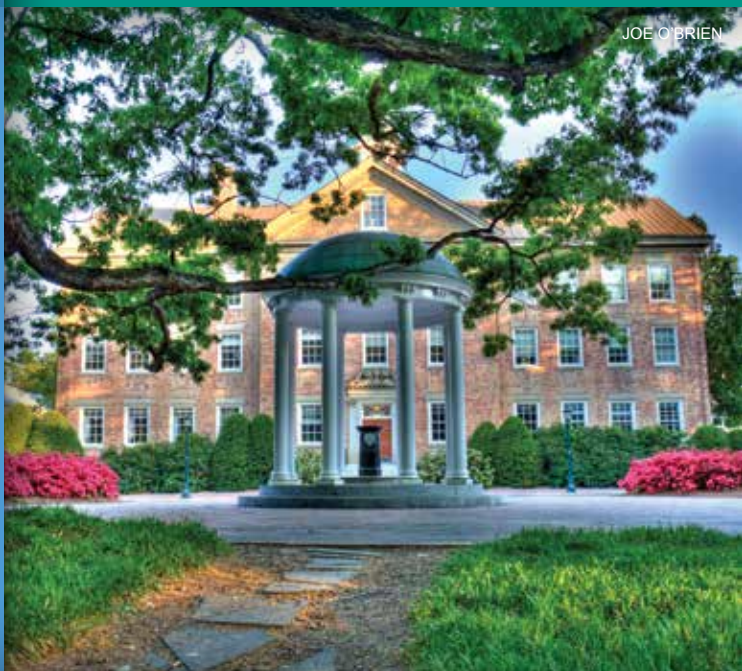



2015

ISNN

JOE O'BRIEN



9th Congress of the
INTERNATIONAL SOCIETY of NUTRIGENETICS and NUTRIGENOMICS
Chapel Hill, North Carolina, USA | May 17–19, 2015



**Expanding the
evidence base for
genome-directed
personal nutrition.**

Visit isnn2015.org for latest information.

The time has come for the use of nutrigenomics in practice, but with which specific information, and what interventions should follow? This meeting will be the place to talk to the experts, learn about best practices, and network with colleagues from around the world.

NUTRIGENETICS IN PRACTICE* 11:00 a.m. – 3:30 p.m.

Intensive training course (for licensed professionals only)

Martin Kohlmeier, Olivia Dong

Primer of genomics terms and principles

Ethical and legal frameworks

Inventory of high-utility gene variants

Genotype-based nutrition counseling

**Special
registration
required.*

#ISNN15pract

AFTERNOON SESSION 4:00 – 7:00 p.m.

Building the tools for nutrigenomic research

Opening of the 9th ISNN Congress Raffaele De Caterina

The significance of nutrigenetics and nutrigenomics
for clinical practice Martin Kohlmeier

A lifetime of genetic research

Oliver Smithies

#ISNN15smithies

Individual micronutrient inadequacy

promotes diseases of aging Bruce Ames

#ISNN15ames

Conversation: What young researchers should know

Speakers' dinner (by invitation only) 7:00 p.m.

ISNN board meeting (by invitation only) 8:30 p.m.



Session locations are noted by colored circles throughout the schedule. Signs will also be posted in the Inn.

- Club Room
- Chancellors' Ballroom
- Grand Ballroom



Using twitter during ISNN 2015: We will use twitter as our Q&A platform and for real-time commentary throughout the congress. Hashtags for each session are listed throughout the program (e.g. #ISNN15ames). See instructions later in this booklet for information on how to use twitter during the congress.

MORNING SESSION 8:00 – 10:00 a.m.

Squaring ethics, privacy, law and policy

Introduction Eric Juengst

Current legal protections of genomic information in the US
Sonia Suter

Balancing harms and benefits of nutrigenetics Ulf Görman

Beware the informational overload of healthcare providers
Richard Sharp

Facilitator-led conversation *#ISNN15lawethics*

Break | meet with poster presenters 10:00 a.m.

PLENARY SESSION 10:40 – 11:40 a.m.

Genetic variation of one-carbon metabolism in health and disease

Optimal one-carbon nutrition Steven Zeisel

MTHFR deficiency: implications for folate intake at both ends of the spectrum Rima Rozen

Genomic variation in one-carbon metabolism and cardiovascular diseases Abbas Dehghan

Panel discussion Zeisel, Rozen, Dehghan, Niculescu *#ISNN15onecarb*

Breakout sessions 11:45 a.m. – 1:30 p.m.

Boxed lunches will be served.

Tailoring essential fatty acid intakes

Background and charge Hooman Allayee

Invited commentary Mihai Niculescu

Discussions and preparation of draft report *#ISNN15efa*

Breakout sessions, continued...

Individual folate intake requirements

Background and charge Natalia Krupenko

Invited commentary Rima Rozen

Discussions and preparation of draft report *#ISNN15fol*

Break 1:30 p.m.

PLENARY SESSION 2:00 – 2:45 p.m.

Reporting back on tailoring essential fatty acid intakes
Hooman Allayee *#ISNN15efa*

Reporting back on individual folate intake requirements
Natalia Krupenko *#ISNN15fol*

Discussion and preparation of draft report

Break 2:45 p.m.

AFTERNOON SESSION 3:00 – 5:30 p.m.

Personal nutrition in practice

Introduction Martin Kohlmeier

Does personalizing improve dietary intake:
lessons from the Food4me study John Mathers

Using genetic information for tailoring lipid-lowering interventions Peter Jones

Building a nutrigenetics practice Ahmed El-Sohemy

Computer-based personal nutrition guidance Martin Kohlmeier

The Network of Centers for Genetics, Nutrition,
and Fitness for Health Artemis Simopoulos *#ISNN15persnut*

Campus walking tour 5:30 p.m.

Congress dinner 7:30 p.m.

MORNING SESSION 8:00 – 10:00 a.m.

Getting nutrigenetic interpretations right

Introduction Saroja Voruganti

Empirical databases for nutrigenetics and nutrigenomics:

Food4me Alfredo Martinez

What population studies can and cannot tell us Kari North

Why we need nutrigenetics in intervention studies that fail

Steven Zeisel

Innovative biosystems approaches in nutrigenetic research

Ben Van Ommen

How metabolomics potentiates nutrigenomics

Susan Sumner

#ISNN15interp

Break | meet with poster presenters 10:00 a.m.

● Award-winning poster contributions 10:40 – 11:30 a.m.

● Breakout sessions 11:45 a.m. – 1:30 p.m.

Boxed lunches will be served.

Genotype-directed weight management

Background and charge Alfredo Martinez

Invited commentary Lu Qi

Discussions and preparation of draft report #ISNN15wt

Individual caffeine tolerance

Background and charge Raffaele De Caterina

Invited commentary Ahmed El-Sohemy

Discussions and preparation of draft report #ISNN15caff

Break 1:30 p.m.

● PLENARY SESSION 2:00 – 2:45 p.m.

Reporting back on individual caffeine tolerance

Raffaele De Caterina

#ISNN15caff

Reporting back on genotype-specific weight management

Alfredo Martinez

#ISNN15wt

Break 2:45 p.m.

● AFTERNOON SESSION 3:00 – 5:00 p.m.

Epigenutrientomics for practical use

Introduction Folami Ideraabdullah

Nutritional and genetic effects on imprinted genes

and repeat elements Paul Haggarty

Challenges in Population Nutriepigenomics

Karin Michels

Nutri-Epigenomics — A tool for applied nutrition

in cancer prevention?

Clarissa Gerhäuser

Beyond “wrong” and “right” in Nutriepigenetics

Mihai Niculescu

Facilitator-led conversation: Practical use? #ISNN15epigen

● Congress Conclusion 5:15 p.m.

Epilogue Alfredo Martinez

Announcement of the 2016 ISNN Congress Ram Reifen

We hope to see you next year at the
10th Congress of the ISNN
in Tel Aviv, Israel, May 23 – 26, 2016.

KEYNOTE SPEAKERS



BRUCE AMES, PhD

Senior Scientist at Childrens Hospital Oakland Research Institute and director of their Nutrition & Metabolism Center; Professor Emeritus of Biochemistry and Molecular Biology, University of California, Berkeley. His Triage Theory suggests that evolution tuned metabolism to preferentially retain nutrients in moderate deficiency to ensure survival and reproduction.



OLIVER SMITHIES, DPhil

Excellence professor of Pathology and Laboratory Medicine, University of North Carolina at Chapel Hill. Nobel Prize in Physiology or Medicine for the discovery of principles for introducing specific gene modifications in mice by the use of embryonic stem cells. Introduced starch as a medium for protein electrophoresis and developed homologous recombination of transgenic DNA with genomic DNA.



Using twitter during ISNN 2015:

How to set up a twitter account:

1. Go to www.twitter.com and click “get started”
2. Enter name, email, and password; click “sign up for twitter”
4. Choose a **username** (your twitter “handle,” e.g. **@username**)
6. Click “Sign up.”

How to use twitter during ISNN2015:

To share a “tweet,” type your message into the “what’s happening” box on the home screen.

Hashtags (e.g. **#ISNN2015**) are used at the end of tweets to mark the message and allow for easy searching. They are a way to link your tweet to all other tweets containing that hashtag. For example, you

SPEAKERS



HOOMAN ALLAYEE, PhD

Associate Professor of Preventative Medicine, Department of Preventative Medicine, University of Southern California Keck School of Medicine, Los Angeles, California. ISNN President-elect. His research focuses on integrative genetic and genomic approaches to understanding cardiovascular disease, diabetes, and obesity.



RAFFAELE DE CATERINA, MD, PhD

Professor of Cardiology and Director for the University Cardiology Division “G. D’Annunzio” University, Chieti, Italy; past President of ISNN. His areas of research include genetic determinants of cognition to caffeine drinking, inflammation, and cardiovascular disease.



ABBAS DEHGHAN, MD, PhD

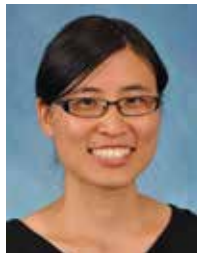
Assistant Professor of Epidemiology, Department of Epidemiology, Erasmus Medical Center, Rotterdam, Netherlands. His research focuses on the effect of lifestyle factors and genetic variation on cardiovascular outcomes. He contributed extensively to the Rotterdam Study and several other population studies.

can search **#ISNN2015** and see all tweets containing that hashtag. Tweet comments and/or questions during specific sessions with the corresponding hashtag shown in this program.

During Q&A sessions, please use the first tweet to identify and introduce yourself. Your second tweet should include your question. Don’t forget to include the appropriate session hashtag! You can also search twitter for the session hashtag to see what questions have already been asked.

Use the appropriate poster hashtag to comment on particularly interesting poster presentations or to arrange to meet the author.

SPEAKERS



OLIVIA DONG, MPH, RD, LDN

Doctoral student in Pharmaceutical Therapeutics, Eshelman School of Pharmacy, University of North Carolina at Chapel Hill. Her research focuses on implementing preemptive pharmacogenetics data in the clinical setting. Previous research projects include the effect of low choline on muscle dysfunction, and type 2 diabetes polymorphism genotyping.



AHMED EL-SOHEMY, PhD

Associate Professor of Nutritional Science, Faculty of Medicine, University of Toronto; Founder and Chief Science Officer of Nutrigenomix Inc., Toronto, Canada. His research goal is to identify biomarkers of dietary exposure and elucidate the genetic basis for variability in nutrient response and dietary preferences.



CLARISSA GERHÄUSER, PhD

Group leader, Cancer Chemoprevention and Epigenomics, German Cancer Research Center, Divisions of Toxicology, Epigenomics, and Cancer Risk Factors, Heidelberg, Germany. Her research interests include epigenetic profiling, breast and prostate cancer, and nutri-epigenetics and cancer prevention.



ULF GÖRMAN, PhD

Emeritus professor of Ethics, worked at Lund University and Jönköping University, Sweden. His research includes bioethical questions with relation to personalized nutrition, recently in Food4Me, DNA-based information and intervention, brain-machine interfaces, and ethical questions in the interface between the natural sciences and views of life.

SPEAKERS



PAUL HAGGARTY, PhD

Professor and Head of Lifelong Health Division, Head of Public Health Nutrition Group, Rowett Institute of Nutrition and Health, University of Aberdeen, Aberdeen UK. His research is centered around epigenetics in cognition, behavior, cancer, and cardiovascular disease, and the effect of folic acid intake in pregnancy on imprinted gene methylation.



FOLAMI IDERAABDULLAH, PhD

Assistant Professor of Genetics, University of North Carolina at Chapel Hill School of Medicine. Nutrition Research Institute, Kannapolis, North Carolina. She investigates genetic factors that contribute to diet-related disease susceptibility, to allow for better screening, more effective treatment, and preventative care.



PETER JONES, PhD

Professor and Director of Human Nutritional Science and Food Science, Department of Agricultural and Food Sciences, University of Manitoba, Canada; Chair of the Cooperative Advancement of Plant Sterols in Canada. His research focuses on dietary determinants of cholesterol biosynthesis, absorption, and turnover, as well as mechanisms of plant sterols.



ERIC JUENGST, MA, PhD

Dr. Juengst holds his Ph.D. in Philosophy, but has spent his career in medical academia studying ethical and conceptual issues in human genetics and genomics. From 1990-1994 he directed the Ethical, Legal, and Social Implications program of the U.S. Human Genome Project at NIH, and has since led a series of NIH-funded studies of challenges raised by the clinical integration of genomics and the emergence of “precision medicine.”

SPEAKERS



MARTIN KOHLMEIER, MD, PhD

Research professor, Department of Nutrition, Schools of Medicine and Public Health, University of North Carolina at Chapel Hill and UNC Nutrition Research Institute, Kannapolis, North Carolina; Secretary, ISNN. He researches genetic variation as a modulator of nutrient disposition and the translation of nutrigenetic knowledge into clinical practice.



NATALIE KRUPENKO, PhD

Assistant Professor, Nutrition Research Institute, Kannapolis, North Carolina. Dr. Krupenko's research focuses on the role of folate in promoting health and preventing disease in humans, with the goal of determining the best ways to utilize health-protective properties of folate and prevent adverse effects.



ALFREDO MARTINEZ, MD, PhD

Professor of Nutrition, Co-director of the Institute of Food and Nutritional Sciences, University of Navarra, Pamplona, Spain. President of ISNN. Areas of research include nutritional and clinical interactions between nutrition and genetics, nutritional and hormonal control in obesity, and nutritional utilization of functional foods.



JOHN MATHERS, PhD

Professor of Human Nutrition, Director of the Human Nutrition Research Centre, Newcastle University, Newcastle on Tyne, U.K. Areas of research include Food4Me personalized nutrition, the LIVEWELL program, nutrition and the biological process of aging, and mechanisms of DNA methylation.

SPEAKERS



KARIN MICHEL, MPH, ScD, PhD

Associate Professor of Obstetrics, Gynecology, and Reproductive Biology, Harvard Medical School; Associate Professor, Department of Epidemiology, Harvard School of Public Health, Boston, Massachusetts. She currently researches effects of environmental stressors on DNA methylation in cord blood and placenta.



MIHAI NICULESCU, MD, PhD

Assistant Professor, Department of Nutrition, Kannapolis, NC; Founder and CEO, Advanced Nutrigenomics LLC; Chief Scientific Officer, Nutrigene Sciences LLC. Current research focuses on individualized nutrition and interactions between plant food consumption and human health outcomes.



KARI NORTH, PhD

Professor, Department of Epidemiology and Carolina Center for Genome Sciences, Gillings School of Public Health, University of North Carolina at Chapel Hill. She works on genetic epidemiology, statistical genetics, cardiovascular disease, type 2 diabetes, and obesity.



LU QI, MD, PhD

Associate Professor of Medicine, Harvard Medical School, Associate Professor of Nutrition at Harvard School of Public Health, Boston, Massachusetts. He works on genetic and nutritional epidemiology of obesity and interactions of genetic variants and nutrition in relation to metabolic disorders.

SPEAKERS



RIMA ROZEN, PhD

James McGill Professor, Departments of Human Genetics and Pediatrics, McGill University, Montréal, Canada. Her research focuses on common genetic variants in folate metabolism and on the impact of variable dietary folate on complex disorders.



RICHARD SHARP, PhD

Director of the CTSA Research Ethics Resource, Mayo Clinic Center for Translational Science Activities, Rochester, Minnesota; Director of the Bioethics Program, Mayo Clinic Center for Individualized Medicine, Rochester, Minnesota; Director of the Biomedical Ethics Program, Mayo Clinic, Rochester, Minnesota.



ARTEMIS SIMOPOULOS, MD

President of the Center for Genetics, Nutrition, and Health, Inc. in Washington D.C., U.S.A. Her research has been on the evolutionary aspects of diet and omega-6/omega-3 balance, with previous work focusing on nutritional, endocrine, and genetic aspects of growth and development throughout the life cycle.



SUSAN SUMNER, PhD

Director of the NIH Eastern Regional Comprehensive Metabolomics Resource Core at RTI International and senior scientist in the Nanotoxicology program in RTI's Center for Pharmacology and Toxicology. Her research focuses on early disease biomarker detection in the monitoring of disease progression or therapeutic intervention.

SPEAKERS



SONIA SUTER, JD, MS

Professor of Law: Torts, Genetics & Law, Law & Medicine, Reproductive Technologies, George Washington University Law School, Washington D.C. Interests and presentations focus on consent in genetics and genomics, and personalized medicine and genetic privacy.



SAROJA VORUGANTI, PhD

Assistant Professor, Department of Nutrition, University of North Carolina at Chapel Hill and Nutrition Research Institute, Kannapolis, North Carolina. Her research investigates how genetic and nutritional factors impact hyperuricemia, gout, and kidney and cardiovascular disease, with the end goal of finding new treatment options.



BEN VAN OMMEN, PhD

Principal Scientist at TNO Earth, Life, and Social Sciences, Netherlands Organization for Applied Scientific Research, Zeist, Netherlands. Dr. Van Ommen's research is centered on metabolic health and nutrition, specifically developing new personalized health treatment strategies.



STEVEN ZEISEL, MD, PhD

Kenan Distinguished University Professor, University of North Carolina at Chapel Hill; Director, Nutrition Research Institute. He is a leader in the study of choline and one-carbon metabolism, has identified genetic and hormonal effects modulating requirements of choline, and was the first to demonstrate choline essentiality in humans.

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