A cornerstone of Division of Nutritional Sciences (DNS) student success is the continuous exposure to insightful experiences with expert individuals, such as the Frontiers in Nutritional Sciences seminar series hosted by DNS every semester. The program helps prepare students for positions in academia, industry, government, and non-government organizations. Tzu-Wen Cross, PhD alumnus of DNS, confirmed: “The unique interdisciplinary structure of the seminar series significantly expanded the breadth of my knowledge and fostered my ability to cultivate new research ideas, which has provided a solid foundation for my current role as a postdoctoral research fellow.”

Each week, high-profile researchers are invited to visit the UIUC campus as guest speakers for the seminar, to provide expert testimonies on a wide variety of nutrition related topics. These speakers also spend time networking with faculty and students outside of the seminar, helping to foster new research collaborations. Megan Corbett, a DVM/PhD candidate in DNS, explained: “There are many high impact speakers that cover a wide range of topics that I don’t normally get the chance to explore in my day-to-day studies. I’ve also had several opportunities through the program to meet with these investigators in a small group setting to discuss the research in depth and gain their insights. The seminars provide fresh ideas and aspects in the field of nutrition that can help me look at my own work from different angles.”

Over the course of the semester, the seminar also highlights hard work from on-campus individuals: DNS doctoral students and their research. Diego Hernandez, a DNS PhD candidate, shared his thoughts on the seminar series:

“The DNS seminar is an exceptional opportunity for students to develop great skills and practice asking relevant questions to solve difficult problems. Personally, the DNS seminar series has helped me to broaden my vision of the nutrition field and has helped me immensely to gain the confidence I need to succeed in an academic setting.”

During the Fall of 2017, the Frontiers in Nutritional Sciences seminar series added an exciting new chapter by co-hosting a series of speakers with the College of ACES International Food Security at Illinois (IFSI) program on the “Right to Food, Food Assistance, and the Biological Consequences of Malnutrition.” The seminar centered on discussion of the right to food and programs committed to enabling this right through the realization of the physical effects of food inadequacy. Eight renowned nutrition experts visited UIUC throughout the semester, both to speak at the seminar and to interact with DNS students and faculty outside the classroom.

The joint IFSI and DNS seminar series was considered a huge success, “...by pooling the knowledge and interests represented by organizers from both [DNS and IFSI], we were able to construct a series that covered a range of issues in depth and allowed for meaningful transdisciplinary and food systems consideration of responses to food deprivation around the world,” said Alex Winter-Nelson, director of the ACES Office of International Programs and IFSI.

The Frontiers in Nutritional Sciences seminar series is a vital resource for DNS students and faculty. Private support is needed to help host the seminar speakers. To learn more about supporting Frontiers in Nutritional Sciences, contact Matt Smith at 217-333-6116 and msmi@illinois.edu.
DNS 50th Anniversary Celebration, October 26-27, 2018

*Keynote Speaker: Dr. John W. Erdman*

Friday, October 26: Golf outing with Dr. John Erdman in afternoon, and a social event at Memorial Stadium’s 77 Club in the evening

Saturday, October 27: Scientific presentations at the Alice Campbell Alumni Center Ballroom in the morning, and a dinner banquet at I-Hotel in the evening

Contact us at DNS50@illinois.edu
Stay tuned for registration information in Spring 2018 nutritionalsciences.illinois.edu

In Memoriam

Dr. Carl Davis, a distinguished dairy cattle nutritionist, died on September 14, 2017. Earning his PhD in the Department of Dairy Science at the University of Illinois in 1959, he immediately joined that department as assistant professor, moving up the ranks in a 27-year career. He was an early member of the Nutritional Sciences Program, and 4 of his 12 PhD students were in that program. His research garnered recognition with the American Feed Manufacturers Award in 1971, the Paul A. Funk Award from the then College of Agriculture in 1978 and the Borden Award from the American Dairy Science Association in 1983.

After retiring in 1985, he served as a scientific adviser to Milk Specialties Company, where he formulated calf nutrition products. He had served in the Navy in World War II, having enlisted at the age of 18. He served in the Pacific theater on an escort carrier which survived a near-miss from a torpedo, a kamikaze attack and a major typhoon. A life-long Chicago Cubs fan, he was delighted when they won the World Series in 2016. He is remembered fondly by his former students and colleagues.

Respectfully prepared by James L. Robinson, Professor Emeritus, Department of Animal Sciences and Division of Nutritional Sciences.
Focus on Research

Research Spotlight

Study examines dietary fats’ impact on healthy, obese adults

Pictured (l to r): Sharon Thompson, Dr. Teran-Garcia, and Bridget Hannon

URBANA, Ill. — Metabolically healthy obese adults consuming a diet high in unsaturated fat and low in saturated fat may be able to decrease their total cholesterol by 10 points, a new study suggests.

However, there was little research evidence to support current dietary recommendations that replacing saturated fat with unsaturated fat aids in weight loss, the researchers also reported in their meta-analysis of recent dietary studies.

Nutrition scientists at the University of Illinois analyzed the findings of eight randomized controlled trials to investigate the impact of diets that provided similar amounts of calories, but high amounts of either saturated or unsaturated fats, on the blood lipid levels and body composition of overweight and obese adults.

Each of the studies included a control group of participants who ate a diet high in saturated fats, constituting from 14 to 24 percent of their total energy intake. Found in animal products such as red meat, butter and dairy products, saturated fats have been linked to weight gain and increased risk of cardiovascular disease.

Compared with their counterparts, subjects who ate greater amounts of monounsaturated fats and polyunsaturated fats reduced their total cholesterol by more than 10 milligrams per deciliter.

However, reductions in these individuals’ low-density lipoprotein (LDL, commonly called the “bad cholesterol”) and triglyceride concentrations were marginal, said lead author Bridget A. Hannon, a graduate research assistant at the university.

Regardless of the amount of saturated or unsaturated fat they consumed, only those subjects who followed calorie-restricted diets lost weight, the U. of I. scientists found.

Commonly called the “good fats,” polyunsaturated and monounsaturated fats are found in foods such as olive, sunflower and canola oils; nuts and seeds; and avocados. Consumption of these unsaturated fats has been linked with lower risk of cardiovascular disease and other health benefits.

Obesity has been linked with more than 20 different diseases, and lowering one’s total cholesterol by as little as 10 points can be clinically beneficial, preventing the onset or progression of many of these conditions, said nutritional sciences professor Dr. Margarita Teran-Garcia.

A pediatrician, Teran-Garcia is a professor of human development and family studies, and a faculty member in the Carle Illinois College of Medicine. She and kinesiology and community health professor Ruopeng An were co-authors of the study.

Published recently in the Annals of Nutrition and Metabolism, the study is believed to be the first to examine the effects of replacing saturated fats with unsaturated fats in the diets of more than 660 metabolically healthy individuals who were overweight or obese. The meta-analytic method enabled the researchers to assess the results of multiple studies at once to determine the overall impact of this dietary replacement.

People who are metabolically healthy but overweight have not yet developed any of the weight-related comorbid diseases or conditions such as type 2 diabetes or heart disease, Teran-Garcia said.

“We know that metabolic health, in the context of obesity, is a transient state that may not persist over time, and these individuals are at increased risk of developing different comorbidities,” said co-author Sharon V. Thompson, a registered dietitian and pre-doctoral fellow at the university.

“More than 60 percent of adults in the U.S. are obese or overweight, placing them at greater risk of weight-related diseases, including high cholesterol and stroke, and we need evidence-based strategies to recommend that will prevent disease development,” Thompson said.

While the U of I scientists reported a lack of strong research evidence to indicate that unsaturated fats alone reduced blood lipids, they suggested that consuming healthy fats may be beneficial for preventing other obesity-related comorbidities, especially if combined with a calorie-restricted diet and increased physical activity.

“This can be accomplished in small, simple steps, such as substituting olive oil and canola oil while cooking, and increasing one’s consumption of fish, nuts, fruits and vegetables,” Teran-Garcia said.

“These strategies could not only reduce an individual’s risk of obesity-related diseases but also help them get to a healthy weight.”

Further research is needed to identify the specific properties of fatty acids and food sources that are beneficial and provide the ideal ratio of saturated to unsaturated fat that promotes health, Hannon said.

“The U.S. population is not getting any healthier, and scientists need to provide the public with easy-to-follow, evidence-based dietary recommendations to prevent the progression of obesity-related disease,” Teran-Garcia said.

The paper “Clinical outcomes of dietary replacement of saturated fatty acids with unsaturated fat sources in adults with overweight and obesity: A systematic review and meta-analysis of randomized control trials” is available online or from the News Bureau.

Written by: Sharita Forest
Focus on Students

2017-2018 Fellowship Recipients

**CONACyT Fellowship:**
Miriam Aguilar Lopez
Diego Hernandez-Saavedra

**DNS Excellence Fellowship:**
Karen Chiu

**Graduate College ASPIRE Fellowship:**
Ashlie Santaliz

**Graduate College Dissertation Completion Fellowship:**
Sookyoung Jeon

**Graduate College Fellowship:**
Viridiana Luna
Luis Perez

**Jonathan Baldwin Turner Fellowship:**
Kaylee Hahn
Lucy Mailing
Sharon Thompson

**NSF Fellowship:**
Lindsey Ly

**University Fellowship:**
Joe Rowles

NSGSA 2018 Nutrition Symposium

- **April 18, 2018**
- **Keynote Speaker**
  Dr. Thomas Seyfried

  **Mini-Symposium**
  “Metabolic Alterations in Disease: What Role Can Nutrition Play?”

  **Faculty Presenters**: John Erdman, Rex Gaskins, Hannah Holscher

2017-2018 Fellowship Recipients

**Spring 2017:**
FSHN 426 Biochemical Nutrition I
Diego Hernandez (TA)

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

Student Recognition

2017 ACES Gamma Sigma Delta Awards Luncheon

Pictured (front row): Joe Rowles, Katie Ranard, Sharon Thompson, Laura Moody, Viridiana Luna, Miriam Aguilar Lopez, Celeste Alexander
(middle row): Lindsey Ly, Diego Hernandez, Karen Chiu, Kaylee Hahn, Erin Davis, Dr. Hartke,
(middle row): Dr. Andrade, Dr. CheMyong Ko, Dr. Teran-Garcia (top row): Dr. Madak-Erdogan, Dr. Johnson,
Dr. Holscher, Dr. Jeffrey

2017 New DNS Students
Pictured (l to r): Ramiro Ferrando, Kaylee Hahn, Ashlie Santaliz, Justin Kim, and Karen Chiu.
Not pictured: Susannah Scaroni
Focus on Students

Student News

Awards, Service, and Personal Achievements

Celeste Alexander received an AAVN & Waltham Student Nutrition Research Award (photo above) which consisted of a cash prize and trip to the 21st European Society of Veterinary and Comparative Nutrition (ESVCN) Congress in September 2017, Cirencester, U.K. to present her research from the 2017 AAVN Symposium. She also received honorable mention for an NSF Graduate Research Fellowship, and was re-selected to serve on the Graduate College’s SAGE (Students Advising on Graduate Education) Committee.

Erin Davis was selected as a recipient of the 2016-2017 Dannon Gut Microbiome, Yogurt and Probiotics Fellowship Grant. She will be using the funds to execute a small intervention study titled, “The Effects of Probiotic Yogurt Consumption in Lactating Women on Human Milk and Maternal and Infant Gut Microbiota Composition.”

Natasha Chong Cole and her husband welcomed their first child, Malcolm Preston Cole, IV (‘Quade’) on October 8, 2017.

Jennifer Kaczmarek received the Colgate-Palmolive Scholarship from the Academy of Nutrition and Dietetics Foundation.

Woongbi Kwon received an AYRE International Research and Learning Scholarship through the ACES Study Abroad Office. He traveled to Aarhus University in Denmark for his study abroad experience.

Vanessa Lagos received an AYRE International Research and Learning Scholarship through the ACES Study Abroad Office. She traveled to Aarhus University in Denmark for her study abroad experience.

Laura Moody’s research article ‘Postnatal diet remodels hepatic DNA methylation in metabolic pathways established by a maternal high-fat diet’ was mentioned in Future Medicine as receiving an Altmetrics score of 84.

Student News

Pictured (l to r): Dr. Kelly Swanson, Celeste Alexander, and Dr Richard Butterwick, Global Nutrition Advisor at Waltham Centre for Pet Nutrition

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2017 Quiz Bowl Winners

Pictured (l to r): Joe Rowles, John Mathai, Katie Ranard, Catherine Applegate, and Dr. Erdman

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The Edge - Winter 2018
Faculty Updates

**Hans Stein** accepts his certificate as he was named an honorary member of the Philippine Society of Animal Nutritionists

**Ryan Dilger** is serving as chair for the ASN’s Experimental Animal Nutrition RIS (Research Interest Section) Steering Committee through July 2018.

**Sharon Donovan** has been elected to the National Academy of Medicine. Election to the Academy is considered one of the highest honors in the fields of health and medicine and recognizes individuals who have demonstrated outstanding professional achievement and commitment to service.

**John Erdman** was elected as Fellow of the International Carotenoid Society during the ICS meeting in Lucerne, Switzerland in July, 2017.

**Diana Grigsby-Toussaint** received the Phyllis J. Hill James Scholar Award for Exemplary Mentoring from the College of Applied Health Sciences, University of Illinois-Urbana Champaign, and became a member of the Robert Wood Johnson Foundation-Healthy Eating Research Program, Healthy Food Retail Working Group. Diana gave an invited talk at the School of Food Technology, Nutrition and Bio-Engineering at Makerere University in Uganda, and at the National Academies Keck Futures Initiative Conference in Irvine, CA.

**Hannah Holscher** was recognized as a 2017 New Innovator in Food and Agriculture Research by the Foundation for Food and Agricultural Research and began her term as chair-elect of the Nutrition Translation Research Interest Section of the American Society for Nutrition. She also gave invited talks at the Food and Nutrition Conference and Expo (FNCE) in Chicago, IL, the Institute of Food Technology Annual Meeting & Expo (IFT) in Las Vegas, NV, the Maryland Academy of Nutrition and Dietetics Annual Meeting, and the Florida Academy of Nutrition and Dietetics Annual Meeting. In addition, she was invited to do webinars for the Academy of Nutrition and Dietetics and the Military Family Learning Network.

**Zeynep Madak-Erdogan** gave an invited talk “Role of nuclear transport pathways in development of tamoxifen resistance in breast cancer,” at the Gordon Conference on Hormone Dependent Cancers, August 2017, in Maine.

**Michael Miller** became Associate Editor of the Journal of Dairy Science, and received the International Dairy Foods Association Teaching Award in Dairy Manufacturing. He also gave invited talks at Utah State University, and Michigan State University.

**Hans Stein** co-organized and taught a course on “Carbohydrates in nutrition and health” at the University of Aarhus, Denmark, for graduate students. Five of his students participated in the course – 2 of them DNS students. He also taught a short-course, “Carbohydrate Nutrition” at the University of the Philippines, Los Banos in which more than 60 graduate students participated. He also gave invited talks in Brazil, Chile, Ecuador, Austria, Mexico, the Philippines, Australia, Germany, and Norway.

**Kelly Swanson** received a Distinguished Alumni Award in Fall 2017 from the College of Agriculture, Food Systems, and Natural Resources, North Dakota State University. He gave invited talks at the NIH/USDA sponsored workshop on “Best Practices in Studies of Diet and the Intestinal Microbiome” in Bethesda, MD; the 11th Vahouny Fiber Symposium in North Bethesda, MD; and at the 2017 International Scientific Association for Probiotics and Prebiotics (ISAPP) Meeting in Chicago, IL.

**Jeff Woods** was first author on the first longitudinal human study demonstrating an effect of exercise on the gut microbiome, and was involved in the first study to ever transplant microbiota from an exercised animal into a germ-free mouse.
Brian Berg (Ph.D., 2004) accepted a position with Rhythm Pharmaceuticals as a Medical Science Liaison.

Richard Bukenya (Ph.D., 2017) was selected to participate in the ‘Journey through Science Day’ sponsored by PepsiCo and the New York Academy of Sciences in New York, NY in September 2017.

Tzu-Wen Cross (Ph.D., 2017) accepted a postdoctoral fellow position at the University of Wisconsin-Madison.

Nancy Engelmann Moran (Ph.D., 2010) is on the Editorial Board for Nutrition Research and was selected as chair to the ASN’s Carotenoid and Retinoid Interactive Group (CARIG) RIS (Research Interest Section) Steering Committee.

Henna Muzaffar (Ph.D., 2012) began her term as chair-elect of the Nutrition Education and Behavior Science Research Interest Section of the American Society for Nutrition, and gave an invited talk at the Food and Nutrition Conference and Expo (FNCE). She also became a research coordinator for a healthy lifestyle program, Peer-education About Weight Steadiness (PAWS).

Cassandra Nikolaus (M.S., 2016) received a ConAgra Foods Scholarship from the Academy of Nutrition and Dietetics and was first author on 2 publications in the Journal of Nutrition and the American Journal of Health Behavior.

Katie Robinson (Ph.D./MPH, 2017) accepted a postdoctoral fellow position with the Diabetes Research Training Program at the University of Iowa, which is a two-year T-32 funded position.

Qiang Liu (M.D./Ph.D., 1997) is Vice-President of Dalian Medical University in China, and was first author on a paper recently published in Nature Medicine. He has advanced in academia by earning several very competitive national awards, and is now one of the leading cancer biomedical researchers in the entire country of China.

In Memoriam

Dr. George Bark died on July 27th, 2017 at the age of 57 in Urbana, IL. George earned his B.S. and M.S. in Biology, and ultimately earned his Ph.D. in Nutritional Sciences in May of 1993 and M.D. in May of 1994. While earning both his M.D. and his Ph.D., George was enrolled in the dual degree Medical Scholars Program.

Following his time as a student at the University of Illinois, George entered into a Family Practice (Rural) Residency Program for three years at Union Hospital in Terre Haute, Indiana. During 1994, his final year, he served as the chief resident. He was board-certified in family practice in 1997. Following his certification, George was able to serve a community he cherished as a small-town doctor in Paxton. During his time serving the Paxton community, George worked for the Christie Clinic and then the Gibson City Hospital in their Paxton Clinic.

While working in Paxton, in early 2003, George returned to the University of Illinois as a faculty member for the College of Medicine, specifically as a clinical instructor in family medicine. In 2007, George was promoted to clinical assistant professor. George’s passion and enthusiasm for both his patients and students was always abundantly evident. He will be remembered for his outstanding service to the community and his impact on the medical students he trained.
Support DNS

The Division is very thankful to the faculty, students, alumni and friends who have supported DNS through contributions to the Endowment Fund, the Annual Fund, and other gift funds. 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.

Giving Options

- DNS Excellence Endowment Fund (#773001): 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 Annual Fund (#332984): Provides unrestricted support for DNS
- Frontiers in Nutritional Sciences Fund (#339153) Supports the weekly DNS seminar series for University of Illinois faculty and students
- Nutritional Sciences Margin of Excellence Fund (#339154) Provides conference travel grants and research seed-grant funding to DNS students on a competitive basis
- 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 (#772698): 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
- Toshiro Nishida Research Award Fund (#772951): Provides support for travel to national and international scientific conferences to DNS students
- William C. Rose Award Fund (#770331): Provides travel awards to DNS students to attend scientific conferences in the field of nutritional sciences

2018 Endowed Awards Ceremony

See photo gallery on Facebook @DNSatUofI

50 years DNS

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