

CURRICULUM VITAE
of Kirsi Marjut Lehto
2018

Personal information:

Lehto (Former: Korhonen, Korhonen-Lehto), Kirsi Marjut

Female

<http://users.utu.fi/klehto>

Born March 19, 1956 at Vesanto, Finland

Nationality: Finnish

Home Address: Elotie 1A1, 20780 Kaarina, Finland

Education and training:

Doctor of Philosophy in Plant Pathology, Univ. of California, Riverside, Dept. of Plant Pathology, 1989

Master of Science in Agriculture and Forestry, University of Helsinki, 1981

Title of docent of plant pathology, Univ. of Helsinki 1991 -

Title of docent of plant virology, Univ. of Turku, 1992 -

Language skills:

Finnish (mother tongue)

English – fluent

Present employment:

University teacher in plant molecular biology, University of Turku 1.1.2010 –

Previous professional appointments:

Scientist, Labsystems Co, Helsinki, 1981-1983.

Student research assistant, UCR, Riverside, Dept. of plant pathology 1983-1988.

Higher scientific officer, Institute of virology (NERC), Oxford, 1989.

Scientific visitor, Imperial College, London 1989 - 1990

Junior fellow, Academy of Finland 1990- 1994.

Assistant of plant physiology and molecular biology, locum tenens,
total of 28 months between 1995 - 1998

Professor in plant pathology, locum tenens, University of Helsinki 1997 - 1997.

Associate professor in botany, locum tenens, University of Turku, 1998 - 1998

Professor in botany, locum tenens, University of Turku 1998 - 1999

University teacher in botany, University of Turku 1999 - 2000

Senior Research fellow, Academy of Finland 2000 - 2005

Visiting senior scientist, NORDITA, Denmark 2005 – 2006

Lecturer in plant genetics and molecular biology, University of Turku 2008 – 2013

Teacher in plant physiology and molecular biology, University of Turku 2006-2008

Courses thought:

Plant-microbe interactions, a lecture course, 1993

Plant biotechnology, a lecture and a laboratory course, 1995 - 1999

Plant physiology and molecular biology, parts of a laboratory course, 1995 - 1998

Plant virology I, and II, a lecture and a laboratory course, 1996, 1998, 2004, 2016
 Various courses related to plant pathology and protection, 1997 -
 Plant physiology II, a lecture course 1999
 Plant-microbe interactions, a lecture and laboratory course, 1999, 2000, 2008
 Environmental effects of plant production, a lecture course with other lecturers, 2000
 Life and Universe/ Basic course of astrobiology, a lecture course, jointly with another lecturer, every second year since 2001 -
 Life and Universe, a seminar course of astrobiology, jointly with other lecturers, 2002 -2008
 Methods of cell- and molecular biology, lectures and laboratory experiments, 2008 - 2013
 Origin of Life, a lecture course, every second year, 2008 -.
 Invited seminars and lectures on plant virology, plant biotechnology or astrobiology, at the Universities of Helsinki, Turku and Oulu Universities, since 1995.
 Astrobiology Course Network (ABC-net) lecture, real time webcasted through ESA to eleven European sites, autumn 2005, 2007-2008, 2009-2010, 2012-2013
 Molecular biology, laboratory exercises, 2009 –
 TimeTrek course, 2013 -

Master's theses advised:

Petri Susi (1994): Production of replicase and movement proteins of tobacco mosaic virus in bacterial and insect cells. (in Finnish).
 Satu Matintalo (1994): Occurrence of tobacco mosaic virus RNA and gene products inside of host chloroplasts. (in Finnish).
 Kyllikki Kaasinen (1996): Cloning and analysing of the coat protein gene of two different plant viruses. (in Finnish).
 Sanna Vähämäki (1997): Interactions of the movement protein of Tobacco mosaic virus with the host plant. (in Finnish).
 Satu Hirvonen (1998): Expression in transgenic plants of the TetR-repressor regulated movement protein of Tobacco mosaic virus. (in Finnish).
 Outi Salminen (1999): Cloning of the viral sequences for transgenic resistance against Barley yellow dwarf virus. (in Finnish).
 Teemu Junttila (2000): Analysis of the genetic variability of the Barley Yellow Dwarf virus in South-Western Finland, and cloning of sequences suitable for resistance factors in transgenic plants. (in Finnish).
 Riina Karjalainen (2001): Micro-propagation and regeneration of Finnish black currant cultivars. (in Finnish).
 Minna Suominen (2001): Isolation and purification of the BRV virus (a technical institute thesis). (in Finnish).
 Katja Välimäki (2001): Cloning and transfer to tobacco of coat protein gene of black currant reversion virus to produce resistant plants. (in Finnish).
 Mikko Tikkanen (2003): Influence of *Tobacco mosaic virus flavum* strain in the host plants *Nicotiana tabacum* and *N. benthamiana* (in Finnish).
 Ildico Bacso (2004): Transfer to tobacco of modified genomic sequences of Tobacco mosaic virus (in Finnish).
 Suvi Valkonen (2006). RNA-silencing and DNA methylation in TMV-transgenic *Nicotiana tabacum* plants (in Finnish).
 Hanna Sanmark (2008). Development of PCR-based detection methods for prokaryotes, and identification of microbes from deep mine rock and water samples (in Finnish).
 Gayathri Murugesan (2012). Microarray analysis of the transcriptome of Tobacco Mosaic Virus (TMV) infected Tobacco plants.

Doctoral degrees advised:

- Tuula Pehu (1995). Characterization of the P1 gene expression of potato virus Y (advised jointly with Prof. Eija Pehu). University of Helsinki
- Satu Latvala (1999). Molecular characterization and diagnostics of blackcurrant reversion nepovirus. University of Turku.
- Petri Susi (1999). Characterization of the coat protein of blackcurrant reversion nepovirus University of Helsinki.
- Anne Lemmetty (2001). Isolation and identification of the causal agent of black currant reversion disease. University of Turku.
- Shahid Siddiqui (2007). RNA silencing and its inhibition in transgenic tobacco plants University of Turku
- Alexey Karetnikov (2008). Role of the Blackcurrant reversion nepovirus RNA non-translated regions in translational regulation. University of Turku
- Balaji Jada (2013). Functional genomic approaches for deciphering plant-virus interactions. University of Turku.

Other tutoring activities since 1994:

- Pre-examination of one licensiate thesis
- Pre-examination of five doctoral theses
- Evaluation of six docentship applications
- Evaluation of two associate professor applications
- Member of four Ph.D. Dissertation committees
- Review of one candidate for the Academia Europaea Prizes for Young Russian Scientist
- Opponent of one doctoral dissertation

External research funding:

- Grants from the Academy of Finland, 1992 through 1994
- 1 year grant from the Ministry of Agriculture and Forestry, 1992, 180 000 mk
- 1 year grant from the Ministry of Education, 1993, 180 000 mk
- 1 year grant, Univ. of Turku (employment of newly graduated student), 1994, 70 000 mk
- 1 year grant from TEKES, 1997, 330 000 mk
- 3 year grant from the Academy of Finland, 1997, 698 700 mk
- 1,3 year grant from TEKES, 1998, 686 000 mk
- 1 year grant from TEKES, 1999, 403 000 mk
- 2,3 year grant from the Academy of Finland, 2000, 801 300 mk
- 10 month CIMO grant for Alexey Karetnikov, 2002, 8 100 E
- 4 month grant of the University of Turku Foundation, 2002, 4600 E
- 2.7 year grant from the Academy of Finland, 2002, 181 280 E
- 0.5 year grant from the Ministry of Agriculture, 2004, 20 000 E
- 3 year grant from the Ministry of Agriculture and Forestry, 2005, 120 000 E
- a grant for book editing, University of Turku Foundation, 2006, 3000 E
- 7 month grant from CIMO for Eugene Skurat, 2007, 8400 E
- 4 year grant from the Academy of Finland, 2008, 200 720 E
- 3 year grant from Academy of Finland, 2008, for post dock Shahid Siddiqui 195 450 E
- 10 month grant from CIMO for Balaji Jada, 2009, 10 000E
- 12 month grant from the Varsinais-Suomen liitto, for the Time Trek project, 2010, 84 000 E
- A grant from the Wihuri Foundation for the Time Trek project, 2010, 15 000 E
- A grant from the Renlund foundation for the Time Trek project, 2011, 8 000 E
- Grants from the Finnish cultural society, Finland –Proper foundation, the TimeTrek project, 2013, 4000 E, and 2015, 3000 E

A grant from the Wihuri Foundation for the application of Cyanobacteria to be used as a in biological life support systems. 2013, 12 000 E

A grant from the Niilo Helander foundation for book on Astrobiology, 2014, 10 000 E

Other professional activities:

Referee of a total of 41 scientific manuscripts, 1999-2018

Quest editor of Luonnon Tutkija , astrobiology special issue, Volume 1/2, 2004

Quest editor of Planetary and Space Science, astrobiology special issue, Vol. 57 (48), 2009.

Research proposals evaluated:

NATO International Scientific Exchange Programmes, Grant, in May, 1995

USDA T-STAR Research Grant Proposal, in Feb. 2002.

BARD (United States-Israel) Research Grant Proposal, in Nov. 2003.

Referee to a NSF research grant proposal, in Feb. 2006

Science Foundation of Arizona proposal, in Feb. 2008.

2011 NAI Director's Discretionary Fund proposal, Nov. 2011

Israeli science foundation – CIRP- collaborative research grant, April 2013

Publication record

Publications in refereed international journals: 55

Refereed Review and Proceedings Articles: 16

Publications in Internet: 3

Blog page, together with H. Lehto (<https://www.ursa.fi/blogi/elaman-keitaita/>), Sept. 2013 –

Books and Book chapters: 8

Articles in Finnish journals and newspapers, science popularization: 34

Science popularization project: TimeTreck, 2011 -

Memberships in scientific societies:

Representative of Finland in the EC COST-project 823: "New technologies to improve phytodiagnosics", Jan. 1995 - Dec. 1999

American Phytopathological Society, 1987 -

Member of the Plant Protection Society, (member of the Management Committee, March 1998 -2004

Member of the study group on Comoviridae of the International Committee on Taxonomy of Viruses (chaired by Olivier LeGall) Feb. 2000 – 2007

Member of the ROME (Response of Organisms the Martian environment) ESA topical team 2005 – 2006

Vice member of the board of the department of Biology, University of Turku 1.1.2004 - 31.12. 2006.

Member of the Executive Council of European Astrobiology Network Association (EANA) 2007 -2009, 2010 – 2013, 2013-2018.

Member of the GESSE (Geomicrobiology for Space Settlement and Exploration) ESA Topical Team, 2009 –

TimeTrek association, head of the board, 2011 -

Member of the MC of the COST action TD1308 (<http://www.life-origins.com/>), 2013 - 2017

Member of the board of the ERASMUS + project “European astrobiology campus” 2014 – 2017.