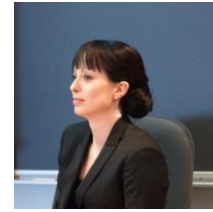

Personal details

Name: Lakaniemi, Aino-Maija
Date and place of birth: June 28th 1983, Lapua, Finland
Nationality: Finnish
Email: aino-maija.lakaniemi@tuni.fi
ORCID: 0000-0001-7189-8741



Education and degrees completed

Title of Docent: Environmental biotechnology, Tampere University, conferred July 1st 2016

Doctor of Science in Technology, Tampere University of Technology, June 2012

Major subject: Environmental biotechnology; Doctoral thesis: Microalgal cultivation and utilization in sustainable energy production, approved "with distinction"

Master of Science in Environmental Technology, Tampere University of Technology, September 2007; graduation "with distinction"

Major subject: Environmental biotechnology; M.Sc. thesis: The potential of biogenic hydrogen, methane and hydrogen sulfide production from cellulosic plant material

Matriculation examination, Lapuan lukio, Spring 2002

Current position

Assistant Professor (tenure track), Bio and Circular Economy, Tampere University, Faculty of Engineering and Natural Sciences, January 2019→

Previous work experience

Visiting Scientist, Commonwealth Scientific and Industrial Research organization (CSIRO), Land and Water, Perth, Australia, June 2017 – April 2018.

Various positions at Tampere University of Technology (TUT):

- **Assistant Professor (tenure track)**, Bio and Circular Economy, December 2016 – December 2018
- **Postdoctoral researcher**, July 2012 – November 2016
- **Researcher**, July 2011 – June 2012
- **Teaching associate**, February 2011 – June 2011
- **Researcher**, October 2007 – January 2011
 - 1 month research visit to Bangor University, School of Ocean Sciences, UK, 2009
- **Research assistant**, January 2006 – September 2007
- **Trainee**, June 2005 – August 2005

Career breaks

Exchange student in Royal Institute of Technology, Stockholm, Sweden, autumn period 2005.

Personal research funding and grants

- Ongoing research projects: **Advanced technologies for sustainable exploitation of uranium-bearing mineral resources (SEXUM)**, 2015-2019. *Funding*: Academy of Finland. *PI*: Aino-Maija Lakaniemi; and **Nutrient recovery from wastewaters by microalgae** (LeväSieppari). *Funding*: The Finnish Ministry of the Environment. *Duration*: 2018-2019. *PI*: Prof. Jukka Rintala.

Past research projects (PI Prof. Jaakko Puhakka) have included projects funded by

- European commission (Horizon 2020 and FP7) **Advanced Biological Waste-to-Energy Technologies (ABWET)** in 2015-2018, **New Mining Concept for Extracting Metals from Deep Ore Deposits using Biotechnology (BIOMORE)** in 2015-2018 and **Bioelectrochemical Systems for Metal Recovery (BioelectroMET)** in 2012-2016.
- Academy of Finland (New Indigo ERA-Net Energy 2014) **Low-Cost and Efficient MFC Materials for Bioelectricity Production from Waste Materials (Bio-e-MAT)** in 2014-2017.
- Finnish Funding Agency for Innovation (TEKES) **Bio-oxidation and Autoclave Pressure Oxidation of Gold Bearing Concentrates (PreGOLD)** in 2013-2015 **Solutions for Control of Nitrogen Discharges at Mines and Quarries (MINIMAN)** in 2012-2014.

- Industrial partners **Enhancing the efficiency of a bioelectrochemical cell operation for wastewater treatment purposes (BioECell)** in 2013 and **Upgrading Activated Sludge for Lipid-rich Biomass (DIESL)** in 2010-2013.

The main author from TUT during the proposal preparation for the SEXUM and ABWET projects and significant contributor during the proposal preparation for the BioECell and PreGOLD projects.

Leadership and supervision experience

Instructor of three completed doctoral theses at TUT: Paolo Dessi (2018), Mira Sulonen (2017) and Jatta Marjakangas (2015). For the thesis topics, please see [TUTCRIIS-portal](#).

Currently co-supervisor of six and the main supervisor of two doctoral students at TUT (expected graduation year in parenthesis): Ramita Khanongnuch (2019), Tao Ran (2019), Onyinye Okonkwo (2019), Johanna Haavisto (2019), Sarita Ahoranta (2020), Reka Hajdu-Rahkama (2022), Payam Rasoulnia (2022) and Jarno Mäkinen (2022).

Supervised or co-supervised altogether nine bachelor's and nine master's theses at TUT. More detailed list of theses supervised since 2008 can be found from [TUTCRIIS-portal](#).

Principal investigator of one ongoing research project (SEXUM) and project manager in several national and international research projects (ABWET, BIOMore, Bio-e-MAT, PreGOLD).

Teaching experience

Participation in planning, organization and teaching of several M.Sc. and post graduate level courses at TUT (academic years in parentheses) including **Seminar in Biotechnology** (2010-2011), **Laboratory Exercises in Environmental Biotechnology**, (2008-2009, 2010-2011), **Laboratory Course in Bioengineering** (2013-2014, 2015-2016), **Trends in Bioengineering** (2014-2015, 2016-2017, 2018-2019), **Industrial Bioengineering and Biotechnology** (2014-2015, 2016-2017), **Special project in Bioengineering: Biotechnology Journal Club** (2014-2015).

Individual lectures in several B.Sc. and M.Sc. level courses at TUT (academic years in parentheses) including **Bioengineering and Biotechnology** (2013-2014, 2014-2015, 2015-2016, 2016-2017, 2018-2019), **Introduction to Sustainable Development** (2013-2014, 2014-2015, 2015-2016, 2016-2017, 2018-2019), **Fundamentals of Environmental Engineering** (2014-2015, 2015-2016), **Microbiology I** (2012-2013, 2014-2015, 2015-2016), **Biological Processes in Environmental Engineering** (2013-2014, 2014-2015, 2015-2016), **Industrial Microbiology** (2013-2014, 2014-2015, 2015-2016), and **Resource Recovery** (2018-2019).

Other teaching experience includes invited guest lecture in Tampere University for the Ageing (Tampereen ikääntyvien yliopisto) in February 2016, and two theoretical lectures in the Introductory course of ABWET programme in UNESCO-IHE Institute for Water Education, Delft, the Netherlands in January 2016.

Patents, inventions, awards and honours

Co-author in one patent application:

- Koskinen P, Lakaniemi A-M, Marjakangas J, Puhakka J. 2013. Process for producing lipids from palm oil production residues. European patent application EP 2 546 352 A1.

Awards granted for scientific work:

- The Best Finnish Dissertation in Environmental Research 2011-2012. Award given by the Finnish Society of Environmental Sciences on 3rd of May 2013.
- Merit Prize of Oral Session, The 2012 Asian Biohydrogen and Bioproducts Symposium, 9-12 November 2012, Chongqing, China.

Scientific and societal impact of research

44 published scientific papers in peer-reviewed journals and seven in preparation, several conference presentations and posters, one patent application (for further details see [TUTCRIIS-portal](#)).

Two of the peer-reviewed scientific articles have been (Butti et al. 2016 and Zou et al. 2016) classified as highly cited papers by Web of Science (received enough citations to place it in the top 1% of the academic field of Engineering based on a highly cited threshold for the field and publication year).

Highest number of citations per scientific article: 96; h-index: 14 (according to Scopus).

Other key scientific or academic merits

Reviewer/opponent of the following doctoral dissertations:

- Member of the Board of Examiners for a doctoral thesis of Mrs. Vaishali Ashok entitled Development and analysis of photobioreactor for nutrient removal, Indian Institute of Technology Kanpur, 2018.
- Opponent in the public defense of doctoral dissertation of Marika Tossavainen entitled Microalgae – Platform for conversion of waste to high value products, University of Helsinki, 2018.

Remote peer reviewer of funding proposals for Research Foundation - Flanders (FWO), Belgium, 2016; and Technology Foundation STW, the Netherlands, 2016.

Panelist in evaluation panel for Tampere University of Technology graduate school positions 2014 and 2015, Energy- and eco-efficiency focus area.

Referee for over 20 peer-reviewed scientific journals. For more information, see [TUTCRIS-portal](#).

Memberships and positions of trust in scientific societies

Member of the Doctoral programme committee of the Faculty of Natural Sciences of TUT, August 2014 - December 2016.
