OVERVIEW

The Division of Pulmonary, Critical Care and Sleep Medicine has continued its tradition of fulfilling the education, patient care, and research missions of Saint Louis University and of the Department of Internal Medicine.

Concerning our educational mission, the educational centerpiece of the program is its 3-year ACGME-accredited subspecialty fellowship training program in pulmonary disease and multidisciplinary critical care medicine, for which over 100 applications are received annually for two positions. As for previous years, all program trainees have successfully achieved separate American Board of Internal Medicine certifications in pulmonary disease and in critical care medicine. Over the past year, fellowship training experiences have been increased by expanding the number of pulmonary clinics while achieving a 1:2 faculty:trainee ratio in each ambulatory setting, including the program’s extramurally funded Adult Cystic Fibrosis program directed by Dr. Ravi Nayak. Such training experiences have been complemented by new patient care initiatives in both the inpatient and ambulatory sectors.

On the medical intensive care unit (MICU) service of Saint Louis University Hospital, new evidence-based medicine protocols have been implemented for the treatment of severe sepsis/septic shock, hyperglycemia, ventilator-associated pneumonia, central venous catheter management, and other disorders, in addition to refining criteria for ICU admission to facilitate treatment of life-threatening conditions. Considering the rising prevalence and increasing importance of sleep disorders, Dr. Joseph R. Espiritu is providing medical directorship of the new SLUCare Sleep Disorders Center which opened in the University’s Salus Center in December 2007. Fellowships training in sleep disorders and provision of clinical services have been enhanced by the development of a multidisciplinary sleep clinic in this venue.

Keeping pace with advances in the care of patients with respiratory disorders, acquisition of GPS-like electromagnetic navigation capability within the tracheobronchial tree by superDimensions™ bronchoscopic technology under the direction of Dr. Carl Kaplan have supported Saint Louis University’s Cancer Center and its minimally invasive thoracic oncology program in conjunction with the multidisciplinary CyberKnife effort of Saint Louis University Hospital. Our program’s interventional bronchoscopy/pulmonology repertoire relevant to the national lung cancer epidemic continues to expand, with respect to newer interventional bronchoscopic techniques including transbronchial needle aspiration of mediastinal lymph nodes and lung nodules, laser therapy, and endobronchial balloon dilation/stents for benign and malignant airway lesions. An additional growth area for the division has been in regard to the diagnosis and management of pulmonary arterial hypertension, activities fostered by the increasing availability of diverse pharmacological approaches for this potentially lethal condition.

Translational research productivity of the division has continued along several fronts. Our participation in pivotal multicenter clinical trials has focused on the related areas of severe sepsis/septic shock and acute lung injury/acute respiratory distress syndrome (ARDS), in evaluating the efficacies of novel anti-inflammatory and immunoadjuvant therapies to critically ill patients with these disorders. Dr. Daniela Salvemini has continued her national and internationally recognized studies focusing on the
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pathogenesis of oxyradical and peroxynitrite-mediated inflammatory injury in sepsis, asthma, and acute lung injury with multiple organ damage. Most notably, recent investigations have broken new ground in the important area of severe acute and chronic pain; specifically, the role of peroxynitrite and the ceramide metabolic pathway in nociception at the spinal level. The laboratory of Dr. Dechun Li has remained productive in the area of defining the signaling pathways and transcriptional regulation of hypoxia-induced mitogenic factor (HIMF), especially with respect to how this molecule orchestrates pulmonary endothelial cell growth, differentiation, and lung development. Divisional research in conjunction with Dr. Andrew J. Lechner of the Department of Pharmacological & Physiological Science has addressed experimental lung injury and shock caused by the gram-negative bacterium Yersinia pestis, a CDC Category A agent and potential weapon of bioterrorism in the form of pneumonic plague, most particularly the role of adenosine A1 receptor antagonism in potentially ameliorating such pathophysiological effects.

HONORS AND RECOGNITION

Joseph Espiritu, M.D.
American College of Chest Physicians Academic and Private Practice Leadership Development Program Award, October 2007.

Carl Kaplan, M.D.
National Board for Respiratory Care (NBRC) Olathe, KS, Board of Trustee, Registry (RRT) Written Exam Committee, Certified and Registry PFT Exam Committee, Adult Critical Care Examination and Credentials Committee, Judicial and Ethics Committee, Admissions Committee.

American College of Chest Physicians (ACCP) Northbrook, IL, Committee member representing the Respiratory Care Discipline, Vice –Chairman, Respiratory Care Steering Committee.

Dechun Li, M.D., Ph.D.
Member, Institutional Review Board, Saint Louis University.

George M. Matuschak, M.D.
Best Doctors 2007

Daniela Salvemini, Ph.D.

NEW FACULTY ENTERING THE DIVISION IN 2007

Dayton E. Dmello, M.D., Assistant Professor joined the division in August 2007 after completing a Critical Care Fellowship at Saint Louis University School of Medicine and St. John’s Mercy Medical Center.

Emeritus Assistant Professor
Secondary
William Richardson, M.D.

Adjunct Assistant Professor
Rekha Lakshmanan, M.D.
Mark J. Muehlbach, Ph.D.
Subramanian Paranjothi, M.D.
John J. Ponzillo, Pharm.D.
Eric D. Powell, Ph.D.
Evelio E. Sardina, M.D., Ph.D.

Assistant Clinical Professor
Herman Ferrell, M.D.
Robert Griesbaum, M.D.
Rakesh Gupta, M.D.
Jeffrey Harris, M.D.
Farris Jackson, M.D.
Stephen Kelly, M.D.
Emil Miskovsky, M.D.
Kirk Nelson, D.O.
William Schnarr, M.D.
Joan Shafer, M.D.
Thomas Siler, M.D.
Chukiat Tansuwan, M.D.
Stephen Taylor, M.D.

Emeritus Senior Clinical Instructor
William Kistner, M.D.

Clinical Instructor
Nadeem Ahmed, M.D.
Sadiq Mohyuddin, M.D.
Benito Veluz, M.D.

Post-Doctoral Fellows
Qiaohua Kang, Ph.D.
Qing Yang, Ph.D.

Business Manager
Rhonda Arl, M.B.A.
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GRANTS AND CONTRACTS HELD BY EACH FACULTY MEMBER

George M. Matuschak, M.D.

Ravi Nayak, M.D.

Daniela Salvemini, Ph.D.
Saint Louis University, Dean’s Interim Research Support Grant, 2008, $25,000.

Dechun Li, M.D., Ph.D.
Saint Louis University, Blue Ribbon Panel Research Funding, $97,650.

Due to confidentiality agreements and non-publicity clauses in contracts with sponsors, specific information pertaining to industry sponsored research may not be released in public documents. During fiscal year 2008 the Division of Pulmonary, Critical Care & Sleep Medicine had 5 active studies with different sponsors.