In the Division of Nutritional Sciences (DNS), our mission is “To Prepare Transformative Leaders in Nutritional Sciences.” Over the next few semesters we will be using this space to focus on the unique programming DNS has in place that ensures we are doing our very best to fulfill that mission.

DNS has a rich history of training students to be leading interdisciplinary scientists. A key component of this interdisciplinary training includes the development of proposal writing and project management skills. These skills are vital for DNS graduates to be successful wherever their career takes them, whether it is academia, industry, government, or public policy.

In the 1980s, former DNS Director, Dr. John Milner, created a competitive research proposal and travel grant competition for DNS students. The program was later dubbed the “Margin of Excellence” program by long-time DNS member and student advocate, Dr. Jim Robinson. According to Jim, “the title of the program was intended to convey both the excellence of the DNS graduate program and the strong commitment DNS had to helping our students become excellent by enhancing their professional development skills.”

The Margin of Excellence research proposal program provides DNS students with what is usually their first competitive proposal writing experience. Each year, DNS students have the opportunity to submit a three-page research proposal to compete for funding to support a proposed research project. Each proposal is carefully evaluated by a standing committee of DNS faculty members and is assigned a ranking of “good”, “very good” or “excellent”.

After the proposal review process is complete, each student receives a funding notification letter that includes their project ranking along with detailed reviewers’ comments on their proposal. Students are then responsible for all aspects of the management of their funded projects. “Our alumni consistently report that the Margin of Excellence proposal writing process was an extremely valuable part of their training that prepared them for the many proposal submission and evaluation processes they would experience later in their careers,” says DNS Director, Dr. Rodney Johnson.

Over the years, the scope of this exciting seed grant program has expanded to provide greater support for DNS student research. Currently, proposals selected for funding receive up to $2,000 based upon their evaluation and ranking. These funded projects improve student excellence, but have also evolved to serve as a catalyst on the UIUC campus to stimulate preliminary nutrition-based interdisciplinary research, that might not otherwise occur.

The Margin of Excellence research proposal program is one of the many ways that DNS is working to prepare transformative leaders in Nutritional Sciences. To learn more about supporting the Margin of Excellence program, contact Matt Smith at 217-333-6113 and msmi@illinois.edu.
**DNS Employees**

- Dr. Rodney Johnson
  Director
- Dr. Jessica Hartke
  Associate Director
- Dr. Anna Keck
  Visiting Project Coordinator
- Ashley Browning
  Clerical Assistant
- Sarah Wells
  Operations Coordinator

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**News Updates**

### DNS 50th Anniversary Celebration
**October 26-27, 2018**

- **Friday, October 26:** Social event at Memorial Stadium’s 77 Club
- **Saturday, October 27:** Scientific presentations in the morning, and a dinner banquet in the evening

*Watch for more information on this exciting event to be announced soon!*

**Questions - email us at DNS50@illinois.edu**

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**Kelly Swanson named new Kraft Heinz Company Human Nutrition Endowed Professor**

A generous gift from The Kraft Heinz Company established the prestigious professorship in the Division of Nutritional Sciences in 2001. Swanson will be the third DNS faculty member to earn this recognition, following George Fahey and Kelly Tappenden. Swanson, whose home department is Animal Sciences, is a world-renowned comparative nutritionist with unique expertise in nutritional genomics. His research is truly interdisciplinary and thus an outstanding reflection of our interdisciplinary nutritional sciences program. Professor Swanson’s official appointment as The Kraft Heinz Company Human Nutrition Professor began Jan. 1, 2017, and is for a 5-year period. He will be formerly introduced as the Kraft Heinz Human Nutrition Endowed Professor at an investiture ceremony on April 20th, 2017.

**Investiture Ceremony**
**Thursday April 20, 2017, ACES Library**
Focus on Research

Study shows link between hunger and health care costs

By: Debra Levey Larson

URBANA, Ill. – According to a recent study, households that have a tough time putting food on the table face another big challenge. In addition to being food insecure, they have higher health care costs.

“We already know that adults in households that are food insecure have more negative health outcomes than adults in food-secure households,” said University of Illinois economist in the Department of Agricultural and Consumer Economics and DNS member, Craig Gundersen. “However, the cost of the negative health outcomes associated with food insecurity were unknown. This study allows us to quantify these additional costs.”

Gundersen said the total health care costs were higher for food-insecure adults across numerous categories. These included inpatient hospitalization, emergency room visits, physician services, same-day surgeries, home health-care services, and prescription drugs. In total, these costs rose with increasing severity of household food insecurity.

The study analyzed data for 67,033 residents of Ontario, 18 to 64 years old, who participated in the Canadian Community Health Survey. Although the data were from 2005 to 2010, Gundersen noted that the prevalence of household food insecurity in Ontario has not changed significantly in recent years. The survey identified whether individuals were marginally, moderately, or severely food insecure. That information was linked to Ontario administrative health care data to determine individuals’ direct health-care costs during that same time period.

“After adjusting for sociodemographic variables, total costs were 23 percent higher for adults in marginally food-insecure households, 49 percent higher for those in moderately food-insecure households, and 121 percent higher for those in severely food-insecure households, compared with adults in food-secure households,” he said. “These higher costs are staggering.”

Due to data limitations and differences in health-care systems, Gundersen said a similar analysis is not possible for the United States. However, although there are obvious differences between the United States and Canada, there are enough similarities that the general conclusions regarding the relationship between food insecurity and health care costs are likely present in the United States as well.

Gundersen mentioned three main implications for the United States. First, health-care providers should screen patients for food insecurity and then assist them to access additional supports, especially food assistance programs such as the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program). Second, when considering the benefits associated with SNAP and other food assistance programs, their effects on health-care costs should be acknowledged. Because SNAP leads to reductions in food insecurity, it also leads to reductions in health-care costs. Third, there is an increasing concern about the stubbornly high rates of food insecurity in the United States, despite the end of the Great Recession. This concern and the urgency of the search for solutions should be heightened by the higher health-care costs associated with food insecurity.

“Health care costs associated with household food insecurity in Ontario” was published in the Canadian Medical Association Journal and was written by Valerie Tarasuk and Naomi Dachner from the University of Toronto; Joyce Cheng, Claire de Oliveira, and Paul Kurdyak from the Centre for Addiction and Mental Health in Toronto; and Craig Gundersen, Soybean Industry Endowed Professor in Agricultural Strategy and professor in the College of Agricultural, Consumer and Environmental Sciences, Department of Agricultural and Consumer Economics, and Division of Nutritional Sciences at the University of Illinois.
2016-2017 Fellowship Recipients

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

**DNS Excellence Fellowship:**
Jennifer Kaczmarek

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

**I-TOPP Fellowship:**
Natasha Cole
Julia Kim
Katie Robinson

**Jonathan Baldwin Turner Fellowship:**
Celeste Alexander
Lauren Killian
Lucy Mailing
Sharon Thompson

**The Kraft Heinz Company Human Nutrition Fellowship:**
Catherine Applegate
Lindsey Ly

**University Fellowship:**
Catherine Applegate

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**NSGSA 2017 Nutrition Symposium**

**April 19, 2017**

**Keynote Speaker**
Dr. Teresa Davis

**Mini-Symposium**
“Protein in the Modern World”

**Faculty Presenters:**
Juan Andrade
Hans Stein
Nicholas Burd
Yuan-Xiang Pan

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**Student Recognition**

**2016 ACES Gamma Sigma Delta Awards Luncheon**

Pictured (front row): Jan Lumibao, Joe Rowles
(midle row): Kristen DiFilippo, Laura Moody, Bridget Hannon, Natasha Chong-Cole, Lauren Killian
(top row): Amanda Dainton, Annabel Biruete, Sharon Thompson, Lindsey Ly, Catherine Applegate

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**Fall 2016 New DNS Students**

Asma’a Albakri
Ph.D. Candidate
M.S. Human Nutrition & Dietetics
Advisor: Manabu Nakamura

Catherine Applegate
Ph.D. Candidate
M.S. Human Nutrition
Advisor: John Erdman

Melisa Bailey
M.S. Candidate
B.S. Microbiology
Advisor: Hannah Holscher

Amanda Dainton
M.S. Candidate
B.S. Feed Science and Management
Advisor: Maria Regina Cattai de Godoy

Jennifer Kaczmarek
M.S. Candidate
B.S. Food Science and Human Nutrition
Advisor: Hannah Holscher

Woongbi Kwon
Ph.D. Candidate
M.S. Animal Nutrition and Resources
Advisor: Hans Stein

Liz Lagos Munoz
M.S. Candidate
B.S. Animal Science
Advisor: Hans Stein

Su A Lee
Ph.D. Candidate
M.S. Animal Nutrition and Resources
Advisor: Hans Stein

Miriam Aguilar Lopez
Ph.D. Candidate
M.S. Epidemiology
Advisor: Sharon Donovan

Viridiana Luna
M.S. Candidate
B.S. Molecular and Cellular Biology
Advisor: Margarita Teran-Garcia

Lindsey Ly
M.S. Candidate
B.S. Biology
Advisor: Jason Ridlon

Carly Rundle
M.S. Candidate
B.S. Integrative Biology
Advisor: Hans Stein

Jack Trusler
M.S. Candidate
B.S. Biochemistry
Advisor: Ryan Dilger

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**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.**
Celeste Alexander was elected to the UIUC Graduate College Students Advising on Graduate Education (SAGE) board.

Annabel Biruete received the ‘Commission of Dietetics Registration- Doctoral Diversity Scholarship’ from the Academy of Nutrition and Dietetics in September 2016. She presented “Intradialytic Protein supplementation Increases Protein Intake in Older, but not Younger, Hemodialysis Patients and is Associated with Improved Hip Bone Mineral Density” at the American Society of Nephrology’s Kidney Week 2016 in Chicago, IL. Annabel also received the Tutored Research and Education for Kidney Scholars (TREKS) Scholarship from the American Society of Nephrology to attend a research workshop at Mount Desert Island, Maine in June, 2016.

Richard Bukenya is currently developing and validating a general nutrition knowledge questionnaire for adult populations in Uganda as part of his BHEARD fellowship (Borlaug Higher Education for Agricultural Research and Development).

Julia Kim, I-TOPP Scholar, has been selected as a student fellow for the American Public Health Association’s maternal and child health section for 2016-2017.

Brian Leyshon’s paper “Postnatal Iron Deficiency Alters Brain Development in Piglets” was an editor’s pick the month of July 2016 in the Journal of Nutrition.

Jan Lumibao was selected as one of eight inaugural research training fellows in the Tissue Microenvironment (TiMe) Training Program, a university-wide training program through the Department of Bioengineering supported by a T32 grant from the National Institutes of Health (NIH).

Alexandra Lundquist received the Academy of Nutrition and Dietetics Patsyjane O’Malley Memorial Scholarship.

Laura Moody received a UIUC Cancer Scholars for Translational and Applied Research (C*STAR) award.

Katie Robinson received the Patsyjane O’Malley Memorial Scholarship from the Academy of Nutrition and Dietetics. She was awarded ‘Excellent Poster’ by the Clinical Management of Obesity Section, and received first place for her presentation at the “Education Theater Competition” at Obesity Week in November 2016.

May 2016 Graduates
- Sasha McCorkle, M.S. Advisor: Charles Hillman
- Josh Smith, Ph.D. Advisor: John Erdman

August 2016 Graduates
- Renae Geier, M.S. Advisor: Roderick Mackie
- Virginia Luchini, M.S. Advisor: Sharon Donovan/Sooyeun Lee
- Cassandra Nikolaus, M.S. Advisor: Sharon Nickols-Richardson

December 2016 Graduates
- Tzu-Wen Liu, Ph.D. Advisor: Kelly Swanson

2016-2017 NSGSA Officers
- John Mathai Chair
- Jan Lumibao Co-Chair
- Lauren Killian Treasurer
- Erin Davis Co-Treasurer
- Katie Ranard Secretary
- Celeste Alexander Media Representative
- Al Towers Student Representative to the Faculty
- Bridget Hannon Networking Chair and Professional Development

Congrats Grads!

(front Row): Sasha McCorkle, Lauren Conlon, Virginia Luchini, Evelia Milan-Norris
(back row): Dr. Hartke, Courtney Marques, Caitlyn Getty, Josh Smith, Anthony Wang, Dr. Johnson
**2016-2017 DNS Executive Committee**

**Megan Dailey**
Assistant Professor  
Dept. of Animal Sciences  
College of ACES

**Aditi Das**
Assistant Professor  
Dept. of Comparative Biosciences  
College of Veterinary Medicine

**Ryan Dilger**
Associate Professor of Animal and Nutritional Sciences  
Dept. of Animal Sciences  
College of ACES

**Rex Gaskins**
Professor of Immunobiology and Animal Sciences  
Dept. of Animal Sciences  
College of ACES

**Michael Miller**
Associate Professor  
Dept. of Food Science and Human Nutrition  
College of ACES

**Sharon Nickols-Richardson**
Professor and Department Head  
Dept. of Food Science and Human Nutrition  
College of ACES

**Carl Sather**
Clinical Assistant Professor  
Dept. of Internal Medicine and Pediatrics  
College of Medicine

**Kelly Swanson**
Professor of Animal and Nutritional Sciences  
Dept. of Animal Sciences  
College of ACES

**Jeff Woods**
Professor of Kinesiology  
Dept. of Kinesiology and Human Nutrition  
College of Applied Health Sciences

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**2016-2017 DNS Executive Committee**

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**John Erdman** was guest speaker on an hour long radio program on the topic of “Prostate Cancer and your Diet” on WVON, Chicago. He presented at the national IFT meeting in Chicago on “Impact of whole tomato and lycopene on molecular targets of prostate cancer” and at the Toxicology Forum in Salt Lake City on “Lutein: A bioactive case study for safety and efficacy”.

**Luis Mejia** is an expert advisor to the World Health Organization (WHO) in the area of food fortification, and as a result, a new publication is in press. He also presented “New global strategies to combat vitamin and mineral deficiencies” at the Division of Nutritional Sciences Nutrition 500 Seminar in September 2016.

**William (Bill) O’Brien** celebrated his 50th wedding anniversary with wife Wilma on Sept. 17, 2016.

**Kelly Swanson** was named The Kraft Heinz Company Human Nutrition Endowed Professor in October 2016. He co-chaired an ASN-ASAS Conference entitled “Gut Microbiota, Diet, and Health” in Salt Lake City, UT in July. Swanson received the University of Minnesota-Crookston Outstanding Alumni Award. He presented at the ASN-ASAS Conference in Salt Lake City, UT in July; at the ASAS Snack and Fact Briefing to US congressional staff and representatives from federal agencies in Washington, DC in September 2016; and at the Hill’s Pet Nutrition Protein Summit in Kansas City, MO in October 2016.

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**Faculty Updates**


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**2016 Quiz Bowl Winners**

**Pictured: (l to r): Natalie Masis, Louisa Xue, Catherine Applegate, Dr. Stein, and Tzu-Wen L. Cross**

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**NSGSA Faculty Award**

2016 NSGSA Faculty Award  
**Hans Stein**  
“For extraordinary contribution, support and encouragement of DNS Graduate Students”

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**I-TOPP Update**

**Lisa Barnette**, visiting faculty member, Deakin University, Melbourne, Australia presented a seminar in June 2016, “Motor competence as a path to health behaviors and outcomes,” and also taught a workshop for I-TOPP scholars entitled “Debate about the importance of, and rationale for promoting fundamental movement skills (FMS).” Additional Fall 2016 I-TOPP seminars included: **Jennifer Orlet Fisher**, Professor of Social and Behavioral Sciences, Associate Director, Center for Obesity Research and Education, Temple University, “Snacking among young children: essential or excessive?” on October 7, 2016; **Laura Bellows**, Assistant Professor, Food Science and Human Nutrition, Colorado State University, “Developing healthy eating behaviors and activity patterns in early childhood: Longitudinal findings from the Colorado LEAP study,” on November 2, 2016.
Leia (Kedem) Flure (M.S., 2010) is employed as Visiting Research Coordinator under Dr. Anna Arthur in Food Science and Human Nutrition, University of Illinois, and provides part-time dietitian coverage in the Carle Cancer Center. She welcomed her first child, Camelia, in April 2016.

Renae Geier (M.S. 2016) accepted a position at Agro BioSciences, Inc. as a Molecular Microbiologist in their Genomics and Ecology R&D group.

Guy Johnson (Ph.D., 1976) celebrated 10 years as Executive Director of the McCormick Science Institute which is dedicated to advancing scientific knowledge of the potential health benefits of culinary spices and herbs. He was elected Fellow of the American Society of Nutrition. He presented the talk, “Healthy Eating Never Tasted so Delicious”, at the American Spice Trade Association annual meeting near Phoenix. He will be presenting a similar talk in Kovalam, India next February entitled, “Health Benefits of Herbs and Spices – How New Findings may Affect the Herb and Spice Industry”.

Michelle McGuire (M.S., 1988) was promoted to Professor in 2016 in the School of Biological Sciences, Washington State University. She was recipient of the Thomas E. Lutz Teaching Excellence Award, WSU College of Arts and Sciences (2016). She published the 2nd edition of NUTR (Cengage Publishing, 2016), an introductory college-level nutrition textbook for nonmajors and is co-editor (with Drs. Lars Bode and Mark McGuire) of Prebiotics and Probiotics in Human Milk, Elsevier Publishing, 2016.

Josh Smith (Ph.D. 2016) authored a paper, “Mice lacking B-carotene-15,15'-dioxygenase (BCO1) exhibit reduced serum testosterone, prostatic androgen receptor signaling, and prostatic cellular proliferation”, which was published online by the American Journal of Physiology.

Support DNS

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.

Giving Options

- **DNS Excellence Endowment Fund/Project DEED (#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 Excellence Fund (#336514)**: 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 (#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
New Faculty in DNS

Anna Dilger, is an Associate Professor of Muscle Biology and Meat Science. Dr. Dilger’s research focuses on increasing both the quantity and quality of meat produced by livestock animals. We, as animal scientists, are challenged to feed a growing global population using less land and having a lesser effect on the environment. The only way this is possible is through the use of technologies, genetic improvements, improved nutrition and management strategies that increase the efficiency of livestock production. In addition to researching the very applied aspects of meat science, Dilger’s lab also focuses on the molecular basis of muscle growth.

Anna Arthur Parker, is an Assistant Professor in the Department of Food Science and Human Nutrition. The overarching objectives of Dr. Arthur’s research are to 1) conduct epidemiological studies to determine how diet and nutritional status are associated with cancer outcomes such as recurrence, survival and quality of life, as well as with biomarkers of cancer progression and prognosis; 2) translate the findings of these epidemiological studies to clinical intervention trials that will have the potential to inform the development of new clinical nutrition recommendations for cancer patients and survivors.

Marta Yanina Pepino, is an Assistant Professor in the Department of Food Science and Human Nutrition. Research in Dr. Pepino’s lab focuses on the analysis of individual differences in human taste perception and preferences, with an emphasis on sensory control of food and alcohol consumption. By using a combination of psychometrically sound, validated sensory assessment methods and metabolic research methods, the lab is currently studying 1) the effects of bariatric surgery-induced weight loss on eating and alcohol drinking behavior and metabolism; 2) the effects of noncaloric sweeteners on taste preference and glucose homeostasis; and 3) fat taste perception.

Jason Ridlon, is an Assistant Professor of Microbiology in the Department of Animal Sciences. Dr. Ridlon’s research focuses on a mechanistic understanding of how gut microbial steroid metabolism influences human and animal well-being, and identifying potential therapeutic solutions. Research in the Ridlon lab incorporates molecular biology with biochemistry, structural biology with molecular dynamic simulations, bacterial gene-knockout with defined bacterial communities in gnotobiotic animals.

Blair Rowitz is the Medical Director of Surgical Services at Carle with a clinical practice focus in bariatric surgery and gastrointestinal foregut surgery. Dr. Rowitz is a Clinical Assistant Professor of Surgery at the University of Illinois College of Medicine, and is the Interim Dean of Clinical Affairs at the new Carle-Illinois College of Medicine. His research interests include physiologic changes associated with obesity and bariatric surgery as well as novel treatment approaches for small bowel perforations.