



# Nutritional Sciences News

Division of Nutritional Sciences University of Illinois at Urbana-Champaign

VOLUME 3 NUMBER 1 FALL 1990

## *A Word from the Editor*

We are happy to send to you this year's edition of *Nutritional Sciences News*. It has been a year of growth for our Division, and we are excited to share it with you. Dr. Erdman deserves special recognition for his tremendous effort this year on behalf of the Division.

Thanks to all of you who responded.

Sincerely,

Karen D. Dotson  
Editor

## *A Word from the Interim Director*

In this year as Interim Director, I have been impressed by the immense support from the entire campus and the dedication of all those involved in the program from the faculty to the students to the staff. In preparation for launching our national search for a permanent Director of the Division, I have done a lot of asking - asking for help of Division members, especially the Executive Committee, asking College deans for new recurring funds to help support the Division and

asking for patience from many. It's heart warming to report that no one at any level ever declined to help. Because of this intercollegiate support, the Division has moved forward this year on several fronts.

Many of the new developments are noted in this newsletter but I would like to highlight two. In early spring, after a series of meetings with College Deans and Vice Chancellors, we received 5 year, recurring pledges from 4 colleges to provide program funds for Division operations. These pledges have more than doubled our operational budget. In addition, the campus will provide substantial salary support for the new Director. These pledges were made in a bleak budget year for the University and demonstrate the high regard for the strength and importance of the Division across campus.

We have also solidified the joint Ph.D. program with our sister institution at the University of Illinois in Chicago. The first joint Ph.D. student arrived this fall on our campus and several more are already admitted into the joint program.

After a one year hiatus, we will host a University of Illinois reception at the FASEB meetings in Atlanta in April. We thank Ed Ulman (Ph.D., 1980), president of Research Diets, Inc. for helping to sponsor this social gathering. I hope to see a full room of U of I alums at this reception. Check the FASEB program book for the time and place.

Finally, I would like to thank Karen Dotson for doing an excellent job as editor of this newsletter for the past two years. Karen will move on to the University of California, Davis to pursue her Ph.D. in Nutritional Sciences. We wish her well, and thanks for a great job.

See you at FASEB.

Sincerely,

John W. Erdman, Jr.  
Interim Director

## *Director Search*

A nationwide search is currently underway to select a renowned nutritional scientist to fill the position of Director of our Division of Nutritional Sciences. The position is projected to be a 50% administration, 50% research appointment. The Division has sent out over 1000 announcements for the position. In addition, letters have been sent to a number of prominent nutritionists inviting them to apply, and the position has been advertised in national publications. The closing date for application was September 15, 1990. We hope to have a new Director in the spring of 1991.

## *Division Receives New Funds*

The campus administration and Deans of four colleges have pledged new recurring financial support for the Division. The new funds will help the Director to provide partial research assistantships to several students who might otherwise not be enrolled due to financial constraints. Currently a student must have committed support from a faculty member to be admitted. Teaching assistantships will also be available for several clinical courses in the Division. These funds will bring the Division more in line with similar departments at other universities in terms of financial support for students and programs.

## *Journal of Nutrition at U of I*

In January, 1990 Dr. Willard Visek assumed the position of Editor-in-Chief of the *Journal of Nutrition*. Four other NS faculty are involved with the Journal as Associate Editors: Drs. David Baker, John Erdman, Jr., George Fahey, Jr., and Donald Layman.

## *Joint Ph.D. Program with Chicago Campus*

The Division of Nutritional Sciences has been a strong interdisciplinary, interdepartmental program for a number of years, and now it is becoming an intercampus program. A joint Ph.D. program between the University of Illinois' Urbana-Champaign and Chicago campuses is currently being finalized. Through the efforts of Dr. Savitri Kamath, Head of the Department of Nutrition and Medical Dietetics in the College of Associated Health Professionals at the University of Illinois at Chicago, the first three Ph.D. students have been admitted into the joint program. The students will be largely based at the Chicago campus but will spend a minimum of one year at the Urbana campus. Committee members will be chosen from both campuses. Applicants to date have all had M.S. degrees in Nutrition, have an R.D., and have had several years of clinical dietetics experience. We expect that this joint

program will facilitate faculty collaboration and grants, student movement in each direction, and an expansion of the educational opportunities for all involved. This is the first joint Ph.D. program across the two U of I campuses.

## *Decatur Memorial Hospital Program*

The Division of Nutritional Sciences has received a three year renewal grant from the Decatur Memorial Hospital Cancer Care Institute. Two, three-year fellowships have been funded for students in Nutritional Sciences to conduct research in collaboration with the radiation oncology section of the Decatur Memorial Hospital. In addition, DMH will support one visiting lectureship per semester over the three years. Fellowship support includes salary, travel funds, and some research support funds.

## *NSGSA Brings Anderson to Campus*

With the support of several campus departments and the Division of Nutritional Sciences, the Nutritional Sciences Graduate Student Association was able to bring a renowned expert to speak on campus in January. James W. Anderson, M.D., presented a public seminar entitled "Fiber Fights the Big Five"; he also addressed NS faculty and students in a Division seminar. Dr. Anderson is Chief of the Endocrine-Metabolic Section of the Veterans Administration Medical Center and is a Professor of Medicine and Clinical Nutrition at the University of Kentucky College of Medicine. He directed most of the initial human feeding trials demonstrating that oat bran could substantially lower serum cholesterol in hypercholesterolemic individuals, and is an expert on the health effects of oat bran. He discussed the beneficial effects of dietary fiber on five major health problems: cancer, heart disease, diabetes, obesity, and hypertension. His presentation provided a humorous and enlightening look at the current oat bran hype - the facts and the fiction.

## *New Faculty Join Division*

Six faculty members have been elected to join the Division of Nutritional Sciences this year. Membership in the Division is for a term of five years and is renewable. Criteria for membership include interest in nutrition, ability to contribute to graduate nutrition education, and ability for excellence in research relevant to the field of nutrition.

Dr. Phyllis Bowen, Associate Professor in the Department of Nutrition and Medical Dietetics at the University of Illinois, Chicago: Dr. Bowen's research focuses on the role of carotenoids in human metabolism and the effects of dietary fat phytochemicals and fiber on parameters related to colorectal cancer and heart disease.

Dr. Bruce Chassy, the new Head of the Department of Food Science: Dr. Chassy's research focuses on genetic modification of microorganisms used in food fermentations and on the health and nutritional contributions of microorganisms in foods. Before coming to the University of Illinois in September, 1989, Dr. Chassy was a research chemist at the National Institute of Dental Research, National Institutes of Health.

Dr. Savitri Kamath, Professor at the University of Illinois Chicago campus: Dr. Kamath is Head of the Department of Nutrition and Medical Dietetics and Director of both the Coordinated Undergraduate Program and the Graduate Program in Nutrition and Medical Dietetics; she has held these positions since 1979. Dr. Kamath is also a Professor in the U of I School of Public Health. Her research focuses on nutrient utilization in certain disease conditions and also on biomarkers for dietary fat.

Dr. Neal Merchen, Associate Professor in the Department of Animal Sciences: Dr. Merchen's research emphasizes dietary and intraruminal factors affecting microbial protein synthesis in the rumen, protein and amino acid nutrition of ruminants, and the use of alternative feedstuffs as dietary ingredients for ruminants.

Dr. Jack Odle, Assistant Professor in the Department of Animal Sciences: Dr. Odle came to the U of I from the University of Wisconsin, where he received his Ph.D. in 1989. His research focuses on neonatal nutrition,

particularly on the piglet as a model of infant nutritional biochemistry and on lipid digestion and metabolism in the newborn.

Dr. Susan Potter, Assistant Professor in the Division of Foods and Nutrition: Dr. Potter's research emphasizes the influence of protein and amino acids on lipid metabolism and the regulation of lipid metabolism by diet and various physiological conditions.

### *Faculty Give International Lectures*

Dr. David Baker was a speaker at the Hoffman-LaRoche Symposium on Vitamins held in Guelph, Ontario, Canada; he spoke on "Bioavailability of Water-Soluble Vitamins."

Dr. Gail Czarnecki-Maulden spoke in Guelph, Ontario, Canada to the Canadian Feed Industry Association on the topic "Iron Bioavailability."

Dr. Robert Easter spoke at the Japanese Swine Producers Conference in Tokyo, Japan on the subjects of "Maximizing Sow Longevity" and "Nutrition of Weaning Pigs." His trip was sponsored by the American Soybean Association and several Japanese companies. He also made two presentations at the Manitoba Swine Seminar, sponsored by Manitoba Agriculture, in Winnipeg, Manitoba, Canada; his topics were titled "Meeting the Performance Potential of Newly Weaned Pigs" and "Feeding Pigs in the Future - The Effects of Repartitioning Agents and Porcine Somatotropin."

Dr. John Erdman, Jr. presented an invited lecture at the 14th International Congress of Nutrition, held in Seoul, Korea; he spoke on "Effects of Soybean Protein on Human Nutrition."

Dr. Keith Kelley travelled to Italy to speak at the Forum on Psycho-Neuro-Immunology, held in Ancona, and at the 1st Congress of the International Society of Neuroimmunomodulation, held in Florence.

Dr. Donald Layman travelled to the Institut of Agronomie et Veterinaire, Hassan II located in Rabat, Morocco to continue work on a research project focusing on the efficacy of amino acid supplementation under conditions of low energy intake. This work is in

collaboration with Mohammed Sika, a Ph.D. student in our Division of Nutritional Sciences and Chair of the Department of Nutrition at the Institut.

Dr. Edward Perkins travelled to Europe in June and July, 1990, to present lectures at a number of institutions, including the International Food Science Center in Aarhus, Denmark, INRA in Dijon, France, and the Universities of Dijon, Paris, Bordeaux, and Lyon. He also delivered three lectures on lipid chemistry at the International American Oil Chemists' Society Methods Course, held in Skorping, Denmark.

Dr. James Robinson was a guest lecturer at the University of New South Wales, Australia, where he spoke on "A Bovine Model for Hereditary Orotic Acidemia."

Dr. Harold Swartz gave numerous lectures abroad this year while on sabbatical leave in England. He was a Visiting Professor in the Department of Biochemistry at the University of Oxford. Dr. Swartz was an invited lecturer at the 8th Annual Meeting of the Society of Magnetic Resonance in Medicine, in Amsterdam, The Netherlands, and at the International Workshop on In Vivo ESR and ESR Imaging, at the University of L'Aquila, Italy. He was a plenary lecturer at the International Conference on Nitroxide Radicals, held at the Academy of Sciences, Novosibirsk, USSR, and again at the Institute of Experimental Cardiology in Moscow, USSR. He presented two plenary lectures at the National Conference on Magnetic Resonance at the University of Cagliari, Italy. In England Dr. Swartz spoke at the University of London and the University of Essex, and to the British Biophysical Society of the Royal College of Surgeons of England. He addressed the European Congress of NMR in Medicine and Biology in Strassbourg, France.

Dr. Matthew Wallig spoke to the Faculty of Medicine at Memorial University of Newfoundland, in St. John's, Newfoundland, on "Studies of the Toxicity and Metabolism of 1-Cyano-2-Hydroxy-3-Butene" and on "The Role of Veterinary Pathology in the Science of Toxicity."

### *Weigel Conducts Research in Equador*

In the summer of 1990, Dr. Margaret Weigel and Nutritional Sciences Ph.D. student Marcia Monaco conducted research in Equador. As part of a study sponsored by USAID, they conducted an epidemiological study on the role of nutritional status and other factors associated with leishmaniasis risk in tropical rural areas; this work was in conjunction with the Universidad Central del Equador in Quito. In another project, they assessed the health, nutritional, and psychosocial status of women of reproductive age in a rural isolated community in that country, funded in part by a Hewlett International Research Award.

### *National Presentations by NS Faculty*

Dr. David Baker was a guest speaker at the Symposium on Biotechnology in Animal Agriculture at Virginia Polytechnic Institute, where he presented a seminar entitled "Nutrition and Growth."

Dr. Richard Boileau delivered an invited symposium presentation "Training Adaptations and Cautions in Pre- and Post-Pubescent Children" to the American College of Sports Medicine in Baltimore, MD.

Dr. Jimmy Clark spoke to the Ralston Purina International Scientific Advisory Board in Maui, Hawaii on "Effects of Ingredient Combinations Upon Production, Digestive Physiology, and Digesta Flow in Dairy Cows." He also spoke on "Protein Aspects - DIP and UIP" at the Growmark Dairy Conference held in Champaign, IL.

Dr. Robert Easter gave several lectures at the Minnesota Herd Health Programming Conference in St. Paul, MN; he spoke on the "Effect of Environment on Finishing Swine" at the Suidae Technology Conference. Dr. Easter presented "Factors Which Impact Formulation" at the Annual Meeting of the Midwest Section of the American Society of Animal Science (ASAS) Symposium on Situation Dependent Diet Formulation, held in Des Moines, IA. He also gave a Nutritional Sciences group seminar at

Ohio State University in Columbus and spoke to the National Feed Ingredient Association at the Feed Ingredient Institute in Kansas City.

Dr. George Fahey, Jr. was the recipient of a Burroughs Wellcome Fellowship which sponsored ten lectures that he delivered at South Dakota State University on the topic of dietary fiber. He spoke at Iowa State University and the University of Nebraska, Lincoln. Dr. Fahey also gave invited presentations at the annual ASAS meeting.

Dr. Elizabeth Jeffery was an invited speaker at the Mayo Clinic, in Rochester, MN, the University of Wisconsin, Rutgers University, the National Center for Toxicological Research in Arkansas, and the Food and Drug Administration in Washington, DC.

Dr. Abram Katz made presentations at the Annual Meetings of the American College of Sports Medicine and the American Diabetics Association.

Dr. Neal Merchen gave several guest lectures this past year. He spoke on "Unavailable Nitrogen in Feedstuffs: Interpreting ADIN Data" to the Research Committee of the Distillers Feed Research Council, in Urbana, IL; at the Distillers Feed Conference in Syracuse, NY, he presented "Effects of Heat Damage on Protein Digestion by Ruminants: Alternative Interpretations." At the 6th Annual Biokyoowa Amino Acid Council Meeting, in St. Louis, MO he spoke on the topic of "Protein - Amino Acid Nutrition of Ruminants." Dr. Merchen presented a seminar on "Determining Net Ruminant Microbial Protein Synthesis" to the Department of Animal Science at the University of Nebraska, Lincoln. Also in Lincoln, he spoke on "Opportunities for Using Alfalfa in Beef Cattle Diets" at the National Alfalfa Symposium.

Dr. Ralph Nelson was a Visiting Professor in Nutrition at the University of Pennsylvania.

Dr. Harold Swartz chaired a symposium on "The Use of ESR to Study Reactive Species in Biological Systems" at the Rocky Mountain EPR Conference in Denver, CO. He also spoke to the Department of Radiation Chemistry at the University of Notre Dame, South Bend, IN, on the topic of "ESR Imaging and In Vivo Spectroscopy: New Methods to Measure Concentrations of O<sup>2+</sup> Redox Metabo-

lism in Complex Biological Systems."

Dr. Willard Visek lectured at the 1990 Lillian Fountain Smith Conference for Nutrition Educators at Colorado State University, Fort Collins. His topic was the "Role of Dietary Fat Level in Gene Expression."

Dr. Matthew Wallig spoke at the USDA-CSRS Office of Critical Materials, in Columbia, Missouri, on the subject of "Research Activities at the University of Illinois - HEADE Project." HEADE is an abbreviation for High Erucic Acid Development Effort.

## Faculty Grants and Research Support

Faculty at the U of I have a broad base of both on-campus and off-campus research grant support. In the past year, off-campus support of NS faculty has totalled \$13.2 million in direct costs and \$5.6 million in indirect costs. Of these amounts, \$9.2 million (direct) and \$4.8 million (indirect) have been from federal sources.

### NIH Grants

Dr. Savitri Kamath has received renewal of a National Cancer Institute grant studying "Dietary Fat and Reproductive Hormones in Women." From the National Heart, Lung, and Blood Institute Dr. Kamath has received renewal for a grant entitled "Long Term Effects of Cholesterol Lowering Diets in Women."

Dr. William O'Brien has received a NIH Grant to study "Bioeffects of Prenatal Ultrasound Exposure."

Dr. Harold Swartz received a five-year renewal for his grant entitled "Measurement of Intracellular Oxygen."

### Major Institutional Grants

Drs. John Erdman, Jr., George Fahey, Jr., and Neal Merchen have received a 2-year USDA Competitive Research Grant in Human Nutrition for "The Pre-Ruminant Calf as a Model for the Study of Human Carotenoid Metabolism."

Dr. John Erdman, Jr. and Dr. William O'Brien are collaborating on a study of the ultrasonic properties of normal and diseased tissue. They have recently received funds from the Veterans Administration to study the

ultrasonic characterization of wounds in rats with marginal vitamin A status.

Dr. George Fahey, Jr., received a grant from the Office of Solid Waste Management.

Dr. Aslam Hassan has received a Hatch Grant to study "Weight Loss Syndrome in Chickens."

Dr. Li Li Ji has recently received a grant from the American Federation of Aging Research for his proposal entitled "Antioxidant Enzyme System During Aging: The Effect of Chronic Exercise."

Dr. Savitri Kamath has received a grant from the U of I Campus Research Board for "B-Carotene Metabolism in the Ferret."

Dr. Donald Layman received a grant from the Veterans Administration for the study of "Rehabilitation of Skeletal Muscle Using Diet and Exercise," which will focus on long-term hospitalized patients.

Dr. Jack Odle has received several research grants in the past year. The National Pork Producers Council is supporting his work on "Utilization of Medium-Chain Triglycerides by Neonatal Piglets." The UIUC Research Board is funding two of Dr. Odle's projects, "Lipid Utilization by Neonatal Piglets" and "Effect of L-Carnitine Supplementation on Lipid Metabolism by Neonatal Piglets." He has also received a Biomedical Research Support Grant for "Development of an In Vitro Assay to Identify the Products of Lipid Metabolism in the Neonate."

Dr. Susan Potter has received a grant jointly with Nutritional Sciences members John Erdman, Jr., Karen Chapman, and Ralph Nelson, to study the plasma lipid lowering effects of differently processed soy products in hypercholesterolemic men. This research is being sponsored by the American Soybean Association/Illinois Soybean Producers Operating Board. Dr. Potter has also received a grant from the American Heart Association/Illinois Affiliate to study the influence of dietary proteins and amino acids on the development of cholesterol metabolism.

Dr. James Robinson has received a one-year grant from the Holstein Association of America to study "Incidence of Citrullinemia Among American Holstein Cattle."

Dr. Keith Singletary has received a two-year renewal grant from the American Institute for Cancer Re-

search for his work studying the relationship of alcohol intake and incidence of breast cancer.

Dr. Harold Swartz has received funding for three years from the National Science Foundation in support of "Measurement of Temperature In Vivo by ESR," which he is co-investigating with Professor John Chato from the UIUC Department of Mechanical, Electrical and Bioengineering.

Dr. Matthew Wallig has received a Biomedical Research Support Grant for his work on "Induction of Glutathione S-Transferase Isoenzymes by Cyanohydroxybutene." His project entitled "Pilot Studies to Evaluate the Toxicity of the Nitrile CHB" is being funded by the USDA High Erucic Acid Development Effort.

### *Unique Collaboration*

Drs. Jan Novakofski and William O'Brien have received a grant from the Technology Challenge Fund, Illinois Department of Commerce and Community Affairs, for their research proposal entitled "Application of Ultrasonic Technology to Major Problems in the Meat Animal Industry." The ultimate goal of this research is to provide leaner, higher quality meat to consumers. This collaboration of animal scientist and acoustical engineer is unique in the country and combines expertise in two diverse fields to address a question with far-reaching applications.

### *Industry Support*

Dr. David Baker has received funding from Ross Laboratories for the study of "Keto Analogs and Renal Disease" and from the Degussa Corporation for "Sulfur Amino Acid Nutrition of Pigs." From ZinPro Corporation he has received support for the study of "Trace Mineral Bioavailability"; Biokyowa Corporation is sponsoring his study of "Tryptophan and Eosinophilia."

Dr. Bruce Chassy has received a grant from BSN Corporation of Paris, France for his study of "Genetic Modification of *Lactobacillus bulgaricus*."

Dr. Jimmy Clark has received several industry grants this year. Ajinomoto Company, Inc. is supporting his work on "Quantifying Amino Acids and Other Nutrient Flows to the

Small Intestine of Lactating Dairy Cows." Church and Dwight Company, Inc. are sponsoring two of Dr. Clark's projects: "Effects of Feeding Lactating Dairy Cows Diets Containing Whole Soybeans and Tallow," and "Effects of Feeding Fat on Efficiency of Energy Utilization, Ruminant Fermentation, Nutrient Digestibilities, Milk Production and Milk Composition." Additionally, he is being supported by Rhone Poulenc, Inc. to study "Effects of Feeding Protected Methionine and Lysine to Dairy Cows."

Dr. Robert Easter has received research support from many companies this year. Heartland Lysine is supporting his work on body composition changes in growing pigs and ileal digestibility of various feedstuffs. BASF is supporting his research on vitamin E; Elanco is supporting his study on effect of hyperalimentation on growth of pigs and also antibiotic research. DeGussa is sponsoring work by Dr. Easter on calcium formate in swine nutrition. He has received a grant from Finnfeeds to study the "Effect of Enzyme Supplementation on Growth of Pigs Fed High-Fiber Diets," and a grant from Smith-Kline Beecham to study "Diet Acidification for Pigs."

Dr. John Erdman, Jr. has received support from Mead Johnson Company for work on calcium bioavailability, from Procter and Gamble Company for work on B-carotene, and from Protein Technologies International for work on the lipid-lowering properties of soy protein.

Dr. Erdman is also part of a research team including Drs. Susan Potter, Karen Chapman, and Ralph Nelson studying the cholesterol lowering effects of soy protein and soy fiber, being conducted at the Danville V.A. Hospital. This research is funded from three sources: the American Soybean Association and the Illinois Soybean Operating Board, as mentioned earlier, and by Protein Technologies International.

Dr. George Fahey, Jr., has received grants from Ross Laboratories and the Iams Company in support of his research on dietary fiber and forage utilization.

Together, Drs. George Fahey, Jr., and Neal Merchen are being supported by DuPont Company in their collaborative research on "Utilization of Alkaline Hydrogen Peroxide-Treated Oat Hulls by Dairy Cattle."

They are also collaborating to study "Use of a Mixed Oxidant (Tetra-valent) and Alkali (Sodium Hydroxide) as a Chemical Treatment for Low-Quality Roughages," sponsored by Biolytic Industries. Furthermore, they are being supported by American Protein Corporation in studying "In Vitro Evaluation of Ruminant Degredation of Spray-Dried Blood Products." Dr. Larry Berger of the Department of Animal Science is also collaborating with Dr. Fahey and Dr. Merchen on these projects.

Dr. Savitri Kamath has received a grant from Clintec International in support of "The Breeze Enteral Diet Tolerance Study." She also has received a grant from the Gertrude C. Mathias Fund to study nutrition and schizophrenia.

Dr. Abram Katz has received a grant from Ross Laboratories for "Effect of Glucose Ingestion on Fructose-6-Phosphate and IMP Formation in Human Skeletal Muscle During Exercise."

### *Professional Activities*

The Nutritional Sciences faculty continue to be very involved on a national level in various professional organizations, contributing to the recognition afforded our program at the University of Illinois. A partial listing of faculty efforts is as follows.

Dr. Baker was appointed to the Nutrition Research Advisory Committee of the National Livestock and Meat Board, and is a member of the National Academy of Sciences Subcommittee on Nutrient Bioavailability. This year he was also appointed as an Associate Editor for the Journal of Nutrition. The 1990 *Annual Review of Nutrition* will contain Dr. Baker's article on "Comparative Nutrition of Cats and Dogs."

Dr. Chapman served as Equal Employment Opportunity Counselor at the Veterans Administration Medical Center in Danville, IL.

Dr. Chassy is on the Editorial Board of *Infection and Immunity* and is involved in the Latin American Program of the American Society of Microbiology. He is Chairperson of the Microbial Genetics section for the 4th International Meeting on Lactic Acid Bacteria in Foods, to be held in September 1990 in The Netherlands.

Dr. Chassy is also Organizer of the 1st International Meeting on Electroporation and Electroporation of Cells, to be held in October 1990 in Woods Hole, MA.

Dr. Clark is involved in the American Dairy Science Association, serving on the Awards Committee, and as Representative to the National Research Council and to the IDF Committee Group A22, which is concerned with bovine somatotropin technology.

Dr. Easter is a reviewer for the *Journal of Animal Science*.

Dr. Erdman is currently serving on three National Academy of Sciences committees, including the Committee on Nutrition Components of Food Labelling. He is also involved with American Institute of Nutrition committees, including Chair of the Annual Program Committee for the 1992 annual meeting, and Member of the Task Force on Nutrition Labelling. Dr. Erdman was recently asked to serve a three-year term on the Food and Nutrition Board, Institute of Medicine, National Academy of Sciences.

Dr. Fahey is a member of the National Research Council (NRC) Committee for Laboratory Animal Nutrition and the NRC Committee on Feedstuff Evaluation.

Dr. Jeffery is Editor of *Drug Metabolism Newsletter*, and is on the Editorial Board of *Journal of Pharmacology and Experimental Therapy*.

Dr. Kamath is a reviewer for the *Journal of the American Dietetics Association* and is a site visitor for the ADA Commission on Accreditation.

Dr. Katz is a reviewer for the *American Journal of Physiology*, the *Journal of Applied Physiology*, and for *Medicine and Science in Sports and Exercise*. Dr. Katz recently wrote a review paper with K. Sahlim entitled "Role of oxygen regulation of glycolysis and lactate production in human skeletal muscle," in *Exercise and Sport Sciences Reviews*, 1990. He is also collaborating on studies with the National Institute of DDK/NIH in Phoenix, Arizona.

Dr. Larson has written a chapter on "Immunoglobulins of the Mammary Secretions" for a book in a series on Advanced Dairy Chemistry, published by Elsevier and edited by P.F. Fox of Ireland.

Dr. Layman is completing his second year as President of the Illinois

Nutrition Association, and will present one of the featured talks at this year's annual Fall Conference.

Dr. O'Brien is serving as President of the American Institute of Ultrasound in Medicine. He is currently collaborating with researchers at the University of Washington, the University of Cincinnati, and the Mayo Clinic, in addition to other scientists at the University of Illinois.

Dr. Perkins is very involved in the American Oil Chemists' Society, serving as Chairman of the Education Activities Coordination Committee and as a member of the AOCS Governing Board. Dr. Perkins is an Associate Editor of the *Journal of the American Oil Chemists' Society* and is also Book Review Editor, Index Editor, and on the Monograph Committee for JAOCs. He is serving as Technical Chairman of the 1991 Annual Meeting of the American Oil Chemists' Society.

Dr. Robinson is a reviewer for both the *Journal of Nutrition* and *Nutrition Research*; he served on the planning committee of the recent Conference on Mapping Domestic Animal Genomes. He travelled to New South Wales, Australia in the summer of 1990, where he conducted research on bovine citrullinemia with P.J. Healy of the MacArthur Agriculture Institute.

Dr. Siedler has been appointed Chair of the Research and Education Center of the recently formed Illinois Food Processing Task Force. He has also been appointed to the External Evaluation Committee of the Bean/Cowpea Collaborative Research Support Program of the USAID. Dr. Siedler visited the USSR last fall as part of the Illinois Agribusiness/Food Processing Equipment Trade Mission sponsored by the State of Illinois.

Dr. Swartz is a member of the Editorial Boards of the publications *Magnetic Resonance in Medicine and Biology*, *Magnetic Resonance in Medicine*, and *Free Radicals in Biology and Medicine*. He also serves as Director of the U of I Medical Scholars Program and of the Illinois ESR (Electron Spin Resonance) Research Center. In the 1989-1990 academic year Dr. Swartz was elected President of the International EPR (ESR) Society; he was also elected National Secretary of the Society of Magnetic Resonance in Medicine.

Dr. Visek is a member of the Human Nutrition Board of Scientific Counselors for the USDA.

Dr. Wallig is serving as a member and representative for the U of I on the HEADE, Processing and Coproducts Subcommittee of the USDA-CSRS Office of Critical Materials.

### *Nelson to Head Department*

Dr. Ralph Nelson has been appointed Executive Head of the Department of Medicine at the U of I College of Medicine.

### *Faculty Honors*

Dr. Karen Chapman was nominated for the award of outstanding federal female employee of the year.

Dr. George Fahey, Jr. received the 1990 American Feed Industry Award in Ruminant Nutrition.

Dr. Bruce Larson was the recipient of the J. Frederick Miller Community Leadership Award from the University YMCA, consisting of a plaque and a cash award. He was awarded for his service as past Chairman of the Board of Directors and as Acting Director of the YMCA, and for other community service. Dr. Larson was President of the Urbana Park District Board of Commissioners for 20 years.

Dr. Neal Merchen was named to the Incomplete List of Teachers Ranked as Excellent by Their Students. He also received the D.E. Becker Award for Excellence in Undergraduate Teaching and Counseling from the Department of Animal Sciences.

Dr. William O'Brien received the 1989 Outstanding IEEE Student Branch Counselor Award.

Dr. James Robinson was named to the Incomplete List of Teachers Ranked as Excellent by Their Students for his teaching in the course NS/AS 411.

### *Fahey Receives Funk Award*

Dr. George Fahey, Jr. was one of the 1990 recipients of the Paul A. Funk Recognition Award. The Funk Award recognizes faculty in the College of Agriculture who have shown high achievement in the field of agriculture.

### *Visek Elected Fellow*

At its Annual Meeting in April, 1990, the American Institute of Nutrition elected Dr. Willard Visek a Fellow. Only approximately seven researchers per year are given this honor.



## *Larson to Retire*

Dr. Bruce Larson will retire this fall from full time as a Professor, after nearly 40 years of service to the University of Illinois in the Department of Dairy Science and then the Department of Animal Science. While he and his wife will continue to reside in the Urbana-Champaign area, and he will continue part-time with the University, they expect to spend more time travelling and enjoying their cabin on Lake Superior. We wish Dr. Larson the best, and thank him for the distinct contribution he has made to our Division, the University of Illinois, and his field of research.

## *Faculty Leave Illinois*

Dr. Peter Bechtel left the U of I in August 1990 to become Professor and Head of the Department of Food Science and Human Nutrition at Colorado State University, Fort Collins.

Dr. Gail Czarnecki-Maulden left the U of I in June, 1990 to assume a position as Project Manager in the Pet Food-Nutrition Group at Carnation Company in Missouri.

## *Students Attend National Nutrition Policy Seminar*

In April, Nutritional Sciences students Julia Winter and Cathi Peterson attended the International Life Sciences Institute-Nutrition Foundation's National Nutrition Policy Seminar, along with Dr. Peter Bechtel. Among the many speakers were staff members of various federal committees involved in nutrition legislation and representatives from USDA, FDA, NIH and NAS. They reported that the most debated nutrition issue currently before Congress is food labelling, and that everyone seems to agree on the need for changes but that agreement can't be reached on what those changes should be. The tenets contested include the label content, format, ingredient statement, descriptors, food standards, health messages and uniformity. Definitions of descriptions such as "lite", and "natural", and

standards for products such as "ice cream" are being debated. The most strongly contested issue is uniformity. There are major differences between states as to what is considered necessary on the nutrition label.

## *Graduate Student Honors and Awards*

### *Fellowships and Scholarships*

The University of Illinois Division of Nutritional Sciences is one of the few nutrition programs nationwide which have N.I.H./U.S. Public Health Services Predoctoral Traineeship Grants in Nutritional Sciences. Each year four or five doctoral students and two post-doctoral trainees are awarded this fellowship; this year recipients included:

Lee Alekel, who is studying the interaction of exercise and nutrition factors on bone mineral status, emphasizing the role of reproductive hormones;

George Bark, studying the effect of selenium on reduction of cis-platinum nephrotoxicity;

Susan Johnson, studying the etiology of fat intake regulation in young children;

Deborah Swartz, who is studying the effects of dietary fat on gene expression in the mammary gland; and

Greg Wibert, studying the regulation of protein metabolism by branched-chain amino acids and exercise in catabolic conditions.

1990 Summer Research Fellowships were received by several NS students as follows:

Alexandra Adams, from the U of I College of Medicine, studying the use of infrared thermography to determine neonatal energy expenditure;

Barbara Fulton, from the U of I College of Medicine;

Greg Wibert, from the School of Human Resources and Family Studies, for his project studying the effects of exercise and branched chain amino acids on muscle atrophy.

A Hunter Fellowship was received by graduate student Stacy Scardefield, who is studying the inhibition of DMBA-induced rat mammary carcinogenesis.

An Illinois Minority Graduate Incentive Program Fellowship was

received by Minnie McNary, for her work on the effects of alcohol consumption on breast cancer.

Graduate College Thesis/Project Grants were received by two students in the Division:

Connie Lee Krashoc, studying the effect of corn bran as a diet supplement in the form of foods on serum cholesterol in humans, and

Marcia Monaco, investigating the nutritional and immunological factors associated with leishmaniasis in tropical rural populations.

### *NSF Fellowship*

Les Bourquin, a doctoral student under Dr. George Fahey, Jr., has received a three-year National Science Foundation Graduate Fellowship. He is working on characterization of factors limiting the utilization of cell wall polysaccharides by ruminant and human GI tract microorganisms.

### *Teaching Excellence*

Lois Steinberg was named to the Incomplete List of Teachers Ranked as Excellent for her instruction in Kinesiology 100.

## *Student Presentations*

### *FASEB*

Nutritional Sciences graduate students presented results of their research at the 1990 Annual Meeting of the Federation of American Societies of Experimental Biology, held in Washington, D.C. in April. The presentations were as follows:

Les Bourquin: Effects of Fiber Source and Isolation Procedure on Short Chain Fatty Acid Production and Fiber Degredation by Human Fecal Bacteria In Vitro;

Karen Dotson: Isolation and Purification of Selenoproteins from Human Milk and Development of Monoclonal Antibodies;

Tim Elliot: Molecular Analyses of Gene Expression Due to Differences in Dietary Fat;

Alyce Fly: Effect of Arsenic on Phosphorus Utilization;

Martha Funk: Effect of Fiber and Protein Source on Methotrexate Toxicity;

Lesley Helyar: T-Cytotoxicity and

IL-2 Responsiveness of Rat Lymphocytes During Iron Deficiency;

Susan Johnson: Conditioned Flavor Preference in Children: A Function of Fat Calories;

Hye Young Kim: The Role of Selenium in Development of Neonatal Rat Lungs Under Conditions of Normoxia and Hyperoxia;

Minnie McNary: Enhancement by Ethanol of DMBA-Induced Mammary Tumorigenesis;

Catherine Peterson: Bone Composition and Histology of Young and Old Rats Fed Diets with Varying Calcium Bioavailability;

Chris Poor: The Pre-Ruminant Calf and the Ferret as Models for the Study of Human Carotenoid Metabolism;

Stacy Scardefield: Oxidative Metabolism of BHT by Hepatic and Mammary Microsomes from Female S-D Rats; and

Greg Wibert: Effects of Infusion of Multiple Leucine Concentrations on Protein Synthesis in Skeletal Muscles.

#### *American Oil Chemists' Society*

Karen Dotson presented a poster entitled "High Performance Liquid Chromatography (HPLC) of Human Milk Triglycerides" at the 1990 AOCS meeting held in Baltimore in April.

#### *American Physiological Society*

Alexandra Adams is coauthor of an abstract presented at the Annual Meeting of the American Physiological Society: "Validation of Infrared Thermography for Determining Evaporative Heat Loss in Neonates."

#### *American Society for Biochemistry and Molecular Biology*

Ann Ching presented "The Activation of Neuramidase Associated with Human Blood Cells" at the June, 1990 meeting of the ASBMB held in New Orleans.

An-Yue Tu presented "Purification of Human Plasma Phospholipid Transfer Protein and Its Properties."

#### *Human Biology Council*

Lee Alekel presented a poster at the April, 1990 Human Biology Council Meetings in Miami, entitled "Prevalence and Risk for Essential Hypertension in Mexican, Cuban, and Puerto Rican Americans."

#### *Institute of Food Technologists*

Alyce Fly attended the 1990 IFT meeting in Anaheim to present "Effect of Lignin on Iron (Fe) Bioavailability."

#### *Local Presentations*

Lee Alekel made four presentations to lay audiences in the Champaign-Urbana area this year. At the U. of I. Elder Hostel she spoke on "Nutrition and Cardiovascular Health," and at the Champaign-Urbana Workshop on Physical Fitness she spoke on "Nutrition and Exercise." As a part of the McKinley Health Center Health Awareness Week, Ms. Alekel addressed the issue of "Effect of Exercise on Plasma Lipoproteins and Lipids"; at the Clark-Lindsay Retirement Village she spoke on "Dietary Fiber and Your Health."

Connie Krashoc gave a series of five lectures to third year medical students on "The Translation of the Prudent Diet Prescription," or how a registered dietician uses diet records in a clinical setting to assess and plan both normal and therapeutic diets.

#### *Births*

Alyce Fly gave birth to a son, William Fly Wagner, on February 22, 1990.

Matt and Sandy Kuchan have a son, Jacob Matthew, born on March 6, 1990.

#### *Alumni News*

1969

Mary Jacob (Ph.D.) coauthored a chapter entitled "Disorders of Trace Mineral Deficiency and Parenteral Nutrition" in *Kidney Electrolyte Disorders*, published in 1990 by Churchill Livingstone and edited by J.C.M. Chan and J.R. Gill, Jr.

1970

James G. Bergan (Ph.D.) is Chairman of the Faculty's Post-Graduate Studies Committee at the University of Western Sydney - Hawkesbury, Australia, and is establishing a M.Sc. and Ph.D. program in Food Science and Nutrition. He is on the faculty of Food and Environmental Sciences. Dr. Bergan spent 6 months in 1989 on sabbatical at the University of Kentucky in the Department of Nutrition and Food Sciences.

Robert E. Landers (Ph.D.) continues as Director of Nutrition and Toxicology at Best Foods, a division of CPC International, Inc. He made a presentation this spring at the New York Academy of Sciences Conference on Hyperlipidemia in Childhood and the Development of Atherosclerosis. He also made a presentation at the University of Delaware at its University Nutrition Clinic 5th Annual Symposium on Implementing Dietary Recommendations.

Mathew Madappally (Ph.D.) moved to Dallas in May, 1990 to assume the position of Manager, Research and Development and Test Support at Abbott Labs, Clinical Chemistry Division.

Philip G. Reeves (Ph.D.) is on the editorial board of *Journal of Magnesium and Trace Element Metabolism*. He travelled to Dubrovnik, Yugoslavia in May to present a paper at the 7th International Conference on Trace Element Metabolism in Man and Animals.

1971

Melvin T. Yokayama (Ph.D.) is a section editor in "Pharmacology and Toxicology" for the *Journal of Animal Sciences*.



1972

Race L. Kao (Ph.D.) is currently Professor and Director of the Department of Surgery Research at the Alleghany-Singer Research Institute in Pittsburg, Pennsylvania. Dr. Kao serves on the American Heart Association Council on Circulation and was elected to Who's Who in the World and Who's Who in the East.

George Klatt (M.S.) is currently working with the Chicago Department of Health.

Roger Mellenberger (Ph.D.) is a Professor and Dairy Extension Specialist in the Department of Animal Science at Michigan State University. He is serving as Chair of the ASDA West Agro Award Committee, and is a member of the ASDA and the National Mastitis Council. In 1990 he was honored with the Michigan Dairy Memorial Scholarship Award.

1975

Kailash Mathur (Ph.D.) continues as Professor and also M.S. degree program advisor in Nutritional Sciences at South Carolina State College in Orangeburg, SC. He serves on the Board of Directors for the South Carolina Dietetic Association, the Orangeburg Division of the American Heart Association, and the Orangeburg Rotary Club. He is a member of the Advisory Board for the Associate Degree in Nursing Division of Orangeburg Calhoun Technical College. Dr. Mathur was honored as Teacher of the Year by the Department of Home Economics, School of Home Economics and Human Services at South Carolina State College.

Bruce A. Molitoris (M.S.) is Associate Professor of Medicine and of Cellular and Structural Biology at the University of Colorado School of Medicine and is also a Staff Nephrologist at the V.A. Hospital in Denver, Colorado. He serves on the Editorial Board of *The American Journal of Physiology* and as an Ad Hoc Reviewer for the NIH General Medicine B Study Section and Pathology A Study Section. He recently received the Veterans' Administration Clinical Investigator Career Development Award. Dr. Molitoris has spent the past year on sabbatical leave at the Department of Molecular, Cellular and Developmental Biology at the University of Colorado at Boulder.

1976

Guy H. Johnson (Ph.D.) is currently Director of Nutrition for The Pillsbury Company in Minneapolis, MN. Before leaving Gerber Products Company in November, 1989, he headed a team that published "Dietary Guidelines For Infants", of which two million copies have been distributed. Dr. Johnson also writes: "Since I no longer have access to unlimited, free baby food at Gerber, my wife Jean and I decided to have a baby." Adel Marie was born August 10, 1989, "no doubt a future Illini!"

Kathleen M. Koehler (Ph.D.) was promoted in June to Associate Professor of Nutrition in the Department of Health Promotion at the University of New Mexico, Albuquerque. In December, 1989 she participated in the ILSI/Nutrition Foundation workshop on Nutrition and the Aged.

1978

Steven K. Clinton (Ph.D.) is presently an Instructor in Medicine at the Dana Farber Cancer Institute at Harvard Medical School.

Patricia G. Weston (Ph.D.) continues to work as a Research Specialist in the Veterinary Biosciences Department at the University of Illinois.

1979

Young Ha Lee (Ph.D.) is now working as a Research Fellow in the Department of Internal Medicine, Diabetes Center at the Southwestern Medical Center in Coppel, Texas.

Dan Schaefer (Ph.D.) remains at the University of Wisconsin-Madison in the Meat and Animal Science Department. His son and daughter are now 11 and 4 years old, respectively.

1980

Edward Ulman (Ph.D.) is President of Research Diets, Inc. in New Brunswick, NJ and is also a Visiting Assistant Professor in the Department of Nutritional Science at Rutgers University. He writes: "I founded Research Diets six years ago. We formulate and produce custom diets for laboratory animals. The business is healthy and growing - I particularly enjoy discussing the experimental design of industry, government and academic projects we help with."

He looks forward to seeing fellow Illini at a U of I cocktail hour at 1991 FASEB.

1981

Thomas Edes (M.S.) was promoted and granted tenure as Associate Professor of Medicine at the University of Missouri Health Sciences Center in Columbia, Missouri. He is Associate Chief of Staff for Education at the Harry S. Truman Memorial VA Hospital.

1982

Gilbert A. Boissonneault (Ph.D.) is still Assistant Professor in the Department of Clinical Sciences, Division of Clinical Nutrition at the University of Kentucky, in Lexington. He was honored as the 1990 recipient of the Richard D. Kingston Award for Excellence in Teaching by the College of Allied Health Professions at the University of Kentucky.

Rebecca Loomis (M.S.) is an emergency department physician and Acting Emergency Room Director at Onslow Memorial Hospital in Jacksonville, NC.

1983

Lisa A. Reich (M.S.) was promoted to senior product manager at the USCI Division of C.P. Bard, Inc., and is now working in Billerica, Massachusetts.

1984

JoAnn L. Daehler-Miller (M.S.) moved to Minnesota in March and is currently working part-time as a Nutrition Consultant for Pillsbury, in Minneapolis.

Michael Keenan (Ph.D.) continues as Assistant Professor of Human Nutrition in the School of Human Ecology at Louisiana State University in Baton Rouge, LA. He became a member of Gamma Sigma Delta and is an advisor to Alpha Zeta; both are agricultural societies.

Barbara Kochanowski (Ph.D.) is now Group Leader for International Technology Coordination, Health Care with Proctor and Gamble Company, responsible for new oral health care product introductions in Latin America.

Kenneth Poirier (Ph.D.) is now working with the U.S. E.P.A.'s Environmental Criteria and Assessment Office as an Environmental

Health Scientist. His chief duties include developing oral and inhalation reference dose values for use in the agency's risk assessment program and serving as the E.P.A. spokesperson for risk assessment matters with the F.D.A.

### 1985

Lesley Helyar (M.S.) expects to complete her Ph.D. this year. She has received a New Jersey Cancer Research Postdoctoral Fellowship from the New Jersey Commission on Cancer Research and a NIH Postdoctoral Training Grant Fellowship from Rutgers University.

Sharon L. Hoerr (Ph.D.) was promoted in July to Associate Professor in the Department of Food Science and Human Nutrition at Michigan State University. She is also on the New Members Ad Hoc Committee for the American Institute of Nutrition.

David Quig (Ph.D.) has a new position as a Senior Research Associate in the Department of Pharmacology at Burroughs Wellcome Company in Research Triangle Park, NC.

### 1986

Chris Hatlestad (M.S.) received the M.D. degree in May and is working as a Resident Intern at the University of Minnesota Riverside Hospital in Minneapolis. His daughter, Erin Solveig, was born in February.

Anne M. Smith (Ph.D.) continues to work as Assistant Professor in the Department of Human Nutrition at Ohio State University, in Columbus.

### 1987

Yu-Tsyr Li (M.S.) graduated in May from Cornell University with a Ph.D. in Food Science.

Rebecca J. Matheny (Ph.D.) is an Assistant Professor of Foods and Nutrition at San Diego State University. She is a member of the American Dietetic Association, the Society for Nutrition Education and the AIN.

Frances Yen (Ph.D.) is an instructor in the Department of Physiology at Louisiana State University Medical Center in New Orleans.

### 1988

Cecelia Brown (Ph.D.) is working as a Dean's Postdoctoral Fellow in the Department of Endocrinology at

Stanford University Medical Center. Her daughter, Aleze Sarah Brown Krumholz, was born September 13, 1989.

Ronald D. Cotterel (M.S.) is Chief Resident at the University of Michigan Family Practice Residency Program in Ann Arbor, Michigan.

Melanie Shuran (Ph.D.) is currently Assistant Professor and Director of the Coordinated Dietetics Program at California State University in Los Angeles; she is also Chair of the California Dietetic Association, L.A. District. In September 1990, she will be relocating to the midwestern U.S.

### 1989

Denise L. King (Ph.D.) is an Assistant Professor in the Department of Human Nutrition and Food Management at Ohio State University. Her son was born April 10, 1990: Ryan Matthew King.

Eugene S. Olsowka (Ph.D.) is a Fellow of Surgical Pathology at the Rush-Presbyterian-St. Luke's Medical Center in Chicago.

Jane Clark Schuelke (M.S.) moved with her husband Andy to Brussels, Belgium in July, 1990 for a two year assignment with his employer. Formerly, she was working as a research nutritionist in the Lipoprotein Study Unit at the University of Chicago.

### 1990

Min Ma (M.S.) is a doctoral student in the Department of Biochemistry at the University of Illinois.

Janet Novotny (M.S.) is a doctoral student in the Department of Biophysics at the University of Illinois.

Division of Nutritional Sciences  
College of Agriculture  
University of Illinois  
451 Bevier Hall  
905 South Goodwin Avenue  
Urbana, IL 61801

NON-PROFIT ORGANIZATION  
U.S. POSTAGE PAID  
PERMIT #75  
CHAMPAIGN, IL 61820