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Message from the Director Dr. Deborah Silver

Welcome back to another exciting semester at Rutgers! We would like to welcome our new students to the PSM Program. Orientation for new students took place on August 21, 2012. Our program has now grown to 300 students.

We are proud of our first graduating cohort of MBS students. The PSM Program hosted a dinner for our first graduating class of 24 MBS students at The Rutgers Club on May 10, 2012. Dr. Jerome Kukor, Dean of the Graduate School in New Brunswick, provided the welcoming remarks and a letter was read to the students from Dr. David Finegold, Senior Vice President for Lifelong Learning and Strategic Growth and founder of the Professional Science Master's Program. Affiliated faculty from the students' concentrations also attended the festive event. We are excited about the new semester. Please check our website at mbs.rutgers.edu for all of the workshops, lectures and special events planned for the upcoming year.

Manufacturing of the Future



L to R: Dr. Leo Christodoulou, Mr. Michael Maher, Dr. Steven McKnight, Mr. Steve Szaruga

Celebrating the Centenary of Frederick Taylor's seminal work, *Scientific Management*, the Rutgers community heard from a distinguished panel of experts on March 6, 2012 on the future of manufacturing and the future of the factory. What are the new cutting-edge technologies and what impact will they have on manufacturing? Speaking to a standing room only audience, Dr. Leo Christodoulou of the U.S. Department of Energy, Dr. Steven McKnight from the National Science Foundation, Michael Maher from the Defense Advanced Research Projects Agency, and Steve Szaruga from the Air Force Research Laboratory addressed

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PSM at Events



Dr. Deborah Silver and Dr. Sangya Varma at the Fall MBS Student Orientation on August 21, 2012.



Incoming Fall 2012 MBS Students at Orientation.



PSM Students tour the Rutgers EcoComplex on February 16, 2012.

PSM at Events



Entrepreneur Bootcamp May 12, 2012 L to R: Dr. Deborah Silver, Dr. Aleta You Joan Praiss, Johanna Zitto, Maxine Ballen



NJTC Talent Network Interns 2012



MBS Summer Interns 2012



MBS Summer Interns 2012

The Technology and Entrepreneurship Talent Network

The Rutgers Professional Science Master's Program, in collaboration with the New Jersey Technology Council (NJTC), received a grant from the New Jersey Department of Labor and Workforce Development to provide internships to students with a background in life science, engineering, technology and mathematics. Through a competitive application process, thirteen companies received funding to support fifteen students in an internship this past summer. The thirteen companies were: Antenna Software, Blue Sky Power, DoughMain, Factor Systems, Nistica, PortaScience, Soligenix, Speech Trans, Synchronoss Technologies, The New Jersey Center for Biomaterials, Time Sight Systems, VectraCor, and Viocare.

In addition to the Talent Network Internship program, the Technology and Entrepreneurship Talent Network (TETN) and Rutgers University co-sponsored an Entrepreneur Bootcamp on May 2, 2012. Dr. Michael Pazzani, former Rutgers Vice President for Research and Economic Development, provided the welcoming address and the keynote speakers featured Austin Jenkins and Salvatore Salpietro, founders of Code Square Inc. Attendees participated in workshops ranging from "Elements of a Successful Business Plan" to "Getting to Yes – the ABC's of Raising Capital." A panel discussion of CEO Success Stories concluded the event. The next Entrepreneur Bootcamp is scheduled for April 23, 2013 at the Rutgers Busch Campus Student Center.

The Technology and Entrepreneurship Talent Network is one of six Talent Networks that was established by the NJ Department of Labor to focus on the employment needs of key industries in New Jersey, connect job seekers with industries, facilitate job-matching and training resources, and assist educational institutions with aligning curriculum with the demand for qualified workers. For additional information about the Talent Networks visit http://lwd.state.nj.us/labor/index.html.

"Through the internship I developed better working habits and business communication skills. I also gained better research skills and experience in my field. The most valuable lesson was that personal care is the industry I want to be in."

> ~ Stephen Carter Rutgers MBS Student

Regulatory Affairs



Capt. Joseph F. McGinnis, R.Ph, Director of Compliance, NJ District, FDA speaks to the PSM students.

Students wanting to learn about the laws, regulations, and regulatory agencies governing foods and medical products marketed in the US and in the world can do so in an upcoming Spring semester course on Regulatory Affairs. Dr. Sangya Varma, PSM Associate Director for Academic Affairs and Curriculum Development and professor of the course, says that "students gained an overall understanding of the policies and procedures that are part of the world of regulation of healthcare and related products. They interacted with regulatory professionals from both industry and government (FDA) so that they could consider the regulatory profession as a viable and lucrative career path."

MBS students who are pursuing a concentration in Drug Discovery & Development, Biotechnology and Genomics, Personal Care Science or any of the Life Science concentrations can use this course as an elective for their curriculum. The course was offered for the first time in Spring 2012 and is scheduled again for Spring 2013.

Personal Care Science

The Professional Science Master's Program has launched a new Fall course entitled Fundamentals of Personal Care Science. The course covers the basics of formulation of personal care products, from selecting ingredients, stabilizing, and microbial testing through safety aesthetic efficacy testing. According to Dr. and Kristine Schmalenberg, professor of the course, "Personal Care Science provides students with a basic understanding of the key principles to design products that touch every aspect of our daily lives." The lectures focus on the different aspects of personal care products and expand students' understanding on how products interact with themselves and the environment. The course will be offered again next Fall.

PSM at Events



Linda Bowen, MS, RAC, FRAPS, Head of Regulatory Policy and Intelligence-US at Sanofi at the PSM Regulatory Affairs class.



Sue Pye, Assistant Director of Career Services, presents a PSM workshop on "Accessing the Resources of Career Services," Sept. 24, 2012.



MBS students at Rutgers Day L to R: Andrew Chad Watson, Christina Spellman, Shawn Chen, Richard Carvalho



Intellectual Property

For the second summer in a row, PSM students had the opportunity to enroll in the popular Intellectual Property class taught by Dr. Dipanjan Nag, CEO of IP Shakti, LLC. Students were introduced to patents, copyrights, trademarks, trade-secrets, IP strategy for startups and corporations and IP markets. The focal point of the course was the overall approach of protection, marketing, valuation, commercialization and monetization of IP assets to maximize value. Some of the guest speakers included Mr. Harry Gwinell, Ex-Vice President and Chief Intellectual Property Counsel for Cargill, Inc.; Dr. Sudeep Basu, Global Practice Leader, Frost & Sullivan; Dr. Satish Pulapura, Vice President of Advanced Products and Co-founder of TYRX, Inc.; Ms. Lata Setty, Chief Intellectual Property Officer, United Lex; Dr. Alan Naidoff, Senior Contracts Manager, Merck; and Dr. Neil Mathias, Principal Scientist at Bristol Myers Squibb. On June 11, 2012, students visited the U.S. Patent Office in Alexandria, Virginia. This course will be offered again in Summer, 2013.

Continued from page 1: Manufacturing of the Future

this question. Some of the issues discussed include greater integration among the various sectors of industry that will involve an integrated approach with computational materials and manufacturing science and engineering, improved interfaces with designers, manufacturers, and users, digital data and processes, networked manufacturing, realbio-synthesis, and time adaptation, symbiotic robot-human interactions for manufacturing. Dr. Bruce LaMattina, Rutgers Director of Federal Research Relations from the Office of the Vice President for Research and Graduate and Professional Education, organized the lecture for the Professional Science Master's Program. LaMattina states, "We were pleased that we were able to schedule an elite panel from the government composed of true leaders in manufacturing. Together our panel members represent a large portion of federal funding in this area so learning about these opportunities and the future of manufacturing will position Rutgers to be at the cutting edge in this field."

MBS Student Organization

The MBS Student Organization (MBSSO) is looking forward to hosting several events for MBS students to meet and greet this fall including a BBQ, a movie night, and a Makerspace workshop <<u>http://makerspace.rutgers.edu/</u>>. MBSSO welcomes any additional suggestions and are seeking students to support the organization's executive board. Please visit their Facebook group at <u>http://www.facebook.com/groups/rutgers.mbs/</u> or email them at <u>mbsso@eden.rutgers.edu</u> if you have any questions or comments.

PSM at Events



Wayne Staub, Director of the Sustainability Team, at the NJ Dept. of Environmental Protection speaks to PSM students at the Rutgers EcoComplex.

Upcoming Events

Graduate & Professional School Fair, 10/6/12 Clinical Research Lecture, 10/11/12 Math & Actuarial Career Fair, 10/12/12 **Rutgers Makerspace Open House** 10/14/12 PSM Webinar, **10/16/12** Interviewing Techniques, 10/17/12 PSM Open House, 10/23/12 Transformation of Humankind Lecture 10/29/12 Graduate & Professional School Day 10/31/12 Using Social Media to Advance Your Career, **11/5/12** Dining and Social Etiquette, 11/7/12 Genesis Biotechnology Group: A New and Growing Biotech Model, 11/15/12 PSM Holiday Party, 12/13/12 Mock Interviews, 1/30/13 EcoComplex Tour, 2/12/13 Professional Etiquette in the Workforce, **3/6/13**

Please go to mbs.rutgers.edu for details on these events.

FALL/WINTER 2012

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Rutgers PSM Graduation

The Rutgers Professional Science Master's Program celebrated the graduation of its first cohort of students with a festive dinner at the Rutgers Club on May 10, 2012. Welcoming remarks were made by Dean Jerome Kukor of the New Brunswick Graduate School and a letter from Dr. David Finegold, founder of the PSM Program and Senior Vice President for Lifelong Learning and Strategic Growth, was read to the students. Dr. Deborah Silver, Executive Director of the PSM Program, presented students with a certificate of their concentration and a gift from the program. The graduating MBS students and their concentrations are listed below.

January 2012

Hany Aboul-Ela – Electrical & Computer Engineering Richard Carvalho – Drug Discovery & Development Debora Esposito – Drug Discovery & Development Sujata Kumar – Drug Discovery & Development Rima Patel – Biotechnology & Genomics Priti Tiwari – Drug Discovery & Development

May 2012

Marie Bolognini – Biotechnology & Genomics David Brandt – Biotechnology & Genomics Shamal Budhdev – Biotechnology & Genomics Manikandan Chandrasekharan – Biotechnology & Genomics Shawn Chen – Information Technology Yevheniya Gleba – Drug Discovery & Development Evelyn Jui - Biotechnology & Genomics Simkie Kar – Food Science Daniel Marcus – Industrial Mathematics Vaidehi Parikh – Drug Discovery & Development Christina Pellicane – *Biotechnology & Genomics* Anya Raskin – Horticulture & Turfgrass Science Karla Schacher – Kinesiology & Applied Physiology Sugandha Singhal – Biotechnology & Genomics Ellen Speace - Sustainability Christina Spellman – International Agriculture Karen Walentek – Biotechnology & Genomics Woldegebriel Woldegebriel – Sustainability





Dean Jerome Kukor addresses the MBS graduates.



MBS students celebrating at the Rutgers Club.



Students enjoying the festivities at their graduation dinner.

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Congratulations MBS Graduates 2012!