

SUMMER 2016

FOOD SCIENCE

# NEWS LETTER

Rutgers, The State University of New Jersey



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<http://foodsci.rutgers.edu>

[https://www.facebook.com/  
groups/2256563527/](https://www.facebook.com/groups/2256563527/)

### Rutgers Center for Lipid Research

<http://rclr.rutgers.edu/>

### New Jersey Institute for Food, Nutrition, and Health

<http://ifnh.rutgers.edu/>

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# FOOD SCIENCE

## CHAIR'S GREETING

PROFESSOR KARL MATTHEWS

Greetings!

The year is off to another exciting start for students and faculty. I am pleased to welcome Dr. Diana Roopchand, a new assistant Professor to the Food Science program. She is a dynamic individual and brings a new research dimension to the program. Rutgers University Food Science Alumni committee celebrated their 15th annual Rutgers day event. The event coincided with both the 70<sup>th</sup> anniversary of the department and the 250<sup>th</sup> anniversary of Rutgers University. An Outstanding Achievement Award ceremony to honor Dr. Elizabeth Stier posthumously took place, too. She paved the paved the road to success for so many women Food Science Alumni.

Throughout the summer students and faculty have been traveling, attending professional meetings, and conducting research. Congratulations to the IFTSA Developing Solutions for Developing Countries Product Development team for placing 3<sup>rd</sup> among 56 teams from 11 countries. The team was led by Robyn Miranda, and included team members Jingwen Gao, Jieyu Zhu, Da Som No, Karina Lewerissa and Danlei Chan. A team lead by Alexia Ciarfella, and included Victoria Yeung, Shuqi Zhao, Jay Sanghani and Sean Kreh received honorable mention in the Disney -

IFTSA Product Development competition. Congratulations, to the entire team. The Rutgers Food Science Alumni Organization recognized four of our alumni: Dr. George Carman, Distinguished Scientist Award; Dr. Carol Christensen, Distinguished Communicator Award; Dr. Mukund Karwe, Distinguished Leadership Award; Dr. Tom Montville, Special Recognition Award. Congratulations to each of them. Hearty congratulations to Tom Montville for receiving the International Association for Food Protection Lifetime Achievement Award. Indeed, many faculty and students have been recognized for their achievements, it's a pleasure to interact with so many outstanding individuals. Changes in departmental operation have occurred. Dr. Chitra Ponnusamy is the new Food Science undergraduate program director. She is also teaching several courses including Science of Food, and Food as Medicine. Please explore the Food Science webpage that has a new feature, "Success Stories". The section focuses on Food Science Alumni. Rebecca Dengrove and her company, Brewla, Inc., are now featured. I encourage our alumni to share their stories. Have a great year.

Best Regards,  
Karl R. Matthews, Department Chair

# FACULTY NEWS

## *New faculty member*



### **DIANA E. ROOPCHAND, PH.D.**

*Dr. Roopchand received her B.S. in Microbiology and Immunology Ph.D. in Biochemistry from McGill University. From 2009-2012 Dr. Roopchand was the Postdoctoral Fellow of Rutgers University & NIH Botanical Research Center / T32 Program. After three-year research at Rutgers, in 2015, she was prompted as an Assistant Research Professor of Plant biology and Pathology Department. 2016, she joined Food Science Department as an Assistant Professor.*

### **Research Interest**

*Interactions between dietary components, gut microbiota, and intestinal epithelium strongly influence host health*

We use a multidisciplinary approach to understand the cause-effect relationships behind these associations and develop scientifically-validated therapies for the

prevention, management and treatment chronic diseases. Current projects use animal models, tissue culture, microbiology, bioinformatics, analytical chemistry, and molecular biology techniques to investigate mechanisms of action of dietary polyphenols in models of metabolic syndrome.

### **CONTACT**

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and Health  
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Tel: 848-932-0248  
[roopchand@aesop.rutgers.edu](mailto:roopchand@aesop.rutgers.edu)*

### **POSTDOCORAL POSITION OPENING**

*Postdoctoral Associate position in a newly established research group in the New Jersey Institute for Food, Nutrition, and Health at Rutgers University.  
Detail information:  
<http://foodsci.rutgers.edu/roopchand/positions.html>*

# FACULTY NEWS

## Our 2016 Graduates

### RECIPIENTS OF THE DOCTOR OF PHILOSOPHY DEGREE

<i>Xi Chen</i>	<i>Teng Peng</i>
<i>Yang Jin Jung</i>	<i>Wenping Tang</i>
<i>Yaqi Lan</i>	<i>Hui-Yun Tsai</i>
<i>Gabriel Mootain</i>	<i>Yen-Chen Tung</i>
<i>Edward Pappas</i>	<i>Yan Lavinia Wang</i>

### RECIPIENTS OF THE MASTER OF SCIENCE DEGREE

<i>Serife Akkurt</i>	<i>Alexis Long</i>
<i>Siddharth Bhide</i>	<i>Courtney Malone</i>
<i>Nancy Chaing</i>	<i>Vahini Manivannan</i>
<i>Elizabeth Chrzastek</i>	<i>Robyn Miranda</i>
<i>Huixin Du</i>	<i>Emily Nering</i>
<i>Noopur Gosavi</i>	<i>Monika</i>
<i>Sammuel Hammond</i>	<i>Tonmaszewski</i>
<i>Pei-Hsuan Hsieh</i>	<i>Ruolin Wang</i>
<i>Lin ji</i>	<i>Gaoyuan Wu</i>
<i>Chang Liu</i>	<i>Chunxin Xia</i>

### RECIPIENTS OF THE MASTER OF BUSINESS AND SCIENCE DEGREE

<i>Zachary Adams</i>	<i>Lizhe Li</i>
<i>Briana Bacchetta</i>	<i>Kimberly Queirolo</i>
<i>Amy Czuba</i>	<i>Shira Loewenstein</i>
<i>Nursalim Zico Jap</i>	

## *New Undergraduate Director*

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**CHITRA  
PONNUSAMY, PH.D.**

*Non-Tenure Teaching  
Instructor*

Rutgers Food Science Undergraduate program now has a new director, Dr. Chitra Ponnusamy. She has updated the undergraduate studies section of food science departmental website with detail course option, course requirements and schedules. She also set up online appointment booking system for those students who seek for personal help and advise. In the coming months, she plans to improve the website by linking each undergraduate courses to their own syllabus, adding summer classes schedule and updating SEBS and undergraduate assessment.

*Dr. Thomas Montville received  
President's Lifetime Achievement  
Award from the  
Internationale Association for Food  
Protection*

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Dr. Montville received the President's Lifetime Achievement Award from the

# FACULTY NEWS

## Our 2016 Graduates

### RECIPIENTS OF THE BACHELOR OF SCIENCE DEGREE

<i>Stephanie Avon</i>	<i>Serigio Quispe</i>
<i>Johnny Ayala</i>	<i>Hersh Panade</i>
<i>Melissa Bors</i>	<i>Pavel Sakin</i>
<i>Victoria Caravaglio</i>	<i>Amel Salem</i>
<i>Haoxin Chen</i>	<i>Diane Sapit</i>
<i>Xianbin Cheng</i>	<i>Joseph Scarsella</i>
<i>Erika Encarnado</i>	<i>Ariel Schaffel</i>
<i>Katherine Evans</i>	<i>Carmella Schwab</i>
<i>Derrick Fondaco</i>	<i>Tara Strober</i>
<i>Christina Giuliano</i>	<i>I-An Tu</i>
<i>Yingyi Guo</i>	<i>Nicole Turso</i>
<i>Matthew Igo</i>	<i>Russel Umali</i>
<i>Stephen Jakubiec</i>	<i>Francesca Varriano</i>
<i>Preet Kashiparekh</i>	<i>Sarah Waxman</i>
<i>Rachel Lee</i>	<i>Yuejia Xu</i>
<i>Haiqian Li</i>	<i>Yim Fan Yan</i>
<i>Elieen McHugh</i>	<i>Tara Young</i>
<i>Yueming Pang</i>	<i>Danyang Yu</i>
<i>Muhsin Parson</i>	<i>Martha Zaniewski</i>
<i>Christopher Persad</i>	<i>Tianshu Zhang</i>

International Association for Food Protection (IAFP) at its annual meeting in August. The award was given in recognition of “his lasting impact on advancing food safety worldwide through a lifetime of professional achievement in food protection.” Dr. Montville received the award from the President of IAFP, Dr. Alejandro Mazzotta who received his Ph.D. in Food Science in 1998.

### DR. MONTVILLE AND DR. MAZZOTTA



Dr. Montville was also awarded as Special Recognition Award by Rutgers Food Science Alumni at IFT 2016.

*Professor George Carman's Two Conference Talks and Alumni Awards*



# FACULTY NEWS



**Dr. Carman is at ICBL meeting, Chamonix - Mont Blanc, France**

Dr. George Carman, nationally known for his contribution to the understanding of the genes and enzymes responsible for the synthesis and metabolism of lipids, gave a talk at FASEB conference in Steamboat Springs about Phosphatidate phosphatase in lipid signaling.

Dr. Carman also presented at International Conference on the Bioscience of Lipids, held at Chamonix - Mont Blanc, France. The presentation was titled Regulation of the lipolytic enzyme phosphatidate phosphatase by phosphorylation/dephosphorylation.

Dr. Carman was awarded Distinguished Scientist Award by Rutgers Food Science Alumni at 2016 IFT.

*Professor Qingrong Huang Became ACS Fellow 2016*

Congratulations to Professor Qingrong Huang being named as 2016 Fellows of Division of Agricultural and Food Chemistry of American Chemistry Society.

*Dean Mukund Karwe, Ph.D. was Awarded as Distinguished Leadership Award*



**Dean Mukund Karwe with Dr. Laura L. Rokosz and Dr. Marc Mayers**

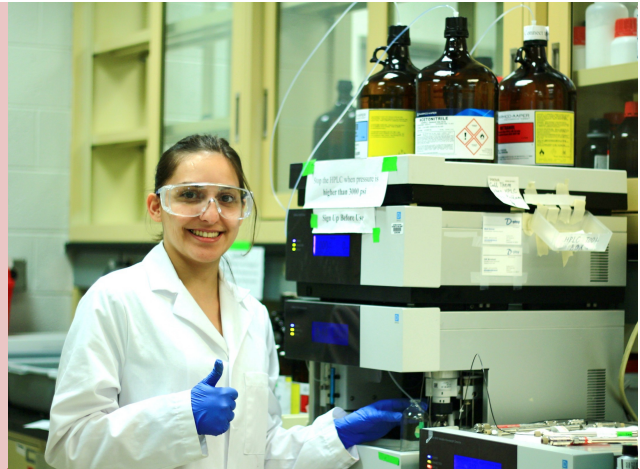
Dean Mukund Karwe was awarded as Distinguished Leadership Award by Rutgers Food Science Alumni at IFT 2016.

# DEPARTMENT NEWS

#1

## RECORD UNDERGRADUATE ENROLLMENT

*155 undergraduate students enrolled as food science major*



#2

## CELEBRATING 70TH ANNIVERSARY

*70th year of Rutgers Food Science Department*

#3

## FOOD SCIENCE DEPARTMENT RECEIVED 'OUTSTANDING' EVALUATION FROM SEBS

*for the quality of its student learning and assessment program*



## DEVELOPING FIVE-YEAR PLAN FOR SUBMISSION TO IFT HERB (HIGHER EDUCATION BOARD)

*The IFT re-approval application intended to determine the improvements to the program have been made in previous five years, and those that will be made during the next 5-year approval cycle.*

# DEPARTMENT NEWS



## DEVELOPMENT OF SEVERAL NEW COURSES

*'Food as a Medicine' & 'Fermentation'*

*Offered for the first time a course during the summer session. In near future will be offering food on-line and hybrid Food Science courses.*

## Center for Sensory Sciences & Innovation

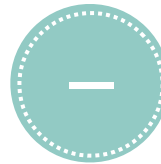
*Prof. Beverly Tepper established the Center for Sensory Sciences & Innovation (CSSI). The center will create new approaches to health and behavioral research by leveraging multidisciplinary inputs from interrelated disciplines, on a campus-wide basis. The center will also facilitate university-industry research collaborations via the establishment of an industry membership program. Ultimately, the Center will advance the discovery and applications of flavors and fragrances, disseminate this scientific knowledge to industry, and educate new scientists who will contribute to future advances.*

**Location:** 4th floor of the Food Science





# PRODUCT DEVELOPMENT COMPETITION



OUR **Disney** TEAM:



## BB-8 LIGHT BITES

A long time ago in a galaxy far, far away, the only thing that stood in the way of the evil Kylo Ren and the rise of the First Order was the return of Luke Skywalker, the last of the Jedi Knights. Using your own UV lightsaber, included in each package of BB-8 Light Bites, help Rey and Finn illuminate the droid that contains the missing piece of the map to Luke Skywalker! Let the glowing BB-8 brown rice- vegetable cracker guide Rey and Finn's path to Luke Skywalker and protect them from oncoming Storm Troopers! In return for your service to the galaxy, one serving (about 7 crackers) of BB-8 Light Bites will provide you with half a day's

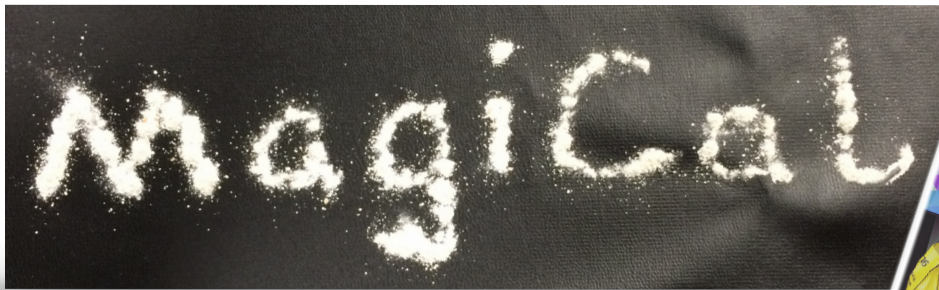
requirements of whole grain and nutritional benefits of vegetables. This snack actually glows-in-the-dark when photoexcited with an upper-spectrum UV lightsaber due to the luminescent properties of the natural pigment chlorophyll (from spinach). By inspiring adventures throughout the galaxy, BB-8 Light Bites associates good nutrition with creative play, promoting healthy snacking habits for children ages five to ten.

**TEAM MEMBER: Alexia Ciarfella, Shuqi Zhao, Victoria Yeung, Sean Kreh, Jay Sanghani**  
**ADVISOR: Professor Richard Ludescher**

# PRODUCT DEVELOPMENT COMPETITION

*Developing Solutions for  
Developing Countries*

## OUR DSDC TEAM



**TEAM MEMBER: Robyn Miranda, Jingwen Gao, Jieyu Zhu, Da Som No, Karina Lewerissa, Doris Chen.**

MagiCal is an egg-shell based powdered ingredient that can be added in various products to meet the calcium requirement for pregnant women in the Middle East. Eggshells, a common waste product, are a natural source of calcium and other micronutrients. Eggshell proteins have also been shown to improve the calcium absorption as a whole. Since calcium plays a major role in a successful pregnancy for the mother and baby, it is essential to meet the requirements to stay in good health. MagiCal can be incorporated into local and traditional meals and offers a sustainable resolution to the problem of calcium deficiency.



With the combination just two ingredients, MagiCal is odorless, off-white, with a slight bitter taste. This taste is easily masked when incorporated into recipes. Sensory evaluation of women in the Rutgers Food Science department was performed to determine if MagiCal would be successful in the market. The two products used for the sensory test included Ayran and pita chips. Overall, panelists were able to differentiate among which samples had MagiCal or not. Yet the preference test showed that ~50-60% of panelists preferred the product with MagiCal included.

# 2016 AWARDS

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**C. Olin Ball Award**

Rachel Lee

**Lloyd K. Riggs Award**

Derrick A. Fondaco

**Elizabeth F. Stier Award**

Sarah Waxman

**Achieving Success Award**

Stephen A Jakubiec

**Triumph Award**

Nicole Savio

**Dr. Bruce P. Wasserman Prize**

Sean Ilg

**Food Science Fillies Scholarship**

Jay Sanghani

**Food Science Fillies Scholarship**

Sonal Agarwal

**James J. Winston Memorial Award**

Catalina Gascapena

**Eastern Perishable Produce Award**

Kevin Tveter

**The Professor Endel Karmas Awards for Teaching Excellence**

Siyu Wang

**1st place in the Nutrition Division poster competition, IFT 2016**

J.S. Karthikeyan

**3rd place in the Non-Thermal Food Processing Division Poster competition, IFT 2016**

Noopur Gosavi

**Disney-IFTSA Product Development Competition Honorary Prizes**

Alexia Ciarfella

Shuqi Zhao

Victoria Yeung

Sean Kreh

Jay Sanghani

**3rd place of the IFTSA Developing Solutions for Developing countries Product Development competition**

Robyn Miranda

Jingwen Gao

Jieyu Zhu

Da Som No

Karina Lewerissa

Doris Chen



# NEWS FROM GRADUATE STUDENT ASSOCIATION (GSA)



## Messages from Zico, GSA President 2015-2016

Dear Rutgers Food Science Students, Faculty and Staff,

It has been my pleasure serving all of you as the president of the Rutgers Food Science Graduate Student Association for the year 2015 - 2016. The Food Science Club as a whole including the graduate and the undergraduate students have done well during these past academic year. The IFT Student Association has awarded our club another Gold status for the second year in a row. This would not be possible without the active participation by the students, faculty and staff as well as the meticulous planning by the club committee. I am very thankful to have Serife Akkurt, Yuan Bo and Ziqian Qu as the vice

president, treasurer and secretary respectively for they have done a wonderful job in running the club with passion. I am also proud to say that our club was one of the three clubs that managed to have two product development teams in this year's product development competitions and they did really well amidst strong competitions. The Disney team's product BB8 Light Bites received honorary mention while the DSDC team's product MagiCal received 3<sup>rd</sup> place. I would like to personally thank the captain of both teams, Alexia Ciarfella and Robyn Miranda as well as the rest of the team members, Jay Sanghani, Sean Kreh, Victoria Yeung, Shuqi Zhao, Karina Lewerissa, Da Som no, Danlei Chen and Jingwen Gao. All of them have shown incredible leadership, hard work, teamwork, creativity and enthusiasm that have led them to the biggest stage in food science competitions which have brought honor and pride to the club as well as the department. Our club's relationship with the New York/Central New Jersey IFT section goes a long way back and I cannot thank the Executive board enough for their continued support in terms of scholarships and annual IFT meeting travel grants year after year. This year was particularly eventful as our club and the NY/CNJ IFT section held a bowling social & networking night after the conclusion of the IFTSA regional college bowl which was held at Rutgers. Thanks to the generous donations from the section and the food companies, both the students and the professionals were able to enjoy this event and create many connections. This event was successful in that the school hosting the next

regional college bowl would like to do a similar event after the competition. I have passed on the leadership baton to the next president Robyn Miranda and I couldn't be more excited for the upcoming year. Robyn and her current committee consisting of Neeta Yousaf as vice president, Yuyang Tian as secretary and Akul Hiremath as treasurer were very active in the club's events and activities last year. I have confidence that they will work hard, bring exciting contents to the students and take this club over to the top by competing hard in all of the IFTSA competitions. My time at Rutgers has come to an end but it has been a wonderful experience. I truly enjoyed my time here. I made many new friends and created long lasting memories and connections with

them that cannot be replicated elsewhere. A big thank you to the professors who has advised and guided me even though I was not their student and also, for letting me hang around in their labs, I really appreciate it! Shout out to the staff who has helped me when I requested their assistance, your help was invaluable and I really cannot thank you enough. Last but not least, I want to thank Siyu Wang for her utmost dedication in making this newsletter possible. Without her, we would not have such an excellent newsletter. Her passion and creativity for this newsletter gave us exciting and interesting contents that we can look forward to read and enjoy. So if you see Siyu Wang in the department, a thank you would go a long way.



## Massages from Robyn, GSA President 2016-2017

With a new year ahead of us, the Food Science GSA is excited to introduce opportunities to form relationships among new students, returning students and faculty through networking with local food professionals, community outreach, social gatherings and overall professional development. After the success of two product development teams coming in as finalists at the 2016 Institute of Food Technologists Annual Meetings and Food Expo in Chicago, IL, Rutgers Food Science Chapter will continue to strive to improve its membership experience and involvement in local and national IFT events.

Looking forward, new and returning events are planned for 2016-2017. Continued events include volunteering at the Community Food Bank of NJ and Elijah's Promise, performing hands on experiments for students at the

Chester Science Fair, tours to various NY/ NJ food companies and hosting monthly speakers to address current topics and trends in Food Science. New events introduced this year include hosting a blood drive through NY/NJ Blood Center and the development of a mentor/mentee program to help acclimate incoming graduate students to what the Food Science Department has to offer. There will also be bi-monthly collaboration between the GSA and UFSC (Undergraduate Food Science Club) with the intention to increase the attendance of student's participation and to bridge the gap between the two programs. Meetings and activities are designed to create a relaxing break for students outside of lab and coursework. We are looking forward to an exciting year of achievements for Rutgers Food Science students and faculty!

## GSA 2016 Schedule

Sept. 12 Monthly Meeting	Oct. 4 Monthly Meeting, 1-2pm
Sept. 13 Cook Community Day, 4-7pm	Oct. 11 Food Science Sponsored Blood Drive, 12-4:30pm
Sept. 13 NYIFT/CNJIFT Dinner, Iberia Restaurant, Newark, NJ - Shopping and Buying Trends	Oct. 13 Industrial Speaker
Sept. 16 RU Muddy	Oct. 15 Lee Brothers' Inc., - Ocean Spray Tour and Cranberry Festival
Sept. 17 Community Food Bank of NJ, 9-11am	Oct. 20 Tea Time, 1-3pm
Sept. 18 NYIFT/CNJIFT New Professionals Champagne Brunch, 11-2pm	Oct. 28 Halloween Party & Monster Mash
Sept. 22 Indian themed Tea Time, 1-3pm	Nov. 1 Monthly Meeting
Sept. 23 Food Science Welcome BBQ, 4-6pm	Nov. 9 Industrial Speaker
Sept. 29 Industrial Speaker - Chef Kyle Shadix, PepsiCo, 12-1pm	Nov. 17 Tea Time
Sept. 30 Sunset Kayak on the Raritan River, 6-8pm	Nov. 22 Thanksgiving Potluck
	Dec. 6 Monthly Meeting
	Dec. 13 Industrial Speaker
	Dec. 15 Tea Time
	Dec. 17 Christmas Party

# NEWS FROM UNDERGRADUATE FOOD SCIENCE CLUB

**Message from Sarah Waxman,  
President 2015-2016**

The Undergraduate Food Science Club aims to create a community of students that are interested in Food Science! The club hosts biweekly meetings that allow for participants to form connections with one another and explore unique topics and learn from and interact with both professors and industry professionals. The club also organizes trips to local industry sites (Unilever, Ingredion, Ocean Spray etc) and nearby food related entertainment (National Chocolate Show, Museum of Food and Drink, Odd Fellows Ice Cream, NY Food Tour etc.) to further explore the many aspects of food science!

**Message from Jay Sanghani,  
President 2016-2017**

Rutgers food science has had a successful 2015-2016 year. RU was well represented at IFT 16 in Chicago as we had multiple product development teams in the finals, several students presented their research posters, and professors showcased their research to food scientists across the country. Moving forward onto the 2016-2017 year, we look forward to achieving those successes as well as many more.

The Undergraduate and Graduate Food Science Clubs will have several joint programs this year to further facilitate a unified food science department where students will have the opportunity to cross network with



one another as well as professors. The Undergraduate Food Science Club (RUFSC) will have bi weekly meetings starting on September 19th. We will have fun activities, guest lecturers, career guidance, networking opportunities, a peer mentorship program, and exciting field trips that will satisfy your sweet tooth!

Cheers to the new semester!



# ALUMNI NEWS

*Food Science Department*

On behalf of the Rutgers University Food Science Alumni Committee (RUF SAC) I invite you to join our association. The RUF SAC was established 15 years ago and finally chartered by Rutgers Alumni Relations in 2014. Our mission is to maintain a sense of community and camaraderie among the Food Science alumni, similar to what we experienced as students. As such, we continue to host annual alumni events including the Ag Field Day/ Rutgers Day Community Gathering and the Institute of Food Technologists (IFT) Rutgers Alumni reception. During these events we have recognized the accomplishments of many remarkable Alumni. Awards are given for Outstanding Achievement in Food Science and Technology, Scientific contributions to the field of Food Science, Outstanding

Communication, and Outstanding Leadership. Recently, we added a Special Recognition category to acknowledge individuals who have made specific contributions within their company, community or within the Rutgers Food Science department. These awards enable the RUF SAC to stay connected with our Food Science graduates and faculty and to showcase their work, or even their hobbies. Expanding our committee will help us to identify a greater pool of Alumni whose accomplishments we would like to recognize.

2010 was the first year that the RUF SAC hosted its Reconnect with Food Science Alumni event. Our keynote speakers included former Rutgers president, Richard McCormick and Dean Bob Goodman. A number of sponsors,



, including Mars, PepsiCo and Nabisco, supported our event either monetarily or by donating gifts. Having such highly visible speakers and generous sponsors contributed to the success of the event which earned our Committee, spearheaded by Dr. Mukund Karwe, a Rutgers Excellence in Alumni Leadership (REAL) award. Our Reconnect event, which was also held in 2012 and 2014, now stands as the exemplar by which all other Rutgers Alumni events are encouraged to duplicate.

As a Rutgers Food Science Alumni I would be indebted if you could kindly take the time to join our committee to help plan and execute our Alumni events. Contrary to what you might think there is no fund-raising involved. Just party planning and entertainment. These events cannot be successful without your support and attendance. They also serve as excellent Networking opportunities. For those of us who

have been actively involved in the committee, we have all used these events to leverage our capabilities and expand our careers. We welcome you to share your talent and commitment. As the outgoing Chair, I'd like to thank the Chair of the Food Science department, Dr. Karl Matthews for his exceptional support and Administrators, Irene Weston and Laura Amador for their tireless efforts to manage the logistics of the Alumni events to ensure their success. Finally, I'd like to welcome the new RUF SAC Chair Lumeng Jin, Project Manager at Sensory Spectrum. Thank you, Lumeng for taking the reign!

Sincerely,  
Laura L. Rokosz, PhD  
RU '84, '86, '93  
RUF SAC Chair, 2015/16

