

Clinical and Research Fellowships in the Division of Respiratory and Critical Care Physiology and Medicine

Harbor-UCLA Medical Center
Torrance, California

Affiliated with the David Geffen School of Medicine at UCLA

The Division of Respiratory and Critical Care Physiology and Medicine at Harbor-UCLA Medical Center offers clinical fellowship training in a 3-year combined program in pulmonary disease and critical care medicine to physicians who have completed residency training in internal medicine. In addition, research fellowships in respiratory physiology and medicine are available for qualified candidates. The Division provides an outstanding training environment with a strong emphasis on application of physiologic principles to clinical medicine and the linkage between basic science, disease, and patient management.

Clinical

The Division of Respiratory and Critical Care Physiology and Medicine maintains an active program of clinical, research, and teaching activities. The Division provides primary care and consultation in respiratory medicine for inpatients and outpatients.

Clinical services offered by the Division include fiberoptic bronchoscopy, respiratory therapy, pulmonary function testing, integrative cardiopulmonary exercise testing, and sleep studies. The Medical Intensive Care Unit is under the direction of the Division, and Harbor-UCLA maintains an acute inpatient consultation service for the treatment of advanced or complicated tuberculosis. An integrative cardiopulmonary exercise physiology laboratory offers state-of-the-art evaluation of patient's cardiopulmonary function during exercise. There is a two-bed sleep laboratory.

A Pulmonary Referral Center with associated physiology laboratory is available for evaluation of patients referred for special consultation and/or special diagnostic procedures.

Research

Faculty, fellows, and other researchers are involved with activities centered in a 30,000 square foot research and teaching facility. The Division's exercise physiology laboratories make it one of the world's foremost centers for exercise physiology research. Other facilities on the campus employed for particular investigational needs include the NIH-funded General Clinical Research Center, electron-beam computed

tomography facility, imaging center, sleep physiology laboratory, intensive care unit, animal research laboratories, and vivarium. Faculty in the Division direct a unique Rehabilitation Research Center with a focus on innovative treatment strategies for patients with chronic disease. There is a major programmatic emphasis on chronic obstructive pulmonary disease research, including a 5-year NIH-funded multicenter research program in COPD. Active collaborative relationships have been established with the Divisions of General Internal Medicine, Cardiology, Endocrinology, Nephrology, Hematology and Medical Oncology, and HIV Medicine, as well as with investigators at other institutions.

Teaching

The Division of Respiratory and Critical Care Physiology and Medicine upholds a long tradition of individualized and in-depth teaching at all levels in the training programs at Harbor-UCLA. This extends from the clinical services to the research laboratory, the classroom, and the informal conferences and study sessions that form the framework of fellowship and research training. The Division has offered since 1982 a twice-yearly postgraduate course in Exercise Testing and Interpretation that attracts participants from around the world. Division faculty members and fellows have received awards for teaching from medical students and residents.

THE TRAINING PROGRAM IN RESPIRATORY AND CRITICAL CARE PHYSIOLOGY AND MEDICINE

Clinical fellowship training in the Division of Respiratory and Critical Care Physiology and Medicine is accredited by the ACGME and meets the requirements of the American Board of Internal Medicine for certification in Pulmonary Disease and Critical Care Medicine. Fellowship training in this Division has been offered continuously for more than 30 years.

Fellows have rotations at the Harbor-UCLA Medical Center, Torrance and at the Kaiser Permanente Medical Center in Bellflower. The training program in respiratory disease and critical care medicine is under the direction of full time faculty of the Harbor-UCLA Medical Center, all of whom hold appointments at the David Geffen School of Medicine at UCLA. There is an emphasis on both clinical respiratory and critical care medicine and respiratory medicine and physiology research.

At Harbor-UCLA Medical Center, fellows are assigned to a variety of services in rotations of approximately 4 weeks each: Medical-Respiratory ICU, inpatient respiratory medicine consultation and fiberoptic bronchoscopy, and pulmonary physiology laboratory (including pulmonary function testing, exercise testing and sleep studies). All fellows are assigned to the

weekly outpatient chest clinic. At Kaiser Bellflower, fellows work under the close supervision of full-time intensivists and pulmonologists, and manage patients with the full range of critical illness, including surgical patients.

Conferences and teaching sessions include weekly Respiratory Medicine Grand Rounds, Tuberculosis Case Conference, Combined Medicine-Surgery-Oncology-Pathology-Radiology Conference, and Pulmonary Physiology Laboratory Conference. Formal courses for fellows include the Physiology Lecture Series, Respiratory Therapy Discussion and Demonstration Series, Critical Care Medicine Discussion Series, a Lung Immunology Course, a Lung Pathology Review, and a Biostatistics Course. An evidence-based medicine Journal Club is held every 6 weeks.

RESEARCH TRAINING IN THE DIVISION OF RESPIRATORY AND CRITICAL CARE PHYSIOLOGY AND MEDICINE

A major strength of the Division is the wide range of scientific expertise readily available to the Fellow, ranging from clinical respiratory medicine through systemic physiological function, cellular bioenergetics, computer modeling and simulation, bioengineering applications to physiological processes, control system theory, and clinical trials design.

The Division has a major focus of interest in the use of muscular exercise as a stressor of cellular respiration and the response behaviors of the cardiovascular and ventilatory systems. This allows the exploration of the limits and constraints of normal physiological function and also helps isolate the cause(s) of impaired cellular or organ function limiting work tolerance. Further, the recognition that a common manifestation of many chronic diseases is exercise intolerance has led to physiology-based strategies to ameliorate exercise intolerance in patients with a range of diseases. There are three laboratories devoted to human exercise studies in the Division. Each of these is designed and equipped to focus on a particular aspect of exercise analysis, such as clinical exercise testing, training and rehabilitation, and the analysis of dynamic physiological responses. Other human research is carried out in the main hospital unit, the Intensive Care Unit, or the General Clinical Research Center. Currently underway are studies in collaboration with the Division of Cardiology and the Section of Clinical Pharmacology. Further, there are active collaborations with private practitioners of pulmonary and critical care medicine in the South Bay area of Los Angeles, many of whom are graduates of the Harbor-UCLA program. The Division's research opportunities are sufficiently broad to encompass the interests and goals of most fellows. A number of our fellows have been awarded competitive training and research grants from local,

state, and national agencies. All fellows are encouraged to work with faculty members on research projects and, if appropriate, to prepare and submit requests for extramural research funding.

FULL-TIME FACULTY: DIVISION OF RESPIRATORY AND CRITICAL CARE PHYSIOLOGY AND MEDICINE

Kathy E. Sietsema, M.D. is Professor of Medicine, UCLA, Chief of the Division of Respiratory and Critical Care Physiology and Medicine, Program Director, and Director of the Chest Clinic at Harbor-UCLA. Her clinical interests in pulmonary vascular disease and congenital heart disease complement her research, which focuses on mechanisms of integrative function of circulatory and pulmonary systems during exercise. She leads the Division's consultative referral practice with an emphasis on exercise intolerance. She is principal investigator of an NIH-funded grant focused on investigating the effects of exercise training in AIDS patients receiving HAART therapy.

Richard Casaburi, Ph.D., M.D. is Professor of Medicine, UCLA, and holds the Alvin Grancell-Mary Burns Chair in the Rehabilitative Sciences, an endowed research chair. He is the Director of the Clinical Pulmonary Physiology Laboratories and Medical Director of the Rehabilitation Clinical Trials Center. His major research interest involves investigating new therapies for patients with chronic obstructive pulmonary disease. Other research interests include pulmonary rehabilitation, exercise training, anabolic hormones, exercise testing, respiratory control, and bioenergetics. He is author or co-author of over 140 research publications and of two books. He is a member of the editorial boards of the American Journal of Respiratory and Critical Care Medicine, the Journal of Sports Medicine and the Journal of Cardiopulmonary Rehabilitation. He is a principal investigator for a 5 year NIH grant whose objective is to perform multi-center clinical trials investigating new therapies for COPD. He was formerly Chief of the Division at Harbor-UCLA Medical Center.

Richard E. Effros, M.D. is Visiting Professor of Medicine, UCLA and formerly Chief, Division of Pulmonary and Critical Care Medicine, Medical College of Wisconsin. He has research interests in pulmonary edema and is currently studying the measurement of solutes in exhaled gas condensates.

James E. Hansen, M.D. is Emeritus Professor of Medicine, UCLA, and former Director of the Respiratory Physiology Laboratory. His research interests include therapeutic approaches for pulmonary hypertension and heart failure, exercise physiology, including the application of exercise testing to clinical medicine, and arterial blood gas analysis. He has

interest in high altitude physiology, obstructive lung disease, and interstitial lung disease.

David Hsia, M.D. is Assistant Professor of Medicine, UCLA, and Director of the Bronchoscopy Service. He joined the Division after completion of fellowship, and is interested in high altitude physiology, and pulmonary and critical care procedures, including argon laser photocoagulation, medical thoracoscopy, and ultrasonography.

Gregory R. Mason, M.D. is Professor of Medicine, UCLA, and Director of the Tuberculosis Services. He is also Director of Respiratory Services and oversees the activities of Respiratory Therapy, Pulmonary Laboratory and Sleep Laboratory services. Dr. Mason's clinical interests include tuberculosis, pulmonary infection, infectious complications of AIDS, and interstitial lung disease. He has an active research program investigating the interaction of anemia and exercise intolerance in patients with lung disease. Other interests include the investigation of the mechanisms and therapy of tuberculosis in elephants.

Janos Porszasz, M.D., Ph.D. is Associate Researcher in Medicine, UCLA, and is Technical Director of the Rehabilitation Clinical Trials Center. His major research interests involve exercise testing methodology and clinical research in chronic obstructive pulmonary disease.

William W. Stringer, M.D. is Professor of Medicine and Chair, Department of Medicine, Harbor-UCLA Medical Center. Dr. Stringer's research interests include therapies for COPD, exercise physiology and peripheral muscle oxygen delivery. He is currently involved in expanding the use of medical informatics in providing direct patient care, development of patient databases for quality of care assessment, and use of computers for medical decision support.

Darryl Y. Sue, M.D. is Professor of Clinical Medicine, UCLA, and Director of the Medical ICU. He is also Program Director of the Internal Medicine Training Program for the Department of Medicine at Harbor-UCLA Medical Center. Clinical interests include management of mechanical ventilation, ARDS, severe asthma, and computer modeling of ventilation-perfusion relationships for fellow education. He is co-editor of the three editions of "Current Diagnosis and Treatment: Critical Care" and "Current Essentials of Critical Care." He is a member of the editorial board of the Journal of the American Geriatrics Society.

Janine R.E. Vintch, M.D. is Assistant Professor of Medicine, UCLA, and holds a joint appointment in the Division of General Internal Medicine. Her research seeks to develop new anti-inflammatory and bronchodilator therapies for COPD, as well as on ARDS management. She also focuses on sleep-related

pulmonary disorders and is certified by the American Board of Sleep Medicine. She is co-editor of "Current Essentials of Critical Care" and the 3rd Edition of "Current Diagnosis and Treatment: Critical Care."

Karlman Wasserman, M.D., Ph.D. is Emeritus Professor of Medicine, UCLA, and served 28 years as Chief of the Division. The author or co-author of over 300 research articles and recipient of numerous honors and awards, he is a member of the American Thoracic Society, American Physiological Society, American Society for Clinical Investigation, and Association of American Physicians. His current major research interest focuses on new therapeutic approaches for primary pulmonary hypertension and congestive heart failure. Other areas of major contribution are in exercise physiology and metabolism, ventilatory control, and cardiopulmonary physiology. Dr. Wasserman is the lead author of "Principles of Exercise Testing and Interpretation," now in its 4th Edition, with other members of the Division as co-authors.

*CURRENT CLINICAL FELLOWS
DIVISION OF RESPIRATORY AND CRITICAL
CARE PHYSIOLOGY AND MEDICINE
2008-2009*

Amali Jayasinghe, M.D. (2006-)
Showshan Yang, M.D. (2006-)
David Silberstein, M.D. (2007-)
Samarjit Singh, M.D. (2007-)
Edwardo Torres, M.D. (2007-)
Mayank Shah, M.D. (2008-)

FELLOWSHIP INFORMATION

The fellowship is generally three-years in duration, which permits eligible fellows to apply for certification in Pulmonary Disease and Critical Care Medicine by the American Board of Internal Medicine. Applicants will generally be those who have completed, or will complete before the start of fellowship, an accredited residency in internal medicine. The number of positions available varies from year to year and there can be no guarantee about the number of positions for a given year.

For the July 1, 2010 starting date, applications will only be accepted through ERAS, the Electronic Residency Application Service. Please obtain information and details about this process directly from ERAS at (www.aamc.org/students/erasfellow/start.htm). Applicants may submit applications and information beginning in December 2008.

Only a limited number of interviews can be granted and these will be by invitation only. Applicants who are invited for interviews will be provided with a tour,

meeting with fellows and faculty, and a visit to the research laboratories and other facilities. The Division of Respiratory and Critical Care Physiology and Medicine enrolls applicants for fellowship through the NRMP, the National Resident Matching Program. For the 2010 match, NRMP rank order lists are submitted in June 2009 by both the applicant and the program.

The estimated annual stipend for first-year fellows in July 2009 will be \$57,419; for second-year fellows, \$61,443; and for third-year fellows, \$65,607. Health insurance, parking, and professional liability coverage are provided at no charge. Meals are provided to fellows without cost while on duty or on call and available for duty. There is no scheduled in-house overnight call, but fellows will be responsible for telephone call and may be required to return to the hospital as needed. There are 4 weeks of vacation time per year.

The Division of Respiratory and Critical Care Physiology and Medicine permits Parental Leave. In compliance with the Family and Medical Leave Act, up to 12 weeks of unpaid leave may be taken as parental



leave or to provide care for children, parents, or close relatives. However, the total length of absence may affect the overall duration of the residency training necessary to meet the requirements for certification by the American Board of Internal Medicine.

For clinical activities within the scope of the training program at Harbor-UCLA Medical Center, the County of Los Angeles insures all employees against liability for bodily injury and property damage resulting from actions in the course of duty. This includes malpractice coverage for clinical fellows when they are acting in their official capacity as employees of Los Angeles County. This coverage also includes legal defense and protection against awards from claims reported or filed after completion of graduate medical education if the alleged acts or omissions of the house officer are within the scope of the education program. Similar coverage is provided for clinical activities within the training program at Kaiser-Permanente Medical Center in Bellflower.

HARBOR-UCLA MEDICAL CENTER

Harbor-UCLA Medical Center is a 78-acre facility that includes the hospital and clinics (both operated by the Los Angeles County Department of Health Services) along with academic and research facilities under the auspices of the David Geffen School of Medicine at UCLA and the Los Angeles Biomedical Research Institute. The Medical Center is located in Torrance in the southwestern coastal region of Los Angeles County. The hospital includes 553 licensed beds. The Medical Center received full accreditation from the Joint Commission for Accreditation of Health Care Organizations (JCAHO).

The Medical Center serves residents from an area with a population of over two million. The rich diversity of the patient population with regard to age, race and ethnicity reflects that of the surrounding communities, including a large population of the medically indigent. Care delivered at Harbor includes a wide range of acute, chronic, ambulatory, preventative, and highly specialized services. The Medical Center is an integral part of the undergraduate, graduate and postgraduate programs of the Geffen School of Medicine at UCLA, and the majority of UCLA medical students participate in clinical rotations at Harbor.

Harbor-UCLA Medical Center has a physical plant valued at over 160 million dollars, and the current budget for operating the hospital is approximately 300 million dollars per year. The acute unit is an 8-story hospital equipped for the care of medical, surgical, pediatric, obstetric, gynecologic, and psychiatric patients. There are 10 operating rooms, 8 intensive care units, several progressive care units, and a large emergency department. The acute unit has recently undergone extensive seismic upgrading to meet current and projected standards.

The Medical Center complex includes the Walter P. Martin Research Building, the St. John's Cardiovascular Research Center, the Steve C.K. Liu and Milly Liu Research Center, other research laboratories for faculty-investigators, space for clinical investigation, a center for rehabilitation studies, and the Harbor-UCLA Professional Office Building. A full service Medical Imaging Center offers up-to-date radiological services, including a state-of-the-art Picker 2-Tesla magnetic resonance scanner.

Clinical laboratory and other clinical reports are accessed via computer terminals on the wards, intensive care units, and clinics linked to the Hospital Information System network. Medical records (including dictated discharge summaries, consultations, and operative reports from previous and current admissions) and reference information are also available through this computer system. Radiographic images are reviewed on the computer terminals, including planar radiographs, CT, ultrasound, and MRI.

The 22,000 square foot A.F. Parlow Library of Health Sciences is located adjacent to the hospital. The library provides books, journals, medical reference services, interlibrary information exchange, and computerized medical literature searches for Harbor-UCLA physicians and staff. Faculty and residents can access the Internet from computers in the hospital and the library.

Harbor-UCLA Medical Center is located in one of the best parts of the Los Angeles Area, the "South Bay," which is well known for the quality of air and weather, excellent beaches, and more moderate temperatures and less congestion than other parts of Southern California. We are 20 miles south of downtown Los Angeles and close to several freeways. The South Bay communities of Torrance, Redondo Beach, Gardena, San Pedro, Long Beach, Palos Verdes Peninsula, Manhattan Beach, and Lomita are mostly residential, but have a mix of high-tech industry, light industry, transportation, retail sales, and other businesses. The nearby Ports of Los Angeles and Long Beach have the heaviest volume of cargo in the U.S. There is a notable Pacific Rim flavor to the area as the U.S. headquarters of Honda, Toyota, and other Asian-Pacific companies are located within a few miles of Harbor-UCLA.

The excellent year-round climate and proximity of mountains and ocean combine to provide Los Angeles area residents with unique recreational opportunities. The nearest beach is only 15 minutes from the hospital. Ski resorts are only two to three hours by car from Harbor-UCLA Medical Center and good snow is available about four months of the year. Facilities for sailing, golf, tennis, and diving are available. There are several internationally famous marathon races and bicycling events every year. Major shopping complexes are minutes away, as well as restaurants of every kind.

Every conceivable form of entertainment and cultural enrichment is readily available in Southern California. The downtown Music Center provides the city with a complex of magnificent halls for opera, symphony, dance, and drama, including the Walt Disney Concert Hall, a state-of-the-art concert venue. The famous Hollywood Bowl, the largest outdoor music theater in America, offers a popular summer program of symphonies and concerts. The spectacular Getty Museum in West Los Angeles gives the area a world-class art museum. Other major collections include the Los Angeles County Museum of Art, Museum of Contemporary Art, the Norton Simon Museum, and the Huntington Library. There are more than 20 universities and colleges in the Los Angeles metropolitan area that provide educational, cultural and social activities of wide variety and interest. Southern California has major professional teams in baseball, basketball, soccer, and hockey, and hosts numerous

major collegiate sports events, including those at UCLA and USC.

FOR FURTHER INFORMATION

For Clinical Fellowships in Respiratory and Critical Care Physiology and Medicine, please contact:

Kathy E. Sietsema, M.D.
Program Director
Division of Respiratory and Critical Care
Physiology and Medicine
Harbor-UCLA Medical Center,
1000 W. Carson Street, Box 405
Torrance, CA 90509-2910
(310)-222-3801

For Research Fellowships (research without clinical training) in Respiratory Physiology and Medicine, please contact:

Kathy E. Sietsema, M.D.
Chief, Division of Respiratory and Critical
Care Physiology and Medicine
Harbor-UCLA Medical Center,
1000 W. Carson Street, Box 405
Torrance, CA 90509-2910
(310)-222-3801

Please note that we do not offer a separate fellowship in Critical Care Medicine, but only combined fellowships in Pulmonary Medicine-Critical Care Medicine.

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