

Surname: Kolehmainen (née Tiainen)

Given names: Jaana Marjukka,



1. PERSONAL DETAILS

Date of birth: 15.1.1968
Citizenship: Finnish
Marital status: Married; two children (born 2002 and 2004)
Current residence: Kuopio, Finland
Telephone: +358 40 355 3617 (work), +358 45 1165 142 (mobile)
E-mail address: marjukka.kolehmainen@uef.fi
ORCID: <https://orcid.org/0000-0002-3770-2538>
Linguistic skills: Finnish/mother tongue
 English: Independent user in understanding and listening, reading, speaking and writing
 Swedish: Basic user in understanding and listening, speaking, reading and writing

2. EDUCATION AND DEGREES COMPLETED

Title of Docent of Clinical Nutrition 2009, University of Eastern Finland, Faculty of Health Sciences, Institute of Public Health and Clinical Nutrition; **PhD** 2003, University of Eastern Finland, Faculty of Health Sciences, Institute of Public Health and Clinical Nutrition, **Authorized nutritionist** 1993, Valvira – National Supervisory Authority for welfare and health, **MSc in clinical nutrition** 1993, University of Kuopio, Department of Clinical Nutrition

3. CURRENT POSITION:

Professor in Nutrition/Food and Health, Institute of Public Health and Clinical Nutrition 1.1. 2020-; (<https://uefconnect.uef.fi/en/person/marjukka.kolehmainen/>):

EXPERTISE: Main expertise is within health effects of diets, foods and food components in humans in acute, short and long term human interventions for over 20 years. Main scientific interest has been in the effects of whole grain cereals and berries, and their bioactive compounds from the molecular level to whole body physiology, especially in their effect on inflammation, and more recently on gut microbiota and gut barrier function. She has also studied interaction between physiological and mental stress, and the impact of stress and recovery on eating behaviour.

4. PREVIOUS WORK EXPERIENCE:

1.7.2017-31.12.2019 Professor in Nutrition, Institute of Public Health and Clinical Nutrition, University of Eastern Finland (UEF), Finland
 1.9.2016-31.12.2021 Senior scientist as the external consultant, VTT, Technical Research Centre, Finland
 1.9.2016-30.6.2017 Acting Professor in Nutrition, Institute of Public Health and Clinical Nutrition, UEF Finland
 1.1.2016-31.8.2016 Senior Scientist (50%), Institute of Public Health and Clinical Nutrition, UEF Finland AND Senior Scientist (50%), VTT, Technical Research Centre, Finland
 1.8.2008-31.12.2015 Senior Scientist (80%), Institute of Public Health and Clinical Nutrition, UEF
 15.5.2012-31.12.2015 Senior Scientist (20%), VTT, Technical Research Centre, Finland
 2008-2012 Senior Scientist, Institute of Public Health and Clinical Nutrition/Department of Clinical Nutrition, UEF/former University of Kuopio (UK)
 2005-2008 Postdoctoral researcher/Academy of Finland, Department of Clinical Nutrition, UK
 2003-2005 Project researcher/manager, Department of Clinical Nutrition, UK
 1995-2003 PhD-student, project researcher, Department of Clinical Nutrition, UK
 1993 – 1994 Research assistant/ nutritionist, Department of Clinical Nutrition, UK

5. MOBILITY, INTERNATIONAL ACTIVITY:

PI/UEF in EU Horizon Europe RIA-project, HealthFerm 2022-

Vice chair of Federation of European Nutrition Sciences Working group 1, Methods and concepts 2019-

PI/UEF in EU-H2020 RIA-project, Longitools 2019-

Co-PI/UEF in Marie Skłodowska Curie ITN-project, BestTreat 2018-

Vice chair and treasurer of Health Grain Forum (continuum after FP6 project HealthGrain) 2019-

Vice chair of the board of NuGO Association 2018-

Coordination of Nordic Centre of Excellence 2008-2013

INSERM Unit 449, Faculté de Médecine, R.T.H. Laennec, Lyon, France, Dr. Hubert Vidal's research group/PhD-student: 2000 and 1999

Active participation in several international networks, scientific associations, research consortiums and funding applications.

6. CAREER BREAKS

Maternity leaves January, 2004-January, 2005, and February, 2002-January, 2003

7. RESEARCH FUNDING AND GRANTS**Research Funding:**

EU regional Funding/Northern Savo: **Accommodating the Climate smart food and nutrition research infrastructure, FOODNUTRI, locally**. 2023-2025 (role: PI); 1 000 000€, including R&D funding and research infrastructure funding of total funding of 1,5 M€.

Horizon Europe RIA: **Innovative pulse and cereal-based food fermentations for human health and sustainable diets, HealthFerm**, 2022-2026 (role: *UEF PI*); 700 000€ of total funding of 12M€.

Finnish Cultural Foundation: **Comprehensive health effects of long-term consumption of oats in metabolically challenged volunteers – gut-mediated metabolomics and vitality, OAT-GUT-BRAIN**, 2022-2023 (role: *UEF PI*); 80 000€ of total funding 200 000€.

Academy of Finland: **Climate smart food and nutrition research infrastructure, FOODNUTRI**, 2022-2024 (Role: *UEF PI and leader of the platform for Physiological responses to food*), 500 000€ of total funding 5M€.

Academy of Finland: **Digestion and bioavailability of proteins in plant cell cultures, Cell2Eat**, 2021-2025 (Role: *UEF PI*), 430 000€; total funding of 1 M€.

Academy of Finland, National research infrastructure: **Climate smart food and nutrition research infrastructure, FOODNUTRI**, 2020-2021 (Role: *UEF PI and leader of the platform for Physiological responses to food*). 65 000€; total funding of 680 000€.

Horizon 2020-SC1-2019-Single-Stage-RTD: **Dynamic longitudinal exposome trajectories in cardiovascular and metabolic Non-communicable diseases, Longitools**, 2020-2024 (Role: *UEF PI*). 980 000€; total funding of 12 M€.

Horizon 2020-MSCA-ITN-2018: **Building a Gut Microbiome Engineering Toolbox for In-Situ Therapeutic Treatments for Non-alcoholic Fatty Liver Disease, BestTreat** 2018-2022 (Role: *UEF co-PI*). 190000€ of total funding 4.1 M€.

Food Valley research ecosystem, EU regional Funding/Northern Savo, 2018-2020. (Role: *UEF PI*). 760 000€ of total funding 1.6 M€.

Vital Selfie – Creating business of vitality at all ages, Finnish Funding Agency for Technology and Innovation (Tekes), 2015-2018 (Role: *UEF PI*). 400 000 € of total funding 2.5 M€.

I choose and environment supports me: Finnish Funding Agency for Technology and Innovation (Tekes), 2015-2017. (Role: *Consortium director*). 180 000 € of total funding 580 000€.

Strategic Center for Science, Technology and Innovation in Health and Well-being: **Mind and Body-program**, Tekes, 2010-2014 (Role: *Work package leader and UEF PI*). 1.1M€ of total 1.9 M€ directed to UEF.

Nordic Centre of Excellence (NCoE) on Systems biology in controlled dietary interventions and cohort studies, Nordforsk, 2007-2013: (Role: *Consortium manager & Scientific manager/Director: Uusitupa Matti*).

For Institute of Public Health and Clinical Nutrition 6 MNOK of total funding 30 MNOK.

Postdoctoral fellow, Academy of Finland 2005–2008, 190 000€.

Active involvement in applying, conducting and reporting in (not as PI): ‘Personalised dietary solutions for improvement of nutrition and wellbeing in aging population’, Finnish Funding Agency for Technology and Innovation, 2015-2016/PI Riitta Törrönen; ‘From senses to product experience’, Finnish Funding Agency for Technology and Innovation, 2014-2015/PI Riitta Törrönen; ‘Systems biology approach to understand dietary modulation of gene expression in metabolic syndrome’, Academy of Finland, 2007-2010/PI: Matti Uusitupa; Functional genomics and nutritional factors, Finnish Funding Agency for Technology and Innovation, 2003-2005/PI: Kaisa Poutanen.

Research Grants:

Diabetes Research Foundation 25 000€, 2009; Yrjö Jahnsson Foundation 25 000€, 2006; Juho Vainio Foundation 20 000€, 2003; Finnish Cultural Foundation of Northern Savo 6000€, 2003, Saastamoinen Foundation 30 000 FIM, 200; Jenny and Antti Wihuri Foundation 30 000 FIM, 1996.

8. LEADERSHIP AND SUPERVISION EXPERIENCE

Leadership:

Leading **Food and Health research group** at the UEF.

Training for **Advanced leader/UEF**, 30.8.2022-31.3.2023

UEF PI for HealthFerm project (EU Horizon Europe) 2022-2026.

UEF PI for Oat-gut-brain -project (Finnish Cultural Foundation) 2022-2023.

UEF PI of Cell2Eat-project (Academy of Finland) 2021-2025.

Coordinator of the Finland-China Food and Health network (Ministry of Education and Culture), Subgroup 1: Nutrition, health effects and food 2021-

Leader of the UEF strategic Research community of Forest and bioeconomy, Subgroup 3: Sustainable processes, products, and services 2021-

Leader of the working group 1: Healthy, safe and sustainable diets for the National Food research strategy, 2020-

Leader of the platform for Physiological responses to food within National research infrastructure: **Climate smart food and nutrition research infrastructure, FOODNUTRI**, 2020-

UEF PI in EU H2020 RIA-project: Dynamic longitudinal exposome trajectories in cardiovascular and metabolic Non-communicable diseases, Longitools, 2020-2024.

Director of Food Valley research ecosystem/UEF, 2018-2021.

Director of the research consortium in the research **I choose and environment supports me** – from the interaction between individual, group and environments to business creation 2016-2017.

PI in the research project Vital Selfie – Creating business of vitality at all ages 2015-2017.

PI and coordinator of large multicenter study in the national Mind and Body Elixir-multicenter intervention and responsible workpackage leader **within Strategic Center for Science, Technology and Innovation in Health and Well-being: Mind and Body-program, 2010 – 2014.**

Consortium & Scientific manager in the Nordic Centre of Excellence (NCoE) on Systems biology in controlled dietary interventions and cohort studies (SYSDIET), 2007 – 2013.

UEF leader 2014 –course, 23.-28.10.2014

Supervising post doctoral researchers: Suchetana De-Storvik (ongoing), Iman Zarei (ongoing), Anna Kårlund (finalized 2022), Carlos Gomez Gallego (finalized 2021)

Supervising Doctor of Philosophy projects (main/co-supervision):

Ongoing: *Suvi Järvinen* (estimated 2024) (main). *Valeria Iannone* (estimated in 2024) (main). *Johnson Lok* (estimated 2024) (co-supervision). *Anni Kortekangas* (estimated 2024) (co-supervision). *Darren Healy* (estimated 2024) (main). *Vilma Liikonen* (estimated 2027) (main). *Moona Partanen* (estimated 2027) (main). *Mari Näätänen* (co-supervision).

Finalised: *Ambrin Babu* (2023) (co-supervision): A metabolomic approach to delineate the effects of lifestyle intervention and microbiome therapeutics in nonalcoholic fatty liver disease. *Kaisa Airaksinen* (2020) (co-supervision): Metabolic stress in obesity – The impact of high-fat diet and food ingredients on adipose tissue inflammation and satiety. *Stefania Noerman* (2020) (co-supervision): Finding molecular links

between lifestyle factors and indicators of metabolic health - a nontargeted metabolic profiling approach. *Elina Järvelä-Reijonen* (2020): Stress, eating behavior, diet, and the effects of acceptance and commitment therapy among adults with psychological distress and overweight (main). *Saara Pentikäinen* (2018): How does cereal food structure influence digestion and satiety? *In vitro* and *in vivo* approaches (co-supervision). *Lappi Jenni* (2014): Effects of wholegrain foods and grain fibre in intestinal tract in relation to glucose metabolism (co-supervision). *Maija Vaittinen* (2013)(co-supervision). *Anne Jääskeläinen* (2013)(co-supervision). *Siitonen Niina* (2011)(co-supervision). *Lappalainen Tiina* (2010)(co-supervision). *Kallio Petteri* (2010)(co-supervision). *Salopuro Titta* (2009)(co-supervision). *Tolppanen Anna-Maija* (2009)(co-supervision). *Mager Ursula* (2008)(co-supervision).

Master in science: Supervised some 40 completed Master in Science theses, and currently supervising 6.

9. TEACHING EXPERIENCE

Responsible lecturer in courses at MSc-level Nutrition curriculum:

Food for promoting health (new, English master-level course), 2018-
 Food and nutrition in metabolism and organ function (former Nutrition 2), 2022-
 Nutrition 2 (former Nutritional Physiology), 2018-2021
 Nutrition 1 (former Basics of nutrition), 2015-2019
 Research methods in Nutrition, 2015-2018
 Coordination of Master's thesis seminars, 2016-2020
 Coordination of Bachelor's thesis seminars, 2016-2017

International training exchange:

Finland-China Food and Health program funded by Ministry of Education and Culture: Subgroup 1: Nutrition, health effects and food related exchange program: funded by Erasmus Global and Team Finland Knowledge program in collaboration with University of Helsinki, University of Hong Kong and University of Schenzen for the years 2023-2025. Exchange collaboration includes student and staff exchange.

Organised international PhD-courses:

Nordic Nutrition Summer Symposium 2022: 24.-26.8.2022, Helsinki, Finland; Metabolic disease research community summer school 2022: 30.6.2022, Kuopio, Finland; NuGO symposium along with Nutrition Winter School 2018: 26.1.2018, Levi, Finland; NuGOweek 2016 precourse, Copenhagen, Denmark, 3.-5.9.2016; SYSDIET–NuGO–VLAG international PhD-Cours, Kuopio, Finland, 21-23.2.2011 and 26-28.8.2009.

Participated as a lecturer in the international PhD-courses:

Nordic Nutrition Summer Symposium 2022: 24.-26.8.2022, Helsinki, Finland; UEF Summer school on International Law 2022: 15.-16.8.2022, Kuopio, Finland; UEF summer school on Public Health in 2020's 12.-23.8.2019 and 13.-24.8.2018. Nutrition Winter School&NuGO PhD-course 25.27.1.2017. NuGOweek 2015, 5.-9.9.2015, Barcelona, Spain. NuGOweek 2014, 8.-11.9.2014, Castellamare di Staglia, Italy.

University pedagogics:

University of Eastern Finland, Student and Learning Services:

Planning of learning processes in the internet- and contact teaching, 4 ECTs, 2016

University of Kuopio, Learning Centre:

Basics in University pedagogy I, 3 ECTs, 2009

Basics in University pedagogy II, 3 ECTs, 2009

Student-centered teaching methods, 3 ECTs, 2009

Communication in teaching, 3 ECTs, 2009

Teaching demonstration with excellent evaluation, 8.5.2009, University of Kuopio, Learning Centre

10. OTHER KEY SCIENTIFIC OR ACADEMIC MERITS

Altogether **162 peer-reviewed publications** in scientific journals and books. Hirsch-index 47 (20.11.2023/Scopus).

Organised scientific meetings:

Nordic Nutrition Conference to be arranged in June 2024, Bergen, Norway/scientific committee.
Several scientific, partly international, webinars during 2020-2021 pandemic.
Nordic Nutritional Summer Symposium 2022, August 24-26, Helsinki, Finland
Nordic Nutrition Conference 2020 December 14th-16th, 2020, Helsinki, Finland
Power of Rye 2017, Åland, Finland, June 7th-8th, 2017; Power of Rye 2017
NuGOweek 2012, international scientific meeting: Nutrition, lifestyle and genes in the changing environment in Helsinki, Finland, August 28-31, 2012
COST BM0602 scientific international meeting: Adipose Tissue - A Key Target for Prevention of the Metabolic Syndrome, Final meeting of consortium in Kuopio, Finland, August 29-31, 2011

Evaluation for scientific positions:

Professor of public health nutrition for UHealth research community, Department of Food and Nutrition, University of Helsinki, 2021; Professor and three tenured associate professor positions for Fibroobesity research community, University of Oulu, 2021; Professor of nutrition evaluation for Karolinska Institute, Dept of Biosciences and Nutrition, 2021; Professor of molecular nutrition nomination committee for University of Helsinki, Department of Food and Nutrition, 2020; Associate Professor (tenure) Kaisa Linderborg's promotion to Full Professor for Food Sciences, Department of Biochemistry, University of Turku, 2020; Assistant Professor (tenure) Jetty Lee's promotion to Associate Professor for School of Biological Sciences/Faculty of Science, University of Hong Kong, 2018.

PhD dissertations with pre-examiner and opponent duties:

Acted as a Pre-examiner for 13 PhD-thesis evaluation and 8 opponent duties in Finland, Sweden, Norway, Denmark and China:

Opponent for Wei Wei Thwe Khine: "Human Microbiota from Infants to Adults", University of Turku, Finland, 2022

Pre-examiner for Johanna Lumme: "Vitamin D status in Northern Finland Birth Cohort 1966 and in women with reproductive disorders", University of Oulu, Finland 2022

Opponent for Susanna Kunvik: "Nutrition, dietary guidance, and home-delivered meals among older community-dwelling people", University of Helsinki, Finland 2022

Pre-examiner and opponent for Xiaomin Zhou: "Discovery of biomarkers for intake of heat-treated foods by untargeted metabolomics", University of Copenhagen, Denmark 2020

Pre-examiner and opponent for Zuzanna Kundi: "Management of non-alcoholic fatty liver disease via modulation of gut microbiota with prebiotics and probiotics", University of Hong Kong, School of Biological Sciences, China 2020

Pre-examiner for Jannina Viljakainen: "Eating habits, body size and saliva microbiota in Finnish adolescents", University of Helsinki, Finland 2019.

Opponent for Elisa Saarnio: "Associations among Vitamin D Binding Protein Gene Polymorphisms, Total, Free and Bioavailable 25-Hydroxyvitamin D and Skeletal Outcomes – Studies in Children, Adolescents, and Middle-aged Finns", University of Helsinki, Finland 2019.

Pre-examiner for Maheswary Muniandy: "Molecular effects of obesity and related metabolic risk factors – a transcriptomics and metabolomics approach", University of Helsinki, Finland 2018.

Opponent for Jonna Sandberg: "Whole grain cereal products and baseline gut microbiota composition in metabolic and appetite regulation in healthy humans - Emphasizing rye and barley", Lund University, Sweden 2017.

Pre-examiner for Justiina Ronkainen: "Role of Fto in the gene and microRNA expression of mouse adipose tissues in response to high-fat diet", University of Oulu, Finland 2016

Pre-examiner for Sanna Vähämiko: "Diet and probiotics during pregnancy - Endorsing developmental programming", University of Turku, Finland 2016

Pre-examiner for Katja Hätönen: “Challenges in Measuring Glycaemic Index”, Faculty of Agriculture and Forestry, University of Helsinki, Finland 2014.

Pre-examiner for Jin Shi: “Metabolic effects of whey proteins in an experimental model of diet-induced obesity for the degree of Doctor of Philosophy at the Faculty of Medicine, University of Helsinki, Finland 2014.

Pre-examiner and opponent for Kristine Lykke Christensen: “The metabolic response to carbohydrate-rich diets with contrasting digestion and absorption properties – studies in pigs and humans”, Aarhus University, Denmark 2013.

Pre-examiner for Eveliina Tauriainen: “Metabolic and cellular effects of calorie restriction and whey proteins in experimental obesity”, University of Helsinki, Finland 2013.

Pre-examiner for Päivi Söderholm: “Alkylresorcinol metabolites as potential biomarkers for whole-grain rye intake and the effects of rye bread intake on plasma low-density lipoproteins”, University of Helsinki, Finland 2012.

Pre-examiner and opponent for Vibeke H. Telle-Hansen: “Lipid metabolism and markers of disease in human studies”, University of Oslo, Norway 2012.

Review committees and evaluation panels:

Officially appointed review committee member to evaluate **the Nutrition and Health curriculum of Wageningen University and Research Centre**, Spring 2023.

Officially appointed reviewer and panel member of **The Swedish Research Council Formas**, in panel 5: Food production, 2019-2022.

Officially appointed reviewer and panel member of the **VINNOVA** (The Swedish Governmental Agency for Innovation Systems) funded competence research centres (CRC) in Sweden, Autumn 2015.

Reviewer of the European wide applications for **COST funding**, 2015

Invited speeches:

Federation of European Nutrition Societies/HealthFerm-symposium, Belgrade, Serbia, 13.-17.11.2023; Winter Conference 2022/23, the Nutrition Society, UK, 24-26.1.2023; Grain School (online), University of Colorado Springs, 6.3.2021; Nordic Nutrition Conference, pre-symposium Rye, Whole grain for gut and brain, 14.12.2020; Seminar (online) on Gastronomy, Food and Wellbeing, 11.9.2020; Health Grain Forum, 3.-4.12.2019, Milan, Italy; Nordic Rye Forum, 21.-22.11.2019, Göteborg, Sweden; Kaisa Poutanen’s honorary symposium/HealthGrain Forum, 17.-18.6.2019, Helsinki, Finland; ChemBio fair/Future of food - seminar, 27.3.2019, Helsinki, Finland; School of Biological Sciences, University of Hong Kong, Research visit, 12.-18.4.2019; Japanese Association for Dietary Fibre Research annual meeting, 24.11.2018, Tokyo, Japan; Vital Selfie project international seminar, 14.3.2018, Espoo, Finland; Power of Rye 2017, 7.-8.6.2017, Åland, Finland; HealthGrain Forum, 4.-5.5.2016, Uppsala; FENS Congress 20.-23.10.2015, Berlin, Germany; VFED Conference 18.-20.9.2015, Aachen, Germany; Colloquium on Applied Nutrition 27.-28.3.2015, Athens, Greece; NuGOweek 2014, 8.-11.9.2014, Castellamare di Stabia, Italy;. Whole grain for health – international symposium, 5.11.2013, Helsinki, Finland; Joint Autumn Symposium 2011: Center for Reproductive and Developmental Medicine and Finnish Association for the Study of Obesity: FAT BURNS AND RETURNS, 2011, Turku, Finland.

11. MEMBERSHIPS AND POSITIONS OF TRUST IN SCIENTIFIC SOCIETIES

Member in: Finnish Society of Nutrition Research 1998-, Finnish Association for the Study of Obesity (FASO) 1997-

Positions of trust:

Vice chair of Federation of European Nutrition Sciences Working group 1, Methods and concepts 2019-2024; **Chair** of Finnish Society of Nutrition Research, 2021-2023; National Food research strategy: **Leader of the working group 1: Healthy, safe and sustainable diets**, 2020-2022; **Vice chair and treasurer** of Health Grain Forum, 2019-2023; **Chair** of the Nutritional Panel of Finnish Diabetes Association, 2019-2022; **Vice chair** of NuGO association, 2018-2022; **Vice-chair** of Finnish Society of Nutrition Research, 2018-2021; **Member of Steering groups of the Faculty of Health Sciences**, 2018-2021; **Member** of Nutrition Committee

of Finnish Diabetes Association 2015-2020; COST FA1403 'Positive': official Finnish vice-representative in the management committee since 2014-; **Vice-member** of the Medical Ethics Committee of the Hospital District of Northern Savo, Kuopio, Finland, 2013-2021; **Board member of NuGO Association** (former EU-funded consortium: European Nutrigenomics Organisation) 2010- ; COST BM0602 Adipose tissue biology, member of the board 2007- 2011. **Board** member of Finnish Society of Nutrition Research, 2009-2011

Acted as a referee in several international journals. Guest-editor in two Special Issues in Nutrients: Cereal Grains for Human Health and Diet as Means for studying gut-related Inflammation.

Industry collaboration: Collaboration with several food and other companies within several publicly funded research projects and building up a research ecosystem in collaboration with food companies.

12. AWARDS AND HONOURS

A good teacher reward by the Student association of nutrition students, Retikka ry, 2022;
Honorary member of The Association of Clinical and Public Health Nutritionists, 2020 onwards.
Member of Finnish Academy of science and letters, 2021-.