

# Nutritional Sciences News

Division of Nutritional Sciences University of Illinois at Urbana-Champaign

VOLUME 10 NUMBER 1 FALL 1997

## · A Word from the Editor ...

Welcome to the Fall, 1997 edition of Nutritional Sciences News. Thank you to all the alumni, faculty and students who were so prompt in providing me with the requested information. I am especially indebted to Linda Barenthin for all her help with bringing this edition together. This being my last year at the U of I, I am looking forward to joining the ranks of our alums in 1998. I wish you all a happy and most successful year!

Sincerely,

Tracy A. Gautsch

## · From the Director ...

Time moves so quickly; here is another issue (our 10th) of the Nutritional Sciences News. For you early Nutritional Sciences graduates, we will celebrate our 30th year in 1998. Some of us older folks are beginning to receive our AARP cards. Time does move on but as you will see below, things don't stay the same.

This past year has been a busy and exciting one for the Division. We have a new, larger and remodeled office (449 Bevier Hall) and have turned 451 into a small conference room. We continue to add faculty to the Division and expand our research horizons. We also continue to send forth the best and the brightest of graduates to academia and industry.

Readers of Nutrition News will remember that the Division sponsored a symposium in honor of Willard Visek in 1992. At that time, a Willard J. and Priscilla F. Visek Lectureship fund was established at the University of Illinois Foundation. As a result of generous contributions to the fund, the first Visek Lectureship was presented in September to honor Willard on his 75th birthday. Robert Russell, MD, from Tufts University presented an excellent lecture entitled "Nutrient Requirements for a Global Aging Population" to a large audience. Depending upon further contributions, we hope to make this a yearly event (contact me at j-erdman@uiuc.edu for further information).

The Division hosted a highly-successful reception this past April at the Experimental Biology meetings in New Orleans. Over 80 current and past Nutritional Sciences students and faculty were in attendance. This year, look for us again in San Francisco at EB '98. We will host a mixer at the San Francisco Marriott from 6:30 - 8 p.m. on Monday evening (April 20). Look for us in the program. Hope you can attend!

I have been serving an additional role for the College of Agricultural, Consumer and Environmental Sciences for most of the year. I am Interim Associate Dean for Research while the College completes a search for this position. I want to thank many of the faculty, especially Sharon Donovan, for picking up some of the work for the Division while a lot of my efforts are going in that direction. We hope a new associate dean will be named by early Spring.

Tracy Gautsch has done a great job as Newsletter editor for the last two years. We will miss her as she moves on in her career.

Thanks for so many of you sharing your latest activities with us. We have a very successful and productive group of graduates and I look forward to hearing from all of you.



John W. Erdman, Jr. Director

Linda showing off the new and improved Nutritional Sciences office.

## External Advisory Committee

Each year the Division of Nutritional Sciences is evaluated by an External Advisory Committee. Committee members are selected by the Division from industry and academe around the nation to provide outside viewpoints on the quality and emphasis of the NS program. The Division would like to thank the following individuals who concluded their tenure on the committee in 1996-97:

Dr. Sandra J. Bartholmey Manager of Nutritional Science Gerber Products Company

Dr. Robert J. Collier
Dairy Research Director & Senior Fellow
Monsanto Agricultural Company

Dr. Doris Lennon-Thompson Associate Director RTE Technology, Desserts Division Kraft-General Foods Technical Center

Additionally, we would like to acknowledge the continuing committee members for the 1997-98 academic year (\* new member):

Dr. Robert A. Burns
Director, Nutrition Sciences
Mead Johnson Nutritionals

Dr. Steven L. Ink \*
Director, Research and Services
Quaker Oats Co.

Dr. Guy H. Johnson Director of Nutrition The Pillsbury Company

Dr. Patricia Kreutler \* Kraft Foods, Inc.

Dr. Eric L. Lien Senior Director, Nutritional Research Wyeth-Ayerst Laboratories

Dr. Alfred H. Merrill, Jr. \*
Professor of Biochemistry
Emory University School of Medicine

Dr. Robert M. Russell
Associate Director
USDA Human Nutrition Research Center for
Aging, Tufts University

Dr. Richard G. Shields, Jr. Central Manager, Nutrition Heintz Pet Products

Dr. Kenneth T. Smith
Associate Director
Food & Beverage Technology Division
The Procter and Gamble Company

Dr. Gilbert Leveille Leveille Associates

The Division thanks all members past and present for their time and effort in assisting Nutritional Sciences to continue to improve its high caliber program.

# <u>Invited Lecturers Present</u> <u>Seminars</u>

The 1996-97 academic year was an exciting year for the Nutritional Sciences seminar series. Thirteen distinguished scientists from academia, industry and government spoke on a wide range of topics. Dr. David West, Associate Professor in the Department of Obesity, Diabetes and Metabolism at the Pennington Biomedical Research Center, Louisiana State University, spoke on "Dietary Obesity and Genetics in the Drs. Eric Lien, Doris Lennon-Thompson and Gilbert Leveille, members of the NS External Advisory Committee, chaired a special session for graduate students only, entitled "What Do Nutritional Scientists Do in Industry?". Dr. Frank Kari, a toxicologist at the National Institute of Environmental Health Sciences in Research Triangle Park, NC, and graduate of the Division of Nutritional Sciences, presented "Nutritional Issues in Contemporary Toxicology: Applied and Mechanistic Studies". Dr. Michael Prochazka, M.D., a research scientist in the Phoenix Epidemiology and Clinical Research Branch of the NIDDK at Phoenix, AZ, discussed "Genetic Studies of Insulin Resistance and Non-Insulin-Dependent Diabetes Mellitus in the Pima Indians of Arizona". Dr. Greg Reinhart, Director of Research at the IAM.S. Co., Lewisburg, OH, presented "Nutrition of the Ultimate Athlete: The Iditarod Sled Dog". Dr. Simin Meydani, Chief of the Nutritional Immunology Laboratory, Human Research Center on Aging, Tufts University, Boston, MA, lectured about "Vitamin E Enhancement of Immune Response in the Clinical Implications and Molecular Mechanisms". Dr. Doris Olander, Professor in the Department of Veterinary Science at the University of Wisconsin, Madison, discussed "The BSE Story: Implications for Animal and Human Nutrition". Dr. Denise Ney, Associate Professor, Department of Nutritional Sciences, University of Wisconsin, Madison, spoke on "Insulin-like Growth Factor-I: Response During Total Parenteral Nutrition".

Dr. Connie Weaver, Head of the Department of Foods and Nutrition at Purdue University co-presented "Dietary Reference Intakes (DRI's): The RDAs of Tomorrow" with our own **Dr. John** Erdman. Dr. Steven Zeisel, Chairman of the Department of Nutrition at the University of North Carolina, Chapel Hill, NC, spoke on "Choline and Apotosis: Importance in Cancer and Brain Development". Finally, Dr. Diane F. Birt, Professor in the Department of Pharmaceutical Sciences and the Department of Biochemistry and Molecular Biology, University of Nebraska Medical Center, Omaha, NE, presented "Glucocorticoid Mediation of Cancer Prevention by Dietary Energy Restriction" as the keynote address at Nutrition Symposium '96.



The Division of Nutritional Sciences welcomed three new faculty members this past year. Dr. Lee Beverly, Assistant Professor in the Department of Animal Sciences (Ph.D., 1987), investigates regulation of energy balance/food intake; effect of nutrients on central nervous system function; central regulation of nutrient homeostasis; central regulation of growth. Dr. William Helferich, Associate Professor of Food Science and Human Nutrition, (Ph.D., 1984) arrived from Michigan State University in January. He studies food safety and toxicology and anti-oxidant action of chemicals in foods, with emphasis on phytochemicals which alter progression of breast cancer. Dr. Bryan White, Professor of Microbiology, Department of Animal Sciences (Ph.D., 1982), researches gastrointestinal microbiology; biochemistry and genetics of plant cell wall degradation by anaerobic microorganisms; gene transfer in systems in gram positive bacteria; molecular microbial ecology. Warm wishes are extended to all three new members!

## Faculty Professional Activities

- Dr. David Baker is Chair of the ASNS Long-Range Planning Committee and Chair of the Borden Award Selection Committee.
- was appointed to chair the Gerontological Nutritionists Publicity Committee of the Gerontological Nutritionists Practice Group of the American Dietetic Association.
- Dr. Sharon Donovan is an elected member of the ASNS Nominating Committee for Elected Officials and an elected member of the Executive Committee of the International Society for Research on Human Milk and Lactation. She was appointed by the President of the International Society for Insulin-like Growth Factor Research to serve as a member of their Membership Recruitment Committee. Additionally, she continues as Regional Editor for the Dateline North section of the "ASNS Nutrition Notes" and continues to serve as an Editorial Review Board Member for "Fast and Healthy", a bimonthly health and nutrition magazine published for the lay public by Pillsbury.
- Dr. James Drackley serves on the Editorial Board of the Journal of Dairy Science. He is President of the Midwest Branch of American Dairy Science Association for 1997-1998, and is a member of the Journal Management Committee, American Dairy Science Association.
- appointed to the Nutrition Committee of the American Heart Association. He continues as Vice-chair of the Food and Nutrition Board of the Institute of Medicine where he also serves as Vice-chair of the standing committee that oversees the revision of the RDA's. He serves on Nutrition advisory committees for several groups including ILSI and the United Soybean Board.

- Dr. George Fahey, Jr. serves as an Editorial Board member for the Journal of Nutrition. He is a member of the Committee on Animal Nutrition of the National Research Council and the Animal Nutrition Committee of the American Society for Nutritional Sciences. Additionally, he serves as Chair of the Peer Review Panel for C-FAR proposals.
- Dr. Rex Gaskins serves on the Editorial Board of the Journal of Nutrition and Animal Biotechnology. He is a member of the Grant Review Panel, Genetic Mechanisms and Gene Mapping, USDA, and of the National Research Initiative Competitive Grants Program.
- Dr. Donald Layman served on the Board on Agriculture FY98 Budget Committee which develops the federal USDA budget recommendations for the National Association of State Universities and Land Grant Colleges (NASULGC). He also served on the NASULGC Board on Human Sciences.
- Dr. William O'Brien continues as Editor-in-Chief of IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control. He was Chair of the 1997 Non-Thermal Ultrasonic Bioeffects Conference for the American Institute of Ultrasound in Medicine.
- Dr. Neal Merchen is Chair of the UIUC Campus Laboratory Animal Care Advisory Committee. He also serves as Editor of the Ruminant Nutrition-Pasture and Forage Utilization section of the Journal of Animal Science.
- **Dr. James Robinson** serves as a reviewer for the *Journal of Nutrition* and the *Journal of Dairy Science*. He maintains his dedication to teaching and organizing NS 411 as well as instructing ANSCI 150 and serving as Discussion Leader for ACES 100.

# Faculty Professional Activities continued

- Dr. Willard Visek is completing his 8th and final year as Editor of the Journal of Nutrition.
- Dr. Matthew Wallig is on the Editorial Board for Fundamental and Applied Toxicology.
- Dr. Bryan White is on the Editorial Board of Applied and Environmental Microbiology and Animal Biotechnology. He was an invited panelist for the "Sponsored Project Workshop for Tenure-Track Faculty Members" in the Grants and Contracts Office, UIUC. He is a member of several committees, including the Graduate Education Policy Committee for the College of ACES and the Graduate College Executive Committee. Additionally, he is Panel Manager for the Department of Agriculture-National Research Initiative, Competitive Research Grant Program, Improving Animal Growth and Development, Grant Review Panel.



Dr. Karen Chapman-Novakofski has been promoted with tenure to Associate Professor of Nutrition.

Dr. Sharon Donovan was the recipient of the prestigious Mead Johnson Research Award from the American Society for Nutritional Sciences at the 1997 Experimental Biology meeting in New Orleans, LA. She also chaired the "Regulation of Growth: Hormonal and Metabolic" minisymposium at EB 97. Further, she received the College of ACES Excellence in Research Award for 1997. She

has been promoted with tenure to Associate Professor of Nutrition.

"Agway Inc. Young Scientist Award" from the American Dairy Science Association.

Dr. John Erdman, Jr. presented the Lydia J. Roberts Lecture at the University of Puerto Rico. He was also named Senior University Scholar for the University of Illinois.

Dr. George Fahey, Jr. was the recipient of the 1997 Distinguished Alumnus Award from the College of Agriculture, Forestry, and Family Resources, West Virginia University.

Por. Rex Gaskins was appointed Fellow in the Center for Advanced Study, UIUC, for 1996-97. He has been promoted to Associate Professor with tenure.

Dr. Rodney Johnson was appointed Fellow in the Center for Advanced Study, UIUC, for 1997-98.

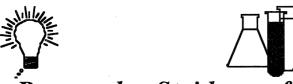
Dr. Donald Layman will chair the ASNS Exercise minisymposium at the 1998 EB meeting in San Francisco, CA.

Dr. Neal Merchen received the 1997 American Feed Ingredients Association Award for Ruminant Nutrition Research from the American Society of Animal Science.

Dr. William O'Brien was awarded Honorary Membership in the Society of Vascular Technology, and was selected to be the 1997-98 IEEE Ultrasonics, Ferroelectrics and Frequency Control Society Distinguished Lecturer. Additionally, he was elected to the faculty of the Functional Foods for Health Program, UIUC.

Dr. Willard J. Visek was the recipient of the University of Chicago Medical and Biological Sciences Distinguished Service Award for 1997. He also received an Alumni Achievement Award for 1997 from the University of Nebraska.

Dr. Bryan White received the 1997 H.H. Mitchell Award for Excellence in Graduate Teaching and Research from the Department of Animal Sciences, UIUC. He is co-editor of "Gastrointestinal Microbiology" volumes 1 and 2.



# <u>Research Strides of</u> <u>NS Faculty</u>

- of a C-FAR grant, entitled "Mechanism of Action of Vitamin D<sub>3</sub> Analogs in Releasing Phytate-Bound Minerals from Soy". He also has received funding from the U.S. Poultry and Egg Association to investigate "Maintenance Requirement and Efficiency of Utilization above Maintenance of Lysine and Sulfuramino Acids in Broiler Chickens".
- Novakofski received a grant from the Illinois Affiliate of the American Heart Association to continue research in bilingual nutrition intervention to reduce CVD risk. She also received a grant from C-FAR to implement a Nutrition Conference targeting the elderly in order to network private, public, and academic organizations interested in the health of the elderly.
- Dr. James Drackley received a C-FAR grant, entitled "Minimizing Protein in Calf Milk Replacers to Decrease Cost and Nitrogen Excretion". He also received value-added funds from the State of Illinois to explore the question "Can the Content of the Anti-Cancer Compound, Conjugated Linoleic Acid (CLA) Be Increased in Milk and Beef?"
- **Dr. John Erdman, Jr.** along with collaborator and Nutritional Sciences graduate Steven Clinton, M.D., Ph.D., from the Dana Farber Cancer Institute received NIH funding to evaluate the role of tomato products in the reduction of experimental prostate cancer.

- Dr. George Fahey has received funding from Abbott Labs to analyze resistant starches in foods and feeds. He also received support from the Iams Co. to investigate serum and skin fatty acid profiles as affected by fat source in dog diets. Additionally, he and Dr. Neal Merchen have received a grant from Zinpro Corp. to investigate the "Influence of feeding rumen-protected amino acids on postruminal supply of lysine and methionine in growing steers". Finally, he was the recipient of a grant from the United Soybean Board to study "Soyhulls as a Fiber Source in Dog Diets".
- Dr. Timothy Garrow was the recipient of a NIH R29 FIRST AWARD to study "Regulation of Betaine-Homocysteine Methyltransferase (BHMT) Expression". He is also coprincipal investigator on a NIH R01 Grant to investigate "Genetic Risk Factors for Hyperhomocysteinemia".
- Drs. Rex Gaskins, Roderick Mackie and Bryan White are coinvestigators on a C-FAR grant, entitled "Symbiotic Therapy: Alternative Strategy to Reduce Dependence on Antibiotic Prophylaxis in the Diet of Weaning Pigs" and on a UIUC Research Board Award, entitled "Fluorescentlylabelled, rRNA-targeted Oligonucleotide Probes for in situ Identification of Specific Bacteria in the Gastrointestinal Tract". Dr. Rex Gaskins additionally received a grant from the USDA Animal Health Formula Funds to investigate "Molecular and Cellular Characterization of the Pig CD1 Family".
- P Dr. Rod Johnson was the recipient of a NIH R29 FIRST AWARD to investigate "IL-1\B in the Pathophysiology of Anorexia in Aging".
- Dr. William O'Brien received a U.S. Army Construction Engineering Research Laboratory grant, entitled "Subsurface Acoustic Imaging of Cultural Artifacts" to develop acoustic imaging techniques which can detect and depict subsurface cultural artifacts.

## Research Strides...continued

- Dr. James Robinson has received a USDA Health and Disease grant to study Bovine Factor XI Deficiency.
- Dr. Neil Shay has received awards from the State of Illinois value-added program and the Council for Food and Agriculture Research to pursue work investigating molecular mechanisms responsible for the hypolipidemic effect of soy intake.
- Dr. Keith Singletary has entered into a new research area: investigating the chemoprotective effect of soy isoflavones on breast cancer.
- Dr. Jeff Woods was awarded a NIH R29 FIRST AWARD to study "Exercise as a Means of Improving Immunity in the Aged".
- Dr. Bryan White received a C-FAR grant this year to investigate "Isolation of Novel Bacteria and Products of Biotechnological Importance to the Food and Energy Industry".

# International Activities of NS Faculty

- Dr. David Baker was an invited speaker at the Western Nutrition Conference in Winnipeg, Manitoba.
- Dr. John Erdman, Jr. presented the conference summary at the International Symposium on Carotenoids in Leiden, Netherlands, and at the Second International Symposium on Soy and Health Prevention in Brussels, Belgium. He also participated in a debate at the International Congress on Nutrition in Montreal, Quebec.
- "Nutritional Modulation of Systemic and Mucosal Immunity in Livestock" at the 5th International Symposium on Animal Nutrition in Kaposvár, Hungary. He also presented "Toward a Molecular and Cellular Understanding of Host-Intestinal Microbiota Interactions" at the University of Lund and Probi in Lund, Sweden. Further, he spoke on "Developmental Immunobiology of the Pig Intestine" at the International Conference on Progress in Pig Science in Loghborough, UK.
- Dr. Timothy Garrow was invited to speak on "Nutrient and Hormonal

- Regulation of Hepatic Betaine-Homocysteine Methyltransferase Expression in Rats" at the 11th International Symposium on Chemistry and Biology of Pterins and Folates in Berchtesgaden, Germany.
- Dr. Keith Singletary presented research on the inhibition of mammary tumorigenesis by the environmental contaminant benzyl butyl phthalate (a plasticizer in food wrappings) at the International Agency for Research on Cancer Conference, in Budapest, Hungary.
- Dr. Bryan White was Chair of the "Carbohydrate Metabolism and Utilization" satellite symposium at the 8th Animal Science Congress of the Asian-Australasian Association of Animal Production in Kyoto, Japan. He was also an Invited Plenary Speaker at this meeting and spoke on "Rumen Microorganisms, Digestion and Productivity in Ruminants" as well as "Cellulase and Xylanse Genes from Rumen Bacteria".
- Dr. Jeff Woods was invited to speak on "Exercise and Resistance to Neoplasia" at the International Symposium on Exercise and Immune Function in Toronto, Canada.



## Invited Lectures and Presentations by NS Faculty

- Dr. David Baker was an invited speaker at the California Nutrition Conference, the Maryland Nutrition Conference, and the Minnesota Nutrition Conference. Additionally, he gave the keynote speech at the 14th Annual Biokyowa Amino Acid Conference in St. Louis, MO.
- Dr. Sharon Donovan was invited to present "Intestinal Effects of Orally Administered Insulin-like Growth Factor-I in the Neonatal Piglet" to the Division of Foods and Nutrition and Department of Animal Science at Purdue University, as well as to the Department of Nutrition and Department of Animal Science at the University of Connecticut.
- **Dr. James Drackley** was invited to present "New Perspectives on the Protein Requirements of Preruminant Calves" at the 1997 Annual Meeting of the Midwest ADSA/ASAS, Des Moines, IA.
- Dr. John Erdman, Jr. presented a number of lectures including those at the University of California, Berkeley, the USDA Western Human Nutrition Research Lab, the American Heart Association and the American Society of Parenteral and Enteral Nutrition.
- Dr. George Fahey, Jr. was invited to speak on "Functional Food Properties of Non-Digestible Carbohydrates" to the Graduate Program in Nutrition at Pennsylvania State University. Additionally, he presented "The Nutritional Value of Alternative Raw Materials Used in Pet Foods" and "Nutrition Research with Petfood Implications" at Petfood Forum '97.
- Dr. Timothy Garrow gave invited talks on the regulation of betaine-homocysteine methyltransferase (BHMT) on three separate occasions: to the Laboratory of Mechanisms of Ocular Diseases at NIH, to the Department of

- Chemistry and Biochemistry at the University of Texas at Austin, and at a FASEB summer research conference on "Folic Acid, Vitamin B12 and One-carbon Metabolism" in Saxton River, VT.
- Dr. Rex Gaskins was invited to present "Developmental Ecology of the Neonatal Intestine-An Overview" at the annual EB meeting in New Orleans, LA. He also spoke on "Ecological Immunity of the Mammalian Gastrointestinal Tract" at the Third Annual Midwestern Molecular Microbial Ecology Meeting in Milwaukee, WI, and on "Gut Reactions (or lack thereof) and Growth of the Developing Pig" at the Annual Meeting of the American Society of Animal Science in Rapid City, SD. Additionally, he spoke on "Bugs and Guts: Balance of the Dyad" to The Jackson Laboratory in Bar Harbor, Maine. Finally, he presented invited seminars at the University of Illinois-Chicago, the University of Pennsylvania and the Texas A & M University.
- **Dr. William O'Brien** was invited to speak on "The Output Display Standard: Clinical Implications" at the national meeting of the American Institute of Ultrasound in Medicine in San Diego, CA.
- **Dr. Keith Singletary** was invited to speak on "Cancer Chemopreventive Agents from Spices" at the 1997 Functional Foods Program Annual Conference.
- **Dr. Bryan White** gave invited presentations on "Diverging and Emerging Microbes" and "Genetics of Cellulose Degradation by Ruminal Bacteria: Recalcitrant Microbes that Degrade a Recalcitrant Substrate" at the Zia Symposium on Molecular and Cellular Biology, New Mexico State University. He was also invited to speak on "Cellulose Degradation by *Ruminococcus* Species: Genetics, Physiology and Ecology" to the Department of Microbiology at Michigan State University.

# Faculty Et Cetera

- Dr. Karen Chapman-Novakofski enjoyed a summer of slow-pitch softball with daughter, Elizabeth, and T-ball with son, Scot.
- Dr. Rex Gaskins celebrated a personal record sweet corn harvest this season!
- Dr. Donald Layman will be on sabbatical leave for the 1997-98 school year at Ohio State University, returning full-time to the faculty role in Fall, 1998.

# Stepping into the 21st century with The Virtual Classroom Interface (VCI)...

...and leading the way is NS faculty member Dr. Shelley Schmidt, who is using this web based classroom application to teach over 175 students each semester in Introductory Food Science and Human Nutrition (FSHN 101). VCI is a frame-based software application that was designed and launched at the University of Illinois in August, 1996. VCI functions to facilitate the creation and maintenance of college course Web pages on the Internet. syllabus, lectures, assignments, announcements, review files, includes nine components: chat space, hot list, WWW resources, and VCI help. Students can download information (such as lecture outlines) to a printer, solving the age-old problems, "but I didn't have/couldn't find/didn't know about the syllabus/class notes/your announcement in Dr. Schmidt believes an advantage to posting lecture outlines on VCI is that the students can now spend more time listening in class rather than furiously trying to Additionally, she believes that by incorporating Web resources transcribe lecture notes. into her lecture, she makes the class material more dynamic and interactive for the students. All are welcome to visit the FSHN 101 VCI site at:

http://wsi-www1.cso.uiuc.edu/courses/FSHN101

# Pid you know that...

...a recent Nobel prize recipient has connections to Nutritional Sciences and the University of Illinois? Dr. Paul D. Boyer of the University of California at Los Angeles shares the 1997 Nobel Prize in Chemistry for determining the mechanism how all living organisms

sythesize ATP. His life work in this area began in the 1950's and culminated recently when his hypothesis of how ATP synthase aids in the formation of ATP was confirmed using x-ray crystallography. Dr. Boyer was the Ph.D. advisor of **Dr.**James L. Robinson at UCLA during 1964-1968. Additionally, Dr. Bruce Larson, Professor Emeritus in Animal Sciences, was a student of Dr. Boyer at the University of Minnesota in the 1940's. Individuals interested in learning more about Dr. Boyer and his important contributions to science can look to FASEB J., 9:559, 1995.

# Visit the Nutritional Sciences Web Site!!!! http://w3.aces.uiuc.edu/NutrSci

# NS Welcomes New Students

Twelve new students joined the Division in 1997. As in the past, we have been fortunate to recruit not only highly qualified individuals, but persons with diverse and unique backgrounds. The 1997 incoming class are:

Spring 1997;

Jiyuan Li received a B.S. in Pharmacy from Shanghai Medical University; she is a M.S. student with Dr. Keith Singletary.

Qin Lu has a B.S. and M.S. in Physiology from Nanjing University; she is a M.S. student with Dr. Jeff Woods.

Chu Won Nho received a B.S. in Genetic Engineering from Hallym University and a M.S. in Biology from the University of Wisconsin, Osh Kosh; she is a Ph.D. student with Dr. Elizabeth Jeffery.

Fall 1997

Annette Cole received a B.S. in Food Science at UIUC. She is a M.S. student with Dr. Neil Shay.

**Denise Deming** has a B.S. in Nutritional Sciences from Cornell University and a M.S. in Food Science and Human Nutrition from Kansas State University; she is a Ph.D. student with Dr. John Erdman.

Kasey Heintz received a B.S. in Nutrition from the University of New Hampshire, Durham. She is a M.S. student with Dr. John Erdman.

Anna Keck has a B.S. in Chemistry from Uppsala University in Sweden and a M.S. in Chemistry from Illinois State University; she is a Ph.D. student with Dr. Elizabeth Jeffery.

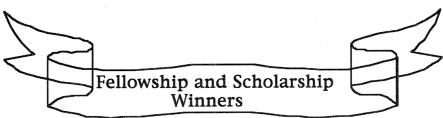
**Brandon Meline** received a B.S. in Biology from Illinois Wesleyan University; he is a M.S. student with Dr. Keith Singletary.

Crystal Morris has a B.S. in Food and Nutrition and a M.S. in Home Economics, both from Alabama A & M; she is a Ph.D. student with Drs. Clare Hasler and John Erdman.

Keri Kles received a B.S. in Biology from the University of Michigan; she is a Ph.D. student with Drs. Kelly Tappenden and John Erdman.

Kelly Swanson has a B.S. in Animal Sciences from North Dakota State University. He is a M.S. student with Dr. Neal Merchen.

**Deborah Wool** received a B.A. in Biology from Trinity College in Hartford, CT. She is a M.S. student with Drs. Clare Hasler and John Erdman.



Joshua Anthony: University Fellowship

JoAnn Baum: American Heart Association Fellowship

Elizabeth Flickinger: Jonathan

Baldwin Turner Fellowship

Deshanie Ganessunker: South African Education Program Scholarship

Ziwen Guo: American Heart Association Fellowship

Norman Millian: Jonathan Baldwin

Turner Fellowship
Elizabeth Ott: Jonathan Baldwin

Turner Fellowship

Claudia Tovar-Palacio: Fullbright-Garcia Robles/CONACYT Program

Sandra Teixeira: Fullbright

Scholarship

Chaoshen Yuan: American Heart

Association Fellowship

Simone Sinclair: Graduate College Fellowship

Georgeane Vigue: University Fellowship

Victoria Wade: National Cancer Institute Predoctoral Fellowship

# ★★★ NS Margin of Excellence Student Awards ★★★

Twice each academic year the Division presents travel awards to students to support attendance at national scientific meetings. This past year's travel grant recipients were: Joshua Anthony, Manuel Baldeon, Sean Barnes, Yulin Fang, Elizabeth Flickinger, Tracy Gautsch, Ziwen Guo, Vicki Houle, Christopher MacDonald, Claudia Tovar-Palacio, Eric Park, Yoo Kyoung Park, Tia Rains, Xun Shi, Richard Staack, Victoria Wade and Chaoshen Yuan.

The Division also presents awards for excellence in student research. The 1997 recipients were: Joshua Anthony, Manuel Baldeon, Yulin Fang, Tracy Gautsch, Vicki Houle, Yoo Kyoung Park, Tia Rains and Claudia Tovar-Palacio. The Division congratulates all award recipients.

## NSGSA Activities

The 1996-97 academic year was a fruitful one for the Nutritional Sciences Graduate Student Association (NSGSA). Fall began with the New Student Reception, organized by Elizabeth Flickinger, and an NSGSA Fall Picnic, held at the home of Dr. Timothy Garrow. The first NSGSA meeting of the fall semester was lead by officers Sean Barnes (co-chair), Manuel Baldeon (co-chair), Amy Moore (treasurer) and Tracy Gautsch (secretary). NSGSA presented the sixth annual Faculty Award to Dr. Timothy Garrow for his commitment to graduate education and participation in NSGSA activities. The NSGSA social climate was the best it has been in years, with excellent organization by Social Chair, Stephanie Block. Several happy hours occurred throughout the year at places such as White Horse Inn and the City of New Orleans. A Halloween costume party was held at Joe's Brewery, with awards The winners were: Amy Moore and Tom Boileau--best costume by a couple; Tim Garrow--best costume by a professor; and Stephanie Block--best costume by an individual. New officers were elected near the end of Fall semester: Manuel Baldeon (co-chair), Elizabeth Flickinger (cochair), Deshanie Ganessunker (treasurer), and Sharon Hedrick (secretary). semester was brought to a close with the annual NS-FSHN joint Holiday Party, occurring at Joe's Brewery.

Spring semester started off with the Nutrition Bowl in February, organized by Vicki Houle, Tracy Gautsch, Deshanie Ganessunker and Yoo Kyoung Park. Four teams of students, represented by faculty-members Lee Beverly, John Erdman, Keith

Singletary and Michael Murphy engaged in a battle of the mind over nutrition topics ranging from nutrient requirements to famous U of I scientists. Dr. Timothy Garrow provided humor and guidance as Master of Ceremonies while Dr. Neil Shay served as Honorary Judge. The question-and-answer format changed slightly this year. All teams were asked every question, and points were awarded to teams which answered correctly. year's winning team consisted of Dr. John Erdman, Joshua Anthony, Chris MacDonald and Georgeane Vigue. The third annual Nutrition Symposium was co-chaired by Joshua Anthony and Amy Moore. As in years past, students both within and outside the Division were invited to present their research in poster or oral format as a means of preparation for the Experimental Biology meeting in April. This year's keynote speaker was Dr. Diane Birt, Ph.D., Professor at the University of Nebraska. Her talk was entitled, "Glucocorticoid Mediation of Cancer Prevention by Dietary Energy Restriction". NS graduate students Amy Moore, Tia Rains, and Richard Staack won student awards for their outstanding poster presentations while Tracy Gautsch won an oral presentation award. the event was widely attended by professionals both within and outside the university and was considered a huge success. Finally, a NSGSA Spring Picnic was held at the home of Dr. Dave Baker. This event was attended by many faculty and students, bringing another busy and successful year to a close.

## **Graduate Student News**

- Joshua Anthony and Tracy Gautsch are engaged to be married in September, 1998.

  Both received Graduate College Student Travel Awards in the Spring, 1997.
- Stephanie Block recently received her private pilot's license.
- Joan Ham served as Ad Hoc Reviewer for the Journal of Nutrition Education. She and her husband welcomed their second child in September, 1997.
- Deshanie Ganessunker was among the list of names in the "Incomplete List of Teachers Ranked as Excellent" for Fall, 1996 and Spring, 1997.
- Vicki Houle was among the list of names in the "Incomplete List of Teachers Ranked as Excellent" for Fall, 1996 and Spring, 1997.
- Wei-Wen Kuo and her husband welcomed a daughter, Lily Huang, on October 2, 1996.
- Amy Moore won the 1997 Chicago Section of the Institute of Food Technology Vitamin Research Award.
- Yoo Kyoung Park was chosen as one of the 12 finalists in the Procter and Gamble Graduate Student Research Awards Competition at the 1997 Experimental Biology meeting.
- Tia Rains received a Graduate College Dissertation Award and a Graduate College Dissertation Completion Scholarship for 1997-1998.
- Richard Staack placed 1st at the 6th Annual Functional Foods for Health Conference poster competition. He also received the Society of Toxicology Victor A. Drill 2nd place award.



Hello from some of the new NS graduate students. From left to right: Deborah Wool, Annette Cole, Crystal Morris, Keri Kles, Kelly Swanson, Denise Deming, and Brandon Meline.

## Graduate Student Poster Presentations

### Experimental Biology 97 New Orleans, LA

Manuel Baldeon - Differential Expression of Galectin-3 on the Cell Surface of Large and Small Intestinal Epithelial Cells.

Sean Barnes - Effect of Ethanol on In Vitro Carcinogen-DNA Adduct Formation in MCF-10F Cells.

Stephanie Block - Absorption of 9-cis \( \mathcal{B}\)-Carotene in the Preruminant Calf.

Elizabeth Flickinger - Selected Lignosulfonate Fractions Affect Digestibility and Cecal and Colonic Properties in the Rat.

Yulin Fang - Regulation of Phospholipid Transfer Protein (PLTP) Secretion by Various Factors in Human Fibroblast Cells.

Tracy Gautsch - Eukaryotic Initiation Factor-4E (eIF4E) Regulates Skeletal Muscle Protein Synthesis Rates (K<sub>8</sub>) following Prolonged Exercise.

Ziwen Guo - Effects of Nutritional and Hormonal Factors on Phospholipid Transfer Protein (PLTP) Secretion and Gene Expression in HepG2 Cell Line.

Yasmeen Hasan - Plasma Carnitine Levels in Black Bears.

Vicki Houle - Mechanisms of Oral IGF-I Induced Intestinal Growth and Lactase Specific Activity in the Neonatal Piglet.

Christopher MacDonald - Inhibition of Mammary Tumorigenesis by the Environmental Contaminant Benzyl Butyl Phthalate.

Amy Moore - Competition Between B-Carotene and Selected Carotenoids for Uptake by Rat and Human Brush Border Membrane Vesicles.

Eric Park - Methionine Deficiency Increases Betaine-Homocysteine Methyltransferase (BHMT) Activity and mRNA Levels in Rat Liver.

Yoo Kyoung Park - Oral Insulin-like Growth Factor-I (IGF-I) Enhances the Effect of Limited Enteral Feeding on Intestinal Development of Piglets on Total Parenteral Nutrition (TPN).

Tia Rains - In Vitro Release of Growth Hormone Releasing Factor and Somatostatin are Altered during Recovery from Zinc Deficiency.

Richard Staack - Effect of 1-Cyano-2-Hydroxy-3-Butene (CHB) on mRNA Levels of Rat Hepatic Detoxification Enzymes.

Claudia Tovar-Palacio - Intake of Soy Protein and Soy Protein Extracts Alter Blood Cholesterol Levels and Hepatic Apolipoprotein Gene Expression in the Gerbil.

Victoria Wade - Influence of Diet on Human Mammographic Parenchymal Densities.

Chaoshen Yuan - Factors Influencing the Secretion and Gene Expression of Phospholipid Transfer Protein (PLTP) by CACO-2 Cells

# Endocrine Society Meeting Minneapolis, MN

Tracy Gautsch - Exercise Training Abrogates Serum Levels of Insulin-like Growth Factor Binding Protein-1 (IGFBP-1) in Rats following Prolonged Exercise.

#### Graduate Student Invited Oral Presentations

Joshua Anthony - "Amino Acid Metabolism during Exercise and Recovery" to Department of Kinesiology, UIUC.

Tracy Gautsch - "Hormonal Regulation of Protein Metabolism during Exercise and Recovery" to Department of Kinesiology, UIUC.

Joan Ham - Moderator for the Evaluation Methods Session at the Society for Nutrition Education Annual Meeting, St. Louis, MO. Amy Moore - "Absorption of Vitamin A and Carotenoids" to Department of Nutritional Sciences, Northern Illinois University, DeKalb.

Tia Rains- "Zinc and Food Intake" to the Eastern Illinois Dietetics Association, and co-presented "Sports Nutrition" with Karen Plawecki to various locations around the state of Illinois.



### Nutritional Sciences Class of 1996-1997

The Division granted advanced degrees to 12 students during the 1996-97 academic year. This year, most graduates chose to remain in academia as either professionals or continuing students. The Division wishes them success and happiness in their future ventures!

#### <u> August 1996</u>

Guixiang Li, (M.S.) M.S. candidate, Department of Computer Science, UIUC.

#### October 1996

**Xing-Xian Yu**, (Ph.D.) Postdoctoral Research Associate, Department of Biochemistry, Emory University School of Medicine, Georgia.

Wen Yan, (M.S.) Research Specialist, Department of Pathobiology, College of Veterinary Medicine, UIUC.

#### January 1997

Jason Emmert, (Ph.D.) Assistant Professor of Nutrition, Department of Poultry Science, University of Arkansas, Fayetteville.

**JoAnn Baum**, (M.S.) Ph.D. candidate, Department of Food Science and Human Nutrition, University of Minnesota, St. Paul. Hong Yu Teng, (M.S.) Research Associate, Division of Bone and Mineral Metabolism, Department of Medicine, Beth Israel Hospital, Harvard Institute of Medicine, Harvard Medical School, Boston.

Yin Wang, (Ph.D.) Seeking employment.

**Shanqin Xu**, (M.S.) Ph.D. candidate, Division of Nutritional Sciences, UIUC.

#### May 1997

Qiang Liu, (Ph.D.) M.D. candidate, College of Medicine, UIUC.

**Pei-Juei Lee**, (M.S.) Returned to Taiwan to seek employment.

Xun Shi (M.S.) Research Specialist, Department of Cell and Structural Biology, UIUC.

Ling Wang (M.S.) Research Technician, Veterinary Biosciences, UIUC.



Robert Landers (Ph.D.) has recently retired, and lives in New Jersey.

#### 1972

Race L. Kao (Ph.D.) edited a book, "Cellular Cardiomyoplasty: Myocardial Repair with Cell Implantation". He continues as Professor in the Department of Surgery at East Tennessee State University.

George Klatt (M.S.) works for the Chicago Department of Public Health.

Tara Mehta (Ph.D.) is Professor and Chair of the Department of Biochemistry at M. S. University in India. She is a member of ASNS, the Nutrition Society of India and the Society of Biological Chemists.

#### 1975

Kailash Mathur (Ph.D.) was honored on May 29, 1997 with a resolution in the South Carolina Senate. In addition to his academic career at South Carolina State University, he finds time to consult dietary managers and dietetic technicians at Greenville Technical College and the Health Careers Opportunity Program at Claflin College.

Frank Morris (M.S.) is currently retired and living in Pennsylvania.

#### 1976

Guy Johnson (Ph.D.) completed "another year of gainful employment © " as Director of Nutrition at The Pillsbury Company in Minneapolis, MN. He is Chair of the Institute of Food Technology Nutrition Division, a member of the ASNS Membership Committee and continues to serve on the External Advisory Committee for the Division.

#### 1978

Steven Clinton (Ph.D., M.D.) is employed at the Dana-Farber Cancer Institute in Boston, MA. He is currently collaborating with Dr. John Erdman on a NIH-NCI funded project to study the chemoprotective role of tomatoes, lycopene and other carotenoids in prostate cancer.

Jim Croom (Ph.D.) is Professor of Nutrition and Physiology in the Department of Poultry Science at North Carolina State University, Raleigh. He is on the Scientific Advisory Committee for Trisomy 21 Research, Inc.

#### 1979

Larry Lawson (Ph.D.) is Research Director of Nature's Way Products, Inc. He organized a symposium on the Phytomedicines of Europe in Orlando, FL, in August, 1996.

#### 1982

Joanne Curran Celentano (Ph.D) is Associate Professor of Nutritional Sciences at the University of New Hampshire. Her field of research includes the absorption and deposition of carotenoids, especially in the retina; women's health; eating disorders. She is Director of the McNaie Graduate Opportunity Program. She lives in New Hampshire with her daughters Jeanne Marie, 17, and Jessica, 14, and husband, Ray.

Lisa Marshall (Ph.D.) is Associate Director and Head of the Department of Immunopharmacology at SmithKline Beecham Pharmaceuticals in PA. She is a Board Member for the Inflammation Research Association and on the University of Pennsylvania Steering Committee for "Improving Treatment of Rheumatoid Arthritis".

Edward Basgall (Ph.D.) is completing his appointment as Research Associate in the Department of Chemistry at The Pennsylvania State University at State College. He presented two papers at the 30th Annual Scanning Electron Microscopy International Meeting in Chicago, IL. Additionally, he was elected as Trustee of the State College Underground Maltsters for 1997. He and his wife, Betsy, are busy building a two-story addition onto their home, and Ed recently bottled his 58th batch of homebrew "chocked full of B vitamins ©".

#### 1983

Lisa Reich (M.S.) was promoted to Marketing Manager for C.R. Bard, Inc. in Weston, MA. She was married in May, 1996 to Robert Johnson.

Kenneth Poirier (Ph.D.) is Safety Surveillance Manager at The Procter and Gamble Company.

#### 1984

**JoAnn Daehler-Miller** (M.S., R.D.) is currently seeking consulting and/or part-time opportunities in the Chicago area: please call 630-241-7958.

Barbara Kochanowski (Ph.D.) was recently promoted to Associate Director of the Healthcare Product Development Division at Procter and Gamble in Cincinnati, OH.

#### 1985

Sharon Hoerr (Ph.D.) is an Associate Professor in the Department of Food Science and Human Nutrition at Michigan State University. She was the 1997 recipient of the Borden Award for Nutrition Research on Experimental Foods from the American Association of Family and Consumer Sciences. Additionally, she was invited to speak at the Centennial Conference on Adolescence at Ohio State University about "Risky Dietary Behaviors in Adolescents-Implications for Pregnancy".

**David Quig** (Ph.D.) was recently appointed as vice president of Scientific Support at Doctor's Data, Inc., in West Chicago, IL.

Laura M. Rosch, (M.D., M.S.) is attending physician of Internal Medicine at Good Shepherd Hospital in Barrington, IL.

#### 1987

Yu-Tsyr Li (M.S.) continues as Senior Scientist at ArQule Inc., in Medford MA.

#### 1988

Cecelia Brown (Ph.D.) is Assistant Professor of Bibliography, Chemistry-Mathematics Librarian at the University of Oklahoma in Norman. She has two daughters, Aleze (7) and Talya (5).

Kevin Fritsche (Ph.D.) is Associate Professor in the Animal Sciences Research Center at the University of Missouri, Columbia, where his lab is focused on studying the effects of fatty acids on murine cytokine responses. He is serving as president of his church for the next year, and offers greetings and best wishes to all his friends at NS.

Melissa Hendrix Olken, (Ph.D., M.D.) is a physician at Crossroads Internal Medicine, P.C. She is a Board Member of the Michigan Society of Parenteral and Enteral Nutrition.

Ray Yedinak (M.S.) continues as a Quality Assurance Consultant with Viobin Corporation in Monticello, IL. He is a member of the American Oil Chemists Society.

#### 1989

**Deborah O'Connor** (Ph.D.) is a Clinical Group Leader of the Low Birth Weight Infant Group at Ross Products Division, Abbott Laboratories. This past June she received the University of Guelph Alumni Medal of Achievement, which is given annually to an alum who has made a contribution to the University, community and country.

Janet Novotny (M.S., Nutri. Sci.; Ph.D., Biophys.) is a Research Physiologist at the USDA Human Nutrition Research Center in Beltsville, MD, leading a new research initiative in mathematical modeling in nutrition. She is the recipient of the 1997 Outstanding Manuscript Award from the ASNS Vitamin and Mineral Research Interest Section (J. Lipid Res. 36:1825-1838, 1995).

#### 1991

Alyce Fly (Ph.D.) continues as Assistant Professor of Nutrition and Dietetics in the Department of Applied Health Science at Indiana University in Bloomington. She is the recipient of a 1997 Indiana University Teaching Excellence Recognition Award.

Matt Kuchan (Ph.D.) is a Senior Project Leader at Ross Products Division, Abbott Laboratories.

Tracy Tasker Chivari (M.S.) was a Nutrition Support Dietitian at Sherman Hospital in Elgin, IL. She was married on June 21, 1997 to Tony Chivari and has plans of moving to upstate New York where she will be seeking employment as an instructor for undergraduate nutrition courses.

#### 1992

Connie Krashoc (M.S.) is employed as a Clinical Nutritionist at the University of Tennessee Medical Center in Knoxville. She is the 1997 recipient of the "Emerging Dietetic Leader" Award, given by the American Dietetic Association. She is the first dietitian in the State of Tennessee to receive this honor. She is an instructor in the University of Tennessee Graduate School of Nutrition Dietetic Internship program, member of the Knoxville District Dietetic Association and member of the American Dietetic Association Oncology Practice Group.

Stacy Scardefield (M.S.) continues as Senior Clinical Research Associate for Hoffmann-LaRoche Pharmaceuticals in New Jersey. She was a member of the task force that helped to achieve early FDA approval for a novel weight loss drug (pancreatic lipase inhibitor), and is in private practice as a Nutrition Consultant. She is engaged to Steven Burke, a research scientist at Unilever Research, USA.

Gregory Wibert (Ph.D.) continues as Director of Research and Development at InterHealth Nutritionals, Inc. He and his wife, Karen Dotson (M.S., 1991), live in Martinez, California.

#### 1993

George Bark (Ph.D., M.D.) is a Family Physician living in Champaign, IL.

Leslie Bourquin (Ph.D.) is Assistant Professor and Extension Food Safety Specialist in the Department of Food Science and Human Nutrition at Michigan State University.

Nicole de Leeuw (M.S.) is a Ph.D. student in Molecular Biology in the Netherlands.

Julia Winter (M.S., M.D.) recently finished her residency training in Pediatrics at Children's Hospital Los Angeles. She is currently involved with "pottery and pediatrics" in Berkeley, California.

**Theo van Kempen** (Ph.D.) is a Manager of Nutrition Research and Services-Feedstuffs for Rhône-Poulenc Animal Nutrition in France.

#### 1994

Patti Kloss (M.S.) is a Research Specialist in Pharmaceutical Sciences at the Center for Pharmaceutical Biotechnology, College of Pharmacy, UIC.

#### 1994

Gregory L. Paul (Ph.D.) is Manager of Clinical Research Programs at The Quaker Oats Company. He and his wife, Joan (Rokusek) Paul (M.S., 1994), welcomed their first child, a daughter, Hannah Magdalene, on April 24, 1997.

Christopher Poor (Ph.D., M.D.) is an Emergency Physician at Murray-Calloway County Hospital in Kentucky. He recently finished a family practice residency at University of Missouri and took a medical mission trip to Nepal in February, 1997. He and his wife have two children, Katelyn (5), Sabry (2), and a third due in December, 1997.

Jin-Rong Zhou (Ph.D.) is an Instructor in the Department of Surgery, Harvard Medical School, Beth Israel Deaconess Medical Center in Boston. He and his wife are expecting their second child in October, 1997.

#### 1995

Brent Flickinger (Ph.D.) continues as a Postdoctoral Fellow at the University of Texas Health Science Center in San Antonio. He received a NIH Individual NRSA for 1997-1999.

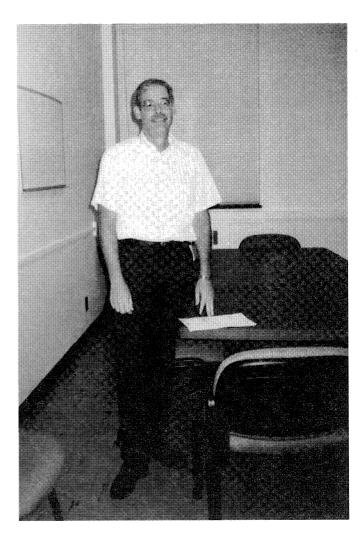
Susan Kandl Gugger (M.S., R.D.) is a clinical dietitian at Decatur Memorial Hospital and is an Instructor at Richland Community College. Her and her husband Eric (Ph.D., Food Science, 1995), recently purchased a farmhouse on 5 acres of land that comes complete with a barn for Eric's beer brewing.

Heather (Muir) Spanbauer (M.S.) and her husband, Jeff, welcomed their first child, Stewart Alexander, on March 17, 1997. They live in Minnesota.

Aparna (Reddy) Waegner (M.S.) is a graduate student in Public Health Policy at UCLA. She is a member of the Nutrition Committee for Los Angeles American Cancer Society and the Public Issues Panel for Los Angeles American Cancer Society.

**Kavita Patel** (M.S.) is a Faculty Research Assistant at the Chesapeake Biological Laboratory in Maryland. She is expecting a child in January, 1998.

Amy Randall-Ray (M.S., RD.) is Clinical Research Study Coordinator at University of Michigan Hospitals and Adjunct Professor at Madonna University, teaching Nutritional Therapy to nursing students.



John Erdman, Director of the Division of Nutritional Sciences, standing in the old (much smaller Division office) which is now a conference room.

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