

### **Program Goals and Objectives:**

The goals of the training program are to produce fully trained and competent physicians in the subspecialty of Pulmonary and Critical Care Medicine. A formal curriculum based on the requirements of the American Board of Internal Medicine and Residency Review Committee has been created. The curriculum, summarized below, includes formal course work, lectures and seminars, as well as supervised clinical work leading to competence in the procedural aspects of the specialty.

### **Formal Course Work**

**Three Year Course in Pulmonary and Critical Care Medicine.** The course meets four times per month for one hour. The course director is Dr. Abraham Sanders, Associate Professor of Clinical Medicine and Associate Program Director. The goals and objectives of the course are to cover the entire field of Pulmonary and Critical Care Medicine within the framework of a formal curriculum: lecture, textbook, and handouts.

The method of instruction is by lecture; fellows are assigned subjects and chapters to review. Lectures are given and supervised by Dr. Sanders and other members of the attending staff. Subjects not adequately covered by the textbook are taught by outside lecturers. By having the fellow prepare the majority of the lectures within the framework of a formal curriculum and textbook, all major areas of the field of pulmonary and critical care medicine are presented and reviewed, leaving few areas uncovered. Fellows are evaluated by observation of the faculty, quality and thoroughness of subject materials, and mastery of concepts.

**Pulmonary Radiology.** Fellows are encouraged to attend a weekly course given by the Department of Radiology and Angiography. The goals are to train fellows in the interpretation of radiographs at the level expected from a consultant. Fellows are evaluated by direct observation, ability to interpret studies, and differential diagnosis.

**Pulmonary Pathology.** A short course in pathology is taught by a faculty member from the Department of Pathology. A subject is reviewed with the case studies and pathological material from the teaching files. The goal is to train fellows in the interpretation of pathological material in lung disease. Fellows are evaluated by direct observation by faculty in their ability to interpret pathological materials and differential diagnosis.

**Two-Year Course in Pulmonary Physiology.** The course meets once per month for one hour. The course is given by Dr. Thomas King, Associate Professor of Medicine and Associate Professor of Medicine in Physiology and Biophysics. The goal is to master the physiology relevant to the specialty.

**Two-Year Course in Molecular Biology and Research.** Meeting once per month for one-hour, the course is directed by Dr. Ronald Crystal, Professor of Medicine and Chief, Division of Pulmonary and Critical Medicine, and Drs. Robert J. Kaner and Ben-Gary Harvey. Lectures are given by faculty on various topics designed to introduce fellows to the concepts and techniques of molecular biology and research, as well as problems being investigated in our laboratories. No formal evaluation is required.

**N.B.** The courses described above are in addition to regular scheduled clinical conferences within the Division of Pulmonary and Critical Care Medicine, i.e., one hour per week clinical conference in which current clinical problems are presented and discussed; a one hour monthly journal club; and interdisciplinary Pulmonary-Pathology, Pulmonary-Thoracic Surgery, and a tri-institutional critical care conference are also attended. Other institutional conferences, such as Grand Rounds, a statistical course, and many other courses are available.

### **Supervised Clinical Work**

**Pulmonary Consultation Service.** The goals of this rotation are to train fellows to become consultants in pulmonary and critical care medicine; all patients are seen daily and reviewed with attendings. All procedures are performed by the fellows with direct attending supervision. Fellows are evaluated by the attending staff by direct observation of patient care, diagnosis, proficiency in performing procedures, and mastery of the knowledge base of pulmonary and critical care medicine.

**Critical Care.** Fellows perform critical care rotations of one month in the Cardiac Care Unit, Surgical Intensive Care Unit, and Cardiothoracic Intensive Care Unit, as well as three months in the Medical Intensive Care Stepdown Unit and six months in the Medical Intensive Care Unit. Neurology and Neurosurgical patients requiring intensive care are cared for in the Medical Intensive Care Unit with daily interdisciplinary rounds with these services. Critically ill, pregnant, dialysis, and transplant patients are also cared for in the Medical Intensive Care Unit. The program offers twelve months of meaningful patient care responsibility in a variety of critical care settings. In the Medical Intensive Care and Stepdown Units, fellows are responsible for overseeing and supervising the medical house staff, performing and supervising procedures, and instructing the house staff. In the Cardiac Care Unit, they are responsible for mastering techniques of cardiac critical care (i.e., cardiac catheterization, aortic balloon pump management, and thrombolysis) and supervising medical house staff in the care of critically ill patients. In the Surgical Intensive Care Unit and in the Cardiothoracic Intensive Care Unit, fellows are expected to learn postoperative management of critically ill patients; this is accomplished by participation in patient care rounds, conferences, readings, and assigned patient care. Fellows are evaluated by the attending staff in each unit.

**Sleep Disorders.** Fellows receive formal training in sleep studies by lectures and readings in the pulmonary and critical care medicine course and physiology course. Further training is obtained by participation with the sleep laboratory during a one-month rotation at the Burke Rehabilitation Center at the Westchester Division of New York Presbyterian Hospital.

### **Research Training**

**Clinical and Laboratory Research.** Fellows choose to participate in the ongoing studies of the Division, which include gene therapy for a variety of human diseases, including cystic fibrosis, lung cancer,  $\alpha$ 1-antitrypsin deficiency, and cardiovascular disease. They are assigned to supervising investigators and integrated into the laboratory.

### **Program Schedule**

See attached block diagram.

### YEAR 1

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
4 Months				4 Months				4 Months			
Pulmonary Consultation				Medical Intensive Care Unit				Pulmonary Medicine Ward			

### YEAR 2

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
12 Months											
Research: Clinical And Laboratory											

OR

### YEAR 2

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1 Month	1 Month	1 Month	1 Month	4 Months				4 Months			
Cardiac Care Unit	Cardio-Thoracic ICU	Surgical ICU	Burke/Sleep	Pulmonary Consultation				Medical ICU			

### YEAR 3

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
6 Months					3 Months			3 Months			
Research					Medical Intensive Care Unit			Pulmonary Consultations			

OR

### YEAR 3

July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
3 Months			3 Months			6 Months					
Pulmonary Consultation			Medical Intensive Care Unit			Elective					