

Kids Connection

a monthly newsletter from MUSC Children's Hospital



December 2006

Letter from the Chair

Dear faculty, Children's Hospital staff and friends,

On December 1, the Division of General Pediatrics held the Frontiers in Pediatrics Course. This was an excellent CME event for pediatricians and provides a marvelous opportunity to get to meet the pediatricians that refer patients to MUSC. I would like to congratulate Dr. Reigart and his division in putting on this outstanding event. Below, you will find Dr. Reigart's update on this year's course:



L. Lyndon Key, MD
Professor and Chairman
Department of Pediatrics

The Ninth Annual Frontiers in Pediatrics CME course was held December 1-3 at the Doubletree Hotel in Charleston. This year the course director is Dr. William T. Basco, associate professor of pediatrics and the co-Director is Dr. J. Routt Reigart, professor of pediatrics. This year's meeting was on pace for a record attendance of 150 attendees. We were able to invite five guest speakers, an unusually large number, due to strong unrestricted support from several pharmaceutical companies.

The focus of the plenary sessions and guest speakers this year was obesity and diabetes, infectious diseases and immunization, and dermatology for the pediatric practitioner. Workshops for interested participants included day-to-day issues in the management of diabetes, a hands-on approach and experience in the evaluation of the shoulder, knee, ankle and foot, and a 2007 update on coding and billing. There continues to be strong support from local faculty of MUSC who have contributed greatly to the success of the course.

Frontiers in Pediatrics had its evolution from a survey conducted 10 years ago by Drs. Reigart and Walton Ector regarding the desires and needs of

practitioners for a practical CME course. The content and structure of the course has, from the outset, been guided by the results of this survey. The course is annually re-evaluated in all aspects by a careful analysis of evaluations completed by the participants. Speakers, topics, structure, and learning environment are subjected to careful scrutiny each year. As a result, the course has annually received exceptional reviews and has continued to grow and evolve.

The course has had a remarkable record of success in attracting some of the most outstanding pediatricians in the country as guest faculty. This year they include Bernard A. Cohen, professor and director, pediatric dermatology, Johns Hopkins University; Stephen R. Cook, assistant professor of pediatrics, University of Rochester Medical Center; Sheldon L. Kaplan, professor of pediatrics and vice chair, Baylor College of Medicine; Robert M. Jacobson, professor and chair, Mayo Clinic College of Medicine; and Nicholas Ulmer, assistant professor of family medicine, Self Regional Hospital. Some prior speakers have included such notables as James Cherry, Samuel Katz, James Stockman, Russell Chesney, Stephen Ludwig, Susan Orenstein, Georges Peter, James Perrin, and Walter Tunnessen.

I hope you were able to join us at the Frontiers in Pediatrics Course. If you were unable to attend or if you attended and would like more information, please contact Susan Garmany at (843) 876-1417 or email garmanys@musc.edu.

Sincerely,

L. Lyndon Key, MD
Chair, Department of Pediatrics

State's only pediatric rheumatologist joins MUSC

When Natasha Ruth was a high school student, her mom was diagnosed with a chronic rheumatologic disease called systemic scleroderma. The teen often drove from Hilton Head to MUSC with her mom for treatment.

It was an experience that would affect her career choice.

"Growing up with her, I realized how difficult these diseases are," she says. "Though rare, they can be severe and very difficult for the patients who suffer from them."

Today, Natasha Ruth is the only fellowship-trained pediatric rheumatologist in South Carolina.

"I'm sure the experience with my mom's illness influenced my decision to go into the realm of rheumatology," explains the young physician, who joined MUSC earlier this year. "Though she was the kind of mom who would be pleased just to know I'm happy, I think she'd be proud that I was doing this, in particular."

MUSC's Dr. Richard Silver was the doctor who took care of Dr. Ruth's mom until she succumbed to the disease ten years ago. As director of rheumatology and immunology, Dr. Silver oversees the adult rheumatology program and, before Dr. Ruth joined MUSC, the pediatric program. He became and has remained one of her longtime supporters, and is a big part of why she returned to South Carolina.

"I job-shadowed him in high school, and worked summers in his lab during college," says the affable physician. By her second year of residency at USC School of Medicine in Columbia, she'd decided on a career in pediatric rheumatology.

She talked with Dr. Silver about her interest in pursuing rheumatology. "He was very excited, and helped me choose a fellowship at Cincinnati Children's Hospital, which has the largest pediatric rheumatology training program in the country," she recalls.

While in Cincinnati, Dr. Ruth earned a Masters degree in biostatistics and epidemiology, and focused on clinical research.

Dr. Silver, she remembers, knew he wanted her to work with him when she finished her training. "He already had this job planned," she says. "He truly has been one of my longtime mentors."

As the primary provider of care for kids in South Carolina who have arthritis and other rheumatologic diseases, the rheumatology program at MUSC has a great responsibility. A dedicated pediatric rheumatologist was at the top of Dr. Silver's wish list.

It wasn't hard to convince Dr. Ruth to return to the Lowcountry. "South Carolina was my home, and there was a strong need for a pediatric rheumatologist in the state. Plus," says Dr. Ruth affectionately, "it was an opportunity to work with the adult rheumatology program and, specifically, Dr. Silver."

Yet the energetic doctor felt she also had strong ties with pediatricians in Columbia, where she had attended medical school and completed her residency.

"It seemed best for the children of the state for me to split my time between the two," she explains. With a dual appointment at MUSC and USC School of Medicine, she travels to Columbia once a week, making it easier for kids in that part of the state to receive treatment.

She loves the research environment in the DCRI and the adult rheumatology department, and is excited to work with Drs. Silver and Gilkeson on neuropsychiatric research involving lupus (see DCRI News Brief, next page).

"Diseases in rheumatology—rheumatoid arthritis, lupus, juvenile idiopathic arthritis (JIA)—are rare," says Dr. Ruth. "But they exist and you need people who can take care of these patients."

Her specialty has grown tremendously in recent years, with great strides specifically in the area of JIA.

"The way that I'm able to take care of patients today is so much more advanced than even ten years ago," she notes. "With the great new treatments and medicines that have come about in the last few years, there is a very optimistic future for these patients."

It's not unusual for MUSC and USC to share doctors. "It is great, and a must that we have a collaborative effort between the two programs," says Dr. Ruth.

"Specifically for pediatric rheumatology, working together is very important," she continues. "With such rare diseases, in order to have good, solid research, we need patients from all over the region."

The two institutions working closely together toward one common goal is vital. "To improve the quality of life for children in South Carolina is top priority," says Dr. Ruth.

Letter from the Medical Director



J. Philip Saul, MD
Medical Director
Director, Pediatric Cardiology

Our feature story this month highlights our new pediatric rheumatologist, Natasha Ruth, MD, who has joined MUSC as a joint faculty member in the departments of medicine and pediatrics. As the article states, Dr. Ruth is the only pediatric rheumatologist in the state of South Carolina, which is indicative of the general shortage of pediatric sub-specialists that exist today. It seems that there are simply not enough doctors being trained in a variety of pediatric medical fields, including rheumatology, nephrology and gastroenterology. The problem is even more acute in the pediatric surgical

sub-specialties, with very few trainees in most areas, including general pediatric surgery, neurosurgery, orthopedics and urology. Apparently, the funding mix of our pediatric patients, along with the longer time necessary to deal with the emotional and medical complexities of their problems makes the reimbursement relatively low compared to similarly trained physicians for adult patients. When combined with the market forces which result from a reduced number of trainees, the low reimbursement creates a significant funding gap for the hiring of these specially trained doctors. Every children's hospital depends on these doctors and the staff at MUSC Children's Hospital is dedicated to finding creative ways to fill the gap through lobbying, contracting and providing direct support when necessary. No matter what the barriers, we are committed to recruiting and retaining the specialists we need.

Update from the Administrator



John Sanders, MHA
Administrator
MUSC Children's Hospital

Another Year to Remember

As we come to the end of 2006, I think it is worth reviewing some of the things that have been accomplished at the MUSC Children's Hospital. The Medically Fragile Children's Program really moved into high gear this year. Now providing care for over 25 children, the program is a model for the country. They have been published on the NACHRI website and have presented their accomplishments at the national annual meeting in Boston. This program will continue to grow and develop in its own way providing great care for a very needy population.

The SeeWall was the dream of two artists who brought it to life in an amazing way. This unique display has caught the attention of so many in such a short time. We now have a mobile unit that will be used for the children across the hospital. This is only the beginning. What a wonderful addition to our hospital!

The inpatient floors have a new look. Colorful flooring, walls, and doors really bring a good feeling to the units. This was a difficult project as we did most of the work with the patients in the units. The faculty and staff did a wonderful job working around the construction. Unit 7A has a new prototype nurses station that will be duplicated on the other floors in the coming years. While it does look quite attractive, it actually provides a more efficient work center for physicians and nurses.

In the last few weeks an 11th bed was added to the Pediatric Intensive Care Unit. The day it opened, it was filled and has not been emptied yet. This gives us one more private room for the PICU. We will need to continue to plan for additional beds in that unit as we look forward.

Finally, we have started our journey with MUSC Excellence. Training has been completed with all of the Children's Hospital staff and the results are astounding. Our patient satisfaction has more than doubled and will continue to improve as we implement new ways to effectively communicate with our patients and their families. These are only a few of the accomplishments of 2006, but they highlight a continuing effort to provide the very best care to our children.

Children's Research Institute News Brief



Bernard L. Maria, MD, MBA
Executive Director
Darby Children's
Research Inst.



Inderjit Singh, PhD
Scientific Director
Darby Children's
Research Inst.

Lab searches for cause and cure for lupus

Lupus is one of the most common rheumatic diseases that affect children, and Dr. Gary Gilkeson's lab in the DCRI is determined to find help for those who suffer from it.

One of two rheumatic diseases labs in the DCRI, Dr. Gilkeson's lab supports the clinical work of the state's only pediatric rheumatologists, Drs. Richard Silver and Natasha Ruth.

The lab has three major focuses, says Dr. Gilkeson, with a principal goal of controlling the gene expression of lupus.

"Our research primarily revolves around determining the genetic control of lupus," he says. The lab aims to identify genetic targets which could then be used as treatment.

"This is especially promising in children who have a higher genetic influence than adults," explains Dr. Gilkeson, a professor of medicine and vice chair of the department of medicine. Assistant professor Dr. Tammy Nowling is the principal investigator in this aspect of the lab's endeavors.

Though still in the development stage, this genetic regulation research seems poised for success, says Dr. Gilkeson.

Within sight of human trials is the lab's work with Dr. Steve Tomlinson, who has developed inhibitors of the complement pathway.

"This is an important mediator of inflammation, tissue damage and organ damage, so being able to inhibit it has important consequences," explains Dr. Gilkeson.

Drs. Tomlinson's and Gilkeson's labs have used these inhibitors to successfully treat strains of mice that have developed lupus-like diseases. "We're developing similar agents to take into human trials," says Dr. Gilkeson.

He and fellow researchers expect these complement inhibitors agents to be applicable to a variety of childhood inflammatory diseases "The first to be tried will probably be asthma, and our hopes are that they may also be effective in treating lupus and childhood arthritis.

The lab's third area of focus is the genetic control of immune deficiencies. "This research focuses on children who don't have enough antibodies, who have IgA deficiency or combined variable immune deficiency (CVID)," notes Dr. Gilkeson.

"We've identified the gene that causes this problem in mice," he says of his and assistant professor Dr. Hideharu Sekine's efforts. "This genetic identification will allow us to determine what interventions will treat or cure this deficiency."

Around the corner is new research and collaborations with new recruit Dr. Ruth. "We'll be looking at cognitive dysfunction in children with lupus, which is her area of interest," notes Dr. Gilkeson.

His lab is also busy with other rheumatic studies that involve children, including research on lupus within the Gullah population, clinical trials of new therapies that involve teens with lupus, even early screening programs for lupus in Charleston County's predominantly African-American high schools. "The hope is that we'll be able to diagnose and treat these teens early in the disease process before there is organ damage."

Perry Halushka Student Research Day 2006 was very exciting for the DCRI. Congratulations and job well done to the young investigators who were awarded first place for their posters!

Jason Curry
John T. Lucas
Tara A. Burns
Srinivasan Shanmugarajan

Ravinder Pannu
Ching Zhu
Danielle Thibault



Laura Cousineau, MLS
MUSC Library
Dept. of Pediatrics
EBM Faculty

Evidence-Based Tip

Applying the Evidence: The Patient-Centered Approach

Evidence Based Medicine (EBM) has its critics. Some even like to refer to it as a fascist movement, where evidence rules absolutely and physician experience is not valued. In a recent editorial in U.S. News & World Report, Bernadine Healy, a former head of NIH, even claims that EBM has “its own ideological and political agenda separate from its clinical purpose.”

Such distortions fall far from the vision of EBM’s proponents and practitioners. EBM is a patient-centered approach, not a device for making rules. The application of evidence is part of a process founded in critical thinking, and is equally dependent on the health care provider’s clinical knowledge and experience. For the evidence to be applied, it must be compatible with a particular patient’s clinical assessment, co-morbidities, values, and socio-economic status.

It is important to ask questions of the evidence such as:

- Where the study patients similar to my patient? If the age, sex, and

ethnicity of the study participants were different from those of my patient, can I even apply the results of that study?

- Were the outcomes that the patient considers important the ones that were recorded by the study? For example, the study may have reported on mortality rates, when my patient is more concerned with quality of life.
- What are the potential harms and benefits? My patient may put different weights on these than I would, or than a previous patient might have.

Applying the evidence also involves proper communication and an understanding of a patient’s cultural, spiritual, and ethical values, as well as family, educational and economic status. For instance, the average reading level in the state of South Carolina is 5th grade. Conversations about benefits and harm must be presented on a patient-appropriate level. A second example concerns the discussion of a choice to undergo a procedure with a statistically small chance for success. In such a situation, the health care provider must understand and treat with respect a patient’s spiritual and cultural values. The physician is ethically bound to offer his or her best clinical judgment, but is equally bound to explain a patient’s choices and involve the patient in decisions about his or her care.

As Dr. Ron Teufel, pediatric hospitalist, explained, “Patient-centered care means that our care is in agreement with what the patient wants. EBM is a tool that informs us both, the patient and the doctor as to what care could be effective. The final decision is always based on what the doctor feels is reasonable care and the patient feels is right for them.”

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Editor: Bernard L. Maria, MD, MBA

Publisher: Jennifer Cheroch (Trio Solutions Inc.)

Web Design: Brian Dadin (Trio Solutions Inc.)

Feature Writer: Mary Sue Lawrence, Trio Solutions Inc

Contributing Writers: Lyndon Key, Bernard Maria, John Sanders, Inderjit Singh, Laura Cousineau