

*MSU is an affirmative-action,
equal-opportunity employer.*

*CHOICES Day 2009 Photos, this page,
Wanessa Wight; all other photos, Kurt
Stepnitz, unless otherwise noted.*

Greetings, Alumni!

Although MSU has had to do some belt tightening in these tough economic times, the Plant Sciences remain strong and are a key component of the University's future, as evidenced by a new \$40M addition to the Plant Science Complex. This addition will join the Plant and Soil Science and Plant Biology buildings, with a three-story structure that will provide space for about 12-14 research laboratories, laboratory support, and office space. A fourth floor "shell" will be included for future addition of research space when the economy turns around and additional dollars are available. The project was given final approval in 2009 by the MSU Board of Trustees with construction slated to start in May 2010.

The PRL Graduate Program, too, remains strong. Seven of our forty Graduate Assistants defended their dissertations for the PhD in 2009 and two others graduated with MSc degrees (see page 7). I'm happy to report that we also welcomed seven new Graduate Assistants into our program in the Fall. They are featured on page 6.

Our thirty Postdoctoral Research Associates work alongside the PRL Graduate Assistants as well as colleagues from the Great Lakes Bioenergy Research Center (GLBRC) in several PRL labs, resulting in a high level of research activity over the past year. Indeed, a total of 49 articles were published by members of the PRL in 2009 (see [PRL Publications 2009](#) on our website.)

Our faculty celebrated several milestones over the year, with one newly hired—Jin Chen; two promoted—Federica Brandizzi and Jianping Hu; and, sadly, one departed—Markus Pauly (see page 4). In addition, the research and teaching excellence of Sheng Yang He was recognized with his receiving the MSU "Distinguished Faculty" Award (see page 5).

You may have recognized on the cover of this newsletter several current PRL people, and a few of our alumni. All were attending the 5th triennial CHOICES Day. Alumni who participated were:



Tom Adams (GA, Chelm, 1981-1986), Dipnath Baidyaroy (RA, Walton, 2000-2002), Lynda Fitzpatrick (RA, Keegstra, 1999-2001), Aaron Liepman (RA, Keegstra, 2002-2006), Bonnie McCaig (RA, Howe, 2001-2006), Crispin Taylor (GA, Green, 1989-1993), and Roger Thilmoney (RA, He, 1999-2003). As always, students and postdocs enjoyed the day of informative sessions and came away with a better idea of the array of career paths that could potentially be in their future.

Wonderfully successful though it was, the year was not without great heartbreak and deep loss. As most of you know, Jan Zeevaart succumbed to cancer at the end of November. Jan had officially retired in 2004 and had gradually cut back on his research, closing his lab in 2008. However, until very recently, he continued to be an active participant in the PRL and was a highly valued colleague attending and contributing to the APC faculty meetings, the weekly seminars, the annual reviews of our faculty, and the Tuesday noon seminars. Impromptu chats were always a joy. He is greatly missed.

Jan's life was celebrated in a moving service at the MSU Chapel, with remembrances contributed by Richard Amasino, Ken Keegstra, Katrina Cornish (RA, Zeevaart, 1982-85), and Jan's son, Scott (see page 3). In honor of Jan's last wishes, the funeral cortege carried him past the PRL one last time on his way to the cemetery in Holt. Members of the PRL community gathered outside the Plant Biology building to bid farewell as he passed by. In May, we plan to host a memorial symposium in tribute to Jan's significant place in the history of plant sciences. We will let you know the details of this event when they are decided. In addition, we are considering ways in which we might appropriately honor and remember Jan in an enduring fashion and in which you may want to participate and contribute. We will keep you informed about this as well..

With best wishes,

~ Mike Thomashow

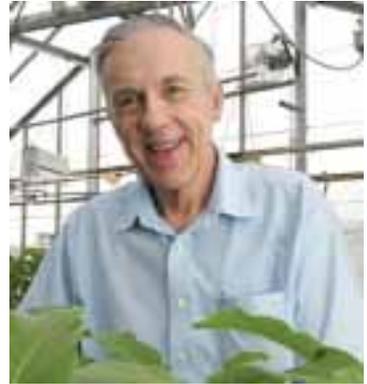
🌱 **Contributions to the Jan Zeevaart Memorial Fund** may be sent to:

University Development Office
300 Spartan Way
East Lansing, MI 48824-1005

Please specify the fund to which you wish to contribute. All contributions are greatly appreciated.

Jan Zeevaart (1930 - 2009)

"It is with sadness that we mourn the passing of Jan Adriaan Dingenis Zeevaart, who died on November 25, 2009 at the age of 79. Jan is survived by his wife of 54 years, Riet Zeevaart; one child, Scott (Brenda) Zeevaart; and one grandchild, Luke. Jan was a conscientious scientist, recognized worldwide as an elder statesman in plant science. He served on the faculty of the Michigan State University DOE Plant Research Laboratory (PRL) from its inception in 1965 until his passing, and on the faculty of the Department of Plant Biology. During his research career, he contributed significantly to the understanding of plant physiology and the action of plant hormones in controlling plant growth and development. Jan received numerous honors including his election to the Dutch Academy of Natural Sciences as a corresponding member (1974) and the National Academy of Sciences, USA (1998); he was named University Distinguished Professor at MSU (1998) and received the Stephen Hales Prize, American Society of Plant Physiologists (2000). He was also named Fellow of the American Society of Plant Biologists (2007). Jan was a dedicated researcher and mentor for students and postdoctoral research associates. He is particularly known for helping and promoting others, especially younger colleagues. The funeral service was held on Wednesday, December 2, 2009, at the MSU Alumni Chapel, followed by interment in Maple Ridge Cemetery, Holt. Contributions may be made to the MSU Plant Research Laboratory in memory of Jan."

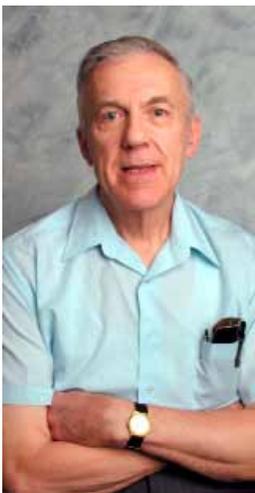


[This is taken from the obituary that appeared in the *Lansing State Journal*, November 29, 2009. The *LSJ* has a [Guest Book](#), on line until 12/29/10, in which you are invited to share your memories or express condolences to the family.]

A memorial symposium in Jan's honor is tentatively scheduled for May 10, 2010. When available, we will pass details on to you and post them on our website.

"My Journey from Horticulture to Plant Biology" Jan Zeevaart

Last year, Jan was invited to write a prefatory chapter for *Annual Review of Plant Biology*. The preface and abstract are copied below, followed by a link to the full text.



Preface

"The invitation to write a prefatory chapter for the *Annual Review of Plant Biology* gives me an opportunity to look back at my career and the circumstances that shaped it. I have always enjoyed reading prefatory chapters in Annual Reviews; they shed light on the human aspects of science that are not found in research papers. My career was shaped by opportunities, not by obvious design. As will become clear in my story, I owe much to a few individuals, who steered me in the right direction at the right time."

Abstract

"The author describes the circumstances and opportunities that led him to higher education and to pursue a research career in plant biology. He acknowledges the important roles a few individuals played in guiding him in his career. His early work on flowering was followed by studies on the physiological roles and the metabolism of gibberellins and abscisic acid. He describes how collaborations and technical developments advanced his research from measuring hormones by bioassay to their identification and quantification by mass spectrometry and cloning of hormone biosynthetic genes."

Read the [Full Text](#) of this engaging autobiography.

- ASPB will publish an obituary for Jan in February 2010 (ASPB News 37(1): 28-30). Contributing authors are R. Amasino, R. Creelman, K. Keegstra, and J. Metzger.

PRL Faculty in the News

Jianping Hu

Jianping joined the PRL in 2003 as an Assistant Professor and in 2009 was promoted to Associate Professor with tenure. The focus of Jianping's research is molecular mechanisms of peroxisome biogenesis, function, and signaling, with projects in three distinct areas: (1) molecular machinery and light control of peroxisome proliferation, (2) regulation of peroxisome function by a novel proteolytic pathway, and (3) understanding peroxisomal protein networks (an [Arabidopsis 2010 project](#)).



Federica Brandizzi



An Associate Professor in the PRL since 2006, Federica was awarded tenure in 2009. Her research team is investigating how secretory molecules are packaged, which mechanisms regulate the shipment of compounds to the final destination, and the mechanisms that lead to the establishment and maintenance of organelles of the secretory pathway. Her group uses fluorescent protein technology combined with advanced imaging technology to investigate dynamics of the plant secretory pathway. With these new imaging techniques, they are able to watch the secretory pathway in living plant cells in real time.

Jin Chen

Jin joined the PRL as an Assistant Professor in summer 2009. The former PRL Reading Room, S 232, was renovated to serve as Jin's office. He earned his PhD in Computer Science from the School of Computing, National University of Singapore, and then carried out postdoctoral research in the bioinformatics laboratory of Dr. SY Rhee at the Carnegie Institution for Science at Stanford University. Jin's long-term goal is "to address substantial biological problems by developing novel machine learning algorithms based on the integrative study of the biological data at the systems level."



Markus Pauly



Markus joined the PRL faculty as an Associate Professor in 2006 and was awarded tenure in 2009. Markus's research interest is centered on the structure and function relationship of the complex plant cell wall polysaccharides; he was a major player in the Great Lakes Bioenergy Research Center ([GLBRC](#)). As 2009 drew to a close, Markus moved his lab to UC Berkeley to join the Department of Biochemistry and the [BP-Berkeley Energy BioScience Institute](#), a project directed by Chris Somerville (PRL Faculty, 1982-93). Members of his lab who have relocated with Markus are (shown, left to right) Amancio de Souza, Sascha Gille, and Markus Günl.



Hans Kende's Memoirs



Recently, we obtained a recording of a lecture Hans Kende presented many years ago in which he discussed his life from age seven, including several "defining moments" that shaped his future, as well as a brief outline of the growth of his scientific interests, all delivered with his characteristic good humor. We have made this recording available on our website: [Hans Kende Memoir](#)

Congratulations to MSU Distinguished Faculty Award Winners!

Sheng-Yang He



Since joining the PRL faculty in 1995, Sheng-Yang has become an internationally recognized leader in research on plant–pathogen interactions. His work has greatly illuminated the molecular mechanisms by which bacterial pathogens infect plants and by which plants resist pathogens. Sheng Yang and his colleagues were the first to demonstrate that bacteria have a specialized bacterial appendage, called the harp pilus. Sheng Yang led the way in using this appendage to inject essential virulence determinants into plant cells, demonstrating its function as a conduit for transporting type III effector protein into the host cell. (Photo, MSU News)

On receiving this award, Sheng Yang said: *"I feel very honored to receive this award. For the past 13 years I have had the privilege of working with many talented students, post-docs and collaborators who really deserve all the credit for the work in my lab. MSU provides a particularly stimulating environment for our research because we study both plants and microbes. MSU has exceptional faculty in both disciplines. I am also very happy that my colleague Christoph Benning receives this award this year."*

Visit [Sheng Yang's web page](#).

Christoph Benning

Christoph Benning (GA, CR Somerville, 1986-1991), is internationally recognized as a leading scientist in the area of plant lipid metabolism. Cited by the awards committee was Christoph's work in the areas of lipid trafficking, transcriptional control of lipid metabolism, and the role of lipids in photosynthetic membranes. As part of the MSU contingent of the Great Lakes Bioenergy Research Center, Christoph and his group have been working toward engineering and developing the next generation of agricultural crops for use as biochemical feedstocks and biofuels. (Photo, MSU News)



Says Benning: *"I am honored to receive this award and am happy for the members of my lab, as the award provides acknowledgement of their accomplishments as well. Where no one has gone before provides the thrill of science, but training young scientists and seeing them advance to their first jobs is just as satisfying. Being a faculty member at MSU has allowed me to pursue these two ideals and I am grateful for the opportunity."*

Visit [Christoph Benning's web page](#).

Read the related article in [MSU News](#).

Mike Thomashow named ASPB Fellow



In 2007, the American Society of Plant Biologists established the ASPB Fellow award, to recognize "distinguished and long-term contributions to plant biology and service to the Society by current members in areas that include research, education, mentoring, outreach, and professional and public service." The award is granted to no more than 0.2% of the current ASPB membership and comes with a certificate of distinction and a lapel pin.

In naming Mike an ASPB Fellow, the ASPB cited Mike's ground-breaking work in the elucidation of the CFB cold response pathway in Arabidopsis. Mike and his group established that this pathway plays a key role in cold acclimation and freezing tolerance. Mike has long been active in ASPB, serving on the *Plant Physiology* editorial board (1988-1992; 1999-2005), as a member of several committees, and as ASPB president (2005-2006)."

Three other PRL "alumni" were honored with this award in 2009: C. Robertson McClung (GA, Chelm, 1984-86), Dartmouth College; Pamela Green (faculty, 1988-2001), University of Delaware; and Mary Lou Guerinot (RA, Chelm, 1981-85), Dartmouth College.

Our Students ~ New Additions to the PRL in 2009



Marcelo Campos (Genetics; BS in Biological Sciences, Catholic University Brasilia; MS in Plant Physiology and Biochemistry, University of São Paulo, Brazil) Under Prof. Sarah Oliveira, Marcelo studied allelopathic compounds that inhibit development in plants. His long-term goal is to work toward sustainability in agriculture, producing food crops with the greatest efficiency and the least environmental degradation.



Wenyan Du (Plant Biology; BS in Plant Genetics and Breeding, China Agricultural University in Beijing) Under the direction of Dr. Wenxin Liu, Wenyan focused on an intensive study of several breeds of cotton. She received funding for and led a team in a

Ministry of Education project involving plant resistance to pests. She then moved on to Dr. Yan Guo's lab to delve deeper into how plants sense and respond to environmental stresses.



Christopher Harvey (Biochemistry; BS in Genetics/Biochemistry, University of Wisconsin-Madison) Chris's senior thesis project in Patrick Krysan's lab involved the analysis of functional redundancy between genes within the MAP kinase gene family of *Arabidopsis thaliana*. Chris hopes to devote his graduate program to the study of metabolic processes, enzymes, and cellular mechanisms, to acquire training necessary to solve a wide range of biochemical problems.



Tiffany Liu (Plant Biology; BS in Genetics and Plant Biology, University of California-Berkeley) An internship at Pioneer Hi-Bred during her junior year introduced Tiffany to field research and the intricacies of developing crops resistant to environmental stress.

During her senior year, she joined Peter Quail's laboratory at UC Berkeley, where she learned lab techniques in her study of the mechanisms by which light regulates gene expression and plant development. Following graduation, Tiffany continued on in the Quail lab as a technician.

Tiffany is preparing for a research position in the public or private sector.



Cheng Peng (Plant Biology; BS in Biological Sciences, Beijing Normal University) Working on a special project to study toxin-antitoxin systems in *Mycobacterium tuberculosis*, Cheng gained experience in cloning genes. For her thesis project, she used RNA

silencing to construct a library of random mutants of *Arabidopsis*. Cheng envisions a career in plant research with broad agricultural and commercial applications.

Jonathan Roussey (Biochemistry; BS in Honors Biochemistry, University of Michigan-Dearborn) Jonathan was drawn to the PRL Graduate Program as a result of his interest in the developing field of biofuels and the GLBRC. Before



entering our program, he worked in Markus Pauly's lab for several months, becoming familiar with the latest techniques and procedures of cell wall biochemistry. The goal of his project was to identify transcriptional regulators affecting downstream hemicellulose deposition. Though Jonathan's primary interest is in plant cell wall biomass research, his broader interests include viral cancers, tumorigenesis, and biochemical pathways of immune response systems.

Chia-Hong Tsai (Plant Biology; BS in Life Science and Botany, National Taiwan University) Aside from studying genetics, microbiology, and molecular biology, Chia-Hong had acquired many skills by the time he received his BS: including working with disadvantaged and disabled



students and military training. He went on to lead a group in a project on thermotolerance in *Arabidopsis*. Reporting his findings, he was first author on a paper with Shauna Somerville that was published in *Plant Journal*. For a second project, involving a study of jasmonate response induced by coronatine, Chia-Hong was first author on an article published in PNAS. In his graduate study, Chia-Hong plans to focus on host-microbe interactions and stress signaling networks.

(Personal photos provided by C. Harvey, J. Roussey, C-H Tsai; all others, Kurt Stepnitz.)

Our Students

2009 Award Winners



Michael Ruckle is shown here receiving the Department of Biochemistry & Molecular Biology's Overall Outstanding Graduate Student Award from mentor Rob Larkin. (Photo, BMB News)



Hoo Sun Chung received the Department of Biochemistry & Molecular Biology's Outstanding Graduate Student Research Award, presented here by mentor Gregg Howe. (Photo, BMB News)



Xinchun Zhang (Hu lab) received the Sigma Xi (MSU Chapter) Graduate Student Award, which comes with a monetary award and a nomination for membership in this scientific honorary society. The award was given in recognition of Xinchun's outstanding research and teaching.

2009 Doctoral Dissertation Defenses



Julie Bordowitz (Montgomery Lab) "Characterization of the *Fremyella diplosiphon* photoreceptor RcaE and its role in complementary chromatic adaptation." Julie now works as a postdoc at UC San Diego.



Marcela Carvalho (Thomashow lab), "Conservation of the low temperature transcriptomes and CBF regulons between *Solanum* species and *Arabidopsis*." Marcela is now a postdoc in the PRL.



Hoo Sun Chung (Howe Lab), "Role of JAZ proteins in the regulation of JA signaling in *Arabidopsis*." Hoo Sun has moved on to Jen Sheen's lab at Harvard Medical School.



Eliana Gonzales-Vigil (Howe Lab), "Identification and characterization of tomato (*Solanum lycopersicum*) proteins involved in resistance to insect herbivores." Eliana has a postdoctoral position in Cornelius Barry's lab in Horticulture at MSU.



Young Nam Lee (He Lab), "Study of *Pseudomonas syringae* effector protein HopM1 and its host target AtMIN7 implicated in vesicle trafficking in *Arabidopsis thaliana*."



Binbin Lu (Benning Lab), "Functional analysis of a phosphatidic acid transporter system in *Arabidopsis thaliana*." Binbin moved on to a postdoctoral position at the University of Michigan.

Xinchun Zhang (Hu lab; see photo, bottom left column) "Peroxisome division in *Arabidopsis thaliana*." Xinchun has taken a postdoc position at UC San Diego.

2009 Master of Sciences Degrees

Jackson Gehan (MS, Plant Biology, Shachar-Hill Lab)

Wei-ning Huang (MS, Plant Biology, He Lab)

New Postdocs and Staff in 2009



Alexandre Brutus (He lab) earned his BS in cellular biology and physiology, his MS in biochemistry and nutrition biology, and his PhD in nutrition: molecular & cellular at the University of Sciences, Aix-Marseille 3, France. Under the guidance of Dr. T. Giardina, Alexandre studied "Expression of cDNA coding for mushroom xylanases in the yeast *Pichia pastoris*; interactions between protein and inhibitor(s)."



Gaëlle Cassin (Hu lab) earned her PhD in biochemistry under the supervision of Dr. Pierre Czernic at the Laboratory of Biochemistry & Plant Molecular Physiology in Montpellier, France. Her dissertation was entitled "Role of nicotianamine and YSL transporters in iron homeostasis in *Arabidopsis thaliana*."



Pingsha Hu (Thomashow lab) earned her BS degree in microbiology at Shandong University, China, her PhD in Genetics at Iowa State University, where she also worked toward a MS in statistics. Her dissertation was entitled "Functional genomics of resistance-related genes in barley-powdery mildew interactions."



Wei Ma (Thomashow lab) earned his PhD under G. Berkowitz in plant science at the University of Connecticut, his MS in biochemistry and molecular biology at the Chinese Academy of Agricultural Sciences, Beijing, and his BS in biotechnology at the Agricultural University of Hebei, China. Wei's doctoral dissertation is entitled "The role of Ca²⁺-conducting cyclic nucleotide gated to signal transduction cascades related to plant pathogen defense and programmed cell death."

Lucia Marti (Brandizzi lab) Lucia, a Visiting Scholar, earned her BS in Biological Sciences at the University del Salento, in Lecce, Italy. Her thesis was entitled "In vitro cultures of *Artemisia annua* L. for the production of the antimalarian artemisinin."

Javier Moreno (Howe lab) earned his BS and PhD in biological sciences at the Univ. of Buenos Aires, Argentina. He studied the impacts of light



environment on plant-insect interaction under Dr. Carlos Ballaré. (photo, left)



Sookyung Oh (Montgomery lab) earned her BS in biology at Catholic University in Korea, her MS in plant biology at Seoul National University, and her PhD in plant breeding and genetics at MSU. Since 2006, Sookyung has worked as a Visiting Research Associate in MSU Dept. of Horticulture, studying genic and global functions for Paf1C chromatin modification and gene expression in *Arabidopsis*.

Sunchung Park (Thomashow lab) worked as a postdoc in molecular epigenetics at MSU's Department of Horticulture after completing his PhD in forestry at MSU. In his graduate research project, he used comparative and functional genomics to understand environmental adaptation in *Populus*.



Bong Kwan Phee (Hu lab) earned his MS in genetic engineering and his PhD in biotechnology at Kyung Hee University in South Korea. He then held a postdoctoral position at that university, before moving onto another at the University of Wisconsin-Madison.



Luciana Renna and **Giovanni Stefano** (photos, upper, lower left; Brandizzi lab) Native Italians, both Luciana and Giovanni earned their MSc degrees in biology at the University of Saskatchewan under Federica Brandizzi, and their PhDs in plant cell & molecular biology at the University of Bonn, Germany. Luciana's dissertation is entitled "Dynamics and distribution of ARFB1b and ARFB1c GTPases in *N. tabacum* plant cells" and Giovanni's is "Trans-Golgi network as independent organelle from Golgi apparatus in plant cells."



Yuki Yoshida (Visiting Research Associate, Howe lab) Yuki earned his BS, MS, and PhD degrees at Kyoto University. His PhD in Botany was conducted under the guidance of Prof. Kiyotaka Okada.

Postdocs—Moving On

RA	LAB	LOCATION AFTER LEAVING PRL
Boulaflous	Brandizzi	Université Clermont Ferrand, France
Chung	Howe	Harvard Medical School
Faso	Brandizzi	University of Zurich, Switzerland
Nagendran	Walton	MSU Department of Crop & Soil Sciences
Nowicki	Pauly	Poland
RamuSubramanian	Brandizzi	MSU Microbiology & Molecular Genetics
Yang	Hu	Wuhan Botanical Garden, Wuhan, PR China

Hans Kende Award for Best Dissertation in the Plant Sciences



An endowment, established with contributions received in Hans Kende's memory, is being used to fund an annual award for the best doctoral dissertation in the plant sciences at MSU during the preceding two years. The awardee is invited to return to MSU to present a seminar during the Fall PRL/Plant Biology Seminar Series, and also receives a monetary award.

Leron Katsir (left), of Howe lab, was the 2009 recipient of this award. Upon completion of his doctoral degree, he worked for a time in Cambodia on a permaculture project, and then took a postdoctoral position at the Universität Freiburg in Germany. Leron's seminar, delivered in December, was entitled "The age of epigenetics." (Photo, courtesy L. Katsir)



• Contributions to the **Hans Kende Memorial Fund** or **Anton Lang Memorial Fund** may be sent to:
University Development Office
300 Spartan Way
East Lansing, MI 48824-1005

Please specify the fund to which you wish to contribute. All contributions are greatly appreciated.

Anton Lang Memorial Seminar and Awards

The 2010 Anton Lang Seminar will be presented on Monday, April 12, by **Dr. Sarah Hake**, USDA Plant Gene Expression Center, Albany, CA. Title: "Uncovering the regulators of maize architecture."

Awards for Outstanding Research in 2009 went to Graduate Student **Michael Ruckle** (left, Larkin lab) and Postdoc **Yan Lu** (right, Last lab).



(Photos, Wanessa Wight)

Richard Amasino's seminar was entitled "Epigenetics and vernalization: How certain plants 'remember' winter." A Distinguished Professor at University of Wisconsin, Madison, Dr. Amasino is an inspired choice for this honor, as he is a devoted mentor and teacher in biochemistry at UW and because, like Anton Lang, he has devoted his research career to unraveling the mysteries of flowering. (Photo, courtesy R. Amasino)



Notes from PRL Alumni



Sharif Ahmed (GA, Raikhel, 1995-99; Sharif_Ahmed@bio-rad.com) "The past couple of years have been very challenging for me and my wife Shahreen. We have been blessed with two little boys (Saahir and Saadit) in the

last two years, who have kept us extremely busy since their arrival, while giving us the tremendous joy of parenthood. I have completed my 4th year at Bio-Rad Laboratories, while moving out of R&D earlier this year on to the position of Senior Manufacturing Engineer with the Quality Systems Division within the bigger Clinical Diagnostics Group. My current work is at the center of technology transfer, interfacing with R&D, marketing, production, regulatory affairs and project management. Some of my projects involve manufacturing specialty quality control products targeted for the emerging diagnostics markets in Asia and South America. Shahreen is continuing to follow her passion as a city planner on which she was educated at MSU, working for the Alameda County for the last 7 years. We continue to cherish and reminisce a memorable part of our lives which we had passed happily while at MSU and hope to visit East Lansing in the near future with our boys."



Clint Chapple (RA, CR Somerville; chapple@purdue.edu) "In May of 2008, Clint Chapple took over as head of the Department of Biochemistry at Purdue University. Under his leadership, the department has developed a new undergraduate curriculum and held a reunion in celebration of the 75th anniversary of the department. Clint started as an

assistant professor in the department in 1993 immediately after his time at the PRL."

Michael Feldbrugge (RA, Green, 1996-98) "I became professor for microbiology at the Heinrich Heine-University in Düsseldorf. This university has a close collaboration with the Michigan State University, thanks to the efforts of Andreas Weber. There is a joint graduate student programme and **Sigrun Wegener-Feldbrügge**

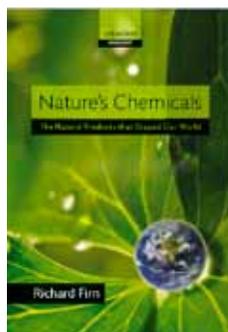


(RA, Walton, 1996-98) is the coordinator. Thus, we are very happy to be back in contact with MSU. I will attach you a recent picture from our little family with our daughter Lea, 8 years old." (Shown above.)

Richard Firn (RA, Kende, 1971-73; drf1@york.ac.uk) Retired from the Biology Dept, University of York, UK. "Largely depressing news: fighting aggressive prostate cancer without much success so far. The



good news is that I have now finished my book about [Natural Products](#) and it is in production by Oxford University Press. The book is based on the lectures I gave to the final year students at the University of York, but has been written for a broader audience. The theme of the book is thinking about Natural Products (NPs) and thinking about their role in all aspects of our life. As you can see from the [chapter contents](#), the coverage is much broader than other books on NPs."



Donat Häder (RA, Poff, 1978-79; Realtime-Computer@web.de; see photos above) "I (and my wife) visited 1978/79 at DOE and worked with Ken Poff. It is kind of interesting that next year one of my students (Shailendra Singh) will do a postdoc at the DOE [in Beronda Montgomery's lab]. I myself just retired from my position



Variation in Plant Cell Wall Biosynthesis.' His wife, Heather Richardson, is Assistant Prof in the Department of Psychology."



as chair for ecophysiology at the department for biology at the Friedrich-Alexander University at Erlangen, Germany. Before that I received a Dr. honoris causa at the University Univille located in Joinville, Santa Catarina, Southern Brazil (see photo attached). Also this year, I received the medal from the European Society for Photobiology for my 'life work' in Wroclaw, Poland (another photo)." "Usually with retirement in Germany you switch the light off and close the door. But I do not feel like this and have a lot of activities going on such as research in Argentina and courses in Brazil. I am also a professor in Japan and have a company for scientific hardware and software."

Hyder Ali Khoja (RA, Keegstra; hyder.khoja@cehmm.org) "My wife Masooma and I welcomed 'AHADALI' to our lives on March 8, 2009. He is now 9 months old, a very happy kid and wants to explore every thing around him. With his arrival, our lives filed with happiness and joy."

"At work I have been keeping busy doing research on optimization of lipid contents in Algae. As a senior environmental scientist at the Center of Excellence for Hazardous Materials Management my primary responsibilities are to conduct research in the fields of biodiesel production and biodiesel feedstock, and to manage a viable research program. The project's innovative approach, coupled with New Mexico's natural resources, make this an ideal and unique opportunity to create jobs in rural areas and develop a strong new industry for the state and ultimately the nation."



Sam Hazen (RA, Walton, 2002-04; hazen@bio.umass.edu) "My family moved from San Diego to UMass Amherst last fall. We love New England and our boys Linus (5) and Silas (2) are enjoying seasonal activities." (See photo of family at UMass football game!) At UMass, Sam's lab is studying 'Regulatory Networks and Natural

"The use of microalgae as a biodiesel feedstock has the potential to make biodiesel a viable replacement for significant quantities of petrodiesel, thereby supporting state initiatives and state laws, reducing American dependence on foreign oil, and reducing net global CO₂ emissions."

Anita Klein (GA, Delmer, 1976-1981; pearlandboots@comcast.net) "I can't resist."

Andrew Mort (GA, Lampport, 1971-77) Prof. at Oklahoma State U. agreed to a make-over, if the United Way raised a certain amount of money. The result is shown in the photo. How long this new "Andrew" will last is unclear. But for those of



us who were at the PRL in the '70s this will be a good laugh."

Itzhak Ohad (Vis. Prof., C Somerville, 1982-83; ohad@vms.huji.ac.il) "I am retired since 1998 however I continue my research and teaching work, photosynthesis is still a great field of research. I work by myself as well as in collaboration with Prof. Aaron Kaplan group and Joseph Hirschberg, we have been at PRL at the same time, when Charlie Arntzen acted as Director of the institute."



Robyn Perrin (GA, Keegstra, 1996-2001; rmperrin@gmail.com) "All is well in Madison, Wisconsin, where I am with the law firm of Casimir Jones, S.C. (www.casimirjones.com). I have been working in the firm for about a year and a half. After passing the patent bar exam in October, I'm now a registered patent agent and can represent clients directly in patent prosecution with the US Patent and Trade Office. Patent law is a wonderful blend of science, logic, and language, and I'm enjoying the field very much. Our firm only focuses on intellectual property law, with emphasis on the life sciences (biotech/agbiotech, biofuels, pharmaceuticals, medical devices, research tools, etc.) Please feel free to contact me if we can be of service - it's a pleasure to work with PRL alumni."

"On a personal note, we all joyfully celebrated the arrival of our second daughter, born on November 24, 2009. Vivian Perrin Thayer joins her big sister, Eleanor ("Ellie"), who is now five years old. Life with two vibrant girls is wonderful indeed. My husband Clint also branched out artistically in the past year, and is now a professional photographer as well as web developer. Some of his work is online at www.thayernet.com." "I'm on facebook and LinkedIn - please connect!"



Rodrigo Sarria-Millan (RA, Raikhel, 1999-2000; rodrigo.sarria-millan@basf.com) "This year I was promoted to Technical Center Leader - Trait Knowledge at BASF Plant sciences."

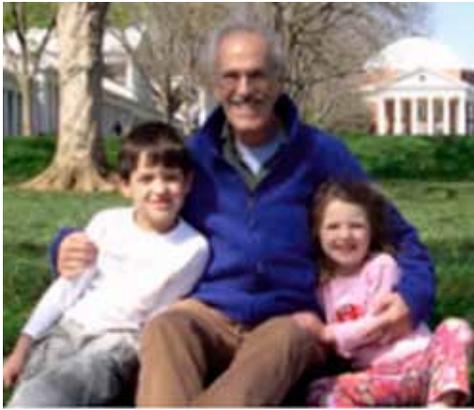
John G. Scandalios (Faculty, 1965-72; jscandalios@nc.rr.com) "I was one of the nine initial

faculty members of the PRL. We arrived at MSU in 1965 and were temporarily housed in the then new Biochemistry building and watched as the new PRL building was being constructed across the street. We all joyously moved into the completed PRL building, which provided us with ample space to develop our research programs. I was the only geneticist in the entire group, but developed good research interactions with Joe Varner and others. It was an excellent environment in which to do science with ample support and freedom to pursue our research goals.



"At nearly ten years at the PRL, I decided to accept the position of Professor and Head of the Genetics Department at NCSU. After ten years as department Head, I returned to my research and training activities full time. In 1985, I was elected and appointed to one of four legislatively endowed professorships, as the *Distinguished University Research Professor of Genetics*, a position I held until my retirement to emeritus status at the end of 2002. Over the years, my research focused on the study of antioxidant defense genes-- their structure, function and responses to oxidative stress signals. Our work pioneered many aspects, which stimulated similar work in many other labs around the world. I was awarded two honorary degrees citing my overall research contributions in this area. Following my "retirement", I continued to write, edit, review and give invited lectures around the world, and to participate in other scholarly activities. I particularly enjoyed giving some annual lectures to students at an international Institute on the island of Crete and in South America and Japan.

"My pride and joy however, is to spend time with my five fantastic grandchildren Will, Anna, Melia, Celia, and Daphne. My wife Penny and I thoroughly enjoy many beach retreats with our three daughters and sons-in-law, fishing, swimming, snorkeling and relaxing. Penny and I frequently travel, often meeting up with former students and colleagues (some from PRL days). Some of the most rewarding times for me have always been the many opportunities to visit Nisyros, the Aegean island of my birth with my family, especially my grandchildren, and to enjoy the sea and visit and reminisce with the



childhood friends I grew up with on that beautiful and serene little island.”

Larry Smart (GA, McIntosh, 1987-92; lbs33@cornell.edu). “As you can see, I have moved to Cornell effective July 1, 2009 as Associate Professor in the Dept. of Horticultural Sciences at the NYS Agricultural Experiment Station in Geneva. I will continue my research on breeding, genetics, and genomics of shrub willow as a bioenergy crop. By the way – I am looking for a Ph.D. student in Plant Breeding to join my program next fall – if you can include that in the newsletter!”



Ruanbao Zhou (RA, 1998-2001, C. Peter Wolk; Ruanbao.zhou@sdstate.edu) “Having worked as a Research Associate and later as a Research Assistant Professor at MSU for nearly ten years, I finally got an Associate Professor position at South Dakota State University (SDSU). At the end of 2008,



I left East Lansing for a college town called Brookings, in South Dakota. I am currently a faculty member, with an appointment of 15% teaching and 85% research, of Department of Biology & Microbiology and South Dakota Agricultural Experiment Station. Research in my laboratory has been focused on two areas: one is a genome-wide study of regulated intramembrane proteolytic (RIP) activation of membrane-tethered transcription factors in cyanobacteria (funded by NSF 2009); the other is metabolic engineering of cyanobacteria as a cellular factory to produce biofuels and commodity chemicals (funded by USDA-AFRI 2009; South Dakota Agricultural Experiment Station, and South Dakota State Center for Bioprocessing and Research Development). Year 2009 is my lucky year; I have been awarded two federal grants and published one paper on PNAS. I really enjoy working at SDSU, but I miss PRL a lot for its excellent academic environment.”



Jonathan Vogel (GA, Thomashow, 2001-05; jonathan.vogel@basf.com) “I left my post-doc at the University of Florida for my current position at BASF Plant Science. I started here on January 5 of this year [2009]. My son Henry (now 2) is getting bigger, as you can see from the picture. This was him playing at a friend’s birthday party.”

(All photos in this section submitted by alumni.)



Between Wilson Road and Mount Hope, along Farm Lane, two new underpasses opened in Fall 2009, alleviating the frustration of waiting for trains to pass. (Photo, *MSU News*)



Original PRL Faculty, 1965

From left: Phil Filner, Peter Wolk, Joe Varner, Jan Zeevaart, John Scandalios, Hans Kende, Anton Lang, Lloyd Wilson, Derek Lamport
(Scanned from PRL photo archive.)

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