

# Pediatric Critical Care Fellowship

## Objective:

The objective of our Pediatric Critical Care Fellowship Program is to train individuals who are enthusiastic about Pediatric Critical Care Medicine, can provide compassionate care to patients, and who thrive working with a multi-disciplinary team in an academic environment.

The program offers ample clinical and research training opportunities that encourage fellows to ask and answer scientific questions related to metabolic and cellular engineering in clinical aspects of Pediatric Critical Care Medicine.

## The fellows will be trained:

- To be board certified Pediatric Intensivists who can practice in academic centers with expertise in multidisciplinary care.
- In pathophysiology and management of life-threatening illnesses in critically ill infants and children.
- To develop the art of caring for chronic patients with technological devices, to develop complex discharge planning, and oversee family needs during crises.
- To address difficult ethical questions that arise in caring for critically ill and injured children.
- In a conducive environment for basic and clinical research to develop expertise at organization, analysis, preparation of scientific research, and presentation of data.
- To develop teaching skills for students at all levels both as informal and formal presentations.
- To develop expertise in the organizational and administrative skills necessary for the development and/or ongoing management of a multidisciplinary Pediatric Critical Care Unit.

## Overview:

The Pediatric Critical Care Fellowship Program at VCU Medical Center offers trainees a diverse education in clinical, administrative, and research-based Pediatric Critical Care Medicine at a state-of-the-art facility. The program is fully accredited by the [Accreditation Council for Graduate Medical Education](#) and participates in the [National Residency Matching Program](#) for Pediatric Critical Care Medicine.

The fellowship program has been in existence for 26 years. In 1991, this fellowship program was among the first 28 programs in the country to be accredited for Pediatric Critical Care Fellowship Training. The program has a track record of training fellows in specialized programs such as the Physician Scientist Development Program in an academic environment.

## **Clinical Training:**

Fellows coordinate care for patients from all medical and surgical pediatric subspecialties. In particular, the fellows actively participate in the care of patients on the trauma, cardiovascular, neurosurgical and general surgical services.

Patients are admitted through the emergency room, pediatric floor, operating room and the pediatric transport team that is run by the Emergency Department. Fellows gain abundant experience in the care of children with multi-organ system failure, critical oncologic diseases, high frequency ventilators, use of nitric oxide, CVVH etc. In addition to training in general critical care procedures, fellows receive training in advanced ICU techniques including:

- ECMO
- High Frequency Ventilation
- Inhaled Nitric Oxide Administration
- Neurological monitoring

During clinical service months in the PICU, fellows are expected to provide hands-on patient care, as well as supervise and direct patient care provided by residents. By the end of the first year of training, the fellow will have gained experience in the recognition, triage and management of a wide variety of acute illnesses and will have gained skills in the performance of invasive procedures. The fellows will develop expertise in pre-sedation screening, the use of an array of sedative and analgesic medications, patient monitoring, and airway management techniques. All of this will take place under direct attending supervision.

## **Educational Opportunities:**

Educational goals are met through an established curriculum. Focused clinical curriculum is centered on weekly conferences, journal club, chapter review, research meetings and administration. Additional learning opportunities include didactic sessions, directed readings, and mortality and morbidity conferences. Fellows receive formal education in biostatistics and study design, ethical and legal aspects of critical illness, PICU administration and scientific writing. Fellows are required to complete a yearly in-service exam in pediatric critical care medicine. This exam serves as a valuable self-assessment of preparedness for the board exam in Pediatric Critical Care Medicine, which is highly demanding.

## **Library Facilities:**

There is an extensive library on the medical campus at the Tompkins-McCaw Library for the Health Sciences. The division's library of basic physiology and anatomy textbooks, in addition to texts of pediatric intensive care, trauma, pediatric anesthesia, respiratory disease and pediatric cardiology is also available. In addition, there is a pediatric departmental library. For electronic literature searches, Pub Med, MDConsult and up-to date are available to physicians free of charge.

**Duration of Fellowship Training:**

The fellowship will run from July 1 to June 30, for a 36 month total, out of which 24 months will be clinical service and 12 months will be spent on research. At the end of this time, if the fellow has successfully fulfilled all the evaluation periods, she/he will be eligible for the Subspecialty Board Exam administered by the American Board of Pediatrics.

**Curriculum:**

The curriculum is set up to meet ACGME guidelines and to give the fellow all the tools necessary to obtain Subspecialty Certification by the American Board of Pediatrics.

**Schedule:**

We adhere to the RRC's recommendations of an 80-hour workweek. The fellows are on call about eight nights a month on average.

**Mandatory Rotations:**

Anesthesia- Early in the first year, one month is spent on the anesthesia service gaining experience with airway management and vascular access in the operating room.

Cardiology/Cardiac Intensive Care rotations- Three months of Cardiac ICU rotation can be done at any of the Cardiac Intensive Care Units in the country. Many fellows have completed rotations in the following Cardiac Intensive Care Units:

Children's Hospital of Philadelphia  
Children's National Medical Center

The rotation is designed to allow the fellow to have a focused experience in the cardiac management of critically ill medical and surgical cardiac patients. The fellow will participate in pre- and post-surgical management of congenital heart disease, be present in the operating room during surgical correction, and attend focused didactic sessions offered by the Division of Cardiology.

**Elective Rotations:**

Toxicology-

Virginia Poison Control is attached to VCU Medical Center which offers an excellent opportunity for training.

Pediatric Cardiac Catheterization Laboratory-

Time in the pediatric cardiac catheterization laboratory will be arranged with Dr. William Moskowitz, Director, Pediatric Cardiology. The trainee will learn the principles involved in the diagnosis of congenital heart disease, including an introduction to cardiac catheterization. He/she will be expected to learn the calculations of oxygen consumption, cardiac output and shunts, which are performed daily in the catheterization laboratory.

### Pediatric Pulmonary Disease and the Pulmonary Function Laboratory-

During the time of this service, the trainee will be under the direct supervision of Dr. Gregory Elliott, Director of Pediatric Pulmonology. The trainee will see patients and spend time in the pediatric pulmonary physiology laboratory in order to attain familiarity with equipment, calculations of test results and interpretation of these results. The fellows will also get hands-on experience with bronchoscopy.

### The Medical Respiratory Intensive Care Unit-

During this period of time, the trainee will be under the direct supervision of Dr. Curt Sessler, Director, MRICU. The trainee will be part of the internal medicine residents caring for the patients.

### Other electives-

Specific arrangements by permission of program director – Pediatric Transports have been popular electives for many of our fellows. Time may be available for rotation on other services such as radiology, bone marrow transplant etc.

### **Night Coverage:**

The fellows are responsible for patient management in concurrence with the faculty. The fellow is recommended to stay in-house until the patients are stable and new patients have been stabilized. The fellow is encouraged to go home when there are no issues for the night, but should stay in touch with the resident on call in the PICU. The fellow is expected to be in the PICU within 30 minutes if there is a medical need i.e. unstable patient.

### **Evaluations:**

The faculty periodically evaluates the fellow's performance. This creates awareness for faculty and fellows of the stated goals and objectives. In addition, annual fellowship reviews attended by faculty and house-staff reassess how these goals are being addressed.

### **Research:**

The Division and collaborating faculty have particular expertise in molecular biology and pathophysiology. There are ample opportunities to participate in research through "VCURES" (VCU reanimation engineering shock center). Our past fellows have won the AAP's New Investigator Research Grant Awards two successive years for two independent projects under different mentors. The rich research environment is available for mentored laboratory or clinical research experience. The fellow will be:

- Matched with an appropriate mentor.
- Helped with development of a hypothesis, oriented to the lab, trained on data collection and analyses, presentation of findings at appropriate meetings and manuscript writing for publication.

- The trainees will have appropriate resources made available to them. They will not be responsible for securing their own research funding.

### **Teaching Experience:**

Trainees will be taught the principles of medical teaching. They will be expected to practice these principles by presenting at noon conference, research conferences and national meetings.

### **Administration:**

The trainees will be exposed to the various aspects of administration; they must understand principles of administration and become knowledgeable about financial matters, third party payers and hospital staff privileges as well as medical-legal issues. Thus, the successful competent intensivist will be well trained in patient care, teaching, research and administration.

### **Application:**

Application to the fellowship is highly competitive. Persons who wish to apply should be board eligible or board certified in pediatrics. Applications from women and minorities are encouraged. To complete your application, please complete the following steps:

1. Register with NRMP.
2. Please fill out the application [PDF] and follow the instructions.
3. Personal statements should be included on page three of the application.
4. Passport photo should be attached to page four of the application.
5. Three letters of recommendation (One must be from your program director)
6. Curriculum vitae
7. Medical school transcripts
8. Manuscript reprints are welcome.

If you are a foreign medical graduate, you must comply with the current Department of Health and Human Services requirements regarding entry and eligibility and must have already passed the Step Three examination.

If the deadline for the application has already passed, and there is a position available for which you would like to apply, please fill out our program application.

Completed applications should be mailed to:

**Monica Relvas, M.D.**  
Assistant Professor  
Director, Pediatric Critical Care Fellowship Program  
Virginia Commonwealth University  
P.O. Box 980530  
Richmond, VA 23298-0530

### **Interview:**

A visit to VCU Medical Center is required of all applicants. It will be arranged after receipt of the completed application. During the visit, candidates will have the opportunity to meet Pediatric Critical Care Medicine faculty and subspecialty residents. They will also be able to participate in rounds and conferences.

### **The Match:**

For each academic year, our training program offers one position through the Pediatric Critical Care Match.

[Click here to learn more about VCU Graduate Medical Education.](#)

If you have any questions regarding the Pediatric Critical Care Fellowship Program, please email [mgreene3@mcvh-vcu.edu](mailto:mgreene3@mcvh-vcu.edu) or call us at (804) 828-4080.

### **Our Past Fellows and Current Employers:**

Jack Mulroy, Children's Hospital and Medical Center, Seattle, WA  
Timothy Tong, St. Joseph's Hospital, Phoenix, AZ  
Bruce Friedman, Hackensack University Medical Center, Hackensack, NJ  
Tom Williams, St. Vincent Children's, Indianapolis, IN  
Richard Metz, St. Vincent Children's, Indianapolis, IN  
Frank Chaten, St. Vincent Children's, Indianapolis, IN  
Edwin Young, Carolinas Medical Center, Charlotte, NC  
Lynn Hernan, Children's Hospital, Buffalo, NY  
Steve Williams, Macon, GA  
Lori Wick Scott and White, Temple, TX  
Melinda Frantz, Baton Rouge General Hospital, Baton Rouge, LA  
Matthew Hill, Children's Hospital, Knoxville, TN  
Rim Al-Samsam, Royal Hospital for Sick Children, Glasgow, UK  
Sree Chirumamilla, Columbus Children's Hospital, OH  
Melissa Evans, UC Davis Children's Hospital, Davis, CA  
Melissa Porter Kosair Children's Hospital, Louisville, KY

### **Stipend and Fringe Benefits:**

Salary: The University sets the salaries at the PGY IV-VI levels of subspecialty residency.

Travel: Scientific meetings are important for learning what is current in the science of critical care and for continued education. It also gives an opportunity to present research work and to network with colleagues nationally. The meetings that are recommended include:

- Society of Critical Care Medicine Conference
- Pediatric Critical Care Colloquium
- American Thoracic Society

- ECMO Conference
- PCCM Board Review Conference

Fringe Benefits, Vacation and Contract:

- Insurance includes individual and family plan health insurance, life insurance, long-term disability insurance, accidental death and dismemberment insurance and individual medical malpractice insurance.
- The GME office pays for meals on nights that the fellow spends at the hospital.

Other benefits: The fellows and faculty share an office suite where they have access to computers.

The division pays for the following:

- Parking
- In-service exams every year
- Personal expense account - Stipend is available through the division to each fellow toward the cost of educational items such as books, conferences and travel expenses.

### **Living in Richmond, VA:**

Richmond is only a short drive to Washington D.C., the Blue Ridge Mountains, Williamsburg, and Virginia Beach. Richmond, the capital of Virginia, is a mid-sized city known for its rich history. Here you will find civil war battlefields, historic monuments lining old cobblestone streets, and striking historic architecture. The Fan is one of the nation's most widely intact Victorian neighborhoods with row houses from the late 19<sup>th</sup> and early 20<sup>th</sup> centuries.

In Richmond, you will find a broad array of housing available from Richmond's historic homes to newly developed homes in the suburbs. Many housing options are located close to campus.

Richmond offers a wide array of cultural opportunities including museums, art galleries, the Virginia Opera, the Richmond Symphony and Ballet, theatre, a farmers' market, and various outdoor activities.

To learn more about Richmond, please visit these links:

[Richmond.com](http://Richmond.com)

[Discover Richmond](#)