

PULSE

Newsletter of the
Department of Medicine,
Temple University
School of Medicine

Three Pulmonologists Join Faculty

The Department of Medicine is pleased to announce the appointment of three distinguished physicians to the School of Medicine faculty.



Fredric Jaffe, DO
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DO, Philadelphia College of Osteopathic
Medicine

POSTGRADUATE EDUCATION:
Philadelphia College of Osteopathic
Medicine; Drexel University College
of Medicine

SPECIAL INTEREST:
sleep disorders, general pulmonary
medicine and smoking cessation



Rita Pechulis, MD
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MD, Jefferson Medical College,
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POSTGRADUATE EDUCATION:
Temple University Hospital

SPECIAL INTEREST:
COPD/emphysema and advanced
lung disease



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MD, MCP-Hahnemann Drexel
School of Medicine

POSTGRADUATE EDUCATION:
Thomas Jefferson University Hospital,
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Temple University Hospital

SPECIAL INTEREST:
advanced lung disease

Chatila Awarded 5-Year NIH Grant to Investigate COPD



Thomas Rogers, PhD, (left) and Wissam Chatila, MD, discuss Chatila's NIH-funded COPD research.

Wissam Chatila, MD, associate professor of medicine in the pulmonology and critical care medicine section, has been awarded a five-year, \$672,500 K08 National Institutes of Health grant. The purpose: to investigate the role that regulatory T cells play in chronic obstructive pulmonary disease (COPD). Since receiving the grant in September, the clinician has been devoting 75 percent of his time towards this research.

T cells, or Treg cells, are part of the body's adaptive immunity defense system, protecting the body from inflammation, infections and cancer. In COPD, the T cells are possibly failing to control lung inflammation.

"However, not all those who smoke develop COPD, so for some individuals who are apparently protected from ever having COPD I believe their T cells, and their adaptive immunity, continue to work well, but for others they do not. The challenge is to figure out the differences between the two."

Four years ago Chatila was among the first physicians to win one of the initial Temple Department of Medicine Faculty Development Research Awards—two-year, \$150,000 salary-support grants that allow junior faculty members to launch their research careers by

research grant and the mentoring he has received from Thomas Rogers, Ph.D., professor in the Department of Pharmacology, were critical in enabling him to win the NIH grant.

Rogers, who is also a professor in the Fels Institute for Cancer Research and Molecular Biology, opened up his lab to Chatila. He believes that Chatila has done a masterful job of balancing his clinical and research responsibilities and, in a relatively short amount of time, acquired the strong knowledge base he needs to move his research forward.

"He's really bright, resourceful, energetic and careful about what he does and what it really means, and he's patient—all valuable qualities for a researcher," says Rogers.

Rogers believes Chatila's research could prove to be very significant: "There are a handful of top-flight people in the field working on similar although not identical research, and they wouldn't be doing that if the area of research wasn't worthwhile.

"Dr. Chatila's research could pay off with substantial information that would affect the delivery of patient care in terms of the development of therapeutics and our general understanding of lung inflammation."

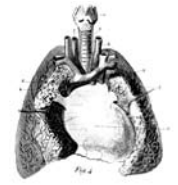
Contact Dr. Chatila at 215-707-3053 or chatilw@tuhs.temple.edu.

"DR. CHATILA'S NIH AWARD ALLOWS HIM TO TAKE FULL ADVANTAGE OF THE STRONG CLINICAL AND BASIC SCIENCE RESEARCH STRENGTHS OF THE TEMPLE LUNG CENTER."

—Gerard J. Criner, MD, chief, pulmonology and critical care medicine section

"The vast majorities of COPD patients are or have been smokers," says Chatila. "Smoking is the initial fuel that causes a cascade of events, including the inflammation associated with COPD. These events do not stop even after people quit smoking.

spending half their time focusing on research. Chatila used the award to investigate disparities in COPD in Caucasians and African Americans and began laying the groundwork for his current NIH grant. He says that both the Temple junior faculty



**PULMONOLOGY
and CARDIOLOGY**

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This issue of PULSE focuses on the Department of Medicine's Pulmonary and Critical Care Medicine, Cardiology and Infectious Diseases sections.

More about Wissam Chatila, MD Associate professor of medicine

POSTDOCTORAL FELLOWSHIPS:
Bridgeport (Conn.) Hospital,
pulmonary medicine; University of
Pittsburgh, critical care medicine;
Medical College of Pennsylvania,
Philadelphia, sleep medicine

RECENT PUBLISHED RESEARCH:
COPD and *Chest*

A Banner Recruiting Year

*A message from Joel Richter, MD, FACP, MACG
Richard L. Evans Chair, Department of Medicine*



The news that pulmonologist Wissam Chatila, MD, has received a major five-year National Institutes of Health grant gives me great pride and joy.

In 2005 Dr. Chatila was one of the first junior faculty members to receive the competitive Temple Department of Medicine Faculty Development Research Awards, which are significantly funded by

the Richard and Dorothy Evans Foundation. Since then seven young, promising faculty members have been able to launch their research careers with the grants, with two more awards scheduled for later this spring. Modeled after a program I initiated while president of the American College of Gastroenterology, one of the program's main goals is to serve as a bridge for young physician/scientists such as Dr. Chatila to develop data needed to pursue their own NIH research.

I'm equally pleased that his COPD research has the potential to bridge the gap between the laboratory bench and the patient's bedside.

Our patients are also the focus of the other two main features in this issue of Pulse. With the arrival of interventional cardiologist Riyaz Bashir, MBBS, following a Mayo Clinic fellowship, the services that our already-strong cardiology section can offer patients have been greatly expanded to include minimally invasive procedures for peripheral arterial and vascular diseases.

Meanwhile, page 3 highlights efforts of our infectious diseases section to make Temple University Hospital safer for our patients.

If you would like to discuss these or any other ways in which our Department of Medicine can help your patients, please contact me at 215-707-5069 or jrichter@temple.edu.

National Leaders

Four Department of Medicine faculty members hold or recently held leadership positions in national societies:

Gary Foster, PhD, director, Center for Obesity Research and Education:
President, Obesity Society

Bennett Lorber, MD, infectious diseases section:
President, Anaerobe Society

Henry Parkman, MD, gastroenterology section:
President (ending 4-year term), American Motility Society

William VanDecker, cardiology section:
President (2008), American Society of Nuclear Cardiology
President-Elect, Philadelphia County Medical Society

Bashir Offers Minimally Invasive Treatments for Vascular Diseases



Riyaz Bashir, MBBS, FACC

Riyaz Bashir, MBBS, FACC, the new director of vascular and endovascular medicine, is now offering Temple patients a variety of minimally invasive peripheral arterial disease (PAD) treatments. With seven years of extensive experience performing carotid artery stent procedures with distal embolic protection, Bashir already has performed two such procedures at Temple.

The interventional cardiologist and associate professor of medicine joined the cardiovascular medicine section in July after completing a one-year interventional cardiology fellowship at the Mayo Clinic in Rochester, Minn.

Utilizing catheters, balloon angioplasties, atherectomies, lasers, stents and stent grafts, Bashir repairs blockages not only in the heart but in the aorta, carotid arteries and arteries of the legs, arms and kidneys.

PAD is quite prevalent, says Bashir, particularly in high-risk patient populations: patients with diabetes, hyperlipidemia, hypertension and those who smoke.

"Unfortunately, the medical community has been grossly under-diagnosing and under-treating this condition," says Bashir. "Only 49 percent of patients with PAD are diagnosed, and only half of those are treated according to current guidelines.

"If you don't treat these patients aggressively, these patients have very high mortality and morbidity rates," says Bashir, who also completed fellowships in vascular/endovascular medicine and cardiovascular medicine at Tufts University School of Medicine/St. Elizabeth's Medical Center in Boston.

"THANKS TO REMARKABLE NEW TECHNOLOGICAL ADVANCES, BLOCKAGES THAT WERE NOT ACCESSIBLE A FEW YEARS AGO ARE NOW TREATABLE WITH MINIMALLY INVASIVE TECHNIQUES."

—Riyaz Bashir, MBBS

One of Bashir's major goals over the next year is to establish a multidisciplinary limb salvage center, which will provide state-of-art care to patients with limb-threatening conditions. Patients awaiting a limb amputation would first undergo minimally invasive procedures to see if their vascular blockages could be opened. Recently Bashir used minimally invasive techniques to save the legs of two non-surgical candidates, a 50-year-old woman with severe coronary artery disease and a 63-year-old male patient in cardiogenic shock.

In addition, he is collaborating with the Mayo Clinic to expand the clinic's tissue and blood bank repository of PAD patients by adding samples from African American and Hispanic patients.

Bashir also hopes to eventually offer gene therapy to Temple patients with vascular disorders. His current research includes an NIH-funded trial comparing stenting plus medical therapy with medical therapy alone for patients with renal artery stenosis and hypertension.

For more information, contact Riyaz Bashir, MBBS, at 215-707-2230 or riyaz.bashir@tuhs.temple.edu.

Infectious Diseases Specialists Lead Assault on Hospital-acquired Infections



Peter Axelrod, MD, (left) and Robert Bettiker, MD, work with Eileen O'Rourke, MPH, to control HAI.

The Department of Medicine's infectious diseases section, Temple University Hospital administrators and the hospital's Infection Prevention and Control Department (IPCD) together have implemented far-reaching procedures to eliminate hospital-acquired infections.

"We have devised a comprehensive program to track, monitor and prevent hospital-acquired infections," says Susan Freeman, MD, the hospital's chief medical officer. "Patients who come to us rely on us to deliver the highest quality and standards of care available, so the onus is on us to deliver that standard of care."

Examples of significant improvements include reductions in central line bloodstream infections in the Medical Respiratory ICU from 12 cases in January 2008 to just four cases between August and November, and only one case of ventilator-associated pneumonia in the Coronary ICU since April.

In addition to the hospital's Infection Control Committee, in mid-2008 Freeman established a Hospital-acquired Infection Subcommittee and launched the hospital's Drug-resistant Organism Program (DROP). During the past 18 months, staffing of the IPC Department

headed by Eileen O'Rourke, MPH, has increased 50 percent, to six full-time employees.

According to infectious disease section specialists Peter Axelrod, MD, who heads the Infection Control Committee, and Robert Bettiker, MD, who co-chairs the Hospital-acquired Infection Subcommittee with Darilyn Moyer, MD, DROP measures undertaken to

"THE GOAL IS TO EXCEED NATIONAL BENCHMARKS AND TO ASSURE PATIENT SAFETY."

— Peter Axelrod, MD

improve infection control include: enhanced hand hygiene compliance, early mobility for each patient, raising the head of the bed to prevent choking on food and frequent antiseptic mouth-cleaning for patients on ventilators. More "high tech" measures include: optimizing and standardizing sterile technique for introducing catheters; removing catheters as early as possible; screening high-risk admissions with rapid nucleic acid tests for MRSA; and computer-automated notification of new VRE and MRSA cases to prevent transmitting resistant bacteria from these patients to the environment and, secondarily, to uninfected patients.

For more information, contact Peter Axelrod, MD, at peter.axelrod@temple.edu or Robert Bettiker, MD, at robert.bettiker@tuhs.temple.edu or call either at 215-707-1982.

Stewardship Program Fine-Tuning Antibiotic Use

A collaboration between the Department of Medicine's infectious diseases section and the hospital's Pharmacy Department is fine-tuning antibiotic use and enhancing patient safety.

Previously, before laboratory results were available physicians could prescribe antibiotics but had to first receive an infectious disease physician or hospital pharmacist's approval for certain drugs.

For the past two years, however, Thomas Fekete, MD, infectious disease section chief, and Kazumi Morita, PharmD, clinical pharmacy specialist in infectious diseases, have been reviewing antibiotic prescriptions after microbiology tests have been completed. With the luxury of additional time and information, they have optimized dose and duration of antibiotics

and in many cases recommended switching to narrower spectrum antibiotics to delay or prevent the emergence of bacterial resistance.

As a result, antibiotic use has declined. This strategy has resulted in cost avoidance—savings during the program's first year were calculated at \$120,000. For example, says Morita, lower doses when appropriate can prevent drug toxicity and save money at the same time.

"It's not meant to be a dollar-savings initiative," says Fekete, "but a big part of practicing good medicine is not over-treating—a common practice around the country that often speaks more to doctor anxiety than patient welfare."

For more information, contact Thomas Fekete, MD, at 215-707-1982 or tomfeke@temple.edu.



Thomas Fekete, MD, and Kazumi Morita, PharmD, review a patient's antibiotic prescriptions.