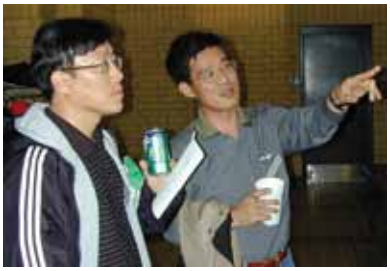



PRL Alumni Newsletter

DOE Plant Research Laboratory
Michigan State University
East Lansing, MI 48824

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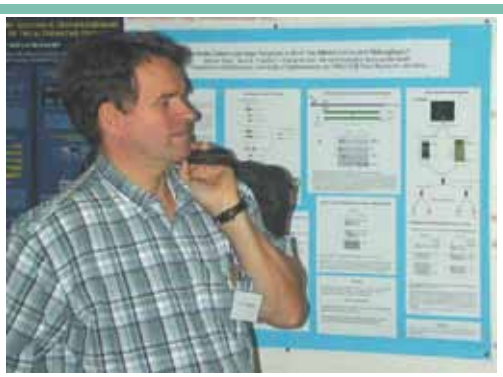

From the Director . . .

Greetings from the PRL! As you will see in the following pages, the PRL is an ever-changing, ever-growing institution.

As many of you know, Lee McIntosh lost a long, courageous battle with chronic lymphocytic leukemia last June. With the help of several good friends, Lee had managed to provide a home for son Angus, tend to his animals, and carry on with his duties at the PRL right up to the end. Three of his publications have gone to press since his passing. The PRL Retreat in October, with a focus on organelle biology, was dedicated to his memory, and Lee's former postdoc Greg Vanlerberghe joined us to speak on mitochondrial electron transport. Lee is greatly missed and fondly remembered.

On a happier note, our faculty search last year resulted in our adding another new member to our faculty. On the following page, you can read about Beronda Montgomery-Kaguri, who has come to us from the lab of Clark Lagarias (RA, Poff, 1980) at UC Davis. And we are in the midst of another faculty search as the new year begins.

We've had a year of upheaval in the PRL Office. Nikki Goetschy returned from maternity leave in March and was with us for about four months before deciding that she needed to be home with baby Grant. Though disappointed, we certainly understood this decision. We were pleased that Zita Schneider, receptionist and secretary, was interested in filling Nikki's vacated position. We then hired Janet Taylor to fill Zita's position, so that by mid-September we were back up to full staff and efficiency.

And, as reported last year, Jan Zeevaart did formally retire. A well-attended reception in honor of his 39 years at the PRL was held in June. Following a three-week holiday/conference in Australia with wife Riet, Jan returned to his lab, where he now is in the envious position of choosing what to do and not to do.

During the past year, we overhauled our graduate student recruitment program. Because the PRL is not a degree-granting institute, we have long been on the periphery of the graduate application process at MSU. Last year, we decided to get out of the business of sending out applications altogether, though we were concerned about the effect this would have on our ability to attract applicants to our program—needlessly, it turns out. As you will see on pages 4 and 5, we welcomed our largest group of first-year graduate students in memory.

Last April, PRLers celebrated a momentous milestone: Gutterball X! About 120 bowlers, many of whom had actually bowled before, turned out for the event at Holiday Lanes. The first annual Puttin' Go outing was rather less well attended, but we're hoping it will grow. And the traditional PRL Holiday Gala served as a splendid celebration to the end of another great year at the PRL.

Finally, as I begin 2005, I think back to having started 2004 with a mini-sabbatical in Australia. Sue and I spent one month in Adelaide, where I worked with Geoff Fincher and his group, and then two months in Melbourne with Tony Bacic (RA, Delmer, 1981) and his group. A highlight of our time in Melbourne was a ten-day trip into the Outback with Tony and his wife, Lee. All in all, a very enjoyable and productive respite from Michigan's winter!

I hope your new year will be filled with events that you would like to share with us in the next newsletter!

Best wishes to you all,

Ken Keegstra

Another of our faculty is on the last leg of his journey toward retirement--
no more Annual Report chapters to write,
no more grant proposals,
no more review panels . . .
What's in the future for this one-time seer/fortune teller?
See page 7 to find out!

(photo from an early '80s PRL holiday party faculty skit)

PRL Faculty

The PRL Loses a Dear Friend and Colleague

Lee McIntosh, age 54, beloved son, father, brother, and friend, lived tenaciously and died with courage on June 28, 2004, in Lansing, MI. He loved his family, the land he farmed, and the scientific research he pursued with colleagues. He received his PhD from the University of Washington and completed postdoctoral studies at Harvard University. He led research studies at the Michigan State University Department of Biochemistry and DOE Plant Research Laboratory, where he received the Distinguished Faculty Award in 2002. He was devoted to his son, Angus, whom he believed to be a precious gift, and he cherished the support and love from his family and friends. A memorial celebration of Lee's life was held on Friday, July 2, 2004, in the MSU Horticultural Gardens. (Written by Jean McIntosh.)

Donations may be made in Lee's name to the Chronic Lymphocytic Leukemia Foundation, 1415 Louisiana, Ste 3625, Houston, TX 77002 or to the Angus R. McIntosh Minority Trust Fund (checks may be mailed to the PRL Office).

Beronda Montgomery-Kaguri Joins the PRL Faculty

In August, Beronda Montgomery-Kaguri joined our faculty and the Department of Biochemistry & Molecular Biology. She earned her BA in Biology at Washington University of St. Louis, Missouri; her MS in Biology at the University of Central Arkansas; and her PhD in Plant Biology at UC Davis, California.

Beronda studied the photobiological responses of photosynthetic organisms as a graduate student at UC Davis in Dr. Clark Lagarias's lab. She then was awarded an NSF Postdoctoral Fellowship in Microbial Biology at Indiana University, Bloomington, where she studied the biochemical mechanisms of a number of cyanobacterial photosensory proteins in Dr. David Kehoe's lab. Dr. Montgomery-Kaguri hopes to go on to study biliprotein function and the role of bilins in photosynthetic organisms.

Selected Publications

Montgomery BL et al. (2001) Biliverdin reductase-induced phytochrome chromophore deficiency in transgenic tobacco. Plant Physiol 125: 266-277

Montgomery BL, Lagarias JC (2002) Phytochrome ancestry: Sensors of bilins and light. Trends Plant Sci 7: 357-366

Balabas BE, **Montgomery BL**, Ong LE, Kehoe DM (2003) CotB is essential for complete activation of green light induced genes during complementary chromatic adaptation in *Fremyella diplosiphon*. Mol Microbiol 50: 781-793

Terauchi K, **Montgomery BL**, Grossman AR, Lagarias JC, Kehoe DM (2004) RcaE is a complementary chromatic adaptation photoreceptor required for green and red light responsiveness. Mol Microbiol 51: 567-577

ASPB Elects a New President

Mike Thomashow is ASPB's new president-elect. He will assume the office of president October 1, 2005. Mike is a faculty member in the Departments of Crop & Soil Sciences and Microbiology & Molecular Genetics. He earned AB (1972) and PhD (1978) degrees in Microbiology at UCLA and conducted postdoctoral research on *Agrobacterium tumefaciens* with Eugene Nester at the University of Washington, Seattle (1978–1980). He was an assistant and associate professor in the Department of Microbiology at Washington State University, Pullman (1981–1986) before moving to MSU. At MSU, he was an associate and then full professor and in 2002 was named University Distinguished Professor.

Mike participates in teaching a graduate-level course in plant molecular biology, offers periodic "special-topics" graduate courses on abiotic stress tolerance, and serves on graduate research thesis committees. He is currently director of the NASA Astrobiology Institute–led team studying microbial life at low temperature. In addition to his selection as a University Distinguished Professor, Mike's honors include the Alexander von Humboldt Foundation Award (2001); he is an elected fellow of the American Academy of Microbiology (2001) and the National Academy of Sciences (2003) and, of course, a valued member of the PRL faculty since 2001.

Our Students

New Additions to the PRL in 2004

Neil Adhikari (GEN); BS and MS in Botany, U Bombay in Mumbai, India; MS in Biological Sciences, Wayne State U. At Wayne State, Neil worked to identify genetic targets of lithium in bipolar disorder using yeast as a model system. It was at Wayne State that he discovered a love for teaching and he now hopes eventually to carry out research and teach at the university level.

Brian Barnett (BMB); BS in Recombinant Genetics at Western Kentucky U-Bowling Green. Brian worked as a technician at a biotech company in Vacaville, California, where he helped to "develop procedures for pharmaceutical processing using a virus-mediated plant-based production system," and then participated in the production of pharmaceuticals for a phase I clinical trial. Brian's goal is to perform research in industry or academia. He is in the Walton lab.

Marcela Carvallo Pinto (BMB); BS, MS, U Catolica, Santiago, Chile. Marcela's thesis project involved cloning and expression of a gene from a fungus to understand the xylanolytic system of *Penicillium purpurogenum* for biotechnological applications. Marcela then worked on three projects at Los Alamos National Laboratory in New Mexico. This experience helped her define her research interest in regulation of gene expression. Marcela has joined the Thomashow lab. (See Francisco Uribe-Romeo, page 5.)

Hoo Sun Chung (BMB); BS in Biology and Chemistry; MS in Biology, Yonsei U, Seoul. Early in her education, Hoo Sun was intrigued by the idea of synthesizing the anti-cancer drug TAXOL and by studies of an improved, "golden rice," to feed hungry third-world children. Working in a research lab at Yonsei University, Hoo Sun learned many techniques she will need to pursue her dream of becoming a research scientist.

Aaron Schmitz, Janet Paper, Shengfan Zhou, Jessica Koczan, Binbin Lu, Jianjun Luo, Angus McIntosh, Neil Adhikari, Eliana Gonzalez-Vigil, and Cody He enjoying leisure time at the Retreat.

Eliana Gonzalez-Vigil (GEN); BS in Biology at Universidad Nacional Agraria La Molina, Lima, Peru. Following graduation, Eliana took a position at the International Potato Center in Lima, where she looked for new sources of quantitative resistance to late blight among wild *Solanum* species. Eliana is excited about the possibilities of experimental genetics applied to native species of cultivated crop plants in Peru and hopes to conduct research and teach there. Eliana was granted a Fulbright Fellowship to study here.

Lori Imboden (CMB); BS, Biology, Samford U, Birmingham, AL; MS Cell & Molecular Biology, U Arkansas, Fayetteville. Lori's education and related internships with the National Park Service and the National Tropical Botanical Garden in Kauai, Hawaii led her to an interest in the internal workings of plants—how they survive and defend themselves against attack. She has joined the He Lab and is the recipient of a Plant Science Fellowship.

Leron Katsir (BMB); BS, Biology & Biochemistry, Florida State U, Tallahassee. Upon graduation, Leron continued at Florida State, working in Dr. Betty Gaffney's lab as a research assistant. Research centered around the lipid signaling pathways of the arachidonic acid cascade and the nature and identity of a tyrosyl radical in coral allene oxide synthase. Leron is working toward a faculty position in Biology. He has joined the Howe lab.

Jessica Koczan (PLB); BS Biology, U Missouri-Columbia. Working in a pharmacology/physiology lab at St. Louis University, Jessica developed an interest in pathology and was able to pursue this interest in Dr. Gassmann's lab at the University of Missouri and then at a summer internship at the Donald Danforth Plant Science Center in St. Louis. This experience persuaded her to continue her education toward a career in scientific research.

Binbin Lu (BMB); BS Microbiology and MS Biochemistry & Molecular Biology from Wuhan U, China. Binbin's work toward the MS degree involved a study of carbon and nitrogen coordinated in rice (*Oryza sativa* L.) roots under low temperature, as part of an effort to improve the yield of this important food crop in China.

Our Students (continued)

Jianjun Luo (BMB); BS, Agronomy, China Agricultural U, Beijing; MS, Botany, Institute of Botany, Beijing. Jianjun is interested in utilizing modern genetic, biochemical and functional genomic approaches to study the biosynthesis of lipids in photosynthetic membranes and the regulation of seed oil biosynthesis. His diploma project at the Institute of Botany centered around the synthesis and function of chloroplast lipids in *Nicotiana tabacum* by RNAi.

Janet Paper (PLB); BA, Biology, William Jewell College, Liberty, MO. Working at the Midwest Research Institute, Janet received the Jeff Mallie Staff Development Award to conduct her own research, a study of the effectiveness of various analytical extraction techniques. Janet not only enjoys studying and reading about the plant sciences and genetics, but also enjoys training others in the techniques she learns. She looks forward to training as a research scientist and educator.

Aaron Schmitz (CMB); BS, Biochemistry, Cell & Structural Biology, U Illinois, Urbana-Champaign. In Dr. Daniel Bush's lab at the Howard Hughes Medical Institute (U Illinois), Aaron studied the effect of sucrose feeding on proton/sucrose symporter expression in multiple plant species. Then, at the Donald Danforth Plant Science Center in St. Louis, he worked as a lab technician for Erik Nielsen (GA, Keegstra lab, 1993-97). Aaron has identified two main areas of interest: how a cell expands and changes as it matures, and how an organism perceives and responds to environmental cues.

Francisco Uribe-Romeo (BMB); BS, MS, U Catolica de Chile, Biochemistry. MS Thesis title: "Expression in *Salmonella* of Tpb2 and PorA proteins of *Neisseris meningiditis* to design a live oral vaccine." Francisco found subsequent research work at the U Idaho and Los Alamos National Lab in NM very satisfying and he is working toward a career in scientific research. He and Marcela Carvallo (see page 4) were married in July 2003. Francisco is in the He lab.

Xinchun Zhang (GEN); BS, Genetics & Breeding, Shandong Agric. U, Tai'an; MS Plant Genetic Engineering, China Agric. U, Beijing. Prior to coming to MSU, Xinchun worked for a year as a research assistant and translator of English articles. She hopes that upon returning to China she will be at the forefront of the genetic revolution, working to benefit her country and her people.

Shengfan Zhou (CMB); BS, Biotechnology; MS, Botany, Harbin Normal U, China. As a member of the BioTech and Molecular Biology Lab directed by Prof. Yongfen Huang, Shengfan completed two projects in gene transfer that provided a solid basis for further study. Shengfan's interests include cold adaptation in plants; energy-transducing complexes in chloroplasts, mitochondria, and cyanobacteria; and interactions between plants and microbes.

2004 Dissertation Defenses

Emily Avila-Teeguarden, "Characterization of the family of vacuolar sorting receptors in *Arabidopsis thaliana*," PhD, Cell & Molecular Biology. Emily is continuing research in Natasha Raikhel's lab, but as a postdoc.

Dan Cook, "Molecular and metabolic responses to dehydration and low temperature," PhD, Plant Biology. Dan is with USDA in Mississippi.

Paula Hauck, "Understanding the molecular basis of disease susceptibility of Arabidopsis to *Pseudomonas syringae* pv. *tomato* DC3000," PhD, Genetics. Paula will continue in the He lab as a postdoc.

Guanghui Liu, "Jasmonate regulation of defense responses in tomato (*Lycopersicon esculentum*)," MS, Genetics. Guanghui is working on a doctorate in Food Safety & Toxicology at MSU.

Wayne Riekhof, "Membrane lipid biosynthesis in *Chlamydomonas reinhardtii,"* PhD, Biochemistry & Molecular Biology. Wayne and family moved to Colorado, where he is conducting research at the National Jewish Hospital in Denver.

Weiqing Zeng, "Identification and characterization of xyloglucan fucosyltransferase genes, and the characterization of Arabidopsis cellulose synthase-like genes," PhD, Cell & Molecular Biology. Weiqing moved to a postdoctoral position at the Howard Hughes Medical Institute, University of Michigan.

Postdocs and Staff

❧ Howe Lab

Abe Koo, new to the Howe lab as a postdoc, but familiar in the building as a graduate student in John Ohlrogge's lab. Abe earned his BS in Biology and MS in Molecular Biology and Genetics at Korea University, Seoul. Abe's doctoral research was focused on lipid metabolism: fatty acid transport across the plastid envelope.

Rhidaya Shrestha earned his MS in Biology at Midwestern State University in Wichita Falls, Texas, and his PhD, under Dr. Kent Chapman, at University of North Texas in Denton. His dissertation was entitled, "N-acylethanolamine metabolism during seed germination: molecular identification of a functional N-acylethanolamine amidohydrolase."

David *Hyder*

❧ Keegstra Lab

Hyder Ali Khoja earned his BS and MS degrees from Sindh Agriculture University in Pakistan and his PhD in Genomics and Fruit Biotechnology from the Institut National Polytechnique in Toulouse, France. His dissertation was entitled, "Characterization of two genes, *LeRab6* and *LeER43*, encoded to a putative small GTP-binding protein in tomato (*Lycopersicon esculentum*, Mill)."

❧ Thomashow Lab

Michael Mikkelsen earned his PhD in Molecular Biology and Plant Biochemistry at the Royal Veterinary & Agricultural University (RVAU) in Frederiksberg, Denmark. His dissertation was entitled, "Glucosinolates: Indole-3-acetaldoxime metabolism, regulation and metabolic engineering." Before joining us, Michael held an assistant professorship at RVAU, Department of Plant Biology. Michael has received a 2-year EMBO Fellowship and has joined the Thomashow lab to study CBF-independent cold-response pathways.

Susan Myers is a graduate of MSU's Department of Microbiology. She worked as a biological science technician at the USDA-ARS Sugarbeet and Bean Research Unit at MSU before joining the Thomashow lab as a technician.

❧ Walton Lab

Kohhei Otani came to us from the Plant Pathology Laboratory, Kagawa University, in Kagawa, Japan. Upon completion of his doctoral degree in Agriculture, Kohhei held a postdoctoral position at the center for Precursory Research for Embryonic Science and Technology, Japan Science & Technology Agency.

❧ Wolk Lab

Jinjie Liu has a BS in Plant Protection from Laiyang Agricultural College, an MS in Plant Pathology from Nanjing Agricultural University, and a PhD in Marine Biology from Ocean University of China. Her research has involved various aspects of study of cyanobacteria. One of her projects in Peter's lab will be to use yeast two-hybrid analysis to gain insight into mechanisms of cyanobacterial differentiation.

❧ Cell Wall Group

David Cavalier started the new year as a postdoc in Ken Keegstra's lab. David earned both his BS in Biology and his PhD in Cellular & Molecular Biology at North Dakota State University in Fargo. He completed his doctoral work under Dr. Alan R. White with a dissertation entitled, "Three novel methods for the investigation of in vitro xyloglucan biosynthesis in *Pisum sativum* (pea)."

Jean-Christophe Cocuron has joined the Cell Wall Group as a technician, working with Curtis Wilkerson. Jean-Christophe studied Plant Biotechnology at the University of Bordeaux, France, and gained experience in molecular biology in the Vegetable Physiology and Biotechnology Lab (INRA, Bordeaux, France). Most recently, he worked as a technician in medical molecular biology in BIOffice Laboratory (Artigues-pres-Bordeaux, France).

Olivier Lerouxel completed his PhD in Plant Biology at the University of Rouen, France, under the guidance of Prof. Patrice Lerouge. His thesis work involved screening and characterization of Arabidopsis mutants altered in cell wall polysaccharide biosynthesis. Work on the dissertation took him to Copenhagen for three months to study cloning of pectin putative glycosyltransferases in *Pichia pastoris* in Prof. H. Scheller's lab. Olivier has joined the Keegstra lab.

Claudia Vergara earned her BS in Bacteriology at Universidad de los Andes in Bogota, Colombia, and her PhD, under Dr. Nick Carpita (RA, Delmer, 1977-79), in Plant Molecular Biology and Biochemistry at Purdue University. Before joining the PRL, Claudia worked as a postdoc for four years in the lab of Tony Bacic (RA, Delmer, 1981) at the University of Melbourne. Research topics included functional genomics in the growth and end-use quality of cereals, and the genes and enzymes responsible for cell wall synthesis in cereals. She has joined the Walton lab to continue her study of cell wall biosynthesis in cereals.

Postdocs--Moving On

RA	Lab	Location after Leaving PRL
Bieszke	Walton	Houston, Texas
Hallen-Adams	Walton	MSU Department of Plant Biology
Hoffman-Benning	Zeevaart	MSU Mass Spectrometry Facility
Huang	Wolk	Univ. of Texas Southwestern Medical Center, Dallas
Kolade	He	London, UK
Konishi	Keegstra	Forestry & Forest Products Research Inst., Ibaraki, Japan
Li, C	Howe	Chinese Academy of Sciences, Beijing, China
Oh	Howe	Akita Prefectural University, Akita, Japan
Wagner	Keegstra	Bryan, Texas

Anton Lang Memorial Seminar, Fund

❧ **Hans Kende** (Faculty, 1965 to present) will present the 2005 Anton Lang memorial Seminar on April 25: "Environmental, hormonal, and molecular regulation of growth in rice." We invite you to join us on this occasion.

After 40 years of service to MSU and the PRL, Hans Kende announced his retirement, starting January 1, 2006. He taught his last class of Plant Biology 415 in the Spring Semester of 2004 and he plans to terminate his research program toward the end of 2005. However, Hans will remain active in PRL affairs. We are delighted to report that one project he has in mind is to write a history of the PRL, from his perspective as one of the founding members. At the national level, Hans will continue to promote the interests of plant biology through his membership in various organizations. He plans to devote much of his newfound leisure time to skiing trips, visiting Switzerland, and enjoying his grandchildren.

In the early '60s, Hans collaborated with Anton Lang as a postdoctoral fellow at Caltech on gibberellins. Later, his interests branched out to other plant hormones: cytokinins and ethylene. He and his associates developed an enzyme assay for ACC-synthase and isolated an ethylene-resistant mutant in Arabidopsis that led to the isolation of the first hormone receptor in plants. His group also established deepwater rice as a model organism to study the action of plant hormones in stem elongation. This work led to his recent studies of the role of expansins in cell growth. Hans will present some aspects of his wide-ranging studies in this year's Anton Lang Memorial Lecture. (Submitted by Jan Zeevaart.)

❧ Awards for Outstanding Research in 2004 went to Graduate Student **Wayne Riekhof** (right, Benning lab) and Postdoc **Jeong Hoe Kim** (left, Kende lab). The 2004 seminar was presented by **Jan Zeevaart** (Faculty, 1965 to present) on April 26: "Environmental Control of Plant Growth as Mediated by Hormones."

❧ **Contributions to the Anton Lang Memorial Fund** may be sent to the University Development Office, 220 Hannah Tech & Research Center, 4700 South Hagadorn, East Lansing, MI 48823. Please specify that your gift be directed to the Anton Lang Memorial Fund. All contributions are greatly appreciated.

We look forward to receiving your comments and suggestions for improvements to the Newsletter, as well as your news for inclusion in future newsletters. Please send these via e-mail to PRL Director Ken Keegstra (keegstra@msu.edu) or Newsletter Editor Karen Bird (birdk@msu.edu). ❧ **If you would like to receive this newsletter electronically, please send your e-mail address to Karen Bird.**

Sharif Ahmed (GA, Raikhel, 1995-99; sahmed@prozyme.com) "My green card application was approved after a 1-1/2-year processing time—I am now a permanent resident of the United States. After completing my postdoctoral training in Dr. Randy Schekman's laboratory at UC-Berkeley, I joined a small biotech company called ProZyme, Inc., in the San Francisco Bay Area last year and currently work as a Scientist in the Glycobiology field in the company's R&D department."

Joong-Hoon Ahn (GA 1991-94, RA 1996-99, Walton; jhahn@konkuk.ac.kr). "I left E. Lansing 5 years ago to have an assistant professor position at Konkuk University in Seoul, Korea. This fall (2004), I become an associate professor. Also, I moved to a new department (Department of Molecular Biotechnology) at Konkuk University. Last year, I received the best teacher's award. Also, our research team has received a big grant about flavonoid research from Korean Government."

Charles Arntzen (Director, 1980-84; charles.arntzen@asu.edu; http://lsvl.la.asu.edu/plantbiology/faculty/arntzen.htm) "served as the Founding Director of The Biodesign Institute at Arizona State University from 2001 to 2003. The institute will have use-inspired bioscience and engineering as its hallmark, with an emphasis on the applications of discoveries to commercial uses and societal benefit. He currently serves as the co-Director (with Roy Curtiss) of the Center for Infectious Diseases and Vaccinology, a component of the Biodesign Institute, and as the Director of an NIH-sponsored Collaborative Research Center dedicated to Plant-derived Microbicides. Charles is currently a member of the President's Council of Advisors on Science & Technology (PCAST) in the Office of Science and Technology Policy for President Bush. Charles and Kathy have two grandsons, whose parents (Jennifer and Chris Arntzen) live in Houston."

Patricia Apel-Birkhold (GA, Walton, 1990-96; pcbirkhold@dow.com) With a son 5-1/2, daughter 1-1/2, and twins 3 months old, Patricia and husband decided to move to Ohio during the summer to be closer to family; she will continue working for Dow, but from her home.

Yael Avissar (RA, 1978-79, Wolk; YAvissar@ric.edu) "Last year I spent one semester of my sabbatical in Szeged, Hungary, doing research on the effect of heavy metals on chlorophyll synthesis. This undertaking was sponsored by a Fulbright research grant. The research was successful, and I also had a fabulous time, enjoying the famous Hungarian hospitality, excellent food and wine and a plethora of cultural events. I was born in Hungary and speak the language which made this project even more enjoyable. I presented the results of my research in the Gordon Research Conference on the Chemistry and Biology of Tetrapyrroles in Newport, RI in July 2004." Yael is a member of the faculty in Biology at Rhode Island College, Providence.

Robin Buell (RA, Shauna Somerville, 1993; rbuell@tigr.org) is an Associate Investigator at The Institute for Genomic Research in Rockville, MD. Her genomic studies of plants are focused on genome annotation as well as expression profiling projects.

Todd A Carlson (GA, Chelm, 1981-86; carlsont@gvsu.edu; 616/331-3560) "I continue to teach biochemistry at Grand Valley State University (since leaving the PRL in 1986). This past summer I was elected Chair of the Chemistry Department at GVSU [in Allendale, MI] and promoted to full professor."

Hyung Taeg Cho (RA, Kende, 1998; htcho@cnu.ac.kr) Hyung Taeg has returned to Korea, where he has a faculty position in Biosciences at Chungnam National University in Daejeon. In March, he wrote: "Our family is still talking on the memoirs of EL and Cherry Lane. Our new (back to old?) life here is fine except that my kids miss a lot America, particularly their friends and teachers. Sometimes my older daughter makes us difficult by asking some cranberry sauce which is not popular here. Finally yesterday my wife got some from the other city, and my daughter was very very happy about it. My older one is a 6th grader and little one is a 1st grader now."

Katrina Cornish (RA, 1982-85, Zeevaart; kcornish@yulex.com) "I received a Good Housekeeping Award for Women in Government, 2004 (in the nick of time, considering I've joined private industry!) I left my position as Lead Scientist of the domestic rubber program at the USDA-ARS to join Yulex Corporation, the company commercializing nonallergenic latex from guayule. Yulex is the exclusive licensee of the USDA's latex process and product patents.

Mary Ellen Davey (GA, de Bruijn, 1994-99; Mdavey@forsyth.org) "I left Genome Therapeutics and I am now at The Forsyth Institute. All is well - I love Boston and the Forsyth is a great place to work, so I am quite content."

Scott Diehn (GA, Green, 1992-98; scott.diehn@pioneer.com) "I'm still employed at Pioneer Hi-Bred International in Des Moines, IA. I'm a Project Manager there in the Insect Control and Herbicide Resistance Group where I work on optimizing the expression of trait genes in maize. Current efforts are around *Bt* genes for 3rd generation products against European corn borer, an insect pest that tunnels through the stem of maize, and corn rootworm, an insect pest that feeds on the roots. The work is something I enjoy quite a bit and really is an extension of the work I did as a graduate student in Pam's (Green) lab. I have 5 staff members working for me on these and other product-targeted projects. But while the lab is very busy, I do hire undergraduate interns during the summer so that I can dabble in other areas. The biggest change in my life recently has been through Tonya (my wife). She left her position as the Coordinator for Genetic Services for the State of Iowa to pursue a Physician Assistant degree. She really enjoyed direct patient contact as a genetic counselor at MSU. A PA degree will allow her to have this, as well as pursue the medical degree she has wanted since we were married....14 years ago! I'm proud of her to make such a bold career change."

Jim Dombrowski (GA, Raikhel, 1989-95; dombrowj@onid.orst.edu) "I, like many others, was deeply saddened to hear of the passing of Lee McIntosh this past year; it was a seminar he gave back in the early 1980s to a group of undergraduate students (I was one of them) on the complexities of the maize genome that inspired me to pursue a career in plant biology. He will be missed. In March of 2004, I had the pleasure of having open-heart surgery performed on me to replace a defective valve. I am now part cow and because of this I will never look at a Peanut Barrel hamburger in quite the same way. I guess being part cow is somewhat fitting since I'm currently conducting research on forage grasses at the USDA-ARS in Corvallis Oregon."

Beate Drechsler-Köhler (RA, McIntosh, 1991-93; b.drechsler@chemie.uni-frankfurt.de) "I am doing research in the field of didactics of chemistry since 1997, working on my habilitation (to became a professor—hopefully soon). I got married again in 2000 and in March 2003 I gave birth to my little daughter Carolin, who adds sunshine to my life ever since she was born and fills in the remaining hours in my daily schedule besides working at university."

Jenifer Görlach (GA, Walton, 1992-97; jmgorlach@avantgardellc.com; http://www.avantgardellc.com/) "I now have two full-time jobs. I have four children, 2 boys and 2 girls (Ian, 7; Max, 5; Ana, 3; and Jade, 10 mths), and I have started my own consulting firm. I telecommute from our home in NJ and work with several law firms in the preparation and prosecution of patent applications. While I no longer work at the bench, I have many wonderful interactions with inventors from all over the country and am constantly challenged with new ideas. The hardest part of my job is fighting the temptation to go outside and play in the yard with my kids. While I do not have a photo of myself, I have attached a montage of my kids to prove I actually have 4 kids. I still don't believe it myself!"

Prudy Hall (RA, Chelm, 1988; hallpj@hiram.edu) "Greetings from the wilds of northeast Ohio (instead of Australia). I am back in my digs at Hiram College, engaged in my final, formal year of teaching. That means I will continue to teach some courses on an adjunct basis for two or three more years. It will have to be interspersed with other activities though, such as returning to Australia for some further research, visiting family, and cultivating my garden. Our department was really pleased to have Jon Walton visit recently. The students were enthusiastic about his research and enjoyed talking with him informally."

Ursula Heiniger (RA, Delmer, 1974-75; ursula.heiniger@swissonline.ch; http://www.wsl.ch/staff/ursula.heiniger/) "After 21 years as a forest pathologist at the Swiss Federal Institute for Forest, Snow and Landscape Research I

accepted early retirement on November 1, 2004. At the moment I am on my personal Sabbatical at the FABI, Univ. of Pretoria, South Africa, to identify blue stain fungi with molecular markers. I am enjoying the lively atmosphere at FABI and being back at the bench. In March 2005 I will be back in Zuerich. If you ever make it to Europe, be my guest."

Kentaro Inoue (RA, Keegstra, 1999-2002; kinoue@ucdavis.edu; http://pom.ucdavis.edu/kinoue) "Two graduate students and one postdoctoral fellow joined my laboratory in March/April this year. Background of both graduate students is not related to plants, but they don't seem to mind studying Arabidopsis. I also started studying carotenoids in citrus. We are receiving a box of Valencia orange every month. We collect peel for analysis, and put flesh in our stomach (during the season). This summer, I went to two meetings—one in New Hampshire, and another in Montreal. In both places, I enjoyed meeting with people from PRL. We have a quarter system (10 weeks long) here. I am teaching two classes in the fall quarter since last year. One of them is an Introductory Botany class for non-science major undergraduate students. . . . Another one is a new class we started on Plant Natural Product Chemistry for upper-division undergraduate and graduate students. . . . I am one of two instructors for both classes. Sizes of classes are relatively small so that I can interact with students relatively easily. Preparation for these classes is kind of fun, but it is very time consuming. Hopefully, things would become less hectic as I get more experienced."

Mark Johnson (GA, Green, 1995-99; Mark_Johnson_1@brown.edu; http://www.brown. edu/pollen) "Carol, Henry (three-year-old son) and I just moved from Chicago to Providence, Rhode Island so I could start a new lab at Brown University. I will join a small but active plant group and hope to bring even greater interest in plant biology to this campus. I'm an assistant professor in the Department of Molecular Biology, Cell Biology, and Biochemistry and will continue the work I started in Daphne Preuss' lab at The University of Chicago on pollen tube growth and guidance. . . . I really value the time I spent [at the PRL]. I called Jim Klug the other day for advice on growth chambers and have proudly hung the PRL graduate training poster on my office door."

Fernand Lambein (RA, Wolk, 1972; fernand.lambein@rug.ac.be) Warm greetings from good old Belgium! Since my compulsory retirement on October 1st, I moved to the Institute Plant Biotechnology for Developing Countries (www.IPBO.ugent.be), where I continue as a voluntary researcher, trying to solve the problems of the paralysing diseases lathyrism and konzo occurring in Africa. The work has purely chemical as well as purely medical aspects and keeps exciting me.

Steve Lorch (RA, Wolk, 1972-73; stevenkl@comcast.net) "My daughter, Elisa, who was born while I was a post doc with C. Peter Wolk, got married in May. I recently testified on the Coral Watts case. I had worked the crime scene 25 years ago. The jury found guilty today." (Nov. 17, 2004)

Ulrich Melcher (GA, Varner, 1965-70; umelcher@biochem.okstate.edu; http://opbs.okstate.edu/~melcher/UM.html) "The most major scientific news from this laboratory is: the best is yet to come. Or so we hope. Funding is expected early next year to launch a major statewide effort in the area of plant virus biodiversity and ecology. Marilyn Roossinck and I assembled a group of Oklahoma researchers with interests in plant viruses, virus structure, ecology, genome sequences, and computational biology to participate in a theme area for the State's next round of NSF-EPSCoR. For our part, we will be developing an oligonucleotide array for the detection of plant viruses and using it to examine samples of plants from ecological plots at the Tallgrass Prairie Preserve in northeastern Oklahoma. It will be quite a challenge to show that we deserve the confidence shown in us with the likely funding!"

Natasha Raikhel (Faculty, 1986-2001; natasha.raikhel@ucr.edu; http://cepceb.ucr.edu/members/raikhel.htm) Natasha was awarded the Stephen Hales Prize for 2004 by the ASPB in recognition of her contributions to plant biology. Natasha is the fourth PRL faculty member to receive this prize: preceding her were Anton Lang in 1976, Hans Kende in 1998, and Jan Zeevaart in 2000. Natasha is also enjoying her last few months as Editor-in-Chief of Plant Physiology, a position she has held since 2000.

Klaus Raschke (Faculty, 1967-79; kraschk@gwdg.de) "After becoming professor emeritus in 1994, I enjoyed ten more years of research at the University of Goettingen, Germany, and of support by the Deutsche Forschungsgemeinschaft. Still interested in the functioning of the whole plant (to paraphrase the preamble to the foundation document of the MSA/AEC Plant Research Laboratory), I concentrated on mechanisms that are involved in the transfer of mass and energy between plant and environment, and in the flow of nutrients through the plant. The particular processes investigated in recent years were: control of anion channels in guard cells by ABA and CO_2, carbohydrate metabolism of guard cell chloroplasts, and the characteristics of anion channels and of the proton pump in the xylem parenchyma of the root. I still like to attend ASPB meetings because I

enjoy running into PRLers, past and present, and into students who enlivened my classes. . . . Meanwhile my wife, Gerda, relinquished her regular activities as a pharmacist. Our four grandchildren are evenly distributed between genders and also between the continents bordering the North Atlantic Ocean; we consider ourselves to be true NATO citizens, sharing worries and confidence."

Taken earlier this year by Ilya Raskin (GA, Kende, 1984) at the art gallery on the Princeton University Campus.

Stefan Rose-John (RA, Kende, 1983-84; rosejohn@biochem.uni-kiel.de; http://www.uni-kiel.de/Biochemie) "After earning a PhD at the University of Heidelberg, I joined the group of Hans Kende where I stayed during the years 1983 and 1984. Upon returning to Germany I made the decision to completely change fields (from plants to men) and I worked for three years in the German Cancer Research Center in Heidelberg. My work then focused on the regulation of gene expression in chronic inflammation and cancer. After three years I accepted a position equivalent to an assistant professor at the Department of Biochemistry of the University of Aachen in the West of Germany. Here I started to work on a family of inflammatory protein mediators called cytokines (not cytokinins). After four years I completed my habilitation, a degree required to become a professor at a German University. In 1994 I accepted a position as an associate professor at the University of Mainz and continued to work on the regulation of inflammatory states by cytokines. Since 2000 I am full professor and chairman of the Department of Biochemistry of the University of Kiel Medical School. Kiel is situated in Northern Germany. I still work on cytokines and cytokine receptors. We have constructed various designer cytokines, which turned out to be powerful therapeutic candidates for the treatment of inflammatory diseases and cancer. It has been a long way from studying deep water rice in Hans Kende's laboratory to try to understand human inflammation and cancer and to design proteins which interfere with cytokine receptors.

"Still, the excellent science I have experienced at the PRL has deeply influenced my attitude towards scientific research. Moreover I fondly remember the great time we had during the soccer season. I am very grateful to all people I interacted with at the PRL."

Margret Sauter (RA, Kende, 1989-94; msauter@bot.uni-kiel.de; http://www.uni-kiel.de/Botanik/) "It's been a long time since I left the Kende lab and the PRL—pretty much 10 years. After spending 9 years at the University of Hamburg, Germany, as a wonna be professor, I was appointed to full professorship a year ago by the University of Kiel. It is really nice to not have to worry about my own position any more."

Bernice Slutsky (RA, S. Somerville, 1989-90; Bernice.Slutsky@usda.gov) "Since leaving the PRL I have been working on policy, regulatory and trade issues associated with the use of biotechnology in agriculture. Most recently, I have accepted a position in the Office of the Secretary at USDA where I am the Department's advisor on biotechnology. It is an exciting opportunity because USDA is involved in so many aspects of using biotechnology, from research and development, regulatory issues, marketing issues, intellectual property rights, work with developing countries and trade. My experience at the PRL was invaluable in preparing me to work at the interface of science, the law and public policy."

Crispin Taylor (GA, Green, 1989-93; ctaylor@aspb.org; www.aspb.org) **"**As reported last year, I have rejoined the ASPB staff, this time—much to my surprise and gratification—as executive director. Also as anticipated, I have enormously enjoyed getting back in touch with plant scientists in general and PRL personnel, past and present, in particular. For example, instead of staying in an anonymous hotel in Reno when I visited the city for the ASPB Western Section meeting in October, I was invited to stay with my academic sister, Christie Howard, her husband Dave Shintani (both on the faculty at UN-R), and their daughter Elena. And at ASPB's annual meeting in July in Orlando, I managed to sneak away from "official business" to spend a delightful hour or two with Vladimir Orbovic, Sharon Thoma, Dave Horvath, Susie Hoffmann, Thea Wilkins and Larry Smart, all contemporaries at MSU.

"The point, of course, is that the PRL is a fantastic place at which to establish lasting networks, whether professional or personal. I hope that those of you who are ASPB members find that the Society serves the same purpose, albeit in a larger context—and those of you that are not yet members will consider joining soon!"

Jun Tsuji (GA, Shauna Somerville, 1987-92; jtsuji@sienahts.edu) "I am still an associate professor at Siena Heights University, a Catholic liberal arts college located in Adrian, Michigan. I recently published a book entitled, *The Soul of DNA: The True Story of a Catholic Sister and Her Role in the Greatest Scientific Discovery of the Twentieth Century* (ISBN 1595262067, Llumina Press). In short, *The Soul of DNA* describes the life and work of Sister Miriam Michael Stimson, OP, an Adrian Dominican sister who studied the structure of the DNA bases using infrared spectroscopy. More about the book can be found at the following website: http://www.llumina.com/store/thesoulofdna.htm."

Felix Winkenbach (RA, Wolk, 1972-73; f.winkenbach@bluewin.ch) retired, end of September, from the Swiss College of Agriculture, where he was a member of the Biology faculty for 29 years.

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