TRENDS IN NUTRITION EPIDEMIOLOGY
22 – 26 August 2022

Course Lecturers

ID	**Prof Dr Ina Danquah** Climate Change, Nutrition and Health, Heidelberg Institute of Global Health (HIGH)	AH	**PD Dr Antje Hebestreit** Epidemiological Methods & Etiological Research, Leibniz Institute for Prevention Research and Epidemiology (BIPS)
UN	**Prof Ute Nöthlings** Nutrition Epidemiology, University of Bonn	MBS	**Prof Matthias B Schulze** Molecular Epidemiology, German Institute of Human Nutrition Potsdam-Rehbruecke (DIfE)
GM	**Prof Gertraud Maskarinec** University of Hawaii Cancer Center, University of Hawaii at Mānoa	MH	**Prof Michelle Holdsworth** Institute of Research for Sustainable Development (IRD)
BR	**Prof Britta Renner** Psychological Assessment and Health Psychology, University of Konstanz	HOK	**Dr Hibbah Osei-Kwasi** Clinical Sciences and Nutrition, University of Chester
SaS	**Dr Sabrina Schlesinger** Institute for Biometry and Epidemiology, German Diabetes Center (DDZ)	LS	**PD Dr Lukas Schwingshackl** Institute for Evidence in Medicine (Cochrane Germany), University Hospital Freiburg
TK	**Prof Dr Tilmann Kühn** School of Biological Sciences, Queen's University Belfast	TB	**Prof Till Bärnighausen** Quasi-Experimental Study Designs, Heidelberg Institute of Global Health (HIGH)

Representatives of Nutrition Research Clusters

UN	**Prof Ute Nöthlings** Diet Body Brain – Cluster Bonn	MBS	**Prof Matthias B Schulze** NutriAct – Cluster Potsdam
BH	**Dr Betty Hebecker** NutriCard – Cluster Jena	JM	**Dr Juliane Menzel** Novel studies on novel foods Berlin

Objectives of the course and the science fair

The **course "Nutrition Epidemiology"** aims to provide participants with basic understanding of nutrition epidemiology with a focus on low- and middle-income countries.

More specifically, this course will:
- Familiarize participants with common and novel dietary assessment methods,
- Guide participants on the modelling of dietary behaviour,
- Introduce the Dietary Determinants of Nutrition and Eating (DONE) framework,
- Present concepts for evidence-based public health nutrition, and
- Give an overview of recent study designs to investigate diet-disease-relationships.

The **science fair "Trends in Nutrition Research"** aims to provide participants with an overview of recent trends in the field of basic and applied nutrition research in Germany.

More specifically, this science fair will:
- Show key trends and opportunities in nutrition science,
- Familiarize participants with the current scope and activities in Germany, and
- Establish contacts and potential partnerships between participants, stakeholders and researchers.

Assessment of the course

The course will be assessed as:

40% oral presentation / participation

60% individual and group assignments in practical sessions / group work

Monday, 22 August 2022

Day 1	ID / UN /AH	
	Introduction and Dietary Assessment Methods	
	Lecture, Group Work	

09:00 – 10:30	Nutrition Epidemiology: Introduction	ID
10:30 – 11:00	*Coffee Break*	
11:00 – 12:30	**Science Fair: Diet Body Brain – Nutrition Research Cluster**	**UN**
12:30 – 13.30	*Lunch*	
13:30 – 15:00	Dietary Assessment Methods, Focusing on Digital Devices	UN
15:00 – 15:30	*Coffee Break*	
15:30 – 17:00	Dietary Assessment Methods, Focusing on Children	AH

Session Objectives

- Introducing essential concepts of nutrition epidemiology in public health
- Familiarizing participants with common and novel dietary assessment methods
- **Science fair:** Introduction to Nutrition Research Cluster #1
- Networking

Key Readings

- The list of key readings and further recommended literature will be provided closer to the course begin.
- http://www.diet-body-brain.de/home.html

Tuesday, 23 August 2022

Day 2	MBS / ID / SK
	Modelling Nutritional Exposure
	Lecture, Group Work, Science Fair

09:00 – 10:30	Dietary Pattern Analysis and Construction	MBS
10:30 – 11:00	*Coffee Break*	
11:00 – 12:30	**Science fair: NutriAct – Nutrition Research Cluster**	**MBS**
12:30 – 13:30	*Lunch*	
13:30 – 15:00	Sustainable Dietary Patterns	ID
15:00 – 15:30	*Coffee Break*	
15:30 – 17:00	A priori dietary patterns and disease	GM

Session Objectives

- Modelling dietary habits as exposure
- Derivation of complex dietary patterns
- **Science fair:** Introduction to Nutrition Research Cluster #2
- Networking

Key Readings

- The list of key readings and further recommended literature will be provided closer to the course begin.
- www.nutriact.de

Wednesday, 24 August 2022

Day 3	BR / BH / MH / HOK
	Determinants of Nutrition and Eating (DONE)
	Lecture, Group Work, Science Fair

09:00 – 10:30	"Why we eat what we eat: Implicit and explicit influences"	BR
10:30 – 11:00	*Coffee Break*	
11:00 – 12:30	**Science fair: NutriCARD – Nutrition Research Cluster**	**BH**
12:30 – 13:30	*Lunch*	
13:30 – 15:00	Analysing food systems as determinants of diets	MH
15:00 – 15:30	*Coffee Break*	
15:30 – 17:00	Mixed methods to identify determinants of diets	HOK

Session Objectives

- Introduction to quantitative, qualitative and mixed methods for the identification of dietary determinants
- **Science fair:** Introduction to Nutrition Research Cluster #3
- Networking

Key Readings

- The list of key readings and further recommended literature will be provided closer to the course begin.
- https://www.nutricard.de/

Thursday, 25 August 2022

Day 4	SaS / JM / LS	
	Evidence-based public health nutrition	
	Lecture, Group Work, Science Fair	

09:00 – 10:30	Systematic reviews and meta-analysis	SaS
10:30 – 11:00	*Coffee Break*	
11:00 – 12:30	**Science Fair: Novel studies on novel foods**	**JM**
12:30 – 13:30	*Lunch*	
13:30 – 15:00	Improving the trustworthiness of findings from nutrition evidence syntheses: risk of bias and rating of uncertainty	LS
15:00 – 15:30	*Coffee Break*	
15:30 – open	Tour through the historic city of Heidelberg and joined dinner	

Session Objectives

- Present concepts and methods for evidence-based public health nutrition
- **Science fair:** Introduction to Nutrition Research Cluster #4
- Networking

Key Readings

- The list of key readings and further recommended literature will be provided closer to the course begin.
- https://www.bfr.bund.de/de/edkar.html

Friday, 26 August 2022

Day 5	TK / TB / ID	
	Investigating diet-disease-relationships	
	Lecture, Group Work, Feedback	
09:00 – 10:30	Big data in nutrition epidemiology	TK
10:30 – 11:00	*Coffee Break*	
11:00 – 12:30	Quasi-experimental study designs for causal inference	TB
12:30 – 13:30	*Lunch*	
13:30 – 15:00	Group presentations: Your project	ID
15:00 – 15:30	*Coffee Break*	
15:30 – 17:00	Wrap-up and feedback session	ID

Session Objectives

- Give an overview of recent study designs to investigate diet-disease-relationships
- Advance individual projects through feedback by the group
- Course evaluation