

Infectious Diseases and Environmental Medicine

Division Director Squires Heals Locally and Globally



Dr. Kathleen Squires is one of the few HIV specialists to study the effects of the virus in women.

For internationally noted HIV specialist Kathleen Squires, MD, who joined the Division of Infectious Diseases and Environmental Medicine in 2005, the study of the virus fulfills her childhood dream of helping people on a personal level, while also making an impact on the world at large.

Dr. Squires brings with her extensive research in the field of HIV infection, specifically antiretroviral drug development and identification of novel treatment strategies. At the Keck School of Medicine of the University of Southern California, she supervised a three-thousand-patient HIV clinic and was the Principal Investigator for the USC NIH-sponsored AIDS Clinical Trials Unit.

"I was attracted to Jefferson's Center for Human Virology because of the basic research in HIV at the molecular level," says Dr. Squires. "As a clinically based researcher, I have been eager to do more translational research in collaboration with people doing such basic research."

At Jefferson, Dr. Squires leads a program in which the faculty follows HIV patients who have not had experience with an integrated, multi-disciplinary HIV program. Her program manages patients, while also facilitating clinical research projects that interact with Jefferson's basic research program. "Through collaboration with Hepatology," Dr. Squires explains, "we are able to study patients who are not dying of HIV but still affected by co-infections like Hepatitis B and C and their complications such as cirrhosis and

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From the Chairman



Jefferson has a rich history as a university, teaching hospital, and premier research institution. In the Department of Medicine, we strive to honor this every day,

from patient-centered care to research breakthroughs that are poised to change lives around the world.

This issue of *Translations* introduces two recent recruits who are doing just that. Kathleen Squires, MD, Director of Infectious Diseases and Environmental Medicine, is one of the first HIV specialists to focus on how the virus affects women. Assistant Professor Donna Woulfe, PhD, makes great strides in understanding platelet thrombosis and identifying new targets for related therapeutics.

The Department's efforts continue to focus on moving discoveries from the laboratories to the patient's bedside. Our new Center for Vascular Diseases is but one example of how we translate the work of researchers like Dr. Woulfe into clinical care. Tom Force, MD, spearheads the clinical programs of the growing Center for Translational Medicine. We are also proud to welcome a group of distinguished new faculty members, including two division directors, and honor the faculty's ever-growing list of awards, clinical trials, and publications. As always, we are especially grateful to our friends and donors who make possible the continuation of this progressive work on so many fronts.

Arthur M. Feldman, MD, PhD
Magee Professor of Medicine and
Chairman of the Department

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Cardiology

Clinical Director Forges New Paths to Health

As a Harvard Medical School student setting out on his career in 1978, Thomas Force, MD, sought a path that he thought might most help patients. He chose cardiology. Since then, the internationally recognized physician has made an impact on many lives through hands-on clinical care and groundbreaking research. He now brings this comprehensive experience to Jefferson's Center for Translational Medicine, as its first Clinical Director, in a role that is critical to the Center's mission of bridging laboratory research and bedside care.

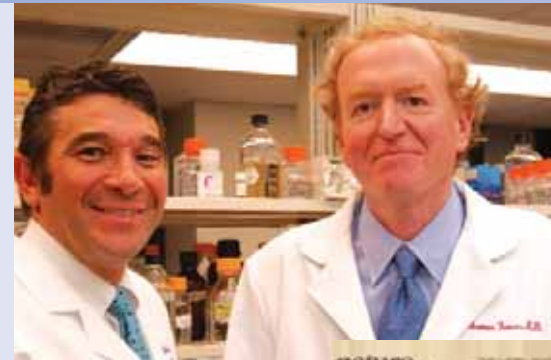
In this position, Dr. Force leads the Center's leading-edge basic molecular biomedical research and its translation into the most efficient and tailored forms of diagnosis and treatment as well as modes of prevention. "It's exciting to think that the work we do in our labs may one day have a direct effect on the lives of people," he says.

Dr. Force's research interests include the molecular mechanisms regulating cardiac hypertrophy – a process of maladaptive growth of the heart that, if unchecked, usually leads to heart failure. He also studies basic mechanisms that may allow heart muscle cells to survive ischemic injury that occurs during myocardial infarction.

He is currently principal investigator for several National Institutes of Health grants that support this research.

Dr. Force was previously on faculty at Tufts University School of Medicine and on the medical staff at Tufts-New England Medical Center as well as an investigator at its Molecular Cardiology Research Institute. For 15 years he was a researcher with Massachusetts General Hospital (MGH) in Boston and served as Medical Director of the MGH's Cardiovascular Health Center and Director of the Stress Testing Laboratories. During that time he was also an Established Investigator of the American Heart Association.

This past summer, Dr. Force and his team of researchers published a highly influential study in *Nature Medicine* about the role of the cancer drug Gleevec in causing heart failure. The study, which received international media attention, brings to light critical issues about pharmaceutical testing and the need to work across disciplines to learn about a drug's effects. Quick to praise Gleevec for its ability to treat difficult and aggressive cancers, Dr. Force also urges physicians and other clinicians to watch their patients taking it (and drugs like it) for signs of heart problems.



Dr. Force (right) and Dr. Walter Koch direct the clinical and research activities (respectively) of the Center for Translational Medicine. Force and his team recently published significant findings about the cancer drug Gleevec in Nature Medicine.



The study has led to a new initiative that will monitor – through a multinational registry – patients treated with Gleevec and other new cancer agents. Dr. Force and his team hope to learn which patients are at risk of heart problems and how to balance the risk with the drug's much-needed benefits.

"There is so much we don't yet know about the heart, but we continue to learn more every day," says Dr. Force. "I feel really fortunate to be a part of the Center and to participate in this kind of progressive research that translates directly to patient care." ■

Ongoing Support



Last fall, the Department honored **Mrs. Arline Schwarzman's** generous and longtime support of Dr. Arnold Greenspon's work in cardiology, which included the funding of a new electrophysiology lab that opened in 2005 and was dedicated at a ceremony in 2006.

The Department of Medicine is also immensely grateful for the ongoing generous support of scleroderma research from the following families:

With funding from Jefferson friend Arline Schwarzman, the Cardiac Electrophysiology Laboratory opened in 2005, including three rooms for procedures (seen here) and a waiting area for patients and families.

For 10 years, the **John J. Murray Foundation** and the **Datz Family** have been tremendous friends of Jefferson. Even after the tragedies of 9/11 personally affected the family, their commitment to scleroderma research inspired continued generosity.

Nancy Jones and her late husband **Donald Jones** have been supporting our research for 10 years.

Standford and **Lydia Frank** have given to scleroderma research for 19 years.

For five years, **Maurice (Frank) Norman, PhD**, has been a consistent source of support for our research.

Cardiovascular

Woulfe Pioneers Thrombosis Research

Donna Woulfe, PhD, a preeminent biomedical researcher in the Center for Translational Medicine, has been interested in biology since the 9th grade. It wasn't, however, until she was exposed to the biology of blood cell signaling as a graduate student at the University of Pennsylvania that she committed a career to biomedicine.

A principal researcher at the Center and an Assistant Professor in the Department, Dr. Woulfe focuses on platelets, one of three facilitating factors in thrombosis – a serious and prevalent disease related to all heart attacks and strokes that involves the formation of a clot in a blood vessel.

Dr. Woulfe's interest in signaling mechanisms in platelets concerns how platelets that are too active may contribute to heart attack or stroke, while other defects in platelets may contribute to bleeding. She and her research assistants, Shelley August, MS, and Dongjun Lee, PhD, MD, are searching for new targets for therapeutics related to thrombosis, by first using mouse models lacking a particular enzyme and then by looking for compounds to inhibit the same enzyme in people. "Novel signaling pathways have been shown to be defective in certain patients, which causes bleeding, so we now have reasons for a new target. It's a fascinating biological problem to strive to understand," she says.

Having joined the Center in 2005 during its early stages, Dr. Woulfe recalls that "It was great to get in on the ground floor and have a hand in the direction of its growth." The collaboration among departments, divisions, and centers was a huge draw for her. "We have a lot of natural interaction with the Cardeza Foundation for Hematological Research. Their expertise enables us to take our research to a new level," she says.

Dr. Woulfe is gratified by the idea that her research can have direct results. "The beauty of translational medicine is that the reward for outcomes extends beyond making observations and publishing them – it means taking the results and developing them further in new directions," she explains. "There are still big holes, upstream and down, to fill, but when we find new targets downstream, each one becomes its own new project." ■

Dr. Donna Woulfe runs Jefferson's annual Symposium in Translational Cardiovascular Medicine while also conducting innovative biomedical research.



Remembering a Friend and Colleague

October 2007 will mark two years since the Center lost a colleague and friend, when assistant researcher Matthew Kuhn died suddenly in his sleep at age 29. In February 2006, the staff remembered him at a ceremony dedicating the plaque, which hangs outside the conference and library door. "The plaque, which we pass every day, is tangible tribute to Matthew, whose presence is missed greatly," says Walter Koch, PhD, Director of the Center.

Resident Updates



David Whellan, MD, MHS (second from right) mentors cardiology fellows and residents, including (from left to right) Nicholas Ruggiero, MD, Emanuel Chryssos, MD, Saum Shamimi-Noori, MD, and Dae-Hyun Kim, MD. Also pictured is David L. Fischman, MD (second to left).

Second-year medical resident **Dae-Hyun Kim, MD, MPH**, has been awarded a prestigious fellowship in geriatrics to study cardiovascular aging at Harvard University following his third year training at Jefferson. Dr. Kim, who was a public health

physician in Korea before coming to Johns Hopkins to study epidemiology, is primarily interested in cardiovascular epidemiological research. His work on heart rate variability and cognitive impairment in older women inspired the Harvard invitation. In 2006, Dr. Kim was awarded an AMA Seed Grant and will give an oral presentation of his research on racial disparity in the volume-mortality

relationship in coronary artery bypass surgery at the American Heart Association's forum on Quality of Care and Outcomes Research in cardiovascular disease in May 2007. Dr. Kim was also selected for a Young Investigator Award at the AHA conference.

Three posters by residents **Saum Shamimi-Noori, MD, Emanuel Chryssos, MD, and Mital Sheth, MD**, were accepted for the 2007 American College of Cardiology (ACC) conference in New Orleans.

Michael Savage, MD, Director of the Cardiac Catheterization Lab, also led a team of investigators including **Nicholas Ruggiero, MD, Stuart Gould, MD, and Heath Saltzman, MD**, whose study of graft re-stenosis was selected for an e-poster presentation at this year's ACC. ■

Center for Vascular Diseases

A Model for Care and Communication

Approximately 20 to 30 million people of all ages in the United States are at risk of developing vascular diseases (diseases affecting the blood vessels, such as stroke or aortic aneurysms). Yet with the right care and education, these diseases are highly treatable – even preventable. Patients suffering from or at risk of vascular diseases can now receive first-rate care and education all in one centralized location at Jefferson's new Center for Vascular Diseases, which opened in March 2007.

Developed to help meet the clinical, research, and educational needs of patients and clinicians – including physicians, nurses,



and pharmacists – the state-of-the-art and multidisciplinary facility focuses on diagnosing, treating, and helping patients manage these disorders. Led by Geno Merli, MD, and George Tzanis, MD, the Center collaborates with the Divisions of Cardiology, Hematology, Cardiovascular/Interventional Radiology (CVIR), and Vascular Surgery, as well as the Department of Neurosurgery.

For patients, the center is a hub of care and communication and a visible example of the Department of Medicine's commitment to providing first-rate care that is patient-friendly. After an initial consultation, the center's staff acts as each patient's personal advocate, helping to schedule appointments with specialists and serve as the point of contact for questions or concerns. They also follow-up to make sure that patients' needs and expectations are met.

For clinicians, the center offers the opportunity to participate in clinical studies that help advance our understanding and treatment of vascular diseases and clinical disorders. Clinicians also contribute to and

The state-of-the-art Vascular Center meets the diverse needs of patients, from clinical care to education.



Left to right: George Tzanis, MD, Paul Bray, MD, and James Fink, MD, attended the March 2007 reception for the new Center for Vascular Diseases.

benefit from translational research under way at the Eugene Feiner Laboratory for Vascular Atherosclerosis and Thrombosis.

More information about the Center for Vascular Diseases is available online at www.jeffersonhospital.org/intmed/article12040.html. ■

Infectious Diseases: Division Director Squires Heals Locally and Globally

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liver failure. Multiple studies have documented that a major cause of death for HIV patients in the current era is complications from concurrent conditions such as hepatitis. Such collaborative research presents a tremendous advantage to us and our patients."

Dr. Squires has concentrated much of her work on the impact of HIV on women, who globally comprise 50 percent of the HIV infected population and yet remain

the least studied. "Because early HIV research focused exclusively on men, we are behind the curve in understanding the effects of sex and gender as it relates to toxicity and side effects," says Squires.

Since joining Jefferson, Dr. Squires has been developing clinical trials with the HIV drugs presently available as well as novel classes of agents. "Current drugs have converted HIV from being universally fatal to a chronic disease managed with lifetime drug therapy," said Dr. Squires. "People are now living with HIV, which challenges us to define how best to use the drugs to ensure durable suppression of this viral infection and a good quality of life for the individual."

The National Institutes of Health recently awarded Dr. Squires and her lab a highly selective grant for the Jefferson HIV Clinical Trials Unit. Jefferson is one of a very few new sites in the United States to receive this seven-year grant, which will enhance Jefferson's already established clinical program and integrate it with a comprehensive clinical research program.

Dr. Squires came to Jefferson as part of a joint recruitment. Her husband, Matthew Carabasi, MD, a specialist in bone marrow transplantations whose father and older brother are also "Jeffersonians," was recruited at the same time. He now serves as the Director of Clinical Investigations at the Kimmel Cancer Center. ■

A Tradition of Caring

George Zallie, who helped build ShopRite supermarket from a relative unknown to one of the largest chains in the region, has spent his life giving back to the communities and people who supported and helped him throughout the years.

A longtime friend of Jefferson University, Mr. Zallie's generosity has made possible the George Zallie and Family Laboratory



The generosity of George Zallie (center, with Walter Koch, PhD, left, and his physician Howard Weitz, MD, right) has made possible the Center for Translational Medicine's George Zallie and Family Laboratory for Cardiovascular Gene Therapy

for Cardiovascular Gene Therapy in the Center for Translational Medicine, which supports the work of the Center's Director, Walter Koch PhD, also the W. W. Smith Professor of Medicine.

"In a time of ever-shrinking funding," says Dr. Koch, "Mr. Zallie's commitment to Jefferson and support of our lab has allowed us to stay competitive and continue to do cutting-edge molecular cardiovascular research."

Mr. Zallie, who was born in Ocean City, New Jersey, grew up helping his parents in the "mom-and-pop" store they ran in Philadelphia's Fishtown neighborhood (see bottom right). He traces his philanthropic nature back to his childhood during the Depression. One of six children, he saw his parents, who had emigrated from Albania, struggle to put food on the table. Yet, they always helped others who were also hungry.

"I remember my mother, with no money and six children to feed, lovingly sharing what little we had if someone came to the door and asked for something to eat," says Mr. Zallie. "It was a lesson in giving and respect that has stayed with me my entire life."

This lesson influenced Mr. Zallie's business practices as well. Having grown up steeped in the food and customer service industry, he opened his own store in 1956, which set off a long, successful career in the supermarket business. Now the owner of eight ShopRite markets in New Jersey, Mr. Zallie has a reputation for outstanding customer service as well as for treating his employees fairly and with honesty and integrity. He also has three sons and two grandsons in the business with him.

As he became more successful, Mr. Zallie began to focus on philanthropy and giving back to the South Jersey community where his businesses have prospered. Among the many organizations he supports are Partners in Caring, a community-based program run by ShopRite, and the Sloan Kettering Cancer Center.

His gratitude for the care he's received from Jefferson physicians over the years – including doctors Roger Daniels, MD, Barry

Goldberg, MD, and Howard Weitz, MD – led to his generous gift of the new laboratory.

"I am particularly pleased to support the groundbreaking heart failure research being done at the Center for Translational Medicine," Mr. Zallie says. "I have referred many people to the program at Jefferson, and I am confident that the research they are doing will make a tremendous difference in generations to come."

The work of the lab that Mr. Zallie made possible continues to flourish: Recent clinical research has expanded, and the lab received funding to study more than 400 patients in different stages of heart failure and correlate their cardiac contractile function with an enzyme found in white blood cells. Additionally, the lab published a groundbreaking study in *Nature Medicine* (see page 2) and expects to publish another study in *Circulation* in 2007. ■



George Zallie's father in front of the family-owned store at 178 W. Master St. in the Fishtown section of Philadelphia, c. 1940s. George and his five siblings lived above the store.

Department Recruits New Director of Development



In an age of dwindling public monies, the Department of Medicine faces ever-growing needs for

Margaret Fala, MBA, CFRE, joined Jefferson in March 2007.

private and foundation funds to support our cutting-edge research, exceptional faculty and staff, and patient-centered care. We are delighted to welcome **Margaret Fala, MBA, CFRE**, as our new Director of Development. Ms. Fala comes with extensive experience in health care development, including as Director of Development for Holy Redeemer Health System and as Director of Marketing and Development for SERV Behavioral Health

System, Inc. Ms. Fala has also worked with The Perrier Group of America and Bryn Mawr College.

If you are interested in making a gift to any one of the Department's divisions or would like to learn about targeted or general funding opportunities within the Department, please contact Ms. Fala at margaret.fala@jefferson.edu or 215-955-7556. ■

Faculty News

Welcome New Faculty

The Department of Medicine welcomes new division directors **Paul Bray, MD**, in Hematology and **Joseph Cheung, MD, PhD**, in Nephrology.

We also welcome all new faculty, including the following individuals (as of May 2007):

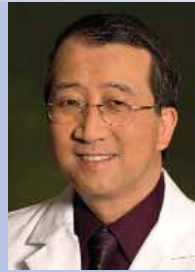
Babu Jasti, MD, has joined the Division of Cardiology.

Kevin Furlong, DO, **Mahadev Kalyankar, PhD**, **Ming-Lin Liu, MD, PhD**, and **Ziangdong Wu, MD, PhD**, joined the Division of Endocrinology.

The Division of Internal Medicine adds five members: **Anthony Macchiavelli, MD**, **Reetika Padha, MD**, **Jessica Salt, MD**, **George Tzanis, MD**, and **Bo Kim, MD**.

The Division of Infectious Diseases welcomes **Elias Argyris, PhD**, and **Rajnish Dave, PhD**.

Karsten Poppel, PhD, and **Patrick Most, MD**, have joined the Center for Translational Medicine.



New Division Directors Paul Bray, MD (left), and Joseph Cheung, MD, PhD.

The Division of Nephrology has added several new faculty: **Jianliang Song, PhD**, **Xueqian Zhang, MD**, and **Sonia Camphor, MD**.

Ying Jin, MD, PhD, joins the Division of Hematology.

New to the Division of Gastroenterology and Hepatology is **Patricia Kozuch, MD**.

Michael Baram, MD, joins the Division of Critical Care, Pulmonary, Allergic, and Immunologic Diseases.

Joining the Division of Rheumatology as Clinical Director is **Oscar Irigoyen, MD**, who was previously on the faculty at Columbia Presbyterian.

Awards and Honors

Anastasios Lymperopoulos, PhD, Post-Doctoral Fellow, Center for Translational Medicine, was a finalist for the Melman Marcus Award.

Leif Erik Vinge, MD, PhD, Center for Translational Medicine, received a 2006-2007 Fullbright Scholar grant.

Charlene Williams, PhD, Professor of Medicine and Associate Director of Research, Division of Rheumatology, received the Arthritis Foundation of Eastern Pennsylvania's 2006 Stewart J. McCracken Award for the highest-rated research project in the Philadelphia area. Dr. Williams and her colleagues discovered that one type of inherited arthritis, called familial chondrocalcinosis, is caused by mutations in a novel gene, termed ANKH. Funding from the Arthritis Foundation is helping Dr. Williams and her team to understand the structure and function of ANKH.

Dr. Charlene Williams leads the field in research on arthritis.



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The Department of Medicine encompasses 9 divisions and 7 centers:

Cardiology

Bernard L. Segal, MD, *Director*
Center for Outcomes Research

Critical Care, Pulmonary, Allergic, and Immunologic Diseases

Paul E. Marik, MD, *Director*

Endocrinology, Diabetes and Metabolic Diseases

Barry J. Goldstein, MD, PhD, *Director*

Gastroenterology and Hepatology

Anthony J. DiMarino, MD, *Director*

Hematology

Paul F. Bray, MD, *Director*
Cardeza Foundation for Hematologic Research

Infectious Diseases and Environmental Medicine

Kathleen E. Squires, MD, *Director*
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Center for Human Virology

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Nephrology

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Rheumatology

Oscar Irigoyen, MD, *Acting Director*

Center for Translational Medicine

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1025 Walnut Street, Suite 822
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