

Getting to know...Seina Lee

The second in a series of graduate faculty, student and alumni profiles



Seina Lee and her husband are big fans of traveling... when they have time!

Why VCU School of Pharmacy?

VCU School of Pharmacy alumna Seina Lee's educational journey began and ended differently than most. Actually, it might not have ended yet – "I haven't completely closed the day on a Ph.D.," she said.

Lee is one of a small percentage of students who applied for and was accepted by the school without having first earned a bachelor's degree. She is also one of a small percentage of students who chose the combined degree program: in her case, the Pharm.D. degree and a master's degree in pharmacy administration.

Taking pre-pharmacy classes at Temple University and then VCU, Lee had a variety of interests. "I really liked the aspect of being able to help patients," she said, "and I really liked organic chemistry." Originally, she leaned toward pharmacokinetics and pharmacodynamics. Her initial contact with the school, in fact, was Jürgen Venitz, associate professor of pharmaceuticals.

"When I was looking for a pharmacy school, I was interested in research and looked up graduate programs," Lee said. "VCU had the Pharm.D./Ph.D. and other graduate programs. That was one of the reasons I selected VCU. I liked the concept of doing research, answering the questions. And in order to understand what research is and be able to conduct it, I had to go to graduate school."

Following her first year at the School of Pharmacy, Lee participated in a Summer Research Fellowship with Don Brophy, who now serves as chairman of the Department of Pharmacotherapy and Outcomes Science. Over the summer, she found herself interested in pharmacy administration, which – rather than traditional lab-based research – involved the utilization of the research, i.e.,

Position: Manager, Early Development Health Economics, Worldwide Market Access, with Johnson and Johnson Pharmaceutical Services LLC in Horsham, Pa.

Background: Born and raised in Korea, then moved to the United States and attended high school in Harrisonburg, Va.

Education: Pre-pharmacy classes at Temple University and VCU; Pharm.D. and M.S. in pharmacy administration, VCU School of Pharmacy; postdoctoral Pharmacoeconomics and Outcomes Research Fellowship sponsored by Ortho-McNeil Janssen Scientific Affairs LLC

Awards and honors: Global Strategic Marketing and Market Access Award for Excellence from Johnson and Johnson Pharmaceutical Services LLC (2010); International Society for Pharmacoeconomics and Outcomes Research Investigator Poster Presentation Award and ISPOR Student Network Chair Distinguished Service Award (2008); ISPOR Student Chapter President Distinguished Service Awards (2006-07); Virginia Society of Health-System Pharmacists Student Leadership Award (2005). From VCU School of Pharmacy: Clinical Research Excellence Award (2006), American Society of Health-Systems Pharmacists Leadership Award (2006), Warren E. Weaver Scholarship (2006); Summer Research Fellowship (2003) and more

Pharmacy school leadership: Too many positions to list, but they include student network chairman for ISPOR; president of the Jeff-ISPOR Chapter at Thomas Jefferson University and the VCU Student Chapter of ISPOR; president of the Student Chapter of VSHP; and secretary and historian for both Phi Lambda Sigma and Phi Delta Chi

Family: Husband Seuk Hyung Lee, aka "Hubby"; plus four-legged canine babies, Coco and Mimi

Spare time: Reading and traveling. "We recently went to Europe. Traveling is something we try to do if we have spare time."

Something you might not know: "Hubby," who is in the insurance business, was her high school sweetheart. "Dean Reinders even used to call him Hubby!" said Lee, who was married by the time she enrolled in the School of Pharmacy. Her best advice? "The harder you work, the luckier you get."

outcomes research. She decided to enroll in the Pharm.D./M.S. combined-degree program.

"It was also a way of differentiating myself," she said. "Thinking about how many students graduate from pharmacy school every year and how many pharmacy schools there are in the United States, I wanted to broaden my potential to go other places."

Her master's thesis, for the record, was titled "Utilization of Erythropoiesis-Stimulating Agents in Critical Care Setting in Hospitals in the United States: A Retrospective Study."

The working world

Following her graduation in 2006, Lee continued to broaden her horizons with a two-year postdoctoral fellowship in pharmacoeconomics and outcomes research. The first year, at Thomas Jefferson University's Jefferson Medical College, provided didactic training along with health policy, quality improvement assurance and health economics and outcomes research projects that allowed her to apply what she had learned.

The second year, with Ortho-McNeil Janssen Scientific Affairs, she managed projects to further develop outcomes research methodological skills and gain firsthand experience in the pharmaceutical industry.

Recommending Lee for the fellowship, SOP professor Norman Carroll had cited her friendly, enthusiastic personality and her abilities as a leader and communicator. "I truly believe that [she] is going to be a great credit to our graduate

program," he wrote. "She works hard, is easy to get along with, has good organizational and leadership skills, and has the motivation to excel in outcomes research."

In turn, Lee credits her master's degree with helping to provide a strong research background as well as better job opportunities. "The didactic courses helped me do the job I do."

In a "Member Spotlight" interview with APhA during her fellowship, Lee was quoted as saying, "Today, the profession of pharmacy has evolved considerably from the traditional compounding and dispensary role to a variety of roles including research positions in the pharmaceutical industry. As health technology evolves, costs of health care will rise, and the need for affordable, high-quality care will create a demand for sophisticated and innovative approaches in pharmacoeconomics and outcomes research. I believe pharmacists can make valuable contributions in these efforts."

She has begun to make her own contributions by taking a job with Johnson and Johnson Pharmaceutical Services. Lee originally was hired as a manager in Worldwide Health Economics & Pricing, Immunology. Her primary duty at that point was to develop health economics strategies for compounds in the company's immunology portfolio. Now she is a manager in early development health economics in Worldwide Market Access, Vaccines. Translated, that means she provides global market access strategies and inputs to compounds in the early development phase (NME – Phase IIB).

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From the dean

I hope this message finds you well. In 2009-10, our graduate and research programs continued to grow both in numbers and in recognition. Last year was a landmark year in research funding for the School of Pharmacy, surpassing the \$7 million mark in awards. This amount is a record for our program, exceeding the previous year's total by nearly \$4 million.

Applications to our graduate programs continued at a robust pace, with more than 300 applications for admission. Last year, nearly 100 students were enrolled in our Pharmaceutical Sciences Graduate Programs.

Our combined degree program continues to draw talented students from our Pharm.D. program into these very competitive tracks. In particular, the Pharm.D./Ph.D. continues to attract more applications from students who wish to pursue clinical research, and our Summer Research Fellowship Program garners more Pharm.D. students each year.

Also, our university recently was awarded a \$20 million CTSA grant from the NIH for translational research. This grant will allow us to increase productivity in this most important area. One of the funded components is a K12 Scholars

Program, which provides support to help ensure faculty members' success as independently funded research scholars. Two of the first four K12 Scholars were School of Pharmacy faculty: Leticia Moczygemba and Ben Van Tassell.

I hope you continue to be proud of the progress we are making. Please stop by and say hello if you are in the Richmond area. I appreciate your feedback on how we can make our graduate programs even more successful. Thanks for your support.

Victor A. Yanchick, Ph.D.
Dean and Archie O. McCalley Chair



From the director

The academic year 2009-10 was another successful year for our graduate program. We're maintaining the quality and size of our program despite budget cutbacks. We couldn't do it without the support of our alumni and our hard-working and talented faculty. Thanks to all of you who have supported us in some way this year!

We are now formalizing the participation of our alumni in the governance of our program. We've created an advisory board for our program composed primarily of alumni. We greatly value and appreciate the efforts and input of those who will be serving on this important committee.

I hope you will find a way to participate in our program, too, either through teaching, mentorship, participation in Research and Career Day, or by making corporate or individual donations. Our future scientific leaders and I thank you!

Susanna Wu-Pong, Ph.D.
Director, Pharmaceutical Sciences Graduate Programs

Graduate alumni, we want ... you!

Please send news updates to pharmacyalum@vcu.edu. The School of Pharmacy and your former classmates are interested in what *you* are doing. Here are a few class notes we've compiled along the way:

George H. Miller (Ph.D. '69) is a research fellow in microbiology at Achaogen, a small biotech in San Francisco that works in the field of antibiotics discovery and development. He is on the adjunct/visiting faculty of Rutgers University's Ernest Mario School of Pharmacy. Previously, he worked for Blanca Pharmaceuticals in Menlo Park, Calif., Microcide Pharmaceuticals/Essential Therapeutics and Schering-Plough Research Institute. He also was on faculty at VCU School of Pharmacy 1970-74. Miller and his wife, Lilo, have two daughters and four grandchildren.

Marie Smith (Pharm.D. '80) is assistant dean for practice and public policy partnerships at University of Connecticut School of Pharmacy. She was moderator and presenter for a special session on "Faculty Leadership in Translating

Pharmacy Practice-Based Research Into Policy and Advocacy" at the 2010 American Association of Colleges of Pharmacy Annual Meeting in Seattle. She presented a session on "Transformation of Medicaid" at the Virginia Pharmacists Association's 129th Convention and also conducted a special session for VCU faculty and invited practitioners.

Elaine Phillips (Ph.D. '92) is co-founder, president and CEO of the San Diego, Calif.-based Meritage Pharma Inc. She previously served as senior vice president for technical operations at Verus Pharmaceuticals in San Diego. Other previous employers include ProPharmaCon, Dura Pharmaceuticals (then Elan) and Hoffmann-LaRoche.

Frank Blondino (B.S. '91, Ph.D. '95) is founder of the Richmond-based Sharp Top Pharmaceuticals LLC and a pharmacy manager with Walmart Stores Inc. Blondino previously served as executive director for formulation and process development at NovaDel Pharma Inc. in Flemington, N.J. He also has worked for Magellan Laboratories, Baker Norton Pharmaceuticals and Hoechst Marion Roussel. He was an associate professor at VCU School of Pharmacy 2000-04.

Thomas E. Prisinzano (Ph.D. '00) is an associate professor in the Department of Medicinal Chemistry at University of Kansas School of Pharmacy. He did postdoctoral work in organic and medicinal chemistry at NIH's National Institute of Diabetes and Digestive Kidney Diseases 2000-03.

John Wood Award: highest honor for pharmaceuticals students

The John Wood Award is just one of several honors Bhawana Saluja earned during her tenure as a Ph.D. candidate in pharmaceutical sciences at VCU School of Pharmacy.

But the John Wood Award is among the most prestigious of the honors she accrued. "It's the highest honor that our department gives a graduate student," said Phillip Gerke, assistant professor in the school's Department of Pharmaceutics.

The award was named for John Wood, who helped expand the school's graduate program into pharmaceutics and pharmacy administration in the 1970s. Wood died in 2001, and the award subsequently was created in his honor and memory through gifts made by students and faculty.

Gerke, who is chairman of the John Wood Award committee, said the committee looks at nominated students' research, teaching and academic performance. That means the committee evaluates nomination letters and information on student publications, presentations, teaching awards, leadership, GPAs and abstracts.

"Typically, the winner is a student who has passed the comprehensive exams...fourth-year students with more under their belts," Gerke said.

Saluja must have been on the short list. She received the Posters on the Podium award at the 2010 Respiratory Drug Delivery conference, the best graduate-student poster award at the School of Pharmacy's 12th Annual Research and Career Day and several travel fund awards. She was selected to represent the school at the Fifth Annual Virginia Graduate Student Research Forum. Plus, she served as a graduate teaching assistant and has co-authored several presentations both at and outside the university.

A native of New Delhi, India, Saluja became interested in pharmacy at an early age. "Grandma wanted me to be a doctor, but I was scared of



Bhawana Saluja accepts the John Wood Award from Dean Victor Yanchick.

being a physician. I was interested in the drug delivery and disease side of things."

When it came time to choose a specialization in high school, Saluja chose the sciences – although the rest of her family worked in the arts or business. "I like to say my sister is a fashion designer, and I'm a drug product designer," she said with a laugh. Having heard much about opportunities at large pharmaceutical companies, she pursued her bachelor's degree in pharmacy and a master's degree in pharmaceutics at the Delhi Institute of Pharmaceutical Sciences and Research.

After working in the pharmaceutical industry for a year, Saluja realized her growing interest in research would necessitate a Ph.D. She applied to VCU School of Pharmacy and arrived in the United States in 2006.

According to her advisor, assistant professor of pharmaceutics Masahiro Sakagami, she completed all academic course requirements in her first two years with a "remarkable" grade point average. Also, her research led to the filing of a Patent Cooperation Treaty in 2009 for cinnamic acid-based oligomers and uses thereof.

Her research "is quite challenging," said Sakagami, "pursuing our hypothesis that novel oligomers

of cinnamic acid are potent and unique triple inhibitors of elastase, oxidation and inflammation by inhalation, as VCU's proprietary molecules, for the use in prevention and treatment of a worldwide ill health, emphysema and chronic obstructive pulmonary disease."

Finding that she also was interested in exploring the interface between science-research and application-use, Saluja initiated a six-month internship last year with the VCU Tech Transfer office. "It was really interesting to see the process of commercialization of research done at VCU [patenting, licensing and marketing]."

In September, Saluja began her new job as part of the science staff team in the Food and Drug Administration's Office of Generic Drugs. She is working as part of a group that is developing a core set of specifications that would assure product quality of generic dry powder inhalers...perfect for a student whose research area was aerosol drug delivery.

"I've worked on the bench for almost six years now," Saluja said. "Maybe down the line I'll want to try the marketing side. It's just amazing how the pharmaceutical industry works! I want to explore everything step by step and see where it goes." To that end, there's a good chance she will add an M.B.A. to her CV at some point.

Discussing her new job, Saluja said, "FDA offers a highly dynamic and challenging work environment. I have to prove myself in the first few months and keep up the expectations!"

That shouldn't be a problem, according to Sakagami. In a recommendation, he described her as "clearly one of the best-equipped graduate students I have ever had."

Previous winners of the John Wood Award include Lokesh Jain, 2009; Michael Peoples and Soniya Vaidya, 2008; Satjit Brar, 2007; Sunil Iyer, 2006; Jessica Martin Rege, 2005; and Angela Men, 2004.

Seina Lee

(continued from page 1)

You can go home again

Despite her busy schedule with Johnson and Johnson, Lee also enjoys staying in touch with her alma mater. She is a member of the new Pharmaceutical Sciences Graduate Program Advisory Board and served as a visiting scientist for students attending the school's 13th Annual Research and Career Day. "I love interacting with students, and someday I would like to come back and teach," she said.

She's already getting practice, having guest-lectured twice for Carroll's graduate class in Pharmacoeconomics and the Industry and once for a Pharmaceutical Benefit Management course taught by David Holdford, associate professor and vice chairman for graduate studies.

In addition to Carroll and Holdford, Lee counts as mentors Susanna Wu-Pong, director of the Pharmaceutical Sciences Graduate Programs, and Patty Slattum, associate professor and a fellow combined-degree alum (B.S. '85, Pharm.D./Ph.D. '92). "The usual suspects," Lee continued, laughing. "Dean Reinders [associate dean for admissions and student services]...and Dr. Smith [professor and former associate executive dean]. He always gives me a hard time!"

"They all have a special place in my heart, and because of their insightful guidance, I do what I do today."

Asked about his experience with Lee, Holdford said, "One of first questions I ask students who want to attend graduate school is their plans after graduation. In my experience, students who have a clear direction for their future are going to be more

successful. Seina told me that she was going to be the CEO of a major pharmaceutical company.

"That might have sounded like bravado coming from another student. But in Seina's case, I believed her and still do."

So what is next for Seina Lee? "I'm just starting," she replied. "I'm still the new kid on the block and just starting my career. My career motivation is based on where can I learn more and have fun."

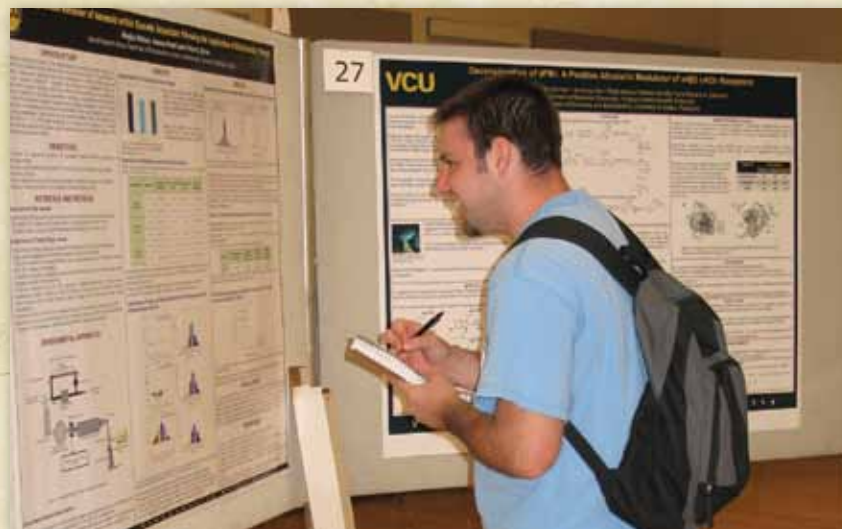
"I don't have a final destination yet. It's a moving target. It changes as I learn more about the field and have new opportunities to learn. But at the end of the day, I do want to return to pharmacy school to train future pharmacists."

Whether her future includes a CEO position or teaching – or both – you will most likely find Lee back in Richmond this spring. She hopes to attend her fifth reunion.

Research and Career Day a bonus for students, faculty, alumni



Mallika Lala, a Ph.D. student in the Department of Pharmacotherapy and Outcomes Science, consults with Donald Stanski.



First-year pharmacy student Andrew Whitman checks out a poster submitted by Megha Mohan for Research and Career Day.

The School of Pharmacy's 13th Annual Research and Career Day might have set a new standard.

"It's the best that I've been to," declared Peter Byron, chairman of the school's Department of Pharmaceutics.

The event, sponsored by the school's Pharmaceutical Sciences Graduate Programs, annually offers postdoctoral fellows, graduate and Pharm.D. students the chance to work on skills needed to find jobs in academia, government and the pharmaceutical industry. It was successfully expanded in 2005 to include actual prospective employers, thus encouraging networking, mentoring and recruiting.

Postdoctoral students were eligible to participate, as well as those working on their M.S., Ph.D., Pharm.D./M.B.A. or Pharm.D./Certificate in Aging degrees.

R&C Day 2010 took place on Oct. 8 at the Jonah L. Larrick Student Center on the university's Medical College of Virginia Campus. In addition to the scientist meetings, the agenda featured career-development classes and a poster competition (as well as breakfast and lunch for all participants).

Faculty for the day

Donald Stanski, 2010 keynote speaker, addressed "Quantitative Modeling and Modern Drug Development." Stanski, who is vice president and global head for modeling and simulation at Novartis Pharmaceuticals Corp., also led what proved to be a popular afternoon discussion.

Speaking to a standing-room-only crowd, Stanski helmed a session called "Drug Development Scientists 2010: Making a Career Successful." He began by challenging participants to consider what he had discussed earlier in the day and reminding them that their success was limited only by their own creativity, skills and energy.

Other breakout sessions included retired psychologist Hilda Meth ("Discovering and Using Your Personal Strengths for Career Enhancement"); Leon Shargel and Elise Dunzo of Applied Biopharmaceutics LLC ("Opportunities in the Pharmaceutical Industry and Building a Career as an Expert Consultant"); and Satjit Brar ("How OCP Fits Into Drug Development and Review: Overview of the Office of Clinical Pharmacology"). Welcome back to alumnus "Satti" Brar, by the way, who received his Ph.D. from the School of Pharmacy in 2008. He now is a research fellow with CDER-Office of Clinical Pharmacology at the U.S. Food and Drug Administration.

A plethora of visiting scientists

Visiting scientists included session leaders Brar, Dunzo, Meth, Shargel and Stanski. Several of the visiting scientists had just been named to the new Pharmaceutical Sciences Graduate Program Advisory Board (see page 5). They included Eugenio Cefali, Chandra Chaurasia, William Fitzsimmons, Seina Lee, Mohamadi Sarkar, Shanaz Tejani-Butt and Kamlesh Thakker. Also available for student visits were alumni Suresh Mallikaarjun (Ph.D. '87) of Otsuka Pharmaceutical Development and Commercialization, Michael Peoples (Ph.D. '08) of Pfizer Consumer Healthcare and Denise Walters (Ph.D. '91) of Pfizer Inc.

Aditi Mulgaonkar, a Ph.D. student in pharmaceutics, was honored with the 2010 Jyotsna and Mavji Thakker Award, which was established in memory of the late parents of Kamlesh Thakker (Ph.D. '83) to recognize outstanding graduate students in the Department of Pharmaceutics.

More than 40 posters were submitted this year, with topics ranging from "Warfarin Use in U.S. Nursing Home Residents" to "Conjugation of Dextran Sulfate and Tirofiban." The poster session Pharm.D. Awards went to second-year students Merid Belayneh, first place, and Tien Truong, honorable mention. Rami Al-Horani, a Ph.D. student in medicinal chemistry, received the Graduate Award, with Apoorvasena Parikh, a Ph.D. student in pharmaceutics, receiving honorable mention.

Looking back: R&C Day 2009

In October 2009, the 12th Annual Research and Career Day featured a talk by Christopher L. Waller, senior director of Precompetitive Collaborations in Worldwide Technology for Pfizer in Groton, Conn. His topic was "Science as a Business: Past, Present and Future Trends in the Pharmaceutical Industry."

Megha Mohan, a Ph.D. student in pharmaceutics, won the Thakker Award. The Pharm.D. Award for best poster went to Michael Snow, a second-year Pharm.D. student, with honorable mention going to Che Min Chang, also a second-year student. Bhawana Saluja, then a Ph.D. student in the Department of Pharmaceutics, received the Graduate Award, with honorable mention going to J. Timothy King, a Ph.D. student in the Department of Medicinal Chemistry.

Third Charles G. Thiel Award goes to Michael Newhouse

For his pioneering contributions to pulmonary medicine, respiratory physiology and inhalation delivery, Michael Newhouse of Hamilton, Ontario, received the 2010 Charles G. Thiel Award. He accepted the award at Respiratory Drug Delivery 2010 in Orlando, Fla., in April.

Newhouse is the third recipient of the biennial award, which recognizes outstanding research and discovery in respiratory drug delivery. It was created on the 50th anniversary of the commercialization of the pressurized metered dose inhaler and in celebration of Thiel's foundational work in the field of pulmonary drug delivery. The award is administered by VCU School of Pharmacy's Department of Pharmaceutics and endowed by 3M Drug Delivery Systems.

Thiel himself received the inaugural award in 2006. In 2008, the second Thiel Award went to Lars Borgstrom of AstraZeneca and Uppsala University in Sweden. Peter Byron, chairman of VCU School of Pharmacy's Department of Pharmaceutics, said Newhouse was the award committee's unanimous choice for the 2010 "Charlie."

"His contributions to the area as a physician, inventor and scientist have improved the lives of many children and adult patients with lung diseases," Byron said. "He has assisted in the development process for several drug products, and he pioneered the design, manufacture, research into and use of the AeroChamber, the principle device and method – worldwide – for enabling patients to use pressurized metered dose inhalers successfully."

Byron said it was obvious to the committee that the clinical success of Thiel's metered dose inhaler was enhanced dramatically by the addition of the small, handheld AeroChamber. "We could not imagine a more worthy recipient of our award."

Newhouse, who earned degrees from Queen's University and McGill University, is a native of Austria. He began working as a clinician and research associate at St. Joseph's Hospital and McMaster University in 1964, helped found the Faculty of Health Sciences and has been a clinical professor of medicine there since 1978. That same year, he founded what is now the Firestone Institute for Respiratory Health.

"What a delightful and unexpected surprise!" Newhouse said of the Thiel Award, "the more so since Charles and I have been friends for at least 25 years. I have always been a great admirer of his since he developed the MDI in the mid-1950s and thus facilitated therapy of airflow obstruction for hundreds of millions of patients around the world."

Newhouse shares credit for the AeroChamber with his colleagues Denis Corr, Myrna Dolovich, Dick Ruffin and Don McCormack. According to the Ontario-based Trudell Medical International, "home of the AeroChamber," patients in more than 96 countries use TMI drug delivery products to help manage asthma and chronic obstructive pulmonary disease.

Respiratory Drug Delivery is a series of international symposia designed for academic and industrial scientists involved in the development,



Michael Newhouse

investigation, preparation and delivery of old and new therapeutic entities by aerosol systems. RDD 2010 in Orlando attracted nearly 700 attendees from 25 countries. RDD originated with VCU School of Pharmacy's Aerosol Research Group and is co-organized by Peter Byron, chairman of the Department of Pharmaceutics; Joanne Peart, associate professor of pharmaceutics; and Richard Dalby of the University of Maryland. RDD Europe 2011 will meet in May in Berlin, Germany. For details, visit www.rddonline.com.

Graduate program debuts new advisory board

The newly formed Pharmaceutical Sciences Graduate Program Advisory Board met for the first time on Oct. 7, the day before the School of Pharmacy's 13th Annual Research and Career Day.

Susanna Wu-Pong, who has directed the Pharmaceutical Sciences Graduate Programs since 2004, said the idea in forming the board was to include representatives of the School of Pharmacy's faculty and alumni as well as members of the business community.

"We have great alumni," she said, "and these represent the best of them. Our alumni are an underutilized resource of the graduate program."

One of the board's main goals is to help identify and develop emerging leaders in the graduate program, said Wu-Pong. Another goal is to further engage graduate alumni in supporting the program as mentors, invited speakers and donors.

Currently, more than 90 graduate students are enrolled at the school, and more than 50 faculty members teach graduate courses.

The first board meeting offered members the opportunity to learn more about the graduate program and to begin developing a plan. Board members also received a guided tour of the Smith Building's recent renovations.

The group will meet biannually, with subgroups communicating throughout the year. Wu-Pong says the next meeting will take place this spring, around the time of the annual Graduate Student Awards Luncheon.

"Everyone was enthusiastic," she said of the October meeting. "There was a lot of energy, a lot of ideas. I think it was great!"

Many of the board members participated in Research and Career Day, as well.

Pharmaceutical Sciences Graduate Program Advisory Board members, who will serve in two- to four-year staggered terms, are: **Donald Abraham**, professor emeritus, VCU School of Pharmacy; **William Barr**, VCU School of Pharmacy; **Eugenio Cefali** (Pharm.D./Ph.D. '87), EA Cefali Pharmaceutical Consulting LLC;

Chandra Chaurasia (Ph.D. '90), U.S. FDA; **Anthony Coniglio** (Pharm.D. '86), OPUS Pharma Consulting; **William Fitzsimmons** (Pharm.D. '85), Astellas Pharma Global Development Inc.; **Kavita Gajria** (M.S. '04), MedImmune; **Seina Lee** (Pharm.D./M.S. '06), Johnson and Johnson; **Ian Orensky** (Pharm.D./M.S. '03), VCU Health System; **Matthew Murawski** (Ph.D. '95), Purdue University College of Pharmacy; **Mohamadi Sarkar** (Ph.D. '90), Altria Client Services; **Patricia Slatum** (Pharm.D./Ph.D. '92), VCU School of Pharmacy; **Shanaz Tejani-Butt** (Ph.D. '84), University of the Sciences in Philadelphia; and **Kamlesh Thakker** (Ph.D. '83), Abbott Laboratories.

Staff members are: **David Holdford**, vice chairman for graduate studies, Department of Pharmacotherapy and Outcomes Science; **Thomas Karnes**, graduate program director, Department of Pharmaceutics; **Ellen Leverich**, director of development; **Richard Westkaemper**, graduate program director, Department of Medicinal Chemistry; **Susanna Wu-Pong**, director of Pharmaceutical Sciences Graduate Programs; and **Victor Yanchick**, dean.

Grad News

WELCOME, NEW ALUMNI



Svetlana Verenich was hooded by her advisor, assistant professor of pharmaceutics Phillip Gerk.

Congratulations to the School of Pharmacy's newest group of graduate alumni! 2010 "graduate graduates" include:

Ph.D. in pharmaceutical sciences

(name followed by dissertation title and advisor)

Sheetal P. Dharia: "The Effect of Anticholinergic Burden on Functional Outcomes in Patients With Dementia" (Patricia Slattum)

Amit K. Gandhi: "Vitamin B6 Metabolism and Regulation of Pyridoxal Kinase" (Martin Safo)

Priya P. Nadkarni: "Pulmonary Delivery of Anorectic Gut Secreted Peptides for Appetite Suppression in Rats" (Masahiro Sakagami)

Taghrid Y. Obied: "Prediction of In-Vivo Antimuscarinic Activity (AMA) by In-Vitro Receptor Binding Assessment and PK/PD Modeling for Prototypical Drugs" (Jurgen Venitz)

Bhawana Saluja: "Novel Cinnamic Acid-Based Dehydropolymers For Emphysema: In Vitro And In Vivo Assessment Of Their Activities" (Masahiro Sakagami)

Aurijit Sarkar: "Novel Application of the Hydropathic Interactions (HINT) Forcefield in Sidechain-Optimization and Prediction of Antibiotic Efflux" (Glen E. Kellogg)

Kumar Shah: "Quantitative Analysis of Tobacco Specific Nitrosamine in Human Urine Using Molecularly Imprinted Polymers as a Potential Tool for Cancer Risk Assessment" (H. Thomas Karnes)

M.S. in pharmaceutical sciences

(name followed by thesis title and advisor)

Ashwini Goswami: "Development of PPAR-Receptor Agonists as Therapeutic Agents for Diabetes" (Martin Safo)

Kendra M. Haney: "Synthesis and Evaluation of Anibamine and Its Analogs as Novel Anti-Prostate Cancer Agents" (Yan Zhang)

Svetlana Verenich: "Role of Oxidative Reactive Species and Antioxidants in Metabolism and Transport of Therapeutic Drugs" (Phillip M. Gerk)

Pharm.D. /M.B.A.

Adrian W. Bakker-Campbell

Pharm.D./Ph.D.

Sheetal P. Dharia

Certificate in Aging Studies

Maria T. Achilleos

Sheetal P. Dharia

Anna L. Kostic

Krista L. Larson

AND THE WINNERS ARE ...

Kudos to graduate students who won awards or other recognition in 2009-10, a few of whom are listed as follows:

Mera Ababneh: first place in the university's annual Graduate Student Research Symposium & Exhibit with her poster "Trends in Aminoglycoside Use and Gentamicin – Resistant Gram Negative Bacteria: 2002-2008." (Advisors: Amy Pakyz and Ron Polk)

Prajakta Badri and Bhawana Saluja: Joseph Schwartz Graduate Student Travel Fund Award, established to support full-time graduate students' travel to present research papers or posters at professional meetings in basic pharmaceutics or pharmaceutical technology (Badri's advisor: Jurgen Venitz; Saluja's advisor: Masahiro Sakagami)

Saluja also received the John Wood Award, given to the student in the Department of Pharmaceutics who has achieved the greatest distinction in scholarship, research, teaching and service. (For more on the John Wood Award, see page 3.) In addition, she was selected to represent the school at the Fifth Annual Virginia Graduate Student Research Forum at the Library of Virginia.



Patty Slattum, associate professor of pharmacy, congratulated Sheetal Dharia on receiving the Victor A. Yanchick Award.

Sheetal Dharia: Victor A. Yanchick Award, given to the student in the Department of Pharmacotherapy and Outcomes Science who has achieved the greatest distinction in scholarship, research, teaching and service. (Advisor: Patricia Slattum)

Lokesh Jain: American Association of Pharmaceutical Scientists' 2009 Graduate Student Symposium Award in Pharmacokinetics, Pharmacodynamics and Drug Metabolism & Clinical Pharmacology and Translation Research (Advisor: Jurgen Venitz)

Mallika Lala and FNU Yamini: recognized at the university's 2010 Phi Kappa Phi Scholarship Ceremony as among the top 10 percent of graduate students, awarded Phi Kappa Phi Graduate School Scholarships (Lala's advisors: Douglas Boudinot and Joga Gobburu, FDA; Yamini's advisors: Martin Safo and Yan Zhang)

Grad News



Aurijit Sarkar picked up two awards from Dean Victor Yanchick at the annual graduate awards luncheon.

Aurijit Sarkar: J. Doyle Smith Award, given to the student in the Department of Medicinal Chemistry who has achieved the greatest distinction in scholarship, research, teaching and service. Sarkar also received the Charles T. Rector and Thomas W. Rorrer Jr. Dean's Award, established by Jacqueline V. Rorrer in memory of her late husband, Charles Rector, and in honor of her current husband, Thomas Rorrer (B.S. '52), for a graduate student who best demonstrates excellence in scholarship, research, teaching and service. (Advisor: Glen Kellogg)

Kumar Shah: American Association of Pharmaceutical Scientists' 2009 Graduate Student Symposium Award in Analysis and Pharmaceutical Quality (Advisor: Thomas Karnes)

Also, posters by three VCU School of Pharmacy graduate students were finalists at the International Society for Pharmacoeconomics and Outcome Research. The theme of ISPOR's 15th Annual International Meeting was "From Adaptive Trials to Personalized Medicine: Providing Value for Decision-Makers."

James X. Zhang, associate professor of pharmacy and director of the Pharmaceutical Economics and Policy Research Program, reports that **Jing Tao**, a first-year Ph.D. student, was recognized for her study, "Antibiotic Prescribing for Acute Respiratory Tract Infections in Adult Primary Care: Is Good Insurance Bad for Antibiotic Prescribing?" **Nantana Kaisaeng**, a second-year Ph.D. student, was a finalist for her study, "The Use of e-Prescribing, Physicians' Perception of Medicaid Payments and Their Willingness to Accept New Medicaid Patients." Gary Matzke, associate dean for clinical research and public policy, contributed to Kaisaeng's study. Zhang

served as mentor for both studies. **Dipen Patel**, in his final year as a Ph.D. student, was recognized for his poster, "Economic Burden of Anaphylaxis in the United States," along with David Holdford, associate professor of pharmacy and vice chairman of graduate education; Umesh Desai, professor of medicinal chemistry; and Norman Carroll, professor of pharmacy. Holdford is Patel's advisor.

And finally, a paper by **Nantana Kaisaeng**, "Medicaid Pharmacy Cost-Containment Policy Actions and Access to Prescription Drugs and Medical Care," was published as the lead manuscript in the November 2009 issue of Drug Benefit Trends. (Advisor: James X. Zhang)

Note: The accomplishments of some graduate students who completed their degrees last December or during the summer were included in the Fall 2009 edition of The Pipeline. To read about those honors, please visit www.pharmacy.vcu.edu. Click on Alumni, Donors and Friends; then Publications; then The Pipeline Fall 2009.

ANNOUNCEMENTS

Umesh Desai, professor of medicinal chemistry, received the School of Pharmacy's 2010 Faculty Teaching Excellence Award.



Abraham and Glennon

SOP professor emeritus **Donald Abraham**, chairman of the school's Department of Medicinal Chemistry from 1988 to 2003, was inducted into the American Chemical Society Division of Medicinal Chemistry Hall of Fame during the Fall 2010 ACS National Exposition in Boston. He also recently finished co-editing the seventh edition of Burger's Medicinal Chemistry, Drug Discovery and Development, which was published by Wiley this fall. Current Medicinal Chemistry faculty who contributed chapters to this edition are **Umesh Desai**, professor; **Glen Kellogg**, associate

professor; **Martin Safo**, assistant professor; and **Richard A. Glennon**, Alfred and Frances Burger Professor of Medicinal Chemistry and chairman of the department.

Ten Pharm.D. students and one junior chemistry major participated in the school's 2010 **Summer Research Fellowships**. The fellowship program, which is about 5 years old, offers students in the professional program who are interested in research a rare opportunity to discuss their areas of interest with faculty from the Departments of Medicinal Chemistry; Pharmaceutics; and Pharmacotherapy and Outcomes Science.

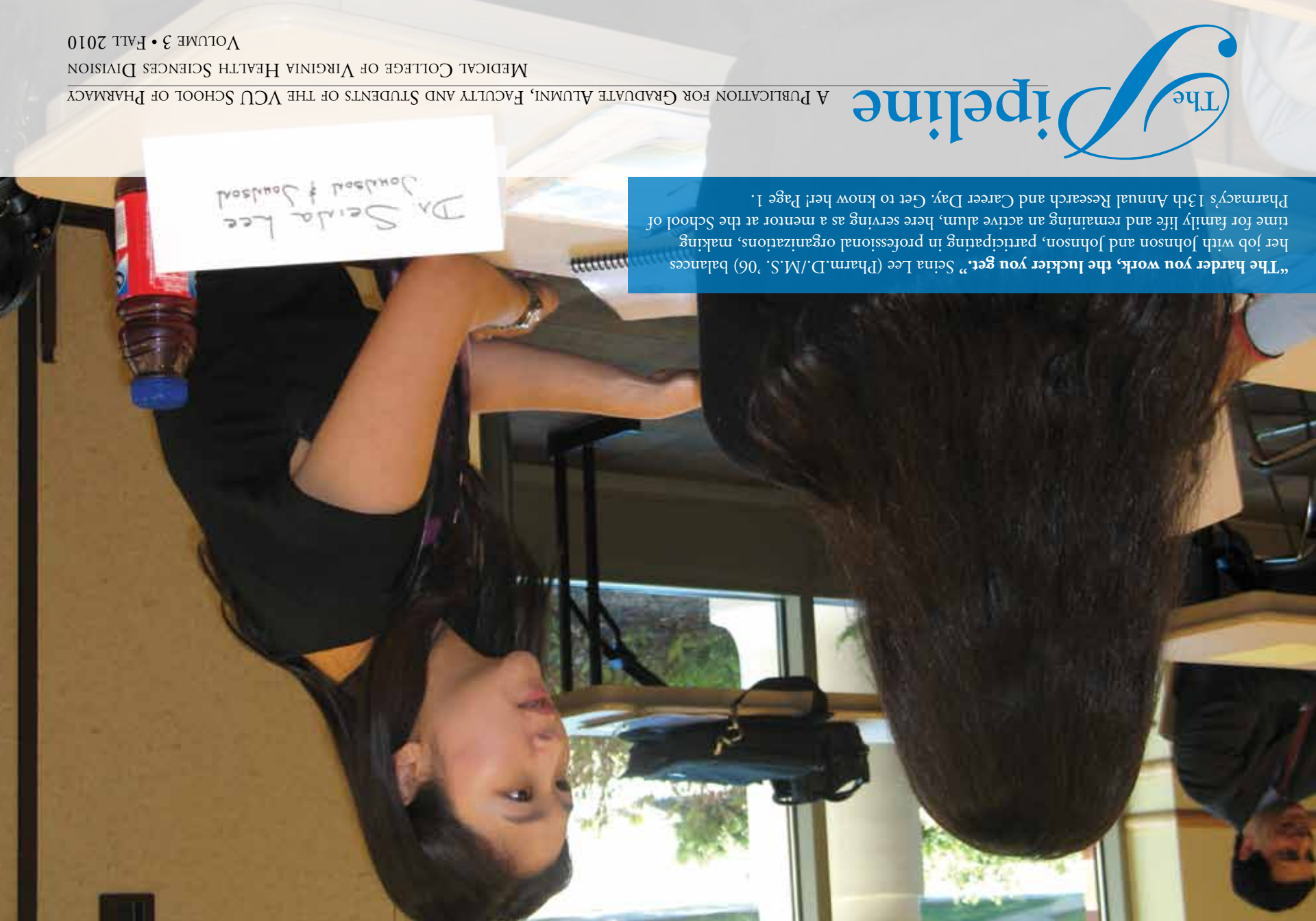
The school's Center for Biomarker Research and Personalized Medicine, helmed by **Edwin van den Oord**, received a \$4.5 million "Grand Opportunities" (RC2) grant to detect schizophrenia methylation markers. The grant was awarded by the National Institute of Mental Health through the 2009 American Recovery Reinvestment Act. It was the largest ARRA research grant awarded to the university.

Several Web pages within the School of Pharmacy site have been refurbished in the last several months. To see a few of them, visit www.pharmacy.vcu.edu and click on Departments/**Medicinal Chemistry**; Departments/**Pharmaceutics**; Research/Research Centers/**Center for Biomarker Research and Personalized Medicine**; or Departments/Pharmacotherapy/Scholarship & Research/**PEP Program**.

Many thanks to all the **postbaccalaureate Pharm.D. graduates** who responded to last fall's request for photo IDs for class photos from 1981 through 1996. Every student in every class has been identified except for five members of the class of 1991. (IDs, anyone?) To see the photos online, please visit www.pharmacy.vcu.edu/sub/alumni/postbacca.aspx. We're still interested in securing class photos from 1978 through 1980; if you have any, please e-mail them to pharmacyalum@vcu.edu or mail to VCU School of Pharmacy, Office of Public Relations and Communications, P.O. Box 980581, Richmond, VA 23298. (Hard-copy photos can be returned upon request.)

Get connected! Visit the VCU School of Pharmacy page on **LinkedIn** and join the subgroup, Pharmaceutical Sciences Graduate Programs. Also, all university alumni now may obtain a **complimentary, permanent e-mail address** with VCU. To register, visit www.support.vcu.edu/live/alumniemail.

“The harder you work, the luckier you get.” Seina Lee (Pharm.D./M.S., '06) balances her job with Johnson and Johnson, participating in professional organizations, making time for family life and remaining an active alum, here serving as a mentor at the School of Pharmacy’s 13th Annual Research and Career Day. Get to know her! Page 1.



The Pipeline is a publication of the VCU School of Pharmacy. Readers may submit comments or questions to Cynthia McMullen, editor, by calling (804) 828-6470 or e-mailing chmcmullen@vcu.edu.

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