**, MD, Hacettepe, 1997
- Andrew J. Plager**, BS, Amherst, 1980; MS, Columbia, 1983; MD, SUNY Buffalo, 1987
- Ninan Polackal**, MBBS, St. John's, 1993
- Elise H. Pyun**, BA, Boston, 1981; MD, 1985
- Fares Qureiyeh**, MD, Aleppo, 1996
- Sanjay Ram**, MD, Bombay University, 1991
- Jason Rashkin**, BS, Tufts, 1994; MD, SUNY Syracuse, 1998
- Sharon J. Rawlings**, BA, Brandeis, 1993; MD, UMass Worcester, 1997
- Sarah Reiff-Hekking**, BA, Depauw, 1987; MA, SUNY Stony Brook, 1994; PhD, 1997
- David R. Remis**, BA, Brandeis, 1991; MA, Virginia, 1993; MD, UMass Worcester, 2000
- Jack K. Ringler**, AB, Dartmouth, 1979; MD, Harvard, 1983
- Jonathan H. Robbins**, BA, Case Western Reserve, 1967; MD, Tufts, 1971
- Dionyssios A. Robotis**, MD, Athens, 1985
- Henry J. Rose**, BA, Hamilton, 1977; MD, Rochester, 1981
- *Charles Rosenbaum**, BA, Vermont, 1963; MD, 1967
- Richard A. Rosiello**, BA, Holy Cross, 1978; MD, Dartmouth, 1981
- Karen F. Rothman**, MD, Boston, 1981
- Ritu Sachdev**, MBBS, Maulana Azad, 1999
- Prabhasadanah G. Sadhujan**, MBBS, Kottayam Medical College (India), 1980
- Ralph J. Sama**, BA, Holy Cross, 1974; MD, UMass Worcester, 1978
- Julian Sanchez-Cruz**, MD, Universidad Nacional Pedro Henriquez Urena (Dominican Republic), 1990
- Andrew Schamess**, BA, Sarah Lawrence, 1986; MD, UMass Worcester, 1991
- Ira J. Schmelkin**, BS, CUNY, 1982; SUNY Buffalo, 1984
- Alice A. Schmuckal Williams**, BA, Western State, 1977; MD, Colorado, 1986
- Mark L. Schrank**, BA, NYU, 1979; MD, SUNY, 1983
- Paul S. Schwartz**, BA, Antioch, 1960; MD, Washington, 1964
- Joseph D. Scuderi**, BS, SUNY Stony Brook, 1988; MS, Albert Einstein, 1992; MD, PhD, 1996
- Kala Seetharaman**, MBBS, Government Medical, 1982
- Jerriane Seger**, BS, Michigan State, 1973; MD, Wayne State, 1977
- Neeta S. Shah**, MD, Topiwala National, 1981
- Vladimir Shamanin**, MS, Novosibirsk State, 1980; PhD, Novosibirsk Institute, 1990
- Veena R. Shankar**, MD, Bangalore, 1992
- Ellen L. Sharenow**, BA, Florida, 1979; MA, Western Michigan, 1985; PhD, 1993
- Ishwara N. Sharma**, MBBS, Punjab, 1967
- Zahra S. Sheik**, MD, Nishtar Medical College, 1995; MPH, New York Medical College, 2002
- David S. Shepro**, BA, Boston, 1980; MD, UMass Worcester, 1984
- Bruce J. Shickmanter**, MD, SUNY Syracuse, 1974
- Shahrazad Shidfar**, MD, Iran University of Medical Sciences, 1995
- Neal Silverman**, BA, California, 1989; PhD, MIT, 1996
- Dianne L. Silvestri**, BS, Butler, 1970; MD, Indiana, 1974
- Beata Skowronska**, MD, Silesian University, 1992
- John M. Solomonides**, BS, Tufts, 1990; MD, UMass Worcester, 1994
- L. Rebecca Spanagel**, BA, Rochester, 1984; MD, 1988
- Morris Spierer**, BA, Yeshiva, 1965; MD, Albert Einstein, 1969
- Anon Srikiatkachorn**, MD, Chiang Mai (Thailand), 1983
- Beata Stancel-Grabias**, MD, Gdansk (Poland), 1993
- Judith A. Stebulis**, BS, Pennsylvania State, 1974; MA, Temple, 1979; MD, UMass Worcester, 1998
- Daniel M. Steigman**, BA, Columbia, 1978; MD, Boston, 1982
- Susan M. Sweeney**, BS, Providence College, 1993; MD, UMass Worcester, 1998
- Gary M. Tanguay**, BS, Providence, 1973; MD, Boston, 1977
- Masanori Terajima**, MD, Tohoku, 1988; PhD, 1994
- Robert J. Terlato**, BS, Manhattan, 1983; ME, Rensselaer, 1984; MD, New York Medical, 1988
- Emil L. G. Tigas**, BS, Philippines, 1993; MD, 1993
- Jennifer Tjia**, BA, Boston, 1994; MD, Boston Medical, 1994
- Mira S. T. Torres**, BS, Philippines, 1993; MD, 1993
- Matthew J. Trainor**, BA, Colby, 1994; MS, Trinity (Dublin), 2001
- *Maichi T. Tran**, PharmD, Massachusetts College of Pharmacy; PhD, 2002
- Christopher Trancynger**, BS, SUNY Stony Brook, 1981; MD, NYU, 1985
- Thomas L. Treadwell**, AB, Dartmouth, 1974; MD, 1977
- Spyridon Triantos**, MD, Athens, 1993
- Marjan Vahedi**, MD, Shiraz Medical School, 1995
- Rohit D. Vakil**, MD, Baroda, 1967
- Mary A. Valliere**, BS, New Hampshire, 1981; MD, UMass Worcester, 1989
- Thomas J. Vaughan**, BS, Boston College, 1977; MD, Indiana, 1981
- Craig S. Vinch**, BS, Tufts, 1988; MD, Harvard, 1994
- Alberto Visintin**, PhD, Trieste, 1995
- Sowmya Viswanathan**, BS, Calicut (India), 1983; MBBS, Madurai Medical, 1988
- Philip S. Volastro**, AB, Canisius, 1962; MD, Rochester, 1966
- Douglas C. Waite**, BS, Wheaton, 1984; MD, University of Medicine and Dentistry of New Jersey, 1988
- William V. Walsh**, AB, Harvard, 1980; MD, George Washington, 1985
- Jennifer P. Wang**, AB, Harvard, 1991; MD, Michigan, 1995
- Arthur H. Wasser**, BA, Virginia, 1958; MD, 1962
- Catherine E. Waud**, BA, Wellesley, 1983; MD, UMass Worcester, 1987
- Robert P. Wespiser**, BA, UMass, 1979; MD, UMass Worcester, 1983
- Mireya A. Wessolossky**, MD, Venezuela, 1989
- Barbara J. Whalen**, BA, Kalamazoo, 1975; PhD, Connecticut, 1993
- Winthrop F. Whitcomb**, BA, Wesleyan, 1984; MD, Jefferson Medical, 1989
- Gregory T. Williams**, BA, Hamilton, 1981; MD, New York Medical, 1986
- David A. Wilner**, BS, Tufts, 1975; MD, 1979
- Peter B. Wilson**, BA, Swarthmore, 1979; MD, Rush, 1984
- Gary L. Wolf**, BA, Boston, 1975; MD, 1979

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(Medicine Faculty continued)

Fifield Workum Jr., BA, Harvard, 1961;
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Majid Yazdani, BA, Boston, 1989; MS, 1990;
MD, 1994

Malathi Yella, MBBS, Mysore (India), 1992

E. Russell Young, BA, Gettysburg, 1981;
DO, New England College of Osteopathic
Medicine, 1985

Shakeeb Yunus, MD, MBBS, University
of Punjab, 1993

Jian Houa Zhou, BS, Fudan, 1987; MS, 1989;
PhD, Pittsburgh, 1994

Iva Zivna, MD, Charles University, Prague, 1995

Jaroslav Zivny, MD, Charles University,
Prague, 1995

Marjorie A. Zyrek-Bacon, BS, UMass Amherst,
1985; MD, UMass Worcester, 1989

Clinical Assistant Professors

Peter Gibson, BS, Brown, 1987; MD, University
of Cincinnati College of Medicine, 1994

Raymond R. Zhou, MD, Fujian, 1984; MS,
Beijing, 1989; PhD, Iowa, 1994

Research Assistant Professors

Sunita Gulati, MD, University of Rangoon, 1972

Richard F. Konz, Jr., BS, Maine, 1984

Wenjun Li, BS, Fudan (China), 1986; MS,
Chinese Academy of Sciences, 1990; MS,
UMass Amherst, 1996; MS, 1997; PhD, 2003

Pranoti Mandrekar, BS, Bombay, 1984; MS,
1986; PhD, 1991

Shixia Wang, DVM, Agricultural (China), 1985;
PhD, Chinese Academy of Preventive Medicine,
1995

Jorge L. Yarzebski, MD, San Carlos, 1982;
MPH, UMass Worcester, 1992

Adjunct Assistant Professors

Ronald J. Debellis, BS, Nevada/Reno, 1985;
PharmD, Pacific, 1988

Leon Fay, MD, Cornell, 1977

Pritesh J. Gandhi, BPharm, Mass College
of Pharmacy, 1997; DPharm, 1997

Erica E. Johnson, BA, Wellesley, 1967;
MD, UMass Worcester, 1975

Senior Affiliates

George W. Ballantyne Jr., AB, Harvard, 1954;
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1970; MD, UMass Worcester, 1974

Affiliates

Kyneret Albert, BA, Brandeis, 1987;
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MD, UMass Worcester, 1992

Turner E. Bynum, BA, Oklahoma, 1961; MD, 1964

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MD, Temple, 1989

Harshad V. Chitre, MBBS, LTM Medical, 1975

Nandini Chitre, MS, Baroda, 1979

Joseph J. Creme, BA, Providence, 1968;
MD, Connecticut, 1973

Anthony M. DeMarco, AB, Harvard, 1966;
MD, Rochester, 1970

Mary S. Donnelly, BS, Marquette, 1970;
MD, Case Western Reserve, 1974

Daniel J. Donovan, BS, Bates, 1977; DO,
New England College of Osteopathic Medicine,
1981; MD, Uniformed Services, 1987

Robert M. Fishman, BA, SUNY, 1976; DO, New
York College of Osteopathic Medicine, 1981

Howard N. Fixler, BS, Michigan State, 1976;
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Satish P. Gupta, MBBS, Punjab, 1959;
MD, 1964

John E. Kelly, BS, Tulane, 1972; MD, 1976

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1978

Robert A. Lebow, BA, SUNY Buffalo, 1966;
MD, SUNY Downstate, 1977

Darrolyn M. Lindsey, BA, Wagner, 1977;
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of New Jersey, 1983

Robert E. Maloney, BS, Niagara, 1967;
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Bogdan Nedelescu, MD, Carol Davila, 1996

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of Medical Sciences of Central America, 1993

Instructors

Ussama M. Abdel-Motal, PhD, Karolinska
Institute Medical School, 1996

Sarika Agarwal, PhD, Michigan Technological,
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Bombay, 1987

Demosthenes K. Agiomavritis, BA, Merrimack,
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Guadalajara, 1979

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Saroj Bharatiya, MD, Calcutta University, 1992

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Gilbert Brovar, MD, SUNY Brooklyn, 1983

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Henry D. Childs, BA, Harvard, 1958;
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MD, 1998

Jay Cyr, BN, Health Science, 1986; MS,
UMass Worcester, 1989; MBA, Nichols, 1995

***Nicolina C. Davis**, BS, Colgate, 1987;
MD, Albany, 1991

David B. DeGrand, BA, Berklee, 1975; BS,
UMass, 1980; MD, PhD, UMass Worcester,
1990

Kevin F. Delacey, BA, Holy Cross, 1977;
MD, UMass Worcester, 1981

Gail L. Dickinson, AB, Cornell, 1972;
MD, UMass Worcester, 1987

Philip J. dilorio Jr., BA, Merrimack, 1987;
PhD, Connecticut, 1995

Sharon Dilley, BA, Merrimack, 1987;
PhD, Connecticut, 1995

Angela Dolganiuc, MD, PhD, University
of Medicine and Pharmacy (Moldova), 1993

Nancy Dragoon, MD, SUNY Stony Brook, 1984

Edward Driscoll, BA, Pennsylvania, 1966;
MD, Maryland, 1976

Paul F. Dufault, BS, Holy Cross, 1978;
MD, Tufts, 1982

David W. Duhme, MD, Harvard, 1970

Morris P. Elevado, BS, Notre Dame, 1993;
MD, SUNY Buffalo, 1997

Brenda Eze, BS, Wisconsin/Milwaukee,
1977; MD, 1981

David A. Fahey, BA, Amherst, 1982;
MD, PhD, Boston, 1989

Neal M. Fallis, AB, Boston, 1967; MD, 1971

Faheem M. Farooq, MBChB, Alexandria,
1967; MD, Osmania, 1971

Madeleine R. Fay, BS, Cornell, 1966; MA,
Clark, 1974; MD, UMass Worcester, 1978

Kathleen I. Flynn, BS, Boston College, 1995;
MD, Tufts, 2001

- Deborah A. Ford**, MD, UMass Worcester, 1983
- Robert J. Fraser**, AB, Colgate, 1974; MD, UMass Worcester, 1978
- William M. Gaines**, BS, Michigan, 1979; MD, Cornell, 1983
- Frederick Georgian**, MD, Boston, 1981
- Gerald C. Gladstone**, AB, Harvard, 1972; MD, Tufts, 1976
- Rashel Goodkin**, MD, Harvard, 1998
- Sabitha R. Gopalswamy**, MD, Madurai (India), 1989
- Ethel J. Gordon**, BA, Southern Illinois, 1969; MS, Northeastern, 1988; PhD, Rutgers, 1994
- Piotr Grabias**, BS, Wacław Sierpinski Lyceum, 1984; MD, Gdansk Medical, 1990
- Richard A. Greene**, BS, Rhode Island, 1975; MD, Albany Medical, 1979
- George Groussis**, BA, Brandeis, 1985; MS, New York Medical, 1988; MD, Chicago Medical, 1993
- Raj Rani Gupta**, BS, Rajasthan, 1977; MD, 1981
- Tatiana A. Hamawi**, BS, UMass Amherst, 1989; MD, Mount Sinai, 1994
- Janet R. Hardy**, BS, Concordia, 1983; MPH, Miami, 1988; MS, McGill, 1991; PhD, Yale, 2004
- Bradley E. Harris**, BS, California/Berkeley, 1986; MD, Tufts, 1993
- Deborah Hazen**, BA, Barnard, 1972; JD, Harvard, 1975; MD, UMass Worcester, 1995
- Robert Honig**, BA, Michigan, 1972; MD, SUNY Downstate, 1976
- Suhasini R. Iyer**, MBBS, Bombay, 1982; MD, 1984
- Eugene C. Jagella**, BA, Pennsylvania, 1981; MD, Medical College of Pennsylvania, 1986
- Chirag R. Jani**, MD, New York Methodist Hospital, 1998
- Nathaniel J. Jellinek**, BA, Brown, 1995; MD, UMass Worcester, 2000
- Krzysztof Kacprzak**, MD, Wrocław, Poland, 1983
- Maria C. Kim**, BA, Boston, 1984; MD, 1993
- Ronald W. Klare**, BA, Columbia, 1971; MD, NYU, 1975
- Susan G. Krantz**, BS, SUNY, 1983; MS, Johns Hopkins, 1987; MD, Hahnemann, 1991
- Donna M. Krauth**, BS, Holy Cross, 1978; MD, Dartmouth, 1981
- Louis Kuchnir**, BS, MIT, 1987; MA, Harvard, 1993; MD, Washington, 1997
- Deepti Kumar**, MD, Delhi, 1992
- Alice N. Lee**, BS, Yale, 1993; MD, Washington, 1999
- Jeffrey H. Lee**, BA, Brown, 1991; MD, Rochester, 1996
- Jan F. Leitao-Pina**, BS, Dartmouth, 1988; MD, UMass Worcester, 1992
- David A. Levitin**, BS, Pittsburgh, 1968; MD, Duke, 1972
- Kristine M. Lisi**, BS, Fairfield, 1990; MD, Medical College of Pennsylvania, 1994
- Merle F. MacNeil**, BS, St. Francis Xavier, 1964; MD, Ottawa, 1968
- David Maguire**, BS, Georgetown, 1970; MD, 1978
- Alexander Mahendran**, MBBS, Ceylon, 1965
- William S. Maher**, BA, Brown, 1987; MD, Georgetown, 1991
- Dennis W. Maki**, AB, Holy Cross, 1970; MD, Vermont, 1974
- Daniel R. Massarelli**, BS, Georgetown, 1981; MD, 1985
- Anuja Mathew**, BS, Women's Christian, 1989; MS, Christian Medical, 1992; PhD, UMass Worcester, 1999
- Anupam Mathur**, MD, Medical College Amritsar, 1982
- John B. McCahan**, BA, Cornell, 1988; MD, UMass Worcester, 1993
- Fred E. Mensch**, BA, Rochester, 1973; MD, Albany Medical, 1977
- Sherry Singh Mohapatra**, BS, Simon Fraser, 1995; MD, St. George's, 2000
- Arthur V. Moore**, MS, SUNY Stony Brook, 1968; MA, 1970; MD, Cornell, 1983
- Susan P. Moran**, BA, Emmanuel, 1972; MD, SUNY Downstate, 1977
- Dennis E. Murphy**, BS, Providence, 1981; MD, UMass Worcester, 1985
- George Nasinnyk**, MD, Connecticut, 1976
- Kavita Navani**, MBBS, BJ Medical, 1985; MD, 1990
- John G. O'Brien**, BA, Harvard, 1972; MBA, Boston, 1976
- Kelly J. O'Callahan**, BS, Tufts, 1989; MD, UMass Worcester, 1993
- Barbara Olendzki**, BFA, Colorado, 1979; MPH, UMass Amherst, 2000
- Richard N. Orino**, BA, Brown, 1980; MD, 1983
- John N. Pandiscio**, ScB, Brown, 1975; MD, 1978
- Ronald J. Pantano**, BA, Providence, 1967; MD, Bologna, 1974
- Mary M. Philbin**, BA, Harvard-Radcliffe, 1970; MEd, Harvard, 1992
- John C. Platt**, MD, Pennsylvania, 1977
- Dorota K. Poluha**, MD, Medical Academy, 1988; PhD, 1990
- Caleb M. Radebe**, BS, Southern College, 1992; MD, Loma Linda, 1988
- Roopa Reddy**, BA, Mt. Carmel, 1981; MD, Bangalore, 1986
- Ann Michele Ricard**, MBBS, New South Wales, 1971
- Bruce Rosen**, BS, Michigan, 1980; MS, Tufts, 1984; MD, UMass Worcester, 1993
- Elana Rosenbaum**, MS, MSW
- Thomas L. Rosenfeld**, BA, CUNY/Queens, 1974; MD, Medical College of Virginia, 1978
- Ronald G. Rossetti**, BS, UMass Amherst, 1971; MPH, 1991
- Steven E. Salomon**, BA, California, 1968; MD, California/San Francisco, 1972
- Afroz S. Saquib**, MBBS, Nagpur, 1995
- Frederic H. Schwartz**, BA, Trinity, 1980; MD, Hahnemann, 1984
- Arthur C. Sgalia**, BS, Providence, 1969; MD, SUNY Buffalo, 1973
- Jutamas Shaughnessy**, MD, Chiang Mai University, 1992; MA, Boston; PhD, 2002
- Maryann Shea**, BS, McGill, 1984; MS, Boston, 1989; MD, 1994
- Shyla Shrinath**, MD, Mysore (India), 1988
- Majul Shukla**, MD, Gandhi Medical College, 1974
- Kanwarjit S. Sidhu**, BS, Government (India), 1969; MD, 1973
- Surinderpal K. Sidhu**, MD, Government (India), 1974
- David L. Snook**, BS, Albright, 1980; MD, Pennsylvania State, 1984
- Kenneth A. Stevens**, BA, Carnegie-Mellon, 1973; MD, Vermont, 1977
- Dilipkumar B. Subbarao**, MD, Indore (India), 1973
- Steven F. Taraborelli**, BS, Providence, 1970; MD, St. Louis, 1974
- Nehal P. Thakkar**, MBBS, Bangalore (India), 1999
- Jancy Thomas**, MD, Mahatma Gandhi Medical College, 1993
- Elizabeth P. Toomajian**, BA, Augustana, 1977; MSN, Texas/Austin, 1981
- Jayanthi Vaidheeswaran**, MD, Stanley Medical College (India), 1993
- Gert-Paul Walter**, MD, Tufts, 1984
- David E. Weinstock**, BS, Hobart, 1991; DO, Philadelphia College of Osteopathic Medicine, 1999
- Richard M. Wholey**, BA, Williams, 1979; MD, Cincinnati, 1984
- Summer R. Youker**, BA, Austin, 1994; MD, Texas, 1998
- Francis X. Zambetti**, BS, Lehigh, 1974; MD, New York Medical, 1977
- Yi Zhao**, MD, West China University of Medical Sciences, 1988; PhD, Osaka, 1995
- Patricia Zub**, BA, Boston, 1991; MD, 1996

Clinical Instructor

Susan N. Tarrant, BA, Hollins, 1970; MA, Cornell, 1974

Molecular Genetics & Microbiology

Molecular Genetics & Microbiology features:

- numerous faculty who have received Outstanding Medical Educator awards;
- research focused on specific genes that regulate disease processes, host defense mechanisms and basic cellular controls; and
- investigators who exploit classic, molecular and genomic approaches to the genetics of several model systems.

Medical Microbiology, offered through the Department of Molecular Genetics & Microbiology, is a first- and second-year medical school course that provides students with the basic knowledge necessary to understand and intervene in the infectious disease process.

An underlying tenet of the educational approach is that the practice of medicine will be linked more and more closely with the expanding knowledge of basic biological phenomena. Thus, the first part of the course covers the basic biology of bacteria and viruses, with the curriculum emphasizing the molecular mechanisms of microbial processes that are targets or potential targets for antibacterial or antiviral chemotherapy. In the second part of the course, students learn about the pathogenic mechanisms employed by microbes to establish human infection, cause tissue damage, and spread to other hosts. Finally, the acquired knowledge of the biology and pathogenic strategies of these microorganisms is used as a foundation for students to learn how to diagnose, treat and prevent human infectious disease.

Immunology, taught in the second year of the curriculum as a component of the Biology of Disease course, focuses on basic host defenses to disease. While part of an independent course, the principles of immunology nevertheless reinforce and clarify the key concepts of microbiology.

Molecular Genetics & Microbiology Faculty

Professor and Chair

Allan Jacobson, BA, Queens, 1966; PhD, Brandeis, 1971

Professors

Barbara and Nathan Greenberg Chair in Biomedical Research

***Elliot Androphy**, AB, Brandeis, 1975; MD, Rochester, 1979

Richard M. Haidack Professor of Medicine

***Robert W. Finberg**, AB, Chicago, 1971; MD, Albert Einstein, 1974

Ali and John Pierce Chair in Pediatric Hematology/Oncology

***Peter E. Newburger**, BA, Haverford, 1970; MD, Harvard, 1974

David J. Freeland Professor of AIDS Research

***Mario Stevenson**, BS, Glasgow, 1979; PhD, Strathclyde, 1984

***Sarah H. Cheeseman**, AB, Mt. Holyoke, 1969; MD, Wisconsin, 1973

***Richard T. Ellison III**, BA, Virginia, 1973; MD, Hahnemann, 1977

***Francis A. Ennis**, AB, Boston College, 1960; MD, Tufts, 1964

***Terence R. Flotte**, BS, New Orleans, 1982; MD, Louisiana State, 1986

Guangping Gao, BM, West China University of Medical Sciences, 1982; MS, Florida International University, 1990; PhD, 1994

***Richard H. Glew**, AB, Harvard, 1965; MD, Johns Hopkins, 1969

***Douglas T. Golenbock**, MD, Michigan/Ann Arbor, 1980

John M. Leong, BA, Brown, 1979; MD, PhD, 1987

Stuart M. Levitz, BA, NYU, 1975; MD, 1979

Trudy G. Morrison, BA, Wellesley, 1967; PhD, Tufts, 1972

Beth A. McCormick, BA, New Hampshire, 1986; PhD, Rhode Island, 1990

Anthony R. Poteete, AB, Harvard, 1973; PhD, MIT, 1977

Janet M. Stavnezer, BA, Swarthmore, 1966; PhD, Johns Hopkins, 1971

***John L. Sullivan**, BS, LeMoyne, 1968; MD, SUNY Upstate, 1972

Michael R. Volkert, BS, Wisconsin, 1971; MS, Iowa State, 1973; PhD, Rutgers, 1977

***Raymond M. Welsh Jr.**, BS, UMass Amherst, 1967; PhD, 1972

Professor Emeritus

Donald J. Tipper, BS, University of Birmingham (UK), 1956; PhD, 1959

Adjunct Professor

Ronald C. Desrosiers, BA, Boston, 1970; PhD, Michigan State, 1975; MS, Harvard, 1991

Associate Professors

Richard E. Baker, BS, William & Mary, 1975; PhD, Pennsylvania State, 1980

Paul R. Clapham, BS, London, 1974; MS, Reading, 1978; PhD, London, 1990

Paul R. Dobner, BA, SUNY Buffalo, 1975; MA, Columbia, 1976; MPhil, 1979; PhD, 1981

Rachel M. Gerstein, BA, Smith, 1984; PhD, Brandeis, 1990

Jon D. Goguen, BS, Fitchburg State, 1974; MS, UMass Amherst, 1977; PhD, 1980

Ronald M. Iorio, BA, UMass Boston, 1969; MS, Boston College, 1972; PhD, 1979

Duane D. Jenness, BS, Oregon State, 1974; PhD, California/Berkeley, 1980

Timothy F. Kowalik, BS, Belmont Abbey, 1982; MS, Utah State, 1986; PhD, 1989

***Egil Lien**, MS, Norwegian Institute of Technology, 1992; PhD, Norwegian University of Science and Technology, 1997.

Dannel McCollum, BS, Illinois/Urbana, 1987; PhD, California/San Diego, 1993

Peter M. Pryciak, BS, California/Los Angeles, 1983; PhD, California/San Francisco, 1992

***Neal Silverman**, BA, California/Berkeley, 1989; PhD, MIT, 1996

Robert T. Woodland, BS, Villanova, 1967; MS, Ohio State, 1969; PhD, Pennsylvania, 1974

Adjunct Associate Professors

Robert P. Johnson, BS, Duke, 1980; MD, Harvard, 1984

***Marc E. Uknis**, MD, Temple, 1990

* joint appointment

Assistant Professors

Brian J. Akerley, BS, Bates, 1988; PhD, California/Los Angeles, 1995

Victor R. Boyartchuk, MS, Kiev National, 1989; PhD, California/Berkeley, 1998

Kenan C. Murphy, BA, Catholic, 1976; PhD, Maryland, 1983

Christopher M. Sassetti, BS, Santa Clara, 1990; PhD, California/San Francisco, 1999

Cuong Vuong, PhD, University of Tübingen, 2000

JeanMarie Houghton, MD, University of Medicine and Dentistry of New Jersey, 1989

Research Assistant Professors

Feng He, BS, Beijing Agricultural, 1985; MS, National Institute of Agronomy, 1988; PhD, 1991

David A. Mangus, BA, Ohio Wesleyan, 1987; PhD, Indiana, 1994

Madelyn R. Schmidt, BS, Northeastern, 1977; PhD, UMass Worcester, 1991

Carol E. Schrader, BA, Wesleyan, 1984; PhD, Pennsylvania, 1992

Adjunct Assistant Professors

Kimberly A. Schandel, BS, Pennsylvania State, 1983; PhD, Duke, 1990

Alex Sloutsky, MS, Moscow State University, 1974; PhD, 1979

Instructors

Kadambavanasund Papavinasasundaram, BS, MS, Tamil Nadu Agricultural University, Coimbatore, India; PhD, University of Sydney, 1990

Sandy M. Wong, BS, California/Los Angeles, 1983; PhD, 1996



“There is a clear commitment to the broad education of students at UMass Medical School.”

Anne C. Larkin, MD

Associate Professor of Surgery
Co-director of the
High-Risk Breast Cancer Program

Dr. Larkin and her colleagues are dedicated to moving medical education forward in this era of drastic changes in health care. Students are also actively engaged in the curriculum. “I am amazed by the creativity and thoughtfulness of our medical students. They have incredibly diverse backgrounds, but all come with a common goal: to be the best physicians possible,” says Larkin. “When they complete their training here and move on to various residencies, there is no doubt in my mind that they are the best.”

Molecular Medicine

Molecular Medicine's stellar faculty includes:

- the co-recipient of the 2006 Nobel Prize in Physiology or Medicine;
- three Howard Hughes Medical Institute Investigators;
- the director of the Center for AIDS Research, funded by the National Institutes of Health;
- the director of the Diabetes and Endocrinology Research Center, funded by the National Institutes of Health;
- the co-recipient of the 2008 Lasker Award for Basic Medical Research; and
- two members of the National Academy of Science.

Molecular Medicine is characterized by a diverse faculty of both basic biomedical scientists and physician-scientists. The program scientists occupies its own modern 80,000-square-foot research building adjacent to the Medical School campus—Biotech Two—and includes additional faculty appointments in the Program in Gene Function and Expression. The program's strategy for scientific development has been to assemble outstanding investigators with overlapping scientific interests who apply their unique knowledge to molecular mechanisms that underlie physiological processes and associated diseases. Areas of expertise include chemistry; structural biology; biochemistry; cell, developmental and molecular biology; cell signaling and regulation; genomics and proteomics; genetics; and immunology and virology. Molecular Medicine faculty are active in teaching these disciplines in both core and advanced courses to graduate and medical students.

The laboratory groups in the program are led by academic leaders in their respective fields of biology and medicine. Strong

research programs related to cancer biology are also represented. The multidisciplinary nature of the program has led to scientific collaboration and diversity, providing an exceptional training ground for students and postdoctoral fellows alike.

Molecular Medicine Faculty

Professor and Chair

Michael P. Czech, BA, Brown, 1967; MA, Duke, 1969; PhD, Brown, 1972

Professors

Silverman Chair in Natural Sciences

Victor R. Ambros, SB, MIT, 1975; PhD, MIT, 1979

Howard Hughes Medical Institute Investigator; H. Arthur Smith Chair in Cancer Research

Roger J. Davis, BA, Cambridge, 1979; MPhil, 1980; MA, PhD, 1983

Howard Hughes Medical Institute Investigator; Lambi and Sarah Adams Chair in Genetic Research

Michael R. Green, BS, Wisconsin, 1974; MD, PhD, Washington, 1981

Howard Hughes Medical Institute Investigator; Nobel Laureate 2006; Blais University Chair in Molecular Medicine

Craig C. Mello, BS, Brown, 1982; PhD, Harvard, 1990

David J. Freeland Professor of AIDS Research
Mario Stevenson, BS, Glasgow, 1979; PhD, Strathclyde, 1984

Silvia Corvera, BS, Madrid, 1975; MD, Autonoma (Mexico), 1982; MS, 1984

Stephen J. Doxsey, BA, Connecticut, 1977; PhD, Yale, 1987

Heinrich G. Göttinger, BS, Munich, 1976; MD, 1983; PhD, 1984

Dale Greiner, BS, Iowa, 1974, PhD, 1978

Jason Kim, BS, California/Irvine, 1991; PhD, Southern California, 1996

David G. Lambright, BS, UMass Lowell, 1984; PhD, Stanford, 1992

Katherine Luzuriaga, SB, MIT, 1978; SM, 1980; MD, Tufts, 1984

Craig L. Peterson, BS, Washington, 1983; PhD, California/Los Angeles, 1988

Joel D. Richter, BA, Indiana, 1974; MS, Arizona State, 1976; PhD, 1979

Gary B. Schneider, BS, Wisconsin, 1969; PhD, Five College Cooperative Program, 1973

John L. Sullivan, BS, LeMoyne, 1968; MD, SUNY Upstate, 1972

William E. Theurkauf, BA, Brandeis, 1980; PhD, 1988

Associate Professors

Ingolf Bach, BS, Konstanz, 1984; MS, 1989; PhD, Paris, 1993

Lucio H. Castilla, MS, Buenos Aires, 1988; PhD, Michigan, 1995

Paul R. Clapham, BS, London, 1974; MS, Reading, 1978; PhD, London, 1990

Yicktung T. Ip, BS, National Defense, Taipei, 1984; PhD, Iowa, 1989

Paul D. Kaufman, BA, California/Berkeley, 1985; PhD, MIT, 1992

Nathan Lawson, BA, Rhode Island, 1994; PhD, Yale, 1999

Brian Lewis, BS, California/Los Angeles, 1991; PhD, Johns Hopkins, 1997

Gregory J. Pazour, BS, South Dakota State, 1986; PhD, Minnesota, 1991

Heidi A. Tissenbaum, BS, Montreal, 1986; MS, Ottawa, 1988; PhD, Harvard, 1997

Fumihiko Urano, MD, Tokyo, 1994; PhD, 1998;

Marian Walhout, BS, The Netherlands, 1992; PhD, 1997

Lan Xu, MS, Dalhousie, 1993; PhD, California/San Diego, 1998

Assistant Professors

Usha Acharya, BS, Madras, 1985; MS, 1987; PhD, Bangalore, 1992

Michael H. Brodsky, BA, California/Berkeley, 1989; PhD, MIT, 1996

Kirsten A. Hagstrom, BA, Oberlin, 1989; MA, Princeton, 1993; PhD, 1998

Lambertus van den Berg, MS, Utrecht, 1990; PhD, 1994

Yong-Xu Wang, BS, Beijing, 1989; PhD, Iowa, 1999

Maria L. Zapp, BA, Wilson, 1980; PhD, Baylor, 1989

Research Professor

Gary R. Ostroff, BS, Delaware Valley, 1976; PhD, Delaware, 1982

Research Associate Professors

Lawrence Lifshitz, BA, Harvard, 1980; MS, North Carolina, 1983; PhD, 1987

Clive Standley, BSc, Imperial College, London, 1983; PhD, 1986

Research Assistant Professors

Karl D. Bellvé, BS, UMass Amherst, 1990; PhD, Maryland, 1996

Anil K. Chawla, MS, Punjab, 1980; PhD, CUNY, 1988

Darryl Conte, BS, Rensselaer, 1992; PhD, SUNY Albany, 2000

Andrea Foulkes, BA, Brown, 1994; ScD, Harvard, 2000

Kevin E. Fogarty, BS, Worcester Polytechnic Institute, 1975; MS, 1978

Paul Furcinitti, BS, WPI, 1971; PhD, New Hampshire, 1975

Adilson L. Guilherme, BS, Rio de Janeiro, 1989; PhD, 1994

Shaohui Huang, BA, Kansas, 1993; PhD, 1998

Norman J. Kennedy, BA, Dartmouth, 1990; PhD, Vermont, 1999

Ellen Kittler, BA, Arkansas, 1978; PhD, Virginia, 1989

Lori J. Lorenz, BS, Purdue, 1981; PhD, Brandeis, 1990

Angela Mann, BS, Glasgow, 1979; PhD, 1984

Vishwajeet Puri, BS, Panjab, 1991; MS, 1993; PhD, 1998

Mark E. Sharkey, MS, Assumption, 1985; PhD, Clark, 1993

Masaki Shirayama, BS, Tokyo, 1990; MS, 1992; PhD, 1995

Juerg Straubhaar, MS, Berne, 1980; MS, Brandeis, 2003; PhD, Clemson, 1991

Simon M. Swingler, BS, Reading, 1988; PhD, Warwick, 1992

Rossella G. Tupler, MD, Brescia, 1985; PhD, Pavia, 1993

Joseph V. Virbasius, BS, WPI, 1985; PhD, Northwestern, 1991

Instructors

M. Inmaculada Barrasa, BS, Autónoma, Spain, 1991; PhD, 1996

Eric Campeau, BSc, McGill, 1992; PhD, 1999

Madhumita Das, BS, Calcutta, 1990; MS, 1994; PhD, Jadavpur/Calcutta, 2001

Dae Young Jung, BS, Sangmyung, South Korea, 1989; PhD, 2001

Hwi-Jin Ko, BS, Sung Kyun Kwan, South Korea, 1994; MS, 1998; PhD, Seoul National, 2005

Paul Peters, BA, Holy Cross, 1990; MS, Purdue, 1993; PhD, 1996

Sergei Popov, MD, Kishinev, 1976; PhD, 1990

John S. Reece Hoyes, BS, James Cook, Australia, 1996; PhD, 2001

Jovenal San Agustin, BS, Mindanao State, 1974; MS, Philippines, 1979; PhD, Wisconsin, 1988

Natalia Sharova, PhD, D.I. Ivanovski Institute, 1984

Ernesto R. Soto Villatoro, BS/MS Universidad del Valle de Guatemala, 1999; PhD, Worcester Polytechnic Institute, 2005

Claire Louise Standen, BSc, Bath, United Kingdom, 1996; PhD, Kings College, London, 2002

Qionglin Zhou, BS, Jiangxi, 1982; PhD, London, 1996

Neurobiology

Neurobiology faculty conduct cutting-edge research into the:

- assembly and plasticity of synapses, the structures through which nerve cells communicate with each other;
- development and function of glia that may identify targets for pharmaceutical intervention in spinal cord injuries or neurodegenerative disease;
- mechanisms of neural circuitry formation and its impact on the developing brain;
- mechanisms of learning and memory in fruit flies and behavioral plasticity in worms, and their relevance to those of humans; and
- mechanisms of circadian rhythm generation in insects and mammals that are therapeutic targets for some sleep and psychiatric disorders.

Brain function embodies the very essence of the human experience, as well as that of our relatives in the animal kingdom, and its study represents one of the most exciting scientific endeavors. Established in 2001, the Department of Neurobiology is the driving force for basic neuroscience research on campus. Housed on one floor of the Aaron Lazare Medical Research Building, the department's activities encompass the study of neurological development, with implications for disorders ranging from Sudden Infant Death Syndrome to Alzheimer's disease.

Department faculty are focused on elucidating fundamental mechanisms of brain function using model genetic systems and unconventional models, such as the monarch butterfly. These research results will add to the understanding of the roles of genes and their protein products in normal neuronal and glial function, with the goal of finding innovative therapies to prevent, combat, and cure neurological and neuropsychiatric disorders.

Neurobiology Faculty

Professor and Chair

Higgins Family Professor of Neuroscience

Steven M. Reppert, BS, Nebraska, 1973; MD, 1973; MA, Harvard, 1993

Professor and Vice Chair

Vivian Budnik, BS, Chile, 1983; PhD, Brandeis, 1988

Professor

David R. Weaver, BS, Michigan State, 1981; PhD, 1985

Associate Professors

Patrick Emery, License, Geneva, 1990; Diploma, 1992; PhD, 1996

Tzumin Lee, MD, National Yang-Ming Medical College, 1989; MS, 1992; PhD, Johns Hopkins

Scott Waddell, BSc, Dundee, 1991; PhD, London, 1996

Assistant Professors

Howard Hughes Medical Institute Early Career Scientist

Marc R. Freeman, BS, Eastern Connecticut State, 1993; PhD, Yale, 1995

Mark J. Alkema, MSC, Amsterdam, 1990; PhD, 1996

Claire Benard, BS, McGill, 1996; PhD, 2003

Michael Francis, BA, Virginia, 1992; PhD, Florida, 1998

Hong-Sheng Li, BS, Wuhan, 1991; PhD, Shanghai Brain Research Institute, 1996

Motojiro Yoshihara, BS, Tokyo, 1987; PhD, 1992

Research Assistant Professor

Takeshi Awasaki, BS, Hokkaido, 1990; MS, 1992; PhD, 1995

Neurology

The largest training, research and clinical neurology facility in central New England, the Department of Neurology's skilled faculty are engaged in a number of funded research programs, including investigations into the:

- genetic defects that cause familial forms of Lou Gehrig's disease (amyotrophic lateral sclerosis, or ALS);
- molecular events that trigger non-familial forms of ALS and drug screening for small molecules that ameliorate ALS;
- genetic basis and approaches to therapy of selected other neuromuscular disorders, including a form of limb girdle muscular dystrophy (LGMD-2B, also known as Miyoshi myopathy), periodic paralysis, hereditary sensory and autonomic neuropathy (HSAN1) and a form of adrenoleukodystrophy (Lorenzo's Oil disease) known as adrenomyeloneuropathy;
- physiology of the visual cortex;
- pathology, genetics and biology of other neurodegenerative disorders, with a particular focus on Alzheimer's disease;
- molecular control of circadian functions and the molecular genetics of membrane channel function and dysfunction;
- pathophysiology of disorders of the central and peripheral autonomic nervous systems;
- therapeutic approaches to multiple sclerosis; and
- pathobiology of brain tumors.

The Department of Neurology acquaints students with diseases that affect the nervous system and equips them with fundamental skills in clinically relevant neuroscience, neurologic diagnosis and management. Because neurological disorders are common among patients in virtually every medical specialty, this instruction is designed for students entering all branches of medicine.

During the first year, medical students learn neuro-anatomy and physical diagnosis in courses that stress clinical correlations of neuro-anatomic principles. A second-year neuroscience course, Mind, Brain and Behavior II, introduces students to nervous system disorders, emphasizing observational methods, regional problems, specific diseases and clinical patterns. Clinical neurological problems also are explored in the second year.

The major portion of clinical neurology instruction is carried out during the fourth-year Neurology clerkship. Students spend one month on the inpatient, consult or ambulatory service at one of the teaching hospitals affiliated with the Medical School. Seminars and lectures discussing major clinical problems are conducted weekly and elective programs are offered in the department's clinical and basic research laboratories.

Faculty basic research interests include the neurophysiology of vision; the biology of respiratory and circulatory control; the molecular genetics, structure and function of nerve and muscle ion channels; approaches to understanding the causes and therapies for neurodegenerative disorders, with an emphasis on ALS and Alzheimer's disease, the molecular basis of circadian rhythms and neural stem cell biology. Clinical research interests include the neurology of aging and Alzheimer's disease, epilepsy, Parkinson's disease, multiple system atrophy, multiple sclerosis, neuromuscular disorders and cerebrovascular disease.

In 2006, the department received national recognition by the Association of University Professors of Neurology (AUPN) for the highest portion of medical school class members entering neurology, as compared to all other medical schools in the United States.

Neurology Faculty

Clinical Professor and Chair

Robert H. Brown Jr., AB, Amherst College, 1969; DPhil, Oxford, 1973; MD, Harvard, 1975

Professors Emeriti

Israel F. Abrams, MBBCh, Witwatersrand, 1956

Elliott M. Marcus, BA, Yale, 1954; MD, Tufts, 1958

Professors

Sheldon Benjamin, BS, Cincinnati, 1976; MD, 1980

David Chad, BS, McGill, 1970; MD, 1974

David A. Drachman, AB, Columbia, 1952; MD, New York, 1956

Marc Fisher, BS, Cornell, 1970; MD, SUNY Upstate, 1974

Susan B. Gagliardi, BA, Radcliffe College, 1965; PhD, Harvard, 1971

Edward I. Ginns, BS, Rensselaer, 1967; PhD, 1971; MD, Johns Hopkins, 1976

Paul C. Marshall, BS, Boston College, 1966; MD, Jefferson Medical, 1970

Majaz Moonis, MBBS, University College of Medical Sciences, 1981; MD, Maulana Azad, 1986

David Paydarfar, BS, Duke, 1980; MD, North Carolina, 1985

Daniel A. Pollen, AB, Harvard, 1956; MD, 1960

William J. Schwartz, BS, California/Irvine, 1971; MD, California/San Francisco, 1974

Thomas W. Smith, BS, Ohio State, 1968; MD, Cornell, 1972

Ajay K. Wakhloo, MD, Johannes Gutenberg University of Mainz, Germany, 1984

Merrill K. Wolf, BA, Yale, 1945; MD, Case Western Reserve, 1956

Clinical Professors

Peter N. Riskind, MD, Southwestern, 1975; PhD, Texas Health Science, 1980

Jane C. Sargent, MD, Hahnemann, 1974

Joseph M. Tonkonogy, MD, Kirov Military Medical Academy, 1947; DSc, Bekhterev Psychoneurological Research Institute, 1966

Associate Professors

Lloyd M. Alderson, MD, UMass Worcester, 1988
Lawrence J. Hayward, BS, Washington, 1982; PhD, Baylor, 1987; MD, 1989
Sandra L. Horowitz, BS, McGill, 1972; MD, 1976
John Landers, BS, Rensselaer, 1990; PhD, Pennsylvania, 1995
Joan M. Swearer, BA, Macalester, 1979; MA, New School for Social Research, 1985; PhD, 1991

Clinical Associate Professors

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