

545 56th Street,
Des Moines, IA

Email: jhollis@iastate.edu
Telephone: (515) 450 5309
Nationality: British Citizen/US
permanent resident

James Hollis

Education

Post-Doctoral Research Assistant (September 2003- July 2006)

Purdue University, West Lafayette, IN, USA

Advisor: Professor Richard Mattes

PhD Biological Sciences (2000-2003)

Oxford Brookes University, Oxford, UK

Thesis title: A study of food intake in the elderly

PhD supervisor: Professor CJK Henry

BSc (Hons) Human Nutrition and Food Science (1996-1999)

Oxford Brookes University, Oxford, UK

Work experience

Associate Professor in Food Science and Human Nutrition (Aug 2015 – present)

Iowa State University, Ames, IA, USA

Assistant Professor in Food Science and Human Nutrition (Aug 2008 – 2015)

Iowa State University, Ames, IA, USA

Lecturer in Predictive Nutrition (September 2006 – Aug 2008)

Queen's University, Belfast, Northern Ireland, UK

Food Technologist (July 1999 – October 2000)

Witwood Food Products, Banbury, Oxfordshire, UK

Teaching experience

Purdue University

F&N 315

Fundamentals of Nutrition

F&N 303

Nutrition

Queen's University Belfast

Food Product Development (module coordinator)

Diet and Health (module coordinator)

Food Processing and Packaging
Project supervisor for BSc (Hons) students

Iowa State University

Undergraduate

FSHN 203	Contemporary Issues in Food Science and Human Nutrition
FSHN 364	Diet and the prevention of chronic disease (Module Coordinator)
FSHN 480	Professional Communication in Food Science and Nutrition (Module Coordinator)
FSHN 495	Practicum (Module Coordinator)

Graduate

NutrS 501	Biochemical and Physiological Basis of Nutrition (teach sections on fiber, alcohol and lipids; current module coordinator)
An S 549	Vertebrate Physiology (teach section on gastrointestinal physiology)
KIN 552	Advanced Vertebrate Physiology II (teach section on body weight regulation)
FSHN 575	Processed Foods (Module Coordinator)
FSHN 580	Graduate Orientation Class
An S 620	Advanced Bioenergetics (provide two lectures on 'energy balance - is a calorie a calorie')
FSHN 681	Graduate Seminar Class
FSHN 682	Seminar Reflection (Module Coordinator)

Teaching courses

Certificate in higher education teaching (2002)
Supervising research students (2008)
Project LEA/RN workshop (2013)

Publications

Zhu Y and Hollis JH. Differences in chewing behaviors between healthy fully dentate young and older adults assessed by electromyographic recordings. International Journal of Food Science and Nutrition - Accepted

Zhu Y and Hollis JH. Associations between the number of natural teeth and metabolic syndrome in adults. Journal of Clinical Periodontology - Accepted

Zhu Y and Hollis JH (2015) Relationship between chewing behavior and body weight status in fully dentate healthy adults International Journal of Food Science and Nutrition Mar;66(2):135-9

S. C. Pearce, M. V. Sanz-Fernandez, J. Hollis, L. H. Baumgard and N. K. Gabler (2014) Heat stress induced acute chronological changes in pig appetite and intestinal function Journal of Animal Science. Dec;92(12):5444-54

Zhu Y and Hollis JH (2014) Tooth loss and its association with dietary intake and diet quality in American adults. *Journal of Dentistry* Nov;42(11):1428-35

Zhu Y, Wang H, Hollis JH, Jacques PF (2014) The associations between yogurt consumption, diet quality, and metabolic profiles in children in the USA. *Eur J Nutr* – Epub ahead of print

Zhu, Hsu W and Hollis JH (2014) Modified sham feeding of foods with different macronutrient compositions differentially influences cephalic change of insulin, ghrelin and NMR-based metabolomic profiles. *Physiology and Behavior*. Epub ahead of print

Zhu Y, Hsu W and Hollis JH (2014) Increased number of chews during a fixed-amount meal suppresses postprandial appetite and modulates glycemic response in older males. *Physiology and Behavior* – May 21. Epub ahead of print.

Zhu Y and Hollis JH (2014) Soup consumption is associated with a lower dietary energy density and a better diet quality in US adults. *British Journal of Nutrition* Apr 28;111(8):1474-80

Zhu Y and Hollis JH (2014). Gastric emptying rate, glycemic and appetite response to a liquid meal in lean and overweight males. *International Journal of Food Science and Nutrition* Mar 3 – Epub ahead of print

Zhu Y and Hollis JH (2014). Chewing thoroughly reduces eating rate and food palatability but does not influence meal size in older adults. *Physiology and Behavior* Jan 17;123:62-6

Zhu Y and Hollis JH (2014) Increasing the number of chews before swallowing reduces meal size in normal weight, overweight and obese adults. *Journal of the Academy of Nutrition and Dietetics* Jun;114(6):926-31

Diane F. Birt, Terri Boylston, Suzanne Hendrich, Jay-Lin Jane, James Hollis, Li Li, John McClelland, Samuel Moore, Gregory J. Phillips, Matthew Rowling, Kevin Schalinske, M. Paul Scott, Elizabeth M. Whitley (2013) Resistant starch: Promise for improving human health. *Advances in Nutrition* Nov 6;4(6):587-601

Zhu Y and Hollis JH (2013) Soup consumption is associated with a reduced risk of overweight and obesity but not metabolic syndrome in US adults: NHANES 2003-2006. *PLOS One* – 8(9): e75630

Zhu Y, Hsu W and Hollis JH (2013) The impact of food viscosity on eating rate, subjective appetite, glycemic response and gastric emptying rate. *PLOS One* – 8(6): e67482

Zhu Y and Hollis JH (2013) Appetite control and regulation of food intake: a review of proposed mechanisms. *Nutritional Therapy & Metabolism* – 31(2): 58-68

Zhu Y, Hsu W and Hollis JH (2013) Increasing the number of masticatory cycles is associated with reduced appetite and altered postprandial plasma concentrations of gut hormones, insulin and glucose. *British Journal of Nutrition* – 110(2): 384-390

Mani V, Hollis JH and Gabler NK (2013) Dietary oil composition differentially modulates intestinal endotoxin transport and postprandial endotoxemia. *Nutrition and Metabolism* – 10 (article 6)

Zhu Y, Hsu W and Hollis JH (2012) The effect of food form on satiety. *International Journal of Food Science and Nutrition* – 64 (4): 385-91

Hollis JH, Houchins J, Blumberg JB and Mattes RD (2010). Effects of Concord grape juice on appetite, diet, body weight, lipid profile and antioxidant status of adults. *Journal of the American College of Nutrition* – Oct: 28:574-582

Malidis C, Green BD, Rogers D, Agbaje IM, Hollis JH, Migaud M, Amigues E, Mclure N, Brown RA (2009) Metabolic changes in the testes of mice with streptozotocin induced diabetes mellitus. *International Journal of Andrology* – Apr: 32: 156-165

McKiernan F., Hollis J.H., McCabe, G and Mattes RD (2009). Thirst-Drinking, Hunger-Eating; Tight Coupling? *Journal of American Dietetic Association* – Mar: 103: 486-490

Graham SG, Hollis JH, Migaud M, Browne R (2009). Analysis of betaine and choline contents of aleurone, bran and flour fractions of wheat (*T. aestivum* L.) using ¹H NMR spectroscopy. *Journal of Agriculture and Food Chemistry* - Mar: 57: 1948-1951

Cassidy B, Hollis JH, Considine RV and Mattes RD (2009). The effect of mastication on fat absorption and gut peptide secretion. *American Journal of Clinical Nutrition* – Mar: 89(3): 794-800

Frecka JM, Hollis JH and Mattes RD (2008) Effects of appetite, BMI, food form and flavor on mastication: almonds as a test food. *European Journal of Clinical Nutrition* – Oct: 62(10): 1231-1238

McKiernan F, Hollis JH, Mattes RD (2008) Short-term dietary compensation in free-living adults. *Physiology and Behaviour* – Apr: 93: 975-983

Hollis JH and Mattes RD (2007) Effect of chronic consumption of almonds on body weight in healthy humans. *British Journal of Nutrition* – Sep: 98: 651-656

Hollis JH, Mattes RD (2007) The impact of increased dairy intake on food intake and appetite. *Obesity* – June: 15(6): 1520-1526

Hollis JH and Henry CJK (2007) Dietary variety and its effect on the food intake of elderly adults. *Journal of Human Nutrition and Dietetics* – Aug: 20(4): 345-51

Hollis JH and Henry CJK (2007) The effect of flavor-fortification on sensory specific satiety. *Journal of Sensory Studies* – Aug: 22(4): 367-376

Hollis JH, Mattes RD (2005) Are all calories created equal? Emerging issues in weight management *Curr Diab Rep* Oct: 5(5):374-8.

Mattes RD, Hollis JH, Hayes D, Stunkard AJ (2005) Appetite: measurement and manipulation misgivings. *J Am Diet Assoc* May: 105 (5 Suppl 1):S87-97

Book chapters

Hollis JH. In vivo foundations of in vitro testing of sensory systems in *Functional Foods and Beverages: In vitro Assessment of Nutritional, Sensory and Safety Properties* (Forthcoming)

Hollis JH. Beverages and satiety in *Beverage Impacts on Nutrition and Health* 2nd Edition (Forthcoming)

Mattes RD and Hollis JH. Research methods in appetite assessment in *Research: Successful approaches 3rd Edition*

Other articles

V. Mani, J.H. Hollis, N.K. Gabler (2012) Bitter compounds decrease gastric emptying and influence intestinal nutrient transport. Iowa State University animal industry report

Hollis JH and Mattes RD (2006) The regulation of food intake. United States Potato Board White Paper

Conference abstracts/oral or poster presentations

Yong Zhu and James Hollis (2015) A Higher Number of Eating Episodes is Associated with Lower Dietary Energy Density and Better Diet Quality in American Adults FASEB J (Poster)

Josh Lyte, Nicholas Gabler and James Hollis (2015) Dietary Fat Composition Effects on Postprandial Systemic Markers of Inflammation and Metabolism FASEB J (Poster)

Christine Hutchison, Walter Hsu and James Hollis (2014) Effect of resistant starch on subjective appetite and food intake in healthy adults FASEB J 28 (1) 1040.2 (Poster)

Christine Hutchison, Walter Hsu and James Hollis (2014) The effect of increasing the protein content of breakfasts on satiety and cognitive function in undergraduate students FASEB J 28 (1) 120.2 (Oral)

Christine Hutchison, Walter Hsu and James Hollis (2013) Effect of resistant dextrin on postprandial appetite and subsequent food intake in healthy adults. FASEB J 27 (Student oral presenter won the ASN Young Minority Clinical Investigator Award for this presentation)

Jun J and Hollis JH (2013) Understanding customer healthy menu item selection behaviors at restaurants: Applying the Motivation-Opportunity-Ability (MOA) model. ICHRIE, St Louis, MO, USA. (Poster)

Yong Zhu and James Hollis (2012) The effect of mastication on meal size. Norman Borlaug Poster Competition, Iowa State University (Poster)

Yong Zhu, Walter Hsu and James Hollis (2012) Increasing the number of masticatory cycles reduces appetite and modulates glycemic response and plasma gut hormone concentrations. FASEB J. 26. (Poster)

Yong Zhu, Walter Hsu and James Hollis (2012) Increasing the number of masticatory cycles reduces food intake in healthy young adults. FASEB J. 26 (Poster/Oral) (Student was a finalist in the Emerging Clinical Investigator award for this work)

Yong Zhu, Walter Hsu and James Hollis (2012) Effect of masticatory cycles on postprandial appetite and subsequent food intake in seniors. FASEB J. 26 (Poster)

V. Mani, J.D. Spencer, J.H. Hollis, T.E. Weber and N.K. Gabler. (2012) Lipopolysaccharide and n-3 fatty acids alter intestinal Toll like receptor 4 recruitment and function. Digestive physiology of pigs, Keystone, Colorado. Abstract # 2017 (Poster)

Yong Zhu and James Hollis (2011) The effect of food form on satiety. Norman Borlaug Poster Competition, Iowa State University (Poster)

Yong Zhu and James Hollis (2011) The effect of food form on appetite. Origins of Obesity: Maternal, Epigenetics, and Lifestyle Factors Symposium, Iowa State University (Poster)

Venkatesh Mani, James Hollis and Nicholas Gabler (2011) Bitter compounds decrease gastric emptying and influence intestinal nutrient transport. FASEB J. 25:588.13 (Poster)

Yong Zhu and James Hollis (2011) The effect of food form on appetite. FASEB J. 25:588.9 (Oral)

James Hollis, Buddhi Lamsal, and Yong Zhu (2010) The effect of food viscosity on markers of appetite. FASEB J. 24:330.7 (Oral)

Cassady B, Hollis J, Mattes R (2007) The effect of mastication on appetite and lipid bioaccessibility. International Journal of Obesity 32 (1): S74-S74 (Oral)

Rogers D.A., Green B.D., Agbaje I.M., Hollis J., Migaud M., Amigues E., McClure N., Browne N., and Mallidis C. (2007) Differences In Metabolic Profile In the Testes of Streptozotocin Induced Diabetes Mellitus Mice As Detected By 1H NMR. British Fertility Society Conference (York) (Poster)

Cassady B, Hollis J, Mattes R (2007) The effect of mastication on appetite and lipid bioaccessibility. FASEB Journal 21 (5): A341-A341. (Oral)

Frecka J, Hollis JH, and Mattes RD (2006) Masticatory function: Effects of BMI, appetite, food form and flavor. Obesity (14) A156. (Poster)

Hollis JH and Mattes RD (2006) The effect of almonds on energy balance in adult females. Obesity (14) A165 (Poster)

Hollis JH and Mattes RD (2005) The effect of almond consumption on body-weight in adult females FASEB Journal 19 (5) A1701-A1702 Part 2 Suppl. S (Oral)

Hollis JH, Henry CJK and Joshi MS (2003): Food variety and its impact on food consumption in the elderly. Proc. Nutr. Soc. 62, 50A. (Oral)

Hollis JH and Henry CJK (2001): 7-day food intake in an Oxfordshire residential home for the elderly. Proc. Nutr. Soc. 60, 226A. (Oral)

Invited presentations/seminars

Eating behavior and the appetitive, endocrine and metabolic response. Invited Seminar, Dept. Biological and Molecular Sciences, Iowa State University (2014)

The effect of resistant starch on satiety. Invited talk at Symposium on Resistant Starch. Iowa State University (2014)

The effect of increasing the protein content of breakfasts on satiety and cognitive function in undergraduate students. Invited talk, IPPE, Atlanta, Georgia (2014)

The influence of food oral processing on satiety. Invited seminar, Des Moines University (2013)

The biological, psychological and environmental influences on satiation and satiety. Invited seminar, The North West Iowa Dietetics Conference (2013)

The effect of soluble fiber on appetite and satiety. Invited presentation at a symposium on functional fibers. International Congress of Nutrition, Granada, Spain (2013)

An introduction to dieting and body weight regulation. Invited seminar; Modern Views in Nutrition seminar series. Iowa State University (2012)

Does how you eat matter? Invited seminar, University of Illinois, Urbana-Champaign (2011)

Food choices and their effect on appetite. Invited seminar; Modern Views in Nutrition seminar series. Iowa State University (2008)

Food and energy balance: Are some calories more equal than others? Invited seminar, University of Reading (2008)

Satiety and body weight: addressing almond consumption concerns. FENS, Paris, France (2007)

Obesity: Current issues and future trends. Food 3000, Athens, Greece (2007)

Almond consumption and body-weight. Food 3000, Mazatlan, Mexico (2004)

Media coverage

Interview for the River-to River Public Radio Show (25 October 2013) regarding our research on soup consumption and body weight.

Interviewed by Reuters, Woman's Health Magazine, Fitness magazine and US Weekly Magazine regarding our research on mastication and appetite.

Mastication and appetite research was reported on KCCI 8 and 18 other Mid-western TV/radio stations.

Awards

Member of the Healthy Carbohydrates Team (winner of the CALS Team Award, Iowa State University).

Grant funding

Internal funding

Co-Investigator – Healthy Carbohydrates. Plant Sciences Institute, Iowa State University - \$250,000 (2012)

Co-Investigator – Healthy Carbohydrates. Plant Sciences Institute, Iowa State University - \$250,000 (2011)

PI – The effect of adding MSG to older adult's meals on food intake - NWRC Grant Incentive program - \$5000 (2010)

PI – The effects of food viscosity on markers of appetite. USDA Special Grant \$80,000 (2009-11)

Co-PI - Bioactive Peptides from Soybean Proteins: Preparation, Characterization, and their Antiobesity Properties. Iowa State University College of Health Sciences seed money grant - \$5000 (2008)

PI - An investigation into the role of the built environment on obesity risk in Northern Ireland adults. Department of Employment and Learning Co-operative Awards in Science and Technology Studentship Award (2007)

Teaching grants

Co-PI - Nutritional aspects of food processing– Development of an online undergraduate course - Innovative Teaching Initiatives Grant - \$24,233 (2012)

External funding

Co-PI - Do dietary fatty acids modulate intestinal epithelial function, endotoxin permeability and postprandial endotoxemia? – USDA - \$499,232 (2014-2017)
PI: Dr Nick Gabler; my contribution 50%

Co-PI – Trans-disciplinary graduate training program in childhood obesity using a socio-ecological model - USDA National Needs Fellowship - \$238,000 (2013-2018). PI: Dr Kevin Schalinske; my contribution 10%

PI – The effect of waxy and tapioca starch on appetite – Tate and Lyle -\$210,332 (2013-2014)

PI - The effect of increasing the protein content of breakfasts on satiety and cognitive function in undergraduate students – National Pork Board – \$75,232 (2012-2013)

PI - Understanding nutrition and sustainability parameters of new generation of processed foods and educating the next generation of scientists - Partner University Fund - \$162,794 (2012-2014).

PI – The effect of starch on appetite – Tate and Lyle - \$99,768 (2011-2012)

PI – Consumer acceptability and stability of omega-3 enriched pork products. National Pork Board - \$22,324 (2009)

Co-PI - Effects of Concord grape Juice Consumption on Appetite, Diet, Body Weight, Lipid Profile and Antioxidant Status of Humans. Welch's grape juice. \$194,922 (2006).

Co-PI - The effect of meal replacement strategies on appetite and body weight. Kelloggs. \$170,000 (2005)

Co-PI - The effect of mastication on lipid bioaccessibility and gut hormone release. Almond Board of California. \$162,622 (2005)

Co-PI – The effect of consuming three portions of dairy foods on food intake and appetite. Dairy Marketing Inc. \$75,000 (2005)

Student supervision

Undergraduate students

Nicholas Arensdorf (2013-2014) Undergraduate Research Assistantship

Megan Downey (2012-2013) Honors student

Teagon Erikson-Willet (2010-2011) Honors student

Christopher Miller (2009-2010) McNair Scholarship Program

Graduate students

Completed

Yong Zhu (2008-2012) The influence of mastication on appetite in young and older adults (PhD)

Current

Christine Hutchinson (2011-) Resistant starch and energy balance in humans (PhD)

Josh Lyte (2014-) The role of dietary fatty acids on endotoxin transport, intestinal health and systemic inflammation (PhD)

Independent study

Jinhyun Jun (2012) Understanding healthy menu item selection behaviors at restaurants through the Motivation-Opportunity-Ability (MOA) model

Program of studies committee member

Completed

Alison Glidden (M.S). Department of Kinesiology. Major Professor: Doug King

Christi Schulte (M.S) Department of Food Science and Human Nutrition. Major Professor: Matthew Rowling

Justin Banach (M.S). Department of Food Science and Nutrition. Major Professor: Buddhi Lamsil

Richard Faris (P.h.D). Department of Animal Sciences. Major Professor: Mike Spurlock

Raj Murugesan (P.h.D). Department of Animal Sciences. Major Professor: Mike Persia

Benji Wetli (M.S). Department of Kinesiology. Major Professor: Doug King

Jessica Palo (M.S). Department of Design. Major Professor: Paul Bruski

Seth Armah (P.h.D). Department of Food Science and Human Nutrition. Major Professor: Manju Reddy

Jinhyun Jun (P.h.D) Department of Tourism and Hospitality. Major Professor: Susan Wohlsdorf-Arendt

Current

Julie Lee (P.h.D). Department of Tourism and Hospitality. Major Professor: Rebecca Liang

Hong You (PhD). Department of Food Science and Human Nutrition. Major Professor: Wendy White

Service

Department

Member of the Interdepartmental Graduate Program in Nutritional Sciences Curriculum Committee (2015-)

Member of the Curriculum committee (2014-)

Member of Nutrition Sciences Faculty Search Committee (2014)

Member of Food Science Faculty Search Committee (2013)

Member at large - Department Advisory Council (2012-2013)

Chair of the Modern Views in Nutrition Seminar Series Committee (2012)

Member of Food Science Faculty Search Committee (2012)

Member of the Modern Views in Nutrition Seminar Series Committee (2009-2011)

Member of the Food Science and Human Nutrition Seminar Committee (2009 -)

Member of Undergraduate Recruitment Committee (Aug 2009 - 2011)

Member of the Iowa State University Nutritional Sciences Council (2008-)

University

Member of the Iowa State University Institutional Review Board (Oct 2008 – Oct 2011 and January 2014 - present)

Member of the Iowa State University Nutrition and Wellness Research Center Operations Committee (2011-2013)

Chair of the Norman Borlaug Poster Competition (2011- 2014)

Norman Borlaug Poster Competition judge (2009, 2010)

Professional activities

Session Chair: Regulation of Food Intake. FASEB, Boston, USA (2013)

Session Co-Chair: Regulation of Food Intake. FASEB, San Diego, USA (2012)

Session Co-Chair: Regulation of Food Intake. FASEB, Washington DC, USA (2011)

Committee Member of the Northern Ireland Institute of Food Science and Technology (2007-2008)

Session Co-Chair: Nutrient Effects on Food Intake and CNS Function. FASEB, San Francisco, USA (2006)

Journal article reviewer

American Journal of Clinical Nutrition, British Journal of Nutrition, Appetite Physiology and Behavior, Journal of Agriculture and Food Chemistry, Journal of Nutrition, Obesity, European Journal of Clinical Nutrition, Journal of Food Science, Food Quality and Preference, International Journal of Obesity, Journal of Hospitality & Tourism Research, European Journal of Nutrition, Nutrition Research Reviews, BMC Gastroenterology, British Medical Journal Open, Diabetologia, Journal of Human Nutrition and Dietetics, New Zealand Medical Journal, PLOS One, Nutrition Research, Chemical Senses

Grant Reviewer

Ad hoc reviewer for USDA (2006)

Ad hoc reviewer for The Netherlands Organization for Scientific Research (2015)

Society memberships

Member of the American Nutrition Society