

Curriculum Vitae:

1. Full name and date

- Yli-Mattila, Pekka, Tapani
- male
- September 12, 2017

2. Date and place of birth, nationality, current residence

- September 19, 1960, Marttila
- Finnish
- Museokaari 1 as. 6, 31500 Koski Tl.

3. Education and degrees awarded

- Title of docent/Adjunct Professor in Mycology (Ecology and Systematics/Plant biology), September 19, 2002, Univ. of Helsinki
- Title of docent/Adjunct Professor in Mycology (Plant Physiology & Molecular Biology), November 27, 1997, Univ. of Turku (<http://users.utu.fi/tymat/projects.htm>)
- Doctor of Philosophy, University of Turku, Plant Physiology, December 13, 1990,
- (topic: Photobiology of fruit body formation in the basidiomycete *Schizophyllum commune*)
- contact details: Kirjaamo, 20014 Turun yliopisto, kirjaamo@utu.fi
- Cum laude approbatur in Genetics, Univ. of Turku, May 1989
- Licentiate in Philosophy (Plant physiology), May 1987, Univ. of Turku.
- Highest degree in Biochemistry (mol. biol.) for MSc, October 1985, Univ. of Turku.
- Master of Science (Botany), May 1985, Univ. of Turku.
- Bachelor of Science (Botany), November 1982, Univ. of Turku.
- High School Graduation, May 1979, Kosken Tl. Lukio, Koski Tl.

4. Other education and training, qualifications and skills

- Highest degree in Biochemistry (mol. biol.) for MSc, October 1985, Univ. of Turku.
- Licentiate in Philosophy (Plant physiology), May 1987, Univ. of Turku.
- Cum laude approbatur in Genetics, Univ. of Turku, May 1989
- I have a farm (21 ha of field and 38 ha of forest) in Marttila 50 km from Turku in 2010. I will spend my vacations there and I can also use it for some of my field experiments. It is also a good place to show my students some "applied botany and plant protection".
- Courses:
 - "Mycorrhizal course", University of Helsinki, December 14-17, 1987.
 - "Plant Cell Tissue culturing" course, University of Helsinki, May 9, 27, 1988
 - "Modern Antibody" course, University of Turku, September 23-24, 1992
 - "Sequence analysis course" University of Turku December 14-17, 1992
 - Nordic post-graduate course in plant breeding, Tjörnarp, Sweden, January 18-23, 1993
 - The 5th Field Meeting organized by the Commission on Investigation and Application of Mushrooms of the Mycological Section of the Russian Botanical Society, The biostation "Verkh-Kvashva", Perm region, August 23-28, 1993
 - 13th Nordic postgraduate course in plant pathology diagnosis of plant pathogens, January 18-24, 1994, Lammi, Finland.
 - "Biotechnology Methods" course, University of Helsinki, October 4, 1993-May 31, 1994
 - "Genetic distances and phylogeny course", University of Turku, October 12-13, 1996
 - "Mycotoxin Course" course, University of Turku, September 8-12, 1997
 - "Applied mycology for Ph.D. students: classical and molecular tools for identification" course, University of Helsinki, May, 15-28, 1998
 - Cladistics course, university of Helsinki, September 18-20, 1999

- "Plant biotechniques and its ethical consequences" symposium at the Univ. of Turku, December 3, 1999
- "Kasvibioteknikka ja sen eettiset seuraamukset" symposium Turun 3.12. 1999
- "Phylogenetic analysis using POY program" course in Espoo, May 2-4, 2001
- NorFA course "Genes and Mycotoxins" in Plant-Fungal interactions (ca. 60 h) Danish Agricultural University in Copenhagen, August 3-9, 2002
- "Real-time PCR" course in Espoo by FinnZymes company on April 8, 2003
- "Real-time PCR" seminar in Vantaa by Tamro company, March 10, 2005
- "Advanced Large Scale Expression Profiling – Focus on miRNA, ChIP On chip/seq., and whole genomic sequencing-Turku workshop, May 19-22, 2008
- PCR course by Finnzymes company at the University of Turku, November 5, 2008
- Microarray data analysis with Chipster-course, organized by Finnish DNA Microarray Centre and CSC (12 h), April 3-6, 2009
- NordForsk course "Fusarium, genes and toxins" in Ås in Norway, June 21.-28., 2009
- Course dealing with historical gardens and parks at the University of Turku, June 14-18, 2010
- Dambe Course in Evolutionary Bioinformatics, University of Turku, December 12-16, 2011

other skills: Fingerprinting methods for identification of fungal isolates
 Phylogeny
 qPCR for quantification of fungal DNA
 molecular taxonomy

5. Linguistic skills

- Finnish (mother tongue)
- Certificate of good oral and writing ability of Swedish language by Eskil Hummelstedt, October 1, 1984
- Certificate of the oral ability of English by the English teacher of the University of Turku, Jane Honka, B.A., September 20, 1985
- Three years of Russian language at school and laudatur in Russian in the final exam in 1979.

6. Current position

- Adjunct Professor in Mycology at the Laboratory of Molecular Plant Biology at the Department of Biochemistry, University of Turku. Adjunct Professor in Mycology at the University of Helsinki. I am occasionally teaching at the universities of Turku and Helsinki and I am a head (PI) of head of two research projects at the University of Turku, one for researcher exchange between the University of Turku and All-Russian Plant Protection Institute and the second one for the research expenses of my Egyptian Ph.D. student Taha AboDaham. A three year personal grant from Finnish Cultural Foundation July 2017-June 2020.
- eSci Journal of Plant Pathology Editorial Review Board member
- Advisory Board member of the Russian journal "Plant Protection News" 2014-
- Supervisor of the PhD thesis of Taha Hussien AboDaham 2014-
- Also getting income from farming and forestry
- research career phase: 4) head of a research group

7. Previous work experience

- Stakeholder Advisory Board member of the OSCAR project (<http://web3.wzw.tum.de/oscar/index.php?id=2>) 2013-2016
- personal grant from Olvi foundation for two months in 2012
- Researcher in Vanhalinna Foundation (4 months in 2010 , 6 months in 2011 and 4 months in 2014)
- Senior Researcher (erikoistutkija) at the Lab. of Aerobiology at the Univ. of Turku (2 months of salary in 2009)
- Senior Researcher (tutkimusprojektin johtaja) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 15.04.-20.11.2005, 01.03-30.06.2006, 01.09-31.11.2006, 15.2.2007-8.3. 2007, 10.4.-31.8. 2007, travel grants to USA and Russia in 2007-2009 (Univ. of Turku)
- Project coordinator (koordinaattori) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku in 2003-2004 and 2005-2009. I got salary for this job on 15.03.-14.04, 21.-24.11.2005, 1.9-6.10. 2006, 1-30.9. 2007, 1-31.10. 2008, 1-31.10. 2009 (Nordic Research Board, <http://fou02.planteforsk.no/NordforskNetworkMycotox/>)

- Senior Researcher (tutkimusprojektin johtaja) and project coordinator at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.-05.2003-16.12.2004 (National Technology Foundation, TEKES)
 - Senior Researcher (tutkimusprojektin johtaja) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 26.10.-30.11.2001, 01.01.-28.02.2002, 05.-20.08.2002, 30.11.-07.12.2002 (Univ. of Turku)
 - Professor at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.07.2000-31.07.2001 (Univ. of Turku)
 - Senior Researcher (tutkimusprojektin johtaja) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.07.-30.09.2000 (Univ. of Turku)
 - Professor at the Dept of Plant Biology (Plant Pathology) 17.01.-30.06.2000 (Univ. of Helsinki)
 - Researcher (tutkija) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.-31.10.1999 (Academy of Finland)
 - Researcher (tutkija) in MTT in Jokioinen 01.08-31.08.1999 (MTT)
 - Senior researcher (tutkimusprojektin johtaja) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.02.-31.12.1996, 01.01.-31.10.1997, 01.11.31.12, 1997, 01.01.-31.12.1998 (Academy of Finland)
 - Researcher (tutkija) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.09.-31.12. 1995 (Emil Aaltonen Foundation)
 - Guest Researcher (vierailija tutkija) at the Petersburg Nuclear Physics Institute in Gatchina 01.-31.10.1994 and 01.-31.3. 1995 (TT-commission)
 - Training period (trainee, harjoittelija) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 11.07.1994-10.01.1995 (Univ. of Turku)
 - Guest Researcher (vierailija tutkija) at the laboratory of Plant Pathology of the University of Helsinki 01.01.-30.06. 1994 (Univ. of Helsinki)
 - Project secretary (projektitsehteri) of "Fungal Course" 15.-27.04.1993 (University of Turku)
 - Researcher (tutkija) at the Lab. of Plant Physiology and Molecular Biology at the University of Turku 01.03.-31.08.1992 (Cultural Foundation of Finland)
 - Researcher (tutkija) at the Department of Botany of the University of Helsinki 01.08.1991-31.01.1992 (University of Helsinki)
 - Research assistant (tutkimusapulainen) at the Lab. of Plant Physiology of the University of Turku 01.01.1988-31.7.1991 (Academy of Finland)
 - Travel grant (vierailija tutkija) to the University of Groningen in the Netherlands 01.03.-31.08.1987 (Academy of Finland)
 - Travel exchange grant (vierailija tutkija) to the Botanical Institute in Leningrad in Soviet Union 27.01.-24.02.1987 (Academy of Finland)
 - Civil alternative service at the University of Kuopio and at the University of Turku 02.01.-27.12.1986
 - Course assistant in botany (kasvitieteen assistentti) 01.09.1985-31.12.1985 (Univ. of Turku)
 - Researcher grant at the University of Turku 01.07.-31.08.1985 (Emil Aaltonen Foundation)
 - Travel grant to the Department of Plant Physiology at the University of Lund in Sweden 01.06.-31.08.1984. (Nordic researcher courses)
 - Research assistant (tutkimusapulainen) 01.08.1982-30.09.1982 (Univ. of Turku)
 - I have been working at my home farm after the year 1976, especially during sowing and harvesting..
- **Most important foreign visits**
 - Department of Plant Physiology at the University of Lund in Sweden for three months in 1984.
 - Komarov Botanical institute for one month in Leningrad in Soviet Union in 1987 and two weeks in 1997.
 - -Department of Plant Biology for six months at the University of Groningen in Haren in the Netherlands in 1987.
 - Mushroom expedition of one week to Perm Region near Ural mountains with Russian mycologists in 1993.
 - Petersburg Nuclear Physics Institute in Gatchina in Russia for two months in 1994-1995, two weeks in 2000 and one week in 1997, 1998, 1999 and 2001.
 - Scottish Crop Research Institute, Dundee, Scotland for one week in 1998.
 - All-Russian Plant Protection Institute in St. Petersburg for one week in 1999, 2001 and 2002, 13 days in 2003, ten days in 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014 and 2015.
 - University of Western Australia, Perth, for one week in 2000.
 - Mycology Group BioCentrum – Technical University of Denmark two weeks in 2003 and one week in 2004.

- Norwegian Plant Protection Institute in Ås Norway one week in 2004 and 2005.
- United States, Department of Agriculture, Peoria, USA, March 9-April 9, 2007.
- United States, Kansas State University, University of Minnesota and Department of Agriculture, Peoria, March 9-20, 2009.
- Erasmus visit to the University of Sassari in Italy on October 11-16., 2009
- Invited guest at Mahatma Gandhi Institute and the University of Hyderabad in Hyderabad India for one week on February 2-9, 2011
- Oscar project meetings in Viterbo Italy on June 3-5, 2013, Marrakech Morocco March 24-28, 2014, Sonsveien Norway, June 29-July 2, 2015 and Witzenhausen German on February 15-18, 2016.

8. Research funding as well as leadership and supervision

Major research funding during the last years (2003-2020):

Finnish Cultural Foundation (personal grant)

For the project Toxin synthesis, pathogenicity, phylogeny and populations of trichothecene-producing *Fusarium* species in July 2017-June 2020 (84000 €)

Finnish Academy (principal investigator):

Travel grants to Petersburg Nuclear Physics Institute and All-Russian Plant Protection Institute for me and travel grants for my Russian colleagues to visit my laboratory in 2003-2020 (total ca. 78000 €)

2-year project funding for a project “Control of food contamination by *Fusarium* mycotoxins in human and animal food in Finland and northern Europe” in 2001-2003 (total 100000 €)

The Foundation of the University of Turku (principal investigator):

2003 travel grant to ECFG7 congress in Copenhagen in April 16-20, 2004 (500 €)

2010 travel grant to IMC9 conference in Edinburgh in August 1-8, 2010 (800 €)

2012 travel grant to 4th International *Fusarium* seminar in Nanjing in August 23-26, 2012 (1200 €)

2013 research grant for *Fusarium* research for the years 2013-2015 (3000€)

The Research Foundation of Raisio Yhtymä:

Principal investigator 2003 for the project “Rapid Quantitative PCR detection method for routine analysis of *Fusarium* species in grain samples” (7500 €)

Olvi Foundation:

Principal investigator 2012 for the project “Quantitative detection of toxigenic *Fusarium* species and their chemotypes in oats” (4000 €)

Ministry of Agriculture:

2003-2005 salaries for the MTT project “Red clover efficiently into organically produced milk”, in which our research group studied biodiversity of *Fusarium* and *Sclerotinia* spp. of red clover (ca. 36000 EUR).

2004-2006 for the project “Development of safety indicators for Finnish cereal grain” with Päivi Parikka and Veli Hietaniemi from MTT. My group is studying *Fusaria* by quantitative PCR (ca.17000 €)

2005-2007 for the project “New survey of the *Fusarium* mycobiota of Finnish cereals”. My group is following the amount of *Fusarium* DNA in cereal grains by quantitative PCR. (ca. 25000 €)

The National Technology Agency of Finland (TEKES together with The Research Foundation of Raisio Yhtymä, VTT, EELA and Suomen Rehu, Raisio Yhtymä, Polttimot OY, Suomen Nestle and Labmasters companies):

Coordinator in 2003-2004 for the project “Rapid Quantitative PCR detection method for routine analysis of *Fusarium* species in grain samples” together with researchers from VTT and EELA (92000 EUR).

Nordic Council

Coordinator 2003-2004 for the network project “New emerging mycotoxins and toxigenic fungi in Northern Europe” (32728 €)

NordForsk (=Nordic Research Board)

Coordinator 2005-2009 for the network project “New emerging mycotoxins and secondary metabolites in toxigenic fungi of Northern Europe” (35000 €/year).

NordForsk course "Fusarium, genes and toxins" in Ås on June 21-28, 2008 (the budget of the course was 400000 NOK)

CIMO:

2004 for a travel grant of 4 months for P. Gannibal in 2004-2005 (3240 €)

2008 for a travel grant of 6 months for M. Hussein in 2008-2009 (6000 €)

2012 for a travel grant of Taha AboDaham in 2012-2013 (10800€)

2014 for a travel grant of 3 months for Taha. AboDaham (3600 €)

2018 for a travel grant of 6 months for Asmaa Abbas (13500 €)

Egypt Government:

4-year grant for the PhD work of Taha Abodaham in 2014-2017 (41000 €)

COST 835 (Travel expenses):

2002 to COST 835 meetings in Bari and Oslo (ca. 2000 EUR)

2003 to COST 835 meeting in Bari (ca. 1200 €)

Mycoglobe:

Invited speaker in the EU-USA Bilateral Workshop on Toxigenic Fungi and Mycotoxins in New Orleans on July 5-7, 2004 (ca. 1200 € for travelling expenses and accommodation)

European Commission grant from Levnedsmiddelcentret Major Research Infrastructure:

2003 a travel grant of two weeks to the Laboratory of Dr. Ulf Thrane at the Technical University of Denmark in Lyngby in order to study metabolite profiles of *Fusarium* fungi (ca. 1300 EUR).

Project leader and/or Principal Investigator (PI):

- “Molecular biological identification methods for fungal and predatory mite strains used in biological control and for plant pathogenic fungal strains”, which was a part of a bigger project of MTT, funded by the Academy of Finland and Turku University Foundation in January 1 1996-December 31 1998.

- several projects dealing with “Molecular biological identification methods for plant pathogenic fungal strains and fungal strains used in biological control” together with Russian, Bulgarian and COST 835 researchers, funded by the Academy of Finland, CIMO and Turku University Foundation in 1996-2004.

- “Control of food contamination by *Fusarium* mycotoxins in human and animal food in Finland and Northern Europe” from the Academy of Finland in January 1 2001-December 31 2004.

- “Quick Quantitative PCR detection method for routine analysis of *Fusarium* species in grain samples” from The National Technology Agency of Finland (TEKES) in March 1 2003-February 28 2004.

- 3-year-subproject of the MTT project “Red clover efficiently into organically produced milk” together with the University of Helsinki and Boreal Plant Breeding, in which our research group studied biodiversity of *Fusarium* and *Sclerotinia* spp. of red clover in January 1 2003-December 31 2005

- 3-year-subproject (January 1 2004-December 31 2006) of the MTT project “Development of safety indicators for Finnish cereal grain” together with Raisio Yhtymä, Nestle Finland and Polttimot OY, in which our research group was estimating the amount of *Fusarium* spp. in cereals by quantitative PCR methods developed in the project funded by TEKES in 2003-2004.

-3 year subproject (January 1 2005-December 31 2007) of the MTT project “New survey of the *Fusarium* mycobiota of Finnish cereals” together with National Veterinary and Food Institute (EELA) and ProAgria, in which our research group was estimating the amount of *Fusarium* spp. in cereals by quantitative PCR methods.

-PCR detection of toxin-producing molds in grains in 2013-2015, funded by Turku University Foundation.

- Phd work " Mycotoxigenic fungi in plant, soil and water: Molecular detection, quantification, biodiversity, taxonomy and biocontrol " of PhD student Taha Hussien AboDaham for the years 2014-2017 from the government of Egypt including personal grant for his living expenses and 5000 € for reagents and chemicals.

- research project " Enzymatic degradation and biotransformation of trichothecenes mycotoxins" for the PhD work of Taha Hussien AboDaham in 2014, funded by CIMO.

Supervised doctoral dissertations

Sari Paavanen-Huhtala December 14, 2000: Molecular-based assays for the determination of diversity and identification of *Fusarium* and *Gliocladium* fungi at the University of Turku (officially appointed main supervisor)

Supervised master degrees:

Sari Paavanen 1995 (University of Turku)

Simonas Valatka 1997 (University of Turku)

Kristina Kekki 2000 (University of Helsinki)

Ville Aukee 2004 (University of Turku)

9. Merits in teaching and pedagogical competence

Pedagogical training

Debate as educational method (15.2.-8.3. 2002; 12 h; University of Turku.

Teaching duties:

University of Turku:

- course assistant in botany at the University of Turku in 1983 and 1985 (12 + 12 h)
- assistant in botany at the University of Turku in 1985 (4 months)
- project secretary at the national course “mycological course” for graduate and postgraduate students in 1992-1993 (12 months). In this course we have had teachers from Finland, The Netherlands, France and Russia. I organised the course, gave one lecture and edited the course material book with Prof. Sewon.
- Course assistant in teaching literature searches with computers for students of plant physiology in 1995 (5 h)
- DNA and phylogeny course at the Laboratory of Plant Physiology and Molecular Biology in 1996 (twice) and in 1998 (total 64 h). The courses included lectures, laboratory working and computer analyses.
- Plant-microbe interaction course at the Laboratory of Plant Physiology and Molecular Biology in 1999 (lecture course, 5 h)
- Acting Professor at the Laboratory of Plant Physiology and Molecular Biology in 2000-2001 (10 months). During this time I had two lecture and laboratory courses of plant-pathogenic fungi (70 + 80 h). The students wrote reports and gave seminar lectures on the results. I also organised a lecture course in plant ecophysiology (12 h lectures) and gave a lecture in plant biotechnology (1 h). In addition I organised seminar lectures of visiting guest lecturers (ca.

13 h) at the Laboratory of Plant Physiology and Molecular Biology as a part of the lecture course of plant-pathogenic fungi.

- DNA and phylogeny course at the Laboratory of Plant Physiology and Molecular Biology in 2003 together with Dr. Sari Paavananen-Huhtala (total ca. 50 h). The courses included lectures, laboratory working and computer analyses. Nordic network collaborators Ulf Thrane and Henriette Giese (from Denmark), Sonja Klemsdal and Mona Torp (from Norway), Mark Levitin (from St. Petersburg) and Aldo Rizzo (from EELA in Helsinki) gave lectures as a part of the course.
- Molecular detection, identification and quantification of plant pathogenic and toxigenic *Fusarium* fungi. The course took place at the department of Biology (Univ. of Turku) on November 28-29, 2006 (10 h)

University of Helsinki:

- course assistant in fungal ecophysiology laboratory course at the Department of Botany in 1983 and 1988 (total 47 h)
- "Applied mycology for Ph.D. students" (in English) laboratory and lecture course organised by Prof. M. Salkinoja-Salonen at the Department of Applied Chemistry and Microbiology in 1998 (8 h of lectures and laboratory works)
- acting Professor in Plant Pathology in 2000 at the Department of Plant Biology (total 6 months). This included lecture courses in basic plant pathology, fungal diseases and resistance breeding, organising seminars and exams for students and supervising graduate students.
- ABS Course FOOD MYCOLOGY in 2007 (in English) lecture course organised by Prof. M. Salkinoja-Salonen at the Department of Applied Chemistry and Microbiology (4 h of lectures and a computer demo)
- Food microbiology course in 2009 804046 in February and December organised by Prof. Per Saris (2+2h lectures)

MTT (Agricultural Research Centre of Finland):

- laboratory course of 10 h for researchers dealing with molecular detection and identification methods of plant-pathogenic fungi and predatory mites together with M.Sc. Sari Paavananen-Huhtala in 1996-1997.

The Agricultural University of Denmark in Copenhagen:

- NorFa course "Genes and Mycotoxins in Plant-Fungal interactions" in 2002. This included lectures and laboratory work (total 10 h) with other Nordic teachers for Nordic and Baltic students.

BioForsk, Ås, Norway

- NordForsk course "Fusarium, genes and toxins" in Ås on June 21-28, 2008. I participated in teaching qualitative and quantitative PCR for detection of *Fusarium* species (during two days) and gave a lecture.

University of Sassari, Sardinia, Italy: Erasmus exchange host for Prof. Quirico Migheli in September 2009 and Erasmus teaching visit to the University of Sassari in October 5-9, 2009 (8 h of teaching).

Kasetsart University, Bangkok, Thailand

- Erasmus Mundus grant for October 1-31, 2015

- I had the following lectures for Erasmus Mundus visit to Kasetsart University in Thailand: General presentation of the Turku University, Biocity, companies and Finland (2 h), Molecular detection, identification and quantification of toxigenic *Fusarium* species (2 h), Trichothecene chemotype composition of *Fusarium graminearum* and related species in Finland and Russia (2 h), Asian *Fusarium langsethiae* and the two subgroups of European *F. langsethiae* (2 h), Fumonisin-producing *Fusarium* species in Egypt and Philippines (2 h), Aflatoxin-producing *Aspergillus* species in Egypt and Philippines (2 h). I will also visit agricultural fields near Bangkok. My host will be Prof. Chatchawan

Supervisor and referee for students:

University of Turku:

- I am now supervising the PhD work of PhD student Asmaa Shaaban “Molecular regulation mechanism of aflatoxin biosynthesis in *Aspergillus* strains and its utilization to prevent food contamination”, which was started on 2019.
- Successfully supervised three **M.Sc. theses** at the University of Turku (Plant Physiology and Molecular Biology) at the lab of Plant Physiology and Molecular Biology:
 - S. Paavanen-Huhtala 1995, Isozyme and RAPD-PCR analysis in the phylogenetic study of *Fusarium oxysporum* isolates.
 - S. Valatka 1997, Analysis of genetic diversity of *Furcellaria lumbricalis* (HUDS.) J.V. Lamour (Rhodophyta: Gigartinales) in the Baltic Sea by RAPD-PCR technique.
 - V. Aukee 2003. Morel (*Morchella esculenta*) cultivation and identification the correct treatment of morel growing soil and its contaminants
- successfully supervised one **PhL thesis** at the University of Turku (Plant Physiology and Molecular Biology) at the lab of Plant Physiology and Molecular Biology:
 - Identification and phylogeny of *Fusarium avenaceum* and *F. oxysporum* isolates by isozyme analysis and RAPD-PCR, S. Paavanen-Huhtala, February 27, 1997.
- successfully supervised four **PhD theses** at the University of Turku:
 - S. Paavanen-Huhtala, academic dissertation October 14, 2000, Molecular-based assays for the determination of diversity and identification of *Fusarium* and *Gliocladium* Fungi (Plant Physiology and Molecular Biology, main supervisor)
 - Ma Rui, academic dissertation April 29, 2004, Biotechnology improvement in rye breeding (Plant Physiology and Molecular Biology, cosupervisor)
 - M. Jestoi, academic dissertation February 11, 2005, Emerging *Fusarium* mycotoxins in Finland (Food Chemistry, cosupervisor)
 - Taha Hussien AboDaham, academic dissertation June 10, 2019. "Mycotoxigenic fungi in plant, soil and water: Molecular detection, quantification, biodiversity, taxonomy and biocontrol" (Molecular Plant Biology, main supervisor).
- Supervisor of Erkki Vesanto for one month in 1985 during his summer training at the University of Turku.
- Supervisor of Nina Painilainen (Turun Ammatti-instituutti) for 3 months in 2001-2003 of Taina Lahtinen (Turun Ammattikorkeakoulu) for 4 months in 2001-2003, Satu Saaranen for two weeks in 2006 and Anne-Maarit Ylilehto for 3 months in 2008 (Turun Ammatti-Instituutti) during their work training at the University of Turku.
- Supervisor of Hannu Leino (from the University of Joensuu) for two months in 2004 during his summer training at the University of Turku.
- Co-supervisor of the M.Sc. thesis work “Development of PCR-based identification methods for prokaryotes from stone and water samples of a deep cave at the University of Turku in 2004-2006.
- Referee of Lic. Phil thesis of Satu Koskinen “Evolutionary relationships of the Polytrichopsida” at the Laboratory of Plant Physiology and Molecular Biology (2008)
- Referee of the MSc thesis of Marika Lahtinen "Cultivation of *Flammulina velutipes*’s at the department of Biochemistry and Food Chemistry in 1998.

University of Helsinki:

- Successfully supervised one **M.Sc. thesis** at the University of Helsinki (Plant Pathology):
 - K. Kekki 2000, Molecular identification of promising *Nectria pityrodes* antagonistic strain J76 and comparison of isolates by RAPD-PCR method. The experimental work was done at the Univ. of Turku.
- Referee of the PhD thesis of Merja Itävaara (Problems associated with the liquid cultivation of shiitake, *Lentinus edodes* (Berk.) Pegler) in 1993 at the Department of Plant Biology.
- Referee and research advisor of M.Sc. theses of Kalle Erkkola (Suitability of fungicide azoxystrobin for control of barley and leaf spot diseases in Finland), Marjo Serenius (the effect of tillage on plant diseases of barley and wheat) and Jaana Laamanen (peat and *Gliocladium catenulatum* in preventing storage diseases on carrot) at the Department of Plant Biology in 2000.
- Referee of the M.Sc. thesis (mycosines in inhibiting of food-born yeast) of Kalle Kaartokallio at the department of Applied Chemistry and Microbiology in 2002.
- Referee of th PhD thesis of Juho Hautsalo “PHENOTYPING FUSARIUM HEAD BLIGHT RESISTANCE IN OATS HAVING LOW DEOXYNIVALENOL CONTENT” in 2020 at the Dept of Agricultural Sciences.

All-Russian Plant Protection Institute, St. Petersburg, Russia:

- Co-supervisor of the Ph.D. theses of Philipp Gannibal “The fungi of the genus *Alternaria* on grasses species composition and intraspecific diversity” (finished in 2006)
- Co-supervisor of the Ph.D. student Olga Gavrilova: "Distribution and biodiversity of *Fusarium* fungi of *Sporotrichiella* section on oats” (finished in 2010)

Western Australian University

- Referee of PhD thesis of Diana Tan "Toxic metabolites produced by western Australian *Fusarium* spp." in 2010.

National Academy of Sciences of the Republic of Armenia

- Referee of PhD thesis of Ali Parsaeimehr Hassan “Investigation of *Ephedra* Spp *in vitro*, its secondary metabolites and development of Biotechnology” in 2011.

Bharathiar University in Mysore:

- Referee of PhD thesis of Rashmi Ramakrisna “ Molecular Detection of Toxigenic Species from Food and Feed Sources of Southern Karnataka”in 2015.

University of Göttingen:

- Referee and opponent of the PhD thesis of Rosine Ghislaine Suchfort "Biological Detoxification of Enniatins" in 2016.

University of Milan

- Referee of the PhD thesis of Elena Maria Colombo “Exploring *Streptomyces-Fusarium* interaction of hamper heat head blight, crown rot and deoxynivalenol production” in 2019.

10. Awards, prizes and honours

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11. Other academic merits

Referee experience (pre-examiner of PhD thesis) in other countries:

- Ph.D. thesis of Diana Tan “Toxic Secondary Metabolites Produced by Western Australian *Fusarium* spp.” at the University of Western Australia in 2010.
- Ph.D. thesis of Ali Parsaeimehr Hassani “Investigation of *Ephedra* Spp *in vitro*, its secondary metabolites and development of Biotechnology” at the National Academy of Sciences of the Republic of Armenia in 2011.
- Ph.D. thesis of Rashmi Ramakrishna " Molecular detection of toxigenic *Penicillium* species from food and feed sources of southern Karnataka" at the Microbiology Department, Defence Food Research Laboratory, Mysore, India in 2015.

- **member of international peer evaluation committees of funding applications**

- **External referee for:**

- Grant proposal for “Grant Agency of the Czech Republik“ in 1997, 2000 and 2001.
- Grant proposal of a NorFa course to Nordic Council in 2003.
- evaluator of a BRAIN-BE programme project application (Belgian Research Action through interdisciplinary networks) in Belgium in 2013

- **Member of the evaluation panel:**

- Forskningsrådet in Norway in 2010.

- Most important scientific positions of trust and administration:
 - Project secretary of the national “Fungal course” on July 1 1992-June 30, 1993 at the University of Turku (funded by the Academy of Finland and the Turku University Foundation.
 - Finnish participant in COST 823 (New technologies to improve phytodiagnosis) on January 1. 1996- December 31, 1998
 - Finnish participant in COST 830 (Microbial inoculants in agriculture and the environment) in 1999-2000.
 - The Finnish Coordinator of COST 835 (Agriculturally Important Toxigenic fungi) on January 1. 1998- December 31, 2003
 - Invited speaker and participant in the in the EU-USA Bilateral Workshop on Toxigenic Fungi and Mycotoxins in New Orleans on July 5-7, 2004 (organised by the Mycoglobe, <http://mycoglobe.ispa.cnr.it>).
 - Member of the scientific committee and invited key lecture speaker of the 11th European Fusarium seminar in Warsaw on September 20-23, 2010.
 - Invited speaker in the Nanobiotechnology conference in Hyderabad India on February 2-9, 2011.
 - invited speaker in the Food/Feed Quality, Safety and Risks in Agriculture conference in Tallinn in Estonia on October 25-28.
 - Invited speaker in 7th Canadian Workshop on Fusarium Head Blight on November 27-30, 2011
 - Invited speaker in 3rd Global Conference on Plant Pathology for Food Security on January 10-13, 2012.
 - Invited speaker and chairman in 3rd Annual Congress of Microbes July 30-August 1, 2013, Wuhan, China
 - Invited speaker in 36th Mycotoxin workshop in Göttingen on June 16-18, 2014
 - eSci Journal of Plant Pathology Editorial Review Board member (An Open Access International Journal) September 1, 2012-August 31, 2014.
 - Advisory Board member of the Russian journal “Plant Protection News” 2014-
 - Editorial Board member of the Journal of Plant Pathology 2015-.
- Referee experience:
 - Journal of Phytopathology (2002, 2007, 2014), Journal of General Microbiology (1992), Physiologia Plantarum (1994), Mycological Research (1996, 1998, 2009), Marine Biology (2002), European Journal of Plant Pathology (2004, 2x 2006, 2009, 2013, 2x 2016), FEMS Microbiol. Letters (2005 and 2009), Heredity (2005), Hereditas (2006), Biochemical Systematics and Ecology (2006), International Journal of Systematics and Evolutionary Microbiology (2006), Journal of Plant Pathology (2007, 2008, 2x 2009, 2010, 2x 2011, 2012, 2014), Pest Management Science (2008), International Journal of Molecular Sciences (2008), Biocontrol Science & Technology (2008), Plant Pathology (2009, 2014), Journal of Basic Microbiology (3x 2009, 3 x 2011, 2012, 4x 2014, 2x 2015), Foodborne Pathogens and Disease (2009), International Journal of Food Microbiology (7x 2010, 8x 2011, 2x 2012, 4 x 2013, 3x 2014, 2x 2015, 2016), Plant Breeding and Seed Science (2010), Journal of Tropical Forest Science (2010), Phytopathologia Mediterranea (2010), Food Control (2010), Mycotoxin Research (2010), Applied Microbiology and Biotechnology (2011), Fungal Ecology (2011), Toxins (2 x 2011), International Journal of Molecular Sciences (2011), Annals of Applied Biology (2x 2011), Applied Microbiology and Biotechnology (2011), Fungal Ecology (2011), The Plant Pathology Journal (2011), Food Additives and Contaminants (2012, 2013), Acta Agricult. Scand. (2012), African Journal of Agricultural Research (2012), JOURNAL OF AGRICULTURAL SCIENCE AND TECHNOLOGY (2013), Lichenologist (2012, 2013), Euphytica (2013), African Journal of Microbiology (2013), Biocontrol Science and Technology (2013), Biologia (2014), Journal of Food Safety (2014), Jast (2013), Iranian Journal of Biotechnology (2014), Archives of Biological Sciences (2015), Archives of Phytopathology and Plant Protection (2x 2015), Toxins (2x 2016), Mycology (2016) total >150 reviews.

12. Scientific and societal impact of research

- total number of publications

I have published 66 Peer-reviewed scientific articles (visible in Scopus), 23 Articles in foreign refereed scientific edited volumes and conference proceedings, 8 Articles in Finnish refereed scientific edited volumes and conference proceedings, 18 Textbooks and course handouts, 55 lectures and 64 posters and abstracts in scientific congresses and meetings in 1985-2015

- 10 most cited publications according to Web of Science:
 - Total amount of citations: 1383 in Web of Science
 - h-index: 21 according to Web of Science

- Jestoi, M., Rokka, M., **Yli-Mattila, T.**, Parikka, P., Rizzo, A. & Peltonen, K., 2004. The presence and concentrations of the *Fusarium*-related mycotoxins beauvericin, enniatins and moniliformin in Finnish grain samples. – *Food Additives and Contaminants*: 21 (8): 794-802. (155 citations)
- Geiser, David M.; Aoki, Takayuki; Bacon, Charles W.; et al. 2013. One Fungus, One Name: Defining the Genus *Fusarium* in a Scientifically Robust Way That Preserves Longstanding Use. *PHYTOPATHOLOGY* 103: 400-408 (118 citations)
- Yli-Mattila, T.**, Gagkaeva, T., Ward, T.J., Aoki, T., Kistler, C. and O'Donnell, K 2009. A novel Asian clade within the *Fusarium graminearum* species complex includes a newly discovered cereal head blight pathogen from the Far East. – *Mycologia* 101: 841-852. (111 citations)
- Yli-Mattila, T.** 2010. Ecology and evolution of toxigenic *Fusarium* species in cereals in northern Europe and Asia. - *Journal of Plant Pathology* 92: 7-18. (79 citations)
- Yli-Mattila, T.**, Paavanen-Huhtala, S., Parikka, P., Konstantinova, P. and, Gagkaeva, T. 2004. Molecular and morphological diversity of *Fusarium* species in Finland and northwestern Russia – *European Journal of Plant Pathology* 110: 573-585. (67 citations)
- Yli-Mattila, T.**, Mach, R., Alekhina, I.A., Bulat, S.A., Koskinen, S., Kullnig-Gradinger, C.M., Kubicek, C.P. & Klemsdal, S.S. 2004. Phylogenetic relationship of *Fusarium langsethiae* to *Fusarium poae* and *F. sporotrichioides* as inferred by IGS, ITS, β -tubulin sequence and UP-PCR hybridization analysis. - *International Journal of Food Microbiology* 95: 267-285. (64 citations)
- Pasquali, M.a , Beyer, M.a, Logrieco, A.b, Audenaert, K.c, Balmas, V.d, Basler, R.e, Boutigny, A.-L.f, Chrpová, J.g, Czembor, E.h, Gagkaeva, T.i, González-Jaén, M.T.j, Hofgaard, I.S.k, Köycü, N.D.l, Hoffmann, L.a, Levic, J.m, Marin, P.j, Miedaner, T.n, Migheli, Q.d, Moretti, A.b, Müller, M.E.H.o, Munaut, F.p, Parikka, P.q, Pallez-Barthel, M.a, Piec, J.a, Scauflaire, J.p, Scherm, B.d, Stankovic, S.m, Thrane, U.r, Uhlig, S.s, Vanheule, A.c, **Yli-Mattila, T.t**, Vogelgsang, S.u 2016. A European database of *Fusarium graminearum* and *F. culmorum* trichothecene genotypes. *Frontiers in Microbiology* Volume 7, Issue APR, 6 April 2016, Article number 406, Open Access (60 citations)
- Yli-Mattila, T.**, Paavanen-Huhtala, S., Bulat, S.A., Alekhina, I.A. & Nirenberg, H.I. 2002. Molecular, morphological and phylogenetic analysis of *Fusarium avenaceum*/*F. arthrosporioides*/*F. tricinctum* species complex – a polyphasic approach. - *Mycological Research* 106: 655-669 (58 citations)
- Sarlin T, **Yli-Mattila T.**, Jestoi M, Rizzo A., Paavanen-Huhtala S. and Haikara A. 2006. Real-time PCR for quantification of toxigenic *Fusarium* species in barley and malt. *European Journal of Plant Pathology* 114: 371-380. (51 citations)
- Yli-Mattila, T.**, Paavanen, S., Hannukkala, A., Parikka, P., Tahvonen, R. & Karjalainen, R. 1996. Isozyme and RAPD-PCR analyses of *Fusarium avenaceum* strains in Finland. - *Plant Pathol.* 45: 126-134. (49 citations)

13. Positions of trust in society and other societal merits

- a personal grant of three years from the Finnish Cultural foundation in July 2017-June 2020.

14. Other merits

Qualified and competent for:

- Professor in Botany (plant physiology and molecular biology) at the University of Turku for a five-year-period on November 3, 1998

- Professor in Plant Production at the Agricultural Research Station of Finland (MTT) on December 16, 1999
- Professor in Plant Pathology at the University of Helsinki on October 5, 2000
- Professor in Plant Biotechnology at the Agricultural Research Station of Finland (MTT) on November 8, 2000.
- Professor in General Microbiology for a four-year-period at the University of Helsinki on January 16, 2003
- Professor in Plant or Fungal Systematics and placed to the third position for the job by the Faculty of Biosciences at the University of Helsinki on May 6, 2004.
- Professor in Plant Pathology at the University of Helsinki for a five-year-period on September 7, 2006

Chairman in scientific meetings:

- Nordic network meetings in Turku, Ås, Copenhagen, Uppsala, Wageningen, Asilomar, Uppsala and Foulum 2005-2009
- The XV Congress of European Mycologists, Saint Petersburg, Russia, September 15-21, 2007.
- 10th International Fusarium workshop and Fusarium Genomics Workshop in Alghero August 30-September 2, 2008.
- 3rd Annual Congress of Microbes July 30-August 1, 2013, Wuhan, China