Message from the Chair

John E. Nestler, M.D., Department Chair

I recently returned from the Association of Professors of Medicine 2015 winter meeting in Dana Point, California. This annual meeting of the Chairs of Internal Medicine is my favorite meeting, in part because it brings home the fact that the challenges we face at VCU are the same ones that all academic medical centers are facing. But this year, it also became apparent to me that in many ways we are ahead of the game when compared to our fellow institutions. One area where I believe this is especially true is in education, and at all levels. Our core residency program is stellar and leads the pack in innovative, cutting-edge initiatives, including its imminent participation in the national “iCompare” trial. (The goal of iCompare is to provide evidence to help policymakers evaluate whether the duty hour standards that limit consecutive work hours for trainees should be changed.) We continue to focus on how to optimally advance the research education of our subspecialty fellows. In terms of the faculty, we have established instructional programs to help them hone their skills as educators and to obtain certificates or advanced degrees in medical education. We can be proud of the fact that ours is one of the top internal medicine educational programs nationwide, and we thank the program’s administrative leadership, dedicated faculty and committed staff for the educational excellence of the department. As a department, we are committed to advancing education, and I look forward to the future successes of our educational program and its continuing upward trajectory.
Dr. Curtis Sessler believes in the transformative healing powers of medical teamwork. He saw an opportunity to unite experts from various areas of care in order to provide critically ill patients with the most comprehensive and elevated care possible. Dr. Sessler was instrumental in creating the Center for Adult Critical Care (CACC) to serve this purpose. The CACC was formed in 2010 in order to enhance the delivery of critical care medicine by attending physicians who are specialty trained in critical care medicine – intensivists. There are more than 30 attending intensivists in the program from five different departments: Internal Medicine, Surgery, Anesthesiology, Neurology and Emergency Medicine. These physicians provide intensivist staffing and administrative leadership of adult ICUs, including the Medical Respiratory ICU (MRICU), the Neurosciences ICU (NSICU), the Cardiac Surgery ICU (CSICU) and the Surgery Trauma ICU (STICU). Accordingly, the CACC serves as a “matrix” linking discrete departments together to provide more comprehensive care to the sickest of patients. The intensivists provide direct patient care to critically ill patients and lead the ICU team that includes critical care fellows, housestaff physicians, advanced practice providers, bedside ICU nurses, clinical pharmacists and a variety of therapists.

Attending physicians in the CACC provide care of critically ill patients outside of the ICU in several different ways as well. A unique night intensivist position was created. Staffed by intensivists from various departments, the night intensivists are in the hospital at night and help lead code blue resuscitations, rapid response calls and assistance in managing sick patients throughout the hospital. In the past several months, a new daytime intensivist program has been launched in which intensivists provide care to unstable patients throughout the hospital including rapid response calls, codes, CICU consultations and other supportive activities for care of the critically ill. Together these services constitute the role of “resource intensivist” with the goal of providing rapidly available expert care to the sickest patients throughout the health system. As in the ICU, these intensivists work closely with other professionals, specifically the rapid response team composed of experienced nurses. Key pillars of the program are patient rescue, ensuring quality care and patient safety, regardless of location or time of day.

In order to create this unique Intensivist Program, Dr. Sessler led a diverse group of physicians to develop a white paper explaining that the Intensivist Program aimed to focus on clinical care and, over time, education and research on how to improve care of ICU and critically ill pre-ICU patients. Dr. Sessler saw the need to create a program like CACC for two reasons. First, he recognized that great care was being given collectively to ICU patients, and there was an opportunity to provide that quality of care for pre-ICU patients from physicians. Second, he experienced the independence of the various departments and saw an opportunity to foster integration and collaboration within the departments by creating a matrix program where intensivists from multiple departments could work together to save lives. He saw clear opportunities for training and learning and, since the program’s implementation, he has seen more and more examples of collaboration between the different departments’ physicians at the bedside, in administrative duties and at educational conferences.

In addition to Dr. Sessler, administrative ICU leaders from the Department of Internal Medicine include Drs. Sammy Pedram (medical director, Resource Intensivist program), Kristin Miller (associate medical director of MRICU), Rajiv Malhotra (medical director of CSICU), Lisa Brath (medical director of the new Unique Pathogens Unit) and Mike Kontos (medical director of CICU). They bring their unique expertise and perspectives that enhance the care of the sickest of patients.

Dr. Sessler believes that every clinical situation is a teaching opportunity and stated that Critical Care fellows he has interacted with are excellent clinicians and teachers. He attributes that to the superb divisional and fellowship leadership of Drs. Fowler and Brath. Dr. Sessler likes to combine bedside teaching with didactic teaching and simulation. Within the Intensivist Program, physicians are able to utilize intricate technologies such as mechanical ventilation and total artificial hearts quickly when time is of the essence. Within the program, students are able to shadow and act as interns. The program seems to be well received by students, and there is a new critical care interest group among VCU’s medical students.

Dr. Sessler was attracted to the VCU Medical Center as a fellow because of the opportunities he would have to work with and learn from Drs. Glauser, Cooper, Fairman, Fowler and Muren. Now he holds the Orhan Muren Distinguished Professor of Medicine in the Division of Pulmonary and Critical Care Medicine. In addition to being director of the CACC at VCU, he is the medical director of Critical Care and of the MRICU at VCU. He is also busy outside the medical center, being named president of the American College of Chest Physicians (CHEST) in October 2014. Those he works with in the CACC see him as an innovative leader. Dr. Miller said of him:

[Dr. Sessler] promotes collaborative, multi-disciplinary practice in the care of the critically ill. [He] encourages healthcare practitioners across multiple disciplines to deliver integrated, (Continued on page 3)
multifaceted patient-centered care. The development of the “Resource Intensivist” position by the Center for Adult Critical Care has significantly facilitated improved communication, patient safety and delivery of quality critical care.

Dr. Malhotra touted him as well, and said, “Dr. Sessler has been tireless in advancing the roles of the CACC and Intensivist Program to improve patient safety for the health system. He is very supportive of the program and the physicians involved.”

This dedication is garnering attention from a broadening audience. Physicians beyond VCU are taking note of what Dr. Sessler has been able to create through the Intensivist Program and the CACC. Recently, a physician leader from the NIH called Dr. Sessler to discuss the CACC program’s unique matrix approach to overcome the “silo-like” relationship between departments when caring for ICU and pre-ICU patients. Dr. Sessler has also spoken about innovations in critical care delivery at medical meetings in China and Italy this past year.

Since the implementation of the Intensivist Program, Dr. Sessler feels much progress has been made in integrating the clinical practice areas of attending physicians to create excellent, team-based care and that they are now in the process of making sure to extend this greatest level of care to patients outside of the ICU.

Moving forward, Dr. Sessler aims to focus on building better support for advanced practice providers with integrated education and training programs, and to further develop collaborative education and clinical research. He strives to continue integration of intensivists in all ICUs and to continue to raise attention to the sickest outside of ICUs since they may need help the most and yet have the fewest resources to help them. IM

Innovative M1, M2 Curriculum Integrates Cutting-Edge Diagnostic Technology

The VCU School of Medicine has restructured its undergraduate curriculum, and students are learning how to think, speak, diagnose and problem-solve like physicians from day one. In the fall of 2013, the School of Medicine implemented a new curriculum that integrated what used to comprise the first two years of medical school into 18 months, thus allowing students to explore more elective courses before their M3 year.

Dr. Isaac K. “Ike” Wood, F.A.A.C.A.P. and Dr. Susan DiGiovanni worked with more than 200 faculty and students to create the new program. Wood is the senior associate dean for medical education and student affairs, as well as professor of psychiatry and pediatrics, and the director of undergraduate medical education in psychiatry. He said of the program:

The faculty and students of the school had the wisdom to see the direction in which undergraduate medical education was moving. The artificial divide between the basic sciences and clinical medicine was disappearing as exemplified by the new criteria for Step 1 and Step 2 of the United States Medical Licensing Examination. The Liaison Committee on Medical Education which accredits medical schools clearly was only going to accredit schools with students who were adept at identifying knowledge gaps, able to access and assess the credibility of resources to remain current in their acumen of information and had the skills to be self-directed learners. The new curriculum clearly integrates basic science and clinical medicine. The methods of educating the students have dramatically moved from passive, lecture based learning to engaged techniques such as team and case based learning, problem based learning and the use of high fidelity technology such as simulators to assure that students use judgment, apply knowledge and demonstrate competency before they can advance from one phase of education to the next. Last, the creation of over 62 tracks from which students may select their personalized educational program allows for learner-centered education. The new curriculum represents the pinnacle of expectations in medical education and serves as a model for other medical schools.

The new curriculum is truly cutting-edge. Dr. Alan Dow, MSHA, assistant vice president of health sciences for interprofessional education and collaborative care and associate professor of internal medicine, worked with the School of Medicine’s educational technologists to create software that teaches clinical thinking early in medical school. He shared:

Students are presented a case and use the system to examine the patient and order tests and studies. Each action has a cost in either time or money so the students need to think about each choice and make sure it makes sense in the context of the case. In addition, as part of each round of actions, the students have to create a list of possible diagnoses for the patient. That forces them to synthesize the clinical data and commit to some diagnostic possibilities. As they get more data, they refine their diagnosis list until they decided to commit to a final diagnosis.

In the fall of 2013, the current M2s tested this approach with 13 cases. They were very receptive to the new technology and process, and Dr. Dow shared that they “demonstrated a remarkable capacity to diagnose patients’ conditions” semesters ahead of their peers at other schools.

Aside from the case system where students diagnose patients based on their profiles, the new curriculum also includes Team Based Learning (TBL) software to foster discussion and collaboration, as well as image 32, special software to look at CT scans of the cadavers. Every cadaver has a CT scan done and the software enables the students to manipulate the images. In the simulation center they use a heart and lung sound (Continued on page 4)
Simulator, a pelvic simulator for learning to do pelvic exams and breast and eye models to learn how to do breast and eye exams.

Integrated with these new technologies, students are taught tried and true fundamentals of what it takes to become thorough physicians. In the Practice of Clinical Medicine (PCM) course, students are taught the skills required to do history and physical diagnosis and documentation of their findings. The course is taught in small groups by a dedicated group of physicians who are passionate about training these young physicians to do things the proper way.

Ian Marpuri, a class representative who was part of the new curriculum development and review process, said:

Dr. DiGiovanni has been an invaluable resource between students and the faculty in the development of the new curriculum. All throughout our first three semesters, we (the curriculum representatives) were able to give her real-time feedback on the revamped courses that she could relay to the course directors to improve the courses as they progressed. She helped us understand how courses were taught in the past and why certain changes were made for the new curriculum. This guidance helped to facilitate our thinking on how to improve the structure of the courses and how to help faculty refine their TBL software and other new teaching modalities to better serve the students.

Dr. DiGiovanni, professor of internal medicine and the assistant dean for preclinical medical education, is passionate about training the next generation of physicians through techniques and technologies that are most helpful to both physicians and their patients. Dr. DiGiovanni shared, “Just as in medicine we have continuous quality improvement, [for] the curriculum, the goal for next year is to reduce the amount of straight lecturing to 50 percent and increase the amount of engaged learning or activities such as team based learning or problem based learning to 50 percent.” She shared that success of the new curriculum will be measured in Board pass rates and averages as well as student matches and program director feedback. Dr. DiGiovanni said that while there are no statistics available on the first cohort yet, the encounter notes and differential diagnoses of those students are much more sophisticated than other groups at their level of education.

Heart Rhythm Society Presents Distinguished Teacher Award

The Division of Cardiology Chairman, Dr. Kenneth A. Ellenbogen has been selected by the Heart Rhythm Society to receive its Distinguished Teacher Award for 2015.

The Heart Rhythm Society (HRS) is the international leader in science, education and advocacy for cardiac arrhythmia professionals and patients and the primary information resource on heart rhythm disorders. Its mission is to improve the care of patients by promoting research, education and optimal health care policies and standards. The society was founded in 1979 under the name the North American Society of Pacing and Electrophysiology (NASPE). In 2004, the society moved its headquarters from Boston to Washington, D.C., and changed its name to the Heart Rhythm Society. That change, in commemoration of the Society’s 25th anniversary, was made in order to better reflect the Society’s expanded mission.

Since 1980, the Heart Rhythm Society has annually acknowledged outstanding contributions to the field and to the Society through its recognition awards. The Distinguished Teacher Award, which was first given in 1992, is presented annually to an individual member of the Heart Rhythm Society “who has demonstrated outstanding skills as a teacher in the field of cardiac pacing and/or electrophysiology.”

Dr. Ellenbogen was nominated for this award by his colleague of 15 years, Indiana University professor of medicine Dr. John M. Miller, FHRS. Dr. Miller, who is also director of clinical cardiac electrophysiology at Indiana University Health, received the Distinguished Teacher Award from the Heart Rhythm Society in 2012. Dr. Miller holds Dr. Ellenbogen in high esteem and championed his nomination, saying, “Dr. Ellenbogen is ‘always upbeat, even when beat up. Dr. Miller wrote in a letter, “He is a great encourager of his colleagues (myself included). Too bad he isn’t a twin so we would have more of him!”

Dr. Miller has observed Dr. Ellenbogen as a teacher at several Heart Rhythm Society sessions. He described Dr. Ellenbogen’s teaching style as “very smooth, logical, simple.” He elaborated, “The listener doesn’t have to do any of the work, [Dr. Ellenbogen] leads them right through the process. Illustrations are clear, concise, to the point. He is very easy to listen to, humorous when appropriate, challenging to his audience when appropriate.” Dr. Miller also thinks Dr. Ellenbogen has strengthened the Heart Rhythm Society’s programs through the example of his teaching style.

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Karen Scott has been a quiet constant in the Department of Internal Medicine over the last three and a half decades. With a bright smile and a gentle word, Karen has seen many changes on the MCV Campus, from fellows who have grown into leaders, to a complete revision of the landscape of the campus. Karen has witnessed the evolution of MCV and the VCU Medical Center as she has worked to make the Department of Internal Medicine sail smoothly along with the campus’s progress.

Karen first came to Richmond from North Carolina in December 1978 when she joined MCV’s Department of Purchasing. From there, she transferred after a short time to the Department of Internal Medicine where she was responsible for procurement, petty cash and time-keeping in a fiscal assistant position. After only four months, a temporary opportunity to serve as the executive assistant to Department Chair Dr. Harold Fallon arose. Karen excitedly took on the new challenge to the great pleasure of Dr. Fallon who made sure that she remained his executive assistant until his retirement in 1992. Karen said working for Dr. Fallon was one of the best jobs she had had and remembered that time in her professional life with great fondness. After Dr. Fallon’s retirement, Karen held several different positions over the next two years.

Karen worked for the University Internal Medicine Foundation, the School of Pharmacy as an executive assistant to the Chair of Medicinal Chemistry, Dr. Donald Abraham, and then returned to the Department of Medicine where she worked for the Chair of the Division of Hematology, Oncology and Palliative Care, Dr. David Goldman. Dr. Goldman left shortly after her arrival. Karen then worked as the executive assistant for two interim chairs of the Division and then for Dr. Tom Smith as the chair. Karen stayed with Dr. Smith for the duration of his time as chair from 1994 to 2010, and said that he was “absolutely fabulous.” At this point, Karen had been working mostly in executive assistant roles for 32 years and decided to push herself outside of her comfort zone and make a professional change. She transitioned to the Department of Internal Medicine administration to work with the Human Resources team, where she has remained happily for the past five years.

Lydia Zirkle Lloyd, the Associate Administrator for Human Resources shared, “Karen’s long-term experience in our department has been instrumental in resolving HR matters and developing new HR processes … She has also served as a valuable leader to her peers and other Division team members.”

Throughout her 36 years on the MCV Campus, Karen has worked in various areas of Sanger Hall for 30 years, Old City Hall for five years, the Smith Building for one year and her first position at MCV Purchasing was located on North Boulevard. She is happy to be back “home” in Sanger as of the past few months. She has seen the whole MCV Campus transform from The Campus Room becoming Hunton Hall, to Skull and Bones becoming the Gateway Building and A.D. Williams becoming the Mclothlin Medical Education Center.
Karen has seen Dr. John Nestler progress through his career, first when he was an intern, then chief resident under Dr. Fallon. Then she saw him become a faculty member, division chair and now chair of the Department of Internal Medicine. She came to know Drs. Sheldon Retchin and Berry Fowler when they were chief residents as well, and worked with Dr. Tom Smith when he was a fellow and again as the chair of Hematology, Oncology and Palliative Care.

Dr. Nestler shared his thoughts on working with Karen through the years, saying:

I first met Karen in 1979 when I arrived as an intern and she was the executive assistant to the Department Chairman, Dr. Fallon, and a lynchpin of the department. Karen has since assumed several roles in the department, and we were delighted when she recently returned to her home in Internal Medicine’s central administration. Karen plays a leadership role in our Human Relations unit, and what I greatly appreciate is not only her industry and attention to detail but her ever-present smile, collegiality and desire to help the faculty and staff.

We are so fortunate to have had Karen here with us for over 30 years.

Karen shared that she has had her share of fun through the years with friends she has made in her various positions. Joyce Randolph, who was a lab manager in the Division of Hematology, Oncology and Palliative Care said of Karen, “She is a wonderful person and friend. Karen is modest, but has a great attitude and strong work ethic. She hasn’t changed a bit through the years. I consider Karen to be more of a daughter than just a friend. I know she is always there for me.” Another of Karen’s friends, Anne Rowlett, said of her:

…We knew when to be serious and when to laugh and we did both extremely well! We were known for our practical jokes yet we could be professional without missing a step! … Her breadth of knowledge is unmatched and she willingly shares all [of it] to empower others to do their jobs with confidence.

Karen said that throughout her career she has always tried to push herself past her comfort zone because while new challenges can initially be stressful, she enjoys mastering new skills and finds satisfaction in achieving difficult goals. She said she really loves working with people, and helping others accomplish their goals is her ultimate goal. She also shared that as much as she loved her first job in the Department of Internal Medicine, she never thought she would do anything like the work she currently does with the Department’s Human Resources team. She finds it to be incredibly rewarding.

In October 2014, the VCU Medical Center Diabetes Team took the top spot for corporate teams at the Step Out: Walk to Stop Diabetes, a 5K course at the Washington Redskins Training Center. The VCU Medical Center Diabetes Team raised the most money for the event by bringing in $5,775. The team included Dr. Francesco Celi, chair of the Division of Endocrinology and Metabolism, and his wife, Dr. Gaio Phan with the Division of Surgical Oncology, as well as more than 70 individuals from the VCU Medical Center. The team included members representing the Division of Endocrinology and Metabolism, Inpatient Rehabilitation, and Women’s Health, as well as students, and friends and family members.

This year’s Step Out: Walk to Stop Diabetes will take place Saturday, October 17. The VCU Medical Center Diabetes Team would love to have even more participants to help defend the No. 1 spot. For more information on the walk please contact Amber Spain at amber.spain@mcvh-vcu.edu.

Welcome to Our New Faculty

Dinesh Kadariya, M.D. has joined the Division of General Internal Medicine. He is joining the faculty from Montefiore Medical Center, Einstein Campus, Bronx, NY.

Sophie Cazanave, Ph.D. has joined the Division of Gastroenterology, Hepatology and Nutrition after formerly working as a post-doctoral trainee in the lab of Dr. Arun Sanyal.

Dr. Cazanave will continue to work with Dr. Sanyal as an assistant professor.

Chao Li, M.D., M.S. has joined the Division of Gastroenterology, Hepatology and Nutrition after formerly working as a post-doctoral fellow in the lab of Dr. John Kuemmerle. Dr. Li will continue to work with Dr. Kuemmerle as an assistant professor.
Update from the Associate Chair for Research

The VCU Department of Internal Medicine proudly announced its incoming intern class on Match Day, March 20, 2015. The incoming class consists of 31 categorical trainees and 20 preliminary medicine trainees. The department is also bringing in six combined program trainees in July 2015: four medicine-pediatrics trainees and two emergency medicine-medicine trainees.

The 31 categorical trainees are from 24 different institutions and include two trainees from outside of the United States. One trainee is from Ben Gurion University in Isreal and the other is from University College Cork School of Medicine in Ireland. Those from the United States come from a wide range of programs and states including Loyola University Chicago’s Stritch School of Medicine, University of Nevada, University of Alabama, The Commonwealth Medical College in Pennsylvania and Sidney Kimmel Medical College at Thomas Jefferson University. In addition to those coming from around the country, there are three VCU graduates in the incoming categorical class.

In other areas of education:

- Dr. Bennett Lee has been named as the director of the VCU School of Medicine Ambulatory clerkship.
- The Department of Internal Medicine Acting Internship program is expanding to accommodate larger classes and early transitions, including opening new and innovative Acting Intern programs.
- Drs. Steven Bishop and Adam Garber are leading an innovative Internal Medicine Boot Camp for graduating fourth year students.
- Dr. Stephanie Call is serving as part of the VCU leadership team for the AAMC Core Entrustable Activities for Entering Residency pilot project. (VCU was one of 10 selected institutions from more than 70 applications nationwide.)
- The Internal Medicine program is preparing to enter the national randomized controlled trial on duty hours, iCOMPARE. The program was randomized to the intervention arm.

Update from the Associate Chair for Research

Securing funding to continue research efforts remains a challenge nationwide with no increases in the NIH’s budget and limited resources available from other sources including various private foundations such as the American Heart Association, American Diabetes Association, etc. To have better access to all possible sources of research funding, I purchased the “Ultimate Guide to Foundation Funding” last year. Because of copyright issues it cannot be distributed, but this resource is available to all interested Department of Internal Medicine (DOIM) faculty members. Early stage investigators with promising research projects are also encouraged to apply for seed money through the DOIM Academic Incentive Funds to obtain the required preliminary data to be competitive for subsequent R- or K-awards. I am available to provide guidance to whoever is interested.

To showcase the research achievements of DOIM faculty and fellows, a new initiative is being undertaken and soon the first issue of the DOIM Research Newsletter will be available online. I am delighted to report that in the 2014 calendar year, the DOIM not only improved its NIH ranking but also increased the number of grants funded and submitted compared to 2013. Moving forward with a strong focus on research education of the trainees in the DOIM, I am currently compiling data on the existing programs within each division to promote research education in the form of research conferences, providing research opportunities and mentorship. These data will be used to identify areas for improvement and develop uniform guidelines across the department.

Fostering interdisciplinary research is not only critical for significant advancements but it is also looked upon favorably by the funding agencies. For example, AHA just initiated a new funding mechanism called the Collaborative Science Award, and NIH continues to encourage submission of Multiple PI projects. Toward this goal, I have arranged multi-disciplinary research forums in the past and the next DOIM research forum is scheduled for 3-5 p.m. Wednesday, April 22. It will be focused on Nanomedicine, bringing together the expertise of biomedical engineers in developing targeted delivery of therapeutic agents and biomedical researchers in utilizing this specialized platform to modulate specific disease processes.

As always, I welcome any suggestions or ideas from all faculty members to facilitate the research efforts and research education in the DOIM.
Congratulations to **Peter A. Boling, M.D.** who was selected as the recipient of the 2015 Nurse Practitioner Advocate Award by the Virginia Council of Nurse Practitioners (VCNP). This award honors an individual for his or her contributions to the advancement of the practice of nurse practitioners. Dr. Boling was presented with the award at the Virginia Council of Nurse Practitioners Annual Conference Gala on Friday, March 27 in Roanoke.

Dr. Boling is a professor of Internal Medicine and is chair of the Division of Geriatric Medicine.

Congratulations to **Andy G. Pinson, M.D.** for being chosen by the residents at VCU as their honored recipient for the 2015 ACP Academic Teaching Award. The ACP is the national organization of internists and the largest medical specialty organization and second largest physician group in the U.S. ACP’s mission is to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine.

Dr. Pinson is an associate professor in the Division of General Medicine and Primary Care.

Congratulations to **Puneet Puri, M.D.** on his approval as a member of the Southern Society for Clinical Investigation (SSCI). The Southern Society for Clinical Investigation is dedicated to the advancement of medical research and the exchange of knowledge, information and ideas. Its members are committed to mentoring future generations of medical investigators and promoting careers in academic medicine. Dr. Puri was nominated for membership in the SSCI by Dr. Jay Kummerle, chair of the Division of Gastroenterology, Hepatology and Nutrition.

Dr. Puri is an assistant professor of medicine with the Division of Gastroenterology, Hepatology and Nutrition.

Congratulations to **Lawrence B. Schwartz, M.D., Ph.D.** for being selected as the 2015 recipient of the American Academy of Allergy Asthma & Immunology’s (AAAAI) Distinguished Scientist Award. Dr. William W. Busse, the Annual Meeting Awards Subcommittee chair for the AAAAI said, “Dr. Schwartz was unanimously selected for this award in recognition of ground-breaking developments and seminal contributions to understanding the mechanisms and significance of mast cells.”

Dr. Schwartz is the Charles and Evelyn Thomas Professor of Medicine, chair of the Division of Rheumatology, Allergy and Immunology and program director of Allergy and Immunology.

For more about the Department of Internal Medicine, please visit us online at: www.intmed.vcu.edu