NNEdPro 5th International Summit on Medical and Public Health Nutrition Education and Research

Closing the Gap: Data-based Decisions in Food, Nutrition and Health Systems

Homerton College, University of Cambridge
11 July 2019

2019 Summit Supporters
WELCOME FROM THE SUMMIT CHAIRS

Dear Delegates

On behalf of the UK NNEdPro Global Centre for Nutrition and Health we are pleased to welcome you to our 5th International Summit in Medical & Public Health Nutrition Education & Research. Our theme this year is “Closing the Gap: Data-based Decisions in Food, Nutrition and Health Systems.”

To make informed decisions regarding food and nutrition that impact our health systems, we need reliable data. In some cases, this means increasing our access and use of existing data. In other cases, reliable data may not be available or is not being used effectively. This gap in use of data-based decisions is a gap in healthcare. More is needed to make sure that data is available and used effectively to support decisions that impact the health of a population.

For the past 5 years, NNEdPro has hosted this Summit as an opportunity to bring together potential change makers from various countries, professions, and sectors all interested in the dynamic interfaces between Nutrition and Health. We look forward to continuing the discussion again this year.

We start the day with a session on global systems perspectives on data driven decisions delivered by representatives from the World Health Organization, Sight and Life, TIGR2ESS and Cambridge Global Food Security. In the afternoon, we focus on NNEdPro’s core mission of medical nutrition education and the impact of data-based decisions in these areas. The first of our workshops is delivered in conjunction with our partner conference, the 13th Annual Congress of the International Society for Nutrigenetics and Nutrigenomics (ISNN) – we hope to see you there too! The second is an interactive workshop diving into the details on using data for causal inference.

Thinking about where to publish your next paper? As this Summit is held in partnership with the official NNEdPro journal: BMJ Nutrition, Prevention and Health, we are pleased to offer you a 20% discount on publishing in this journal.

We look forward to insightful discussions on how to close to gap on data-based decisions in health and to working in partnership with all of you to shape the future as we head towards 2020 and beyond!

Best wishes and happy conferencing,

Dr Celia Laur – Summit Co-Chair and NNEdPro Global Innovation Panel Lead
(on behalf of Jørgen Johnsen and the Organising Team)

Professor Sumantra (Shumone) Ray – Summit Co-Chair and NNEdPro Executive Director
(on behalf of the NNEdPro Directors)
KEY PEOPLE

NNEdPro Directors
Professor Sumantra Ray, RNutr – Summit Co-Chair
NNEdPro Founding Chair & Executive Director
Other affiliations: University of Cambridge | Ulster University | Imperial College London | University of Waterloo | University of Wollungong | World Health Organization

Pauline Douglas, RD
NNEdPro Vice Chair & Education Director
Other affiliation: Ulster University

Dr Minha Rajput-Ray
NNEdPro Medical Director
Other affiliation: University of Cambridge

Professor Daniele Del Rio
NNEdPro Scientific Director
Other affiliation: University of Parma

Summit Organisers
Dr Celia Laur, PhD, MSc, FHEA – Summit Lead-Chair
NNEdPro Global Innovation Panel (GIP) Lead

Mr Jørgen Torgerstuen Johnsen, MSc – Summit Lead Co-ordinator
NNEdPro Senior Intern – Project Officer

Special Thanks
- Homerton College (Conferencing)
- Jennifer Dean (Logistics)
- Matheus Abrantes (Logistics)
- Matt Harvey (Logistics and photographs)
- Michael McGirr (Volunteer)
- Niki Raja (Volunteer)
- Sena Tiritoglu (Volunteer)
- Shane McAuliffe (Volunteer)

Global Research, Education and Innovation Panel (GIP)

GIP Leaders:
Dr Celia Laur – NNEdPro GIP Lead, Toronto, Canada
Dr Giuseppe Grosso – NNEdPro GIP Deputy Co-Lead, Catania, Italy
Dr Rajna Golubic – NNEdPro GIP Deputy Co-Lead, Cambridge, UK

GIP Executive Members (Ex-Officio)
Prof Sumantra Ray – Cambridge, England
Pauline Douglas – Ulster, Northern Ireland
Prof Martin Kohlmeier – Chapel Hill, USA
Sucheta Mitra – Geneva, Switzerland
James Bradfield – Chester, England
Ananya Ria Roy – London, England
Jørgen Torgerstuen Johnsen – Cambridge, England
Sena Tiritoglu – Ulster, Northern Ireland

GIP Executive Members
Prof Eleanor Beck – Wollongong, Australia
Sonigiti Ekpe – Nigeria
Dr Kathy Martyn – Brighton, England
Elaine MacAninch RD – Brighton, UK
Kannan Raman – Chennai, India
Dr Dominic Crocombe –London, England
Ali Khalid –Cambridge, England
Dr Claudia Mitrofan – Cambridge, England
Dr Anuprita Shukla – Norwich, England

GIP Non-Executive Members
Shivani Bhat – Limerick, Ireland
Iain Broadley – Bristol, England
Dr Mei Yen Chan – Singapore
Dr Tim Eden – London, England
Emily Fallon – Surrey, England
Duleni Herath – Cambridge, England
Ally Jaffee – Bristol, England
Preya Amin – Cambridge, England
Dr Dionysia Lyra – Dubai, UAE
Dr Suzana Almoosawi – Geneva, Switzerland
Prof Caryl Nowson – Deakin, Australia
Dr Dora Pereira – Cambridge, England
Helena Trigueiro – Porto, Portugal
Dr Michele Vacca – Cambridge, England
Assoc Prof Clare Wall – Auckland, New Zealand

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PROGRAMME

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<td>9:00-9:10</td>
<td>Sumantra Ray, NNEdPro Founding Chair</td>
<td>Opening Address: From past summits to data decisions in food, nutrition and health systems</td>
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<td>Senior Representative from the British Dietetic Association (BDA)</td>
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<td>9:25-10:00</td>
<td>Francesco Branca, World Health Organization (WHO) Director, Department of Nutrition for Health and Development (NHD) (by video)</td>
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<td>Klaus Kraemer, Managing Director of Sight and Life Adjunct Professor at Johns Hopkins</td>
<td>Use of data from the perspective of Sight and Life for decision making</td>
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<td>Luke Buckner, NNEdPro India Scientific lead Representatives from TIGR2ESS (University of Cambridge) and Cambridge Global Food Security</td>
<td>Essay Questions: 'Utilising the Sustainable Development Goals to curb malnutrition in all its forms by 2030'</td>
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<td>Essay Competition Winners</td>
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<td>James Bradfield on behalf of the International Academy of Nutrition Educators (IANE)</td>
<td>NNEdPro membership update</td>
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<td>12:00-13.00</td>
<td>Lunch: Posters and Live Art Viewing</td>
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Please be mindful of speakers if/when sharing sensitive content.

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# Programme

**Theme:** Closing the Gap: Data based decisions in Food, Nutrition and Health Systems

**TIME** | **SPEAKERS** | **TOPIC**
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Session 2: Using a Data Driven Approach in Medical and Healthcare Education

| 13:00 – 13:30 | **Charlotte Pratt**, Deputy Branch Chief, Program Director, National Heart, Lung, and Blood Institute, National Institutes of Health (USA) | Medical Nutrition Education today: A US perspective |
| 13:30 – 13:50 | **Kathy Martyn**, University of Brighton and **Elisabeth Dogan**, VID Specialized University | Taking an interdisciplinary approach to medical and healthcare education |
| 13:50-14:00 | **Minha Rajput-Ray**, NNEdPro Medical Director | Diet and lifestyle in shift workers and safety critical settings: An occupational health perspective |
| 14:00-14:15 | **Interactive Panel Discussion: Nutrition education and skills in the health service**
Panel: Charlotte Pratt, Caryl Nowson, Elaine Macaninch, Minha Rajput-Ray, Pauline Douglas
Moderators: Kathy Martyn, Elisabeth Dogan | |
| 14:15-14:30 | **Break: Posters and Live Art Viewing** | |
| 14:30- 15:30 | **Martin Kohlmeier**, Editor-in Chief of BMI Nutrition, Prevention and Health and University of North Carolina at Chapel Hill | Teaching students and health professionals the foundations and practice of nutrigenetics and nutrigenomics |
|  | **Alfredo Martinez**, University Navarra, Pamplona, President International Union of Nutritional Sciences | |
|  | **Agata Chmuryznska**, Poznan University, Poland, Director Institute of Nutrition and Dietetics | |
|  | **Mihai Niculescu**, University of Timisoara, Romania, Medical School | |
| 15.30-16.45 | **SWISS RE INSTITUTE WORKSHOP:**
Using causal inference tools to investigate nutrition and type-2 diabetes: Workshop to discuss causal inference tools and how best to explore how nutrition is causally linked to obesity & type-2 diabetes

**Jeffrey Bohn**, Head, SRI & Affiliated Researcher at U.C. Berkeley and **Lisa Goldberg**, Director of Research, Aperio Group, Director, Consortium for Data Analytics in Risk (CDAR), & Adjunct Professor at U.C. Berkeley | |
| 16.45-17.00 | **Interactive Panel Discussion: Towards 2020 and the road ahead - Nutrition and Implementation Practice**
Panel: Eleanor Beck, James Bradfield, Jeffrey Bohn, Lisa Goldberg, Suzanne Piscopo
Moderator: Celia Laur, NNEdPro GIP Lead | |
| 17.00-17.05 | **Poster Winner Announcement** | |
| 17.05-17.15 | **Sumanta Ray**, NNEdPro Founding Chair | Closing remarks |

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**MINI SYMPOSIUM COURTESY OF OCEAN SPRAY**

| 17.30-18.45 | **Nutrition and Hydration Workshop**
Chair: Daniele Del Rio, NNEdPro Scientific Director
**Christina Khoo**, Director, Health Science and Nutrition Policy Ocean Spray Cranberries, Inc.
**Nathalie Tufenkji**, Professor, Department of Chemical Engineering McGill University, Montreal, Quebec
**Bilal Chuqhtai**, Associate Professor of Urology & Associate Professor of Urology in Obstetrics and Gynecology, Weill Cornell Medicine Associate Attending Urologist, New York-Presbyterian Hospital
**Pauline Douglas**, NNEdPro Vice Chair and Education Director | |
| 18.45-19.45 | **Networking Reception**
Courtesy of Ocean Spray and Lead Supporters | |

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NNEDPRO DIRECTORS

Professor Sumantra Ray RNutr - Summit Co-Chair

NNEdPro Founding Chair and Executive Director

Other affiliations: University of Cambridge | Ulster University | Imperial College London | University of Waterloo | University of Wollongong | World Health Organization

Sumantra (Shumone) Ray is a Licensed Medical Doctor as well as a Registered Nutritionist (Public Health), with special interests in Cardiovascular Disease Prevention and Nutrition Education in Health Systems.

He is cross-appointed in Cambridge as a Governing Body Fellow of Wolfson College, a Course Director in Nutrition Science at the University of Cambridge Institute of Continuing Education and Co-Lead for the Food, Nutrition and Education Work Package for the TIGR2ESS Programme in India (2017-21) led by the University of Cambridge and supported by UK Research and Innovation’s Global Challenges Research Fund. Additionally, Shumone holds a fractional personal chair appointment as Professor of Global Nutrition, Health and Disease at Ulster University as well as a number of honorary/visiting professorial appointments more widely including Imperial College London.

From 2008-10 Shumone was an NIHR Public Health Fellow and Corfield Scholar at Selwyn College Cambridge. Following this from 2010-18, he also held a Senior Clinician Scientist position with the Medical Research Council focussing on nutrition and vascular studies, heading up a dedicated experimental medicine facility for human nutrition studies and also functioning as the Lead Clinician for the UK National Diet and Nutrition Survey (c/o Public Health England) as well as working clinically at Cambridge University Hospitals. From 2010-2018 Shumone led undergraduate Nutrition teaching in the Cambridge clinical/medical curriculum and he was a University of Cambridge Senior Clinical Tutor from 2015-18.

Pauline Douglas RD

NNEdPro Vice-Chair and Education Director

Other affiliation: Ulster University

Pauline has over 25 years of Clinical and academic experience in dietetics. As a clinical dietitian she worked in the area of nutritional support for surgical and oncology patients in a large teaching hospital. Her main teaching disciplines in the Ulster University are in Professional Practice for dietetic students and dietetic practice educators. She is also involved in a number of inter-professional learning pilots in both academic and practice settings. Pauline is her Professional Body’s European and alternate International representative.

She is a member of the Professional Practice Committee of European Federation of the Associations of Dietitians. This is currently working on dietetic Registration and Regulatory practice throughout Europe. She also is Key Contact for University of Ulster in “Dietitians Improving the Education and Training Standards (DIETS) project” and is a member of Work package 8 – Exploitation. Pauline is the current Chair and co-founder of the Commonwealth Dietitians and Nutritionists Association. Pauline is a partner with the Health and Care Professions Council, the statutory regulator for Allied Health Professions in the UK, and was a previous Honorary Chairman of the British Dietetic Association (BDA). She was elected to Fellowship of the BDA for her professional achievements in 2010.

Pauline works closely with Ray et al in Cambridge across the domains of NNEdPro and she is an elected Visiting Scholar/College Research Associate at Wolfson College, University of Cambridge.

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Theme: Closing the Gap : Data based decisions in Food, Nutrition and Health Systems

NNEDPRO DIRECTORS

Dr Minha Rajput-Ray
NNEdPro Medical Director
Other affiliation: University of Cambridge

Dr Minha Rajput-Ray is Medical Director of NNEdPro, an Occupational and Disability Physician holding registration with the General Medical Council (GMC) and a UK Registered Osteopath. Following osteopathic studies in London and gaining a first class honours degree, she obtained her undergraduate degree and basic medical training in Dundee and then held an NIHR Academic Clinical Fellowship in rheumatology and general medicine at the Universities of Manchester and Cambridge and its associated teaching hospitals. She then took further qualifications in occupational and disability medicine.

Within the NNEdPro medical director role, Dr Rajput-Ray assists to develop and deliver grassroots nutrition education research projects both in the UK and overseas; as aligned to the United Nations Decade of Action on Nutrition (2016–2025) and the United Nations Sustainable Development Goals. In addition, Dr Rajput-Ray provides clinical/medical advisory input with a specific emphasis on inter-professional patient focussed learning (bringing together medical students, junior doctors and allied health professions in the community).

She also has lead responsibility within NNEdPro, for wellbeing and performance. Dr Rajput-Ray also heads the wellbeing at work initiative with a focus on nutrition and hydration in promoting healthier workplaces, reducing sickness absence and improving staff performance. She is an elected Wolfson College Research Associate/Scholar at the University of Cambridge. Dr Rajput-Ray was awarded the 2015 Mobb’s Corporate Fellowship of the Royal College of Physicians Faculty of Occupational Medicine and the Golden Jubilee Fellowship of the Society for Occupational Medicine and serves as Chair of the Scientific Committee on (Unemployment, Job Insecurity and Health) of the International Commission on Occupational Health (ICOH).

Professor Daniele Del Rio
NNEdPro Scientific Director
Other affiliation: University of Parma

Daniele Del Rio is Associate Professor of Human Nutrition at the University of Parma. His research career began in 2002 with an initial focus on oxidative stress and antioxidants. After a period as a visiting scientist at the University of Glasgow in 2002-2003, he developed interests and expertise in HPLC-MS/MS analysis of polyphenols and related compounds in food and in human tissues/fluids. After gaining his PhD in May 2004, the absorption, metabolism and bioactivity of dietary polyphenolics became the principal focus of Daniele’s interests and his research and collaborations in this area have made him one of the leading researchers in the field.

Daniele has been invited to present lectures on his research on polyphenol bioavailability and bioactivity at several international conferences and has co-authored more than 100 papers on internationally peer reviewed journals. He is listed among the ISI – Thomson most influential scientists for his citation record. Dan is the Editor in Chief of the International Journal of Food Sciences and Nutrition and is a member of the editorial board of Molecular Nutrition and Food Research (Wiley), Nutrition Metabolism & Cardiovascular Diseases (Elsevier).

He has also served as Commissioned Reviews Editor for the Journal Of Human Nutrition and Dietetics, the official Journal of the British Dietetic Association. Since January 2011, Daniele is leading the Laboratory of Phytochemicals in Physiology, a research laboratory of the Department of Food Science of the University of Parma and is the co-founder of the LS9 Bioactive & Health Interlab Group. His lab is allied with the Nutrition and Vascular Studies platform led by Ray et al in Cambridge and he is a visiting Fellow of Wolfson College, University of Cambridge.

Prof Dan Del Rio has been honoured by the Italian President as Commendatore for his exemplary work and contribution to scientific research.

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NNEDPRO GLOBAL PATRON

The Lord Rana MBE of Malone

Lord Dillit Ran MBE is based in Northern Ireland with a distinguished career in business and social development. He is Chairman of the Lord Rana Foundation, which supports the Cordia Group of Colleges in Punjab, India. The NNEdPro Chair sits on the Advisory Board to the Cordia Educational Group. Lord Rana is also the Honorary Consul of India to Northern Ireland and was awarded an Honorary Doctorate from Ulster University among others.

NNEDPRO GLOBAL INNOVATION PANEL, PRINCIPAL ADVISOR

Professor Martin Kohlmeier, MD, PhD
Editor in Chief – BMJ Nutrition, Prevention and Health

Other affiliation: University of North Carolina

Professor Martin Kohlmeier, MD, PhD, after medical school and residency training, completed graduate studies in bioinformatics, clinical chemistry and laboratory medicine at Heidelberg University, at the Max-Planck-Institute for Nutrition Research in Dortmund, and later at the Free University in Berlin.

He is professor of nutrition at UNC Chapel Hill, director of the Human Research Core and the NutriGenetics Laboratory at the UNC Nutrition Research Institute in Kannapolis, visiting fellow of Wolfson College at Cambridge University, UK, and President of ISNN. He investigates what inherited differences mean for nutrient metabolism and how mobile applications can use genetic information to support better nutrition decisions. Current work focuses on precision nutrition for improving muscle performance, on tailoring intake of nutrients including vitamin D, and on genetic variants responsible for differences in energy metabolism.

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SUMMIT ORGANISERS

Dr Celia Laur, PhD, MSc, FHEA
Summit Lead-Chair
NNEdPro Global Innovation Panel (GIP) Lead

Celia Laur is an implementation scientist who works across disciplines and settings, specializing in understanding how effective interventions can be sustained, spread, and scaled up. For her Postdoctoral work at Women’s College Hospital in Toronto, Celia is involved in a series of projects exploring physicians’ antibiotic and opioid prescribing practices in Ontario, in an effort to inform upcoming interventions and behaviour change in practice. Celia’s PhD at the University of Waterloo focused on understanding healthcare professionals’ perspectives on implementing, sustaining and spreading nutrition care activities in hospitals across Canada.

Within NNEdPro, Celia is lead of the Global Innovation Panel (GIP). She is former Managing Coordinator/Analyst for the NNEdPro Group and transitioned into her role as GIP Lead and Core Team Member in 2014 when she began her doctoral studies. Previously, she was involved in all aspects of the NNEdPro Group and still remains involved in all relevant areas.

Mr Jørgen Torgerstuen Johnsen, MSc
Summit Lead Co-ordinator
NNEdPro Senior Intern – Project Officer

Jørgen holds an MSc in Public Health Nutrition with a focus on global nutrition. During his BSc he focused on food security and has experience with anthropometry measurements of children under 5 years of age, FFQ and food insecurity during his stay in Tanzania. His Master’s Thesis focused on the development of a monitoring and evaluation system to measure the nutritional knowledge, Attitude and Practice among mothers with children under two years of age participating in a nutritional education programme for an NGO in Thimi, Nepal.

He has completed a six-month internship with the World Health Organization, Department of Nutrition for Health and Development, Headquarters, Geneva. He is at the moment interning for NNEdPro where he is involved in its summer events, nutritional consulting, NEHELP, Mobile Teaching Kitchen and TIGR2ESS collaboration. In addition, he is learning statistical coding in R in his spare time for fun.
SPEAKERS

A Global Systems Perspective on Data Driven Decisions

Ms Lina Mahy
Technical Officer, World Health Organization, Department of Nutrition for Health and Development, Geneva

Lina is a qualified international development professional with more than 30 years of experience, working for UN Agencies and an International NGO in sub-Saharan Africa, as a technical nutrition officer and country office director. Lina currently works in Geneva in the Office of the Director at WHO’s Department for Nutrition and Food Safety, where she facilitates advocacy and communication on WHO nutrition strategies, guidance and tools to UN Agencies, professional communities, governments and intergovernmental organizations by actively engaging in existing partnerships, strengthening the capacities of WHO staff and developing new initiatives.

Lina, a Belgian national, has worked for 6 years as technical officer in the UN System Standing Committee on Nutrition (UNSCN) Secretariat based in Geneva. Prior to her work in Geneva, Lina has lived and worked for 21 years in several countries in sub-Saharan Africa for FAO, UNICEF, Helen Keller International, and the World Bank (Rwanda, Nigeria, Guinea, Mali, Benin). Lina is an agricultural engineer (MSc), with a post-graduate degree in international nutrition and education from Ghent University (Belgium).

Dr Klaus Kraemer
Managing Director, Sight and Life

Dr Kraemer is Managing Director of Sight and Life, a Swiss-based humanitarian nutrition think tank with core funding from DSM. It develops and implements sustainable nutrition solutions, grounded in solid scientific evidence, to improve the lives of those most in need. He provides its leadership, vision, and direction, guides its global team, interacts with funders and partners, is its key spokesperson, and is the editor of Sight and Life magazine.

Since 2013, Dr Kraemer has served as Adjunct Associate Professor in the Department of International Health at Johns Hopkins Bloomberg School of Public Health, Baltimore, USA. Dr Kraemer’s areas of interest and expertise focuses on a wide range of issues relating to the nutritional and safety aspects of vitamins, minerals, and carotenoids, and micronutrient deficiencies. These include, among others, capacity and leadership development; evidence-based nutrition; and nutrition advocacy.

He serves professional societies dedicated to nutrition, vitamins, and antioxidants; reviews scientific journals, has published over 140 scientific articles, monographs, reviews, and book chapters, co-edited 12 books, and coordinated four special supplements, and is co-inventor of over 20 patents. He presents on nutrition, food systems and micronutrient topics at forums worldwide, and is a frequent panel member in discussions addressing nutrition and food security issues. He is a member of several professional societies, and the recipient of distinguished international honours.
Theme: Closing the Gap: Data-based decisions in Food, Nutrition and Health Systems

SPEAKERS

A Global Systems Perspective on Data Driven Decisions

Dr Luke Buckner
Foundation year doctor at Basingstoke and North Hampshire Hospital.

Luke is a Foundation year doctor at Basingstoke and North Hampshire Hospital, with an interest in a future career specialising in Cardiology. He is currently on placement in the Cardiology department having rotated through Elderly Care and Urology. He has maintained an interest in nutrition following intercalating in his fourth year of university, where he took a year from medical training to obtain a BSc (Hons) in Human Nutrition and Metabolism from King’s College London University.

It was following this that Luke became a part of the NNEdPro team, now sitting on the Global Innovation Panel, as part of the executive team, as well as the Faculty and Mentors Panel. Through the close links between NNEdPro and Nutritank, he also acts as an Operational panel member for Nutritank.

Returning to the final stages of medical school, Luke pursued opportunities to further nutrition content within medical training. This included working alongside staff at Brighton and Sussex Medical School to give advice where nutrition content could be implemented.

Furthermore, whilst on his medical elective in his final year, he played a key role in the running of the NNEdPro Teaching Kitchen Project in Kolkata, India. Following this, Luke has since returned to India, where he has become integrated further into the project and has been appointed as the UK-India liaison. He holds an honorary post at Cordia Educational colleges (Sanghol, Punjab), where he acts as lead project officer to facilitate replication of the teaching kitchen project in this region. Further work has included being a part of a team presenting a BMJ India “Nutrition masterclass” in New Delhi in February 2019.

Luke is also involved in NNEdPro’s NEPHelp project, which focuses on improving nutrition education for medical professionals in the U.K. This is now being successfully rolled out nationally to educate a cohort of junior doctors on the basic principles of nutritional care.

James Bradfield
MSc Student, Nutrition and Dietetics, University of Chester

James holds a BSc (Hons) in Nutritional Sciences from University College Cork and is currently studying for an MSc in Nutrition and Dietetics at the University of Chester. He is a member of the NNEdPro Operations and Logistic team and Global Innovation Panels having initially joined as an intern in 2017. He currently coordinates the group’s e-Learning projects and is the Lead Coordinator of the Summer School.

James has a keen interest in clinical nutrition and nutrition education which led him undertaking an undergraduate dissertation investigating the role of visceral adiposity on gastrointestinal cancer survival rates.
SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Dr Charlotte A. Pratt, PhD, RD, FAHA
Program Director and a Health Scientist Administrator in the Division of Cardiovascular Sciences, National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), United States of America

Charlotte joined NHLBI in 2000 in the Clinical Applications and Prevention Branch, where she has an active research grant portfolio in nutrition, cardiovascular risk reduction, obesity, physical activity, community trials of cardiovascular health, and health disparities research. She is the program director for the Nutrition Academic Award program to medical schools across the U.S. and has hosted many NIH sponsored workshops related to nutrition in medicine and pediatric cardiovascular health.

Prior to joining NHLBI, she was a tenured Associate Professor at Virginia Tech and Associate Professor and Assistant to the Director for Children, Youth and Families at Michigan State. She directed the Coordinated Program in Dietetics at Eastern Michigan University as an Associate Professor, and for about five years was the Director of the Resource Center for Cardiovascular Health, Michigan Public Health Institute. She was awarded a senior Fulbright Scholarship to the University of Malawi where she taught nutrition and conducted research from 1991-1992. Dr Pratt’s research focuses on topics such as nutrition, obesity and physical activity that have appeared in journals such as Circulation, Advances in Nutrition, the American Journal of Clinical Nutrition, Journal of American Medical Association, and American Journal of Preventive Medicine. Dr Pratt is a Fellow of the American Heart Association (FAHA).

Dr Katharine Martyn RN
PhD, MSc Medical Nutrition, BSc Biological Sciences, BEd.
Principal Lecturer Nutrition – University of Brighton

Kathy researches Nutrition and Disability related issues in health care. Passionate about the importance of nutritional care to support recovery and promote health. A founder member of ERimNN, a collaborative group working to improve Nutrition Education in healthcare through sharing expertise and resources. Kathy is supporting a number of undergraduate and postgraduate student researchers.

Current projects including, Understanding the views of medical students on nutrition and their roles in nutritional care; ‘Eating and dementia: A Systematic review of the onset of and changing eating behaviours associated with dementia; Relationship between mindful eating, binge eating and mood in medical students; A Systematic review of the use of digital apps to support healthy behaviours in community living older people; Let’s talk food: measuring the impact of a single workshop introducing the Easy Meals App to community dwelling older adults in Brighton.

In addition, Kathy supports a range of volunteer projects focussing on Food, and food education with Children ‘ Kids Kitchen’ and the BSMS An Apple A Day.
Theme: Closing the Gap: Data based decisions in Food, Nutrition and Health Systems

SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Dr Elisabeth Irene Karlsen Dogan
Nurse and M.Sc. in Public Health Nutrition. PhD candidate at VID Specialized University, Oslo in Norway.

PhD Project: Developing and introducing food and nutrition as a human right for nursing students. Many years of clinical experience as a nurse, and lecturing nursing students.

Ms Elaine Macaninch, RD
University of Brighton and Sussex

Elaine currently works for Brighton and Sussex Medical School as a Nutrition Medical Educator helping to integrate nutrition into the curriculum. She maintains a clinical role as a Registered Dietitian, specialising in diabetes in pregnancy and is also the nutrition lead for Culinary Medicine UK.

In addition, she is an executive member of NNEdPro Global Centre for Nutrition. She has a distinction PGCE in Medical Education and is a member of the Academy of Medical Educators (MAcadMed). She is currently studying for her MSc Med Ed, researching gaps in nutrition education from the perspective of medical students and junior doctors.

Elaine has a career spanning over 20 years, a BSc(hons) in Nutrition and Dietetics and postgraduate qualifications in diabetes, research, critical appraisal, behaviour change and communication. She is passionate about the need for collaboration and communication across professions to scale up nutrition education, to help prevent and treat chronic disease and to advocate for better access to healthy affordable food for all.

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SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Professor Caryl Nowson
Professor of Nutrition and Ageing, Institute of Physical Activity and Nutrition, Deakin University, Australia. Associate Editor – BMJ Nutrition, Prevention & Health

Emeritus Professor Caryl Nowson is a qualified dietitian, a Fellow of the Nutrition Society of Australia who held the Deakin Chair of Nutrition and Ageing 2006-2019. She has a research program spanning more than 35 years that has focused on two major diseases of ageing: nutrition related to hypertension, and nutrition related to bone health.

She has conducted many community based nutrition interventions, some combined with exercise, assessing impact on cardiovascular risk, osteoporosis risk and muscle strength. More recently she has engaged in research and relating public health strategies to achieve population salt reduction. She further extended her work into embedding nutrition into medical education both nationally and internationally. She is a principal advisor to the NNEdPro-GIP Network in Australia and New Zealand and non-executive member of NNEdPro Global Research, Education and Innovation Panel.

Professor Alfredo Martinez, MD, PhD
Co-Director of the Institute of Food and Nutritional Sciences at the University of Navarao, Spain

Prof J. Alfredo Martínez holds a PhD in Nutrition being also Pharm D and MD. He is co-author or has been involved in several landmark intervention trials such as DI GENES, NUGENOB, FOOD4ME, PREDI MEd and PREVIEW, whose results have been published in the most relevant medical and scientific journals including NEJM, Lancet, Nature Reviews, BMJ, AJCN, Circulation, etc. with more than 26.000 citations (H Factor > 64).

Furthermore, Prof J. Alfredo Martínez has supervised more than seventy PhD students and published more than 800 peer-reviewed manuscripts and book chapters in the areas of Obesity and Personalized Nutrition, including precision nutritional omics. He is currently President of the International Union of Nutritional Sciences (IUNS) and has been recipient of several important awards including Hippocrates and Dupont prizes.

During his scientific career, Prof J. Alfredo Martínez has enjoyed training or invited stays at Nottingham, Berkeley, MIT, Harvard, Oxford and King College London, in addition to be staff at the University of Navarra and of some Spanish institution such as University of Basque Country and University of Santiago de Compostela.
Theme: Closing the Gap: Data based decisions in Food, Nutrition and Health Systems

SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Dr Agata Chmurzynska, PhD, MSc
Poznan University of Life Sciences

Dr Agata Chmurzynska is an Associate Professor and Director of the Human Nutrition of Dietetics Institute at Poznan University of Life Sciences. She received her M.Sc. in Biotechnology from Poznan University of Life Sciences and her Ph.D. in genetics from Adam Mickiewicz University in Poland. Her research interests include fetal programming, determination of body mass, links between one-carbon and lipid metabolism, choline, and personalized nutrition.

Dr Mihai Niculescu, MD, PhD
UNC Nutrition Research Institute

The activity of Dr Mihai Niculescu consists of academic research, teaching, and the development and implementation of nutrigenetic tools for health care providers and nutritionists. His current work involves the development of his company in the field of nutrigenetics (Advanced Nutrigenomics, Cary, North Carolina), and his work in Timisoara, Romania, where he is the principal investigator of a 2M euro grant with EU funds, at the Victor Babes University of Medicine and Pharmacy.

He is the author of more than 60 scientific articles and book chapters, and the editor of a book on nutritional epigenetics. He is a peer reviewer for more than 40 scientific journals, and a grant reviewer for NIH (USA), MRC and DIABETES (UK), NWO (The Netherlands), KAUST (Saudi Arabia), and The QATAR Fund (Qatar).
SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Dr Jeffrey R. Bohn
Head, Swiss Re Institute

Dr Bohn joined Swiss Re Institute as its Head in 2017. Based in Switzerland, Dr Bohn manages new research activities supporting Swiss Re’s strategy, clients, business development, and technology. Prior to his Swiss Re appointment, he served as Chief Science Officer and Head of GX Labs at State Street Global Exchange in San Francisco. Before moving back to California, he established the Portfolio Analytics and Valuation Department within State Street Global Markets Japan in Tokyo. (He is fluent in Japanese.) He previously ran the Risk and Regulatory Financial Services consulting practice at PWC Japan.

Past appointments for Dr Bohn include Head, Portfolio Analytics and Economic Capital at Standard Chartered Bank in Singapore and General Manager, Financial Strategies group at Shinsei Bank in Tokyo where he supervised implementation of best-practice risk and capital analytics. Before moving to Asia, he led Moody’s KMV’s (MKMV’s) Global Research group and MKMV’s Credit Strategies group. Dr Bohn often conducts seminars on topics ranging from credit instrument valuation to portfolio management. More recently, he presents on technology trends (e.g., 5G, IoT, machine intelligence, and distributed ledger technology) and their impact on cities, supply chains, financial services, and insurance. He spearheads a new initiative, called Quantum Cities exploring the opportunities & threats to urban areas given the rapidly developing tech-enabled connectivity. In particular, he and his team are exploring how the insurance digital ecosystem is developing as the insurance value chain is disrupted by these technology trends. Dr Bohn’s work builds on extensive experience in risk modeling & management; he has published widely in the area of credit risk. He co-authored with Roger Stein, Active Credit Portfolio Management in Practice (Wiley, 2009).

Dr Bohn’s current research focuses on applying machine intelligence (particularly reinforcement learning) to time-series prediction & risk modeling, quantum-inspired coding, using causal inference to improve time series analyses, and managing & valuing R&D efforts in corporate environments. In addition, he continues his research in the areas of factor modeling and large-scale risk simulations. Dr Bohn is an affiliated researcher at U.C. Berkeley’s Center for Risk Management Research and serves as a board member for the Consortium for Data Analytics in Risk (CDAR) spanning U.C. Berkeley, Stanford and several industry partners. He is also a member of the advisory group for the Centre for Digital Trust established at EPFL in Lausanne. On occasion, he teaches financial engineering at U.C. Berkeley, National University of Singapore’s Risk Management Institute, and Tokyo University.
Dr Lisa Goldberg
Director, Consortium for Data Analytics in Risk

Dr. Goldberg is the Director of Research at Aperio Group and Director of the Consortium for Data Analytics in Risk and Adjunct Professor of Statistics and Economics at University of California, Berkeley. Lisa’s interests include quantitative finance, impact investing, causal inference and sports statistics.

Lisa received a B.A. in Mathematics from University of Rochester in 1978 and a Ph.D. in Mathematics from Brandeis University in 1984, under the supervision of Edgar Brown, Jr. Lisa was Einstein Assistant Professor, Associate Professor and Professor of Mathematics at City University of New York between 1982 and 1993. She was a Post-Doctoral Fellow at the Mathematical Sciences Research Institute in Berkeley in 1985 and a Member of the Institute for Advanced Study in Princeton from 1986 to 1987. In 1991-1992, Lisa was a Visiting Professor of Mathematics at University of California, Berkeley and in 1992-1993, she returned to the Mathematical Sciences Research Institute as a Research Professor.

In 1993, Lisa left academia to join Barra, the leading provider of quantitative risk management tools to the financial services industry. At Barra, Lisa was principal scientist for industry standard fixed income and multi-asset class risk models, mentor to junior researchers, and corporate spokesperson to clients, to the media and to the research community. In 2004, Barra merged with MSCI and Lisa became Executive Director of Research. After the merger, Lisa’s research focused on credit, risk due to extreme events and asset allocation.

Lisa has been awarded numerous research grants including an Alfred P. Sloan Fellowship and an NSF Visiting Professorship for Women. Lisa is an inventor on five patents; she is the author of more than forty articles in peer-reviewed journals and a book, Portfolio Risk Analysis, which was published by Princeton University Press in 2010. Lisa, with co-authors Robert Anderson and Stephen Bianchi, was awarded a Graham and Dodd Scroll Award for Excellence by the Financial Analysts Journal for “Will My Risk Parity Strategy Outperform?” in 2012. With co-authors Ran Leshem and Patrick Geddes, Lisa was awarded a Harry M. Markowitz Special Distinction Award by the Journal of Investment Management for “Restoring Value to Minimum Variance” in 2014. Lisa served on the Editorial Board of Financial Analysts Journal between 2012 and 2018. She is an Associate Editor for the Journal of Investment Strategies, and she serves on the Executive Board of the Museum of Mathematics. She is an expert judge for the Moskowitz Prize for Socially Responsible Investing.

Lisa starts most days in the water and has swam more than 25,000 kilometres since her nineteenth birthday.
SPEAKERS

Using a Data Driven Approach in Medical and Healthcare Education

Professor Eleanor Beck
Discipline Leader and Course Director, Nutrition and Dietetics, University of Wollongong, Australia

Professor Eleanor Beck is Discipline Leader in Nutrition and Dietetics in the School of Medicine, Faculty of Science, Medicine and Health. Eleanor has more than 25 years experience in clinical practice and dietetics education. Eleanor was part of the expert working group for the recent reviews of the National Competency Standards for Dietitians and the Advanced Accreditating Practising Dietitian and Fellow competency standards. Her clinical research includes close links with dietetics service delivery in hospitals, while working with industry partners and international collaborators in grains research. Current projects include review of both individual grains and fibres, as well as cereal fibre and whole grains generally, and their effects on metabolic health.

Eleanor is also Deputy Chair of the Council of Deans of Nutrition and Dietetics (ANZ) and the Chair of the Australia New Zealand Steering Committee for the NNEdPro group. NNEdPro Global Centre for Nutrition and Health is a University of Cambridge based think tank, part of a global network to promote nutrition teaching and research in health professions.

Associate Professor Suzanne Piscopo
Head of Department of Health, Physical Education and Consumer Studies, Faculty of Education, University of Malta; Past President Society of Nutrition Education and Behaviour

Suzanne Piscopo is Head of the Department of Health, Physical Education and Consumer Studies in the Faculty of Education at the University of Malta. She is an Associate Professor in Nutrition, Family and Consumer Studies, mainly training BSc (Hons) Home Economics students, as well as providing training in health and nutrition education to future Secondary and Primary level teachers and early childhood educators. She is also an ad hoc lecturer with other faculties, a Board member of the Programme for Mediterranean Foodways and a frequent guest speaker in school and community activities and on the mass media tackling subjects related to food, nutrition, health and consumption. Prof Piscopo is a Registered Nutritionist and Registered European Health Promotion Practitioner. She is currently Academic Coordinator of a national community education project focusing on sustainable living and is also involved in different international projects addressing the Mediterranean Diet, elderly health, and consumer and sustainability education.

Together with her husband Michael she produces educational resources for young children promoting healthy living and which feature a nationally recognised original mascot. Prof Piscopo is a member of the National Centre for Family Research within the Malta Foundation for the Wellbeing of Society and is currently involved in studies on couple relationships and on access to quality food. She is also past President of the International Society for Nutrition Education and Behavior where she has voluntarily served in different leadership positions for over 20 years.
Theme: Closing the Gap: Data based decisions in Food, Nutrition and Health Systems

MINI SYMPOSIUM

Courtesy of Ocean Spray

Dr Christina Khoo
Director, Global Health Science & Nutrition Affairs

Christina Khoo, PhD, is the Director of Global Health Science & Nutrition Affairs, Ocean Spray Cranberries, Inc. and joined the farmer-owned cooperative in 2007. Christina received her doctorate with emphasis on nutritional biochemistry and mineral metabolism at the Food Science and Human Nutrition Department, University of Florida. She completed a postdoctoral fellowship at Harvard School of Public Health where she conducted human clinical trials in the area of cholesterol and triglyceride metabolism, studying the effects of low or high fat diets on the metabolism and clearance of triglycerides using kinetic modeling. Her current research interest is focused on cranberry compounds and the antioxidant and whole body health benefits of cranberries in collaboration with global universities. The research can help to support the role of cranberry in maintaining health as a nutritional approach to reduce antibiotic use. Christina has been instrumental in directing Ocean Spray’s efforts in supporting research in this area resulting in the generation of a patent application on antibiotic synergy published in July 2017 and one of the largest clinical trials conducted on cranberry and urinary tract health infection, showing a reduction in symptomatic UTI and antibiotic use to treat asymptomatic UTI. Christina has directed Ocean Spray’s efforts in initiating research in geographies such as China to address health conditions requiring antibiotic use such as H pylori infections. In addition to research, Christina has been active in pulling together stakeholders to continue to evaluate nutritional alternatives.

Professor Nathalie Tufenkji
Professor and Tier 1 Canada Research Chair in Biocolloids and Surfaces Department of Chemical Engineering, McGill University

Nathalie Tufenkji earned the Ph.D degree in Chemical and Environmental Engineering from Yale University in 2005. She is presently Professor in the Department of Chemical Engineering at McGill University where she holds the Tier 1 Canada Research Chair in Biocolloids and Surfaces. She works in the area of particle-surface interactions with applications in protection of water resources as well as the discovery of natural antimicrobials. Professor Tufenkji was awarded the Early Career Research Excellence Award by the Faculty of Engineering at McGill University (2010), a Fulbright Scholar Award (2012), the YWCA Woman of Distinction Award in Science and Technology (2014), and the Hatch Innovation Award of the Canadian Society for Chemical Engineers (2016). She was elected to the College of New Scholars, Artists and Scientists of the Royal Society of Canada in 2016. Beyond her research and teaching roles, Professor Tufenkji also serves as Associate Director of the Brace Center for Water Resources Management at McGill and has co-chaired several major international conferences. She also serves on the editorial advisory boards of the journals Environmental Science and Technology, npj Clean Water, Advances in Colloid and Interface Science, and Environmental Science: Nano.

Associate Professor Bilal Chughtai
Weill Cornell Medicine, Urology

Bilal Chughtai, MD is an Associate Professor of Urology and an Associate Professor of Urology in Obstetrics and Gynecology at Weill Cornell Medicine. He is also an Associate Attending Urologist at NewYork-Presbyterian Hospital. Dr. Chughtai specializes in Voiding Dysfunction, Female Urology, and Neurourology. Prior to his arrival at Weill Cornell/ NewYork-Presbyterian, Dr. Chughtai completed his Residency in General Surgery and Urology at Albany Medical Center, followed by a Fellowship in Female Urology, Neurourology, and Voiding Dysfunction at Weill Cornell Medical Center and Memorial Sloan Kettering Cancer Center. He earned his Doctor of Medicine at State University of New York at Stony Brook after graduating Magna cum Laude from New York University with a major in Biological Sciences. Dr. Chughtai is also an active researcher. He has served as primary & co-investigator in numerous studies. He has published over 130 peer-reviewed articles, authored chapters and books, and has presented at numerous prestigious national meetings.

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POSTER ABSTRACTS

1) Improving Nutrition Education in Medical Schools: the ESPEN NEMS Project

Maurizio Muscaritoli, Cristina Cuerda, Stephane Schneider, Zeljko Krzunic, Matthias Pirlich, André Van Gossuin, Rocco Barazzoni

Background: Nutrition-related disorders have a negative impact in the clinical outcome and increase disability in the people. Recent surveys showed that Nutrition Education in Medical Schools (NEMS) is very heterogeneous and underpowered. The aim of this work is to identify a minimum curriculum knowledge in nutrition for the future doctors and determine the main barriers of its implementation in university centres.

Methods: In 2017, the Nutrition Education Study Group (NESS) of the European Society for Clinical Nutrition and Metabolism (ESPEN), launched the NEMS Project and formed a core working group including ESPEN members and representatives of several European Medical Schools (Brussels, Madrid, Nice, Rome and Zagreb). This group met in Brussels, on 19th July 2018 and decided to prepare a position paper on this topic.

Results: Five main learning objectives and 21 topics on human nutrition, within its three domains (basic, applied and clinical nutrition) were identified to be fulfilled at the end of training in all Medical Schools. The experts showed the following key factors for its implementation: establish a nutrition curriculum committee, use different models of integration of the contents in the curriculum (vertical and horizontal), have a multidisciplinary and experienced faculty, incorporate a variety of teaching models, and evaluate the programme periodically.

Conclusions: Nutrition Education is deemed necessary and should be mandatory in all Medical Schools. The NEMS project aims at improving the current gap of knowledge and provides some clues for a successful implementation of the changes in the medical curriculum at university centres.

2) Does a 2-hour consultation workshop focused on teaching medical students how to give dietary advice increase their overall confidence in delivering this advice to a simulated patient? A novel approach in the standardisation of measuring students’ abilities in delivering dietary advice to patients using an OSCE* style mark scheme

Broadley, I,1,2 Macaninch, E,3,4,5 Professionals who co-delivered the workshop; Alan Flanagan (ANutr), Dr Sophie Bell-Syer, Dr Edward Griffiths, Dr Gabriella Blazewicz

1 Nutritank 2 Bristol medical school 3 Culinary Medicine 4 Brighton and Sussex University Hospital Trust 5 Brighton and Sussex Medical School

*OSCE – objective standardised clinical examination

Background: There is a growing movement within the U.K. to try to raise the standard of nutritional literacy of medical students. Nutritank aims to address this through organising educational workshops for medical students.

Aim: To establish whether a 2-hour consultation workshop increases students’ confidence in giving dietary advice to simulated patients and to establish if an OSCE style mark scheme aids in objectively measuring student’s confidence in giving such advice.

Method: 12 students were asked to carry out a pre-workshop questionnaire. One question related to their perceived confidence, (a rating out of 10), in consulting a patient on diet. 10 students carried out the pre and post course questionnaires. In a 2-hour consultation workshop, guided by a nutritionist (ANutr) and 3 general practitioners, the 12 students performed 2x 10-minute Calgary-Cambridge modeled consultations with a simulated patient. They were marked objectively for their ability to conduct a consultation and give dietary advice based on NICE guidelines. A post-workshop questionnaire was completed afterwards.

Outcomes: 12 students participated in the course, whilst 10 students responded to the questionnaires. The average perceived confidence before the workshop was 4.7/10. The post-workshop questionnaire results indicated the average perceived confidence after the workshop was 8.2/10. All students demonstrated an increase in confidence.

Discussion: These results indicate that a 2-hour consultation skills workshop focused on giving dietary advice increases student’s confidence, although the result could be a false positive. The OSCE style mark scheme aided in the teaching, further research is required to refine this tool.

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POSTER ABSTRACTS

3) Challenges and Opportunities for the Integration of Nutrition in to the Undergraduate Medical Curriculum at Brighton and Sussex Medical School

Macaninch. E 1,2 and Martyn. K 1,3
1Brighton and Sussex Medical School. 2Brighton and Sussex University Hospitals NHS Trust. 3School of Health Sciences, University of Brighton.

Background: Nutrition outcomes are mandated by the General Medical Council (GMC). The intercollegiate Nutrition Group (IGCN) curriculum gives more guidance on content and integration. We discuss the challenges in translating IGCN guidelines into teaching practice.

Methods: The IGCN learning outcomes provides the framework for the continued review of the BSMS curriculum. Findings for 2017-18 are compared with the initial review undertaken in 2015-16. Utilising an action research framework, data from student and faculty feedback on teaching sessions and nutrition related research and activities provides opportunity for further development.

Results: Explicit nutrition content has increased from 1 module in 2015-16 to 8 modules in 2017-18. Medical students and multi professional involvement was key to identify opportunities for curriculum development. Medical students value nutrition education and see this as an important part of their role as future doctors. However they report the need for more nutrition within assessments and are not witnessing nutrition as a part of clinical care during medical placements.

Future: Nutrition development is limited by curriculum space and needs to be embedded into the current structure and to consider how this fits within clinical placements and qualified medical practice. Increased use of technology and e-learning may offer additional, more integrated nutrition content. Expanding the question bank and OSCE's (objective simulated clinical examination) will improve summative and formative assessment.

4) An innovative approach in translating nutritional science to patient care: does a 4-week culinary medicine course give medical students the confidence to discuss healthy meal ideas with an individual with chronic diseases?

Broadley. I,1,2 Macaninch, E.3,4,5 Professionals who organised the course; Professor Trevor Thompson, Dr Rupy Aujla and Elaine Macaninch. With special thanks to registered dietitians Jackie Wilson and Laura Tilt who led the case-based discussions

1 Nutritank 2 Bristol medical school 3 Culinary Medicine 4 Brighton and Sussex University Hospital Trust 5 Brighton and Sussex Medical School

Background: A growing body of evidence underpins dietary factors as a key determinant and treatment of chronic disease. Culinary medicine (CM) education aims to equip medical students with tools and knowledge to integrate nutrition into clinical practice.

Aim: To establish whether a 4-week CM course that teaches medical students’ nutrition and culinary knowledge and skills will give medical students the confidence in discussing nutrition with individuals with chronic diseases.

Method: Ten students undertook 8 nutrition modules relating to different systems of the body and were invited to complete a pre and post course questionnaire on their perceived confidence in discussing nutrition with individuals with chronic diseases. This included pre e-learning and two 5-hour sessions dedicated to nutrition theory and translation via practical cooking sessions with dietitian and doctor led case-based discussions on dietary interventions and consultation skills. There was also an opportunity for each student to have two 1-hour clinics with volunteer patients to practice taking a dietary history and giving dietary advice with the support of a dietitian.

Outcomes: Before the course all (10/10) felt not very or somewhat confident. Following completion there was an overall increase in confidence. 25% (2/8) were somewhat confident, % (6/8) were very or extremely confident.

Discussion: These results indicate that a 4-week CM course subjectively increases the confidence of medical students to discuss nutrition with an individual with chronic disease although further research and formal skill assessment is warranted.

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5) More-2-Eat Phase 2: Developing a self-serve registry to track nutrition care in hospitals

Jill M. Morrison, MSc1, Celia V. Laur, MSc2, Mahsa Ebad, MSc2, Joel A. Dubin, PhD2,3, Helen Chen, PhD2, Lori J. Curtis, PhD4, Jack J. Bell, PhD5,6, Leah M. Gramlich, MD7, Heather H. Keller, PhD1,8.

1Department of Kinesiology, University of Waterloo; 2School of Public Health and Health Systems, University of Waterloo; 3Department of Statistics and Actuarial Science, University of Waterloo; 4Department of Economics, University of Waterloo; 5School of Human Movement and Nutrition Sciences, The University of Queensland; 6The Prince Charles Hospital, Queensland, Australia; 7Faculty of Medicine and Dentistry, University of Alberta; 8Schlegel-UW Research Institute for Aging, Waterloo, ON

Background: Audit & feedback is a powerful use of data to promote behavior change among health care providers. Phase 1 of the More-2-Eat (M2E) study demonstrated the effectiveness of this approach to motivate hospital personnel, typically dietitians, from 5 hospitals across Canada to implement the integrated Nutrition Pathway for Acute Care (INPAC) at their respective sites. A key factor in sustaining audit & feedback is the ability of hospital teams to self-audit. This study describes the development of a registry to allow hospitals to self-audit INPAC implementation (Phase 2).

Methods: M2E researchers designed the registry with input from Phase 1 participants (Jan-May 2018); all participants tested the system (June 2018). The audit questions verified key nutrition care practices, tailored to the needs of each patient. REDCap, a secure online platform, was used for data entry and a macro-enabled report template was generated using Microsoft Excel.

Results: Several challenges were overcome (e.g., firewalls) and lessons learned considering the end user (i.e., hospital personnel) to develop a user-friendly self-serve registry. Users generate automatic reports (e.g., tables/graphs) by entering INPAC audit data in REDCap, and loading the downloadable data file into the report template. Instructions and a video are provided.

Conclusions: A self-serve registry that supports audit & feedback behaviour change strategies will improve sustainability of the M2E model to address nutrition care in hospitals.

6) Service evaluation of Microenterprise phase of Mobile Teaching Kitchens in Kolkata

L Akaje-Macaulay*, L Buckner*, S Ray*.

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*Cambridge University • NNeDPro

Malnutrition represents a triple burden threat through micronutrient deficiencies, undernutrition and overnutrition. Globally 1.9 billion adults are overweight or obese, with 462 million conversely undernourished[1].

In Kolkata using mobile teaching kitchens (MTK) malnutrition was targeted by educating slum-dwelling mothers on nutrition. Following successful knowledge transition, the project progressed onto a microenterprise model, selling food whilst spreading nutrition messages during customer interactions.

Methods: Education occurred through a “See one, Do one, Teach one” model; firstly training volunteers who then passed the knowledge onto a group of mothers from two slums, RG Kar and Chetla. This progressed to a microenterprise model, piloting in 3 locations (Salt Lake, Alipore and Lake Town) where they collected customer satisfaction data through 1-5 Likert-scale questionnaire. Mean, minimum and maximum ratings and the percentage of 1s (top mark) calculated. Then analysis through Kruskal-Wallis with post-hoc pairwise comparisons were performed assessing for intra/inter-location differences.

Results: 100 customer satisfaction questionnaires were collected (1 session Salt-Lake, 2 Lake town and 7 Alipore). Throughout all individual questions only two scored the minimum score of 5, and three a score of 4. Evaluation consistently had a greater proportion of 1, except at Lake Town where the mobile teaching kitchen was launched.

Analysis showed significant differences for the following categories; Appearance, Novelty, Hygiene, Price ($<0.05) as well as Professionalism, Taste, Van appearance and recommendation (P=0.001). However, post-hoc pairwise comparisons showed all but one of these differences occurred within the Alipore area.

Discussion: The data is overwhelmingly positive, showing no significant differences among rating across locations apart from Van Appearance. From this it would suggest there is potential to expand the model both within India, but also globally for further evaluation.


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POSTER ABSTRACTS

7) The triple interaction of Diet-Microbiome-Epigenome in metabolically compromised children in Qatar

Shaikha Alabduljabbar (a†), Arun Prasath Lakshmanan (a), Sara Zaidan (a), Dhinoth Kumar Banagarusamy (a), Goran Petrovski (b), Annalisa Terranegra (a*)

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Introduction/aim: Metabolic diseases are developing with an alarming rate and making a huge impact on socio-economic worldwide. Qatar is one of the countries with high prevalence rate of metabolic diseases. Diet and genetic background could explain the NCD. There is no study that explains the direct connection of Diet-Microbiome-Epigenome. In this study, we aim to identify the direct crosstalk of diet-microbiome-epigenome in metabolically compromised children in Qatar.

Materials & Methodology: This study involves children aged 6-12 years and classified into four groups – Obese, T1DM, T1DM-Obese, Healthy control. Anthropometry, 24hrs dietary recall, and biochemical parameters were recorded. The gut microbial composition was evaluated from stool samples by 16S rRNA sequencing on Illuma MiSeq platform. The short chain fatty acids (SCFA) were estimated using Agilent Gas Chromatography-MS. All 16S rRNA sequence data were processed using QiIME 1.9.0. pipeline. Significant bacterial abundance was calculated using LDA score by Lefse Analysis. Microbial alpha diversity and beta diversity were analyzed using Phyloseq in R and QiIME, respectively.

Results: The 24 hr dietary recall has revealed that the Kcal intake is higher and cholesterol consumption is less in the Obese subjects than the other two groups. There was no significance difference in SCFAs level, but the obese subjects show higher level of butanoic and pentanoic acid. The sequencing analysis has shown that gut microbiome composition is different in Obese and T1DM-Obese subjects, in comparison to the T1DM group. The principle component analysis (PCoA) have shown no significance among the three groups. Lefse analysis has shown that a quite number of bacteria at genus level is significantly varying between Obese and T1DM-Obese subjects.

8) Vitamin D Deficiency, Diet and Physical Activity and Development of Gestational Diabetes in Emirati Women

Sharifa AlBlooshi, Abderrahim Oulhaj aDepartment of Public Health, UAE University,
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Vitamin D deficiency and Gestational Diabetes Mellitus (GDM) are common health problems among pregnant women in the Middle East region including the United Arab Emirates.

We examined the association of vitamin D status, diet, physical activity and other covariates with the risk of GDM in early pregnancy. We conducted a prospective cohort study on 563 Emirati pregnant women. The primary exposure was vitamin D deficiency (25(OH) <12 ng/ml) and vitamin D insufficiency (25(OH) 12-20 ng/l). The outcome variable was GDM.

Overall, 58.3% of pregnant women had vitamin D deficiency and 26.4% had insufficiency. The overall incidence of GDM was 15.2%. The incidence of GDM was 16% in vitamin D deficient women, 16.1% in vitamin D insufficient women and 10.7% in women with normal vitamin D. Adjusted logistic regression analysis showed that vitamin D concentration, vitamin D insufficiency (2.11, 95% CI: 0.81 – 5.64, p = 0.101) and deficiency (1.94, 95% CI: 0.88 – 5.32, p = 0.118) were not associated with GDM. Low and moderate physical activity levels were not significantly associated with increased odds of GDM. The

Daily consumption of red meat (AOR: 6.16, 95% CI: 1.31 - 28.92, p = 0.021) and dates (AOR: 1.86, 95% CI: 1.03 - 6.49, p = 0.043), family history of diabetes (AOR: 1.93, 95% CI: 1.02 - 3.62, p = 0.043) and Body Mass index (BMI) before pregnancy (AOR: 1.07, 95% CI: 1.02 - 1.11, p = 0.003) were significantly associated with GDM.

Keywords: Gestational Diabetes, Vitamin D Deficiency, Physical Activity, Diet, Family History.

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POSTER ABSTRACTS

9) An examination of Vitamin D Knowledge, Attitudes and Practice of UK Health Care Professionals: the UK D-KAP

Emily Fallon, Professor Susan Lanharm-New, Professor Sumantra Ray
Affiliations: University of Surrey, NNEdPro Global Centre for Nutrition & Health

Vitamin D deficiency, defined as plasma 25-hydroxyvitamin D (25-OH-D) <25nmol/L, is well-documented globally and has become a popular research interest and public health concern conferring vast health implications. These include impaired musculoskeletal health and recently proposed links to Cancer, Cardiovascular Disease and Type 2 Diabetes. Despite updated Scientific Advisory Committee on Nutrition (SACN) guidelines recommending a Vitamin D intake of 10µg/d for the UK population (>5years), the most recent UK National Diet and Nutrition Survey (NDNS) from 2008/2009-2016/2017 reported 19% children aged 4-10, 36% children aged 11-18, 29% adults aged 19-64 and 27% older adults aged 65+ Vitamin D deficient. This has been explained by inadequate Ultraviolet B (UVB) exposure, the primary source of Vitamin D, particularly in winter months, few foods containing Vitamin D, and overall poor public knowledge, attitudes and perceptions towards Vitamin D with a UK population knowledge score of 56.0±19.9% (O’Connor et al., 2018).

Previous literature has assessed the knowledge, attitudes and practice of Vitamin D in Health Care Professionals (HCP’s) concluding limited knowledge and confusion about Vitamin D sources, supplementation and risks. However, this has not been evaluated in the UK since the updated Vitamin D guidelines. Medical nutrition education is becoming increasingly important in nutritional science and recognised as limited hence may soon formally feature in the UK Decade of Action on Nutrition through work by NNEdPro. Therefore, the aim of this novel cross-sectional study is to evaluate the knowledge, attitudes and practice of UK HCP’s considering the SACN guidelines, with the potential to carry out sub-group analyses of specific HCP’s (foundation doctors, specialist trainees, nurses).

The study purpose is to inform public health initiatives and professional guidance to improve UK Vitamin D health and recommendation compliance, and evidence the importance of integrating medical and healthcare nutrition education for disease prevention.

10) The impact of travelling to high altitude in the Himalayas on self-reported appetite

Philip Voyias1, William Harper1, Thomas Barber1, and Santosh Baniya2
1. Warwick Medical School, Coventry, United Kingdom
2. Mountain Medicine Society of Nepal, Kathmandu, Nepal

Background: Appetite plays an important role in determining nutritional intake and influences glycaemic regulation. Improved glycaemia at high altitude compared to low altitude has been well documented, however a link between altitude and appetite is unknown. Appetite suppression may provide a novel area for investigating satiety medications to treat diseases of excess nutrition.

Aim: To assess whether self-reported appetite is influenced by altitude accounting for several potential confounding variables.

Methods: Ethical approval was obtained from the British and Nepalese Research Councils. Resident lowlanders visiting the Himalayas provided written consent to complete a questionnaire voluntarily. Appetite was assessed using a validated published appetite questionnaire with visual analogue scales. Questions about nutrition intake, illness, medication, physical exertion, physical fitness, age, sex, and altitude profile were added to assess whether these were linked to appetite. This process was repeated at seven altitudes between 2,600 meters and 5,200 meters. Data analysis investigating correlations between appetite and altitude, and linear regression was performed using SPSS software.

Results: 149 questionnaires were completed. Participants score for ‘how much can you eat?’ decreased significantly with increasing altitude, while responses to both ‘how full are you?’ and ‘how satisfied are you?’ increased significantly with increasing altitude. Linear regression showed no individual significant factors correlated with appetite.

Conclusions: As resident lowlanders travelled to higher altitude their appetite reduced and satiety increased with a graded response. These new findings are consistent with existing literature suggesting improved glycaemia at high altitude and support the hypothesis of appetite suppression with increasing altitude.

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• Advocating for universal, equitable, high quality healthcare
• Championing the health and wellbeing of doctors
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BDA (The Association of UK Dentists)
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LGC
Cambridge University Health Partners

LATEST FROM CN

NNEdPro contributes to the Complete Nutrition Focus which is mailed directly to 11,800 healthcare professionals and has a readership of over 25,000 primary and secondary healthcare professionals.

THE ONLINE DIET WARS. WHAT IS IT ACHIEVING?
February 2019

As two master’s level dietetic students, we spend a significant proportion of our time reading academic papers, commentaries and editorials. We are encouraged to critically appraise this work and to engage with the scientific community wherever possible. For many of us, this means social media. Though one might expect the usual scientific rigour and respect usually found in the lab would be found online too, this is not always true.

BRINGING OUR 2025 VISION OF AN INTERNATIONAL KNOWLEDGE APPLICATION NETWORK IN NUTRITION (I-KANN-25) TO LIFE IN PARTNERSHIP WITH GODAN
May 2019

Some may recall our announcement over 2017-18 on the soft launch of our initiative I-KANN-25 which envisages healthcare and public health practitioners as knowledge brokers that can promote nutrition to achieve better public health. Thanks to our strategic partnership with GODAN (Global Open Data for Agriculture and Nutrition), in the first quarter of 2019 the I-KANN-25 initiative was brought to life further through the rounding off of two case studies: one from India based on the mobile teaching kitchens initiative in urban slums using culinary health education as an intervention; and another in the UK with the launch of e-learning in nutrition that will be a key resource internationally including Low to Middle Income Countries.

FEED FOR HEALTH
June 2019

Feed for Health - The Nutrition Education Policy for Healthcare Practice Training Package (NEHELP). Facilitating the provision of nutrition education, focussing on the secondary care setting.
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Advancing and implementing nutrition knowledge
to improve health, wellbeing, and society

2019 Summit Supporters
## 2019 NNEdPro Summit Programme Update

### Session 1: A Global Systems Perspective on Data Driven Decisions

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<tr>
<th>Time</th>
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<td>9:25-10:00</td>
<td>Francesco Branca, World Health Organization (WHO) Director, Department of Nutrition for Health and Development (NHD) (by video)</td>
<td>Strengthen nutrition capacity by building architecture in health systems</td>
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<td>Lina Mahy, WHO Technical Officer, Office of the Director, NHD</td>
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<td>Sumantra Ray, NNEdPro Founding Chair</td>
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<td>10:00-10:20</td>
<td>Selvarani Elahi, LGC; and Sumantra Ray</td>
<td>International Knowledge Application Network in Nutrition: i-KANN-25</td>
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*Note: Klaus Kramer is unable to attend.*

### Additional Speaker

**Selvarani Elahi**

Selvarani is the UK Deputy Government Chemist and Business Manager for Food Research at LGC. She has over 25 years’ experience in the analysis of food and agriculture samples for authenticity, contaminants, additives, composition and nutrients, and has also led teams delivering consumer product testing. Selvarani is an experienced project manager who has successfully delivered numerous complex projects for the UK government, the European Commission and the private sector; she is currently leading the pioneering Food Authenticity Network ([www.foodauthenticity.uk](http://www.foodauthenticity.uk)). Additionally, she works across a variety of policy areas, with different stakeholder groups, to improve standards in measurement science.
Additional Abstracts

The ‘World Foods’ Book. A journey towards building an engaging, educational dietary resource for minority ethnic communities living with, or at risk of developing diabetes in NW London.

J. St John¹, S. Mehar², C. Cheyette³; ¹NW London Diabetes Transformation Programme, London, UK, ²Diabetes, Kings College Hospital, London, UK.

Background and Aims: More than 500,000 of the over 3.5million people in the UK living with Diabetes, are from Black, Asian or Minority Ethnic (BAME) communities. BAME people living with Diabetes have an increased burden of disease. Dietary education is fundamental to the management of Diabetes, and evidence shows that culturally specific interventions produce improved outcomes in BAME communities. Carbohydrates, the food group exerting the maximum effect on blood glucose, can in BAME populations, comprise up to 60% of the dietary intake; The UK had limited and patchy availability of culturally specific, and comprehensive dietary resources. The aim was to produce a culturally relevant, dietary resource for BAME communities with a focus on Carbohydrates, to empower, educate and enable them to make healthier, informed food choices.

Materials and methods: A multi-faceted approach including: face to face questionnaires, online surveys and food diaries; building on a pilot study that demonstrated improved understanding, confidence and ability to estimate carbohydrates when BAME people used culturally specific booklets.

Results: Received over 1000 responses from: People living with, or at risk of developing Type 2 Diabetes and Healthcare professionals, enabling us to develop a book with over 750 pictures of culturally relevant foods for the four most common BAME communities in NW London and using a unique blood glucose icon to represent the carbohydrate content and its effect on blood glucose for those of low health literacy.

Conclusion: A comprehensive ethnic-specific, highly visual resource has engaged and produced positive feedback from people living with, or at risk of developing Diabetes, and Healthcare professionals.

Assessing the direct effect of prebiotics upon monocyte adhesion – an in vitro model

Liset Brooshooft; Department of human health and development, University of Southampton

Introduction: Prebiotics are described as products that specifically stimulate growth of beneficial bacteria, thereby improving host health. Crohn’s disease patients and infants are associated with increased intestinal permeability, enabling prebiotics to directly interact with the immune system. Supplementation with prebiotics in formula fed infants reduced acute diarrhoea, upper respiratory tract infections, antibiotic use and incidence of atopic dermatitis later in life. Oligofructose and beta-glucan in Crohn's disease directly interacted with dendritic cells in the lamina propria. In addition, human milk oligosaccharides are inhibitory ligands for selectins that are essential for monocyte adhesion on the vascular wall.

Metabolic status and inflammatory state of the gut influences intestinal permeability and enables prebiotics to interact with the immune system, even in healthy individuals. Unfortunately, research on prebiotics is primarily focused on bifidogenic effects. Research on the direct interaction between prebiotics and the immune system is highly neglected.

Methods: In this study the direct effects of prebiotics upon monocytes adhesion to the vascular wall is assessed. To simulate monocyte adhesion to the vascular wall EA.hy926 (ATCC) and THP1 (ECACC) cell lines were used. The THP1 cell line (ECACC) was stimulated with two different prebiotics. Vybrant™ adhesion assay kit was used to report changes in THP1 adhesion to EA.hy926 (ATCC) in response to GOS. Results are analyzed on the Glomax Discover System. Results are yet to be obtained.