



## BEGINNING THE NEXT CHAPTER: BEST WISHES TO THE FELLOWSHIP CLASS 2015

**J**une 4, 2015 marked a celebration for the Rutgers Pharmaceutical Industry Fellowship program as we wished the best of luck to our 49 fellows and 1 resident graduating from the program. Each year, fellows, preceptors, and fellowship program directors from Sponsor companies come together to celebrate the achievements of post-doctoral fellows who have or will be transitioning from the program to continue building their careers in the pharmaceutical industry. The dinner captures the emotional experience of stakeholders of the program including Dean Barone and Dr. Toscani proudly acknowledging the completion of post-doctoral training by bestowing fellows with their certificate of completion.

As we concluded our last Professional Development Day at Rutgers earlier in April, both of our co-chief fellows shared their gratitude and well wishes to the fellows. Below are some sentiments they wanted to share with the program upon the transition to the rest of their careers:



*It has truly been an honor and a privilege to have the opportunity to act as one of the co-chiefs this past fellowship year. I have truly enjoyed getting to know all of the fellows and helping to develop the RPIF. Although it is bitter sweet that I now graduate, I look forward to watching the continued success of the RPIF. Best of luck to all of you! See you soon!*  
- **Victoria Vazquez, Pharm.D.**

*Serving as one of the fellowship co-chiefs has been a tremendously rewarding experience. Not only have I seen personal and professional growth for myself, but I also had the pleasure of observing that same success for each and every fellow in the program. I am excited for all the graduating fellows and certain we will find great opportunities within the pharmaceutical industry as a result of our time with the fellowship. Best of luck to all fellows, both continuing and graduating!*  
- **Keith Fairall, Pharm.D.**

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**JUNE 2015**

## TEACHING CERTIFICATE PROGRAM

*Eleven fellows complete Teaching & Learning Certificate Program at Rutgers*

On June 12th, the third class of post-doctoral fellows and residents completed the **Rutgers Teaching and Learning (T&L) Certificate Program**. Eleven of our fellows completed this certification, and it truly brings to light how quickly this program is growing and the benefits it has for fellows and residents. Dr. Anita Siu, one of the program pioneers along with Dr. Kate Opsha, shared information on the structure, history, and advantages of such a program at Rutgers.



Fellows receiving their teaching certificates

### Fellows Completing the Teaching and Learning Certificate Program:

Sajid Ahmed  
Patrick Brooks  
Meg Crighton  
Unicel-Anne Flores  
Sharone Aragon Keane  
Sonie Lama  
Jessica Long  
Geetha Pudusery  
Alexander Schepart  
Khushbu Shah  
Stephanie Wiegand

The T&L program consists of 8 half day sessions at Rutgers University, where participants meet once a month to learn about different teaching styles, develop a core and clerkship syllabus, and learn how to differentiate effective teaching methods in both the classroom and experiential settings.

Along with her co-coordinator, Dr. Opsha, and other faculty within the Department of Pharmacy Practice, the team-taught program not only focuses on refining the skill set necessary for teaching and learning but also **fosters leadership, team building, and professional development**. Each fellow or resident takes a student on rotation where everything learned in the certificate program comes to fruition. Overall this is a great opportunity for the University, students, and partnering companies- a win, win, win.



## 2<sup>ND</sup> ANNUAL ALUMNI WEST COAST NETWORKING EVENT

By Michael Stamatis, Pharm.D. - West Coast Liaison

On May 21, 2015, RPIF hosted the **2<sup>nd</sup> Annual Spring RPIF West Coast Alumni Networking Session** in San Francisco, CA. On behalf of the west coast fellows, I am very pleased to say that over 20 alumni from 6 partner companies attended the event. It was a fun-filled night of rekindling past connections and forging new professional bonds.

As we look to the future, we at Roche-Genentech are excited to contribute directly to RPIF's growth on the west coast. Our fellowship soars ever higher as we welcome **7 first year fellows** to our South San Francisco campus for the 2015-2016 year.

As we are eagerly anticipating our incoming fellows, we are also excited for our west coast graduating fellows: Andrew Chia, Jennifer Chiu, Sheena Gurai, and Maksim Nestor. We wish them the best of luck and thank them for fostering the Rutgers program's growth in California!



Dean Barone, Dr. Toscani, and current and past fellows gathered in San Francisco last month

# PHARMACY RESEARCH DAY

*Fellows, residents, and students showcase their scholarly activities*

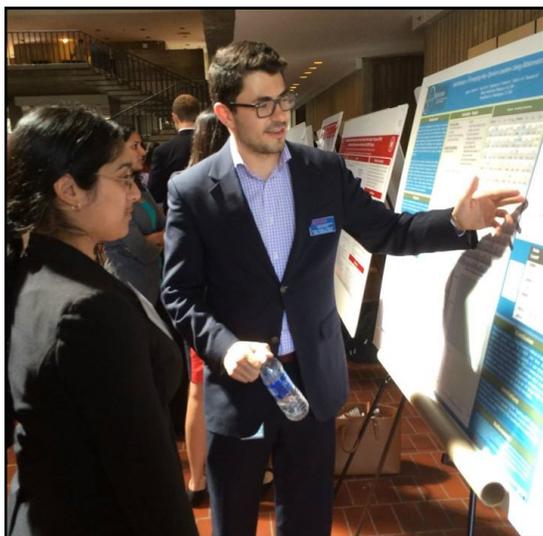
On April 28th, the Great Hall at Robert Wood Johnson Medical School was full of excitement as fellows, residents, and students from the Ernest Mario School of Pharmacy presented their research projects from the academic year. This was the 5<sup>th</sup> annual Pharmacy Research Day and contained over 60 original posters.



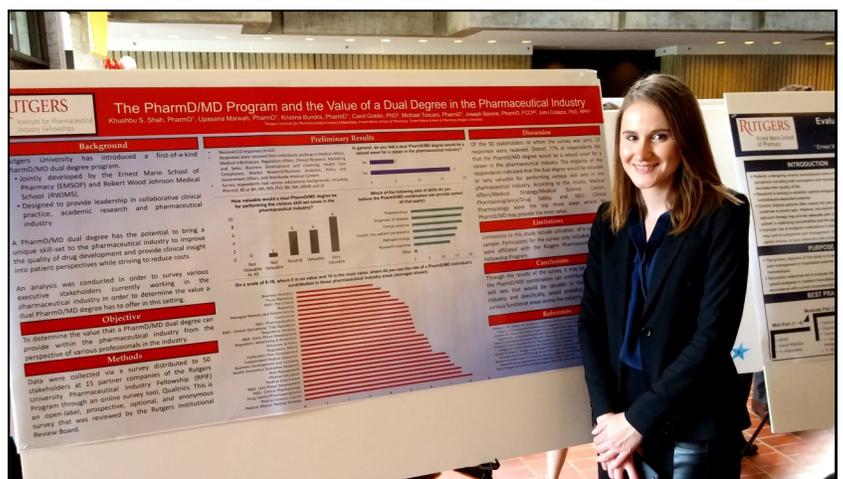
Rutgers fellows, residents, students, and faculty at the 5th Annual Pharmacy Research Day

RPIF was very well represented at the event with research on a wide variety of topics including regulatory adherence, medical information, key opinion leader identification, and social media.

Other projects topics that were presented include those focusing on the Rutgers Pharm.D./MD program, orphan drug development, presentation feedback, FDA drug promotion trends, and patient support programs. The event was open to the public and was attended well as the Great Hall was packed full for most of the afternoon.



Arthur Graber presents his research, *Emerging KOL Identification Through Bibliometric Data Analysis*.



Kristina Bundra presents her poster, *the Pharm.D./MD Program and the Value of a Dual Degree in the Pharmaceutical Industry*. This project was authored by Khushbu Shah, Upasana Marwah, Kristina Bundra, John Colaizzi, Michael Toscani, and Joseph Barone.

Click here to view RPIF posters:



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## WHEELS FOR THE WORLD: CDC ACTIVITY MAKES LASTING MEMORIES

By Agnes Hong, Pharm.D.  
CDC Committee



**O**n the last Professional Development Day of the 2014-2015 fellowship year, the fellows took part in a team-building activity called Wheels for the World. The **Community Development Committee (CDC)** coordinated this 3 hour event where fellows created their own 'bike shops'. After each team naming their shops, fellows engaged in fun team-building challenges to earn bike parts and build a bike for a well-deserving child from the New Jersey community. During this event, the fellows worked together to create the tallest free-standing balloon tower, took part in a bike trivia and even made a commercial skit to advertise their bike building skills. Also participating in the day's activities were Gabriella Garcia, a Rotary Youth Exchange Student from Brazil, and several pharmacy students from St. John's University.

**Wheels for the World** was a collaborative, fun and engaging event that fellows thought was over when the bikes were completely built. To everyone's surprise, the future owners of the bikes and their parents walked through the doors of the Busch Campus Center. The children were selected based on their school merit and community involvement by the Wheels for the World organization. The children were



The Rutgers fellows enjoyed working on this team bicycle building activity with such a rewarding surprise at the end of the event!

completely surprised and very excited for their new bikes and the new memories they would gain. It was a proud moment for the fellowship and the children's parents who were grateful and happy to see a smile on everyone's faces.

In addition to building bikes, the fellows took part in a 'Dress Down Day', where fellows were able to dress in their comfortable 'business casual' clothes to Professional Development Day. As a fellowship family, **we raised \$210 for the Morristown**

**Neighborhood House Program.** This organization helps transition immigrant families into communities and also assists working and impoverished families maximize their educational, social, physical and economic potentials. They provide mentoring and afterschool opportunities for kids in the Morristown, Dover, Randolph and Dover areas who come from families in need.

All in all, the CDC activity was a huge success. It was not only an great team-building event but one where we gave back to the community. This event could not have been done without the support of Dr. Toscani, Dean Barone, and Janet Lupo.

## FELLOWS PURSUING ADVANCED DEGREES:

### *An Inside Look at the MS HOPE Program*

By Kyle Flannery, Pharm.D., 2nd Year Fellow at Sanofi



With the recent increase in focus on healthcare cost and quality in the US, stakeholders are looking towards the pharmaceutical industry for innovative value-based strategies which improve patient outcomes. Old models of care have been challenged and a new paradigm has arisen which focuses on providing high quality innovations at an acceptable cost. For this reason, there is a growing demand for highly trained individuals that have a broad understanding of the national healthcare landscape. For pharmacists or other clinicians, pursuing additional training through the MS HOPE program (Master of Science in Health Outcomes, Policy, and Economics) at the Rutgers School of Public Health offers the opportunity to gain the quantitative and policy background which will facilitate leadership roles in the ever-changing healthcare environment of the future.

The MS HOPE program provides training in diverse pharmacoeconomic and outcomes research disciplines including patient reported outcomes, economic modeling, and advanced epidemiology. The program began in 2014 as a collaborative effort involving the Ernest Mario School of Pharmacy, the School of Public Health, and other components of the broader Rutgers University. This interdisciplinary environment leverages expertise in economics, data analysis, biostatistics, and health policy. Advanced training in these disciplines is surprisingly limited, with few comprehensive programs throughout the US. With its longstanding relationships and close geographical proximity to the pharmaceutical and healthcare industries, Rutgers has an inherent advantage when it comes to providing focused academic programs and comprehensive research capabilities.

This program is equally well-suited for students seeking a joint master's degree or individuals currently employed in public health or the healthcare industry.

A number of current and graduating Rutgers Pharmaceutical Industry Fellows are taking advantage of this exciting opportunity. I personally believe that the didactic coursework I have received as a full-time student provides the technical backbone which perfectly complements the hands-on training I receive every day at Sanofi. Joseph Feliciano (2nd Year Evidence-Based Medicine Fellow at Sanofi) and Agnes Hong (1st Year GI Global Medical Franchise Fellow at Pfizer Consumer Healthcare) share their thoughts about the program as well.

*"I decided to pursue a MS in Health Outcomes, Policy and Economics at Rutgers University to gain a better understanding of the rapidly changing US and Global Healthcare system. As new treatment options emerge onto the market, there is a need to show the value of a drug through outcomes and evidence research in addition to the safety and efficacy data. The HOPE program curriculum provides me with the skills and training I need to not only interpret clinical study data, but also understand the broad impact new drugs can have on patient lives, health care systems and economies overall. I feel fortunate to have the opportunity to learn and be able to utilize my classroom learnings on a daily basis in my fellowship with Pfizer."*

-Agnes Hong, Pfizer Consumer Healthcare

*"I believe the MS in Health Outcomes, Policy and Economics program is a perfect complement to the evolving health care landscape. It allows you to develop a foundation in statistics and re-search design that will cause you to excel while the focus shifts from fee-for-service to value-based healthcare."*

-Joe Feliciano, Sanofi

#### Post-doctoral fellows currently completing the MS HOPE program



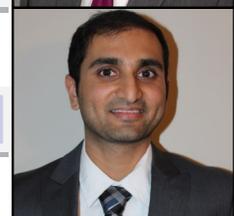
Joe Feliciano



Kyle Flannery



Agnes Hong



Manish Patel



# SCHOLARY ACTIVITIES UPDATES

By Ronak Savla, Pharm.D., PhD, & Sonie Lama, Pharm.D.  
Scholarly Activities Liaisons



Our fellows' most recent publications and posters are pictured and listed below. To view more, click here:

**HIGHLIGHT** View Article Online  
View Journal | View Issue



Cite this: *Nat. Prod. Rep.*, 2015, 32, 654

### Chemistry and biology of tubulysins: antimetabolic tetrapeptides with activity against drug resistant cancers

Bryan C. Murray, Michael T. Peterson and Robert A. Fecik\*

Covering: 2000 to 2014

Received 26th March 2014  
DOI: 10.1039/c4np00036f  
www.rsc.org/npr

Since their first report in 2000, tubulysins have sparked great interest for development as anti-cancer agents due to their exceptionally potent antiproliferative activity. Progress in the discovery and development of tubulysins, especially tubulysin conjugates, has quickly advanced despite limitations in their availability from Nature. In this *Highlight*, the key research on the isolation and structure determination, biosynthesis, bioactivity, structure-activity relationships (SAR), synthesis, and conjugates of tubulysins is presented.

The above article was authored by recently graduated fellow Brian C. Murray and his colleagues, Micheal T. Peterson and Robert A. Fecik on the chemistry and biology of tubulysins.



## The Bioavailability Toolbox

### How can we overcome bioavailability challenges in our increasingly complex drug pipeline?

Plus, there are special advantages when it comes to targeting cancer. Ronak Savla, a Rutgers University Research Fellow supporting the Catalent Applied Drug Delivery Institute, used specially engineered nanoparticles to deliver highly potent cancer drugs specifically to the tumor site (5). "There is a phenomenon known as the enhanced permeation and retention effect in solid tumors – the

**NON-INVASIVE MACROMOLECULE DRUG DELIVERY GUIDE**

Catalent APPLIED DRUG DELIVERY INSTITUTE

Below: J&J fellow Upasana Marwah and her colleagues Sheetal Patel, Amy Van Sant, and Erin Wells discuss FDA OPDP enforcement actions.

## A Look Back at FDA OPDP Enforcement Actions: January 2013 – December 2014

By Upasana Marwah, Sheetal Patel, Amy Van Sant, and Erin Wells



Upasana Marwah is a Health Care Compliance and Privacy Post-Doctoral Fellow at Johnson & Johnson in partnership with Rutgers University, Ernest Mario School of Pharmacy; she received her BS and PharmD degrees from the University of Pittsburgh.



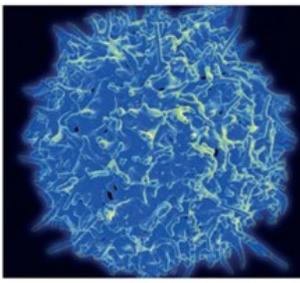
Sheetal Patel is a Director, Regulatory Advertising and Promotion at Johnson & Johnson who received her PharmD degree from the University of the Sciences in Philadelphia and completed a Fellowship in Regulatory Advertising and Promotion at Johnson & Johnson, Food and Drug Administration and Purdue University.



Amy C. Van Sant is a Regulatory Advertising and Promotion Lead at Johnson & Johnson; she received her PharmD degree from the University of the Sciences in Philadelphia, her MBA in Pharmaceutical Management from Drexel University, and completed a residency in Drug Information at Thomas Jefferson University Hospital in partnership with Johnson & Johnson.



Erin Wells, BS is a Regulatory Advertising and Promotion Lead at Johnson & Johnson with a BS and PharmD degrees from the University of the Sciences in Philadelphia; she completed a fellowship in Medical Information at Ortho-McNeil Pharmaceutical, Inc. through Rutgers University, Ernest Mario School of Pharmacy.



### Nanotechnology Versus Cancer

With only one approved drug and many failures, the cancer vaccine field has lost some of its shine. Could nanotechnology brighten its prospects?

By Ronak Savla

We need a new type of weapon in the war on cancer. Chemotherapy, the backbone of cancer treatment, often brings initial success but cancers are notorious for adapting to ever more aggressive and resistant forms. Traditional chemotherapies do not discriminate. They

promise and years of research, there is foreign, but simply normal cells gone

Left: Catalent fellow Ronak Savla has been published several times recently on topics within drug delivery

## Drug Information Association (DIA) 2015: 51st Annual Meeting

June 14-18, 2015 — Washington D.C.

Poster Title	Authors
Global Utilization of Breast Cancer Treatment Guidelines: A survey of International Physician Practices (Poster and Oral Presentation)	Sheena Gurai, Evelyn Hermes-DeSantis, Michael Toscani, Dannis Chang
Assessing the Landscape of Pharmaceutical Industry Post-doctoral Training Programs (Poster and Oral Presentation)	Brittney Rule, Joe Fiore, Bryan Murray

## The New Jersey Society of Health-System Pharmacists

April 24, 2015 — Ocean Place Resort & Spa in Long Branch, NJ

Poster Title	Authors
Variability in outcomes associated with pharmacist or nurse led transitional care in patients with heart failure	Khushboo Bhatia, Sonia Kothari, Kate Opsha, Michael Toscani

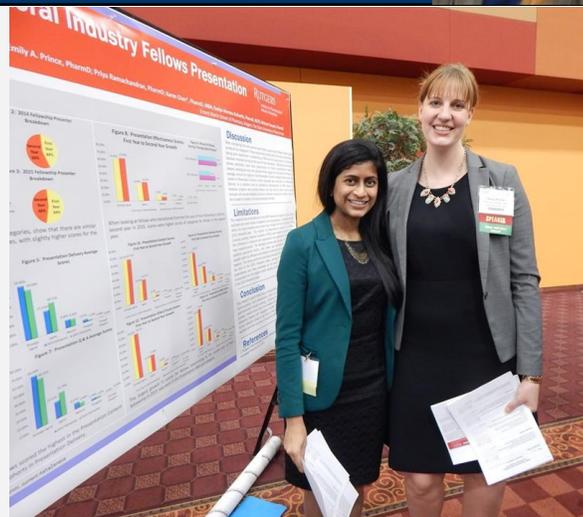


## PDD FEEDBACK ANALYSIS YIELDS POSITIVE FINDINGS FOR FELLOWS' DEVELOPMENT

By Priya Ramachandran, Pharm.D. and Emily Prince, Pharm.D.—Feedback Committee

The Professional Development Day (PDD) Feedback Committee co-chairs for the 2014-2015 fellowship year were Emily Prince and Priya Ramachandran. The purpose of their committee is to provide fellows with appropriate feedback, via an anonymous survey, that will allow them to enhance communication, presentation, and professional skills. This year, Emily and Priya gathered and assessed **486 survey feedback results** in order to evaluate and benchmark the presentation skills of the postdoctoral fellows and to discuss the implementation of the feedback program.

The interim results showed that regardless of fellowship year, on average fellows scored the highest in the Presentation Content category while scores were lowest across all cohorts in Presentation delivery. The largest growth in scores for fellows transitioning to the 2<sup>nd</sup> year of their fellowship was seen in the Presentation Q&A sub category. Scores were higher across all categories for fellows in their second year. Further research needs to be done in order to help bridge the gap between gaining feedback and the outcome of improved presentation skills. Both Emily and Priya presented a poster highlighting their findings at the **2015 DIA Medical and Scientific Communications Conference** in Glendale, Arizona. Karen Chen, Evelyn Hermes-DeSantis, and Michael Toscani are also co-authors on this research.



Left to right: Priya Ramachandran and Emily Prince presented their findings at the 2015 DIA MedComm meeting



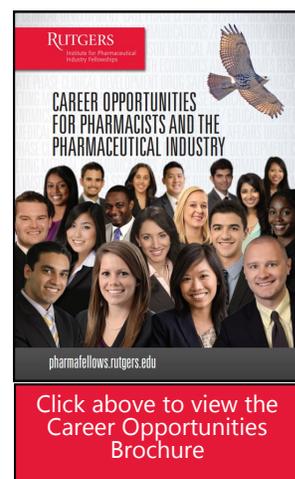
## MARKETING COMMITTEE USES TECHNOLOGY-BASED INITIATIVES FOR PROMOTION & EDUCATION

By Mariam Abouhossein, Pharm.D. and Amanda White, Pharm.D.

**W**hen those in pharmacy school or industry think of fellowships, the Rutgers Fellowship may to mind. Some may remember that scarlet red sea of PPS booths at Midyear, while others may recognize a fellow from a brochure or university visit. Either way, our program is very memorable.

The Marketing Committee promotes not only the RPIF program but also the value that exceptional Pharm.D.s bring to the industry. For this reason, we continuously update our brochures with new fellows' experiences and information to recruit great talent. Collaborating with the RPIF Marketing Coordinator, Melanie Mostrowski, we coordinated the production of another novel FIND video to educate students and share the perspective of current fellows. Furthermore, we transitioned our brochures from paper to USB digital format to distribute to students during outreach visits and other events.

Each Professional Development Day, fellows can look forward to having their presentation captured in photographs. The value of learning and networking that occurs during PDD is shared on social media. As the fellowship expands, the Marketing Committee continues to collaborate and look for innovative opportunities to engage with candidates, share scholarly work, and keep stakeholders remembering why Rutgers is a leader in pharmaceutical industry fellowships.



## CELEBRATING MILESTONES WITH OUR PARTNER COMPANIES

*Congratulations to Novartis Pharmaceuticals and Bayer Healthcare*

### Novartis Celebrates 25th Year with RPIF:

By Anisha Bhagat, Pharm.D.



From left: Angela Browne, Rob Kowalski, and Kudsia Hafeez

On **May 16, 2015**, Novartis and Rutgers came together to celebrate the **25<sup>th</sup> year of a successful partnership** and the over 150 Fellows and Stakeholders who have contributed to a successful and strong fellowship program over this period. There were approximately 40 attendees including several **alumni, current fellows, and the Novartis fellowship leadership team**. A special acknowledgement to those who have laid the foundation for the fellowship program at Novartis (formerly Sandoz Pharmaceuticals), and those who have been integral players in its continued success.

We are thankful that they were all able to

share their stories with us this evening:

- Mark Ammann & John Gladish — First class of fellows at Sandoz Pharmaceuticals
- Frank Cirillo & Marion Morton — Founding stakeholders at Sandoz Pharmaceuticals
- Robert Kowalski — Novartis Fellowship Senior Sponsor
- Michael Toscani — Rutgers Fellowship Director



### Bayer Celebrates 10 Years with RPIF

Another one of our partner companies celebrated a key milestone recently as **Bayer celebrated their 10 year anniversary with the Rutgers Pharmaceutical Industry Fellowship Program in March 2015**. Bayer kindly hosted an onsite Professional Development Day educating pharmacists and post-doctoral fellows with great presentations and CE programs, followed by a networking event and anniversary celebration.



#### **Institute for Pharmaceutical Industry Fellowships**

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**Stay Connected!**

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Interested in collaborating?  
Contact us to write in the  
next edition of the  
*Fellowship Chronicles!*



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