NUTRITIONAL SCIENCES NEWS

Division of Nutritional Sciences

University of Illinois at Urbana-Champaign

VOLUME 1, NUMBER 1 SPRING 1983

DEAR FRIENDS:

During the past several years, the Division of Nutritional Sciences has grown tremendously in the number of faculty, students, and alumni. With this increase it has become harder and harder to keep informed of each others accomplishments. Hopefully, the Nutritional Sciences News will be an ongoing publication that will help us keep in touch. Although this first issue has been long in coming, we hope to have future issues appear semiannually. Please do not hesitate to let me know of news about yourself or your research group. We would especially like to hear from the alumni. Send all newsworthy items to Anne Smith, 433 Bevier Hall, 905 South Goodwin, University of Illinois, Urbana, IL 61801.

> Sincerely, Anne Smith Editor

Annual Speaker

The Nutritional Sciences Graduate Student Association (NSGSA) successfully arranged for another exciting speaker this spring. Dr. Myron Winick, Director of the Institute of Human Nutrition at Columbia University, presented two lectures on March 8, 1983, on nutrition and pregnancy and nutrition and brain function and behavior. He has done extensive research on maternal and fetal nutrition and on processes basic to cellular growth and is considered a pioneer investigator in the rapidly expanding area of research on nutrition and brain function.

Symposia

ILLINOIS NUTRITION COMMITTEE

Several of our faculty spoke at the INC fall program on Issues in Pediatric and Adolescent Nutrition which was co-sponsored by the Division of Nutritional Sciences and the College of Medicine and the Downstate Illinois Pediatric Society. John Erdman gave an "Overview of Dietary Guidelines"; Ralph Nelson moderated a panel discussion on "Diets of Infants and Young Children"; Mary Frances Picciano spoke on "Insuring the Quality of Breast Milk"; Terry Hatch discussed "Human Milk: More Complex than Ever"; Adria Sherman gave "Iron in Feeding: How Much is Enough"; John Milner discussed "Trace Elements"; and Leann Birch spoke on "Innate and Learned Food Preferences".

SYMPOSIUM ON NUTRITION EXERCISE AND ATHLETIC PERFORMANCE

Richard Boileau chaired the American College of Sports Medicine Symposium on November 12-13, 1982, at which a number of our faculty were invited to speak. Donald Layman spoke on "Nutrition and Exercise in the Maintenance of Body Composition"; Timothy Lohman discussed "Evaluation of Fitness Status by Body Composition Assessment"; Ralph Nelson gave "Vitamin and Trace Metal-Exercise and Sports Anemia".

Faculty News

Honors & Awards

Leann Birch is a newly elected member of the American Institute of Nutrition and John Milner has become a member of the American Association of Cancer Research.

William O'Brien, Jr. and Willard Visek have become fellows in the Acoustical Society of America and the American Society of Animal Science, respectively Dr. Visek has also been awarded the Brittingham Visiting Professorship at the University of Wisconsin, Madison where he will spend a year's sabbatical working at the Institute for Enzyme Research.

Bruce Larson received the College of Agriculture's Funk Award in March 1982.

Ralph Nelson was included in Who's Who in America for 1982.

John Erdman, Jr. has received an excellence in off-campus teaching award given by the University of Illinois continuing education. Toshiro Nishida was included in the incomplete list of teachers ranked as excellent by their students for teaching NS 411.

Esther Sleator has been appointed to the FDA Psychopharmacologic Drugs Advisory Committee for a term ending June 30, 1984.

Mahmood Khan was nominated by the Illinois State Board of Education to be a member of the Child Nutrition and Food Distribution Programs Advisory Council.

Research Grants

The National Institute of Health has awarded grants to several of our faculty members in the past year. Toshiro Nishida received a 5 year grant to study the role of plasma lipoproteins on atherosclerosis. A 3 vear grant was awarded to Adria Sherman for the study of iron nutrition and the development of immunocompetence. John Willis received an NIH grant renewal for the next 4 years. A 3 year NIH/NICHHD grant was awarded to Donald Layman for the study of cellular growth of skeletal muscles and the influences of diet. Esther Sleator received a 3 year grant from the National Institute of Mental Health.

Adria Sherman is also the recipient of a 3 year USDA/SEA competitive grant for research on iron status and the immune response and a 2 year grant from the National Livestock and Meat Board for the study of iron nutrition and lipid metabolism. David Baker also received a USDA grant.

The International Council for Development of Underutilized Plants is funding John Erdman's research on the utilization and nutritional aspects of mature winged bean seed.

<u>William O'Brien, Jr.</u> received an <u>American</u> Heart Association grant this year.

John Milner has received grants from the National Cancer Institute for research on dietary arginine and tumor growth and for the study of selenium and the growth of normal and neoplastic mammary cells. The Pet Food Institute has also awarded Dr. Milner a grant for the study of amino acid requirements of the immature dog.

Orotic acid metabolism in man is the subject of <u>James Robinson's</u> research funded by the National Dairy Council.

The Eastman Kodak Company has awarded Jimmy Clark a grant for his research on rumen protected methionine and lysine for dairy cows. Dr. Clark and Carl Davis have jointly received funds from Archer Daniels Midland for the study of the feeding value of wet corn gluten feed for lactating cows. Dr. Davis has also received a grant from the Church and Dwight Co., Inc. and funds from the University Research Board.

George Fahey, Jr. received a Ralston-Purina Co. grant to study the chemical and physical factors affecting fiber utilization by sheep.

Ross Laboratories awarded Ralph Nelson a grant for his study of the relationship between exercise and nutrition support in geriatric patients. Ross is also funding Dr. Nelson's joint project with Leann Birch. They are studying food preference and physical strength before, during and after nutritional support.

 $\underline{\mbox{Biomedical Research Funds}}$ were awarded to Patricia Johnston.

Alumni News

Two of Dr. Erdman's former students have recently become Assistant Professors.

Joanne Curran (Ph.D.) is now an Assistant Professor of Nutritional Sciences at the University of New Hampshire in Durham.

Len Gerber (Ph.D.) is at the University of Rhode Island.

From Dr. Forbes' laboratory, <u>Mona Calvo</u> (Ph.D.) had a post-doctoral position with Dr. John Erdman until June 1982 and is now a research associate in the Endocrine Research Unit at the Mayo Clinic.

From Dr. Johnston's group, Gil
Boissonneault (Ph.D.) is a research associate at the Jackson Laboratory in Bar
Harbor, Maine. Michael Brown (M.S.) is a
Ph.D. candidate with Dr. Johnston. Becky
Loomis (M.S.) is a medical student at
Southern Illinois University. Lisa
Marshall (Ph.D.) has a post-doctoral
position in Dr. Johnston's laboratory.

From Dr. Milner's laboratory, Abdel Monem Hassan (Ph.D.) is at the University of Kartum, Sudan. Mei Yoong Pau (Ph.D.) is a research associate in Dr. John Milner's laboratory.

Dr. Nelson's student, <u>Lisa Tauss</u> (M.S.) is employed as a research dietician at Carle Hospital in Urbana.

Dr. Picciano's student, <u>Debra Stastny</u> (M.S.) is working as a sales representative with Wyeth Laboratories in Chicago.

From Dr. Sherman's laboratory, <u>Barbara Kochanowski</u> (M.S.) is a Ph.D. candidate with Dr. Sherman. Barb passed her preliminary exam in October.

Dr. Visek's student, <u>Frank Kari</u> (Ph.D.) is with the Department of Pharmacology at the University of North Carolina.

Advisory Committee

Our recently formed Nutritional Sciences Advisory Committee met here for the first time on November 5, 1982. The members of this committee are Dr. Duane Benton, Director, Nutrition Research, Ross Labs; Dr. Burdette Breidenstein, Director, Nutrition Research, National Livestock and Meat Board; Dr. Myron Brin, Director, Clinical Nutrition, Hoffmann-LaRoche, Inc.; Dr. Ronald Chance, Research Advisor, Lily Research Labs; Dr. David Hurt, Director of Nutrition, The Quaker Oats Co.; Dr. Gilbert Leveille, Director, Nutrition and Health, General Foods Corp.; Mr. Peter Peters; Dr. Elwood Speckman, Director, Nutrition Research, National Dairy Council: Dr. Phillip White, Director, Foods and Nutrition, American Medical Assoc.; Dr. James Williamson, Vice President, Division of Research and Technical Service, Ralston Purina Co.

This committee was established by the Division of Nutritional Sciences to provide advice on how to strengthen the pro-

gram, what future directions of research are most important, and to help define goals for the program. The morning session of this meeting consisted of presentations by Drs. Mistry, Milner, Johnston, Robinson, Baker, Erdman, Visek, Lohman, Picciano, Khan, Birch and Ries on the history of the Nutritional Sciences Division, the makeup of the faculty and student body, student recruitment, graduate program and courses and research capabilities. Linda Magrum presented an account of the history, purpose and activities of the Nutritional Sciences Graduate Student Association. The afternoon session focused on long range goals and included a discussion of academic government and industrial perspectives on nutrition education, research, public service and international nutrition concerns. In the evening a banquet was held with Dr. Gerald Combs of the NIH as a keynote speaker. His talk was entitled "Nutrition in Washington: A Personal Perspective".

Retreat

The Nutritional Sciences faculty and students enjoyed a stimulating program on "Frontiers in Nutrition Research" at this year's retreat. The program was held on August 27, 1982 at the Ramada Inn. After an introduction by Dr. Milner, we heard Esther Sleator speak on food additives and hyperkinesis, Ken Poirier on diet and cancer, Donald Layman on protein requirement and exercise, and David Baker on amino acid analogues. Later that day everyone enjoyed our annual picnic around the pool at Dr. Sleator's.

Birth Announcements

Mei-Yoong and Kwok-Yuen Pau are the proud parents of a daughter, Candace, born in March, 1982.

Adria and Michael Sherman have a new daughter, Elisa Joy, born April 28,1982.

Sharon and Bill Hoerr are the proud parents of a son, Christopher William, born September 28, 1982.

Anne and David Smith have a new daughter. Sarah Elizabeth Anne, born December 23, 1982.

Student News

Honors & Awards

Congratulations to Keith Singletary who has been awarded a Foremost-McKeeson Fellowship from the American Institute of Nutrition for 1982-83. Keith was one of five students in the country to receive the award this year which will aid in his studies on the influence of dietary protein on the mutagenicity and carcinogenicity of 7,12-dimethylbenz(a)anthracene. Keith is working under the direction of Dr. Milner.

Funds from the Quaker Oats Company along with additional divisional funds have made fellowships possible for three doctoral candidates: Lisa Olson and James Shoemaker who are both working with Dr. Visek, and Kathryn Harden who is with Dr. Robinson. We are grateful to the Quaker Oats Company for supporting these awards.

Five Nutritional Sciences Graduate students have also been awarded Hunter Fellowships from the College of Agriculture at the University of Illinois for the 1982-83 academic year. They are Jane Clark who is working with Dr. Milner, Sharon Hoerr and Kathleen Golos both with Dr. Nelson, and Rebecca Matheny and Anne Smith, both with Dr. Picciano.

Rebecca Matheny has also been chosen as the recipient of the Marie Dye Memorial Award from the American Home Economics Association and the Research Award from the Illinois Home Economics Association. These awards will aid in her studies of attitudinal measurement of and education on human lactation, for prenatal subjects and medical students. Ross Laboratories has also awarded Rebecca and Dr. Mary Frances Picciano a research grant to help fund this project.

Sharon Hoerr has also been honored as an "Outstanding Young Woman of America".

Mary Grummer, who is under Dr. Erdman's direction, has been elected as an associate member of Sigma Xi. Mary was also the recipient of a Graduate College Dissertation Research Grant.

Invited Presentations

Ken Poirier and Sharon Hoerr were invited to give presentations during the past year. Ken spoke on "Diet, Nutrition and Cancer" at the Nutritional Sciences Retreat and at the Radiation Oncology Training Program. Sharon discussed "Nutrition and the Learning Process" to Georgetown Jr. High and High School teachers and to Decatur High School teachers. Sharon is also the IDA-IHEA Liason for 1982-83 and is the IHEA representative to the Joint Task Force for Nutrition in Illinois.

Professional Activities

David Baker was invited to give several presentations during 1982. These included presentations at the Cornell Nutrition Conference, Iowa State University, the University of Alberta, the International Conference on Amino Acids in Mexico City, the Minnesota Nutrition Conference, and the Amino Acid Conference in Bangkok, Thailand. Dr. Baker is serving on the AIN Membership Committee and the Poultry Science Association Research Committee. He is also a contributing editor for Nutrition Reviews and is on the Poultry Science Editorial Board.

Leann Birch was invited to present "Determinants of Food Intake and Selection" at the 2nd Benjamin Franklin Seminar in LaNaponte, France. Dr. Birch is on the editorial board of the Journal of Nutrition Education.

Jimmy Clark was invited to speak at the Georgia Nutrition Conference. Dr. Clark is serving as production division secretary for the American Dairy Science Association and is on the National Academy of Science Committee on Animal Nutrition.

<u>Carl Davis</u> is on the board of editors of the Journal of Dairy Science.

John Erdman is on the IFT Scientific
Lectureship Committee and the IFT Executive
Committee, Chicago Section. Dr. Erdman is
a monthly columnist for Cereal Foods World
and is on the editorial board of the Journal of Food Science. He presented "Zinc
Bioavailability from Processed Soybean
Foods" at the ACS Meeting and was invited
to chair the Mineral Bioavailability
session at the 42nd IFT Annual Meeting.

George Fahey gave invited papers at the Dr. Scholl Nutrition Conference and at the University of Missouri and was chairman of the Ruminant Nutrition/Pastures and Forages Section at the American Society of Animal Science Meeting. Dr. Fahey has been serving on the Journal of Animal Science editorial board.

Terry Hatch was invited to speak on "Encopresis, Constipation and Gut Motility" at the National Conference on Advances in Pediatric Gastroenterology and

Nutrition which was held in Florida. Dr. Hatch is on the Illinois Public Health Department's Nutrition Services Advisory Committee.

<u>Pat Johnston</u> is associate editor of Lipids and is on the ACS Nutrition Committee. Dr. Johnston presented "Polyunsaturated Fatty Acids, Prostaglandins, and the Immune Response" at the ACS Meeting in Toronto.

Mahmood Khan is IFT Food Service Division secretary/treasurer.

Fred Kummerow is AOCS abstract editor.

Donald Layman spoke on the "Influence of Starvation and Refeeding on the LPL Activity of Skeletal Muscle and Adipose Tissues of Lean and Obese Zucker Rats" for the NIH and North American Association for the Study of Obesity at Poughkeepsie, NY.

John Milner is president of the Nutrition Subdivision of the Division of Agriculture and Food Chemistry of the ACS and chairman of the IFT Nutrition Division. Dr. Milner was invited to speak on the anticarcinogenic-antitumorigenic properties of selenium at the University of California, Davis and at the Conference on Inorganic and Nutritional Aspects of Cancer in LaJolla, California. He also presented "Branched Chain Amino Acid Requirements of the Immature Dog" at the Pet Food Institute Meeting in Kansas City, MO.

Sorab Mistry participated in the Merton F. Utter Memorial Symposium on Biotin Enzymes at Case Western Reserve University.

Ralph Nelson gave several invited presentations during the past year on the metabolism of hibernating bears. These included talks at the 3M Company in St. Paul, the University of Wyoming at Laramie, and Helsinki, Finland. Dr. Nelson also spoke on "Nutritional Management in Chronic Renal Failure" at the NIH Conference on Nutritional Therapy in Chronic Renal Failure and is serving on the editorial boards for American Journal of Clinical Medicine, Geriatrics, and the Physician and Sportsmedicine.

William O'Brien is on the board of editors of several journals dealing with ultrasound: IEEE Transactions on Sonics and Ultrasound, J. of Ultrasound in Medicine, Ultrasound in Medicine and Biology, and J. of Cardiovascular Ultrasonography. Dr. O'Brien is president of the IEEE Sonics and Ultrasonics Group for 1982-83 and treasurer of the American Institute of Ultrasound in Medicine for 1982-83. He participated in the 12th International Symposium on Ascoustic Imaging held in London, England and the 3rd Meeting of the World Federation for Ultrasound in Medicine and Biology held in Brighton, England and gave seminars at the University of California at Irvine, the Schlumberger-Doll Research Center in Ridgefield, CT, the Johns Hopkins University, and the Rensselaer Polytechnic Institute.

Mary Frances Picciano is chairman of the Illinois Nutrition Committee for 1983-85.

Abigail Salyers was invited to speak at Symposia on "Unconvential Sources of Dietary Fiber" and "Enzyme Systems of Digestion and Polysaccharide Processing Biotechnology" at the ACS Meetings in Las Vegas and Kansas City, respectively. Dr. Salyers also participated in the International Conference on Dietary Fiber in New Zealand and is on the editorial

boards of the Journal of Bacteriology and Applied Environmental Microbiology.

Adria Sherman is on the nominating committee of the Illinois Nutrition Committee.

Arthur Siedler is serving as scientific advisor for the American Council on Science and Health.

Esther Sleator was invited to participate in a workshop at the Annual Illinois School Psychologists Association Meeting. Dr. Sleator is on the editorial boards of both Pediatrics and Clinical Pediatrics.

Willard Visek is on the board of editors of the Journal of Nutrition for 1980-83 and is associate editor for the Nutrition and Cancer Journal. Dr. Visek presented "Essential Nutrients and Cancer" to the AMA and to the University of California, Davis graduate group in nutrition. He is also elected councilor for AIN and is a member of the Nutrition Study Section of NIH for 1980-83.

John Willis has co-authored the book "Hibernation and Torpor in Mammals and Birds" published by Academic Press in 1982. Dr. Willis traveled to Mahidol University in Bangkok, Thailand and the University of Alberta in Edmonton to give seminars.

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