CURRICULUM VITAE

Seppo Ylä-Herttuala

Born	January 5, 1957, Tampere, Finland
Marital status	Married 1980, Marja-Leena Children: Aleksi, born 1984, and Elias, born 1989

Education

1978	B. Med., University of Tampere, Finland
1982	M.D., University of Tampere, Finland
1987	Ph.D. (Medicine), University of Tampere, Finland

Professional positions

1983-85	Research Associate, Medical Biochemistry, University of Tampere
1985-88	Research Assistant, Research Council for Medicine, Academy of Finland
1988-91	Postdoctoral Fellow (Dr. Daniel Steinberg and Dr. Joseph L. Witztum), University of California, San Diego, La Jolla, USA
1991-95	Senior Lecturer in Medical Biochemistry, University of Tampere
1991-92	Junior Research Fellow, Research Council for Medicine, Academy of Finland
1992-95	Senior Research Fellow, Research Council for Medicine, Academy of Finland
1995-	Professor of Molecular Medicine, University of Kuopio
1998-1999	Established Investigator, Academy of Finland
2005-	Research Professor of the Finnish Academy of Sciences
2005-2006	Visiting Professor, Salk Institute, Laboratory of Genetics (Prof. Inder Verma), USA

Memberships/Chairman

1982-	Member of the Finnish Medical Association
1982-	Member of the Scandinavian Society for Atherosclerosis Research
1986-93	Secretary, Scandinavian Society for Atherosclerosis Research
1989-94	Board Member, European Vascular Biology Association
1991-	Member of the American Heart Association, Council of Arteriosclerosis
1991-	Member of the Society for Free Radical Research
1992-	Member of the Working Group on Atherosclerosis, European Society of Cardiology
1993-	Member of the European Atherosclerosis Society
1994-	Member of the European Society for Clinical Investigation
1995-	Member of the European Society of Gene Therapy
1995-1999	Board Member, Working Group on Atherosclerosis, European Society of Cardiology
1997-	Member of the American Society of Gene Therapy
1999-2000	Treasurer, European Society of Cardiology, Working Group on Atherosclerosis
1999-	Founding Chairman, Finnish Gene Therapy Society
2000-2001	Vice Chairman, European Society of Cardiology, Working Group on Atherosclerosis
2001-2003	Chairman, European Society of Cardiology, Working Group on Atherosclerosis

2000-2005	Chairman, Committee on Gene Therapy of Cardiovascular Diseases, European Society of Gene Therapy
2001-	Fellow of the European Society of Cardiology (F.E.S.C.)
2001-2005	Member, American Society of Gene Therapy, Ethics Committee
2001-	Chairman, Department of Biotechnology and Molecular Medicine, A.I.Virtanen Institute, University of Kuopio
2004-2005	Member, European Society of Cardiology, Basic Science Council
2005-	Board Member, European Society of Gene Therapy (from 2007 European Society of Gene and Cell Therapy)
2006-	Member, American Society of Gene Therapy, Cardiovascular Committee
2006-2007	Member, American Society of Gene Therapy, 2007 Nominating Committee
2006-2008	Board Member, European Society of Cardiology
2008-	Vice President and President-Elect, European Society of Gene and Cell Therapy

Selected Scientific Expert Tasks

1986-88	Academy of Finland: Secretary, Project for The Evaluation of The International Level of Research in Cardiovascular Diseases in Finland.
1988-	Reviewer for a number of Journals (over 20), including *Lancet, J. Clin. Invest., Circulation, Circ. Res., JACC, Arterioscler. Thromb. Vasc. Biol., Atherosclerosis, J. Lipid. Res., Am. J. Pathol., Biochem. J., Hum. Gene Ther., Gene Ther., Mol. Med. Today, Nat. Med., PNAS, EMBO J., Nature, J.Biol. Chem., J. Vasc. Surg., Mol.Therapy, J. Gene Med., FASEB J., Eur. Heart J., Cardiovasc. Res., J.Vasc. Res.*
1994-	Reviewer of several International Grant Applications, such as European Union Biomed program, Swedish Medical Research Council, Wellcome Trust, London, Austrian Medical Research Council, Netherlands Heart Foundation, Belgian Research Council, Swiss National Science Foundation, Israeli Science Foundation, Italian Thelethon Gene Therapy program and Ireland Health Research Board
1995-	Evaluation of the candidates for Professorship, Associate Professorship, Reader and Senior Lecturer for several international universities (University College London, Karolinska Institute, Harvard University, Brigham and Women's Hospital, Mayo Clinic etc.), 30 times
1997-	Board Member, Finnish Heart Foundation
1997-	Member of the Scientific Advisory Board, Finnish Heart Foundation
1997	European Union Expert Panel. Future Directions of Cardiovascular Diseases in EU
1998-	Member of the Scientific Committee of the Finnish Cancer Foundation
1999-2005	Board Member and Member of the Scientific Advisory Committee, Farmos Science Foundation
2000-	Board Member and Member of the Scientific Advisory Committee, Instrumentarium Science Foundation
2000-	Member of the Scientific Advisory Board, Finnish Insurance Companies
2000-2005	Member of Faculty 1000 Medical Genetics Section
2002-2006	Board Member, Finnish Genome Research Center, University of Helsinki
2003-	Board Member, Biocenter Oulu, University of Oulu
2008-	Director, Biocenter Kuopio

Service at Editorial Boards

1997-2005	Member of the Editorial Board, *Atherosclerosis*
1998-2000	Guest Co-Editor, *Current Opinion in Lipidology*
2000-	Member of the Editorial Board, *Journal of Antioxidants and Redox Signaling*
2000-	Member of the Editorial Board, *Human Gene Therapy*
2002-	Member of the Editorial Board, *Cardiovascular Research*
2002-	Member of the Editorial Board, *European Heart Journal*
2003-	Member of the Editorial Board, *Molecular Therapy*
2004-	Member of the Editorial Board, *Current Gene Therapy*

2004 Guest Editor, *European Heart Journal*, Vol. 6, Supplement E, 2004
2004- Member of the Editorial Board, *Journal of Gene Medicine*
2004- Member of the Editorial Board, *Gene Therapy*
2005- Member of the Editorial Board, *Acta Histochemica et Cytochemica*
2006- Member of the Editorial Board, *Reviews on Recent Clinical Trials*
2006- Member of the Editorial Board, *In Vivo*
2006- Member of the Editorial Board, *Recent Patents on Cardiovascular Drug Discovery*
2007- Member of the Editorial Board, *The Open Pharmacology Journal*
2007- Member of the Editorial Board, *The Open Genetics Journal, Open Genetics Reviews, Open Genetics Letters*
2008- Associate Editor, *The Journal of Gene Medicine*
2009- Associate Editor, *Molecular Therapy*

Honors and Awards

1986 Scandinavian Society for Atherosclerosis Research Annual Award to Young Investigator
1987 University of Tampere Medical Faculty Award, Best Thesis of the Year
1988 Fogarthy International Fellowship Award, NIH, USA
1991 Recipient of the Unto Uotila Award, Finnish Endocrinological Society
1992 Primus Doctorum at the 20th Anniversary of the Faculty of Medicine, University of Tampere
1992 European Atherosclerosis Society: First Price and Research Award in an International Research Competition (topic: Atherosclerosis, Lipids and Lipoproteins)
1993 G.B. Morgagni International Young Investigator Award, European Society for Metabolism
2000 University of Kuopio, Excellence in Science Award
2000 European Society for Clinical Investigation Award for Excellence in Science (Mack-Forster Award)
2000 European Society of Cardiology, Basic Science Lecture and Award
2001 Cardiovascular Research Award, Finnish Heart Foundation
2002 The Order of the White Rose of Finland, Knighthood, First Class
2004 Distinguished Recognition Medal (serial no. 50) from the City of Kuopio
2005 Honorary Fellow, Department of Medicine, University College London
2006 Member of the Finnish Academy of Science and Letters (Suomalainen Tiedeakatemia)
2007 Esko Nikkilä Lecture, Scandinavian Society of Atherosclerosis Research
2009 Matti Äyräpää Award (The Finnish Medical Society Duodecim)

POST-DOCTORAL TRAINING

University of California, San Diego, Department of Medicine, Division of Endocrinology and Metabolism (prof. Daniel Steinberg and prof. Joseph Witztum) 1988 - 1991.

VISITING SCIENTIST

British Heart Foundation visiting professor, King's College of Medicine and Dentistry, Department of Cardiology, London, U.K., 10.-31.10.1993.
Salk Institute for Biological Sciences (Prof. Inder Verma), Laboratory of Genetics, 16.8.2005-22.8.2006)

ORGANIZED INTERNATIONAL SCIENTIFIC CONFERENCES

XIV Annual European Conference on Vascular Biology; European Vascular Biology Association, Tampere, Finland, March 23-27, 1993 (Chairman of the Organizing Committee).
The VIth Symposium of the Finnish Cancer Institute, Kuopio, Finland, September 22-24, 2000 (Chairman of the Organizing Committee).
XVII Paulo Symposium/Finnish Gene Therapy Society International Scientific Symposium, Helsinki, Finland, September 12-14, 2002 (Co-organizer with Prof. Kari Alitalo).
XII Annual Congress of the European Society of Gene Therapy**, Tampere, Finland, November 4-7, 2004** (Chairman of the Organizing Committee).

INVITED LECTURES TO INTERNATIONAL SCIENTIFIC MEETINGS

1. "Development and Composition of Atherosclerotic Plaques", Helsinki 1.6.1984, **Helsinki Heart Symposium**.
2. "Development of Atherosclerotic Lesions", Helsinki 7.1.1985, **Lipoproteins and Coronary Heart Disease, Scientific Symposium, Lääketiede-85**.
3. "Role of Connective Tissue in Atherogenesis", Tampere 21.3.1986, **Tampereen lääkäripäivät 1986, Scientific Symposium**.
4."Characterization of lipoproteins isolated from normal and atherosclerotic arteries", Haikko, Porvoo 8.9.1989. **Ninth Paavo Nurmi Symposium: Lipoproteins and The Pathobiology of The Arterial Intima**.
5. "Biochemistry of the arterial wall in developing atherosclerosis." **Pediatric Aspects in Atherogenesis. New York Academy of Sciences**, Bethesda, Maryland, USA 2.-4.5.1991.
6. "The role of macrophages and oxidized lipoproteins in atherosclerosis."**Inflammation and Atherogenesis, First Duodecim Symposium**, Tampere 28.-31.5.1991.
7. "Oxidized lipoproteins and atherogenesis." **Hyperlipidemia and Coronary Heart Disease. Finnish Cardiological Society**, Hanasaari, Helsinki, 16.-18.8.1991.
8. "Gene expression and oxidized lipoproteins." **Special workshop on Antioxidants and Human Atherosclerosis. National Heart, Lung and Blood Institute, NIH**, Bethesda, Maryland, USA, 5.-6.9.1991.
9. "Gene expression in atherosclerotic lesions, oxidiced low density lipoprotein and the pathogenesis of atherosclerosis." **59th European Atherosclerosis Society Congress**, Nizza, France, 14.-21.5.1992.
10."Scavenger receptor expression in human atherosclerotic lesions."**Japanese Society for Atherosclerosis Research**, Osaka, Japan 18.-20.6.1992.
11."Oxidized LDL and atherogenesis", **XXTH Nordic Congress of Physiology and Pharmacology**, Copenhagen, Denmark 16.-19.8.1992.

12."Minimally-oxidized LDL and atherogenesis", **XIV Congress of the European Society of Cardiology**, Barcelona, Spain 30.8.-3.9.1992.
13."Modified lipoproteins", **Lipids and Lipoproteins in Medicine, International Workshop on lipids and lipoproteins**, University of Helsinki, Helsinki, 29.11.-4.12.1992.
14."Gene expression in atherosclerotic lesions", **Atherosclerosis-cellular processes and drug treatment**, Regensburg, Germany 4.-6.2.1993.
15."Free radicals and atherogenesis", **Freie Radikale in der Pädiatrie**, Fulda, Germany, 12.-13.2.1993.
16."Oxidized LDL, endothelial cells and atherosclerosis", **XIV European Section Meeting of the International Society for Heart Research**, Jerusalem, Israel, 9.-13.5.1993.
17."Fatty acids and LDL oxidation", **British Atherosclerosis Discussion Group Meeting**, Cambridge 23.-24.9.1993.
18."Oxidation of LDL, lipoxygenases and atherosclerosis", **British Heart Foundation Seminars on Atherosclerosis**, London 12.-13.10.1993.
19."Lipoxygenases and atherosclerosis", **Anti-atherosclerotic and Lipid-modifying Drugs**, London, 28.-29.10.1993.
20."The role of lipid oxidation in atherosclerosis", **William Harvey Research Conferences: Accelerated Atherosclerosis**, London, 30.11.- 1.12.1993, p. 8.
21."Oxidized LDL and gene expression in athrosclerotic lesions", **"28th Annual Scientific Meeting", European Society for Clinical Investigation**, Toledo, Spain, 20.-23.4.1994.
22."Oxidized LDL and nitric oxide in the vascular wall", **Endothelial Dysfunction and Cell Adhesion, International Workshop on Atherosclerosis**, Badenweiler, Germany, 5.-7.5.1994.
23."Biological properties of oxidized lipoproteins", **International Workshop, Lipoproteins and Arterial Wall, European Society of Cardiology Working Group Pathogenesis of Atherosclerosis,** Naples, Italy, 2.-3.6.1994.
24."15-lipoxygenase gene transfer into rabbit iliac arteries", **VIIIth International Symposium on the Biology of Vascular Cells**, Heidelberg, Germany, 30.8.-4.9.1994.
25."Gene expression by cells in atherosclerotic lesions", **Symposium on Modified Lipoproteins**, Whistler, Canada, October 5.-8.1994
26."Gene expression of oxidative and antioxidative enzymes in atherosclerotic lesions". **Xth International Symposium on Atherosclerosis**, Montréal, Canada, October 9-14, 1994.
27."Gene transfer and collar model: Preliminary Results", **The Wellcome Foundation Symposium, The Collar Model and Arterial Changes**, Beckenman, Kent, England, November 29-30, 1994.
28."Lipoprotein oxidation and atherosclerosis", **Graduate course on Molecular mechanisms of atherosclerosis, Karolinska Institutet**, Stockholm, Sweden, January 16-20, 1995.
29.“Monocyte-macrophages, leukocytes and eicosanoids“, **III International Symposium on Nitric Oxide Actions**, Barcelona, Spain, May 12, 1995.
30.“Oxidized LDL and atherogenesis“, **2nd Annual Copenhagen Atherosclerosis Conference**, Humlebeck, Denmark, May 18-21, 1995.
31.“Gene transfer techniques and cardiovascular diseases“, **A.I.Virtanen Centennial Symposium, The Frontiers of Contemporary Science**, Kuopio, Finland, June 5-7, 1995.
32.“Oxidized LDL and atherosclerosis“, **64th European Atherosclerosis Society Congress**, Utrecht, 10-13 June, 1995.
33.“LDL oxidation and atherosclerosis“, **Laboratory Medicine ‘95. 11th IFCC European Congress of Clinical Chemistry**, Tampere, Finland, 2-7 July, 1995.
34.“LDL oxidation and atherosclerosis“, **International Conference on Natural Anti-oxidants and Lipid Peroxidation in Atherosclerosis and Cancer**, Helsinki, August 22-25, 1995.
35.“Lipid oxidation and accumulation“, **XV European Congress of Pathology**, Copenhagen, Denmark, September 3-8, 1995.

36.“Gene therapy for cardiovascular disease“, **European LipoproteinClub, 18th Meeting**, Tutzing, Germany, 11-14 September, 1995.
37.“Gene expression of oxidative and antioxidative enzymes in atherosclerotic lesions“, **65th Meeting of the European Atherosclerosis Society**, Aarhus, Denmark, September 28-October 1, 1995.
38.“Abnormal gene expression in the arterial wall in atherogenesis“, **International Symposium of Molecular Genetics of Cardiovascular Disorders**, Regensburg, Germany, October 5-7, 1995.
39.“Gene transfer techniques for treatment of cardiovascular diseases“, **Symposium on Viruses as Tools and Targets in Biotechnology**, Helsinki, Finland, December 3-4, 1995.
40.“Gene expression in atherosclerotic lesions“. **International Symposium on Macrophage and Atherosclerosis**, Tokyo, Japan, January 27, 1996.
41.“Gene expression and the development of atherosclerotic lesions“. **The Kansai International Symposium on Atherosclerosis**, Kyoto, Japan, January 29, 1996.
42.“In vivo gene transfer into vascular wall, lipoxygenase and vascular endothelial growth factor“, **30th Annual Scientific Meeting of the European Society for Clinical Investigation**, Interlaken, Switzerland, April 24-27, 1996.
43.“Expression of antioxidant genes in atherosclerotic lesions“, **Rehbrücker Kolloquium, Deutsches Institut für Ernährungsforschung**, Potsdam, Germany, June 12-13, 1996.
44.“Gene delivery in coronary arteries“, **Molecular Mechanisms in Coronary Atherosclerosis and Restenosis, European Society of Cardiology**, Nice, France, June 27-29, 1996.
45.“Oxidized LDL and atherogenesis“, **The 7th Rappaport Symposium and Dahlia Greidinger Workshop on Plaque Destablization, Acute Coronary Syndromes and Atheroma Progression**, Haifa, Israel, October 7-9, 1996.
46.“Gene therapy for restenosis and atherosclerosis“, **Minisymposium Atherosclerosis, Max-Planck-Institut**, Bad Nauheim, Germany, November 18, 1996.
47.“Oxidized LDL in atherogenesis“, **2nd International Symposium on Atherosclerosis and Thrombosis**, Bangalore, India, December 19-21, 1996.
48.“Gene therapy of cancer“, **Scientific Symposium, Lääkäripäivät 1997**, Helsinki, Finland, January 7-8, 1997.
49.“Lipoprotein receptor gene expression in atherosclerotic lesions“, **68th Meeting of the European Atherosclerosis Society, Molecular Cell Biology and Atherogenesis**, Brugge, Belgium, May 7-10, 1997.
50.“Gene therapy of acquired diseases“, **Gene Therapy of Single Gene Disorders, International Ulla Hjelt Symposium**, Helsinki, Finland, June 7-10, 1997.
51.“Effect of vascular endothelial growth factor in intimal thickening in rabbit carotid arteries“, **EPHAR ‘97**, Milan, Italy, July 11-14, 1997.
52.“Lipoprotein modification: cellular mechanisms“, **Atherosclerotic Vascular Disease in Diabetes, Satellite Symposium of 16th IDF Congress**, Lappeenranta, Finland, July 25-27, 1997.
53.“Human arterial gene transfer“, **XIXth Congress of the European Society of Cardiology**, Stockholm, Sweden, August 24-28, 1997.
54.“Adventitial gene transfer to rabbit carotid arteries“, **XIth International Symposium on Atherosclerosis**, Paris, France, October 5-9, 1997.
55.“Relevance of LDL oxidation in vivo“, **Atherogenic LDL: Physiopathology and New Therapeutic Approaches, Satellite Symposium of the XIth International Symposium on Atherosclerosis**, Royaumont, France, October 2-4, 1997.
56.“Vascular gene transfer“, **EU Cardiovascular Research Forum**, Rome, Italy, October,20-21, 1997.
57.“Gene transfer to human peripheral arteries“, **American Heart Association (AHA) 70th Scientific Sessions**, Orlando, USA, November 9-12, 1997.
58.“Vascular gene transfer“, **Fifth Meeting of the European Working Group on Human Gene Transfer and Therapy**, Milan, Italy, November 21-23, 1997.
59.“Gene therapy of cardiovascular diseases“, **Wallenberg Laboratory Jubilee Symposium**, Gothenburg, Sweden, December 11-12, 1997.

60.“Cardiovascular gene therapy“, **Transgene Symposium on Cardiovascular Diseases**, Strasbourg, France, January 22, 1998.
61.“Oxidized LDL and atherogenesis“, **64. Jahrestagung der Deutschen Gesellschaft für Kardiologie - Herz- und Kreislaufforschung**, Mannheim, Germany, April 16-18, 1998.
62.“Gene transfer strategies in restenosis and angiogenesis“, **American Society of Gene Therapy, 1st Annual Meeting**, Seattle, USA, May 28-31, 1998.
63.“Pseudotyped retroviruses and adenoviruses in arterial gene transfer“,**The 17th Sigrid Juselius International Symposium, Angiogenesis**, Espoo, Finland, June 4-7, 1998.
64.“Antibodies against modified lipoproteins” and “Oxidative stress and gene expression in atherosclerotic lesions”, **Second International Conference on Natural Antioxidants and Anticarcinogens in Nutrition, Health and Disease**, Helsinki, Finland, June 24-27, 1998.
65. “Gene expression and atherosclerosis”, **III International Congress of Patho-physiology (ISP98)**, Lahti, Finland, June 28 – July 3, 1998.
66.“Therapeutic angiogenesis”, **XXth Congress of the European Society of Cardiology**, Vienna, Austria, August 22-26, 1998.
67.“Prevention of restenosis using VEGF gene transfer”, **70th European Athero-sclerosis Society Congress**, Geneva, Switzerland, September 6-9, 1998.
68.“Gene therapy today”: The long road ahead”, **Tenth Annual Symposium Transcatheter Cardiovascular Therapeutics**, Washington, USA, October 6-11, 1998.
69.“Early clinical results with angiogenic gene therapy”, **Ernst Schering Research Foundation Workshop 28**, San Francisco, USA, October 19-20, 1998.
70.“Intracoronary gene therapy”, **American College of Cardiology 48th Annual Scientific Session**, New Orleans, USA, March 7-10, 1999.
71.“Gene-based therapeutics for cardiovascular disease”, **American Society of Gene Therapy 2nd Annual Meeting**, Washington, DC, USA, June 9-13, 1999.
72.“Vascular endothelial growth factor”, **XXIst Congress of the European Society of Cardiology**, Barcelona, Spain, August 28 – Sept 1, 1999.
73.“The arterial wall – in the center of atherosclerosis”, **The 3rd Japan-Europe Joint Forum on Atherosclerosis Research (JEFA)**, Ise, Japan, September 30-October 2, 1999.
74.“Restenosis”, **Cardiovascular Gene Therapy in the Next Millennium, American Heart Association**, Atlanta, USA, November 6, 1999.
75.“Gene therapy to endothelium”, **7th Meeting of the European Society of Gene Therapy**, München, Germany, November 26-28, 1999.
76.“Overview of gene therapy trials”, **6th International Local Drug Delivery Meeting and Cardiovascular Course on Radiation & Molecular Strategies**, Geneva, Switzerland, January 27-29, 2000.
77.“Gene therapy for restenosis and therapeutic angiogenesis”, **66 Jahrestagung der Deutschen Gesellschaft für Kardiologie-Herz- und Kreislaufforschung**; Mannheim,Germany, April 27-29, 2000.
78.“Gene Therapy”, **European Society for Clinical Investigation 34th Annual Meeting**, Århus, Denmark, May 17-20, 2000.
79.“Gene Therapy for Hyperlipidemias”, **Bayer Symposium on Cardiovascular Diseases**, Berlin, Germany, May 25-27, 2000.
80.“Non-viral Gene Therapy. Intramuscular and Intra-arterial delivery”, **Third Annual Meeting of The American Society for Gene Therapy**, Denver, USA, May 31-June 4, 2000.
81.”Gene Therapy for Restenosis”, **Third Annual Meeting of The American Society for Gene Therapy**, Denver, USA, May 31-June 4, 2000.
82.”Oxidized LDL and its clinical significance”, **Laboratory Medicine 2000, XXVII Nordic Congress of Clinical Chemistry**, Bergen, Norway, June 4-8, 2000.
83.”Non-viral vectors”, **Second Euregenethy Multidisciplinary Forum: Safety and Regulatory Issues in Gene Therapy**, Paris, France, June 9-11, 2000.
84.”Gene therapy“, **Oxidative Stress and Atherosclerosis (Satellite Symposium of XIIth International Symposium on Atherosclerosis)**, Oslo, Norway, June23-24, 2000.

85."VEGF gene transfer in the treatment of coronary heart disease and peripheral vascular disease", **XIIth International Symposium on Atherosclerosis**, Stockholm,Sweden, June 25-29, 2000.
86."Physiological genomics and gene therapy", **Joint Meeting of the Scandinavian and American Physiological Societies**, Stockholm, Sweden, August 16-19, 2000.
87."Vascular endothelial growth factor and angiogenesis: from basic science to clinical applications", **XXII Congress of the European Society of Cardiology**, Amsterdam, The Netherlands, August 26-30, 2000.
88."Use of liposomes to deliver genes to the vasculature", **XXII Congress of the European Society of Cardiology**, Amsterdam, The Netherlands, August 26-30, 2000.
89."Vascular endothelial growth factor as a cytoprotective compound", **XXII Congress of the European Society of Cardiology**, Amsterdam, The Netherlands, August 26-30, 2000.
90."In vivo and ex vivo strategies for vascular gene therapy", **XIth International Vascular Biology Meeting**, Geneva, Switzerland, September 5-9, 2000.
91."Gene therapy for endothelial cells", **8th Meeting of the European Society of Gene Therapy**, Stockholm, Sweden, October 7-10, 2000.
92. "Safety of VEGF gene therapy with adenovirus and plasmid/liposome vectors in coronary and peripheral vascular disease patients". **American Heart Association Scientific Sessions 2000**, New Orleans, USA, November 12-15, 2000.
93."Therapeutic angiogenesis: From basic science to first clinical studies". **International Symposium on Regulation of Angiogenesis and Its Related Cellular Differentiation**, Kyoto, Japan, December 15-16, 2000.
94."Clinical experience from VEGF gene therapy in peripheral vascular disease". **Second seminary on angiogenesis**, Strasbourg, France, February 8, 2001.
95. "Transfecting most efficiently: catheter based", "Overview of the gene trials for restenosis", **7th International Local Drug Delivery Meeting and Cardiovascular Course on Radiation & Molecular Strategies**, Geneva, Switzerland, January 25-27, 2001.
96."Gene therapy of hyperlipidemias", "Clinical experiences from VEGF gene therapy in peripheral vascular disease". **From Genetic Diagnosis to Gene Therapy**, Lugano, Switzerland, February 8-10, 2001.
97. "Treatment of inoperable coronary heart disease", **American College of Cardiology 50th Annual Scientific Sessions**, Orlando, USA, March 18-21, 2001.
98. "Long-term therapeutic effect of liver directed retrovirus-mediated gene transfer of LDL receptor to WHHL rabbits". **American Society of Gene Therapy 4th Annual Meeting**, Seattle, USA, May 30-June 3, 2001.
99. "Role of endogenous pro- and antioxidative systems and lipid peroxidation in atherosclerosis". **Third International Conference on Natural Antioxidants and Anticarcinogens in Food, Health and Disease (NAHD 2001),** Kuopio, Finland, June 6-9, 2001.
100. "Therapeutic angiogenesis. From basic studies to clinical trials". **Atherosclerosis Gordon Conference**, Meriden, New Hampshire, USA, June 25-29, 2001.
101."Overview of cardiovascular gene therapy". **XXIII Congress of the European Society of Cardiology**, Stockholm, Sweden, September 1-5, 2001.
102. "Angiogenic gene therapy". **2nd European Meeting on Vascular Biology and Medicine**. Ulm, Germany, September 27-29, 2001.
103." VEGF gene transfer to human lower limb artery. A placebo-controlled, randomized, double-blinded phase II study". **American Heart Association Scientific Sessions 2001**. Anaheim, USA, November 11-14, 2001.
104. "Current status in cardiovascular gene therapy". **Ist International Conference on Clinical Gene Therapy**, Groningen, The Netherlands, January 24-26, 2002.
105. "Clinical studies in angiogenesis". **8th International Local Drug Delivery Meeting**, Geneva, Switzerland, January 31-February 2, 2002.
106. "Overview of the gene trials for restenosis". **Cardiovascular Course on Radiation and Molecular Strategies**, Geneva, Switzerland, January 31-February 2, 2002.

107. “Experiences from clinical gene therapy trials of peripheral vascular disease and malignant glioma”. **The 6th annual meeting of Japanese Society for Gene Therapy**, Osaka, Japan, March 2, 2002.
108. “Gene therapy for peripheral vascular disease”. **The NNCR/Atheroma Workshop on Atherosclerosis**, Stockholm, Sweden, March 15-17, 2002.
109. “Experiences from VEGF gene therapy”. **Angiogenesis: Basic Mechanisms and Therapeutic Implications**, Monte Verità, Ascona, Switzerland, June 2-7, 2002.
110. “Gene therapy”. **The 29th Meeting of The Scandinavian Neuropediatric Society**, Kuopio, Finland, June 13-15, 2002.
111. “Gene expression profiling in atherosclerotic lesions and ischaemic muscle”. **European Society of Cardiology XXIV Congress**, Berlin, Germany, August 31-September 4, 2002.
112. “The hunt for gene expression in human atherosclerotic lesions”. **European Society of Cardiology XXIV Congress**, Berlin, Germany, August 31-September 4, 2002.
113. “Gene therapy of peripheral vascular disease”. **XVII Paulo Symposium/Finnish Gene Therapy Society Annual Meeting**, Helsinki, Finland, September 12-14, 2002.
114. “Therapeutic angiogenesis in peripheral vascular disease”. **2nd International Symposium of the German Priority Research Program SPP1069**, Kloster Seeon, Germany, September 21-24, 2002.
115. “VEGF gene therapy”. **European Society of Gene Therapy 10th Annual Meeting**, Antibes, France, October 12-16, 2002.
116. “Angiogenic gene therapy: A novel treatment paradigm for CAD”. **Angiogenesis and Clinical Medicine Workshop**, New York, USA, December 13-15, 2002.
117. “Overview of the gene trials for restenosis”. **9th International Local Drug Delivery Meeting and Cardiovascular Course on Radiation & Molecular Strategies**, Geneva, Switzerland, January 23-25, 2003.
118. “Cardiovascular disease and cancer”. **Gene Therapy Symposium**, Osaka, Japan, February 5-6, 2003.
119. “Gene therapy for ischemia”. **British Atherosclerosis Society, Spring Meeting**, Oxford, UK, April 10-11, 2003.
120. “Hypomethylation of genomic DNA in atherosclerotic lesions”. **European Society of Cardiology Congress 2003**, Vienna, Austria, August 30-September 3, 2003.
121. “Critique of ongoing clinical trials”. **European Society of Cardiology Congress 2003,** Vienna, Austria, August 30-September 3, 2003.
122. “VEGF angiogenic gene therapy”. **7th International Congress of the Polish Cardiac Society**, Gdansk, Poland, September 11-13, 2003.
123. “Preclinical and clinical experience from cardiovascular gene therapy with VEGF”. **The XIIIth International Symposium on Atherosclerosis**, Kyoto, Japan, September 28-October 2, 2003.
124. “Gene therapy for cardiovascular diseases”. **The XIIIth International Symposium on Atherosclerosis**, Kyoto, Japan, September 28-October 2, 2003.
125. “Clinical vascular gene transfer: European perspective”. **Harold W. Siebens Conference: Genetic and Cell Therapies for Cardiovascular Disease**, Rochester, USA, October 24-26, 2003.
126. “Adenoviral gene therapy: Safety and efficacy”. **Thought Leader Conference**, Indianapolis, USA, November 6, 2003.
127. “KAT Trial”. **BTCG Second Annual Symposium “Clinical Trials in Cell and Angiogenic Therapies”,** Orlando, USA, November 8, 2003.
128. “Therapeutic angiogenesis with VEGF”. **European Society of Gene Therapy, 11th Annual Congress**, Edinburgh, UK, November 15-17, 2003.
129. “Where does cardiology stand and where is it heading with gene therapy”. **Genetics and Cardiology Symposium**, Barcelona, Spain, January 10, 2004.
130. “Gene therapy for the induction of angiogenesis and of cardiac repair”. **10th International LDDR Local Drug Delivery Meeting and Cardiovascular Course on Radiation & Molecular Strategies**, Geneva, Switzerland, January 29-31, 2004.

131. “Gene therapy for cardiovascular disease”. **Euregenethy Forum: Paul-Ehrlich-Institut Hosts Euregenethy: Clinical Gene Therapy in 2004**, Langen, Germany, April 15-16, 2004.
132. “Proangiogenic gene therapy”. **Fourth Interdisciplinary Euroconference on Angiogenesis**, Helsinki, Finland, May 21-24, 2004.
133. “Herpes simplex virus thymidine kinase gene transfer in the treatment of brain tumors”. **American Society of Gene Therapy 7th Annual Meeting**, Minneapolis, USA, June 2-6, 2004.
134. “Treatment of hypercholesterolemia and lipoprotein disorders with gene therapy”. **The Fifth Princess Chulabhorn International Science Congress Evolving Genetics and Its Global Impact**, Bangkok, Thailand, August 16-20, 2004.
135. “The hunt for gene expression in human atherosclerotic lesions, the guide to therapy?”. **European Society of Cardiology Congress 2004**, Munich, Germany, August 28 – September 1, 2004.
136. “Role of placental growth factor”. **European Society of Cardiology Congress 2004**, Munich, Germany, August 28 – September 1, 2004.
137. “EC-SOD in cardiovascular diseases”. **First International Conference on EC-SOD**, Aarhus, Denmark, September 15-18, 2004.
138. “Biotechnology business imperatives”. **Genetics in the Service of Society Seminar**, Finnish-British Chamber of Commerce, London, UK, October 5, 2004.
139. “Gene therapy of ischemic conditions: Challenge for the 21st century”. **Wihuri Research Institute Jubilee Symposium of the 60th Anniversary**, Helsinki, Finland, November 15, 2004.
140. “VEGF gene therapy for the induction of angiogenesis”. **Preclinical and Clinical Advances in Gene Therapy, 2nd Meeting of the Belgian Gene Therapy Working Group**, Leuven, Belgium, November 22, 2004.
141. “Critical issues in gene therapy”. **First European Vascular Genomics Network Conference**, Cambridge, UK, December 13-16, 2004.
142. "Therapeutic angiogenesis: Basic aspects and clinical approaches". **ICGEB Seminars**, Trieste, Italy, April 29, 2005.
143. "Gene therapy: Basic aspects and clinical applications". **Sigrid Juselius 75th Anniversary Symposium**, Helsinki, Finland, June 9-10, 2005.
144. "Cardiovascular gene therapy". **Euregenethy 4th International Conference Clinical Gene Therapy 2005**, Paris, France, June 20-21, 2005.
145. "Vasoprotective effects of VEGF". **American Heart Association Scientific Sessions 2005**, Dallas, USA, November 13-16, 2005.
146. "VEGF gene therapy for the induction of angiogenesis". **British Society for Gene Therapy 3rd Annual Conference**, London, UK, March 28-30, 2006
147. "ApoB100 and LDL receptor: Possibilities to treat severe hyperlipidemias". **American Society of Gene Therapy 9th Annual Meeting**, Baltimore, USA, May 31-June 4, 2006.
148. "Gene therapy of cardiovascular diseases". **31st FEBS Congress - Molecules in Health & Disease**, Istanbul, Turkey, June 24-29, 2006.
149. "Viral gene transfer techniques". **FECTS XXth & ISMB meeting**, Oulu, Finland, July 1-5, 2006.
150. "What did DNA arrays tell us about atherosclerosis". **World Congress of Cardiology 2006**, Barcelona, Spain, September 2-6, 2006.
151. "Gene therapy of cardiovascular diseases: pre-clinical and clinical data". **European Vascular Genomics Network Second Summer School**, Erice, Italy, September 10-14, 2006.
152. "Gene therapy in the treatment of coronary heart disease", State of the Heart lecture. **Finnish Cardiac Society 39th Annual Meeting**, Nilsiä, Finland, January 26-27, 2007.
153. "Angiogenesis and arteriogenesis in cardiovascular medicine". **Third International Meeting on Angiogenesis**, Amsterdam, The Netherlands, March 1-3, 2007.
154. "VEGF in the treatment of vascular disease" (Nikkilä lecture). **13th Annual**

Scandinavian Atherosclerosis Conference, Humlebäck, Denmark, March 28-31, 2007.
155. "Are ADME parameters adequate to describe gene drugs?" **Clinigene 1st Anniversary**, Annecy, France, March 30-April 1, 2007.
156. "Biodistribution of adenoviral vectors". Gene Therapy Working Party. London. EMEA, April 19, 2007.
157. "Recent advances in gene therapy". **Seventh ESH Euroconference on Angiogenesis**, Albufeira, Portugal, May 11-14, 2007.
158. "Is endovascular gene therapy the future?" **Sixth Croatian Congress on Atherosclerosis**, Rovinj, Croatia, May 9-12, 2007.
159. "Genetic and gene-transfer approaches to study the pathogenesis and treatment of atherosclerosis-related disease". **76th Annual EAS Congress**, Helsinki, Finland, June 10-13, 2007.
160. "Vascular cells and growth factors in atherogenesis and angiogenesis". **Gordon Research Conferences - Atherosclerosis,** Lucca, Italy, June 17-22, 2007.
161. "Gene therapy". **4th European Meeting on Vascular Biology and Medicine**, Bristol, UK, September 17-20, 2007.
162. "Endothelium in in-stent restenosis and atherogenesis". **Academy Colloquium "Plaque Instability: from molecular regulation to diagnosis and therapy,** Amsterdam, The Netherlands, September 27-29, 2007.
163. "How can Centres of excellence & companies cooperate to improve the current status?". **XVth Annual Congress of the European Society of Gene and Cell Therapy**, Rotterdam, The Netherlands, October 27-30, 2007.
164. "Future possibilities for the treatment of vascular diseases with gene-based medicines". **40th Annual Meeting of the Finnish Society of Cardiology**, Helsinki, Finland, January 25-26, 2008.
165. "Cell biology of restenosis". **74th Annual Meeting of the German Cardiac Society**, Mannheim, Germany, March 27-29, 2008.
166. "Gene transfer for therapeutic angiogenesis". **58th British Microcirculation Society Meeting**, London, UK, March 31-April 2, 2008.
167. "Therapeutic angiogenesis for ischaemic heart disease". **British Atherosclerosis Society Spring meeting**, Oxford, UK, April 3-4, 2008.
168. "Lentivirus production using baculoviruses". **Clinigene 2nd Anniversary 2008**, Annecy, France, April 3-6, 2008.
169. "Cardiovascular gene therapy". **American Society of Gene Therapy 11th Annual Meeting**, Boston, USA, May 28-June 1, 2008.
170. "Emerging developments in cardiovascular gene therapy". **15th International Vascular Biology Meeting (IVBN)**, Sydney, Australia, June 1-5, 2008.
171. "Therapeutic angiogenesis". **International Symposium "Vascular Differentiation and Remodeling"**. Frankfurt, Germany, July 17-19, 2008.
172. "Vascular endothelial growth factor and its receptors in diabetes and atherogenesis". **European Society of Cardiology Congress 2008**, Munich, Germany, August 30-September 3, 2008.
173. “Gene therapy in disease models: translation to human treatments?”. **100th Anniversary Symposium of the Finnish Academy of Science and Letters/Does genome-wide knowledge lead to targeted therapies?**, Helsinki, Finland, September 4-5, 2008.
174. "VEGF gene therapy". **EVGN 2008 Summer School**, Krakow, Poland, September 15-19, 2008.
175. "Current concepts in gene therapy". **Scientific Symposium Biological Drugs: New Armamentarium to Fight Against Harmful Inflammations"** (Turun XXV Lääketiedepäivät), Turku, Finland, November 4, 2008.
176. " Phase III trial: Ad-Tk gene therapy for malignant glioma". **European Society of Gene and Cell Therapy, XVIth Annual Congress of the European Society of Gene and Cell Therapy**, Brugge, Belgium, November 13-16, 2008.
177. "Angiogenic gene therapy". **European Society of Gene and Cell Therapy, XVIth Annual Congress of the European Society of Gene and Cell Therapy**, Brugge, Belgium, November 13-16, 2008.

178. "Gene therapy in cardiovascular disease". **EVGN (European Vascular Genomics Network) Meeting**, Bad Hofgastein, Austria, November 24-27, 2008.
179. Matti Äyräpää Lecture: “Gene therapy – from basic research to clinical applications” (Geeniterapia – perustutkimuksesta kliinisiin sovelluksiin). **The Finnish Medical Convention (Valtakunnalliset Lääkäripäivät)**, Helsinki, Finland, January 5-8, 2009.
180. "Geeniterapia sydän- ja verisuonisairauksien hoidossa" (Gene therapy in the treatment of cardiovascular diseases). **Tieteen päivät,** Helsinki, Finland, January 7-11, 2009.
181. “Gene therapy”. **Institute of Bioengineering and Nanotechnology (IBN) Seminar**, The Nanos, Singapore, January 20, 2009.
182 “Angiogenesis and arteriogenesis in cardiovascular medicine”. **International Symposium on Recent Advances in Biotherapeutics**, Mumbai, India, February 13-14, 2009.

I. PUBLICATIONS IN PEER REVIEW JOURNALS

1. Pietilä, K., Ylä-Herttuala, S., Jaakkola, O. and Nikkari, T.: Metabolism of glycosaminoglycans and lipids in smooth muscle cells from atherosclerotic rabbit aortas in culture. **Atherosclerosis** 37:449-456, 1980.

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II. REVIEWS, BOOK CHAPTERS, PROCEEDINGS ARTICLES AND EDITORIALS

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protein strategies in targeted drug and gene delivery. **Letters in Drug Design & Discovery** 2: 124-132, 2005.

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60. Ylä-Herttuala, S. Principles of gene medicine. **EJHP Pract. (Eur. J. Hosp. Pharm. Practice)** 13: 18-19 and 22, 2007

61. Ylä-Herttuala, S. Peripheral vascular diseases/Progress and prospects: Gene therapy cliical trials (Part 1). **Gene Ther.** 14: 1439-1447, 2007.

62. Ylä-Herttuala S, Alitalo K. On the relationship of LDL and VEGFR1: not just a family affair. **EMBO reports** 8: 1127-1128, 2007.

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III PUBLICATIONS IN FINNISH AND SWEDISH

1. Grönlund, S., Jaakkola, O., Kallioniemi, O.-P., Salo, M., Solakivi-Jaakkola, T. and Ylä-Herttuala, S.: Lääketieteellisen ja kliinisen kemian ryhmätyöt 1985 (toim. Aarre Kellomäki). Tampereen yliopisto, lääketieteellinen tiedekunta/biolääketieteen laitos, Opetusta koskevia julkaisuja No 36, Tampere 1985, 71 s. (Laboratory manual in medical biochemistry for medical students).

2. Ylä-Herttuala, S.: Valtimon seinämä ja ateroskleroosi. (Arterial wall and atherosclerosis. A review). **Diagnosis** 12:1530-1532, 1987.

3. Pesonen, E. and Ylä-Herttuala, S.: Suomalaisten lasten sepelvaltimoiden muutokset. (Coronary atherosclerosis in Finnish children.) **Suom. Lääk. Lehti** 44: 1923-1927, 1989.

4. Salonen, J., Kovanen, P., Ylä-Herttuala, S. and Korpela, H.: Antioksidantit, LDL:n hapettuminen ja ateroskleroosi. (Antioxidants and LDL oxidation in atherogenesis). **Duodecim** 107:1232-1239, 1991.

5. Ylä-Herttuala, S. and Salonen, J.T.: Rasvojen hapettumisen merkitys sydän- ja verisuonisairauksissa. (Oxidized lipids and cardiovascular diseases). **Duodecim** 110: 1643-1652, 1994.

6. Ollikainen, A., Ylä-Herttuala, S., Vapalahti, M. Genterapi vid hjärntumör (Gene therapy for malignant brain tumors), In: Genterapi på människa, Nordiska Ministerrådet, Bioteknologi, Nord 9:23, 1996.

7. Ylä-Herttuala, S., Ollikainen, A., Vapalahti, M.: Ihmisen geeniterapia (Human Gene Therapy). **Duodecim** 112:77-79, 1996.

8. Ylä-Herttuala, S.: Oksidoituneet lipoproteiinit ja valtimonkovettumatauti (Oxidized lipoproteins and atherosclerosis). **Kliin. Lab.** 1: 4-5, 1996.

9. Vapalahti, M., Puumalainen, A-M., and Ylä-Herttuala, S.: Geenihoidon lainsäädännölliset ja eettiset ongelmat (Legal and ethical aspects in gene therapy). **Suom. Lääk. lehti** 52:2546-2549, 1997.

10. Puumalainen, A-M., Vapalahti, M., and Ylä-Herttuala, S.: Geeniterapian mahdollisuudet aivokasvainten hoidossa (Gene therapy of brain tumors). **Suom. Lääk. lehti** 52:2503-2506, 1997.

11. Ylä-Herttuala, S.: Geeniteknologia tulevaisuuden lääketieteessä (Gene technology and medicine). **Suom. Lääk.lehti** 52:2109-2116, 1997.

12. Laitinen, M., and Ylä-Herttuala, S.: Genteknologins möjligheter vid hjärt- och kärlsjukdomar. **Finsk Tidskrift** 9-10: 527-536, 1997.

13. Puumalainen, A.M., Vapalahti, M., and Ylä-Herttuala, S.: Geeniterapian perusteet aivokasvainten hoidossa (Gene therapy of brain tumors). **Novartis News** 2:40-43, 1997.

14. Puumalainen, A-M., Vapalahti, M., Ylä-Herttuala, S.: Geenihoidon mahdollisuudet ja vaarat (Gene therapy, safety and ethics). Sielunhoidon Aikakauskirja 10. Bioetiikka. p. 37-42, 1998.

15. Hiltunen, M., Ylä-Herttuala, S.: Kani eläinmallina ateroskleroosin geeniterapia-tutkimuksessa (Rabbit as an experimental animal in cardiovascular gene therapy). **Koekukko** 18:28-32, 1998.

16. Hiltunen, M.O., Turunen, M.P., and Ylä-Herttuala, S.: Geeniterapia verisuonitautien hoidossa (Gene therapy and cardiovascular diseases). **Dosis** 14:202-206, 1998.

17. Turunen, M., Hiltunen, M., Ylä-Herttuala, S.: Geeniterapia ja sen mahdollisuudet verisuonitautien hoidossa (Gene therapy in the treatment of cardiovascular diseases). **Kemia-Kemi** 26:186-189, 1999.

18. Luoma, J., Ylä-Herttuala, S.: Sydän- ja verisuonisairauksien geenihoito (Cardiovascular gene therapy). **Suom. Lääk. lehti** 54:1809-1814, 1999.

19. Ylä-Herttuala, S.: Geeninsiirrot sairauksien hoidossa (Gene therapy). **Hyvä Terveys** 14:58-61, 1999.

20. Hakumäki, J.M., Poptani, H., Sandmair, A-M., Ylä-Herttuala, S., Kauppinen, R.: Geenihoidolla aikaansaadun apoptoosin havaitseminen käyttäen ^{1}H- magneetti-spektroskopiaa in vivo (Detection of apoptosis induced by gene therapy with MRI spectroscopy). **Duodecim** 116: 619-620, 2000.

21. Viluksela, M., Ylä-Herttuala, S. Eläinkokeet ja niiden vaihtoehdot (Animal experiments and possible alternatives for animal experiments). **Natura** 2: 5-9, 2000.

22. Ylä-Herttuala, S. Geeniterapia (Gene therapy). **Suomen Proviisorilehti** 1/2001, p.10.

23. Ylä-Herttuala, S. Periytyvien tautien hoito (Treatment of hereditary diseases). In: Perinnöllisyyslääketiede, ed. P. Aula, 2nd edition, Duodecim, Helsinki, pp 316-323, 2002.

24. Ylä-Herttuala, S. Kun geeneistä tehdään lääkettä (Genes used as medicine) In: Tiede ja muutos – aaveet ja haaveet, ed. J. Rydman, Tieteellisten seurain valtuuskunta, Helsinki, pp. 280-285, 2003.

25. Koponen, J., Ylä-Herttuala, S. Miten saada sydänlihasarpi sykkimään? **Duodecim** 121: 1199-1201, 2005.

26. Ylä-Herttuala, S., Salo, M. Periytyvien tautien hoito (Treatment of hereditary diseases). In: Perinnöllisyyslääketiede, ed. Aula, P., Kääriäinen, H., Palotie, A., Duodecim, Helsinki, pp. 317-328, 2006.

27. Rissanen, T.T., Ylä-Herttuala, S. Uudisverisuonten kasvattaminen - kohti iskeemisten kudosten parempaa verenkiertoa (Therapeutic angiogenesis - towards better circulation). **Duodecim** 123: 306-316, 2007.

28. Back, J., Kankuri, E., Ikonen, T., Pätilä, T., Sinisalo, J., Laine, M., Vapaatalo, H., Koponen, J., Hukkanen, M., Ylä-Herttuala, S., Alitalo, R., Kupari, M., Harjula,A. Solusiirrot sydämen vajaatoiminnan hoidossa (Cell therapy in heart failure). **Duodecim** 123: 398-405, 2007.

29. Koistinaho, J., Ylä-Herttuala, S., Laakso, M., Reijonen, K., Ristola, T., Veromaa, T. Terveys- ja hyvinvointialan SHOKin sisältö. **Duodecim** 124; 109-110, 2008.

RESEARCH FUNDING (LAST 15 YEARS)

Seppo Ylä-Herttuala 130.000 FIM, Sigrid Jusélius Foundation, reagents/salaries 1993

Seppo Ylä-Herttuala 66.000 FIM, Finnish Heart Foundation, reagents/salaries 1993

Seppo Ylä-Herttuala and Timo Hiltunen 42.000 FIM, Aarne Koskelo Foundation, reagents/salaries 1993

Seppo Ylä-Herttuala 345.000 FIM, Finnish Academy, reagents/salaries 1993

Seppo Ylä-Herttuala 145.000 FIM, Sigrid Jusélius Foundation, reagents/ salaries 1993-1994

Seppo Ylä-Herttuala, 250.000 FIM, Ministry of Education, (New Technology and Industrialization) reagents/salaries 1993-1994

Seppo Ylä-Herttuala, 345.000 FIM, Finnish Academy, reagents/salaries 1994

Seppo Ylä-Herttuala, John F. Martin (U.K.), Werner Risau (Germany), Rodolfo Paoletti (Italy) 90.000 ECU, Commission of the European Communities, Brussels (BIOMED I). "Concerted action" funding to support technical costs due to collaboration and visits in the member laboratories (not for reagents or salaries). 1994-1996

Seppo Ylä-Herttuala and Timo Hiltunen 60.000 FIM
Finnish Cultural Foundation, Pirkanmaa Regional Fund, Elli and Elvi Oksanen Foundation, reagents/salaries 1994

Seppo Ylä-Herttuala, 109.000 FIM, Finnish Heart Foundation, reagents/salaries 1994

Seppo Ylä-Herttuala and Jukka Luoma 35.000 FIM, Aarne Koskelo Foundation, reagents/salaries 1994

Seppo Ylä-Herttuala 150.000 FIM, Sigrid Jusélius Foundation, reagents/salaries 1994-1995

Seppo Ylä-Herttuala 60.000 FIM, Technology Development Centre (TEKES), salaries 1994-1995

Seppo Ylä-Herttuala 122.000 FIM, Finnish Academy, (New Technology and Industrialization), reagents/salaries 1995

Seppo Ylä-Herttuala 210.000 FIM, Finnish Academy, reagents/salaries 1995

Seppo Ylä-Herttuala 145.000 FIM, Finnish Heart Foundation, reagents/salaries 1995

Seppo Ylä-Herttuala, Markku Laakso 345.000 FIM, Kuopio University Hospital (EVO), reagents/salaries 1995

Seppo Ylä-Herttuala 100.000 FIM, Sigrid Juselius Foundation, reagents/salaries 1995-1996

Seppo Ylä-Herttuala 800.000 FIM, Research Fund of Finnish Insurance Companies, reagents/salaries 1995-1997

Seppo Ylä-Herttuala, John F. Martin (U.K.), Werner Risau (Germany), Rodolfo Paoletti (Italy) 540.000 ECU
Commission of the European Communities, Brussels (BIOMED 2), “Shared cost“ funding for reagents/salaries 1996-1998

Seppo Ylä-Herttuala 100.000 FIM, Finnish Heart Foundation, reagents/salaries 1996

Seppo Ylä-Herttuala, Markku Laakso 345.000 FIM, Kuopio University Hospital (EVO), reagents/salaries 1996

Seppo Ylä-Herttuala 100.000 FIM, Sigrid Juselius Foundation, reagents/salaries 1996-1997

Seppo Ylä-Herttuala 206.000 FIM, Finnish Heart Association, reagents/salaries 1997

Seppo Ylä-Herttuala 600.000 FIM, Finnish Academy, reagents/salaries 1997-1998

Seppo Ylä-Herttuala 1.848.000 FIM, Technology Development Centre (TEKES), reagents/salaries 1997-1998

Seppo Ylä-Herttuala, Markku Laakso 385.000 FIM, Kuopio University Hospital (EVO), reagents/salaries 1997

Seppo Ylä-Herttuala 100.000 FIM, Sigrid Juselius Foundation, reagents/salaries 1997-1998

Seppo Ylä-Herttuala 300.000 FIM, Finnish Heart Foundation, reagents/salaries 1997-1999

Seppo Ylä-Herttuala 200.000 FIM, Sigrid Juselius Foundation, reagents/salaries 1998-1999

Seppo Ylä-Herttuala, Regina Brigélius-Flohe (Germany), Dietrich Behne (Germany), Matilde Maiorino (Italy) 610.000 ECU
Commission of the European Communities, Brussels (Biomed 2),“Shared cost“ funding for reagents/salaries 1998-2000

Seppo Ylä-Herttuala, Klaus Edvardsen (Norway), Jörgen Carlsson (Sweden), John Pilkington (England), Helmut Acker (Germany) 810.000 ECU
Commission of the European Communities, Brussels (Biomed 2),“Shared cost“ funding for reagents/salaries 1998-2000

Seppo Ylä-Herttuala, Göran Bondjers (Sweden), Johan Hoebeke (France), Ulf Lindahl (Sweden), Hartmut Oschkinat (Germany), Senen Vilaró (Spain) 920.000 ECU
Commission of the European Communities, Brussels (Biomed 2),“Shared cost“ funding for reagents/salaries 1998-2000

Seppo Ylä-Herttuala 1.500.000 FIM, Vascular and liver gene therapy Finnish Academy, reagents/salaries 1998-2000

Seppo Ylä-Herttuala 1.281.000 FIM, Vascular gene therapy Kuopio University Hospital (EVO), reagents/salaries 1998-2000

Seppo Ylä-Herttuala and Arto Urtti 3.000.000 FIM, Development of gene therapy vectors, Technology Development Centre (TEKES), reagents/ salaries 1999-2000

Seppo Ylä-Herttuala 240.000 FIM, Sigrid Jusélius Foundation, reagents/ salaries 1999-2000

Seppo Ylä-Herttuala 150.000 USD, Ludwig Institute for Cancer Research, reagents/salaries 1999-2000
Ludwig Institute for Cancer Research, reagents, 75.000 € 2000-2001
Ludwig Institute for Cancer Research, reagents, 75.000 € 2001-2002
Ludwig Institute for Cancer Research, reagents, 75.000 € 2002-2003
Ludwig Institute for Cancer Research, reagents, 90.000 € 2003-2004
Ludwig Institute for Cancer Research, reagents, 90.000 € 2004-2005

Seppo Ylä-Herttuala 800.000 FIM, Pathogenesis of atherosclerosis, cloning of lesion-specific genes and development of a mouse model for complicated atherosclerotic lesions, Finnish Academy, reagents/salaries 2000-2002

Seppo Ylä-Herttuala 650.000 FIM, Lääkinnällisten tuotteiden valmistus GMP-virusvektorilaboratoriossa (Manufacturing of medicinal products in GMP virus vector laboratory) Technology Development Centre (TEKES), reagents/salaries 2000

Seppo Ylä-Herttuala 100.000 FIM, Excellence in Science Award, University of Kuopio 2000

Seppo Ylä-Herttuala 650.000 FIM, Finnish Heart Foundation, reagents/salaries 2000-2002

Seppo Ylä-Herttuala, Kalevi Pulkkanen 150.000 FIM, Finnish Cancer Foundation, salaries 2000-2001

Seppo Ylä-Herttuala 1.200.000 FIM, Life 2000 program, Finnish Academy, reagents/salaries 2001-2003

Seppo Ylä-Herttuala 5.000.000 FIM, Sigrid Jusélius Foundation, reagents/ salaries 2001-2005

Seppo Ylä-Herttuala and Kari Alitalo 1.200.000 FIM, Drug 2000 Program Technology Development Centre (TEKES), reagents/salaries 2001

Seppo Ylä-Herttuala, Arto Urtti, Hans Söderlund 4.500.000 FIM, Drug 2000 Program, Technology Development Centre (TEKES), reagents/salaries 2001-2003

Seppo Ylä-Herttuala, Christian Oker-Blom, Markku Kulomaa,1.350.000 FIM Technology Development Centre (TEKES), Drug 2000 Program,reagents/ salaries 2001-2003

Seppo Ylä-Herttuala 600.000 FIM, Lääkinnällisten tuotteiden valmistus GMP-virusvektorilaboratoriossa (Manufacturing of medicinal products in GMP virus vector laboratory), Technology Development Centre (TEKES), reagents/ salaries 2001

Odile Cohen-Haguenauer (France), Seppo Ylä-Herttuala, et al.
Ylä-Herttuala's share 25.000 € (148.000 FIM)
Commission of the European Communities, Brussels,Thematic Networks program Euregenethy 2 2002-2004

Seppo Ylä-Herttuala (Coordinator), Georg Breier (Germany), John Martin (England), Giovanni Paganelli (Italy) 1.072.000 € (6.374.000 FIM)
Commission of the European Communities, Brussels, (Quality of Life/The

Fifth Framework Programme), “Shared cost“ funding for reagents/salaries 2002-2004

Seppo Ylä-Herttuala (Coordinator), Markku Laakso, Matti Uusitupa, Juhani Jänne, 10.000.000 FIM
Academy of Finland and TEKES, Center of Excellence, reagents/salaries 2002-2004

John Martin, UK (Coordinator), Peter Carmeliet (Belgium), Seppo Ylä-Herttuala, Johannes Waltenberger (Germany), David Selwood (UK),1.713.721 €, Seppo Ylä-Herttuala’s share 400.000 €
Commission of the European Communities, Brussels (Quality of Life and Management of Living Resources), “Shared cost” funding for reagents/salaries 2002-2004

European Vascular Genomics Network (EVGN) Consortium, 9.000.000 € (Coordinator Prof. Alan Tedqui, INSERM, Paris), Seppo Ylä-Herttuala’s share 420.000 €
Commission of the European Communities, Brussels, funding for reagents and salaries 2004-2008

Lymphangiogenomics Consortium 9.850.000 € (Coordinator Prof. Kari Alitalo, University of Helsinki), Seppo Ylä-Herttuala’s share 700.000 €
Commission of the European Communities, Brussels, funding for reagents and salaries 2004-2008

Seppo Ylä-Herttuala (Coordinator), Markku Laakso, Matti Uusitupa, Juhani Jänne 1.682.000 €, Center of Excellence for Research in Cardiovascular Diseases and Type 2 Diabetes, Academy of Finland and Tekes 2005-2007

Seppo Ylä-Herttuala, 400.000 €, “Uusien kardiovaskulaaritautien, diabeteksen ja obesiteetin hoito- ja diagnostiikkamenetelmien identifiointi ja testaus funktionaalista genomiikkaa ja siirtogeenitekniikkaa käyttäen” (Identification and testing of new treatment and diagnostic methods of cardiovascular diseases, diabetes and obesity using functional genomics and gene transfer techniques)
Technology Development Centre (Tekes)/EAKR, reagents/salaries 2004-2005

Seppo Ylä-Herttuala, 160.000 €, “Kantasolujen käyttö sydän- ja verisuonitautien hoidossa” (Stem cell therapy for cardiovascular disorders)
Academy of Finland, reagents/salaries 2005-2008

Seppo Ylä-Herttuala, 150.000 €, "Cloning of human atherosclerosis-specific genes with laser dissection technology", Finnish Heart Foundation, reagents/salaries 2005-2007

INTHER Consortium, 2 800 000 € (Coordinator Dr. Zsuzsanna Izsvak, Max-Delbrück-Centrum für Molekulare Medizin - MDC)
Seppo Ylä-Herttuala's share 231 000 €
Commission of the European Communities, Brussels, STREP funding 2005-2008

CLINIGENE Consortium, 12 000 000 € (Coordinator Dr. Odile Cohen-Haguenauer, Ecole Normale Superieure de Cachan, Paris, France)
Seppo Ylä-Herttuala's share 300 000 €
Commission of the European Communities, Brussels, NoE funding 2006-2011

PolExGene Consortium, 2 132 000 € (Coordinator Dr. Etienne Schacht, University Ghent, Belgium)
Seppo Ylä-Herttuala's share 223 000 €

Commission of the European Communities, Brussels, STREP funding 2006-2009

Outi Hovatta (Coordinator), Jari Koistinaho, Seppo Ylä-Herttuala, "Ihmisalkion kantasolut neurodegeneratiivisten sairauksien eläinmalleissa" (Human embryonic stem cells in animal models of neurodegenerative diseases: The role of inflammation)
Seppo Ylä-Herttuala's share 173 720 €
Academy of Finland, reagents/salaries 2006-2009

Fondation Leducq funding, 6 000 000 USD, Consortium: Joseph Witztum (US Coordinator), University of California San Diego; Seppo Ylä-Herttuala (European Coordinator); Inder Verma, The Salk Institute for Biological Studies; Christopher Glass, University of California San Diego; Alain Tedgui, INSERM Paris; Bernd Binder, University of Vienna
2006-2011

BACULOGENES Consortium, 2 500 000 € (Coordinator Prof. John Martin, London)
Seppo Ylä-Herttuala's share 405 000 €
Commission of the European Communities, Brussels, STREP funding 2007-2009

Consortium: Markku Laakso (Coordinator), Seppo Ylä-Herttuala, Matti Uusitupa,
1 549 900 €, “Vascular complications in type 2 diabetes"
Seppo Ylä-Herttuala's share 412 000 €
Technology Development Centre (Tekes)/CIHR Canada, reagents/salaries 2007-2012

Seppo Ylä-Herttuala (Coordinator), Markku Laakso, Carsten Carlberg, Heikki Ruskoaho, 2.058.000 €, Finnish Centre of Excellence in Cardiovascular Diseases and Type 2 Diabetes Research, Academy of Finland 2008-2013

DOCTORAL THESIS AND SCIENTIFIC TRAINING SUPERVISED BY DR YLÄ-HERTTUALA

I COMPLETED EXAMINATIONS:

MD/PhD-THESIS:

1. Dr. Timo Hiltunen, MD, PhD, 1997: Expression of lipoprotein receptors, 15-lipoxygenase and β-amyloid precursor protein in atherosclerotic lesions. Pages 1-106, University of Tampere.
2. Dr Jukka Luoma, MD, PhD, 1997: Pro- and antioxidative enzymes, and lipoprotein receptors in atherogenesis. Pages 1-93, University of Kuopio.
3. Dr Stefanie Maurer, PhD, 1997: Creating a model for the investigation of the function of the selenoenzyme phospholipid hydroperoxide glutathione peroxidase (PHGPx) in intracellular signalling. Pages 1-76, University of Potsdam, Germany.
4. Ritva Ylitalo, MD, PhD, 1998: Effects of biophosphonates on experiment atherosclerosis. Pages 1-82, University of Tampere.
5. Timo Pakkanen, MD, PhD, 1999: Surgical applications of gene therapy. An experimental study with special reference to gene transfer to the liver and the arterial wall. Pages 1-98, University of Kuopio.
6. Marja Laitinen, MD, PhD, 1999: Gene transfer to the arterial wall – pre- clinical and clinical studies. Pages 1-101, University of Kuopio.
7. Anu-Maaria Sandmair, MD, PhD, 2000:Gene therapy for malignant glioma. Pages 1-86, University of Kuopio.
8. Tomi Häkkinen, MD, PhD, 2000: Inflammation cells and mediators in atherosclerotic lesions. Pages 1-78, University of Kuopio.
9. Mikko Turunen, PhD, 2000: Arterial gene transfer – new methods and safety aspects. Pages 1-54, University of Kuopio.
10. Mikko Hiltunen, MD, PhD, 2000: Gene expression in atherosclerotic lesions and therapeutic strategies using gene transfer. Pages 1-79, University of Kuopio.
11. Mikko O. Laukkanen, PhD, 2001: Cloning, expression and therapeutical effects of rabbit extracellular superoxide dismutase. Pages 1-73, University of Kuopio.
12. Kalevi Pulkkanen, MD, PhD, 2001: Gene therapy for human renal cell carcinoma in an orthotopic nude mouse model. Pages 1-98, University of Kuopio.
13. Pauliina Lehtolainen, PhD, 2002: Lipoprotein receptor –avidin fusion proteins. A new concept for drug targeting. Pages 1-72, University of Kuopio.
14. Annaleena Heikkilä, MD, PhD, 2003: Gene expression in preeclamptic placenta and experimental strategies for placental gene transfer. Pages 1-84, University of Kuopio.
15. Tuomas Rissanen, MD, PhD, 2003: Gene transfer for blood and lymphatic vessel growth. Pages 1-102, University of Kuopio.
16. Johanna Jalkanen, MD, PhD, 2004: Gene therapy and atherosclerosis. Pages 1-77, University of Kuopio.
17. Tiina Tuomisto, MD, PhD, 2004: Gene expression in atherosclerosis and skeletal muscle ischemia – A DNA array study. Pages 1-76, University of Kuopio.
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Anssi Mähönen, PhD	"
Anna-Mari Turunen, PhD	"
Ismo Vajanto, MD	"
Johanna Markkanen, MD	"
Elisa Vähäkangas, MD	"
Diana Schenkwein, PhD	"
Petri Mäkinen, PhD	"
Suvi Heinonen, PhD	"
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