Exciting Beginnings and Celebrations

Dear DNS Friends,

It’s springtime on our campus ... a time for exciting beginnings and celebrations for the faculty, students, and stakeholders of the University of Illinois Division of Nutritional Sciences (DNS).

One such celebration occurred on April 17th. We gathered for a special ceremony--an investiture. We celebrated with Dr. Kelly A. Tappenden, professor of nutrition and gastrointestinal physiology, in her new role as the Kraft Foods Human Nutrition Endowed Professor. Professorships are established with a commitment of funding to support the scholarship of the professorship. The funds from this endowment provide opportunities for the holder to excel and defy presumed limits.

Kraft Foods has established this endowment to benefit both the student and the faculty in the DNS through the establishment of two Kraft Foods Human Nutrition Graduate Fellowships, the Kraft Foods Human Nutrition Professorship and the Kraft Foods Human Nutrition Undergraduate Scholarship Program within the Department of Food Science and Human Nutrition.

Kraft Foods’ partnership with the DNS expands their search for fresh ideas that will contribute to the improvement of nutritional health throughout the world. And specifically, Dr. Tappenden’s internationally recognized research into intestinal health. We are deeply appreciative of the funding support given to us by Kraft Foods.

Another celebration was the successful Nutritional Sciences Graduate Student Association Nutrition Symposium on April 18th. Dr. James O. Hill, professor of Pediatrics and Medicine at the University of Colorado School of Medicine and director of the Center for Human Nutrition at the University of Colorado Health Science Center and the Colorado Nutrition Obesity Research Center, served as the keynote speaker. His research focuses on translating the science of weight management into simple, effective programs that work in the community. Once again, the students outdid themselves with planning and delivered a professional and organized event.

A third celebration was commencement weekend (May 12th-13th) when we recognized our students’ achievements. It is truly exciting and rewarding to see talented students move into their professional careers prepared to make a difference!

You too can make a difference and enjoy all that is fresh and renewed in your Division of Nutritional Sciences. Since its organization in 1968, the DNS model of multi-disciplinary collaboration continues to evolve and provide superior graduate education.

Whether you provide private support, sponsor a seminar, mentor a student, or hire our graduates, your investment is critical and appreciated. Gifts can be made conveniently online to the Division of Nutritional Sciences at http://nutrsci.edu/invest_in_dns.

You may even consider making a long-term donation through your estate planning.

For more information, please contact me at KimMeenen@illinois.edu or 217-333-9535.

Thank you,

Kimberly Meenen
87th Bevier Hall, 08 EdM
Director of Development

Giving Options

• DNS Excellence Endowment Fund (0773001): Provides permanent funding for the recruitment and retention of the best graduate students and enhanced research and professional development experiences for all DNS students.

• DNS Excellence Fund (0336514): Provides current funding for research and professional development opportunities for DNS students.

• DNS Annual Fund (0332984): Provides unrestricted support for DNS.

• David H. Baker Nutrition Scholar Award Fund (0771806): Recognizes students who display excellence in research as documented through peer-reviewed publications, awards and research grants.

• James L. Robinson Nutrition Impact Award Fund (0772668): Recognizes students who display excellence in professional service through activities in the NSGSA or to promote and enhance DNS and/or nutrition at the campus, state or national level.

• Frank W. Kari Memorial Award Fund (0773054): Provides travel awards to DNS students to present their scientific findings at professional meetings, such as Experimental Biology.

• Toshiko Nihilda Research Award Fund (0772951): Provides travel support for travel to national and international scientific conferences.

• William C. Rose Award Fund (0770331): Provides travel awards to DNS students to attend scientific conferences in the field of nutritional sciences.

Giving Back

The Division launched its Endowment Initiative in 2001, and we are very thankful to the faculty, students, alumni and friends who have supported DNS through contributions to the Endowment Fund and the Annual Fund. Contributions of all amounts are greatly appreciated. DNS would like to ask that you consider taking this opportunity to help secure our brilliant future by making a new contribution or an additional contribution to your alma mater.

The Edge

Pushing the Boundaries of Nutrition

Division of Nutritional Sciences • University of Illinois at Urbana-Champaign

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A Word from the Director

The Division has a long and successful track record of engaging industry partners (e.g., companies, commodity organizations) in activities that are mutually beneficial. For example, DNS faculty have consistently secured funding from industry to support research, graduate students, post-doctorates, and academic professionals, while companies have capitalized on the amazing talents of our faculty, students and staff as well as the technologically advanced facilities available at the Illinois campus. Recently, Kraft Foods earned a major name recognition when a distinguished number of our faculty, Dr. Kelly Tappenden, was appointed the new Kraft Foods Endowed Professor of Human Nutrition, and several incoming graduate students were awarded Kraft Fellowships. Further, the Nutrition Symposium organized by the Nutritional Sciences Grad Student Association was supported with major investments by seven companies and organizations including Abbott, Dairy Research Institute, Kellogg’s, Kraft Foods, Mead Johnson Nutrition, PepsiCo, and Wrigley. Most sent representatives to participate in a full day of symposium activities. DNS values these partnerships.

Now we have helped forge a new model for industry-university engagement by joining with several interdisciplinary programs and Abbott to establish the Center for Nutrition, Learning and Memory (CNLM). The CNLM is a research initiative designed to support pioneering research on nutritional compound utilization and mechanisms that enhance learning and memory throughout various stages in the lifespan. It is funded by Abbott. In the first year alone, the CNLM funded 13 projects that range from $175K to $2.5M. In an amazing demonstration of the interdisciplinary nature of the program, projects selected for funding involve 45 researchers representing 16 Illinois departments or units, from seven Illinois colleges, with collaborators from eight national and international facilities. DNS faculty are well-represented amongst the 13 projects selected for funding - 3 of our faculty are project PIs, and 10 of our faculty members are co-investigators on one or more of the projects.

If companies have new innovative ideas to pursue that are consistent with our goal to be an internationally recognized center of excellence for preparing future leaders in nutrition, we want to talk!

Go Illini!

Red Johnson

Experimental Biology 2012

University of Illinois Nutrition Mixer

Monday, April 23 ~ 7-9 p.m.
Hilton Bayfront San Diego, CA

Co-sponsored by
Alum Ed Ulman, Research Diets, Inc.
Division of Nutritional Sciences, Department of Agricultural 
Human Nutrition, Department of Animal Sciences

DNS Nutrition Policy and Regulatory Affairs Summit

DNS is excited to announce the 7th annual Nutrition Policy and Regulatory Affairs Summit. This program in Washington, D.C. is ideal for students who are interested in gaining greater exposure to all aspects of nutrition, food policy and regulation. The summit will take place May 21-22, and will provide information on the role of nutritional science in creating food and nutrition policy, discussion of regulatory affairs and consideration of careers in government and industry. In a change from last year’s event, this year the Summit will include students from Cornell, Virginia Tech, Purdue and UMASS, which should provide a great opportunity for DNS students to network with graduate students from other institutions who share an interest in nutrition policy/regulatory affairs.

Focus on Alumni

D. Lee Alkel (Ph.D. 1993) serves on several NIH Committees and received the 2011 NCCAM Director’s Merit Award for outstanding leadership of the Clinical Studies Working Group.

Jamie I. Baum (M.S. 1997) holds an Assistant Professor of Nutrition position at the University of Arkansas.

Jessica Hartke (Ph.D. 2006) was recently appointed Assistant Director of DNS. Among other responsibilities, Dr. Hartke will assist the Director by providing oversight of the day-to-day operations of the Division and exercise greater authority for the development and administration of programs and special projects.

Caroline F. Huntington (M.S. 2000) received the 2011 Mississippi State University Faculty Ervin Atty Jecofit Excellence in Advising Award and the 2011 National Academic Advising Association (NACADA) Outstanding Advising Award in the Faculty Advising category.

Brian L. Landsfield (Ph.D. 2008) serves as a Chair for the ASN Diet & Cancer Research Interest Section as well as Chair for the ASN Diet & Cancer Helpful or Harmful: Soy, Isoflavones and Cancer Risk Symposium, Experimental Biology 2012. He serves as one of multiple Principal Investigators for “Novel Sorghum-based Fortified Blended Foods for Infants and Young Children” sponsored by the McEvoy-Bole International Food for Education and Child Program, Micronutrient Fortified Food Aid Products Pilot (MFFAPP) United State Department of Agriculture (USDA) Foreign Agriculture Service (FAS).

Emily Tomayko (Ph.D. 2011) recently received the position of Dietetic Intern at the University of Houston.

Ghazal Naseri Kouzehgaraei (M.S. 2011) is a Ph.D. candidate in the UIUC Neuroscience Graduate program.

Gabe Wilson (Ph.D. 2010) is a Postdoctoral Fellow in the Department of Biochemistry and Molecular Biology at the Indiana University School of Medicine in Evansville, Indiana.

Barb Yudell (Ph.D. 2009) is employed as grant coordinator in Ken Wilund’s lab and competed on television for the title of WCIA Morning Show’s Heart Healthy Top Home Chef in February.

Congratulations to Nancy Morlarity, recipient of the 2012 College of Agricultural, Consumer and Environmental Sciences Alumni Award of Merit!

Pictured to the left is Alan Purzy, winner of the University of Illinois Lou Liay Spirit Award and Nancy Morlarity, winner of the ACS Alumni Award of Merit. Morlarity graduated with her Ph.D. from the University of Illinois Division of Nutritional Sciences in 1987.
**Focus on Faculty**

### Congratulations to Kelly Tappenden, the new DNS Kraft Human Nutrition Endowed Professor!

- **John Erdman** received the Danaon Institute Mentorship Award at Experimental Biology 2012.
- Nicki Engsper received the 2012 William V. Cranes Award from the Institute of Food Technologists and the Northern California Section of IFT. This award honors an IFT member who has achieved excellence in teaching food science and technology. Engsper will receive the award at the IFT Annual Meeting in Las Vegas, Nevada in June 2012.
- **Sharon Donovan** served as President of American Society for Nutrition for 2011-2012, during which time the society updated its Strategic Map for 2012-2015. She will serve as Past-President and will focus her efforts on launching the ASN Learning Library of Education Resources and becoming involved in the ASN Foundation. Donovan’s NSF-funded research was highlighted in the October 2011 edition of Innovation International, which is Research Media’s publication for the wider dissemination of research findings to the scientific, technology and medical communities. The Healthcare issue had a special focus on NIH/NCI-funded projects.
- **Dr. Gregory A. Engeseth** will focus her efforts on launching the ASN Learning Library of Education Resources and becoming involved in the ASN Foundation. Donovan’s NSF-funded research was highlighted in the October 2011 edition of Innovation International, which is Research Media’s publication for the wider dissemination of research findings to the scientific, technology and medical communities. The Healthcare issue had a special focus on NIH/NCI-funded projects.
- **James Drackley** was listed on the “List of Teachers Ranked as Excellent by Their Students” for his Fall 2011 ANSC 420 Ruminant Nutrition course.
- **Dr. Charles Billman** received the 2011 Applied Health Sciences Excellence in Guiding Undergraduate Research Award. Billman is also a co-PI for the NIH National Institute of Child Health and Human Development study titled Enhancing Children’s Cognitive and Brain Health through Physical Activity Training.
- **Joan Luer** received the Maud Johnson Award at Experimental Biology 2012.
- Paul McNamara received an educational study tour in Sierra Leone in January 2012. McNamara and his students were assigned to conduct a rapid assessment of inland valley rice swamps development by a USAID-funded project, Promotion Agriculture, Governance, and Environment (PAGE), which is facilitated by World Vision and ACDI/VOCA.
- **Elvira de Mejia** received the McCormick Science Institute Research Award at Experimental Biology 2012.
- **Michael Miller** was included in the Spring 2011 “List of Teachers Ranked as Excellent by Their Students” for FSHN 573 Advanced Food Microbiology. Miller is also a co-PI for the USDA/NHRI joint program project titled Prevention of Campylobacter jejuni disease in humans by reducing pathogen load in poultry. He also served Co-Chair for the 2012 Institute of Food Technologists Annual Meeting Symposium as well as a Food Microbiology Subpanel Chair at the 2012 Institute of Food Technologists Annual Meeting.
- **Yoon-Xiang Pan** received the Norman Kretchmer Memorial Award in Nutrition and Development at Experimental Biology 2012.
- **Kelly Tappenden** received the Excellence in Nutrition Education Award at Experimental Biology 2012 and was named the new DNS Kraft Human Nutrition Endowed Professor.
- **Bryan White** was listed on the “List of Teachers Ranked as Excellent by Their Students” for his Fall 2011 ANSC 350 Cellular Metabolism in Animals course.

### 2012 DNS Faculty Awards at 2012 ACES Awards Banquet

- **H. Rex Gaskins (ANSC)** Paul A. Lath Recognition Award
- **William G. Hollerich (FSHN)** Paul A. Lath Recognition Award
- **Karen M. Chapman-Nosalovich (FSHN)** Faculty Award for Excellence in Extension

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**Focus on Research**

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**Research Spotlight**

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**Illinois scientists link dietary DHA to male fertility**

*By Phyllis Fiolester*

Who knew that male fertility depends on sperm-cell architecture? A University of Illinois study reports that a certain omega-3 fatty acid is necessary to construct the arch that turns a round, immature sperm cell into a pointy-headed super swimmer with an extra long tail.

“Normal sperm cells contain an arc-like structure called the acrosome that is critical in fertilization because it houses, organizes, and concentrates a variety of enzymes that sperm use to penetrate an egg,” said Manabu Nakamura, a U of I associate professor of biochemical and molecular nutrition.

The study shows for the first time that docosahexaenoic acid (DHA) is essential in fusing the building blocks of the acrosome together. “Without DHA, this vital structure doesn’t form and sperm cells don’t work,” said Timothy Abbott, a doctoral student who co-authored the study.

Men concerned about their fertility may wonder what foods contain DHA. Marine fish, such as salmon or tuna, are excellent sources of this omega-3 fatty acid.

The scientists then used confocal laser scanning microscopy to track the location in a developing mouse ovary of DHA concentrates a variety of enzymes that sperm use to penetrate an egg,” said Manabu Nakamura, a U of I associate professor of biochemical and molecular nutrition.

The scientists then used confocal laser scanning microscopy to track the location in a developing mouse ovary of DHA. “We could see that the acrosome is constructed at the time small vesicles containing enzymes fuse together in an arc. But that fusion doesn’t happen without DHA,” he said.

In the absence of DHA, the vesicles are formed but they don’t come together to make the arch that is so important in sperm cell structure, he noted.

Nakamura finds the role this omega-3 fatty acid plays in membrane fusion particularly exciting because DHA is abundant in specific tissues, including the brain and the retina as well as the testes, the scientists believe their research findings could also impact research relating to brain function and vision.

“It’s logical to hypothesize that DHA is involved in vesicle fusion elsewhere in the body, and because the brain contains so much of it, we wonder if deficiencies could play a role, for example, in the development of dementia. Any communication between neurons in the brain involves vesicle fusion,” he noted.

The Illinois scientists will continue to study sperm; meanwhile, Nakamura has sent some of his DHA-deficient knockout mice to other laboratories where scientists are studying DHA function in the brain and the retina.

The study was published in a recent issue of Biology of Reproduction. Co-authors are Manuel Roqueta-Rivera, Timothy L. Abbott, Mayandi Sivaguru, and Rex A. Hess, all of the U of I. The work was supported in part by a CONACYT Mexico fellowship award.

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**About Professor Manabu Nakamura**

Dr. Nakamura’s research interests focus on biochemical and molecular nutrition, metabolism and function of polyunsaturated fatty acids; gene regulation by macronutrients, dietary treatment of obesity and prevention of cardiovascular disease and nutrition education. Polyunsaturated fatty acids (PUFAs) and their metabolites are products for a variety of physiological functions in the body. However, the function of an omega-3 PUF, docosahexaenoic acid (DHA) is not well understood although DHA is enriched in brain, retina and testes in humans. The current focus of the Nakamura lab is to elucidate the function of DHA using gene-knockout mice our lab has created. The study will provide a basis for dietary recommendations of PUFAs in various stages of life cycle.
2012 Margin of Excellence Research Fund Recipients

Research funds support research conducted by students and provide them with experience in preparing research proposals. Students are selected by the quality of the proposed research and are provided $400 to $1,000.

Gabriel Chiu (M.S. Freund) - Prevention of prostate cancer metastasis by dietary interventions

Morgan Hous (M.D./Ph.D. Freund) - Biochemical regulation of the obesity-associated neuroimmune stimulus, palmitic acid

Lauren Conlin (M.S. Erdman) - Administration of secondary activation of Caspase-3 during hypoxia & reoxygination

Amy Elson (M.S. Erdman) - Muscle mRNA expressions of PPARs and their target genes

Peter Flitschen (Ph.D. Wilmur) - Effects of inositol triphosphate supplementation and endurance exercise on co-morbid disease in drosophila models

Heather Morgan (Ph.D. Tapped) - Butyrate-induced up-regulation of intestinal glucose transport and signaling pathways in vivo represents possible nutrient therapy for individuals with malabsorption disorders

Jennifer Barnes (Ph.D. Tappenden) - The University of Illinois College of Business Certificate in Business Administration program is designed to provide non-business graduate students with a strategic framework for making informed business decisions. The course offers a concentrated, detailed program that examines an array of topics such as: marketing, financial management, organizational behavior and leadership, innovation technology and management, business ethics. Scholarships for this program are sponsored by Abbott Nutrition.

DPS Students on the UIUC List of Teachers Ranked as Excellent

Spring 2011

Ghazal Naseri Kouzehgarani - CPSC 480 Applied Statistical Methods I

CPSC 542 Applied Statistical Methods II

Jennifer Barnes - FSHN 220 Principles of Nutrition

Hannah Holcher - FSHN 220 Principles of Nutrition

Emily Radlowski - FSHN 220 Principles of Nutrition

Summer 2011

Emily Radlowski - FSHN 120 Contemporary Nutrition

Amy Tomayko - FSHN 120 Contemporary Nutrition

Michelle Johnson - FSHN 416 Food Chemistry Laboratory

Amy MacInnes - FSHN 302 Sensory Evaluation of Foods

Results for the “List of Teachers Ranked as Excellent” are based on Instructor and Course Evaluation (ICECS) questionnaire forms maintained by Measurement and Evaluation, UIUC—Center for Teaching Excellence.

2012 Business Administration Certificate Scholarship Recipients

Gabriel Chiu, Dipi Dev, Amy Elsen, Nathan Pratt, Jennifer Rythjef

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- **Gabriel Chiu (M.S. Freund)**
  - Administered Receptor-Mediated activation of Caco-2 during hypoxia & reoxygenation

- **Lauren Condon (M.S. Erdman)**
  - Prevention of prostate cancer metastasis by dietary interventions

- **Amy Elsen (M.S. Erdman)**
  - Hif-1 alpha mRNA expression in PPARs and their target genes

- **Peter Flitschen (Ph.D. Wulff)**
  - Effects of inarial-fatty acid supplementation and endurance exercise on ox-idid disease in kenskally mice.

- **Heather Morgan (Ph.D. Tappened)**
  - Butyrate induced up-regulation of intestinal glucose transport and signaling pathways in vivo represents possible mitochondrial therapy for individuals with metabolic disorders.

- **Morgan House (M.D./Ph.D. Freund)**
  - Biochemical response to the diabetes-associated neuropathic pain stimulus, palmitic acid

- **Nathan Pratt (Ph.D. Nakamura)**
  - Incorporation of the Four Nutrient Profiling System (4NPS) into an education program for sustained weight loss

- **Joshua Smith (M.S. Erdman)**
  - Investigation of the efficacy of dietary cytokines on prostate microenvironment-secreted activator receptor gamma (PPARY) signaling in mice with altered caudal metabolism

- **Anthony Wang (M.S. Teran-Garica)**
  - Investigating the role of gut-microbial interactions in the transcriptional activation of Gpl41 and Gpl42

- **Krystle Zuniga (Ph.D. Erdman)**
  - Tomato and soy germ for prevention of metastasis of Prostate Cancer

**2011 Nutritional Sciences Gamma Sigma Delta Awards Banquet**

**Awards, Service and Personal Achievements**

- **Jennifer Barnes (Ph.D., Tappened)** received the Harry M. Vars Research Award from the American Society for Parenteral and Enteral Nutrition, the Promising Investigator Award from the American Society for Parenteral and Enteral Nutrition, the James L. Robinson Nutrition Impact Award from DNS, and holds a Ruth L. Kirschstein Fellowship. Barnes serves on the American Society for Nutrition as the Student Interest Group Liaison to the Graduate and Professional Education Committee.

- **Michelle Johnson (M.S., de Mejia)** was selected as winner of a College of Agricultural, Consumer and Environmental Sciences 2012 Graduate Student Research Award. Johnson also received the Graduate College Spring 2012 Conference Travel Grant and the 2012 William Rose Endowed Award. She also had her research published in the December 2011 Journal of Food Science and continues to serve on the NSGSA Fundraising Committee.

- **Katherine Kerr (Ph.D., Swanson)** serves as a student liaison for the Comparative Nutrition Society Board of Directors, and is a Companion Animal Program Committee Member with the American Society of Animal Science. Kerr received the AYRE International Research and Learning Fellowship Award for research in New Zealand and the 2011 IBC Pinnacle Award for outstanding work in the field of animal nutrition.

- **Anthony Wang (M.S., Teran-Garica)** was accepted into the UIUC Medical School Program and is now an MD-PhD student.

- **Fang Yang (Ph.D., School)** gave birth to a baby boy, Frank Jiang on January 23rd - Congrats!

- **Krystle Zuniga (Ph.D., Erdman)** is currently the Student Representative to the ASN Food and Nutrition Sciences Solutions Task Force.

**2011 Business Administration Certificate Scholarship Recipients**

- **Gabriel Chiu**
  - Advised by Donald Layman

- **Amy Elsen**
  - Advised by Mary P. Tappenden

- **Nathan Pratt**
  - Advised by David Nakamura

- **Jennifer Rytych**
  - Advised by Mary P. Tappenden

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**2011 DNS Graduates**

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<tr>
<th>December Graduates</th>
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<tbody>
<tr>
<td>Ghazal Nazari Kouzehgarani: MIS Advised by: Karen Chapman-Novakofski</td>
</tr>
<tr>
<td>Emily Tomayko: PhD Advised by: Kenneth Wiland</td>
</tr>
<tr>
<td>Yingying Wang: MIS Advised by: Marjatta Teran-Garica</td>
</tr>
<tr>
<td>Gabriel Wilson: PhD Advised by: Donald Layman</td>
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**NSGSA Officers**

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<thead>
<tr>
<th>Officers (l to r): Joshua Smith, Brendon Smith, Naiman Khan, Amy Elsen, Nathaniel R. Reznick, Jene Nabehuis, Amy Elsen, and Gabriel Chiu</th>
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</thead>
<tbody>
<tr>
<td>Nathan Pratt: Chair</td>
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<tr>
<td>Amy Elsen: Treasurer</td>
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<td>Joshua Smith: Co-Treasurer</td>
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<td>Amy MacInnes: Secretary</td>
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<td>Elizabeth Reznick: Media Representative</td>
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<td>Brendon Smith: Student Representative to Faculty</td>
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<tr>
<td>Naiman Khan: Graduate Committee Representative</td>
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The study shows for the first time that docosahexaenoic acid (DHA) is essential in fusing the building blocks of the acrosome together. “Without DHA, this vital structure doesn’t form and sperm cells don’t work,” said Timothy Abbott, a doctoral student who co-authored the study.

Men concerned about their fertility may wonder what foods contain DHA. Marine fish, such as salmon or tuna, are excellent sources of this omega-3 fatty acid.

The scientists became intrigued with DHA’s role in creating healthy sperm when they experimented with “knockout” mice that lack a gene essential to its synthesis. “We looked at sperm count, shape, and motility, and tested the breeding success rate. The male mice that lacked DHA were basically infertile,” Nakamura said.

But when DHA was introduced into the mice’s diet, fertility was completely restored. “It was very striking. When we fed the mice DHA, all these abnormalities were prevented,” he said.

The scientists then used confocal laser scanning (3D) microscopy to look at thin slices of tissue in progressive stages of a sperm cell’s development. By labeling enzymes with fluorescence, they could track their location in a cell.

“We could see that the acrosome is constructed when small vesicles containing enzymes fuse together in an arc. But that fusion doesn’t happen in the absence of DHA,” he said.

In the absence of DHA, the vesicles are formed but they don’t come together to make the arch that is so important in sperm cell structure, he noted.

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The–Edge—Spring2012The–Edge—Spring2012

Dr. Nakamura's research interests focus on biochemical and molecular nutrition, metabolism and function of polyunsaturated fatty acids; gene regulation by macronutrients, dietary treatment of obesity and prevention of cardiovascular disease and nutrition education.

Polyunsaturated fatty acids (PUFAs) and their metabolites are essential for a variety of physiological functions in the body. However, the function of an omega-3 PUFAs, docosahexaenoic acid (DHA) is not well understood although DHA is enriched in brain, retina and testes in humans. The current focus of the Nakamura lab is to elucidate the function of DHA using gene-knockout mice our lab has created. The study will provide a basis for dietary recommendations of PUFAs in various stages of life cycle.
A Word from the Director

The Division has a long and successful track record of engaging industry partners (e.g., companies, commodity organizations) in activities that are mutually beneficial. For example, DNS faculty have consistently secured funding from industry to support research, graduate students, post-doctorates, and academic professionals, while companies have capitalized on the amazing talents of our faculty, students and staff as well as the technologically advanced facilities available at the Illinois campus. Recently, Kraft Foods earned major name recognition when a distinguished number of our faculty, Dr. Kelly Tappenden, was appointed the new Kraft Foods Endowed Professor of Human Nutrition, and several incoming graduate students were awarded Kraft Fellowships. Further, the Nutrition Symposium organized by the Nutritional Sciences Graduate Student Association was supported with major investments by seven companies and organizations including Abbott, Dairy Research Institute, Kellogg’s, Kraft Foods, Mead Johnson Nutrition, PepsiCo, and Wrigley. Most sent representatives to participate in a full day of symposium activities. DNS values these partnerships.

Now we have helped forge a new model for industry-university engagement by joining with several interdisciplinary programs and Abbott to establish the Center for Nutrition, Learning and Memory (CNLM). The CNLM is a research initiative designed to support pioneering research on nutritional compound utilization and mechanisms that enhance learning and memory through various stages in the lifespan. It is funded by Abbott. In the first year alone, the CNLM funded 13 projects that range from $175K to $2.5M. In an amazing demonstration of the interdisciplinary nature of the program, projects selected for funding involve 45 researchers representing 16 Illinois departments or units, from seven Illinois colleges, with collaborators from eight national and international facilities. DNS faculty are well-represented amongst the 13 projects selected for funding - 3 of our faculty are project PIs, and 10 of our faculty members are co-investigators on one or more of the projects.

If companies have new innovative ideas to pursue that are consistent with our goal to be an internationally recognized center of excellence for preparing future leaders in nutrition, we want to talk!

Go Illini!

Rod Johnson

Experimental Biology 2012

University of Illinois Nutrition Mixer

Monday, April 23 ~ 7-9 p.m.
Hilton Bayfront San Diego, CA
Co-sponsored by
Alum Ed Ulman, Research Diets, Inc.
Division of Nutritional Sciences, Department of Human Nutrition, Department of Animal Sciences

DNS Nutrition Policy and Regulatory Affairs Summit

DNS is excited to announce the 1st annual Nutrition Policy and Regulatory Affairs Summit. This program in Washington, D.C. is ideal for students who are interested in gaining greater exposure to all aspects of nutrition, food policy and regulation. The summit will take place May 21-22, and will provide information on the role of nutritional science in creating food and nutrition policy, discussion of regulatory affairs and considerations of careers in government and industry. In a change from last year’s event, this year the Summit will include students from Cornell, Virginia Tech, Purdue and UMAB, which should provide a great opportunity for DNS students to network with graduate students from other institutions who share an interest in nutrition policy/regulatory affairs.

DNS Alumni

Let us know how you are doing. Please send updates from your accomplishments or those of your Illinois alum colleagues to nutritionalsciences@illinois.edu to be included in the Fall 2012 issue of The Edge.

D. Lee Akel (Ph.D. 1993) serves on several NIH Committees and received the 2011 NCCAM Director’s Merit Award for outstanding leadership of the Clinical Studies Working Group.

Jamie L. Baum (M.S. 1997) holds an Assistant Professor of Nutrition position at the University of Arkansas.

Jessica Hartke (Ph.D. 2006) was recently appointed Assistant Director of DNS. Among other responsibilities, Dr. Hartke will assist the Director by providing oversight of the day-to-day operations of the Division and exercise greater authority for the development and administration of programs and special projects.

Carolyn E. Huntington (M.S. 2000) received the 2011 Mississippi State University Faculty Ervin Atly Jefcoat Excellence in Advising Award and the 2011 National Academic Advising Association (NACADA) Outstanding Advising Award in the Faculty Advising category.

Brian L. Landsheid (Ph.D. 2008) serves as a Chair for the ASN Diet & Cancer Research Interest Section as well as Chair for the ASN Diet & Cancer Helpful or Harmful: Soy, Isoflavones and Cancer Risk Symposium, Experimental Biology 2012. He serves as one of multiple Principal Investigators for “Novel Sorghum-based Fortified Blended Foods for Infants and Young Children” sponsored by the McEvoy’s-Hole International Food for Education and Child Nutrition Program, Micronutrient Fortified Food Aid Products Pilot (MFFAPP) United States Department of Agriculture (USDA) Foreign Agriculture Services (FAS).

Emily Tomayko (Ph.D. 2011) recently received the position of Dietetic Intern at the University of Houston.

Ghazal Naseri Kouzehgaran (M.S. 2011) is a Ph.D. candidate in the UIUC Neuroscience Graduate program.

Gabe Wilson (Ph.D. 2010) is a Postdoctoral Fellow in the Department of Biochemistry and Molecular Biology at the Indiana University School of Medicine in Evansville, Indiana.

Barb Yudell (Ph.D. 2009) is employed as grant coordinator in Ken Wiland’s lab and competed on television for the title of WCIA Morning Show’s Heart Healthy Top Home Chef in February.

 Congratulations to Nancy Morlarity, recipient of the 2012 College of Agricultural, Consumer and Environmental Sciences Alumni Award of Merit!

Pictured to the left is Alan Puzey, winner of the University of Illinois Lou Liay Spirit Award and Nancy Morlarity, winner of the ACES Alumni Award of Merit. Morlarity graduated with her Ph.D. from the University of Illinois Division of Nutritional Sciences in 1987.

Alumni Updates

Phyllis Picklesimer
Media/Communications Specialist
ACES Information Technology and Communication Services

Other Contributors to The Edge

Alumni Updates

2011-2012 External Advisory Committee

Karen Roberts, PhD
Principal Manager
Scientific & Regulatory Affairs
The Coca-Cola Company

Naomi Yuhasz, MD, PhD
Professor of Medicine
University of Vermont
College of Medicine

Keith Gariso, PhD
Director, Poultry R&D
Abbott Nutrition

Laura Thome, PhD
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Virginia Polytechnic Institute and University

Brian Larson, PhD
Independent Nutrition Consultant
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William Layden, BS
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Gilbert Leveille, PhD
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Executive Director
Wrigley Science Institute

Barbara Lyle, PhD
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Scientist, LANRO

Luis Mejia, PhD
Director of Regulatory and Scientific Affairs
James Randall Research Center

Gregory Miller, PhD
Executive Vice President of Science and Research
National Dairy Council

Martha Stigou, PhD
James Jamison Professor of Nutrition
Division of Nutritional Sciences and College of Ecology
Cornell University

Hugh Tucker, PhD
Vice President
Mead Johnson Nutrition
Giving Options

- **DNS Excellence Endowment Fund (#773001):** Provides permanent funding for the recruitment and retention of the best graduate students and enhances graduate and professional development experiences for all DNS students.
- **DNS Excellence Fund (#336051):** Provides current funding for research and professional development opportunities for DNS students.
- **DNS Annual Fund (#332984):** Provides unrestricted support for DNS.
- **David H. Baker Nutrition Scholar Award Fund (#771806):** Recognizes students who display excellence in research as documented through peer-reviewed publications, awards and research grants.
- **James L. Robinson Nutrition Impact Award Fund (#772988):** Recognizes students who display excellence in professional service through activities in the NSGSA or to promote and enhance DNS and/or nutrition at the campus, state or national level.
- **Frank W. Kari Memorial Award Fund (#773054):** Provides travel awards to DNS students to present their scientific findings at professional meetings, such as Experimental Biology.
- **Toshiko Nihilda Research Award Fund (#772951):** Provides travel support for travel to national and international scientific conferences.
- **William C. Rose Award Fund (#770331):** Provides travel awards to DNS students to attend scientific conferences in the field of nutritional sciences.