Hidden Hunger: Solutions for America’s Aging Population

Friday, March 23, 2018

The Mayflower Hotel
1127 Connecticut Ave NW
Washington, DC 20036
Micronutrient deficiency in older adults—often termed “hidden hunger”— is caused by a number of biological and environmental factors that may not be immediately obvious to health care providers. As a result, the condition is not well diagnosed or documented. This one-day event, designed for public health officials, healthcare practitioners, and scientists interested in elder nutrition, will focus on our current understanding of hidden hunger in the US and highlight the role of policies to encourage quality health care practices that focus on promoting adequate nutrition in the elderly.

Meeting goals:

• Learn about healthy aging and the role that nutrition can play in addressing hidden hunger, a phenomenon characterized by a deficiency in essential micronutrients. In 2014, 10.2 million older adult households faced the threat of hidden hunger in the US. This is connected to considerable health care costs.

• Understand that adequate micronutrient status may help to improve health and wellbeing in older populations, and slow the progression of noncommunicable diseases (NCDs) and other age-related chronic diseases such as osteoporosis and cardiovascular disease (CVD).

• In the US, significant health care cost savings could be achieved by implementing a more targeted, long-term preventative strategy to promote healthy aging, and by overcoming the barriers that stand in the way of improving adequate nutrition in older adults.
The future of senior healthcare: from hidden hunger to nutritional solutions

**Problem**

Increases in life expectancy have major public health implications.

- The number of Americans over 65 years is estimated to rise to **71 million** in 2030.
- Age is a major risk factor for noncommunicable chronic diseases:
  - **80%** of the US population has at least one chronic condition.

**Solution**

- Incorporate regular nutritional evaluations and services into long-term preventative care for aging adults.
- Be equipped with the right tools and education to complete successful assessments of patients.
- Assess individuals on biological age, rather than chronological age.

**How can nutrition help?**

**Nutritional interventions**

- Studies show that limited availability of vitamins and minerals may increase the risk of age-related chronic diseases.
- Supplements may be helpful in the case of nutrient deficiencies and may reduce the risk of age-related diseases.

**Balanced lifestyle**

- The risk of developing non-communicable diseases increases in later years.
- A combination of nutrition, exercise and good health can help to promote healthy aging.

**Impact**

Nutritional intake is low for seniors – the result of low-nutrient, energy-dense diets, which can lead to ‘hidden hunger’.

**Case study: omega-3s**

Long term omega-3 supplementation is just one example of a cost-effective and safe preventative strategy.

- 1,000mg/d omega-3 supplements could enable healthcare cost savings of **US$3.9 billion** from 2013 to 2020.

**Savings**

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**Future of senior healthcare**

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9:00 - 9:10  Welcome and conference objectives
             Manfred Eggersdorfer, Ph.D., DSM

Session 1:  Unique dietary needs and challenges meeting these needs for the 65+ population
            Moderator: Gordon Jensen, M.D., Ph.D. - UVM College of Medicine

9:10 – 9:45  Keynote presentation: Hidden hunger in older adults: size and scope of the challenge and its role in healthy aging
            Simin Meydani, D.V.M., Ph.D., Tufts University

9:45 – 10:10 Food, nutrients and dietary patterns for healthy aging
             Katherine Tucker, Ph.D., UMass Lowell

10:10 – 10:35 Defining hidden hunger in the context of aging in the US
             Regan Bailey, Ph.D., M.P.H., R.D., C.P.H., Purdue University

10:35 – 10:55 Morning networking break

10:55 – 11:40 Q&A and panel discussion

Session 2:  Strategies and interventions to diagnose and address hidden hunger in the 65+ population
            Moderator: Duffy MacKay, N.D. - Council for Responsible Nutrition (CRN)

11:40 – 12:05 Innovative programs to diagnose and address hidden hunger, with measurable outcomes
             Mary Ann Johnson, Ph.D., University of Georgia

12:05 – 12:30 A role for food fortification and dietary supplementation in combating hidden hunger among older adults
             Jeffrey Blumberg, Ph.D., Tufts University

12:30 – 1:30 Lunch

1:30 – 1:55 Addressing food insecurity in homebound older adults: challenges and opportunities
             Ucheoma Akobundu, Ph.D., R.D., Meals on Wheels America

1:55 – 2:40 Q&A and panel discussion

Session 3:  Bringing attention to policy makers and public health experts
            Moderator: Keri Marshall, M.S., N.D. - DSM

2:40 – 3:05 Protecting and strengthening our federal safety net to improve nutrition and end hunger
             Caitlin Hodgkins, Office of Congressman James P. McGovern, Committee on Rules, Committee on Agriculture

3:05 – 3:30 Hidden hunger and malnutrition: the need to address both in policy
             Bob Blancato, M.P.A., Matz, Blancato and Associates

3:30 – 3:55 Incentivizing healthy eating: does purchase lead to consumption?
             Emily Allen, AARP Foundation

3:55 – 4:40 Q&A and panel discussion

4:40 – 4:50 Closing remarks
             Gilles Bergeron, Ph.D., The Sackler Institute for Nutrition Science

Scientific Organizing Committee
Megan Bourassa, Ph.D., The Sackler Institute for Nutrition Science
Manfred Eggersdorfer, Ph.D., DSM
Gordon Jensen, M.D., Ph.D., UVM College of Medicine
Duffy Mackay, N.D., CRN
Keri Marshall, M.S., N.D., DSM
Simin Meydani, D.V.M., Ph.D., Tufts University
Julie Shlisky, Ph.D., The Sackler Institute for Nutrition Science
Katherine Tucker, Ph.D., UMass Lowell
Dr. Simin Nikbin Meydani was appointed Vice Provost of Research at Tufts University in August 2016 after having served as the Director of the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University since 2009. She is professor of nutrition and immunology at the Friedman School of Nutrition Science and Policy and the Tufts Sackler Graduate Program in Immunology and Director of the Nutritional Immunology Laboratory. Dr. Meydani’s scientific interests include the impact of nutrition on the aging process and age-associated diseases, the role of nutrition on immune and inflammatory responses and predisposition to infectious diseases in developed and less developed countries. She is an internationally recognized scholar with more than 300 publications and continuous USDA, NIH, industry and foundation funding. Her research is multidisciplinary and expands from cell and molecular to animal and clinical investigations. Her honors include the American Aging Association Denham Harman Lifetime Research Achievement Award; American Society of Nutrition (ASN) Herman Award in clinical nutrition; ASN Lederle Award in Human Nutrition Research; Fellow of Hedwig van Amerigen Executive Leadership in Academic Medicine; American College of Nutrition Grace Goldsmith Award; International HERMES Vitamin Research Award; She was the President of the American Society for Nutrition (June 2014-June 2015) and President of the American Aging Association (2005-2006). She has served the academic, government and corporate communities as: member of NIH Geriatric Rehabilitation Study Section, Aging Systems and Geriatrics Study Section, and Cellular Mechanism of Aging and Development Study Section; member of USDA Human Nutrient Requirements for Optimal Health Program Grant Review Panel; member of United Nations FAO/WHO Expert Panel on Nutritional Requirements of the Elderly; member of NIH-funded Consortium Lipid Maps Scientific Advisory Committee, NIA Primate Calorie Restriction Project Advisory Board; member of the ILSI North America Board of Trustees, of the editorial boards of several journals; chair of several national and international meetings. Dr. Meydani holds a D.V.M. (Tehran University), an M.S. in Nutrition (Colorado State University) and a Ph.D. in Nutrition (Iowa State University).

Simin Nikbin Meydani, D.V.M, Ph.D.
Vice Provost of Research, Tufts University

Presentation name: Hidden hunger in older adults: size and scope of the challenge and its role in healthy aging
Hidden hunger is defined as lack of vitamins and minerals and is the main cause of malnutrition worldwide. It does not produce hunger as known by its classic definition, but it strikes health and vitality at its core. Until recently, the focus of the malnutrition problem worldwide has been on those related to protein and energy under- or over-nutrition. However, 1 in 3 of the world’s population is suffering from hidden hunger and its related conditions because of insufficient micronutrient status. Up to 80% of heart disease, stroke and diabetes and 30% of cancer deaths are preventable. Malnutrition is a key modifiable risk factor for chronic and infectious diseases. Hidden hunger leads to serious chronic diseases, impacts mental health, traps societies in poverty and ultimately slows economic growth. In recent years, health problems associated with micronutrient deficiency in children have been highlighted and received well-deserved attention. Hidden hunger, however, impacts individuals across all age groups, and socio-economic status globally. By 2050, the number of people over 60 will increase to two billion and exceed all children under 14, yet the problem has not been acknowledged or addressed in older adults. The United Nations recently linked food insecurity and health to aging populations for the first time in setting its new Sustainable Development Goals (SDGs). A significant portion of older adults in the US are at risk for micronutrient insufficiency, as well as obesity, and often the two conditions co-exist. In the US alone, the costs associated with disease-related malnutrition in older adults is estimated at $157 billion. However, assessment of micronutrient status is not part of health evaluation of older adults. The level and type of micronutrient deficiencies varies among older adults and contributes to inconsistency in the efficacy of micronutrient supplementation. The problem is compounded because a true assessment of micronutrient status cannot be achieved using dietary intake data and/or anthropometric measurements. A concerted effort by scientists, health care providers, and policy makers is needed to include micronutrient assessment as an integral part of older adult’s health evaluation. This information will help document the prevalence of hidden hunger in older adults at population as well as individual level and sharpen strategies to address it, which will ultimately improve health span of elderly. Ending all forms of malnutrition by 2030, as outlined by United Nations, will only be achievable if we shine light on the problem of hidden hunger across all age groups, and commit to strategies that reverse the current trends.
Dr. Katherine L. Tucker is Professor of Nutritional Epidemiology in the Department of Biomedical & Nutritional Sciences at the University of Massachusetts Lowell. She also holds adjunct appointments at the University of Massachusetts Medical School, the Friedman School of Nutrition Science and Policy and the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University. Dr. Tucker has contributed to more than 350 articles in scientific journals. Her research focuses on dietary intake and risk of chronic disease, including osteoporosis, cognitive decline, obesity, metabolic syndrome, and heart disease, and on dietary methodology. She is the director of a Center for Population Health and Health Disparities (CPHHD), which includes the Boston Puerto Rican Health Study, a longitudinal study on the roles and interactions of stress, social support, diet, health behavior and genetic predisposition in relation to health disparities in Puerto Rican adults. She has collaborated for many years with the Framingham Studies, particularly the Framingham Osteoporosis Study, and leads a Vanguard data analysis center with the Jackson Heart Study. She is the Editor-in-Chief of Advances in Nutrition, the review journal of the American Society for Nutrition (ASN); and was a co-editor of 11th edition of the textbook, Modern Nutrition in Health and Disease. She currently serves as a member of the Food and Nutrition Board at the National Academies of Science, Engineering and Medicine.

Regan Lucas Bailey is an Associate Professor in the Department of Nutrition Science at Purdue University, and directs the Indiana Clinical and Translational Science Institute, Purdue Nutrition Assessment Center. Prior to academic life, Dr. Bailey was a Nutritional Epidemiologist and Director of Career Development and Outreach at the Office of Dietary Supplements, Office of Disease Prevention at the National Institutes of Health. The overarching goal of Dr. Bailey’s research program is to prevent or lessen the risk of chronic disease through improved nutrition. Much of Dr. Bailey’s research focuses on monitoring the health and nutritional status of the United States population through the National Health and Nutrition Examination Survey (NHANES). She utilizes the NHANES data to determine the usage patterns of and methodological issues relating to dietary supplements, to characterize the American dietary landscape, to identify the best methods for assessment of biomarkers of nutritional status, and importantly, to understand how nutritional exposures relate to health outcomes. Dr. Bailey is a Registered Dietitian who completed a dietetic internship and M.S. in Food and Nutrition from the Indiana University of Pennsylvania. Dr. Bailey received her Ph.D. in Nutrition Science from The Pennsylvania State University. Dr. Bailey completed an M.P.H from the Bloomberg School of Public Health at Johns Hopkins University, and is Certified in Public Health.

**Presentation name: Foods, nutrients and dietary patterns for healthy aging**

Many aging individuals have chronic health concerns, including type 2 diabetes, heart disease, osteoporosis, physical frailty and cognitive decline. As a modifiable risk factor, healthy diets offer tremendous promise for improving health and wellbeing with age. Unfortunately, intakes of several nutrients are inadequate for a large segment of the older population. These “shortfall nutrients” include macronutrients: protein, omega-3 fatty acids, dietary fiber; vitamins: vitamins B6, B12, D, E, and carotenoids (vitamin A precursors); and minerals: calcium, magnesium, and potassium. Other nutrients tend to be consumed in excess, increasing risk of obesity, hypertension and related chronic conditions. These include: saturated fats (i.e. fatty meats, processed meat, full fat dairy products), trans fat (i.e. hydrogenated oils, margarine, shortening, many processed baked products, crackers), refined carbohydrate foods (i.e. soft drinks, fruit drinks, white bread and products with white flour, white rice)—and sodium (salt and sodium compounds in canned and other processed foods, table salt). Relative to food group intake recommendations, older adults tend to report inadequate intakes of fruit, vegetables, legumes, whole grains, nuts or seeds, fish, lean meat, poultry, and low-fat fluid dairy products. Because of lower energy needs, but higher needs for some nutrients, the importance of these nutrient-dense food groups is of central importance. Supplements may be needed in the case of nutrient deficiencies, and when health conditions or medications interfere with absorption or effective nutrient utilization of specific nutrients, making it difficult or impossible to obtain adequate intakes from diet alone. Examples of these include vitamin B12 with atrophic gastritis, use of acid blocking medication, metformin or other interfering medications, and vitamin D for individuals who get inadequate sun exposure, and during the winter months in northern latitudes. For most nutrients, however, increasing intakes of nutrient-dense whole foods, while reducing energy-dense refined and processed foods, is the best way to optimize metabolism, protect cellular and organ function and maintain health with aging.

**Presentation name: Defining hidden hunger in the context of aging in the US**

Many older adults may have compromised intakes of foods and nutrients that place them at nutrition risk without evidence of clinical malnutrition. Two distinct nutritional “phenotypes” of risk exist: the under-nourished, under-fed and the under-nourished-over-fed. The well-established malnutrition due to inadequate energy intakes often manifests with overt physical wasting. However, our nation’s older adults can also present with nutrition risk due to adequate or even excessive energy intakes, but suboptimal intakes of nutrients, particularly among the overweight and obese. Screening for nutrition risk is a proactive strategy to identify individuals at both types of risk. The Dietary Screening Tool is one population-specific dietary screener and has been validated to measure nutrition risk in the under-nourished-overfed phenotype. Furthermore, national data on this phenotype will be described using the National Health and Nutrition Examination Survey, 2011-2014.
Mary Ann Johnson, Ph.D.  
Flatt Professor in Foods and Nutrition and Director of the Graduate Certificate in Obesity and Weight Management at the University of Georgia

Dr. Jeffrey Blumberg is a Professor in the Friedman School of Nutrition Science and Policy and also serves as the Senior Scientist in the Antioxidants Research Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University. His research is focused on the biochemical basis for the role of antioxidant nutrients and their dietary requirements in promoting health and preventing disease during the aging process via changes in status of oxidative stress, glucoregulation, and inflammation. He has published more than 400 scientific articles and serves on the editorial boards of several scientific journals. Dr. Blumberg was included in 2015 Thomson Reuters’ List of the World’s Most Influential Scientific Minds (top 1% of cited researchers in his field, 2002-2014). In 2016, he was the recipient of the ASN Mary Swartz Rose Senior Investigator Award for outstanding research on the safety and efficacy of bioactive compounds for human health. Dr. Blumberg also participates in activities relevant to the incorporation of sound nutrition science into public health policy and has served as a member of the Workshop on Health Promotion and Aging in the office of the US Surgeon General, Sports Medicine Committee of the US Olympic Committee, Consultation on Preparation and Use of Food-Based Dietary Guidelines for the WHO/FAO, Food Advisory Committee of the FDA, and other committees.

Presentation name: Innovative programs to diagnose and address hidden hunger, with measureable outcomes

This presentation focuses primarily on hidden hunger among the more than 95% of the older adult population in the US that resides in communities (rather than in nursing homes). While hidden hunger usually refers to deficiencies of vitamins and minerals, many older adults also experience food insecurity. Subgroups of the older adult population that are particularly at risk for hidden hunger and food insecurity include those accessing food and nutrition assistance programs. These assistance programs include USDA’s Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) and the Administration on Community Living’s Home Delivered Meals “Meals on Wheels” and Congregate Meals programs. Older adults enrolled in these programs often have low-incomes along with a high prevalence of obesity (40%), food insecurity (19%) (Brewer et al., 2010), and poor vitamin and mineral status, such as vitamin D insufficiency (37%) or deficiency (8%) (Johnson et al., 2008) and vitamin B12 deficiency (23%) (Johnson et al., 2003). Innovations in addressing hidden hunger and food insecurity from the “Georgia State Plan to Address Senior Hunger” will be discussed and include understanding today’s seniors, the impact of senior hunger on health, food access, food waste and reclamations, and meeting the needs of the community.

Presentation name: A role for food fortification and dietary supplementation in combating hidden hunger among older adults

The Dietary Guidelines for Americans 2015–2020 (DGA) identify vitamins A, C, D, E, and choline and the essential minerals calcium, magnesium, and potassium as “underconsumed nutrients”. Inadequate intakes (i.e., less than the Estimated Average Requirement) of these and other micronutrients in older adults can lead to increases in morbidity and mortality, as well as healthcare costs. Compared to conventional food alone, the use of fortified foods is associated with a lower prevalence of micronutrient inadequacies. However, an even lower prevalence of nutrient inadequacies is found among those using dietary supplements. Recent data from the National Health and Nutrition Examination Survey (NHANES, 2009-2012) reveal that supplement use is associated with higher intakes of 15 to 16 of 19 micronutrients and successively greater reductions with advancing age from 19-50 to 51-70 to ≥71 years. Among all supplement users, compared to young adults, those ≥71 years had lower rates of inadequacy for iron and vitamins A, C, D and E. In addition to the same problem facing younger Americans consuming diets rich in energy but poor in micronutrients, older adults are particularly vulnerable to hidden hunger due to age- and disease-associated increases in nutrient requirements or needs, plus the impact of ubiquitous, but often over-looked, drug-induced nutrient inadequacies, particularly with the challenge of widespread polypharmacy regimes. Nonetheless, the DGA and most medical and nutrition organizations recommend educational efforts and behavioral changes that promote healthier dietary patterns but not routine dietary supplementation to prevent micronutrient shortfalls and their adverse impact on health and risk for chronic disease.
Dr. Akobundu is a Registered Dietitian and serves as the Senior Director of Nutrition Strategy, where she leads the development and implementation of the Association’s strategy on nutrition and malnutrition. This work includes the design and execution of projects that demonstrate and strengthen the evidence base for senior nutrition programs. In addition, she works collaboratively at the national level to build knowledge and skills among nutrition and aging professionals in the healthcare integration, business acumen development, program evaluation, and food service management arenas. She also serves as the director of the National Resource Center on Nutrition and Aging, awarded to Meals on Wheels America by the Administration for Community Living of the US Department of Health and Human Services. Dr. Akobundu holds a Masters in Nutrition with a concentration in Public Health from the University of Massachusetts – Amherst, and a Ph.D. in Nutrition from the University of Maryland – College Park.

**Presentation name: Addressing food insecurity in homebound older adults: challenges and opportunities**

Nutrition assistance programs targeted at older adults play an essential role in supporting the health and independence of this population. However, the aging process can result in a myriad of functional, physical and biological changes that can adversely impact the nutritional status. These changes, coupled with key socioeconomic and demographic changes unique to older adults, can also increase their risk of poor health outcomes. In 2014, 10.2 million older adult households faced the threat of hunger in the United States. Food insecurity, hunger and malnutrition in the older adult population remains a persistent challenge to be addressed. While a myriad of solutions are possible, the needs of homebound older adults are less often taken into account. Research has demonstrated that participating in nutrition assistance programs, i.e., Meals on Wheels, can assist at-risk homebound older adults to successfully age-in-place, mitigate the impact of malnutrition and food insecurity, and attenuate healthcare utilization. These community-based programs provide client-centered services that address the social determinants of health needs of the vulnerable populations they serve. This presentation will present a research-supported review of the risk factors that place older Americans at risk of food insecurity, the challenges surrounding their participation in community-based nutrition programs, and the traditional and non-traditional opportunities that such programs can and currently leverage to optimally address the nutrition and health needs of community-residing older adults.

Emily Allen is the Senior Vice President, Programs for AARP Foundation. Throughout her career, Ms. Allen’s primary passion has been on serving the needs of those most at risk in our communities. She has served in a number of capacities in the non-profit, education and workforce development arenas and has worked across the generations to ensure vulnerable and at-risk individuals have access to the resources and services they need to thrive. In her current role, Ms. Allen is responsible for overseeing AARP Foundation’s programmatic portfolio that focuses on increasing economic opportunity and social connections for low income older adults. Through innovation and the development and implementation of programs and interventions, the Foundation’s collective work focuses on ensuring that low income older adults are able to secure the essentials in life. Ms. Allen holds a Bachelor’s Degree in Psychology from Westminster College and a Master’s Degree in Human and Organizational Learning from The George Washington University.

**Presentation name: Incentivizing healthy eating: does purchase lead to consumption?**

A sizable body of research shows that hunger wields as much influence over health as any disease — and it is an especially pernicious problem among older adults. One in five US adults over 50 struggles with food insecurity. Seniors who are food insecure are 50 percent more likely to have diabetes, 60 percent more likely to have congestive heart failure or a heart attack, and three times more likely to suffer from depression. Beyond the individual toll, there is a societal one, as hunger costs the US health care system $130.5 billion annually. AARP Foundation, which works to end senior poverty by helping vulnerable older adults build economic opportunity and social connectedness, will discuss food security as a social determinant of health, the efficacy of incentivizing low-income older adults to purchase nutritious food, and the broader implications for public health policy. Underscoring its evidence-based approach, the Foundation will outline its efforts to help low-income seniors purchase fresh produce and develop healthy eating habits on a budget. This includes developing MyPlate for Older Adults, which corresponds with the federal government’s 2015-2020 Dietary Guidelines for Americans, and launching Fresh Savings RxSM, a new initiative through which health care providers can “prescribe” fruits and vegetables to patients who have a diet-related chronic disease and participate in SNAP. The presentation will also highlight preliminary results from a study of AARP Foundation’s Fresh Savings (of which Fresh Savings Rx is a component) that examined whether providing incentives to purchase fresh produce leads to greater consumption.
Bob Blancato is the President of Matz, Blancato and Associates, located in Washington, D.C. He is the National Coordinator of the bipartisan 3000-member Elder Justice Coalition. He also serves as the Executive Director of the National Association of Nutrition and Aging Services Programs. Bob has more than 20 years of service in the Congressional and Executive branches, including the senior staff of the US House Select Committee on Aging and an appointment by President Clinton to be Executive Director of the 1995 White House Conference on Aging, one of four Conferences he has participated in. Bob’s volunteer leadership includes currently serving as the Chair of the Board of the American Society on Aging and on the National Board of AARP. He also serves on the Board of the National Council on Aging. In September 2015, Bob was appointed to the Advisory Panel on Outreach and Education of the Centers for Medicaid and Medicare Services. Bob has also served as volunteer State President of AARP Virginia and as president of the National Committee for the Prevention of Elder Abuse. Bob is a contributing blogger to the Huffington Post and Next Avenue, writing on aging issues. He holds a B.A. from Georgetown University and an M.P.A. from American University. Bob has won numerous awards for advocacy. In 2011, he was knighted by the Italian Republic.

Caitlin Hodgkins serves a Rules Associate and senior legislative staff member for Congressman James P. McGovern of Massachusetts. She started working for Congressman McGovern at the age of 15 as an intern in his Worcester district office, and has served in various legislative staff capacities since. Currently, Caitlin leads policy development and advises the Congressman on a number of legislative issues including hunger and nutrition, financial services, housing, economic development, and tax policy. She is the Congressman’s lead staffer on the House Agriculture Committee’s Nutrition Subcommittee, supporting his work to protect and bolster federal anti-hunger programs like the Supplemental Nutrition Assistance Program (SNAP), and to strengthen our country’s food system. Caitlin also supports Congressman McGovern’s work on the powerful House Rules Committee, “the traffic cop of Congress,” which sets the terms of debate on legislation that moves to the House floor. Caitlin’s work on the Rules Committee has fostered her deep interest in House procedure, and allows her to work on a broad range of issues facing Congress. This work has also helped her cultivate relationships with key leadership and committee staff within the House of Representatives. Caitlin grew up in Auburn, Massachusetts, a suburb of Worcester, and graduated from American University’s School of Public Affairs. Caitlin currently resides in Washington, DC, and while away from the office, enjoys trying new restaurants, trips to the beach, spending time with her family, and hiking with her boyfriend, Paul.

Presentation name: Hidden hunger and malnutrition: the need to address both in policy
In the United States, up to 1 out of 2 older adults is at risk for malnutrition. Whether this is caused by the hidden hunger of micronutrient or macronutrient deficiencies or results from acute or chronic disease, the outcomes for older adults are the same: poorer health and functionality and higher costs of care. Yet, the contributing factors to this may not be immediately recognized by health care providers. This presentation will focus on how we are working to gain the recognition of malnutrition as a key indicator and vital sign of older adult health risk by describing the goals and strategies outlined in the National Blueprint: Achieving Quality Malnutrition Care for Older Adults. In addition, the presentation will discuss opportunities in which stakeholders, policymakers, and aging services providers can work together. More specifically, the focus will be on how we can implement a policy agenda for achieving a greater focus on malnutrition screening and intervention through regulatory and/or legislative change across the nation’s health care system.

Presentation name: Protecting and strengthening our federal safety net to improve nutrition and end hunger
Hidden hunger among our senior population is a problem Congress and the Trump Administration should be working to address. Instead, too much effort and focus has gone into proposals to cut, weaken, and create additional barriers to access safety-net programs that help ensure seniors remain healthy and with proper nutrition. Past budgets in the House of Representatives and from the Administration have called for drastic cuts to the Supplemental Nutrition Assistance Program (SNAP), our nation’s first line of defense against hunger and malnutrition. We already know SNAP is underutilized by seniors for a number of reasons, and efforts to cut the program further would exacerbate this problem. In addition to SNAP, there are a number of federal programs seniors rely on for nutrition assistance, such as the Commodity Supplemental Food Program, Meals on Wheels, and other Older Americans Act Nutrition Programs. As part of the conversation about alleviating hunger and improving nutrition among older adults, we must consider ways to bolster these programs and expand their reach so these seniors are able to age well and remain healthy. This is especially important as baby boomers age into these programs. We must also look at new ways to address these issues. For example, access to nutritious food for seniors continues to be a problem in both urban and rural areas. How can policy makers work to better address that issue? In addition, there is an effort underway by some Members of the House of Representatives to advance the “Food is Medicine” conversation. How can we better understand the impacts hunger and malnutrition have on our nation’s health and health care system? Can we alleviate human suffering, promote independent living, and address rising health care costs by investing in interventions like medically tailored meals? And what role can science play in impacting and informing the discussion about nutrition policy in our country?
Manfred Eggersdorfer, Ph.D.
Professor for Healthy Ageing, University Medical Center Groningen (UMCG) and Senior Vice President, Head of Nutrition Science and Advocacy at DSM Nutritional Products

Manfred Eggersdorfer studied chemistry at the Technical University Munich and did his Ph.D. in organic chemistry in the field of synthesis and characterization of unusual amino acid. He was post-doc at Stanford University, California working with Carl Djerassi on the isolation and characterization of sterols from marine origin as potential contraceptives. He joined Roche in 1999 as Head of R&D Vitamins and continued in this role after DSM acquired the business in 2003. Since 2010, he has been responsible for Nutrition Science and Advocacy. Manfred Eggersdorfer holds the chair for Healthy Ageing at the University Medical Center Groningen (NL) and is responsible for Nutrition Science and Advocacy at DSM Nutritional Products. His scientific work focuses on the role of essential nutrients for health, vitality, and wellbeing, especially on the impact of inadequate intake and status of micronutrients over the life cycle with a focus on long-term health and healthy ageing. He is an active member of the Advisory Board of the Johns Hopkins Bloomberg School of Public Health, member of the Nutrition Council of Tufts University Friedman School of Nutrition Science Policy and Board member of the Gesellschaft für Angewandte Vitaminforschung e.V. He is an Honorary Member of The Oxygen Club of California, and affiliate of various other organizations. He is the author of numerous publications in the fields of vitamins, carotenoids, omega-3- polyunsaturated fatty acids for infants, adults, elderly and risk groups and on innovation in nutritional ingredients. He engages as a reviewer for a variety of journals and is Associate Editor of the International Journal of Vitamin and Nutrition Research.

Gordon L. Jensen, M.D., Ph.D.
Senior Associate Dean for Research and Professor of Medicine and Nutrition at the Larner College of Medicine, University of Vermont

In January 2016, Gordon Jensen became Senior Associate Dean for Research and Professor of Medicine and Nutrition at the Larner College of Medicine, University of Vermont. From 2007-2015 he served as Professor and Head of Nutritional Sciences at Penn State University and Professor of Medicine at the Penn State College of Medicine. He was at Vanderbilt University Medical Center from 1998-2007, where he was Director of the Vanderbilt Center for Human Nutrition and Professor of Medicine. He received his medical degree from Cornell University Medical College and his Ph.D. in nutritional biochemistry from Cornell University. He completed residency training in Internal Medicine and fellowship training in Clinical Nutrition at New England Deaconess Hospital, Harvard Medical School. He is a Past-President of the American Society for Nutrition, a Past-President of the American Society for Parenteral and Enteral Nutrition, and a Past-Chair of the Association of Nutrition Programs and Departments. A widely recognized nutrition researcher and educator, he has made numerous presentations at national and international meetings. He served two terms on the Food and Nutrition Board of the Health and Medicine Division of the National Academies. His research interests have focused on the impact of nutritional status on health and functional outcomes in older persons. He has authored more than 180 journal articles, reviews, and book chapters. His contributions were recently recognized with the 2014 Jonathan Rhoads Lecture, ASPEN’s most prestigious award.

Duffy MacKay, N.D.
Senior Vice President, Scientific & Regulatory Affairs at the Council for Responsible Nutrition (CRN)

Duffy MacKay, N.D., is senior vice president, scientific and regulatory affairs for the Council for Responsible Nutrition (CRN). Dr. MacKay oversees CRN’s scientific and regulatory affairs department, ensuring that the association’s scientific, policy and legislative positions are based on credible scientific rationale. His expertise combines practical knowledge of industry regulation and scientific product development with hands-on experience as a medical practitioner. He is a licensed Naturopathic Doctor who still sees patients on a part-time basis in an integrative medical practice, and previously was owner and practitioner in a family-owned New Hampshire private practice. Prior to joining CRN, Dr MacKay spent eight years working as a medical and nutrition expert for two companies in the dietary supplement industry, including four years as an executive with Nordic Naturals, where he was in charge of clinical research. He previously served as Technical Advisor for Thorne Research. Dr. MacKay has published articles in peer-reviewed journals, and serves on the Editorial Board of the peer-reviewed publications: the Journal of Alternative and Complementary Medicine, Integrative Medicine: A Clinician’s Journal, Current Topics in Nutraceutical Research, and the official publication of the American Association of Naturopathic Physicians, Natural Medicine Journal. Dr. MacKay serves on the Advisory Board for the American Botanical Council, the NSF International Joint Committee on Dietary Supplements, the National Institute of Standards Technology/National Institutes of Health, Dietary Supplement Laboratory Quality Assurance Program, and Nutritional Outlook. He is also Chair of the Steering Committee for the SIDI Work Group. Dr. MacKay earned his degree in Marine Biology from the University of California, Santa Cruz and his naturopathic medical degree from the National University of Natural Medicine in Portland, Oregon.
Keri Marshall, M.S., N.D.
Director of Global Lipid Science and Advocacy for DSM Nutritional Products

Dr. Keri Marshall is the Director of Global Lipid Science and Advocacy for DSM Nutritional Products. She is a Naturopathic Doctor specializing in pediatrics, women’s medicine and chronic disease management. Dr. Marshall is a recognized expert in the health and nutrition industries, publishing several scientific papers, writing and blogging for print publications and appearing regularly in the media. She is the author of “User’s Guide to Protein and Amino Acids” and serves on several advisory and editorial boards for peer-reviewed medical journals and health advocacy groups. She is the Chair of the GOED Science Committee and the Scientific Representative to the GOED Executive Committee on Education and Outreach. Dr. Marshall received her Naturopathic medical degree from the National University of Natural Medicine in Portland, Oregon, a Master’s Degree in Social and Preventive Medicine (Epidemiology) from S.U.N.Y. at Buffalo, and a Bachelor’s of Science from the George Washington University. She maintains a small private integrative medicine practice in Bethesda, MD.

Gilles Bergeron, Ph.D.
The Sackler Institute for Nutrition Science

Dr. Gilles Bergeron has worked in international nutrition for more than 25 years. He has extensive experience in nutrition in the life cycle, food security, agriculture/nutrition linkages and monitoring and evaluation. A founding member and Deputy Director of the Food and Nutrition Technical Assistance (FANTA) project, he spent 18 years overseeing FANTA’s work in policies and programs; nutrition and infectious diseases; maternal and child nutrition; agriculture/nutrition linkages and emergency nutrition response. Prior to joining FANTA, he spent six years as Research Fellow with the International Food Policy Research Institute (IFPRI) and three years with the Institute of Nutrition for Central America and Panama (INCAP) in Guatemala. He has operated in Africa, Latin America and Asia, and his work has been published in leading scientific journals such as The Lancet, Advances in Nutrition, World Development, the Journal of Development Studies, and Food and Nutrition Bulletin. He received his Ph.D. in development sociology from Cornell University in 1994.

Julie Shlisky, Ph.D.
The Sackler Institute for Nutrition Science

Julie joined the Sackler Institute in 2014 after her post-doctoral fellowship at the New York Obesity Research Center. She earned her doctorate in Nutritional Sciences from Penn State in 2012 where she conducted a 6-month diet and physical activity lifestyle intervention examining changes in body composition, metabolic parameters and bone density in premenopausal women. Julie provided the nutrition education component of the study to all participants and fulfilled coursework necessary for the dietetic internship, needed to become a registered dietitian. Before attending graduate school, she worked for several years in research and development at DuPont, after her undergraduate education in molecular biology.

Megan Bourassa, Ph.D.
Associate Director at the Sackler Institute for Nutrition Science

Dr. Megan Bourassa is the Associate Director for the Sackler Institute for Nutrition Science. She has over 10 years of research experience on a wide range of topics including metabolism, biological chemistry and neuroscience. Most recently, Dr. Bourassa was a post-doctoral fellow at Weill Cornell Medicine and the Burke Medical Research Institute, where she conducted research to determine the epigenetic effects of dietary metabolites and their impact on stroke recovery. While at Burke, she also served as the administrative head of the Center for Nutrition and Brain Recovery, which seeks to translate bench-top nutrition-based science to patients recovering from brain injury. She holds a Ph.D. in chemistry from Stony Brook University and worked at Brookhaven National Laboratory for her doctoral work. Her research has been funded by NSF and NIH training grants, as well as an NIH Ruth L. Kirschstein National Research Service Award post-doctoral fellowship.