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CURRICULUM VITAE

22.10.2021

EDUCATION

Doctor of Philosophy, 2013–2016, University of Eastern Finland, 14.12.2016

Doctoral Program in Health Sciences, Faculty of Health Sciences, School of Medicine

Major: Nutrition science, Minor: Plant biotechnology

Master of Science, 2011–2012, University of Eastern Finland, 28.11.2012

Master's program in Food Biotechnology, Faculty of Science and Forestry, Department of Biosciences

Major: Biotechnology, Minor: Nutrition science

Bachelor of Science, 2007–2010, University of Turku, 01.07.2010

Study program of Biology, Faculty of Mathematics and Natural Sciences, Department of Biology

Major: Plant physiology, Minor: Biochemistry, Food chemistry, Cell and molecular biology

CURRENT POSITION

Postdoctoral researcher, 04/2021-

University of Eastern Finland, Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences

- identification of metabolomic profiles reflecting dietary exposures in adults

WORK EXPERIENCE

Postdoctoral researcher, 06/2018-03/2021

University of Eastern Finland, Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences

- design, setup, and development of dietary protein research methods

Postdoctoral researcher, 06-08/2017 (part-time, 70%), 09/2017-05/2018

University of Eastern Finland, Institute of Public Health and Clinical Nutrition, Faculty of Health Sciences

- metabolite profiling of postprandial blood samples after berry fruit consumption
- laboratory technical and teaching tasks in the Nutrition Science Master's Program, research on food microbiology and vegetable and wood industry byproduct processing

Grant researcher, 06-07/2016, The Maiju and Yrjö Rikala's Horticultural Foundation

University of Eastern Finland, Department of Biology, Faculty of Science and Forestry

- PhD student
- research on metabolite profiles and sensory properties of strawberries

Grant researcher, 06/2014–05/2015, 06/2015-05/2016, The Finnish Cultural Foundation

University of Eastern Finland, Department of Biology, Faculty of Science and Forestry

- PhD student
- research on metabolite profiles and sensory properties of strawberries

Early stage researcher, 09-12/2013, 01-05/2014

University of Eastern Finland, Department of Biology, Faculty of Science and Forestry

- PhD student
- research on metabolite profiles and sensory properties of strawberries

Grant researcher, 06-08/2013, The Maiju and Yrjö Rikala's Horticultural Foundation

University of Eastern Finland, Department of Biology, Faculty of Science and Forestry

- PhD student
- research on metabolite profiles and sensory properties of strawberries

Early stage researcher, 01-03/2013, 04-05/2013

University of Eastern Finland, Department of Biology, Faculty of Science and Forestry

- research on bioactive secondary metabolites and processing of berries and other food plants
- writing literature reviews for food companies

Research assistant, 08/2011-12/2012

University of Eastern Finland, Department of Biosciences / Department of Biology, Faculty of Science and Forestry

- research on bioactive secondary metabolites and processing of berries and other food plants

Research assistant, 11/2009-05/2010 (several periods, hour-based work), 05-08/2010, 06-07/2011

University of Turku, Department of Biology, Faculty of Mathematics and Natural Sciences

- photosynthesis research, research on molecular biology of cyanobacteria

Career break, 08/2016-05/2017: finalizing the doctoral degree; taking university-level management courses

GRANTS AND FUNDING

- Academy of Finland project 'Cell2Eat', co-applicant, 1.9.2021-31.8.2025
- Research grant for studying plant protein solubility and digestibility, The Finnish Food Research Foundation, 4000 €, 16.3.-31.12.2021
- Targeted grant for Advanced Proteomics course at Wageningen University and Research, the Netherlands, NuGO association, 775 €, 27.-30.8.2019
- Travelling grant for a laboratory visit abroad, The Finnish Food Research Foundation, 2200 €, STLOpen Days 18.-22.3.2018, Science & technologie du lait & de l'œuf, INRA, Rennes, France
- Personal working grant, The Maiju and Yrjö Rikala's Horticultural Foundation, 2000 €, 01.6.-31.7.2016
- Personal working grant, The Finnish Cultural Foundation, 24000 €, 01.06.2015–31.05.2016
- Travelling grant for the 7th International Conference on Polyphenols and Health, Tours, France, The Maiju and Yrjö Rikala's Horticultural Foundation, 3000 €, 27.-30.10.2015
- Personal grant for additional research costs, The Maiju and Yrjö Rikala's Horticultural Foundation, 5000 €, 01.04.2014–31.05.2016
- Personal working grant, The Finnish Cultural Foundation, 22000 €, 01.06.2014–31.05.2015
- Personal working grant, The Maiju and Yrjö Rikala's Horticultural Foundation, 6000 €, 01.06.2013–31.08.2013

RESEARCH OUTPUT

Total number of peer-reviewed journal publications: 17

Method development: *in vitro* digestion protocols for adult and infant conditions to study protein digestibility, mineral solubility, and probiotic stability

RESEARCH SUPERVISION AND LEADERSHIP EXPERIENCE

Master of Science thesis, principal supervisor: 2 supervisees (Anni Hirvonen, 2020; Anna Ruponen 2021)

Leadership in research projects: coordinating and instructing Master's students, research assistants, and laboratory technicians in *in vitro* digestions and protein solubility assays

TEACHING EXPERIENCE

Principal supervisor, Master's level laboratory practical training in bacteriology, 2017

Expert lecturer: Bioeconomy specialist training seminar, 2019; Food for Promoting Health, Master's level course, 2019-2021

Lecturer, adult education seminars on bioactive plant compounds, 2013-2014

Supervisor, Bachelor of Science thesis: Biomedicine, 1 supervisee; Biosciences, 1 supervisee; Nutrition Science, 4 supervisees

Supervisor, Internship in a research project, Master's level: 2 supervisees

Supervisor, undergraduate and Master's level laboratory practical training in food microbiology and toxicology: 2017-2019

PRESENTATIONS IN INTERNATIONAL SCIENTIFIC CONFERENCES

Oral presentation, keynote speaker:

- Grains – a major source of sustainable protein for health. *7th Whole Grain Summit*, 25.-27.10.2021, *online*

Posters:

- Kårlund, et al. Bioactive polyphenols in strawberry (*Fragaria x ananassa*) leaves induced by plant activators. *8th ISANH World Congress on Polyphenols Applications*, 5.-6.6.2014, *Lisbon, Portugal*;
- Kårlund et al. Sensory properties of strawberry cultivars grown both organically and conventionally. *11th Pangborn Sensory Science Symposium*, 23.-27.8.2015, *Gothenburg, Sweden*;
- Kårlund et al. Nontargeted profiling of strawberry metabolites: accumulation patterns in 15 cultivars grown in Northern Europe. *7th International Conference on Polyphenols and Health*, 27.-30.10.2015, *Tours, France*;
- Kårlund et al. The effects of genetic background and cultivation methods on the phytochemical profile of strawberries. *The 12th International Conference of the Metabolomics Society*, 27.-30.7.2016, *Dublin, Ireland*

OTHER KEY ACADEMIC MERITS

Referee for academic and scholarly journals: *Beverages*, 1; *Biologia*, 1; *Food Research International*, 4; *International Journal of Molecular Sciences*, 2; *Journal of Berry Research*, 2; *Molecular Nutrition and Food Research*, 1; *Molecules*, 3; *Nutrients*, 6; *Planta Medica International Open*, 1; *Sustainability*, 1

Guest editor: Special Issue "Food, Nutrition, and Health", *Healthcare* (ISSN 2227-9032), 2020-2021