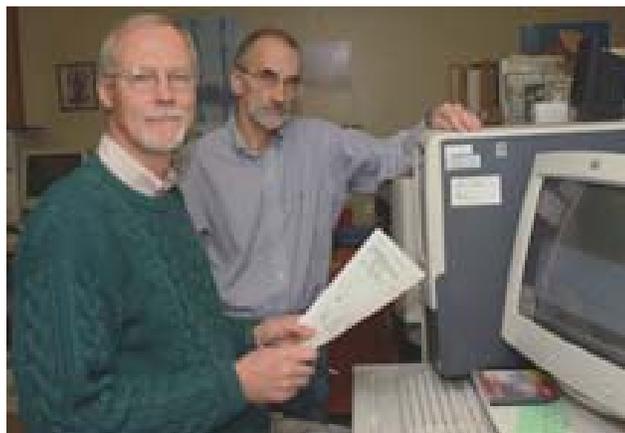


FSHN Leads the Way in Nutritional Sciences Research

FSHN faculty have always made exceptional contributions to research in their respective fields, and FSHN is back in the headlines this year. Early in 2004, two of our faculty were featured in Institute of Food and Agricultural Sciences news reports in recognition of their novel research findings.



Dr. Jess Gregory (left) and Dr. Andrew Hanson. Photo by Josh Wikham, courtesy of IFAS News.



Dr. Bobbi Langkamp-Henken. Photo by Thomas Wright, courtesy of IFAS News.

Dr. Jess Gregory, FSHN Professor, along with **Dr. Andrew Hanson**, Griffin Eminent Scholar from the UF Department of Horticultural Sciences, guide an international team of researchers that has begun untangling the genetic code behind folate production in plants. The implications of this discovery are very exciting: in the future, it may be possible to develop food crops that are inherently rich in folate, a vitamin that is essential for growth and development. In developing nations, where folate deficiency is a common problem, such crops could make an enormous difference in the health of communities.

If their research team can manipulate the genes that help produce folate in plants, then they can increase the amount of folate the plant produces. This type of genetic engineering, called “biofortification,” results in crops that are fortified with specific nutrients. Biofortification has already resulted in the creation of a rice crop high in beta-carotene, a source of vitamin A from plant-derived foods.

Here at the University of Florida, Drs. Hanson and Gregory have focused on the tomato plant. Not only are tomatoes consumed in many different cultures around the world, they are also often eaten raw. And since folate is unstable and can be lost when food is cooked, the tomato is thus an ideal choice for this type of research. Many other fruits and vegetables are also a good source of folate, including spinach, broccoli, beans and peas, avocados, oranges, and papayas.

(cont., page 3)

Dr. Bobbi Langkamp-Henken, FSHN Associate Professor, **Kelli Herlinger-Garcia**, FSHN Senior Biological Scientist, and multiple FSHN undergraduate volunteers are members of a UF team that studied how nutrition can help increase immune function in the elderly. Dr. Langkamp-Henken led a study on the effect of an experimental nutritional supplement on the ability of older persons to fight off influenza. Because flu shots are less effective in the elderly, they are considered an especially at-risk population during flu season.

Thirty-four participants with an average age of 83 participated in the study. One group was given the nutritional supplement beverage (a combination of various vitamins, minerals, antioxidants, fiber, protein and energy) as well as a low dose vitamin supplement for six months; another group was given a control beverage containing just protein and energy, and the low dose vitamin supplement. All participants were given the flu vaccine after the study began.

Results showed that 87% of participants who were given the nutritional supplement and finished the study

(cont., page 3)

In this issue:

Alumni Updates	2
Alumni Success Stories.....	3
Biofortified Tomatoes, cont.	3
Flu-Fighting Nutrition, cont.	3
Supplier’s Night	3
New Faculty	3
FSHN Achievements.....	4

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(choose "Bio Update")

Alumni Updates

Norman Matella (BS, 1999; MS, 2003) is pursuing a PhD in Food Science at Michigan State University.

Dr. Alexandra Marques de Oliveira (PhD, 2001) is on the faculty of the Fishery Industry Technical Center at the University of Alaska, Fairbanks. She conducts research in seafood processing and advises graduate students in the Seafood Science and Technology program.

Kristen Degennaro (BS, 2003) was accepted into the St. Louis University School of Medicine.

Elba Rodriguez (BS, 2003) was accepted into the ARAMARK Metropolitan Dietetic Internship in New York.

Sara Tacy (BS, 2003), was accepted into the Oakland County Health Division Dietetic Internship in Michigan, focusing on community nutrition.

Dr. Trevor Gentry (BS, 1996; MS, 1999) completed a PhD under **Dr. John Roberts** (BS, 1993; MS 1994) at Cornell University and is now working in food engineering and chemistry for the USDA Agricultural Research Service in Hawaii.

Shawn Sprankle (BS, 1998; MS, 2001) is doing product development for SunPure here in Florida. **Dr. Francis Antoine** (PhD, 2000) and **Deena Rogers** (BS, 2001) are also at SunPure.

Gabriel Cosenza (BS, 1999) completed an MS in Animal Science here at UF and is now continuing on in the PhD program in Animal Science.

Dr. Diego Luzuriaga (BS, 1993; MS, 1995; PhD 1999) is working for Givaudan Roure.

Minna Leibovitz (BS, 2001; MS, 2003) is working for Anheuser-Busch in Jacksonville. Congratulations go out to both Minna and her fiancée, **Simon Schuster**, who will be getting married this November.



Simon Schuster and Minna Leibovitz, UF graduation spring 2003.

Erin Goggins (BS, 2001) was accepted into UF's Physician Assistant master's program.

Gail Rampersaud (BS, 1997; MS, 1999) is an Assistant In faculty member in FSHN, providing support for research and education on nutrients in citrus and developing educational programs on folic acid.

Some FSHN alumni pursuing master's degrees here in FSHN: **Jeffrey Bobo** (BS, 2000), **Stephanie Hoke** (BS, 2002), **Louis Lichten** (BS, 2002), **Nineveh Ludlow** (BS, 2001), **David Mantilla** (BS, 2002), **C. J. Nieves** (BS, 2000), **Troy Pitts** (BS, 2001), **Jennifer Scheer** (BS, 2000).

FSHN Alumni currently pursuing a PhD in FSHN include: **Bryan Boynton** (BS, 1996; MS, 1999), **Melissa Jones** (BS, 2001), and **Benjamin Warren** (BS, 1998; MS, 2003).

Dr. Renée Goodrich (PhD, 1996), Assistant Professor here in FSHN, is the current Chair-Elect for the Florida Section of the Institute of Food Technologists. Located at the Citrus Research and Education Center in Lake Alfred, her research focuses on juice chemistry and processing.



Dr. Renée Goodrich

Liv Bader (BS, 1997; MS, 2003) and **Andre Reodica** (BS, 2003) are with Bacardi in Jacksonville.

Dr. Sara Rathman (PhD, 2003) accepted a post-doc position with NASA.

Michael Herman (BS, 2001) is pursuing a master's degree in Health Services Administration here at UF.

Danielle Pires (BS, 2001; MS, 2003) now works for The Father's Table, a frozen dessert company in Orlando.

Saad Sebbana (BS, 1999; MS, 2001) works for PIC USA in Kentucky.

Melissa Kirby (BS, 2001; MS, 2002) is a food scientist with ACH Food Companies, Inc. in Memphis, Tennessee.

Dr. Haejung An (PhD, 1989) is an Associate Professor in the Department of Food Science and Technology at Oregon State University.

Dr. Figen Korel (PhD, 2000) is now Assistant Department Chair in the Food Engineering Department in Manisa University, Turkey.

Did we leave you out, or is our information outdated? Please drop us a line (see box, top left).

Alumni Success Stories – Scott King

Scott King graduated in 2000 with his BS in Food Science. A very active student, Scott served as the Vice President of Food Science for the Food Science and Human Nutrition Club in 1998-1999, the Social Chair for the FSHN Club in 1999-2000, and participated in Institute of Food Technologists College Bowl competitions in 1999 and 2000. Scott was also the recipient of the FL Section Institute of Food Technologists Grady W. Chism Jr. Memorial Scholarship in 1999, and the Southeastern Food Processors Association Scholarship in 2000.



After graduation, Scott went to work for PIC USA, a subsidiary of Sygen International, in Kentucky. After two successful years at PIC, he was offered and accepted a Quality Supervisor position with Kellogg's in Pikeville, Kentucky. Just this spring, he was promoted to Plant Quality Manager and is now the youngest person to hold this position in Kellogg's North America. Scott is responsible for

managing the plant's quality assurance and food safety programs. He also supervises the lab technicians and sanitarians.

Scott tells us he loves working for Kellogg's. He says they have a fantastic corporate philosophy, and the fact that they are one of the largest food companies in the United States is a testament to their continuous efforts to produce high quality food products, encourage employee development, and keep the consumer happy.

Scott admits that one of the attractions of this particular job was the location. For someone who enjoys camping, hiking, fishing, and mountain biking, eastern Kentucky offers a wealth of recreational opportunities.

We all look forward to seeing Scott and other alumni every year at the Institute of Food Technologists Annual Meeting. It's a chance to catch up with old friends and find out where our alumni have gone. If you see Scott King in Las Vegas this July, please join us in congratulating him on all his successes!

Research, continued from page 1

Biofortified Tomatoes

Aside from increasing folate synthesis, another goal is to prevent the natural reduction of folate in ripening tomatoes, particularly in the edible fruit itself. It is hoped that continued research will pave the way for folate biofortification and thus improved health around the globe.

Flu-Fighting Nutrition

showed a fourfold increase in antibodies, indicating that the elders were responding to the flu vaccine. Those participants drinking the experimental formula also suffered fewer days of flu-like symptoms than the control group – 78 total days compared to 156 total days.

This study is important for many reasons. Previous studies have shown that nutrient deficiency can negatively impact immune function and thus the body's response to vaccines, but in this study Langkamp-Henken made the link between good nutrition and a specific clinical outcome. For health practitioners, this is clear evidence that good nutrition can not only help the elderly respond better to flu vaccines, but may also help reduce days of cold and flu symptoms. This is especially important because this study found that only 12 of the 34 participants regularly took vitamins prior to the study.

Although the liquid supplement used in this study is not available to the general public, Langkamp-Henken suggests that all seniors should take an inexpensive, commercially available multi-vitamin supplement. All evidence suggests that this one simple step may help keep our senior citizens in better health.

Supplier's Night Update

This year's FL Section Institute of Food Technologists' Supplier's Night was held on February 26th in Orlando. Many students from the FSHN Club volunteered to help at the event, and in return FL Section generously agreed, as they do annually, to support the FSHN Club financially for the upcoming year. FL Section IFT student reps **Gillian Folkes** (PhD student working with **Dr. Murat Balaban**) and **David del Pozo Insfran** (PhD student working with **Dr. Steve Talcott**) organized and supervised the undergraduate volunteers, and a special thanks goes out to all the students who worked so hard to support the FSHN Club and FL Section. FSHN is grateful for the many professional opportunities IFT offers to our students.

Newest Faculty Addition



Please join us in welcoming **Dr. Mitch Knutson** to the FSHN Department. Dr. Knutson received his BS from Iowa State University in 1992 with a double major in French and Biochemistry, and his PhD in Nutrition from the University of California, Berkeley in 1998. He comes to us most recently from the Harvard School of Public Health Department of Nutrition, where he was a Postdoctoral Fellow for several years. Dr. Knutson's research focuses on the biochemical and molecular mechanisms of iron transport and nutrition, and he has published and presented numerous studies in these areas. With years of classroom experience, both at Berkeley and Harvard, Dr. Knutson will teach a FSHN graduate course in Advanced Human Nutrition and is also developing a new course for Nutritional Sciences undergraduates on laboratory techniques in nutrition research. He will also serve as a faculty advisor to students in Nutritional Sciences.

FSHN Achievements

April Elston, PhD student working with **Dr. Russell Rouseff** (professor) was awarded the Donald A. Withycombe Graduate Fellowship in Food Chemistry from the American Chemical Society (ACS). This is a one-time fellowship award of \$2500 given to promising food chemistry students, and she received this award last fall at the National ACS meeting in New York City. April also received a Hunt Brothers Fellowship, funded by an endowment established by the **Frank and Ellis Hunt** families in Lake Wales, FL to support graduate research at the Citrus Research and Education Center. April's graduate research focuses on flavor chemistry to improve citrus juice quality and establishing the importance of various compounds on flavor as a basis for creating tests to measure quality.

Wendy Bell, MS student also working with **Dr. Russell Rouseff**, was recently awarded the Herlong Endowed Graduate Scholarship. Funded by an endowment established by Leesburg citrus growers **Mr. and Mrs. Byron Herlong**, this scholarship recognizes Wendy's work in the area of grapefruit juice off-flavors. She is studying the effects of thermal processing on citrus juice flavor by analyzing changes in chemical components, with particular emphasis on the furan class of compounds.

David del Pozo Insfran, PhD student working with **Dr. Steve Talcott**, was the 1st place winner of the Food Chemistry Division Research Paper Competition at the IFT Annual Meeting in Chicago last year. He was also the 2nd place winner of the 2003 George F. Stewart International Research Paper Competition, and he represented the US at the "Preparing to be Leaders of the Future" conference in the 12th World Congress of Food Science and Technology in Chicago.

Juanita "Nita" Bagnall, FSHN Chemist, received an Institute of Food and Agricultural Sciences Superior Accomplishment Award this year honoring her outstanding contributions to FSHN in 2002-2003. Nita works in **Dr. Harry Sitren's** (FSHN Graduate Coordinator) laboratory, but last year she also acted as graduate secretary when that position was vacant, assisting FSHN graduate programs and students as needed. Please join us in thanking Nita for her dedication to FSHN.

Each year, FSHN chooses one 4th year undergraduate from each of its three academic specializations to receive an Outstanding Senior award. This year, the Outstanding Food Science Senior is **Lanier Fender**. Lanier has been academically successful, and is active in many professional activities including the UF Food Product Development Team and the UF Dairy Judging Team. The Outstanding Dietetics Senior is **Kelli Notestine**. Kelli is the current Treasurer of the FSHN Club, has donated a great deal of her time to volunteer and extracurricular activities, and has an outstanding GPA. The Outstanding Nutritional Sciences Senior is **Zameera Fida**. Zameera is President of the Pre-dental American Student Dental Association, has demonstrated leadership in several other campus organizations, and is an excellent student. Congratulations go out to all three of these exceptional students!

Dr. Robert Braddock, FSHN Professor, received the Institute of Food Technologists Citrus Processing Division Research and Development Award at the 43rd Citrus Processing Short Course in Clearwater Beach last fall.

Dr. Roger Darros-Barbosa (PhD, 2003) was just awarded the Institute of Food and Agricultural Sciences (IFAS) 2004 Award of Excellence for Graduate PhD Research, recognizing his dissertation as the best in all of IFAS. He is now an Assistant Professor in the Food Engineering & Technology Department at Unesp-Paulista State University in Sao Paulo, Brazil. And **Benjamin Warren**, MS student working with Dr. Mickey Parrish and Dr. Keith Schneider, won the IFAS 2004 Award of Excellence for Graduate MS Research in recognition of his outstanding master's thesis as the best in IFAS. Ben is continuing on for his PhD in FSHN.



Left: FSHN Food Product Development Team, 2004 (L-R): **Lanier Fender, Danielle Bogan, David del Pozo Insfran, Morgan Phares, Allison Flores.**

Right: FSHN Dairy Judging Team, 2004 (L-R): **David del Pozo Insfran, Allison Flores, Dr. Ron Schmidt (coach), Lanier Fender, Morgan Phares.**



Please join us in congratulating the FSHN and Institute of Food Technologists (IFT) scholarship winners for the 2003-2004 academic year. FL Section IFT winners are PhD student **Benjamin Warren** and undergraduates **Sean Altenbach** (Nutritional Sciences), **Danielle Bogan** (Food Science), and **Allison Flores** (Food Science). Food Science undergraduate **Christopher Duncan** won a national IFT scholarship, and PhD student **April Elston** won a Virginia Dare Scholarship. FSHN undergraduate scholarship winners are: **Nyima Ali** (Nutritional Sciences), **Danielle Bogan** (Food Science), **Kelly Brook** (Nutritional Sciences), **Taylor Cookingham** (Food Science), **Cristin Cuozzo** (Dietetics), **Laura Heverling** (Dietetics), **Sara Langmaack** (Nutritional Sciences), **Joy Mueller** (Nutritional Sciences), **Nicole Sammons** (Nutritional Sciences), **Mari Takeda** (Nutritional Sciences), **Vincent Yeung** (Nutritional Sciences), and **Kristine Yu** (Food Science). Two brand new scholarships were awarded through FSHN this year: the **Eugene E. Woodward Memorial Scholarship** (awarded to Vincent Yeung) and the **Robert P. Bates Scholarship** (awarded to Taylor Cookingham).

Laura Heverling, Dietetics junior, received the Sue Young Scholarship from the University Women's Club this year. **Nicole Sammons**, a Nutritional Sciences junior who is in the UF Junior Honors Medical Program, won the Gamma Sigma Delta Undergraduate Scholarship this year.

Dr. Gail Kauwell has been promoted to full Professor.

On February 16th 2004, FSHN, in cooperation with ABC Research Corporation, held the 1st annual Scramble for Scholarships. Thanks to golf tournament participants and generous donations from ABC Research Corporation, Florida Food Products, Syngenta Crop Protection, Darden Restaurants, and DuPont/Qualicon, \$15,000 was raised from the tournament to provide graduate scholarship assistance to FSHN. Five teams (17 people) played in this year's event, and most participants shared in the more than \$1500 in total prizes awarded.