

CURRICULUM VITAE

(Updated December 11, 2018)

NAME (last, first) SKURNIK Mikael
PLACE AND DATE OF BIRTH Raahel, Finland, July 26, 1952
NATIONALITY Finland
MARITAL STATUS Married, five children
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WORK ADDRESS Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki. Haartmaninkatu 3, PO Box 21, 00014 University of Helsinki, Finland
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POSITIONS CURRENTLY HELD

Professor of Bacteriology, Department of Bacteriology and Immunology, Haartman Institute, University of Helsinki, since 2002

Head of Laboratory, Division of Clinical Microbiology, Helsinki University Hospital, HUSLAB, since 2004.

Director of Immunobiology Research Program, Research Programs Unit, Faculty of Medicine, University of Helsinki, 2013-2018.

FIELDS OF RESEARCH

Molecular microbiology, lipopolysaccharide, bacterial virulence, bacteriophages, phage therapy and rapid microbial diagnostics

EDUCATION AND TRAINING (all in Finland)

DEGREE OR LIKE	PLACE	DETAILS	YEAR
Docent	University of Turku	in molecular biology	1988
Doctor of Philosophy	University of Oulu	Doctoral dissertation "Studies on the virulence plasmids of Yersinia species" approved and assessed "magna cum laude approbatur"	1985
Bachelor of Medicine	University of Oulu	--	1983
Licentiate in Philosophy	University of Oulu	incorporating: Biochemistry (Clin. Biochemistry) (excellent), Part II Chemistry (excellent), Part II Zoology (Physiol. Zoology) (good), Part I Medical Microbiology	1981
Title Master of Philosophy	University of Oulu	--	1977
Cand. in Philosophy (MSc)	University of Oulu	Part III Biochemistry (General) (excellent)	1977
Cand. in Nat. Sciences (BSc)	University of Oulu	--	1975
Matriculation examination	Oulun Lyseo High School	--	1971

PREVIOUS PROFESSIONAL APPOINTMENTS

Institution	Appointment	Time period
Academy of Finland	Academy Research Fellow	8/1999 - 10/2002
	Advanced Research Fellowship	8/1998 - 7/1999
Turku Centre for Biotechnology	Director	1/1997 - 7/1998
Department of Medical Biochemistry, University of Turku	Senior Lecturer	1/1998 - 10/2002
Academy of Finland	Advanced Research Fellowship	10/1996 - 12/1996
Turku Centre for Biotechnology	Senior Scientist	8/1996-9/1996
Academy of Finland	Senior Research Fellow	8/1993 - 7/1996

Department of Medical Microbiology, University of Turku	Head of DNA Laboratory Research Fellow	1/1990- 7/1993 6/1987-12/1989
Department of Microbiology, University of Umeå, Sweden	Research Assistant ('post doc')	8/1986-6/1987
National Defence Research Laboratory, Umeå, Sweden	Visiting scientist ('post doc')	1985-1986
Department of Medical Microbiology, University of Oulu	Acting Head of Laboratory Work in microbial diagnostic service Acting Special Assistant (total 28 months) Acting Laboratory Technician (total 3 months)	1984-1985 1981-1983 1980-1985 1978-1979
Department of Biochemistry, University of Oulu	Teaching duties in laboratory practicals (14 h/week during semesters) Acting Assistant (half assistantship, total 3 months)	1977-1980 1976
Turku Institute of Health Care	Lecture courses (7-38 h each) on microbiology, immunology, basic methodology and gene technology	1987-1997

MAJOR ON-GOING RESEARCH GRANTS

Source	Purpose	Time	Euro
Special state subsidy for health science research (EVO)	Phage Therapy – a biological approach to treatment of (antibiotic-resistant) bacterial infections	2015-2018	106,500
Academy of Finland	Bacteriophage genome mining for antibacterial leads	2015-2019	587,329
Special state subsidy for health science research (EVO)	Faagiterapia – turvallisen terapeuttisen faagituotteen valmistaminen infektioautipotilaiden hoitoa varten [Phage Therapy – production of safe therapeutic phage product for treatment of patients with infectious diseases]	2016-2017	76,500
Jane and Aatos Erkko Foundation	Phage Therapy – a biological approach to treatment of (antibiotic-resistant) bacterial infections	2017-2020	850,000
Special state subsidy for health science research (EVO)	Bakteeri-infektioiden hoito bakteriofageilla [Treatment of bacterial infections with Phage Therapy]	2018-2019	118,400
UPM Kymmene	Bacteriophage storage and usage in nanofibrillated cellulose	2018	56,780

MEMBERSHIPS IN SCIENTIFIC SOCIETIES

1. Societas Biochemica, Biophysica et Microbiologica Fenniae (BioBio Society), 1975- (board member 2005-2013)
2. Finnish Society for Infectious Diseases 1987-
3. Finnish Society for Immunology 1987-
4. Turku Microbiology Society 1987-2004 (treasurer 1990-1999, vice chairman 2000-2002)
5. American Society for Microbiology 1991-
6. International Endotoxin and Innate Immunity Society 1994-

SUMMARY OF PUBLICATIONS IN DIFFERENT CATEGORIES:

PUBLICATION CATEGORY	N
A1. Journal article (refereed), original research	175
A2. Review article, literature review, systematic review	18
A3. Book section, chapters in research books	15
A4. Conference proceedings	17
C2. Edited book, conference proceedings or special issue of a journal	1
D1. Article in a trade journal	4
D4. Published development or research report or study	1
D5. Textbook, professional manual or guide, dictionary	5
E1. Popularised article, newspaper article	1
G1. Polytechnic thesis, bachelor's thesis	1
G2. Master's thesis, polytechnic master's thesis	1
G3. Licentiate thesis	1
G5. Doctoral dissertation (article)	1
H1. Patents	2
Sum total	243

WEB OF SCIENCE DATA (11.12.2018)

Results (from all databases)	331
Sum of times cited	8357
Sum of Times Cited without self-citations	6973
Citing Articles	5232
Citing Articles without self-citations	5052
Average Citations per Item	25.25
H-index	52
Articles with >100 citations	19
Articles with >50 citations	54

OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES

- 1) Editor in International Journals: **National Editor for APMIS (2003 – 2013); Academic Editor of PLoS ONE (2012 – present), Editorial council member for Particularly Dangerous Infections (2013 – present). Special Issue Guest Editor for Viruses (2018).**
- 2) **Editorial or Advisory Board Member**
Journal of Bacteriology (1998-2012); Molecular Microbiology (2003-2004); FEMS Immunology & Medical Microbiology (2008-2012), Innate Immunity (2009-present).
- 3) **Steering Committee Member**, TEMPUS Phare project JEP-12037-97 on Curricula Development for BSc and MSc degree in Biology at University of Silesia, Poland, 1997-2001
- 4) **Peer Reviewer since 1988 for 82 international scientific journals (>1000 reviews)**

Annals of Medicin	FEBS Letters	Microbiology-UK
Antimicr Agents and Chemotherapy	FEMS Microbiology Ecology	MicrobiologyOpen
APMIS	FEMS Microbiology Letters	Microbial Pathogenesis
Am J Biomed Sci	FEMS Microbiology Reviews	Minireviews in Organic Chemistry
Appl Microbiol and Biotechnology	Genome Biology and Evolution	Molecular Microbiology
Appl Environmental Microbiology	Glycobiology	Molecular Systems Biology
Arch Immunol et Therapiae Exp	Glycoconjugate Journal	Nature
Archives of Virology	Infection and Immunity	Nature Communications
Biochemistry	Innate Immunity (J Endotox Res)	Pathogens and Disease
Bioinformatics	Intl Journal of Medical Microbiology	Plos One
Biotechnology Advances	Intl Journal of Medical Science	Plos NTD
BMC Genomics	Journal Antimicrobial Chemotherapy	Plos Pathogens
BMC Microbiology	Journal of American Chemical Society	Protein Expression and Purification
Bulletin WHO	Journal of AOAC International	Proc Nat Acad Sci USA
Carbohydrate Research	Journal of Bacteriology	Research in Microbiology
Cellular Microbiology	Journal of Biological Chemistry	RNA Biology
Clinical Chemistry	Journal of Clinical Microbiology	Scand J Immunol
Clinical Microbiology and Infection	Journal of General Virology	Science
Critical Reviews in Microbiology	Journal of Immunoassay	Scientific Reports
Curr Opin in Investigational drugs	Journal of Infectious Diseases	Trends in Biotechnology
EMBO Journal	Journal of Medical Microbiology	Trends in Microbiology
EMBO Reports	Journal of Proteome Research	Vaccine
Environmental Microbiology	Journal of Veterinary Medicine	Veterinary Microbiology
Environmental Sciences	Journal of Virology	Virology
European Journal of Immunology	Marine Drugs	Virology Journal
European J Clin Microbiol	Microbes and Infection	Viruses
F1000Research	Microbial Biotechnology	
FEMS Imm & Med Microbiology	Microbial Cell Factories	
- 5) **Member of Project Follow-Up Committee** of the Academy of Finland, 1991-1993
- 6) **Expert evaluation** of grant applications to:
 - a) the International Science Foundation, 1993
 - b) the Norwegian Research Council, 1995, 1996, 1997, 1999, 2000, 2001, 2003, 2004, 2005, 2006, 2007
 - c) the International Science and Technology Center, 1995
 - d) the Canadian Medical Research Council, 1996
 - e) Institut Pasteur 'Transverse Research Programs', 2001
 - f) the Wellcome Trust, 2002
 - g) The Academy of Finland Research Council for Health 2003, 2004
 - h) Research Council of the Catholic University of Leuven, 2004, 2013
 - i) South African Medical Research Council, 2004

- j) Israel Binational Science Foundation, 2006
 - k) Slovak Research and Development Agency, 2007
 - l) Research Foundation Flanders, 2008, 2013, 2014
 - m) Lithuanian State Science and Studies Foundation, 2008
 - n) Georgian National Science Foundation, 2008, 2009, 2011, 2013
 - o) The German-Israeli Foundation for Scientific Research and Development, 2009, 2011
 - p) Slovenian Research Agency, 2009, 2010, 2012, 2015
 - q) Medical Research Council UK, 2009
 - r) Swedish Research Council, Scientific Council for Medicine and Health, panel C1, 2010; panel C2, 2013; Panel MH-INCA, 2014
 - s) Science Foundation Ireland, 2012
 - t) The Swedish Foundation for Strategic Research (SSF), Ingvar Carlson Award, 2013
 - u) Agence Nationale de la Recherche, France, 2013
 - v) National Science Center, Poland, 2014, 2015
 - w) The Fondation pour la Recherche Médicale (FRM), France, 2015
 - x) International expert for INSERM (Institut National de la Santé et de la Recherche Médicale, France), 2001, 2005, 2006, 2007, 2008
- 7) **Expert evaluation** of the scientific competence of applicants for various positions
- a) Docent of Nutrition and Food Biotechnology in University of Kuopio, Finland. Statement signed on June 2, 1999.
 - b) Docent of Molecular Microbiology in University of Helsinki, Finland. Statement signed on January 11, 2002.
 - c) Ministry of defense – UK, DSTL fellowship scheme – evaluation of a fellow application, 2004
 - d) Docent of Cellular Microbiology in University of Helsinki, Finland. Statement signed on January 5, 2005.
 - e) Docent in Molecular Biology in University of Umeå, Sweden. Statement signed on August 17, 2005.
 - f) Docent in Infection Research in University of Helsinki, Finland. Statement signed on November 9, 2005.
 - g) Recommendation for the promotion to a position equivalent to professor, Israel Institute for Biological Research, Statement signed on August 18, 2006.
 - h) Evaluation of an associate professor for a promotion to full professor. University of Idaho, Department of Microbiology, Molecular Biology and Biochemistry. Statement signed on November 3, 2006
 - i) Docent of Molecular Virology in University of Helsinki, Finland. Statement signed on March 17, 2008.
 - j) Evaluation of Canada Research Chairs Program Tier 1 position application. August, 2009.
 - k) Docent in Veterinary Bacteriology in University of Helsinki, Finland. Statement signed on September 25, 2009.
 - l) Evaluation of an Associate Professor to award tenure. University of Texas Medical Branch, School of Medicine, Department of Pathology. December 14, 2009.
 - m) Docent in Infection Research in University of Helsinki, Finland. Statement signed on December 15, 2009.
 - n) Docent of Molecular Microbiology in University of Helsinki, Finland. Statement signed on April 18, 2011.
 - o) Docent of Medical Microbiology in University of Turku, Finland. Statement signed on May 25, 2011.
 - p) Evaluation of promotion to Professor. University of Texas Medical Branch, School of Medicine, Department of Pathology. February 3, 2012.
 - q) Docent of Molecular Microbiology in University of Helsinki, Finland. Statement signed on June 14, 2012.
 - r) Docent of Microbiology in University of Turku, Finland. Statement signed on December 14, 2012.
 - s) Docent of Virology in University of Helsinki, Finland. Statement signed on February 7, 2014.
 - t) Docent of General Microbiology in Tampere Technical University, Finland. Statement signed on March 23, 2015.
 - u) Researchers in Molecular Microbiology, the National Laboratory for Molecular Infection Medicine (MIMS), Umeå University, 2015
 - v) Docent in Microbial Immunology in University of Helsinki, Finland. Statement signed on March 11, 2016
 - w) Docent in health sciences in University of Eastern Finland. Statement signed on June 28, 2016.
- 8) **Member** of the Norwegian Research Council Functional Genomics (FUGE) ad hoc peer review group, 2002, 2005, 2006
- 9) **Member** of the Finnish Ministry of Social Affairs and Health committee on NBC matters, 2003-2006.
- 10) **Member** of the international scientific review committee of Department of Microbial Pathogenesis, Institut Pasteur, Paris, 2003.
- 11) **Member** of the scientific review committee of the Research Unit "Bacterial Cell Envelope: Synthesis, Function and Target" for Deutsche Forschungsgemeinschaft, University of Tübingen, 2004
- 12) **Member** of the External Advisory Board of European Union Sixth Framework programme Era-Net project "PathoGenoMics" 2004 – 2009

- 13) **Member** of the scientific advisory committee of docentship applications to Faculty of Medicine, University of Helsinki. 2004-2009.
- 14) **Member** of the steering board of the M.D., Ph.D. program of Faculty of Medicine, University of Helsinki. 2007-2013.
- 15) **Member** of the International Expert Panel for the Evaluation of the National Laboratory for Molecular Infection Medicine (MIMS), Umeå University, 2010
- 16) **Member** of the steering board of the International Master's Degree Programme in Translational Medicine (TRANSMED) of Faculty of Medicine, University of Helsinki. 2010-2013.
- 17) **Member** of the selection committee of Professor of Virology, University of Helsinki. 2003-4.
- 18) **Chair** of the selection committee of Professor of Virology, University of Helsinki. 2003-4.
- 19) **Member** of the selection committee of Professor of Clinical Virology, University of Helsinki. 2003-4.
- 20) **Member** of the selection committee of Professor of Medical Stem Cell Research, University of Helsinki. 2011.
- 21) **Chair** of the selection committee of Professor of Medical Cancer Research, University of Helsinki. 2009-2010.
- 22) **Member** of the selection committee of Professor in Biometrics, University of Helsinki. 2012.
- 23) **Member** of the International Expert Panel for the Evaluation of Research groups in the National Laboratory for Molecular Infection Medicine (MIMS), Umeå University, 2012
- 24) **Member** of the selection committee of Professor in Medical Biotechnology, University of Helsinki. 2013.
- 25) **Member** of the selection committee of Professor in Clinical Pharmacology, University of Helsinki. 2013.
- 26) **Member** of the selection committee of Professor in Clinical Chemistry, University of Helsinki. 2014.
- 27) **Member** of the selection committee of so called Erkkö professors and assistant (tenure track) professors, Faculty of Medicine, University of Helsinki. 2014.
- 28) **Chair** of the selection committee of Professor of Medical Epigenetics, University of Helsinki. 2015.
- 29) **Member** of the selection committee of two assistant (tenure track) professors in statistics, Faculties of Medicine and Mathematics and Natural Sciences, University of Helsinki. 2014-2015.
- 30) **Member** of the selection committee of Professor in Healthcare Operations Management, 2016
- 31) **Member** of the selection committee of Professor in Otorhinolaryngology, University of Helsinki. 2018.

SHORTLISTED FOR THE POST OF

1. Associate professor in Biochemistry, University of Oulu, Finland, at 4th place (1997)
2. Associate professor in Biochemistry, University of Turku, Finland, at 3rd place (1997)
3. University lecturer in Microbiology, University of Umeå, at 1st place (1997)
4. Professor in Bacteriology, National Health Institute and University of Helsinki, Finland, at 4th place (1996)
5. Professor in Medical Microbiology, University of Umeå, Sweden, at 4-5th place (1995)
6. Associate professor in Biotechnology, University of Turku, Finland, at 5-9th place (1990)
7. Professor in Applied Biochemistry and Molecular Biology, University of Helsinki at 2nd place (2002)
8. Professor of Bacteriology, University of Helsinki, at 1st place (2002)
9. Professor of Bacteriology, University of Turku, at 3rd place (2002)

SUPERVISION OF POST-DOCTORAL FELLOWS (Place of PhD), time period

1. **José Antonio BENGOCHEA** (University of Navarra, Pamplona, Spain), 1998-2002.
2. **Pauli OLLIKKA** (University of Turku, Finland), 1998-2001
3. **Dassayanake SIRISENA** (University of British Columbia), 1998-1999
4. **Claire PACOT-HIRIART** (University of Paris XI, Orsay, France), 2002 - 2005
5. **Jean-Baptiste HIRIART** (University of Bordeaux II, Bordeaux, France), 2003 - 2005
6. **Saara SALMENLINNA** (University of Helsinki, Finland), 2003 - 2007
7. **Nadezhda FURSOVA** (University of Moscow, Russia), 2003
8. **Heidi HYYTIÄINEN** (University of Helsinki, Finland), 2006 – 2007
9. **Chun-Mei LI** (University of Helsinki, Finland), 2007 – 2010
10. **Neeta Sengupta DATTA** (University of Kolkata, India), 2008 – 2010
11. **Laura MATTINEN** (University of Helsinki, Finland), 2009 – 2010
12. **Saija Kiljunen** (University of Turku, Finland), 2015-
13. **Maria Pajunen** (University of Turku, Finland), 2015-

14. **Katarzyna Leskinen** (University of Helsinki, Finland), 2016-2017
15. **Arnab Bhattacharjee** (University of Helsinki, Finland), 2017-2018
16. **Elsi Pulkkinen** (University of Turku, Finland), 2018-
17. **Xing Wan** (University of Helsinki, Finland), 2018-

SUPERVISION OF PhD-THESES

1. **Anna-Mari VIITANEN:** Genetic Studies on the Pathogenetic Determinants of *Yersinia*-Triggered Reactive Arthritis, University of Turku, 1990 (Co-supervisor P. Toivanen)
2. **Ayman AL-HENDY:** Lipopolysaccharide of *Yersinia enterocolitica*: Molecular genetics and role in virulence, University of Turku, 1992 (Co-supervisor P. Toivanen)
3. **Lijuan ZHANG:** Molecular Genetics of the O-antigen of *Yersinia enterocolitica* Lipopolysaccharide, University of Turku, 1996 (Co-supervisor P. Toivanen)
4. **Jari JALAVA:** Use of rDNA sequencing as a diagnostic tool in bacterial identification, University of Turku, 2000 (Co-supervisor P. Toivanen)
5. **Janne KATAJA:** Molecular Epidemiology and Resistance Genes of Macrolide-Resistant Beta-Hemolytic Streptococci, University of Turku, 2000 (Co-supervisor P. Huovinen)
6. **Yasmin EL TAHIR:** Structure-Function relationship of YadA, the *Yersinia enterocolitica* adhesin, University of Turku, 2001
7. **Maria PAJUNEN:** Molecular analysis of *Yersinia enterocolitica* serotype O:3-specific bacteriophage ϕ YeO3-12, University of Turku, 2001
8. **Heli NUMMELIN:** The Structure of Yersinia Adhesin A Collagen-Binding Domain, University of Turku, 2004 (Co-supervisor A. Goldman)
9. **Saija KIJUNEN:** Molecular biology, genetics and applications of yersiniophages, University of Turku, 2006
10. **Katarzyna Teresa DUDA:** Reactivity of polyclonal antisera against R mutants of *Yersinia enterocolitica* O:3, University of Silesia, Katowice, Poland, 2007 (Co-supervisor J. Radziejewska-Lebrecht)
11. **Marta BIEDZKA-SAREK:** Molecular details of serum resistance of *Yersinia enterocolitica*, University of Helsinki, 2008
12. **Jouni ISSAKAINEN:** *Microascacae* (Ascomycota, fungi) as a medical mycological problem. Molecular relationships and occurrence in Finnish patients, University of Turku, 2009 (Co-supervisors O. Meurman, S. Huhtinen)
13. **Saija HALLANVUO:** Food borne *Yersinia* – identification and molecular epidemiology of isolates from human infections, University of Helsinki, 2009 (Co-supervisor A. Siitonen)
14. **Elise Pinta:** Biosynthesis of *Yersinia enterocolitica* serotype O:3 lipopolysaccharide outer core. University of Turku, 2010 (Co-supervisor Jose Antonio Bengoechea)
15. **Elif Boczal:** Isolation of Pathogenic *Yersinia enterocolitica* in Turkey and Expression of Lipopolysaccharide Genes In Vivo. Ege University, Izmir, Turkey, 2015 (co-supervisor Atac Uzel).
16. **Katarzyna Leskinen:** The roles of YbeY, RfaH, and Hfq in gene regulation and virulence of *Yersinia enterocolitica* O:3. University of Helsinki, 2016.
17. **Julia Shevchenko (Neé Moroz):** The role of lipopolysaccharide WaaL ligase biological properties implementation in the *Yersinia enterocolitica* bacteria. Kyiv National Taras Shevchenko University, Ukraine, 2016 (co-supervisor Larisa Skivka).
18. **Katja Koskela:** Use of molecular methods in biothreat preparedness. University of Helsinki, 2017 (Co-supervisor Simo Nikkari)
19. **Pirjo MATERO:** Identification of bacterial biothreat agents and pathogens by molecular amplification methods. University of Helsinki, 2017 (Co-supervisors Simo Nikkari and Minna Mäki)

PRESENT PhD-STUDENTS IN THE LABORATORY (project titles and starting years)

20. **Mabruka Salem,** *Yersinia* specific bacteriophages in pigs, 2010

PRESENT CO-SUPERVISED PhD-STUDENTS (project titles, starting year and co-supervisor)

21. **Kamila RABSZTYN:** Characterization of the enterobacterial common antigen (ECA) of *Yersinia*. 2009. J. Radziejewska-Lebrecht

22. **Joseph Michael Ochieng Oduor**: Complete genome analysis of lytic phages and identification of hypothetical phage proteins targeting major protein complexes of *Staphylococcus aureus*. University of Nairobi

MEMBER OF THE THESIS COMMITTEES OF PhD STUDENTS (project title, starting year, university, responsible supervisors and dissertation year)

1. **Petri BONO**: The lymphocyte-endothelial cell interaction: Molecular Analysis of vascular adhesion proteins, 1995, Univ of Turku, Sirpa Jalkanen. PhD 1998.
2. **Riitta KOSKINEN**: Molecular biology of chicken CD4 and CD5 molecules, Univ of Turku, Olli Vainio. PhD 2001.
3. **Jukka LEHTONEN**: The automated comparison of protein structures, 1999, Univ of Turku, Mark Johnson. PhD 2004.
4. **Miikka KORJA**: Structure and function of proteins binding the developmentally regulated polysialic acid moiety of the neural cell adhesion molecule, 1998, Univ of Turku, Jukka Finne. PhD 2009.
5. **Elina JÄÄSKELÄINEN**: Assessment and control of risks to food by *Bacillus cereus* toxin, 2002, Univ of Helsinki, Mirja Salkinoja-Salonen. PhD 2008
6. **Riikka KYLVÄJÄ**: Flagellar secretion as a novel method to identify important peptides from a chromosomal library of *Staphylococcus aureus*. 2005, Univ of Helsinki, Benita Westerlund-Wikström.
7. **Leandro Araujo LOBO**: Functional studies of purified transmembrane proteases, ompTins, of *Yersinia pestis* and *Salmonella enterica* 2005. Univ of Helsinki, Timo Korhonen. PhD 2006
8. **Taija PIETILÄ**: Microbe-induced Innate Immune Responses in Human Dendritic Cells. 2006. Univ of Helsinki, Ilkka Julkunen. PhD 2010.
9. **Jack LEO**: Structural and functional studies on trimeric autotransporters. 2006. Univ of Helsinki, Adrian Goldman. PhD 2009
10. **Johanna HAIKO**: Substrate Selectivity and Molecular Adaptation in the Outer Membrane Proteases of *Yersinia pestis* and *Salmonella enterica*. 2006. Univ of Helsinki, Timo Korhonen. PhD 2010.
11. **Teija KILPELÄINEN**: 2007. Univ of Turku, Marko Salmi. Candidate resigned 2009.
12. **Virginija CVIRKAITE-KRUPOVIC**: Entry of the membrane-containing bacteriophages into their hosts. 2007. Univ of Helsinki, Dennis Bamford. PhD Thesis 2010.
13. **Ville PARVIAINEN**: Glycobiology. 2008. Univ of Helsinki, Risto Renkonen. PhD 2014.
14. **Karita HAAPASALO**: Microbial complement resistance mechanisms. 2008. Univ of Helsinki, Sakari Jokiranta. PhD thesis 2012.
15. **Elina JAKOBSSON**: Bacterial cell wall and capsule degrading bacteriophage enzymes: alternatives to antibiotics 2008. Univ of Turku, Jukka Finne. Candidate resigned 2013.
16. **Annamari PAINO**: Pathogen-host crosstalk in molecular level using *Aggregatibacter actinomycetemcomitans* as a biofilm forming model organism 2009. Univ of Turku, Riikka Ihalin. PhD thesis 2014.
17. **Elisa Kallio**: The proatherogenic properties of triglyceride-enriched lipoproteins in periodontitis, 2010, Univ of Helsinki, Pirkko Pussinen. PhD thesis 2014.
18. **Salla Jaakkola**: Novel extremophilic prokaryotic viruses: from molecular and structural characterization to evolution, 2012, Univ of Helsinki, Dennis Bamford and Hanna Oksanen. PhD thesis 2014.
19. **Kornelia Mikula**: Studies of structure, interactions and folding mechanism of trimeric autotransporter adhesins. 2012. Univ of Helsinki, Adrian Goldman. PhD thesis 2014.
20. **Katri Korpela**: Development of the gut microbiota in childhood - causes and consequences. 2013, Univ of Helsinki, Willem de Vos. PhD thesis 2016.
21. **Alejandra Culebro**. Glycobiology of *Campylobacter coli*. 2015. Mirko Rossi. PhD thesis 2018.
22. **Shahan Syed**, Univ of Helsinki, ongoing.
23. **Hanne Jouhten**, Univ of Helsinki, ongoing.
24. **Jaakko Leskelä**, Univ of Helsinki, ongoing.

SUPERVISION OF MSc STUDENTS (Graduate and MSc thesis title, University and year)

1. **Helena SEPPÄNEN**: Virulence plasmid associated autoagglutination of *Yersinia enterocolitica* and changes in protein profiles, University of Oulu, 1983

2. **Elise ERVELÄ:** Biodiversity of lipopolysacchride. Biodiversity in *Yersinia*, studies on the *hemH-gsk* intergenic region containing the lipopolysaccharide biosynthetic genes, University of Turku, 1999
3. **Bianca PLEVIER:** Genetic approach to temperature-mediated gene regulation in *Yersinia enterocolitica* serotype O:3, Hogeschool Brabant, Faculty of Laboratory Technology, Etten-Leur, The Netherlands, 1999.
4. **Agnieszka BRZEZINSKA:** Study of O-antigen expression in *Yersinia enterocolitica* serotype O:3 using luciferase reporter strains. University of Silesia, Katowice, Poland, 2002.
5. **Marta BIEDZKA:** Serum resistance factors of *Yersinia enterocolitica* O:3. University of Silesia, Katowice, Poland, 2002.
6. **Suvi HUTTUNEN:** Molecular characterization of bacteriophage ϕ R1-37. University of Helsinki, 2003.
7. **Patrycja PLUTA:** Bacteriophage genes and genomes in bacterial genomes: Studies with yersiniophage ϕ R1-37 and YerA41. University of Silesia, Katowice, Poland, 2003.
8. **Aneta GADOR:** Modified deoxyribonucleotides in prokaryotes. University of Silesia, Katowice, Poland, 2005.
9. **Rafal STACZEK:** Small regulatory RNA molecules in bacteria. University of Silesia, Katowice, Poland, 2005.
10. **Agata KOSAREWICZ.** BSc thesis. Molecular basis of human factor H binding to *Yersinia enterocolitica* serotype O:3. University of Silesia, Katowice, Poland, 2007.
11. **Katarzyna FREJ.** Development of reporter systems to study temperature regulation of O-antigen expression in *Yersinia enterocolitica* serotype O:3. University of Silesia, Katowice, Poland, 2007
12. **Ewelina PRZYDACZ.** Characterization of transduction by bacteriophage ϕ R1-37. University of Silesia, Katowice, Poland, 2008
13. **Susanna NYKÄNEN.** Serum resistance of *Yersinia enterocolitica*: Role of YadA, Ail and LPS in formation of membrane attack complex. University of Helsinki, 2008
14. **Agata KOSAREWICZ.** Temperature regulation of the O-antigen gene cluster of *Yersinia enterocolitica* serotype O:3. University of Silesia, Katowice, Poland, 2008
15. **Magda SZELIGA.** Utilization of luciferase reporter system to study the putative promoters of bacteriophage R1-37 and its transcriptional strategy in bacterial host. University of Silesia, Katowice, Poland, 2009
16. **Laura Kalin-Mänttärä.** Bakteriofagi ϕ R1-37 geenien *g232-g233* sääteilyalue. University of Helsinki, 2012.
17. **Anu Wicklund.** Kliinisille ESKAPEE-bakteerikannoille spesifisten bakteriofagien eristäminen ja karakterisointi faagiterapiaa varten. University of Helsinki, 2014.
18. **Roosa Savolainen.** Konjugatiivisen plasmidin käyttö bakteerien välisessä nanoverkkoviestinnässä, University of Helsinki, 2015.
19. **Eliel Niukkanen.** Pending
20. **Tommi Patinen.** In-depth Analysis of *Staphylococcus aureus* -infecting phage SA14P1. University of Jyväskylä. 2017
21. **Suleiman Mohammed Qasim.** 2018
22. **Milla-Maaria Trivedi.** 2018

ORGANIZER OF SCIENTIFIC MEETINGS

1. **IV Turku Microbiology Symposium** on 'Animal Models and Molecular Mimicry', March 11, 1988, Turku, Finland.
2. **IX Turku Microbiology Symposium** on 'Pathogenetic Determinants in Microbial Infections', September 28, 1990, Turku Finland.
3. **XII Turku Microbiology Symposium** on 'Molecular biology of Bacterial Virulence', March 26, 1993, Turku, Finland.
4. **American Society for Microbiology General Meeting**, May 23-27, 1994, Las Vegas, Nevada: **Session 52.** Chromosomally-encoded Virulence Factors of the Enteropathogenic Yersiniae.
5. **The Fifth BioCity Symposium** on 'From Genes to Proteins' September 12-13, 1995, Turku Finland.
6. **The Sixth BioCity Symposium** on 'Cellular Survival' September 19-20, 1996, Turku Finland.
7. **XIV Turku Microbiology Symposium** on 'Modern methods for microbial detection and identification', October 24, 1997, Turku, Finland.

8. **XV Turku Microbiology Symposium** on 'Cellular Microbiology', October 20-21, 2000, Turku, Finland.
9. **XVI Turku Microbiology Symposium** on From Microbial Pathogenesis to Diagnostics – 'A Systems Biology Approach, April 4, 2002, Turku, Finland.
10. **8th International Symposium on *Yersinia***, September 4-8, 2002 Turku, Finland.
11. **1st Finnish Microbial Pathogenesis Day**, September 18, 2003, Helsinki, Finland.
12. **2nd Finnish Microbial Pathogenesis Day**, October 7, 2004, Helsinki, Finland
13. **3rd Finnish Microbial Pathogenesis Day**, October 5, 2005, Helsinki, Finland
14. **4th Finnish Microbial Pathogenesis Day**, September 20, 2006, Helsinki, Finland
15. **5th Finnish Microbial Pathogenesis Day**, October 31, 2007, Helsinki, Finland
16. **Member** of the International Advisory Board of the XII International Congress of Bacteriology and Applied Microbiology (IUMS), August 5-8, 2008, Istanbul, Turkey.
17. **6th Finnish Microbial Pathogenesis Day**, October 8, 2008, Helsinki, Finland
18. **7th Finnish Microbial Pathogenesis Days**, October 21-22, 2009, Helsinki, Finland
19. **4th Baltic Meeting on Microbial Carbohydrates**, September 19-22, 2010, Hyytiälä Forest Station, Finland.
20. **8th Finnish Microbial Pathogenesis Days**, November 17-18, 2010, Helsinki, Finland
21. **9th Finnish Microbial Pathogenesis Days**, November 2-3, 2011, Helsinki, Finland
22. **10th Finnish Microbial Pathogenesis Days**, August 15-16, 2012, Helsinki, Finland
23. **International Advisory Board Member, 5th Baltic Meeting on Microbial Carbohydrates**, September 2-6, 2012, Suzdal, Russia
24. **Scientific Advisory Board Member, 11th International Symposium on *Yersinia***, June 24-28, 2013 Suzhou, China.
25. **11th Finnish Microbial Pathogenesis Days**, August 21-22, 2013, Helsinki, Finland
26. **12th Finnish Microbial Pathogenesis Days**, August 13-14, 2014, Helsinki, Finland
27. **International Advisory Board Member, 6th Baltic Meeting on Microbial Carbohydrates**, September 7-10, 2014, Gdansk, Poland
28. **13th Finnish Microbial Pathogenesis Days**, August 19-20, 2015, Helsinki, Finland
29. **14th Finnish Microbial Pathogenesis Days**, August 23-24, 2016, Helsinki, Finland
30. **International Advisory Board Member, 7th Baltic Meeting on Microbial Carbohydrates**, September 25-29, 2016, Rostock, Germany.
31. **15th Finnish Microbial Pathogenesis Days**, August 21-23, 2017, Helsinki, Finland.
32. **16th Finnish Microbial Pathogenesis Days**, August 29-30, 2018, Helsinki, Finland.
33. **International Advisory Board Member, 8th Baltic Meeting on Microbial Carbohydrates**, September 9-12, 2018, Dublin, Ireland.

OFFICIAL DISSERTATION OPPONENT

1. PhD thesis of **Björn DAGBERG**, (Department of Microbiology, University of Umeå, Sweden) on REGULATION OF VIRULENCE-ASSOCIATED GENES IN *ESCHERICHIA COLI*: INVOLVEMENT OF HISTONE-LIKE PROTEIN H-NS. Umeå, Sweden, June 3, 1993.
2. PhD thesis of **Pertti KOSKI** (Department of General Microbiology, University of Helsinki, Finland) on CATIONIC PROTEINS AND POLYAMINES AS CONSTITUENTS OF THE ENTEROBACTERIAL OUTER MEMBRANE. Helsinki, Finland, September 3, 1993.
3. Doctor of Veterinary Medicine thesis of **Kristiina ASPLUND** (Department of Food and Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, Finland) on EPIDEMIOLOGICAL AND ECOLOGICAL ASPECTS OF *YERSINIA ENTEROCOLITICA* SEROTYPE O:3, October 9, 1998
4. PhD thesis of **Paula SALO** (National Public Health Institute and Department of Biosciences, Division of General Microbiology, University of Helsinki, Finland) on EVALUATION OF SYNTHETIC PEPTIDES AND PCR IN THE DIAGNOSTICS OF PNEUMOCOCCAL INFECTIONS, February 26, 1999
5. PhD thesis of **Juha KAUPPINEN** (Department of Clinical Microbiology, Faculty of Medicine, University of Kuopio, Finland) on APPLICATIONS OF DNA-BASED METHODS FOR TYPING AND IDENTIFICATION OF NONTUBERCULOUS MYCOBACTERIA, May 12, 2000.
6. PhD thesis of **Markku KESKIMÄKI** (Laboratory of Enteric Pathogens, National Public Health Institute, Helsinki, and Department of Applied Chemistry and Microbiology, University of Helsinki, Finland) on SHIGA TOXIN-PRODUCING AND OTHER DIARRHOEAGENIC *ESCHERICHIA COLI* IN FINLAND: PHENO-AND GENOTYPIC EPIDEMIOLOGY, May 11, 2001.

7. Doctor of Veterinary Medicine thesis of **Maria FREDRIKSSON-AHOMAA** (Department of Food and Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, Finland) on MOLECULAR EPIDEMIOLOGY OF YADA-POSITIVE *YERSINIA ENTEROCOLITICA*, June 8, 2001.
8. PhD thesis of **Rickard KNUTSSON** (Applied Microbiology, Lunds Tekniska Högskola) on 'DIAGNOSTIC PCR FOR THE DETECTION OF *YERSINIA ENTEROCOLITICA* AND *SALMONELLA* IN THE FOOD-CHAIN: RELIABILITY OF PCR PERFORMANCE', December 12, 2001
9. PhD thesis of **Yulong WANG** (Dept of Biochemistry, University of Turku, Turku Finland) on 'TAILORING OF ACLACINOMYCIN ANTIBIOTICS BY AKLAVINONE-1-HYDROXYLASE (RDM_E), ACLACINOMYCIN METHYL ESTERASE (RDM_C) AND ACLACINOMYCIN-10-HYDROXYLASE (RDM_B)', December 19, 2001.
10. Doctor of Veterinary Medicine thesis of **Miia LINDSTRÖM** (Department of Food and Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, Finland) on 'DIAGNOSTICS OF *CLOSTRIDIUM BOTULINUM* AND THERMAL CONTROL OF NONPROTEOLYTIC *C. BOTULINUM* IN REFRIGERATED PROCESSED FOODS', June 19, 2003.
11. PhD thesis of **Annika SAUKKORIPI** (Department of Medical Microbiology, University of Oulu) on 'DETECTION OF PNEUMOCOCCUS BY PCR', November 29, 2003.
12. PhD thesis of **Dilek TEZCAN-MERDOL** (Microbiology and Tumor Biology Center, Karolinska Institutet, Stockholm, Sweden) on 'THE *SALMONELLA ENTERICA* VIRULENCE PLASMID: ITS ROLE IN BACTERIAL ADAPTATION TO MAMMALIAN AND PROTOZOAN CELLS', May 27, 2004.
13. External examiner of PhD thesis of **Emilisa FRIRDICH** (Department of Molecular and Cellular Biology, University of Guelph, Ontario, Canada) on "LIPOPOLYSACCHARIDE INNER CORE OLIGOSACCHARIDE BIOSYNTHESIS AND OUTER MEMBRANE STABILITY IN *ESCHERICHIA COLI* AND *KLEBSIELLA PNEUMONIAE*", June 17, 2005.
14. Doctor of Dental Medicine thesis of **Laura LAKIO** (Department of Dentistry, University of Helsinki) on "EVOLUTIONARY LINEAGES OF *ACTINOBACILLUS ACTINOMYCETEMCOMITANS* BEAR DIVERSIFIED TRAITS FOR ITS ROLE AS A MEMBER OF NORMAL FLORA AND AS A PATHOGEN". August 12, 2005.
15. PhD thesis of **Leandro LOBO** (Department of Biological and Environmental Sciences, University of Helsinki) on "FUNCTIONAL STUDIES OF PURIFIED TRANSMEMBRANE PROTEASES, OMP_{TINS}, OF *YERSINIA PESTIS* AND *SALMONELLA ENTERICA*". October 19, 2006.
16. PhD thesis of **Chun-Mei Li** (Department of Biological and Environmental Sciences, University of Helsinki) on "TYPE III SECRETION SYSTEM-ASSOCIATED PILUS OF *PSEUDOMONAS SYRINGAE*". March 28, 2007.
17. PhD thesis of **Liisa RÄISÄNEN** (Department of Biology, University of Oulu) on 'PHAGE-HOST INTERACTIONS IN *LACTOBACILLUS DELBRUECKII*: HOST RECOGNITION AND TRANSCRIPTION OF EARLY PHAGE GENES'. May 4, 2007.
18. PhD thesis of **Camilla PURANEN** (Department of Clinical Chemistry, University of Tampere)"CHLORAMBUCIL-INDUCED TOXICITY, MUTAGENICITY AND GENE EXPRESSION ALTERATIONS IN NORMAL AND DNA REPAIR-DEFICIENT *ESCHERICHIA COLI* STRAINS", November 16, 2007.
19. PHD thesis of **Annika ELOMAA** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "*BORDETELLA PERTUSSIS* - VACCINATION AND STRAIN VARIATION". November 21, 2008.
20. PhD thesis of **Soile JAATINEN** (Dept of Genetics, University of Helsinki, Helsinki, Finland) on "LIPID-CONTAINING ICOSAHEDRAL DSDNA BACTERIOPHAGES: ENTRY, EXIT AND STRUCTURE", March 20, 2009
21. PhD thesis of **Merja RANTALA** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "MACROLIDE RESISTANCE OF *STREPTOCOCCUS PNEUMONIAE* IN FINLAND", April 17, 2009
22. PhD thesis of **Naeem ANWAR** (Department of Microbiology Tumor and Cell Biology, Karolinska Institutet, Stockholm, Sweden) on 'OXIDOREDUCTASES AND RNA DEGRADOSOME CONTROLLING VIRULENCE-ASSOCIATED TRAITS IN *SALMONELLA ENTERICA* SEROVAR TYPHIMURIUM', September 26, 2013
23. Doctor of Veterinary Medicine thesis of **Sonja VIRTANEN** (Department of Food and Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, Finland) on 'EPIDEMIOLOGY OF *YERSINIA ENTEROCOLITICA* IN PIG FARMS', FEBRUARY 21, 2014.
24. PhD thesis of **Zhen Zhang** (Department of Food and Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, Finland) on 'CHARACTERIZATION OF NEUROTOXIN GENE LOCATION, TOXIGENESIS AND COLD TOLERANCE IN *CLOSTRIDIUM BOTULINUM*'. NOVEMBER 28, 2014.
25. PhD Thesis of **Xing Wan** (Department of Food and Environmental Sciences, Faculty of Agriculture and Forestry, University of Helsinki) on "*LEUCONOSTOC* BACTERIOCINS AND THEIR APPLICATION IN GENOME EDITING". June 9, 2017.
26. External examiner of PhD thesis of **Lukas Lis** (University of Nottingham). "THE ISOLATION AND CHARACTERIZATION OF CAMPYLOBACTER-SPECIFIC BACTERIOPHAGES FROM PORCINE ORIGIN". September 19, 2017.
27. PhD thesis of **Anna Nilsson** (Department of Medical Sciences, Clinical Microbiology, Uppsala University, Uppsala, Sweden) on 'CHARACTERIZATION OF *CAMPYLOBACTER JEJUNI* AND *CAMPYLOBACTER COLI* WATER ISOLATES', March 23, 2018.

EXTERNAL EXAMINER

1. Examiner of PhD thesis of **Debbie MACPHERSON** (Department of Microbiology and Immunology, University of Adelaide, Adelaide, 5001 Australia) on CHARACTERIZATION OF THE RFB REGION OF *SHIGELLA FLEXNERI*. (Statement signed in Turku, Finland. April 4, 1995)

2. Examiner of PhD thesis of **Graig DANIELS** (Department of Microbiology and Immunology, University of Adelaide, Adelaide, Australia 5005) on CHARACTERIZATION OF PROTEINS INVOLVED IN *SHIGELLA FLEXNERI* O-ANTIGEN BIOSYNTHESIS. Statement signed in Turku, Finland. August 22, 1999.
3. Examiner of PhD thesis of **Elvia PACINELLI** (Department of Microbiology, University of Sydney, Sydney, Australia) on MOLECULAR ANALYSIS OF THE O-ANTIGEN GENE CLUSTERS OF *YERSINIA PSEUDOTUBERCULOSIS*. Statement signed in Turku, Finland. October 2, 2002.
4. Examiner of PhD thesis of **Sharon Mei TENNANT** (Department of Microbiology and Immunology, University of Melbourne, Melbourne, Australia) on "IDENTIFICATION OF VIRULENCE MARKERS IN *YERSINIA ENTEROCOLITICA* BIOTYPE 1A". Statement signed in Helsinki, Finland. November 10, 2004.
5. Examiner of PhD thesis of **Swee Seong Tang** (Australian National University, Canberra, Australia) on "MOLECULAR CHARACTERIZATION OF NOVEL SEROTYPE 1C OF *SHIGELLA FLEXNERI*". Statement signed in Helsinki, Finland. April 16, 2013.
6. Examiner of PhD thesis of **Divya George** (Australian National University, Canberra, Australia) on "CHARACTERIZATION OF NOVEL VIRULENCE FACTORS OF *S. FLEXNERI* AND DEVELOPING *C. ELEGANS* AS AN ANIMAL MODEL FOR *SHIGELLA* INFECTION". Statement signed in Helsinki, Finland. April 2, 2014.
7. Examiner of PhD thesis of **Richa Jakhelia** (Australian National University, Canberra, Australia) on "MOLECULAR STUDIES OF THREE NOVEL BACTERIOPHAGES OF *SHIGELLA FLEXNERI*". Statement signed in Helsinki, Finland. March 6, 2015.
8. Examiner of PhD thesis of **Matthew Doyle** (Department of Molecular and Cellular Biology, School of Biological Sciences, the University of Adelaide, Adelaide, Australia) on "POLARITY AND SECRETION OF *SHIGELLA FLEXNERI* ICSA: A CLASSICAL AUTOTRANSPORTER. Statement signed in Helsinki, Finland. September 30, 2015.

DISSERTATION REFEREE OF PhD THESES

9. Dissertation Referee of the PhD thesis of **Susanna MUTTILAINEN** (National Public Health Institute and University of Helsinki, Helsinki, Finland) on CLASS 1 PORIN OF *NEISSERIA MENINGITIDIS* PRODUCED IN *BACILLUS SUBTILIS*: A VACCINE CANDIDATE FOR BACTERIAL MENINGITIS'. (Statement signed in Turku, Finland, October 11, 1995).
10. Dissertation Referee of the PhD thesis of **Riitta VUORIO** (Dept of Bacteriology and Serology, University of Helsinki, Helsinki, Finland) on 'THE LIPID A ACYLTRANSFERASES LPXA AND LPXD OF GRAM-NEGATIVE ENTERIC BACTERIA'. Statement signed in Turku, Finland, January 5, 1996.
11. Dissertation Referee of the PhD thesis of **Kristiina YLIHONKO** (Dept of Biochemistry, University of Turku, Turku Finland) on 'STUDIES ON ANTHRACYCLINE BIOSYNTHESIS: CHARACTERIZATION OF *STREPTOMYCES GALILAEUS* MUTANTS AND CONSTRUCTION OF STRAINS PRODUCING HYBRID ANTHRACYCLINES BY HETEROLOGOUS COMPLEMENTATION'. Statement signed in Turku, Finland, May 8, 1996.
12. Dissertation Referee of the PhD thesis of **Antti VASALA** (Dept of Biology, University of Oulu, Oulu Finland) on "CHARACTERIZATION OF SOME *LACTOBACILLUS* BACTERIOPHAGE LL-H GENES AND PROTEINS HAVING BIOTECHNICAL INTEREST". Statement signed in Turku, Finland, September 30, 1998.
13. Dissertation Referee of the PhD thesis of **Marko VIRTÄ** (Dept of Biochemistry, Biotechnology and Food Chemistry, University of Turku, Turku Finland) on "IMPROVING BIOLUMINESCENT BACTERIAL SENSOR SYSTEMS". Statement signed in Turku, Finland, April 22, 1999.
14. Dissertation Referee of the PhD thesis of **Kaarina LÄHTEENMÄKI** (Dept of Biosciences, Division of General Microbiology, University of Helsinki, Helsinki, Finland) on "BACTERIAL METASTASIS: INTERACTION OF INVASIVE PATHOGENS WITH THE EXTRACELLULAR MATRIX AND PLASMINOGEN". Statement signed in Turku, Finland, May 5, 1999.
15. Dissertation Referee of the PhD thesis of **Jussi KURITTU** (Dept of Biochemistry, Biotechnology and Food Chemistry, University of Turku, Turku Finland) on "DEVELOPMENT OF BIOLUMINESCENT SENSOR BACTERIA FOR THE DETECTION OF TETRACYCLINE ANTIBIOTICS". Statement signed in Turku, Finland, February 29, 2000.
16. Dissertation Referee of the PhD thesis of **Elias HAKALEHTO** (Dept of Environmental Sciences, University of Kuopio, Kuopio, Finland) on "SURFACE COMPONENTS OF *PECTINATUS CEREVISIIPHILUS* AND *P. FRISINGIENSIS*. USE OF SYNTHETIC PEPTIDES AS AID IN DETECTION AND CHARACTERIZATION ". Statement signed in Turku, Finland, May 6, 2000.
17. Dissertation Referee of the PhD thesis of **Monica ÖSTERBLAD** (Dept of Biology, Åbo Akademi University, Turku Finland) on "ANTIMICROBIAL RESISTANCE IN ENTEROBACTERIA OF NON-CLINICAL ORIGIN". Statement signed in Turku, Finland, August 16, 2000.
18. Dissertation Referee of the PhD thesis of **Riitta KOSKINEN** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "MOLECULAR CHARACTERIZATION OF CHICKEN CD4 AND CD5". Statement signed in Turku, Finland, September 19, 2001.
19. Dissertation Referee of the PhD thesis of **Saara SALMENLINNA** (Department of Microbiology, National Public Health Institute, Helsinki, Finland) on "MOLECULAR EPIDEMIOLOGY OF METHICILLIN-RESISTANT *STAPHYLOCOCCUS AUREUS* IN FINLAND". Statement signed in Turku, Finland, August 27, 2002.
20. Dissertation Referee of the PhD thesis of **Marja PIHLAJAMÄKI** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "ANTIMICROBIAL RESISTANCE IN *STREPTOCOCCUS PNEUMONIAE*, WITH SPECIAL REFERENCE TO MACROLIDES ". Statement signed in Turku, Finland, September 19, 2002.

21. Dissertation Referee of the PhD thesis of **Iikka M. HELANDER** (Department of Applied Chemistry and Microbiology, University of Helsinki, Finland) on " LIPOPOLYSACCHARIDES OF ANAEROBIC BEER SPOILAGE BACTERIA OF THE GENUS *PECTINATUS* ". Statement signed in Turku, Finland, October 18, 2002.
22. Dissertation Referee of the PhD thesis of **Johanna MÄKINEN** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "MOLECULAR CHARACTERIZATION AND EVOLUTION OF BORDETELLA PERTUSSIS AND BORDETELLA PARAPERTUSSIS, WITH SPECIAL REFERENCE TO ANTIGENS PERTACTIN AND PERTUSSIS TOXIN". Statement signed in Turku, Finland, March 7, 2003.
23. Dissertation Referee of the PhD thesis of **Minna MÄKI** (Dept of Bacteriology an Immunology, Haartman Institute, University of Helsinki, Helsinki, Finland) on "CONVERSION OF GDP-MANNOSE INTO VARIOUS DEOXYHEXOSES IN GRAM-NEGATIVE BACTERIA ". Statement signed in Helsinki, Finland, May 29, 2003.
24. Dissertation Referee of the PhD thesis of **Maini KUKKONEN** (Dept of Biosciences, Division of General Microbiology, University of Helsinki, Helsinki, Finland) on "STRUCTURE-FUNCTION RELATIONSHIPS IN THE OMP_{TIN} FAMILY OF ENTEROBACTERIAL PROTEASES". Statement signed in Helsinki, Finland, September 26, 2003.
25. Dissertation Referee of the PhD thesis of **Auli PAANANEN** (Department of Applied Chemistry and Microbiology, University of Helsinki, Finland) on " THE EFFECTS OF IONOPHORIC BACTERIAL TOXINS OF FOOD AND ENVIRONMENTAL ORIGINS TO NATURAL KILLER CELLS ". Statement signed in Helsinki, Finland, March 1, 2004
26. Dissertation Referee of the PhD thesis of **Pekka RAPPU** (Department of Biochemistry, University of Turku, Finland) on "DE NOVO PURINE NUCLEOTIDE BIOSYNTHESIS IN GRAM-POSITIVE BACTERIA: REGULATION OF *BACILLUS SUBTILIS PURA* ENCODING ADENYLOSUCCINATE SYNTHETASE". Statement signed in Turku, Finland, May 7, 2004
27. Dissertation referee of PhD thesis of **Heidi Johanna HYYTIÄINEN** (Department of Genetics, University of Helsinki, Finland) on "THE EXP_A REGULATORY NETWORK CONTROLLING VIRULENCE IN THE PLANT PATHOGEN *ERWINIA CAROTOWORA*". Statement signed in Helsinki, Finland. May 15, 2005.
28. Dissertation referee of Doctor of Medicine thesis of **Outi PEROLA** (Department of Medical Microbiology, University of Kuopio, Finland) on HOSPITAL WATER SUPPLY AS A SOURCE OF NOSOCOMIAL INFECTIONS. Statement signed in Helsinki, Finland. January 30, 2006.
29. Dissertation referee of PhD thesis of **Hanna-Leena ALAKOMI** (Department of Applied Chemistry and Microbiology, University of Helsinki, Finland) on WEAKENING OF THE GRAM-NEGATIVE BACTERIAL OUTER MEMBRANE – A TOOL FOR INCREASING MICROBIOLOGICAL SAFETY. Statement signed in Helsinki, Finland. April 19, 2007.
30. Dissertation Referee of the PhD thesis of **Sofia FORSSTEN** (Dept of Med Microbiology, University of Turku, Turku, Finland) on "GENETIC BASIS AND DIAGNOSTICS OF EXTENDED-SPECTRUM β -LACTAMASES AMONG *ENTEROBACTERIACEAE* IN FINLAND". Statement signed in Helsinki, Finland. August 20, 2009.
31. Dissertation Referee of the PhD thesis of **Anne JOKILAMMI** (Dept of Med Biochemistry, University of Turku, Turku, Finland) on "INACTIVE ENDOSIALIDASE-BASED DETECTION OF BACTERIAL AND ONCOFETAL POLYSIALIC ACID". Statement signed in Helsinki, Finland. December 28, 2009.
32. Dissertation Referee of the PhD thesis of **Virginija CVIRKAITE-KRUPOVIC** (Dept of General Microbiology, University of Helsinki, Helsinki, Finland) on "ENTRY OF MEMBRANE-CONTAINING BACTERIOPHAGES INTO THE HOST CELLS ". Statement signed in Helsinki, Finland. 27.4.2010.
33. Dissertation Referee of the PhD thesis of **Salha IBRAHEM** (National Institute of Public Health and Welfare, Helsinki, Finland) on "METHICILLIN RESISTANCE IN STAPHYLOCOCCI HORIZONTAL TRANSFER OF MOBILE GENETIC ELEMENT (SCC_{MEC}) BETWEEN STAPHYLOCOCCAL SPECIES". Statement signed in Helsinki, Finland. 30.4.2010.
34. Dissertation Referee of the PhD thesis of **Emilia VARHIMO** (Dept of Veterinary Biosciences, University of Helsinki, Helsinki, Finland) on "INDUCIBLE MUTAGENESIS AND BIOFILM FORMATION IN *STREPTOCOCCUS UBERIS*". Statement signed in Helsinki, Finland. 3.8.2010.
35. Dissertation Referee of the Doctor of Medicine thesis of **Annika KOUKI** (Dept of Med Biochemistry, University of Turku, Turku, Finland) on "IDENTIFICATION AND CHARACTERIZATION OF A NOVEL ADHESIN OF *STREPTOCOCCUS SUIS* AND ITS USE AS A TARGET OF ADHESION INHIBITION AND BACTERIAL DETECTION". Statement signed in Helsinki, Finland. August 30, 2012.
36. Dissertation Referee of the PhD thesis of **Juha KORHONEN** (Turku Centre for Biotechnology, University of Turku, Turku, Finland) on "BACTERIUM – HOST CELL INTERACTIONS IN *CHLAMYDIA PNEUMONIAE* INFECTION: THE BACTERIAL INVASION AND INTRACELLULAR GROWTH". Statement signed in Helsinki, Finland. September 7, 2012.
37. Dissertation referee of PhD thesis of **Johanna NYKYRI** (Department of Applied Chemistry and Microbiology, University of Helsinki, Finland) on VIRULENCE OF SOFT-ROT ENTEROBACTERIA AFFECTING POTATO. Statement signed in Helsinki, Finland. August 19, 2013.
38. Dissertation Referee of the PhD thesis of **Pradeep KONDADI** (Dept of Veterinary Biosciences, University of Helsinki, Helsinki, Finland) on "GENOMICS AND FUNCTIONAL GENETICS OF THE ZOOONOTIC PATHOGEN *HELICOBACTER BIZZOZERONII*". Statement signed in Helsinki, Finland. SEPTEMBER 6, 2013
39. Dissertation Referee of the PhD thesis of **Ana Sencilo** (Faculty of Biosciences, University of Helsinki, Helsinki, Finland) on "GENOMICS OF BACTERIAL AND ARCHAEAL VIRUS ISOLATES FROM EXTREME AQUATIC ENVIRONMENTS". Statement signed in Helsinki, Finland. JULY 30, 2014

40. Dissertation Referee of the PhD thesis of **Juho Vuononvirta** (Department of Pediatrics, University of Turku, Turku, Finland) on "NASOPHARYNGEAL COLONIZATION BY PATHOGENIC BACTERIA: EFFECT OF POLYMORPHISMS IN INNATE IMMUNE GENES OF YOUNG CHILDREN". Statement signed in Helsinki, Finland. March 6, 2015.
41. Dissertation Referee of the PhD thesis of **Kornelia Mikula** (Faculty of Biosciences, University of Helsinki, Helsinki, Finland) on "TRIMERIC AUTOTRANSPORTERS AND THEIR LIGANDS - STRUCTURAL STUDIES". Statement signed in Helsinki May 3, 2017.
42. Dissertation Referee of the PhD thesis of **Milka Hammarén** (Faculty of Biosciences, University of Tampere, Tampere, Finland) on " ZEBRAFISH MODEL FOR STUDYING THE DISEASE SPECTRUM OF TUBERCULOSIS". Statement signed in Helsinki September 29, 2017.