

## CURRICULUM VITAE

Pauli Puolakkainen 25.9.2018

DATE AND PLACE OF BIRTH: 5 April, 1959, Helsinki, Finland

### CURRENT AND PERMANENT POSITION:

Professor of Surgery, Chairman, Department of Surgery, Helsinki University Hospital and University of Helsinki, Finland, acting since September 1st, 2010, appointed April 1st, 2012.

### PERSONAL DATA

Nationality: Finnish

Address: Home: Pitkänkalliontanhua 4 D 21, FI-02170 Espoo, Finland

Telephone: +358 50 5829785

E-mail: pauli.puolakkainen@hus.fi or pauli.puolakkainen@helsinki.fi

Family: Married (1983), three children (1988, 1989, 1995)

### EDUCATION AND TRAINING

M.D. (Licentiate of Medicine), University of Helsinki 1984

Licence to practise medicine, University of Helsinki 1985

Ph.D., Doctor of Medical Sciences, University of Helsinki, 1989

Specialist in Surgery, University of Helsinki and Helsinki University Central Hospital 1991

Docent in experimental surgery, University of Helsinki 1994

Subspecialist in abdominal (GI) surgery, University of Helsinki and Helsinki University Central Hospital 1997

Docent in abdominal surgery, University of Helsinki 1999

Specialist in administration, University of Helsinki 2005

Professor in Surgery, University of Turku, Finland 2007

Specialist in medical education, The Finnish Medical Association 2008

Leadership training 2008

Official language examinations: Swedish

Language skills: Finnish, Swedish, English, German (basics)

### PREVIOUS PROFESSIONAL APPOINTMENTS

Resident in anaesthesiology, Maria Hospital, Helsinki, 1982

General practitioner, Mänttä Health Care Center, Finland 1982, 1983

General practitioner, Espoo Health Care Center, Finland 1983

General practitioner, Nurmijärvi Health Care Center, Finland 1985

Resident in surgery, Lahti City Hospital, Finland 1984-1985

Resident in radiology, Helsinki University Central Hospital, Finland 1985

Visiting Scientist, Department of Surgery, University of Cincinnati, OH, USA 1985

Senior surgeon, Lahti City Hospital, Finland 1985-1986

Resident in surgery, Department of Surgery, Helsinki University Central Hospital 1986-1989

Visiting Scientist, Bristol-Myers Squibb Pharmaceutical Research Institute, and

University of Washington, Seattle, USA 1990-1993

Resident in surgery, Helsinki University Central Hospital 1993-1994

Resident in abdominal surgery, Helsinki University Central Hospital 1995-1997

Senior lecturer/ Assistant Professor / Attending Specialist in Abdominal

Surgery, Helsinki University Central Hospital 1997-2000

Visiting Professor, The Hope Heart Institute and University of Washington, Seattle, USA 2000-2002

Visiting Professor, Dept. of Surgery, University of Sapporo, Japan 2004

Visiting Professor, Dept. of Surgery, University of Texas Southwestern Medical Center, Dallas, USA 2005

Senior lecturer/ Assistant Professor / Attending Specialist in Abdominal Surgery, Helsinki University Central Hospital 2002-2007

Professor in Surgery, Chairman, Department of Surgery, Turku University Hospital, Turku 2007-2010

Acting Professor in Surgery, Chairman, Department of Surgery, Helsinki University Central Hospital and University of Helsinki, Finland, 2010-2012

Professor in Surgery, Chairman, Department of Surgery, Helsinki University Hospital and University of Helsinki, Finland 2012-

#### RESEARCH AWARDS, HONOURS AND MAJOR GRANTS

Bristol-Myers Squibb Pharmaceutical Research Institute, and University of Washington, Seattle, USA1990-1993  
The Hope Heart Institute and University of Washington, Seattle, USA2000-2002  
The Paulo Foundation and Sapporo University, Japan, 2004  
Helsinki University Central Hospital Research Funds (EVO), 88 500 €, 2003-5  
Helsinki University Central Hospital Research Funds (EVO), 65 000 €, 2005-7  
Helsinki University 3-year research grant, 100 000 €2005-7  
Sigrid Juselius Foundation, 70 000 €, 2005-6  
Sigrid Juselius Foundation, 170 000 €, 2007-11  
Helsinki / Turku University Central Hospital Research Funds (EVO), 400000€2007-11  
Helsinki University Central Hospital Research Funds (EVO), 129 000 €2013-16  
Sigrid Juselius Foundation, 46000 €2014-16  
Sigrid Juselius Foundation, 46000 €2015-17  
Helsinki University Funds, 36000€2018

#### EDITORIAL BOARD MEMBERSHIPS

Scandinavian Journal of Surgery, Associate Editor 2007-  
Finnish Textbook of Gastroenterology and Hepatology, Editor2011, 2018  
Editorial Boards and scientific advisory boards:  
- Scandinavian Journal of Surgery2005-  
- The Finnish Medical Journal2010-  
- World Journal of Gastroenterology2009  
- World Journal of Gastrointestinal Pathophysiology2010  
- Journal of Carcinogenesis and Mutagenesis2010  
- JAMA Surgery2018

#### MEMBERSHIPS IN SCIENTIFIC SOCIETIES

The Finnish Surgical Society (President 2012-14)  
The Finnish Surgical Society (President-Elect 2011)  
The Finnish Gastroenterological Association (President 2011-13)  
The Finnish Association of Physicians  
The Finnish Digestive Surgeons, Board member 2006-2010  
The Finnish Medical Society Duodecim, 1985-  
Joint CME committee, The Finnish Gastroenterological Association and The Finnish Digestive Surgeons  
European Surgical Association (ESA) 2015-  
International College of Surgeons  
Wound Healing Society  
American Pancreatic Association  
International Society of Surgery  
International Gastric Cancer Association (council member) 2013-

#### OTHER ACADEMIC AND PROFESSIONAL ACTIVITIES

Visiting Scientist/Professor, Bristol Mayer Squibb, The Hope Heart Institute and University of Washington, Seattle, USA1990-1993  
2000-2002  
Gerson Lehrman Group's Council of Healthcare advisors, USA2004  
International health professional of the year, International Biographical Centre, Cambridge, UK2005  
Scientific advisory board, European Pancreatic Club Meeting2006  
Scientific board, Nordic Meeting of Gastroenterology2007  
Abstract committee, International Society of Surgery (ISS), 2009, 2011  
Joint CME committee, The Finnish Gastroenterological Association and The Finnish Digestive Surgeons2006-  
Permanent expert for National Authority for Medicolegal Affairs in Finland (Valvira), 2005-  
Expert, Patient Insurance authority (Potilasvahinkolautakunta), Finland2004-  
Program committee (member), The Finnish Medical Convention2004-  
Scientific advisory board, AstraZeneca, Finland2006-8  
Scientific advisory board, Leiras, Finland2006-  
The Finnish Research Foundation of Digestive Diseases (secretary/member/ vice chair)2004-  
Panelist, Publication Forum, Clinical Medicine, Finland2010-  
Pro Medico Council, Finland2010-

Council member, (Issues of health care professionals, TANK) Ministry of Social Affairs and Health, Finland 2010-  
Consultant, The Finnish Cultural Foundation, Finland 2010-  
Council of Health Research, Academy of Finland 2013-

University of Helsinki/ Helsinki University Central Hospital:

- Vice member, Faculty Council, Faculty of Medicine 2010-
  - Vice Chair, Institute of Clinical Medicine, Faculty of Medicine 2010-
  - Vice Chair, Department of Surgery, Institute of Clinical Medicine, Faculty of Medicine 2010-
  - Member, Research Council, Faculty of Medicine 2007-
  - Member, Council of Basic Medical Education, Faculty of Medicine 2004-
  - Coordinator, surgical teaching, Faculty of Medicine 1997-
  - Ethical committee of Dept. of Surgery, Helsinki University Central Hospital 2003-
  - Committee of animal care of Dept. of Surgery, Helsinki University Central Hospital 2002-5
  - Committee of teaching, simulator training research and resident training, Helsinki University Central Hospital 2007-
  - Board of experts, University of Helsinki 2008-
  - Meilahti hospital renovation committee, Helsinki University Central Hospital 2010-
  - Executive board, Department of Surgery, Helsinki University Central Hospital 2010-
  - Head of own research laboratory, Biomedicum Helsinki, Finland 2003
  - Director, EVO research funds, Operative Unit HUCH 2011-15
  - Member of the Teacher's Academy of University of Helsinki 2015-
  - Director, Research funds, HUCH Abdominal Centre, 2016-
- University of Turku / Turku University Central Hospital
- Chairman, Department of Surgery 2007-11
  - Chair, Executive board of research and education 2007-11
  - Member, SAPA Executive board 2007-11
  - Member, PET Executive board 2007-11
  - Member, Ethical committee 2007-11
  - Member, Institute of Clinical Medicine, Faculty of Medicine 2007-11

Referee for Journals: Journal of Cellular Biochemistry, Histology and Histopathology, Gut, Expert Opinion in Pharmacotherapy, J Histochem Cytochem, Pancreatology, Scandinavian Journal of Gastroenterology, Scandinavian Journal of Surgery, Ann Med, Journal of Pancreas, Duodecim, Leukemia, Molecular Vision, Arch Med Res, Br J Surg, World Journal of Surgery, World Journal of Gastroenterology...

Organizing international meetings

- LOC, European Pancreatic Club, Tampere, 2006
- Scientific Committee, The XXXIX Nordic Meeting of Gastroenterology, 2008
- Vice President, Local organizing committee, International Surgical Week, Helsinki, 2013
- Sigrid Juselius Symposium, Helsinki, 2019

Organizing national meetings

- President, Finnish Surgical Society, Naantali, 2009
- Chairman of the organizing committee, Meeting of the Finnish Society of Gastroenterology, Tampere 2010.
- President, Finnish Society of Surgery, Lappeenranta 2013
- President, Finnish Society of Surgery, Vaasa 2014
- Chairman of the organizing committee, The Finnish Pancreas club, Helsinki 2017

Scientific qualification for professorships

- Professor May Reed, University of Washington, Seattle, USA, 2008

Scientific education

I have received scientific education in the following centres:

Laboratory of Minerva Foundation (Professor J. Schröder) 1983-4, Laboratory of Experimental Surgery, Helsinki University Central Hospital (Dr. T. Schröder, Professor E. Kivilaakso) 1981-, Dept. of Surgery, University of Cincinnati (Professor S. Joffe) 1985, Bristol-Myers Squibb Pharmaceutical Research Institute, Seattle, WA, and University of Washington, Seattle, WA, USA (Professors D. Twardzik, J. Olerud, P. Bornstein, H. Sage) (1990-1993), The Hope Heart Institute and University of Washington, Seattle, WA, USA (Professors E. Sage, J. Olerud, P. Bornstein) (2000-2002). The education includes theoretical and practical basic, experimental and clinical research.

Scientific publications

(For complete list of publications, submitted papers and the 20 most representative publications, please, see List of Publications)

- Original publications : PubMed 217

- Submitted/ in preparation original manuscripts:8
- Reviews, editorials, letters and book chapters:37
- Abstracts:>150
- Others:7
- Mean of impact factors of all publications : 4,05
- Number of times cited : 6576
- h-index: 47
- Sum of impact factors of the 20 chosen papers : 269,5
- Mean of impact factors of the 20 chosen papers: 13,5

#### Supervision of doctoral dissertation/ thesis

- Esko Kemppainen: Early phase of acute pancreatitis; screening, diagnosis, and severity grading with new laboratory markers and imaging techniques, (accepted with special honours, best surgical dissertation of the year in Finland), 1997
- Arto Kokkola: The etiopathogenesis and new diagnostic methods of gastric cancer, 1998
- Tuula Ranta-Knuutila: The protective mechanisms of gastric mucosa, 2000
- Laura Tielinen: The effect of bioabsorbable polylactide pins with polymer paste, containing TGF-beta1, on the healing of osteotomies and bone defects, 2000
- Leena Kylänpää-Bäck: Acute pancreatitis: diagnosis and assessment of severity with markers of inflammation, 2001
- Eija Tukiainen: Complex trait of acute pancreatitis: Studies of candidate genes and adipokines, 2008
- Anna Nieminen: Extracellular matrix proteins and gastric cancer (under supervision) 2012
- Tuuli Kauttu: ADAM's in esophageal and gastric cancer 2017
- Taru Lehtonen: Severe acute pancreatitis: MODS, infectious complications and operative interventions (under supervision) 2012
- Aino Koski: TAM's and inflammation in pancreatic cancer 2017
- Johan Back: Complication in gastric cancer surgery (under supervision)

#### Official opponent in academic doctoral dissertations

- Markku Haapamäki: Phospholipase A2 in inflammatory bowel disease, Turku 1999
- Hanna Pelli: Recurrence of acute alcoholic pancreatitis, Tampere 2008
- Hai-Tao Jin: Polyamines in experimental taurocholate-induced and clinical acute pancreatitis, Tampere 2009
- Anna Thiel: COX-2 in gastric carcinogenesis, 2012
- Jahangir Khan: Infections and lipids in alcohol induced acute pancreatitis, 2014
- Matias Laaninen: Prediction and management of complications after pancreaticoduodenectomy, 2016
- Jussi Nikkola: Long-term outcome and prevention of recurrences after acute alcoholic pancreatitis, 2017

#### Reviewer of professorships, docentships or doctoral thesis

- Jyri Lepistö: PDGF in Experimental Wound Healing (PhD) 1996
- Juha Ranne: Experimental study of healing and reinnervation of skin flaps and muscle fibers after nerve transection (PhD) 1999
- Jyrki Kössi: Hexose sugars and sucrose in wound healing (PhD) 2000
- Petri Juvonen: Gastrointestinal perfusion in acute pancreatitis (PhD) 2000
- Sari Rätty: The role of gallbladder, cholecystokinin and microbes in gallstone and post-ERCP pancreatitis (PhD) 2000
- Susanna Sarkio: Gastrointestinal complications after kidney transplantation (PhD) 2005
- Miretta Tommila: Granulation tissue formation. The effect of hydroxyapatite coating of cellulose on cellular differentiation, Turku 2010
- Sari Rätty: Docentship, Tampere 2007
- Johanna Laukkarinen: Docentship, Tampere 2010
- Runkuan Yang: Docentship, Tampere 2010
- Professorship: May Reed, University of Washington, Seattle, USA, 2004
- Johanna Laukkarinen: Docentship, Tampere 2012

#### Action as a reviewer of international grant applications

- Research into Ageing, UK, 2005

#### Selected invited talks / teaching /scientific activity in scientific congresses, meetings and courses

- "Treatment of malignancies with laser surgery, hyperthermia and photodynamic therapy."
- Meeting of the growth regulators study group. Bristol-Myers Squibb Pharmaceutical Research Institute, Seattle, WA, 1991
- "Growth factors and extracellular matrix proteins in wound healing"
- Senior staff presentation. Bristol-Myers Squibb Pharmaceutical Research Institute, Seattle, 1992
- "Mucosal injury caused by cytotoxic drugs. Experimental models of mucosal damage".
- Cytoprotection meeting, Bristol-Myers Squibb Pharmaceutical Research Institute, Seattle, 1992
- "ECM proteins in wound healing"
- Department of Biological Structure Research Seminar, University of Washington, Seattle, 1992
- "TGF-beta1 and bone healing"
- Orthopaedic research seminar, School of Medicine, University of Washington, Seattle, 1993
- "Wound healing model: delivery system for growth factors and their effects on extracellular matrix". Advanced Tissue Sciences Corp. J. Jolla, CA, 1993

"Models for studying inflammation, regeneration and adaptation in the intestine"  
Immunex Corp. Seattle, WA, 1995

"Current aspects of diagnostics and prognostication of acute pancreatitis,"  
Harvard Medical School, Boston, USA, 1999

"The role of enzymes and their proforms in the the diagnosis and prognostication of acute pancreatitis" Pancreatic Disease Meeting, Southampton, UK, 2000

"Reduced foreign body reaction in mice lacking matricellular protein SPARC"  
University of Washington, Seattle, 2001

"Reduced dermal fibrotic response to implanted biomaterials in SPARC-null mice."  
First Friday Hope Heart Institute Research Seminar Series, 2001

"Severe acute pancreatitis: A continuig clinical challenge"  
UT- Southwestern Medical Center, Dallas, TX, 2002

"Acute Pancreatitis"  
University of Ulm, Germany 2003

"Acute pancreatitis – diagnosis and severity assessment"  
Estonian Surgical Society, Tallinna, Estonia, 2004

"Current concepts of acute pancreatitis"  
Harvard Medical School, Boston, USA 2000

"SPARC-thrombospondin 2 double-null mice exhibit enhanced epithelial closure and dermal wound healing", Annual meeting of the Wound Healing Society, Seattle, USA 2003

"Enhanced growth and decreased levels of apoptosis in pancreatic tumors in SPARC null mice is asso-ciated with altered extracellular matrix"  
UEGW, Madrid, 2003.

"Severe acute pancreatitis: A continuing clinical challenge"  
First Dept. of Surgery, Sapporo Medical University, 2004

"Perioperative treatment in abdominal surgery"  
First Dept. of Surgery, Sapporo Medical University, 2004

"Early diagnosis and risk factors of gastric cancer"  
AstraZeneca CME training program, Hanasaari, Espoo, 2004

"The effects of pancreatic elastase are mediated through NFkB and TOLL2"  
American Pancreatic Association, Chicago, USA 2004

"Complications and survival after curative D1 vs. D2-3 resection for gastric cancer"  
International Gastric Cancer Congress, Yokohama, Japan, 2005

"Angiogenesis and wound healing"  
Dept. of Surgery, University of Texas Southwestern Medical Center, Dallas, USA 2005

"Gastric cancer –continuing clinical challenge"  
Dept. of Surgery, University of Texas Southwestern Medical Center, Dallas, USA 2005

"The healing of injury in biliary tract"  
Meeting of the Finnish Gastroenterological Association, Aulanko, Finland, 2005

"Special aspects of biliary acute pancreatitis"  
Pancreas 2000 CME training program, Solvalla, Finland, 2005

"Pathophysiology of chronic pancreatitis"  
The Finnish Pancreatic Club Meeting, Turku, 2005

"Abdominal complaints – how should I treat?"  
CME teaching program in over 20 different health care centres in Finland 2005-6

"How to write a scientific article"  
Meeting of the Finnish Phycicians, Helsinki, 2006

"Acute pancreatitis", Meeting of The Finnish Gastroenterological Association, Turku, 2006

"Pathophysiology of ulcer disease"  
CME training, Helsinki University Central Hospital, 2006

"Surgical interventions in acute pancreatitis"  
Nordic training for SSAI anesthesiologist, Espoo, 2006

"Immunosuppression and MOF in necrotizing pancreatitis"  
The 38th Meeting of the European Pancreatic Club, Tampere, Finland, 2006

"Excluding oher etiologies than alcohol and biliary disease"  
The 38th Meeting of the European Pancreatic Club, Tampere, Finland, 2006

"Severity assessment: Biochemical markers and scoring systems"  
The 38th Meeting of the European Pancreatic Club, Tampere, Finland, 2006

"Acute abdomen", Herttoniemi Hospital, Helsinki, 2007

"When acute abdomen is not operated in the elderly", Herttoniemi Hospital, Helsinki, 2007

"Acute abdomen in the elderly", University of Helsinki /Palmenia, Lahti 2007

"The etiology and clinical examination of acute abdominal pain", HUCH, 2007

"Acute abdominal pain"; In Emergency medicine lecture course, Meilahti Hospital 2007

"Acute pancreatitis, from basic research to clinics", University of Turku, 2007

"The role of sentinel node navigation in the treatment of gastric cancer"  
The Annual Meeting of The Finnish Surgical Society, 2007

"Every man's surgery: Acute Abdomen, clinical examination and treatment" Annual presentation in Finnish Medical

Convention, 2007, 2008, 2009, 2010, 2011

"When acute abdomen is not operated in the elderly", Tampere health care center physicians, 2007

"Old Abdomen", Finnish Medical Convention, 2006

"Every man's surgery: Acute Abdomen, clinical examination and treatment" Turku Medical Convention, 2008

"Surgery for pancreatic cancer, up-date", Satakunta Central Hospital, Pori, 2009.

"Acute abdomen in the elderly", Laakso Hospital, Helsinki, 2009

"Acute abdomen in the elderly", Haartman hospital, Helsinki, 2010

"Acute pancreatitis as systemic disease" Thursday meeting series, Meilahti hospital, 2010

"Current treatment methods for gastric cancer", The meeting of the Finnish Society of Gastroenterology, Tampere, 2009

"Acute pancreatitis as systemic disease", Tampere University Central Hospital, 2010

"Acute pancreatitis as systemic disease", University of Turku, 2010

"Acute abdomen", Haartman Hospital 2010

"Matrix metalloproteinases in GI malignancy - from basic research to clinical applications" The Hungarian Society of Gastroenterology, Hungary, 2010

"Acute pancreatitis 2013" International Surgical Week, Helsinki, 2013

"Acute pancreatitis 2014" University of Chicago, USA, 2014

"Acute pancreatitis 2014" Tuft's institute, Boston, USA, 2014

"Risk group screening in gastric cancer" Meeting of the International Gastric Cancer Association, Sao Paulo 2015

"The role of macrophages in cancer" Meeting of the International Gastric Cancer Association, Beijing 2017

"The treatment of acute pancreatitis" World Congress of Surgery, Basel 2017

"The operative treatment of chronic pancreatitis" World Congress of Surgery, Basel 2017

#### Patents

Method for modulation of inflammatory status and proliferative, invasive and angiogenic properties using micro-organisms by normalizing intestinal epithelial cell function (pending)

Pedagogical training, experience, achievements

For details, please, see Appendix at the end of the CV summarizing all pedagogy and teaching related issues.

Person of the year, Teaching, Medical Faculty, 2012

Member of the Teacher's Academy (University of Helsinki) 2014-

Clinical portfolio

#### Specialist / clinical positions / Clinical leadership

- Senior lecturer / Professor / Attending Specialist in surgery and abdominal surgery, 1997-2000, 2002-,

- ongoing surgical activity includes operations, endoscopies, on-call duties

- own clinical interest and expertise mostly in upper-GI (gastro-pancreatico-biliary) surgery

- on call responsibilities cover the fields of abdominal surgery, abdominal emergency/trauma surgery and endocrine surgery

#### Activity as a private practitioner

- Previously: Kannelmäki Medical Center, Hemo Medical Center (Lahti), Diacor Länsi-Pasila, Laseri, Ars Medicina

- Currently: Pihlajalinna/ Dextra Medical Center, (1997-) Helsinki

#### Own continuing education

Regularly, several times annually, attending numerous international and national courses and work-shops. (DDW, UEGW, APA, EPC, Gastric Cancer Congress, Meetings of National societies such as The Finnish Surgical Association, The Finnish Gastroenterological Association, The Finnish Digestive Surgeons etc.)

#### International and national invitations

(For complete list, please, see also the list of invited lectures)

- Harvard Digestive Diseases Center, Boston, USA, 1999

- Pancreatic Disease Meeting, Southampton, UK, 2000

- University of Ulm, Germany, 2003

- Estonian Surgical Society, Tallinn, Estonia, 2004

- Dept. of Surgery, Sapporo University, Japan 2004

- Dept. of Surgery, UT Southwestern Medical Center, Dallas, USA 2005

- The Hungarian Society of Gastroenterology, Hungary, 2010

- The Chinese College of Surgeons, 2011

- University of Chicago, 2014

- The Tufts Institute, Boston, 2014

- Session chair, American Pancreatic Association meeting, San Diego, 2017

#### Contribution in the development of clinical work

- Finding of C-reactive protein being reliable in assessing severity of acute pancreatitis. It is currently in clinical use all over the world.

- Laboratory diagnostics and treatment of acute pancreatitis

- Prophylactic antibiotics in severe acute pancreatitis

- Surgical treatment of acute pancreatitis

- Development in laser technology (hyperthermia) in medicine.
- Genetic background of gastric cancer
- Gastric cancer surgery
- Use of growth factors in promoting healing of injured tissues

#### LIST OF PUBLICATIONS (Pauli Puolakkainen 2017)

##### A) ORIGINAL PUBLICATIONS

1984

1. Parkkinen E, Nordling S, Puolakkainen P, Kiviluoto T, Schröder T, Schröder J: Distribution of Ia positive cells in the pig and human pancreas. *Eur Surg Res* 1984;16:336-9. IF: 1,5

1985

2. Schröder T, Kivisaari L, Standertskjöld-Nordenstam C-G, Somer K, Lehtola A, Puolakkainen P, Karonen S-L, Kivilaakso E, Lempinen M: Pancreatic blood flow and contrast enhancement in computed tomography during experimental pancreatitis. *Eur Surg Res* 1985;17:286-91. IF: 1,5

1986

3. Lehtola A, Kivilaakso E, Puolakkainen P, Karonen S-L, Lempinen M, Schröder T: Effects of Dextran-70 versus chrystalloids in the microcirculation of porcine hemorrhagic pancreatitis. *Surg Gyn Obstet* 1986;162:556-62.

4. Puolakkainen P, Lempinen M, Schröder T: Fatal pancreatitis - A study of 64 consecutive cas-es. *Acta Chir Scand* 1986;152:379-38.

5. Rämö OJ, Schröder T, Kuusi T, Puolakkainen P, Mäkelä A, Jalovaara P: Long-term ethanol ingestion causes an increase of phospholipase A2 activity in acute experimental pancreatitis in rats. *J Surg Res* 1986;41:362-6. IF: 2,18

1987

6. Lehtola A, Talja M, Puolakkainen P, Nordling S, Schröder T: Peritoneal lavage combined with volume therapy in porcine hemorrhagic pancreatitis: Effects on hemodynamics, microcirculation and peritoneal morphology. *Scand J Gastroent* 1987;22:559-67. IF: 2,08

7. Puolakkainen P, Brackett K, Sankar MY, Joffe SN, Schröder T: Effects of electrocautery, CO2-laser and contact Nd:YAG laser scalpel on the healing of intestinal incisions. *Lasers Surg Med* 1987;7:507-11. IF: 2,60

8. Puolakkainen P, Paananen A, Kaarne M, Kuusi T, Lempinen M, Schröder T: Aprotinin and Na<sub>2</sub>CaEDTA in experimental hemorrhagic pancreatitis in pigs. *Scand J Gastroent* 1987;22:35-41. IF: 2,08

9. Puolakkainen P, Valtonen V, Paananen A, Schröder T: C-reactive protein (CRP) and serum phospholipase A2 in the assessment of the severity of acute pancreatitis. *Gut* 1987;28:764-71. IF: 9,36

1989

10. Hahl J, Ovaska J, Paetau A, Puolakkainen P, Schröder T: Nd:YAG laser in subtotal thyroid-ectomy: A prospective randomized study. *Lasers Med Sci* 1989;4:275-8. IF: 2,57

11. Hukki J, Lipasti J, Castren M, Puolakkainen P, Schröder T: Lactate dehydrogenase in laser incisions: A comparative analysis of skin wounds made with steel scalpel, electrocautery, super-pulse-continuous wave mode carbon-dioxide lasers, and contact Nd:YAG laser. *Lasers Surg Med* 1989;9:589-94. IF: 2,60

12. Puolakkainen P: Early assessment of acute pancreatitis: A comparative study of computed tomography and laboratory tests. *Acta Chir Scand* 1989;155:25-30.

13. Puolakkainen P: Early diagnosis and assessment of the severity of acute pancreatitis: an ex-perimental and clinical study. A thesis. (Väitöskirja), Helsinki, Finland, 1989.

14. Puolakkainen P, Kivisaari L, Sipponen J, Standertskjöld-Nordenstam C-G, Nuutinen P, Schröder T: Magnetic resonance imaging (MRI) in detecting acute oedematous and hemorrhagic pancreatitis: an experimental study in pigs. *Eur Surg Res* 1989;21:25-33. IF: 1,5

15. Rämö OJ, Puolakkainen P, Seppälä K, Schröder T: Self-administration of enzyme substitution in the treatment of exocrine pancreatic insufficiency. *Scand J Gastroenterol* 1989;24:688-92. IF: 2,08

16. Schröder T, Hukki J, Castren M, Puolakkainen P, Lipasti J: Comparison of surgical lasers and conventional methods in skin incisions. *Scand J Plast Reconstr Surg*. 1989;23:187-90. IF: 0,55

17. Schröder T, Puolakkainen P, Hahl J, Rämö OJ: Fatal air embolism as a complication of laser-induced hyperthermia. *Lasers Surg Med* 1989;9:183-5. IF: 2,60

1990

18. Hahl J, Haapiainen R, Puolakkainen P, Schröder T: Laser-induced hyperthermia in the treatment of liver tumors. *Lasers Surg Med* 1990;10:319-21. IF: 2,60

19. Mäkelä A, Sternby B, Kuusi T, Puolakkainen P, Schröder T: Phospholipase A2 activity and concentration in several body fluids in patients with acute pancreatitis. *Scand J Gastroent* 1990;25:944-50. IF: 2,08

20. Schröder T, Puolakkainen P, Rämö J, Nuutinen P, Kivilaakso E, Kiviluoto T, Haapsaari P, Ki-visaari L: Long term results after pancreatic resection and peritoneal lavage for acute hemorrhagic pancreatitis. *Surg Res Comm* 1990;7:145-9.

1991

21. Castren-Persons M, Schröder T, Rämö OJ, Puolakkainen P, Lehtonen E: The contact Nd:YAG laser potentiates the tumor cell killing effect of hyperthermia. *Lasers Surg Med* 1991;11:595-600. IF: 2,60

22. Puolakkainen P, Haapiainen R, Mecklin J-P, Järvinen H, Schröder T: Ischemic colitis - a clinical study of 7 patients with special emphasis on diagnostic problems. *Ann Chir Gyn* 1991;80:245-9. IF=Scand J Surg: 0,82

23. Schröder T, Sainio V, Kivisaari L, Puolakkainen P, Kivilaakso E, Lempinen M: Pancreatic re-section vs. peritoneal lavage in acute necrotizing pancreatitis - A prospective randomized trial. *Ann Surg* 1991;214: 663-6. IF: 7,9

24. Twardzik D, Ranchalis J, Puolakkainen P: Transforming growth factor- $\beta$  induces tumor differentiation. In: Waxman S, Rossi GB, Takaku F (eds.), *The status of differentiation therapy of cancer*, Vol. II, 133-139, Raven Press, 1991.

1992

25. Castren-Persons M, Lipasti J, Puolakkainen P, Schröder T: Laser-induced hyperthermia: Comparison of two different methods. *Lasers Surg Med* 1992;12:665-8. IF: 2,60

1993

26. Gombotz WR, Pankey SC, Bouchard LS, Ranchalis J, Puolakkainen P: Controlled release of TGF- $\beta$ 1 from a biodegradable matrix for bone regeneration. *J Biomater Sci* 1993;5:49-63. IF: 2,51

27. Puolakkainen P, Paciucci P, Ranchalis J, Oleksowicz L, Twardzik D: Interleukin-2 (IL-2) augments the expression of transforming growth factor beta in patients with disseminated cancer. In: *Growth Factors, Peptides and Receptors*. pp. 425-433, Terry W. Moody (ed.) Plenum Press, New York, 1993.

28. Puolakkainen P, Ranchalis JE, Strong DM, Twardzik DR: The effect of sterilization on transforming growth factor  $\beta$  isolated from demineralized human bone. *Transfusion* 1993;33:679-85. IF: 2,98

29. Reed M, Puolakkainen P, Lane T, Dickerson D, Bornstein P, Sage H: Differential expression of SPARC and thrombospondin 1 in wound repair: immunolocalization and in situ hybridization. *J Histochem Cytochem*, 1993;41:1467-77. IF: 2,37

1994

30. Gombotz WR, Pankey SC, Bouchard LS, Phan DH, Puolakkainen P: Stimulation of bone healing by transforming growth factor beta1 released from polymeric or ceramic implants. *J Appl Biomat*, 1994;5:141-50. IF: 0,94

31. Mumper RJ, Hoffman AS, Bouchard LS, Puolakkainen P, Gombotz WR: Calcium-alginate beads for the oral delivery of TGF- $\beta$ 1: Stabilization of TGF- $\beta$ 1 by the addition of polyacrylic acid coupled with acid-hydrolysis of beads. *J Contr Rel* 1994; 30:241-51. IF: 5,95

32. Puolakkainen P, Ranchalis J, Gombotz W, Hofman A, Mumper RJ, Twardzik DR: Novel delivery system for inducing quiescence in intestinal stem cells in rats by TGF- $\beta$ 1. *Gastroenterology*, 1994;107:1319-26. IF: 12,90

1995

33. Puolakkainen P, Reed M, Gombotz W, Twardzik D, Abrass I, Sage EH: Acceleration of wound healing in aged rats by topical application of transforming growth factor beta1. *Wound Rep Reg* 1995;3:330-9. IF: 2,78



34. Puolakkainen P, Twardzik D, Ranchalis J, Moroni M, Mandeli J, Paciucci P. Increase of plasma transforming growth factor beta (TGF-beta) during immunotherapy with IL-2. *Cancer Invest* 1995;13:583-9. IF: 2,11

35. Puolakkainen P, Twardzik D, Ranchalis J, Reed M, Pankey S, Gombotz W: The enhancement in wound healing by transforming growth factor beta1 (TGF-β1) depends on the topical delivery system. *J Surg Res*, 1995;58:321-9. IF: 2,18

36. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Haapiainen R, Schröder T, Kivilaakso E. Early antibiotic treatment in acute necrotising pancreatitis. *Lancet* 1995;346:663-7. IF: 30,76

1996

37. Hedström J, Sainio V, Kempainen E, Puolakkainen P, Haapiainen R, Kivilaakso E, Schuman KO, Stenman UH. Urine trypsinogen-2 as a diagnostic marker for acute pancreatitis. *Clin Chem* 1996;42:685-90. IF: 6,26

38. Kempainen E, Sainio Vinen R, Kivisaari L, Kivilaakso E, Puolakkainen P. Early localization of necrosis by contrast-enhanced computed tomography can predict outcome in severe acute pancreatitis. *Br J Surg* 1996;83:924-9. IF: 4,08

39. Kempainen E, Sand J, Puolakkainen P, Laine S, Hedström J, Sainio V, Haapiainen R, Nordback I. Pancreatitis associated protein as an early marker for acute pancreatitis. *Gut* 1996;39:675-8. IF: 9,34

40. Kokkola A, Haapiainen R, Laxen F, Puolakkainen P, Kivilaakso E, Virtamo J, Sipponen P. Risk of gastric carcinoma in patients with mucosal dysplasia associated with severe atrophic gastritis. A follow-up study. *J Clin Pathol* 1996; 49:979-84. IF: 2,33

41. Kokkola A, Valle J, Haapiainen R, Sipponen P, Kivilaakso E, Puolakkainen P. Helicobacter pylori infection in young patients with gastric carcinoma. *Scand J Gastroenterol* 1996;31:643-7. IF: 2,08

42. Latvala T, Puolakkainen P, Vesaluoma M, Sage EH, Tervo T. Distribution of SPARC-protein (osteonectin) in normal and wounded feline cornea. *Exp Eye Res* 1996;63:579-58. IF: 2,54

43. Saarialho-Kere U, Vaalamo M, Puolakkainen P, Airola K, Parks W, Karjalainen-Lindsberg ML. Enhanced expression of matrix metalloproteinases, collagenase and stromelysin-1 in gastrointestinal ulcers. *Am J Pathol* 1996;148:519-26. IF: 5,67

44. Sainio V, Puolakkainen P, Kempainen E, Hedström J, Haapiainen R, Kivisaari L, Stenman UH, Schröder T, Kivilaakso E. Serum trypsinogen-2 in the prediction of outcome in acute necrotizing pancreatitis. *Scand J Gastroenterol* 1996;31:818-24. IF: 2,08

45. Vaalamo M, Weckroth M, Puolakkainen P, Kere J, Saarinen P, Lauharanta J, Saarialho-Kere U. Patterns of matrix metalloproteinase and TIMP-1 expression in chronic and normally healing human cutaneous wounds. *Br J Derm* 1996;135:52-9. IF: 4,26

1997

46. Kempainen E, Hedström J, Puolakkainen P, Halttunen J, Sainio V, Haapiainen R, Stenman UH. Urinary trypsinogen-2 test strip in detecting ERCP-induced pancreatitis. *Endoscopy*, 1997;29:247-51. IF: 4,79

47. Kempainen E, Hedström J, Puolakkainen P, Halttunen J, Sainio V, Haapiainen R, Kivilaakso E, Stenman UH. Increased serum trypsinogen-2 and trypsin-2-alpha1 antitrypsin complex values identify ERCP-induced pancreatitis with high accuracy. *Gut* 1997; 41:690-5. IF: 9,36

48. Kempainen E, Hedström J, Puolakkainen P, Sainio V, Haapiainen R, Perhoniemi V, Osman S, Kivilaakso E, Stenman UH. Rapid measurement of urinary trypsinogen-2 as a screening test for acute pancreatitis. *N Engl J Med*, 1997;336:1788-93. IF: 47,05

49. Kokkola A, Monni O, Puolakkainen P, Larramendy ML, Victorzon M, Nordling S, Haapiainen R, Kivilaakso E, Knuutila S. 17q12-21 amplicon, a novel recurrent genetic change in intestinal type of gastric carcinoma: A comparative genomic hybridization study. *Genes Chromosomes Cancer* 1997; 20:38-43. IF: 3,86

50. Kokkola A, Monni O, Puolakkainen P, Larramendy ML, Victorzon M, Nordling S, Haapiainen R, Kivilaakso E, Knuutila S. DNA copy number changes in gastric carcinoma. A comparative genomic hybridization study. In: *Progress in Gastric Cancer Research*, eds. JR Siewert and JD Roder, 1997, pp. 655-59.

51. Sainio V, Puolakkainen P, Kempainen E, Puolakkainen P, Kivisaari L, Haapiainen R, Schröder T, Lehtonen E, Kivilaakso E. Incorrect estimation of severity of acute pancreatitis by CE-CT. *Ann Chir Gyn* 1997;86:214-21. IF(=Scand J Surg): 0,82

1998

52. Hedström J, Svens E, Kenkimäki P, Kempainen E, Puolakkainen P, Haapiainen R, Stenman U-H. Evaluation of a new urinary amylase test strip in the diagnosis of acute pancreatitis. *Scand J Clin Lab Invest* 1998;58:611-6. IF: 1,38
53. Kokkola A, Monni O, Puolakkainen P, Nordling S, Haapiainen R, Kivilaakso E, Knuutila S. Presence of high-level DNA copy number gains in gastric carcinoma and severe dysplasia of adenomas but not in moderate dysplasia of adenomas. *Cancer Genet Cytogenet* 1998;107:32-6. IF: 1, 54
54. Kokkola A, Rautelin H, Puolakkainen P, Sipponen P, Färkkilä M, Haapiainen R, Kosunen T. Positive result by serology indicates active *H. pylori* infection in patients with atrophic gastritis. *J Clin Microbiol* 1998; 36, 1808-10. IF: 4,16
55. Kokkola A, Sjöblom S-M, Haapiainen R, Sipponen P, Puolakkainen P, Järvinen H. The risk of gastric carcinoma and carcinoid tumors in patients with pernicious anemia - A prospective follow-up study. *Scand J Gastroent* 1998; 33:88-92. IF: 2,08
56. Larramendy ML, Wa'el E-R, Kokkola A, Puolakkainen P, Monni O, Salovaara R, Aarnio M, Knuutila S. Comparative genomic hybridization reveals differences in DNA copy number changes between sporadic gastric carcinomas and gastric carcinomas from patients with hereditary non-polyposis colorectal cancer. *Cancer Genet Cytogenet* 1998;106:62-5. IF: 1,54
57. Tielinen L, Manninen M, Puolakkainen P, Pihlajamäki H, Pohjonen T, Rautavuori J, Törmälä P. Polylactide pin with transforming growth factor 1 in delayed osteotomy fixation. *Clin Orthop* 1998;355:312-22.
58. Vaalamo M, Karjalainen-Lindsberg M-L, Puolakkainen P, Kere J, Saarialho-Kere U. Distinct expression profiles of stromelysin-2 (MMP-10), collagenase-3 (MMP-13), macrophage metalloelastase (MMP-12) and tissue inhibitor of metalloproteinase-3 (TIMP-3) in intestinal ulcerations. *Am J Pathol* 1998;152:1005-14. IF: 5,67

1999

59. Hietaranta A, Kempainen E, Puolakkainen P, Sainio V, Haapiainen R, Peuravuori H, Kivi-laakso E, Nevalainen T. Extracellular phospholipases A2 in relation to systemic inflammatory response syndrome (SIRS) and systemic complications in severe acute pancreatitis. *Pancreas* 1999;4:385-91. IF: 2,59
60. Kempainen E, Hietaranta A, Puolakkainen P, Sainio V, Haapiainen R, Kivilaakso E, Nevalainen T. Bactericidal/permeability-increasing protein, group I and II phospholipase A2 during induction phase of human acute pancreatitis. *Pancreas* 1999;18:21-7. IF: 2,59
61. Puolakkainen P, Reed M, Vento P, Sage EH, Kiviluoto T, Kivilaakso E. Expression of SPARC in the healing intestinal anastomoses and short bowel syndrome in rats. *Dig Dis Sci* 1999;8:1554-64. IF: 1,84
62. Puolakkainen P, Vakkari ML, Kokkola A, Varis A, Haapiainen R, Kivilaakso E, Knuutila S. DNA copy number changes in gastric adenocarcinoma (GC) cell lines as evaluated by comparative genomic hybridization (CGH). In: Kim JP, Min JS, Mok YJ eds. 1999, pp303-306.
63. Tielinen L, Manninen M, Puolakkainen P, Päätiälä H, Pohjonen T, Rautavuori J, Rokkanen P. Combining transforming growth factor 1 to a bioabsorbable self-reinforced polylactide pin for osteotomy healing: an experimental study on rats. *J Orthop Sci* 1999;4:421-30. IF: 1,03
64. Vidgren V, Varis A, Kokkola A, Monni O, Puolakkainen P, Nordling S, Forozaan F, Kallioniemi A, Vakkari M-L, Kivilaakso E, Knuutila S. Concomitant gastrin and ERBB2 gene amplifications at 17q12-21 in the intestinal type of gastric cancer. *Genes, Chromosomes and Cancer* 1999;24:24-9. IF: 3,86

2000

65. Halonen K, Leppäniemi A, Puolakkainen P, Lundin J, Kempainen E, Hietaranta A, Haapiainen R. Severe acute pancreatitis: Prognostic factors in 270 consecutive patients. *Pancreas* 2000;21:266-71. IF: 2,59
66. Kempainen E, Hietaranta A, Puolakkainen P, Hedström J, Haapiainen R, Stenman UH. Time course profile of serum trypsinogen-2 and trypsin-2-alpha1-antitrypsin in patients with acute pancreatitis. *Scand J Gastroenterol* 2000;35:1216-20. IF: 2,08
67. Kokkola A, Rautelin H, Puolakkainen P, Sipponen P, Färkkilä M, Haapiainen R, Kosunen TU. Diagnosis of *Helicobacter pylori* infection in patients with atrophic gastritis: comparison of histology, <sup>13</sup>C-urea breath test and serology. *Scand J Gastroent* 2000;35:138-41. IF: 2,08
68. Kylänpää-Bäck ML, Kempainen E, Puolakkainen P, Hedström J, Haapiainen R, Perhoniemi V, Kivilaakso E, Korvuo

A, Stenman UH. Reliable screening for acute pancreatitis with rapid urine trypsinogen-2 test strip. *Br J Surg* 2000;87:49-52. IF: 4,08

69. Latvala T, Uusitalo M, Puolakkainen P, Kivelä T, Tervo T. Immunolocalization of transforming growth factor beta1, and tenascin in secondary human cataract. *Acta Ophthalmol Scand* 2000;78:344-7.

70. Neoptolemos JP, Kemppainen EA, Mayer JM, Fitzpatrick JM, Raraty MGT, Slavin J, Beger HG, Hietaranta A, Puolakkainen PA. Early prediction of severity in acute pancreatitis by urinary trypsinogen activation peptide: A multicentre study. *Lancet* 2000;355:1955-60. IF: 30,76

71. Paavonen K, Puolakkainen P, Jussila L, Jahkola T, Alitalo K. Vascular endothelial growth factor receptor-3 in lymphangiogenesis in wound healing. *Am J Pathol* 2000;156:1499-504. IF: 5,67

2001

72. Andersen J, Hedström J, Kemppainen E, Finne P, Puolakkainen P, Stenman UH. The ratio of trypsin-2-AAT to serum trypsinogen-1 discriminates biliary and alcohol-induced acute pancreatitis. *Clin Chem* 2001;47:231-6. IF: 6,26

73. Hedström J, Kemppainen E, Andersen J, Jokela H, Puolakkainen P, Stenman UH. A comparison of trypsinogen-2, trypsin-2-1-antitrypsin complex with amylase and lipase in the diagnosis and assessment of severity in the early phase of acute pancreatitis. *Am J Gastroenterol* 2001;96(2):424-30. IF: 6,01

74. Kemppainen E, Mayer J, Puolakkainen P, Raraty M, Slavin J, Neoptolemos JP. Plasma trypsinogen activation peptide in patients with acute pancreatitis. *Br J Surg* 2001;88:679-80. IF: 4,08

75. Kiviluoto T, Watanabe S, Hirose M, Sato N, Mustonen H, Puolakkainen P, Rönty M, Ranta-Knuutila T, Kivilaakso E. Nitric oxide donors retard wound healing in cultured rabbit gastric epithelial cell monolayers. *Am J Physiol Gastrointest Liver Physiol* 2001;281:G1151-7. IF: 3,26

76. Kylänpää-Bäck M-L, Takala A, Kemppainen E, Puolakkainen P, Kautiainen H, Jansson SE, Haapiainen R, Repo H: Cellular markers of systemic inflammation and immune suppression in patients with organ failure due to severe acute pancreatitis. *Scand J Gastroenterol* 2001;36:1100-7. IF: 2,08

77. Kylänpää-Bäck ML, Takala E, Kemppainen E, Puolakkainen P, Haapiainen R, Repo H. Pro-calcitonin strip test in early detection of severe acute pancreatitis. *Br J Surg* 2001;88:222-7. IF: 4,08

78. Kylänpää-Bäck ML, Takala A, Kemppainen E, Puolakkainen P, Leppäniemi A, Karonen SL, Orpana R, Haapiainen R, Repo H. Procalcitonin, soluble IL-2r and soluble E-selectin in predicting the severity of acute pancreatitis. *Crit Care Med* 2001;29(1):63-9. IF: 6,37

79. Lempinen M, Kylänpää-Bäck M-L, Stenman U-H, Puolakkainen P, Haapiainen R, Finne P, Korvuo A, Kemppainen E: Predicting the severity of acute pancreatitis by rapid measurement of trypsinogen-2 in urine. *Clin Chemistry* 2001;47:2103-7. IF: 6,26

80. Rautemaa R, Rautelin H, Puolakkainen P, Kokkola A, Kärkkäinen P, Meri S: Survival of *Helicobacter pylori* from complement lysis by binding of GPI-anchored protectin (CD59). *Gastroenterology* 2001;120:470-9. IF: 12,90

81. Salmela MT, Karjalainen-Lindsberg ML, Puolakkainen P, Saarialho-Kere U. Upregulation and differential expression of matrix metalloproteinase (MMP7) and metalloelastase (MMP12) and their inhibitors TIMP-1 and TIMP-3 in Barrett's oesophageal adenocarcinoma. *Br J Cancer* 2001;85:383-92. IF: 4,34

82. Tielinen L, Manninen M, Puolakkainen P, Kellomäki M, Törmälä P, Rich J, Seppälä J, Rokkanen P. Inability of transforming growth factor beta1, combined with a bioabsorbable polymer paste, to promote healing of bone defects in the rat distal femur. *Arch Orthop Trauma Surg* 2001;121:191-6. IF: 1,11

83. Vanhanen H, Pitkälä K, Puolakkainen P, Strandberg TE, Lonka K. The problem-based learning tutorial laboratory – a method for training medical teachers. *Med Teach* 2001;23:99-101. IF: 1,33

84. Varis A, Puolakkainen P, Savolainen H, Kokkola A, Salo J, Nieminen O, Nordling S, Knuutila S. DNA copy number profiling in Barrett's adenocarcinoma: comparison with gastric adenocarcinoma and esophageal squamous cell carcinoma. *Cancer Genet Cytogenet* 2001;127:53-8. IF: 1,54

85. Vuola J, Böhling T, Göransson H, Puolakkainen P. Transforming growth factor released from natural coral implant enhances bone growth at calvarium of mature rat. *J Biomed Mater Res* 2001;59:152-9.

2002

86. Halonen K, Pettilä V, Leppäniemi A, Kempainen E, Puolakkainen P, Haapiainen R. Multiple organ dysfunction associated with severe acute pancreatitis. *Crit Care Med* 2002;30:1274-9. IF: 6,37
87. Kokkola A, Sipponen P, Rautelin H, Härkönen M, Kosunen TU, Haapiainen R, Puolakkainen P. The effect of *Helicobacter pylori* eradication on the natural course of atrophic gastritis with dysplasia. *Aliment Pharmacol Ther* 2002;16:515-20. IF: 4,34
88. Kylänpää-Bäck ML, Kempainen E, Puolakkainen P, Hedström J, Haapiainen R, Korvuo A, Stenman UH. Comparison of urine trypsinogen-2 test strip with serum lipase in the diagnosis of acute pancreatitis. *Hepato-Gastroenterology* 2002;49:1130-4. IF: 0,67
89. Kylänpää-Bäck M-L, Kempainen E, Puolakkainen P. Trypsin-based laboratory methods and carboxypeptidase activation in acute pancreatitis. *J Pancreas* 2002;3(2):34-48.
90. Lohi H, Mäkelä S, Pulkkinen K, Höglund P, Karjalainen-Lindsberg ML, Puolakkainen P, Kere J. Upregulation of CFTR expression but not SLC26A3 and SLC9A3 in ulcerative colitis. *Am J Physiol Gastrointest Liver Physiol* 2002;283:G567-75. IF: 3,26
91. Mayer JM, Raraty M, Slavin J, Kempainen E, Fitzpatrick J, Hietaranta A, Puolakkainen P, Beger HG, Neoptolemos JP. Serum amyloid A is a better early predictor of severity than C-reactive protein in acute pancreatitis. *Br J Surg* 2002;89:163-71. IF: 4,08
92. Mayer JM, Raraty M, Slavin J, Kempainen E, Fitzpatrick J, Hietaranta A, Puolakkainen P, Beger HG, Neoptolemos JP. Severe acute pancreatitis is related to increased early urinary levels of the activation peptide of pancreatic phospholipase A. *Pancreatology* 2002;2:535-42. IF: 2,20
93. Ranta-Knuutila T, Kiviluoto T, Mustonen H, Puolakkainen P, Watanabe S, Sato N, Kivilaakso E: Migration of primary cultured rabbit gastric epithelial cells cequires intact protein kinase C and Ca<sup>2+</sup>/calmodulin activity. *Dig Dis Sci* 2002;47(5):1008-14. IF: 1,84
94. Tielinen L, Puolakkainen P, Pohjonen T, Rautavuori J, Törmälä P, Rokkanen P: The effect of transforming growth factor-1, released from a bioabsorbable self-reinforced polyactide pin, a bone defect. *Biomaterials* 2002;23:3817-23. IF: 7,37
- 2003
95. Bradshaw AD, Puolakkainen P, Dasgupta J, Davidson JM, Wight TN, Sage EH: SPARC-null mice display abnormalities in the dermis characterized by decreased collagen fibril diameter and reduced tensile strength. *J Invest Dermatol* 2003;120:949-55. IF: 5,54
96. Brekken RA, Puolakkainen P, Workman G, Graves D, Lubkin SR, Sage EH. Enhanced growth of tumors in SPARC-null mice is associated with changes in the extracellular matrix. *J Clin Invest* 2003;111:487-95. IF: 15,39
97. Halonen KI, Leppäniemi AK, Kempainen EA, Puolakkainen PA, Haapiainen RK. Long-term health-related quality of life in survivors of severe acute pancreatitis. *Intensive Care Med* 2003;29:782-6. IF: 5,17
98. Halonen KI, Leppäniemi AK, Lundin JE, Puolakkainen PA, Kempainen EA, Haapiainen RK. Predicting fatal outcome in the early phase of severe acute pancreatitis by using novel prognostic models. *Pancreatology* 2003;3:309-15. IF: 2,20
99. Kokkola A, Kosunen TU, Puolakkainen P, Sipponen P, Härkönen M, Laxen J, Virtamo J, Haapiainen R, Rautelin V. Spontaneous disappearance of *Helicobacter pylori* antibodies in patients with advanced atrophic corpus gastritis. *APMIS* 2003;111:619-24. IF: 1,75
100. Kokkola A, Sipponen P, Haapiainen R, Rautelin H, Karjalainen-Lindsberg M-L, Puolakkainen P: Development of Barrett's esophagus after "spontaneous" healing of atrophic corpus gastritis. *Helicobacter* 2003;8(4):590-3. IF: 2,85
101. Lempinen M, Stenman U-H, Finne P, Puolakkainen P, Haapiainen R, Kempainen E. Tryp-sinogen-2 and Trypsinogen activation peptide (TAP) in urine of patients with acute pancreatitis. *J Surg Res* 2003;111:267-73. IF: 2,18
102. Lempinen M, Stenman U-H, Puolakkainen P, Hietaranta A, Haapiainen R, Kempainen E: Sequential changes in pancreatic markers in acute pancreatitis. *Scand J Gastroenterol* 2003;38:666-75. IF: 2,08
103. Mentula P, Kylänpää-Bäck M-L, Kempainen E, Eklund K, Orpana A, Puolakkainen P, Haapiainen R, Repo H: Serum levels of mast cell tryptase, vascular endothelial growth factor and basic fibroblast growth factor in patients with acute pancreatitis. *Pancreas* 2003;27(2):e29-e33. IF: 2,59

104. Mentula P, Kylänpää-Bäck ML, Kempainen E, Takala A, Jansson SE, Kautiainen H, Puolakkainen P, Haapiainen R, Repo H. Decreased HLA-DR expression on peripheral blood mono-cytes predicts development of organ failure in patients with acute pancreatitis. *Clin Sci* 2003;105:409-17. IF: 3,98
105. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. ETOH increases intracellular Ca<sup>2+</sup>, closes gap junctions and decreases cell volume in rabbit gastric mucosa. In: Poujeol P and Petersen O (eds), *Monduzzi Editore*, pages 103-8, 2003
106. Puolakkainen P, Bradshaw A, Kyriakides TR, Reed , Brekken R, Wight T, Bornstein P, Ratner B, Sage EH. Compromised production of extracellular matrix in mice lacking secreted protein, acidic and rich in cysteine (SPARC) leads to a reduced foreign body reaction to im-planted biomaterials. *Am J Pathol* 2003;162(2):627-35. IF: 5,67
107. Reed MJ, Koike T, Sadoun E, Sage EH, Puolakkainen P. Inhibition of TIMP-1 enhances an-giogenesis in vivo and cell migration in vitro. *Microvasc Res* 2003;65:9-17. IF: 3,08
108. Sage EH, Reed M, Funk SE, Truong T, Steadele M, Puolakkainen P, Maurice DH, Bassuk JA: Cleavage of the matricellular protein SPARC by matrix metalloproteinase 3 produces poly-peptides that influence angiogenesis. *J Biol Chem* 2003;278:37849-57. IF: 5,33
- 2004
109. Bister, V-O, Salmela MT, Karjalainen-Lindsberg M-L, Uria J, Lohi J, Puolakkainen P, Lopez-Otin C, Saarialho-Kere U: Differential expression of three matrix metalloproteinases, MMP-19, MMP-26, and MMP-28, in normal inflamed intestine and colon cancer. *Dig Dis Sci* 2004;49(4):653-61. IF: 1,84
110. Hietaranta A, Mustonen H, Puolakkainen P, Haapiainen R, Kempainen E: Proinflammatory effects of pancreatic elastase are mediated through TLR4 and NF-κB. *Biochem Biophys Res Com* 2004;323:192-6. IF: 2,59
111. Johnson CD, Lempinen M, Imrie CW, Puolakkainen P, Kempainen E, Carter R, McKay C: Urinary trypsinogen activation peptide as a marker of severe acute pancreatitis. *Br J Surg* 2004;91:1027-33. IF: 4,08
112. Kakkola L, Kaipio N, Hokynar K, Puolakkainen P, Mattila PS, Kokkola A, Partio EK, Eis-Hübinger A-M, Söderlund-Venermo M, Hedman K. Genoprevalence in human tissues of TT-virus genotype 6. *Arch Virol* 2004;149:1095-106. IF: 1,91
113. Mentula P, Kylänpää-Bäck M-L, Kempainen E, Jansson S-E, Sarna S, Puolakkainen P, Haapiainen R, Repo H: Plasma anti-inflammatory cytokines and monocyte human leucocyte an-tigen-DR expression in patients with acute pancreatitis. *Scand J Gastroenterol* 2004;39:178-87. IF: 2,08
114. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Ethanol induces volume changes and gap-junction closure via intracellular Ca signalling pathway in cultured rabbit gastric epithelial cells. *Scand J Gastroenterol* 2004;39:103-10. IF: 2,08
115. Puolakkainen PA, Brekken RA, Muneer S, Sage EH: Enhanced growth of pancreatic tumors in SPARC-null mice is associated with decreased deposition of extracellular matrix and reduced tumor cell apoptosis. *Molecular Cancer Res* 2004;2:215-24. IF: 4,16
116. Salmela TM, Pender LF, Karjalainen-Lindsberg M-L, Puolakkainen P, MacDonald TT, Saari-alho-Kere U: Collagenase-1 (MMP-1); Matrilysin-1 (MMP-7), and Stromelysin-2 (MMP-10) are expressed by migratin enterocytes during intestinal wound healing. *Scand J Gastroenterol* 2004;39:1095-104. IF: 2,08
117. Varis A, Zaika A, Puolakkainen P, Magy B, Madrigal I, Kokkola A, Väyrynen A, Kärkkäinen P, Moskaluk C, El-Rifai W, Knuutila S: Coamplified and overexpressed genes at ERBB2 locus in gastric cancer. *Int J Cancer* 2004;109: 548-53. IF: 4,72
- 2005
118. Barker TH, Framson P, Puolakkainen P, Reed M, Funk SE, Sage EH: Matricellular homo-logs in the foreign body response. Hevin suppresses inflammation, but Hevin and SPARC togeth-er diminish angiogenesis. *Am J Pathol* 2005;166(3):923-33. IF: 5,67
119. Bidel S, Mustonen H, Khalighi-Sikaroudi G, Lehtonen E, Puolakkainen P, Kiviluoto T, Kivi-laakso E: Effect of the ulcerogenic agents ethanol, acetylsalicylic acid and taurocholate on actin cytoskeleton and cell motility in cultured rat gastric mucosal cells. *World J Gastroenterol* 2005;11(26):4032-9. IF: 2,09
120. Kokkola A, Louhimo J, Puolakkainen P, Alfthan H, Haglund C, Rautelin V: Helicobacter py-lori infection and low serum pepsinogen I level as risk factors for gastric carcinoma. *World J Gas-troenterol* 2005;11(7):1032-6. IF: 2,09
121. Kylänpää ML, Mentula P, Kempainen E, Puolakkainen P, Aittomäki S, Silvennoinen O, Haapiainen R, Repo H:

Monocyte anergy is present in patients with severe acute pancreatitis and is significantly alleviated by granulocyte-macrophage colony-stimulating factor and interferon- in vitro. *Pancreas* 2005;31(1):23-7. IF: 2,58

122. Lempinen M, Puolakkainen P, Kempainen E: Clinical value of severity markers in acute pancreatitis. *Scand J Surg* 2005;94:118-123. IF: 0,82

123. Lempinen M, Stenman U-H, Halttunen J, Puolakkainen P, Haapiainen R, Kempainen E: Early sequential changes in serum markers of acute pancreatitis induced by endoscopic retro-grade cholangiopancreatography. *Pancreatology* 2005;5:157-64. IF: 2,2

124. Mentula P, Kylänpää M-L, Kempainen E, Jansson S-E, Sarna S, Puolakkainen P, Haapiainen R, Repo H: Early prediction of organ failure by combined markers in patients with acute pancreatitis. *Br J Surg* 2005;92:68-67. IF: 4,08

125. Mustonen H, Kiviluoto T, Paimela H, Puolakkainen P, Kivilaakso E: Calcium signaling is in-volved in ethanol-induced volume decrease and gap junction closure in cultured rat gastric muco-sal cells. *Dig Dis Sci* 2005;50 (1):103-10. IF: 1,84

126. Mustonen H, Lepistö A, Lehtonen S, Lehtonen E, Puolakkainen P, Kivilaakso E: CD2AP contributes to cell migration and adhesion in cultured gastric epithelium. *Biochem Biophys Res Comm* 2005;332:426-32. IF: 2,55

127. Nurmi JT, Puolakkainen P, Rautonen NE: Bifidobacterium Lactis sp. 420 up-regulates cy-clooxygenase (Cox)-1 and down-regulates Cox-2 gene expression in a Caco-2 cell culture model. *Nutrition and Cancer* 2005;51(1):83-92. IF: 1,97

128. Nurmi JT, Puolakkainen PA, Rautonen NE: Intron 1 retaining cyclooxygenase 1 splice vari-ant is induced by osmotic stress in human intestinal epithelial cells. *Prostaglandins Leukot Essent Fatty Acids* 2005;73(5):343-50. IF: 2,53

129. Puolakkainen P, Bradshaw AD, Brekken RA, Reed MJ, Kyriakides T, Funk SE, Gooden MD, Vernon RB, Wight TN, Bornstein P, Sage EH: SPARC-thrombospondin-2-double-null mice exhibit enhanced cutaneous wound healing and increased fibrovascular invasion of subcutaneous polyvinyl alcohol sponges. *J Histochem & Cytochem* 2005;53:571-81. IF: 2,37

130. Reed MJ, Bradshaw AD, Shaw M, Sadoun E, Han N, Ferrara N, Funk S, Puolakkainen P, Sage EH: Enhanced angiogenesis characteristic of SPARC-null mice disappears with age. *J Cell Physiol* 2005;204(3):800-7. IF: 4,59

131. Tukiainen E, Kylanpaa ML, Kempainen E, Nevanlinna H, Paju A, Repo H, Stenman UH, Puolakkainen P: Pancreatic secretory trypsin inhibitor (SPINK1) gene mutations in patients with acute pancreatitis. *Pancreas* 2005;30(3):239-42. IF: 2,59

2006

132. Järveläinen H, Puolakkainen P, Pakkanen S, Brown E, Höök M, Iozzo R, Sage H: A role for decorin in cutaneous wound healing and angiogenesis. *Wound Repair Regen* 2006;14(4):443-52. IF: 2,78

133. Lindström O, Kylänpää L, Mentula P, Puolakkainen P, Kempainen E, Haapiainen R, Fernandez JA, Griffin JH, Repo H, Petaja J: Upregulated but insufficient generation of activated pro-teïn C is associated with development of multiorgan failure of severe acute pancreatitis. *Critical Care* 2006;10: R16. IF: 4,93

134. Nylander-Koski O, Mustonen H, Puolakkainen P, Kiviluoto T, Kivilaakso E: Epidermal growth factor enhances intracellular pH regulation via calcium signaling in acid exposed primary cultured rabbit gastric epithelial cells. *Dig Dis Sci* 2006;51(8):1322-30. IF: 1,84

135. Stjernberg-Salmela S, Kivisaari A, Puolakkainen P, Farkkila M, Kempainen E, Ranki A, Pettersson T: Intra-abdominal abscess in a patient with tumour necrosis factor receptor-associated periodic syndrome. Case report. *J Intern Med* 2006;259(2): 209-13. IF: 5,94

136. Sullivan MM, Barker TH, Funk SE, Karchin A, Sanders J, Starcher B, Wight TN, Puolakkainen P, Sage EH. Matricellular hevin regulates decorin production and collagen assembly. *J Bi-ological Chemistry* 2006;281(37): 27621-32. IF: 5,33

137. Tukiainen E, Kylänpää M-L, Ebeling P, Kempainen E, Puolakkainen P, Repo H: Leptin and adiponectin levels in acute pancreatitis. *Pancreas* 2006;32 (2): 211-4. IF: 2,59

138. Weckman L, Kylänpää M-L, Puolakkainen P, Halttunen J. Endoscopic treatment of pancre-atic pseudocysts. *Surg Endosc* 2006;20:603-7. IF: 3,31

2007

139. Danielson H, Kokkola A, Kiviluoto T, Sirén J, Louhimo J, Kivilaakso E, Puolakkainen P: Clin-ical outcome after D1 vs. D2-3 gastrectomy for treatment of gastric cancer. *Scand J Surg* 2007;96:35-40. IF: 0,82

140. Mentula P, Kylänpää M-L, Kempainen E, Repo H, Puolakkainen P: Early inflammatory re-sponse in acute pancreatitis is little affected by body mass index. *Scand J Gastroenterol* 2007; 42: 1362-8. IF: 2,08
141. Mustonen H, Hietaranta A, Puolakkainen P, Kempainen E, Paimela H, Kiviluoto T, Kivi-laakso E: Ethanol induced KF-kB activation protects against cell injury in cultured rat gastric mu-cosal epithelium. *Am J Physiol Gastrointest Liver Physiol* 2007; 292; G1614-G1621. IF: 3,26
142. D'Amato M, Bruce S, Bresso F, Zucchelli M, Ezer S, Pulkkinen V, Lindgren C, Astegiano M, Rizzetto M, Gionchetti Riegler G, Sostegni R, Daerno M, D'Alfonso S, Momigliano-Richiardi P, Torkvist L, Puolakkainen P, Lappalainen M, Paavola-Sakki P, Halme L, Färkkilä M, Turunen U, Kontula K, Lofberg R, Pettersson S, Kere J: Neuropeptide S receptor 1 gene polymorphism is as-sociated with susceptibility to inflammatory bowel disease. *Gastroenterology* 2007; 133: 8088-17. IF: 12,90
143. Nylander-Koski O, Kiviluoto T, Puolakkainen P, Kivilaakso E, Mustonen H: The effect of ni-tric oxide, growth factors, and estrogen on gastric cell migration. *J Surg Res* 2007; 143: 230-7. IF: 2,18
144. Methuen T, Kylänpää M-L, Kekäläinen O, Halonen T, Tukiainen E, Sarna S, Kempainen E, Haapiainen R, Puolakkainen P, Salaspuro M: Disialotransferrin, determined by capillary electro-phoresis, is an accurate biomarker for alcoholic cause of acute pancreatitis. *Pancreas* 2007;34(4):405-9. IF: 2,59
145. Rau BM, Frigerio I, Büchler MW, Wegscheider K, Bassi C, Puolakkainen PA, Beger HG, Schilling MK. Evaluation of procalcitonin for predicting septic multiorgan failure and overall prog-nosis in secondary peritonitis. A prospective multicenter study. *Arch Surg* 2007;142:134-42. IF: 4,32
146. Rau BM, Kempainen EA, Gumbs AA, Uhl W, Büchler MW, Wegscheider K, Bassi C, PA Puolakkainen, Beger HG: Early assessment of pancreatic infections and overall prognosis in se-vere acute pancreatitis by procalcitonin (PCT). A prospective international multicenter study. *Ann Surg* 2007;245(5):745-54. IF: 7,90
147. Bister V, Skoog T, Virolainen S, Kiviluoto T, Puolakkainen P, Saarialho-Kere U: Increased expression of matrix metalloproteinases-21 -26 and TIMP-4 in pancreatic adenocarcinoma. *Mod Pathol* 2007; 20(11): 1128-40. IF: 4,41
- 2008
148. Kokkola A, Sipponen P, Arkkila P, Danielson H, Puolakkainen P. Does the eradication of *Helicobacter pylori* delay the diagnosis of gastric cancer. *Scand J Gastroenterol* 2008; 43: 1456-60. IF: 2,08
149. Mahkonen A, Putaala H, Mustonen H, Rautonen N, Puolakkainen P. *Lactobacillus acidophi-lus* 74-2 and butyrate induce cyclooxygenase (COX)-1 expression in gastric cancer cells. *Immo-nopharmacology and Immunotoxicology* 2008; 30(3): 503-18. IF: 0,89
150. Tukiainen E, Kylänpää ML, Puolakkainen P, Kempainen E, Halonen K, Orpana A, Methuen T, Salaspuro M, Haapiainen R, Repo H. Polymorphisms of the TNF, CD14, and HSPA1B genes in patients with acute alcohol-induced pancreatitis. *Pancreas* 2008; 37(1): 56-61. IF: 2,59
151. Myllykangas S, Junnila S, Kokkola A, Rautio R, Scheinin T, Kiviluoto T, Karjalainen-Lindsberg ML, Hollmén J, Knuutila S, Puolakkainen P, Monni A. Integrated gene copy number and expression microarray analysis of gastric cancer highlights potential target genes. *Int J Can-cer* 2008; 123(4): 817-25. IF: 4,72
152. Petrova TV, Nykänen A, Norrmen C, Ivanov KI, Andersson LC, Haglund C, Puolakkainen P Wempe F, von Melchner H, Gradwohl G, Vanharanta S, Aaltonen LA, Saharinen J, Gentile M, Clarke A, Taipale J, Oliver G, Alitalo K. Transcription factor PROX1 induces colon cancer pro-gression by promoting the transition from benign to hihly dysplastic phenotype. *Cancer Cell* 2008; 13(5): 407-19. IF: 25,29
153. Sullivan MM, Puolakkainen P, Barker TH, Funk SE, Sage EH. Altered tissue repair in hevin-null mice: inhibition of fibroblast migration by a matricellular SPARC homolog. *Wound Repair Regen* 2008; 16(2): 310-9. IF: 2,78
154. Lindström O, Jarva H, Meri S, Mentula P, Puolakkainen P, Kempainen E, Haapiainen R, Repo H, Kylänpää L. Elevated levels of the complement regulator protein CD59 in severe acute pancreatitis. *Scand J Gastroenterol* 2008; 43(3): 350-5. IF: 2,08
155. Mentula P, Kylänpää ML, Kempainen E, Puolakkainen P. Obesity correlates with early hy-perglycemia in patients with acute pancreatitis who developed organ failure. *Pancreas* 2008; 36(1): e21-5. IF: 2,59
156. Tiala I, Wakkinen J, Suomela S, Puolakkainen P, Tammi R, Forsberg S, Rollman O, Kainu K, Rozell B, Kere J, Saarialho-Kere U, Elomaa O. The PSORS1 locus gene CCHCR1 affects keratinocyte proliferation in transgenic mice. *Hum Mol Genet* 2008; (17)7: 1043-51. IF: 7,39

157. Vakkila J, Nieminen U, Siitonen S, Turunen U, Halme L, Nuutinen H, Mustonen H, Puolak-kainen P, Färkkilä M, Repo H. A novel modification of a flow cytometric assay of phosphorylated STAT1 in whole blood monocytes for immunomonitoring of patients on IFN alpha regimen. *Scand J Immunol* 2008; 67(1): 95-102. IF: 2,11

158. Mustonen H, Kiviluoto T, Puolakkainen P, Paimela H, Mentula P, Kempainen E, Kivilaakso E. Taurocholate-induced nitric oxide signaling and the ensuing production of reactive oxygen species lead to an increase in epithelial permeability in cultivated mouse gastric epithelium. *Dig Dis Sci* 2008; 53: 3119-27. IF: 1,84

2009

159. Nieminen A, Kokkola A, Ylä-Liedenpohja J, Louhimo J, Mustonen H, Puolakkainen P. Early gastric cancer: clinical characteristics and results of surgery. *Dig Surg* 2009; 26(5): 378-83. IF: 1,37

160. Lindström O, Tukiainen E, Kylänpää L, Mentula P, Rouhiainen A, Puolakkainen P, Rauvala H, Repo H: Circulating levels of a soluble form of receptor for advanced glycation end products and high-mobility group box chromosomal protein 1 in patients with acute pancreatitis. *Pancreas* 2009; 38(2): 215-20 IF: 2,59

161. Kauhanen SP, Komar G, Seppänen MP, Dean KI, Minn HR, Kajander SA, Rinta-Kiikka I, Alanen K, Borra RJ, Puolakkainen P, Nuuttila P, Ovaska JT. A prospective diagnostic accuracy study of 18F-fluoreoxyglucose positron emission tomography/computed tomography, multidetector row computed tomography, and magnetic resonance imaging in primary diagnosis and staging of pancreatic cancer. *Ann Surg* 2009; 250: 957-63. IF: 7,9

162. Norrmén C, Ivanov KL, Cheng J, Zangger N, Delorenzi M, Jaquwt M, Miura N, Puolak-kainen P, Horsley V, Hu J, Augustin HG, Ylä-Herttua S, Alitalo K, Petrova TV. FOX2 controls formation and maturation of lymphatic collecting vessels through cooperation with NFATc1. *J Cell Biol* 2009; 185(3): 439-57. IF: 9,58

163. Tukiainen E, Kylänpää ML, Repo H, Orpana A, Methuen T, Salaspuro M, Kempainen E, Puolakkainen P. Hemostatic gene polymorphisms in severe acute pancreatitis. *Pancreas* 2009;38(2): 43-6. IF: 2,59

164. Mustonen H, Puolakkainen P, Kempainen E, Kiviluoto T, Kivilaakso E. Taurocholate potentiates ethanol-induced NF-kappaB activation and inhibits caspase-3 activity in cultured rat gastric mucosal cells. *Dig Dis Sci* 2009;54(5): 928-36. IF: 1,84

2010

165. Junnila S, Kokkola A, Mizuguchi T, Hirata K, Karjalainen-Lindsberg M-L, Puolakkainen P, Monni O. Gene expression analysis identifies over-expression of CXCL1, SPARC, SPPI, and SULF in gastric cancer. *Genes, Chromosomes & Cancer* 2010; 49 28-39. IF: 3,86

166. Norrmén C, Vandeveld W, Ny A, Saharinen P, Gentile M, Haraldsen G, Puolakkainen P, Lukanidin E, Dewerchin M, Alitalo K, Petrova TV. Liprin (beta)1 is highly expressed in lymphatic vasculature and is important for lymphatic vessel integrity. *Blood* 2010; 115(4): 906-9. IF: 10,56

167. Junnila S, Kokkola A, Karjalainen-Lindsberg M-L, Puolakkainen P, Monni O: Genome-wide copy number and expression analysis of primary gastric tumors and gastric cancer cell lines. *BMC Cancer* 2010; 10:73. IF: 2,74

168. Arnold SA, Rivera LB, Miller AF, Carbon JG, Dineen SP, Xie Y, Castrillon DH, Sage EH, Puolakkainen P, Bradshaw A, Brekken RA. Lack of host SPARC enhances vascular function and tumor spread in an orthotopic murine model of pancreatic carcinoma. *Disease Models & Mechanisms* 2010; 3(1-2):57-72. IF: 3,30

169. Stjernberg-Salmela S, Ranki A, Karenko L, Siitonen S, Mustonen H, Puolakkainen P, Sarna S, Pettersson T, Repo H. Low TNF-induced NF-kappaB and p38 phosphorylation levels in leucocytes in tumour necrosis factor receptor-associated periodic syndrome. *Rheumatology* 2010;49(2): 382-90. IF: 4,24

170. Oiva J, Mustonen H, Kylänpää M-L, Kyhälä L, Alanärä T, Aittomäki S, Siitonen S, Kempainen E, Puolakkainen P, Repo H. Patients with acute pancreatitis complicated by organ failure show highly aberrant monocyte signaling profiles assessed by phospho-specific flow cytometry. *Crit Care Med* 38(8): 1702-8. IF: 6,37

171. Pettilä V, Kyhälä L, Kylänpää M-L, Leppäniemi A, Tallgren M, Markkola A, Puolakkainen P, Repo H, Kempainen E: APCAP –activated protein C in acute pancreatitis: a double-blind randomized human pilot trial. *Crit Care* 2010; 14: R139. IF: 4,93

172. Mentula P, Hienonen Piia, Kempainen E, Puolakkainen P, Leppäniemi A. Surgical decompression for abdominal compartment syndrome in severe acute pancreatitis. *Arch Surg* 2010; 145(8):764-9. IF: 4,32

173. Bota PCS, Collie AMB, Puolakkainen P, Vernon RB, Sage EH, Ratner BD, Stayton PS: Biomaterial topography alters healing in vivo and monocyte/macrophage activation in vitro. *J Bio-med Mat Res* 2010; 95(2): 649-57. IF: 2,81

174. Oiva J, Mustonen H, Kylänpää ML, Kyhälä L, Kuuliala K, Siitonen S, Kempainen E, Puolakkainen P, Repo H. Acute



pancreatitis with organ dysfunction associates with abnormal blood lymphocyte signaling: controlled laboratory study. *Crit Care* 2010; 14:(6):R207. IF: 4,91

2011

175. Lindström OK, Tukiainen EM, Kylänpää ML, Mentula PJ, Puolakkainen PA, Wartiovaara-Kautto UM, Repo H, Petäjä JM. Thrombin generation in vitro and in vivo and disturbed tissue factor regulation in patients with acute pancreatitis. *Pancreatology*. 2011;11(6):557-66. Epub 2011 Dec 29.

176. Oiva J, Itkonen O, Koistinen R, Hotakainen K, Zhang WM, Kempainen E, Puolakkainen P, Kylänpää L, Stenman UH, Koistinen H. Specific immunoassay reveals increased serum tryptase in acute pancreatitis. *Clin Chem* 2011; 57:1506-13

177. Kauttu T, Rantanen T, Sihvo E, Räsänen J, Puolakkainen P, Salo J. Esophageal adenocarcinoma arising after antireflux surgery: a population based analysis. *Eur J Cardiothorac Surg* 2011; 40:1450-4.

2012

178. Shen Z, Kauttu T, Seppänen H, Vainionpää S, Ye Y, Wang S, Mustonen H, Puolakkainen P. Vasohibin-1 and vasohibin-2 expression in gastric cancer cells and TAMs. *Med Oncol*. 29:2718-26, 2012

179. Kokkola A, Louhimo J, Puolakkainen P. Does non-curative gastrectomy improve survival in patients with metastatic gastric cancer? *J Surg Oncol*. 2012 Feb 21. doi: 10.1002/jso.23066.

180. Kauttu T, Räsänen J, Krogerus L, Sihvo E, Puolakkainen P, Salo JA. Long-term results of ablation with antireflux surgery for Barrett's esophagus: a clinical and molecular biologic study. *Surg Endosc*. 2012 Jan 5.

181. Shen Z, Ye Y, Dong L, Vainionpää S, Mustonen H, Puolakkainen P, Wang S. Kindlin-2: a novel adhesion protein related to tumor invasion, lymph node metastasis, and patient outcome in gastric cancer. *Am J Surg*. 2012 Feb;203(2):222-9. Epub 2011 Nov 5.

182. Kyhälä L, Mentula P, Kylänpää L, Moilanen E, Puolakkainen P, Pettilä V, Repo H. Activated protein C does not alleviate the course of systemic inflammation in the APCAP trial. *Int J Inflamm* 2012: 712739, 2012

183. Shen Z, Seppänen H, Vainionpää S, Ye Y, Wang S, Mustonen H, Puolakkainen P. IL10, IL11, IL18 are differently expressed in CD14+ TAMs and play different role in regulating the invasion of gastric cancer cells under hypoxia. *Cytokine*. 59:352-7, 2012

184. Dellinger EP, Forsmark CE, Layer P, Puolakkainen P, et al. Determinant-based classification of acute pancreatitis severity: an international multidisciplinary consultation. *Ann Surg* 256(6):875-80, 2012

2013

185. Shen Z, Ye Y, Kauttu T, Seppänen H, Vainionpää S, Wang S, Mustonen H, Puolakkainen P. The novel focal adhesion gene kindlin-2 promotes the invasion of gastric cancer cells mediated by tumor-associated macrophages. *Oncol Rep*. 29:791-7, 2013

186. Shen Z, Ye Y, Kauttu T, Seppänen H, Vainionpää S, Wang S, Mustonen H, Puolakkainen P. Novel focal adhesion protein kindlin-2 promotes the invasion of gastric cancer cells through phosphorylation of integrin  $\beta$ 1 and  $\beta$ 3. *J Surg Oncol*. 2013;108:106-12, 2013

187. Kuuliala K, Lappalainen M, Turunen U, Puolakkainen P, Kempainen E, Siitonen S, Repo H, Mustonen H. Detection of muramyl dipeptide-sensing pathway defects in monocytes of patients with Crohn's disease using phospho-specific whole blood flow cytometry. *Scand J Clin Lab Invest* 73(6):494-502, 2013

188. Layer P, Dellinger EP, Forsmark CE, Puolakkainen P, Pancreatitis Across Nations Clinical Research and Education Alliance (PANCREA). Determinant-based classification of acute pancreatitis severity. International multidisciplinary classification of acute pancreatitis severity: the 2013 German edition. *Z Gastroenterol* 51 (6):544-50, 2013

189. Shen Z, Seppänen H, Kauttu T, Vainionpää S, Ye Y, Wang S, Mustonen H, Puolakkainen P. Vasohibin-1 Expression Is Regulated by Transforming Growth Factor- $\beta$ /Bone Morphogenetic Protein Signaling Pathway Between Tumor-Associated Macrophages and Pancreatic Cancer Cells. *J Interferon Cytokine Res* 33(8) 428-33, 2013

190. Oiva J, Mustonen H, Kylänpää ML, Kuuliala K, Siitonen S, Kempainen E, Puolakkainen P, Repo H. Patients with acute pancreatitis complicated by organ dysfunction show abnormal peripheral blood polymorphonuclear leukocyte signaling. *Pancreatology* 13(2):118-24, 2013

191. Shen Z, Kauttu T, Cao J, Seppänen H, Vainionpää S, Ye Y, Wang S, Mustonen H, Puolakkainen P. Macrophage coculture enhanced invasion of gastric cancer cells via TGF- $\beta$  and BMP pathways. *Scand J Gastroenterol*. 48:466-72, 2013

192. Shen Z, Kauttu T, Seppänen H, Vainionpää S, Ye Y, Wang S, Mustonen H, Puolakkainen P. Both macrophages and

hypoxia play critical role in regulating invasion of gastric cancer in vitro. *Acta Oncol.* 52:852-60, 2013

193. Maravi-Poma E, Dellinger EP, Puolakkainen P et al. Pancreatitis Across Nations Clinical Re-search and Education Alliance (PANCREA). International multidisciplinary classification of acute pancreatitis severity. *Med Intensiva* 2014 38(4):211-7

2014

194. Nieminen A, Maksimow M, Mentula P, Kyhälä L, Kylänpää L, Puolakkainen P, Kempainen E, Repo H, Salmi M. Circulating cytokines in predicting development of severe acute pancreatitis. *Crit Care.* 2014 May 21;18(3):R104. [Epub ahead of print]

195. Puolakkainen P, Koski A, Vainionpää S, Shen Z, Repo H, Kempainen E, Mustonen H, Seppänen H. Anti-inflammatory macrophages activate invasion in pancreatic adenocarcinoma by increasing the MMP9 and ADAM8 expression. *Med Oncol.* 2014 Mar;31(3):884. doi: 10.1007/s12032-014-0884-9. Epub 2014 Feb 14.

196. Maravi-Poma E, Patchen Dellinger E, Forsmark CE, Lacer P, Lévy P, Shimosegawa T, Siriwar-dena AK, Uomo G, Whitcomb DC, Windsor JA, Petrov MS; Pancreatitis Across Nations Clinical Re-search and Education Alliance (PANCREA). [International multidisciplinary classification of acute pan-creatitis severity: the 2013 Spanish edition]. *Med Intensiva.* 2014 May;38(4):211-7. doi: 10.1016/j.medin.2013.03.013. Epub 2013 Jun 7. Spanish.

197. Yan Y, Shen Z, Ye Y, Jiang K, Zhang H, Shen C, Mustonen H, Puolakkainen P, Wang S. A novel molecular marker of prognosis in colorectal cancer: Vasohibin-1. *Med Oncol.* 2014 Feb;31(2):816. doi: 10.1007/s12032-013-0816-0. Epub 2013 Dec 24.

198. Maksimow M, Kyhälä L, Nieminen A, Kylänpää L, Aalto K, Elima K, Mentula P, Lehti M, Puolakkainen P, Yegutkin GC, Jalkanen S, Repo H, Salmi M. Early prediction of persistent organ failure by soluble CD73 in patients with acute pancreatitis. *Crit Care Med* 2014 42(12):2556-64

2015

199. Wittel UA, Schmidt AL, Poxleitner PJ, Seifert GJ, Chikhladze S, Puolakkainen P, Hopt UT, Kylänpää L. The chemokine ligand CXCL16 is an indicator of bacterial infection in necrotizing pancreatitis. *Pancreatology* 2015 Jan 23 pii:S14124

200. Shen Z, Yan Y, Ye C, Wang B, Jiang K, Ye Y, Mustonen H, Puolakkainen P, Wang S. The effect of vasohibin-1 expression and tumor associated macrophages on the angiogenesis in vitro and in vivo. *Tumor Biol* Dec 14, 2015 (Epub ahead of print)

201. Nukarinen E, Lindstrom O, Kuuliala K, Kylänpää L, Pettilä V, Puolakkainen P, Kuuliala A, Hamalainen M, Moilanen E, Repo H. Hastbacka J. MMPs-7,-8,-9 and TIMP-1 in Acute Pancreatitis *Pancreas.* 44, 8, s. 1404-1404 2015

2016

202. Salmiheimo AN, Mustonen H, Vainionpää S, Shen Z, Kempainen E, Seppänen H, Puolakkainen P. Increasing the inflammatory competence of macrophages with IL-6 or with combination of IL-4 and LPS restrains the invasiveness of pancreatic cancer cells. *J Cancer* 7(1):42-9, 2016

203. Kyhälä L, Lindström O, Kylänpää L, Mustonen H, Puolakkainen P, Kempainen E, Tallgren M, Pettilä V, Repo H, Petäjä J. Activated protein C retards recovery from coag-ulopathy in severe acute pancreatitis. *Scand J Clin Lab Invest* 76(1):10-16, 2016

204. Armengol G, Sarhadi V, Ansari A, Malekzadeh R, Kokkola A, Puolakkainen P, Knuutila S. Driver gene mutations in stools of colorectal carcinoma patients detected by targeted next generation sequencing. *J Molecular Diagnostics* in press 2016

205. Rouhiainen A J, Penttilä A, Kylänpää M-L, Mustonen H K, Puolakkainen P, Rauvala H, Repo, H. Circulating nucleosomes as predictive markers of severe acute pancreatitis. *Journal of Intensive Care.* 2016, 4, s. 14 8 2016

206. Shen Z, Puolakkainen P & et al, The effect of Vasohibin 1 expression and tumor-associated macrophages on the angiogenesis in vitro and in vivo. PMID: 26666821 (epub ahead of print) *Tumor Biology*, 2016

207. Salmiheimo A, Mustonen H, Stenman UH, Puolakkainen P, Kempainen E, Seppänen H, Haglund C. Systemic Inflammatory Response and Elevated Tumour Mark-ers Predict Worse Survival in Resectable Pancreatic Ductal Adenocarcinoma. *PLoS One.* 2016 Sep 15;11(9):e0163064. doi: 10.1371/journal.pone.0163064. eCollection 2016

208. Shen Z, Wang B, Luo J, Jiang K, Zhang H, Mustonen H, Puolakkainen P, Zhu J, Ye Y, Wang S. Global-scale profiling of differential expressed lysine acetylated proteins in colorectal cancer tumors and paired liver metastases. *J Proteomics.* 2016 Jun 16;142:24-32. doi: 10.1016/j.jprot.2016.05.002. Epub 2016

209. Penttilä AK, Rouhiainen A, Kylänpää L, Mustonen H, Puolakkainen P, Rauvala H, Repo H. Circulating nucleosomes as predictive markers of severe acute pancreatitis. *J In-tensive Care.* 2016 Feb 17;4:14. doi: 10.1186/s40560-016-0135-6. eCollection 2016

2017

210. Youssef O, Sarhadi V, Böhring T, Puolakkainen P, Carpelan-Homstrom M, Kosken-salo S, Kokkola A, Knuutila S. Gene mutations in stool from gastric and colorectal neo-plasia patients by next generation sequencing. *World j Gastroent,*

in press 2017

211. Salmiheimo A, Mustonen H, Vainionpää S, Shen Z, Kempainen E, Puolakkainen P, Seppänen H. Tumour-associated macrophages activate migration and STAT3 in pancre-atic ductal adenocarcinoma cells in co-cultures. *Pancreatology*. 2017 Jul - Aug;17(4):635-641. doi: 10.1016/j.pan.2017.04.013.

212. Kauttu T, Mustonen H, Vainionpää S, Krogerus L, Ilonen I, Räsänen J, Salo J, Puo-lakkainen P. Disintegrin and metalloproteinases (ADAMs) expression in gastroesophageal reflux disease and in esophageal adenocarcinoma. *Clin Transl Oncol*. 2017 Jan;19(1):58-66. doi: 10.1007/s12094-016-1503-3.

213. Kuuliala K, Penttilä AK, Kaukonen KM, Mustonen H, Kuuliala A, Oiva J, Hämäläinen M, Moilanen E, Petilä V, Puolakkainen P, Kylänpää L, Repo H. Signalling profiels of blood leucocytes in sepsis and in acute pancreatitis in relation to disease severity. *Cand J Im-munol*. Nov 2017, in press

214. Penttilä A, Kylänpää L, Lindström O, Hastbacka J, Kuuliala K, Kuuliala A, Mustonen H, Moilanen E, Hamalainen M, Puolakkainen P, Repo H. Interleukin 8 and Hepatocyte Growth Factor in Predicting Development of Severe Acute Pancreatitis COGENT in press 2017

2018215. Youssef O, Lahti L, Kokkola A, Karla T, Tikkanen M, Rautelin H, Puolakkainen P, Knuutila S, Sarhadi V. Stool microbiota composition differs in patients with stomach, colon and rectal neoplasms. *Dig Dis Sci*, in press, 2018

216. Vonlanthen R, Lodge P, Barkun J, Puolakkainen P, Clavien P-A et al . Toward a consensus on centralization in surgery. *Ann Surg*, in press, 2018

Manuscripts: submitted / in preparation :

- Husu H, Mentula P, Lehtonen T, Puolakkainen P, Leppäniemi A. Treatment results of acute severe pancreatitis – 17 year experience from single institution. *Ann Surg* Subitted 2017

- Kyhälä L, Aalto K, Kylänpää L, Maksimov M, Mentula P, Puolakkainen P, Yegutkin G, Jalkanen S, Repo H, Salmi M. The level of soluble CD73 in serum on admission correlates with the severity of acute pancreatitis. In preparation.

- Ezer S, Söderhäll C, Känkänen R, Puolakkainen P, Kere J. Neuropeptide S-NPSR1 signalling in neu-robalstoma cells. In preparation.

-Arkkila P, Kokkola A, Puolakkainen P, Ristimäki A, Sipponen P. The cancer preventive effect of H.pylori eradication with special emphasis on different types of gastric cancer. In preparation.

- Shen Zhanlong, Seppänen Hanna, Mustonen Harri, Ye Yingjiang, Wnag Shan, Vainionpää Sanna, Repo Heikki, Kempainen Esko, Puolakkainen Pauli. Both macrophages and hypoxia play critical role in regulating invasion and metastasis of gastric cancer. In preparation.

- Lappalainen M, Mustonen H, Vainionpää S, Puolakkainen P, Repo H. Phosphorylation levels of NF-κB and p38 in response to MDP in sixteen Chron's Disease patients with the common and rare muta-tions of the CARD15 gene. In preparation.

## B) REVIEWS AND EDITORIALS, LETTERS

1987

1. Schröder T, Puolakkainen P: Laserin käyttö kirurgiassa. (The Use of Lasers in Surgery; A Review in Finnish) *Duodecim* 1987;103:803-9.

1988

2. Puolakkainen P, Rämö J, Schröder T: Fotodynaaminen terapia. (Photodynamic Therapy; A Review in Finnish) *Duodecim* 1988;104:762-7.

3. Schröder T, Jumpponen A, Nuutinen P, Puolakkainen P, Rämö OJ (eds.): *Pancreas in focus IV*. Helsinki, Finland, 1988. 1990

4. Puolakkainen P, Rämö J, Schröder T: Photodynamic therapy (PDT) in gastroenterology; A review. *Scand J Gastroenterol* 1990;25:417-21.

5. Puolakkainen P, Schröder T. New trends in the diagnosis and treatment of severe acute pancreatitis. Editorial. *Ann Med* 1990;22: 375-6.

6. Puolakkainen P, Schröder T: Photodynamic therapy; a review. *Ann Chir Gyn* 1990;79:240-3.

1992

7. Puolakkainen P, Schröder T: Akuutin haimatulehduksen hoito. Käypä hoito. (New Trends in the Treatment of Acute Pancreatitis; A Review in Finnish) *Duodecim* 1992;108:1891-5.

8. Puolakkainen P, Schröder T: Akuutin haimatulehduksen hoitolinjat. (The Current Treatment of Acute Pancreatitis; A Review in Finnish) *Suomen Lääkärilehti* 1990;45:1992.

9. Puolakkainen P, Schröder T: Photodynamic therapy (PDT) of gastrointestinal tumors ; A review. *Dig Dis* 1992;10:53-60.

10. Puolakkainen P, Twardzik D: Transforming growth factors alpha and beta, a review. In: *Neurotrophic factors*. Laughlin S, Fallon J (eds.). Academic Press, San Diego, 1992.

1994

11. Haapiainen R, Puolakkainen P, Valtonen V. Fulminantti haimatulehdus. (Fulminant Pancreatitis, A Review in Finnish) *Duodecim* 1994;110:1913-7.

12. Puolakkainen P. Proktiitit. Kirjassa: Sukupuolitaudit. *Duodecim*, (Proctitis ; A Review in the textbook of sexually transmitted diseases in Finnish), Helsinki, 1994.

1995

13. Sainio V, Kempainen E, Haapiainen R, Schröder T, Kivilaakso E, Valtonen V, Puolakkainen P. Early antibiotic treatment in acute necrotising pancreatitis. *Lancet (letter)* 1995;346:1374-5.

1997

14. Kempainen E, Puolakkainen P, Stenman UH. Measurement of Urinary trypsinogen-2 as a screen-ing test for acute pancreatitis. *N Engl J Med* 1997;1394 (letter).

1998

15. Kempainen E, Hedström J, Puolakkainen P, Haapiainen R, Stenman U-H. Advances in laboratory diagnostics of acute pancreatitis. A review. *Ann Med*, 1998;30:169-75.

16. Kempainen E, Puolakkainen P, Leppäniemi A, Hietaranta A, Grönroos J, Haapiainen R. Diagnosis of acute pancreatitis, current review. *Ann Chir Gyn* 1998;87:191-4.

17. Leppäniemi A, Kempainen E, Puolakkainen P, Takkunen O, Pettilä V, Haapiainen R. Vaikean haimatulehduksen hoito. (Treatment of severe pancreatitis, a review in Finnish). *Suomen Lääkärilehti* 1998; 53:3501-7.

18. Puolakkainen P, Hietaranta A, Kempainen E, Kivilaakso E. The role of antibiotic therapy in the prevention and treatment of MOF in severe acute pancreatitis. *J Phys Pharm*, 1998;49, suppl 2:123-9.

19. Puolakkainen P, Kempainen E, Leppäniemi A, Sainio V, Hietaranta A, Haapiainen R. Current principles of treatment in acute pancreatitis, current review. *Ann Chir Gyn* 1998;87:200-3.

20. Stenman UH, Kempainen E, Hedström J, Puolakkainen P. A Better test for acute pancreatitis? (Selected summaries) *Gastroenterology* 1998;114:411-2.

21. Tielinen L, Manninen M, Puolakkainen P, Pätiälä H, Pohjonen T, Rautvuori J, Rokkanen P: Biohajoavan polylaktidisauvasta vapautuvan transformoivan kasvutekijän beta 1 (TGF-1) vaikutus kokeellisen osteotomian paranemiseen (The effect of TGF-beta released from biodegradable polyactide pin on experimental osteotomy in rats). *SOT* 1998;4: 325-8.

22. Tielinen L, Manninen M, Rokkanen P, Puolakkainen P, Kellomäki M, Törmälä P, Rich J, Seppälä J: Biohajoavaan polypeerimassaan yhdistetty transformoiva kasvutekijä beta 1 ei edistä luudefektin paranemista distaalaisessa reidessä (TGF-beta combined to biodegradable polymeric mass does not enhance bone healing in rats). *SOT* 1998;21:393-5. 1999

23. Sainio V, Puolakkainen P, Kempainen E, Valtonen V, Kivilaakso E. Antibiotic prophylaxis in infected pancreatic necrosis. Pp 330-334. In: *Acute pancreatitis - Novel concepts in biology and therapy*, Buchler, Uhl, Friess, Malfertheiner (eds.). Blackwell Wissenschaft, 1999.

2000

24. Kemppainen E, Puolakkainen P, Leppäniemi A, Kivisaari L, Haapiainen R. Akuutin haimatulehduksen diagnostiikka. (Diagnosis of acute pancreatitis) A Review in Finnish. Suomen Lääk I 2000:3439-42.

2002

25. Puolakkainen P: Akuutti haimatulehdus (Acute Pancreatitis). Kirjassa: Kunnamo I (päätoim.) Lääkärin käsikirja 2002. Helsinki: Kustannus Oy Duodecim, 2002; s. 355-6, ISBN 951-656-079-2. A book chapter in Finnish

2003

26. Reed MJ, Koike T, Puolakkainen P. Wound repair in aging. In: Wound healing: methods and protocols (Methods in molecular medicine; 78), eds Eds. LA DiPietro and AL Burns, Humana Press Inc., Totowa, NJ, USA, pp 217-237, 2003

2004

27. Puolakkainen P: Akuutti haimatulehdus. (Acute Pancreatitis). Kirjassa: Kunnamo I (päätoim.) Lääkärin käsikirja 2004. Helsinki: Kustannus Oy Duodecim, 2004; s. 374-5. 951-656-144-6. A book chapter in Finnish

28. Puolakkainen P. Selecting severe cases of acute pancreatitis for trials and for treatment: enzymes and activation peptides. In: Pancreatic Disease: Basic Science and Clinical Management. Eds. Johnson CD, Imrie CW, Springer Berlin, Heidelberg, New York, ISBN 1-85233-711-7, pp. 358-365, 2004

2005

29. Kokkola A, Kiviluoto T, Sirén J, Halttunen J, Puolakkainen P: Mahasyövän kehittyvä kirurginen hoito. (The development in the operative treatment of gastric cancer). Suomen Lääk I 60(23): 2583-88, 2005. A review in Finnish. 2006

27. Kylänpää L, Mentula P, Kemppainen E, Repo H, Haapiainen R, Puolakkainen P: Vaikea akuutti haimatulehdus systeemisaireutena – onko monielinvaurio ennustettavissa ja estettävissä? (Severe acute pancreatitis – is MOF predictable? (A review in Finnish). Duodecim 2006;122:563-3

28. Puolakkainen P: Acute pancreatitis. In: Evidence-Based Medicine Guidelines. Ed. Kunnamo I, John Wiley & Sons, Ltd, England, ISBN 0-470-01184-X, pp. 338-39, 2005. A book chapter

29. Puolakkainen P: Akuutti haimatulehdus (Acute Pancreatitis). Kirjassa: Kunnamo I (päätoim.) Lääkärin käsikirja 2006. Helsinki: Kustannus Oy Duodecim, 2006; s. 382-3. 951-656-213-2. A book chapter in Finnish

30. Puolakkainen P: Krooninen haimatulehdus (Chronic Pancreatitis). Kirjassa: Kunnamo I (päätoim.) Lääkärin käsikirja 2006. Helsinki: Kustannus Oy Duodecim, 2006; s. 383-5. 951-656-213-2. A book chapter in Finnish

31. Puolakkainen P. Akuutti haimatulehdus (Acute Pancreatitis). Ajankohtaista Lääkärin käsikirjasta. Duodecim 2006;122:1997-8  
2007

32. Kemppainen E, Puolakkainen P: Non-alcoholic etiologies of acute pancreatitis – exclusion of other etiologic factors besides alcohol and gallstones. A review. Pancreatology 2007; 7: 142-6

2008

33. Mentula P, Kemppainen E, Puolakkainen P. Sappikitaudin hoito sappikivien aiheuttamassa akuutissa haimatulehduksessa. Duodecim 2008: 123: 2449-53. A review in Finnish

34. Puolakkainen P, Haapiainen R, Kemppainen E. Haimatulehduksista voidaan hoitaa. (The Treatment of Acute Pancreatitis). Kirjassa: Sairaanhoidon ytimessä. Toim. Joutsivuo, Laakso. Edita 2008 (A book chapter in Finnish)  
2010

35. Kylänpää ML, Repo H, Puolakkainen PA. Inflammation and immunosuppression in severe acute pancreatitis. World J Gastroenterol. 2010 Jun 21;16(23):2867-72. A review.

2011

36. Puolakkainen P: Akuutti haimatulehdus (Acute Pancreatitis). Kirjassa: Jousimaa JP (päätoim.) Lääkärin käsikirja 2011. Helsinki: Kustannus Oy Duodecim; s. 380-81 (Textbook Chapter in Finnish)

37. Puolakkainen P: Krooninen haimatulehdus (Chronic Pancreatitis). Kirjassa: Jousimaa JP (päätoim.) Lääkärin käsikirja

2011. Helsinki: Kustannus Oy Duodecim s. 381-3. (Textbook Chapter in Finnish)

38. Puolakkainen P: Haimasyöpä (Pancreatic Cancer). Kirjassa: Jousimaa JP (päätoim.) Lääkäriin kä-sikirja 2011. Helsinki: Kustannus Oy Duodecim s. 384-5. (Textbook Chapter in Finnish)

2016

39. Puolakkainen, P. Umpilisäketulehduksen hoidosta tarvitaan lisää tutkimustietoa. (Further data is needed on the treatment of acute appendicitis (Editorial) Suomen lääkärilehti. 71, 7, p.461, 2016

2018

40. Färkkilä M, Isoniemi H, Heikkinen M, Puolakkainen P (Editors) Gastroenterology and hepatology(textbook in Finnish) Gastroenterologia ja hepatologia, Duodecim 2018

41. Rähä M, Puolakkainen P. Tumor-associated macrophages (TAMs) as biomarkers for gastric cancer – A review. Chronic Diseases and Translational Medicine. In press, 2018

### C)ABSTRACTS AND OTHER PUBLICATIONS

1984

1. Lehtola A, Schröder T, Kivilaakso E, Lempinen M, Puolakkainen P, Karonen S-L. Alterations in blood flow during experimental pancreatitis in the pig. Fourth Meeting of the Experimental Research Section of the Nordic Surgical Association. Hanasaari, Espoo, Finland, 1984.

2. Parkkinen E, Nordling S, Puolakkainen P, Kiviluoto T, Schröder T, Schröder J. Monoclonal antibodies to exocrine cells of pancreas. XIV Annual Meeting of the Scandinavian Society for Immunology. Oslo, Norway, 1984.

3. Puolakkainen P, Schröder T, Paananen A, Kaarne M, Kuusi T, Lempinen M. Aprotinin and Na<sub>2</sub>CaEDTA in experimental hemorrhagic pancreatitis. Fourth Meeting of the Experimental Research Section of the Nordic Surgical Association. Hanasaari, Espoo, Finland, 1984.

4. Rämö J, Schröder T, Kuusi T, Puolakkainen P, Paananen A, Jalovaara P. Chronic ethanol ingestion causes an increase of phospholipase A<sub>2</sub> in acute experimental pancreatitis. Fourth Meeting of the Experimental Research Section of the Nordic Surgical Association. Hanasaari, Espoo, Finland, 1984.

5. Schröder T, Kivisaari L, Lehtola A, Kivilaakso E, Lempinen M, Standertskjöld-Nordenstam C-G, Somer K, Puolakkainen P, Karonen S-L. Contrast enhancement in computed tomography (CT) and pancreatic blood flow in experimental acute pancreatitis. XIXth Congress of the European Society for Surgical Research. Eur Surg Res 16:24, 1984.

1985

6. Lehtola A, Schröder T, Kivilaakso E, Lempinen M, Puolakkainen P, Karonen S-L. Alterations in organ blood flow during experimental pancreatitis in the pig. Sixth Tripartite Meeting, Boston, USA, 1985.

1986

7. Schröder T, Puolakkainen P, Brackett K, Sankar MY, Joffe SN. Effects of electrocautery, CO<sub>2</sub>-laser and contact Nd:YAG laser scalpel on the healing of intestinal anastomoses. Third Congress of the European Laser Association, Amsterdam, Netherlands, 1986.

1987

8. Puolakkainen P, Brackett K, Sankar MY, Schröder T, Joffe SN. Effects of electrocautery, CO<sub>2</sub>-laser and contact Nd:YAG laser scalpel on the healing of intestinal anastomoses. The Seventh Annual Meeting of the American Society for Laser Medicine and Surgery. San Francisco, USA, Lasers Surg Med 1987;7:90.

9. Puolakkainen P, Schröder T. Fotodynaaminen terapia. Suomen Gastroenterologiyhdistyksen syyskokous. (Photodynamic Therapy; The Annual Meeting of the Finnish Society for Gastroenterology) Lahti, Finland, 24.-25.9.1987. 1988

10. Puolakkainen P, Schröder T. Computed tomography and laboratory tests in the early diagnosis of acute pancreatitis. 21st Scandinavian Conference on Gastroenterology. Turku, Finland, 2.-4.6.1988. Scand J Gastroent 1988;23, Suppl 145: 100.

11. Rämö OJ, Lehtonen E, Puolakkainen P, Schröder T. The effect of laser-induced hyperthermia on tumor cells. Eight Annual Meeting of the American Society for Laser Medicine and Surgery. Dallas, USA, 25.-27.4.1988, Lasers Surg Med 1988;8:203.

12. Rämö OJ, Schröder T, Puolakkainen P, Jalovaara P. The behaviour of plasma phospholipase A2 activity in experimental pancreatitis is dependent on diet. 20th Meeting of European Pancreatic Club, Budapest, Hungary, 29.-31.8.1988.

1989

13. Hahl J, Haapiainen R, Puolakkainen P, Schröder T. Laserthermia in the treatment of liver tumors. The Second Meeting of the Scandinavian Society for Laser Therapy. Espoo, Finland, 15.-17.10.1989

14. Hahl J, Ovaska J, Puolakkainen P, Schröder T. Nd:YAG laser in mastectomy. The Second Meeting of the Scandinavian Society for Laser Therapy. Espoo, Finland, 15.-17.10.1989.

15. Hukki J, Castren M, Puolakkainen P, Lipasti J, Rämö OJ, Schröder T. Comparison of the effects of scalpel, electrocautery and various lasers on pig skin. 9th Annual Meeting of the American Society for Laser Medicine and Surgery, Arlington, Virginia, USA, 15.-17.4.1989. *Lasers Surg Med* 1989; Suppl. 1:7.

16. Hukki J, Puolakkainen P, Lipasti J, Castren M, Schröder T. Comparison of surgical lasers and conventional methods in skin incisions. The Second Meeting of the Scandinavian Society for Laser Therapy. Espoo, Finland, 15.-17.10.1989.

17. Puolakkainen P, Hukki J, Erkko P, Karvonen P. CO<sub>2</sub>-laser treatment of male genital and perianal condylomata. The Second Meeting of the Scandinavian Society for Laser Therapy, Espoo, Finland, 15.-17.10.1989.

18. Puolakkainen P, Kivisaari L, Nuutinen P, Schröder T. Varjoainetehosteinen tietokonetomografia akuutin pankreatiitin diagnostiikassa ja luokituksessa. (Contrast enhanced computed tomography in the diagnosis and classification of acute pancreatitis). The Eight Meeting of the Finnish Surgical Society, Helsinki, Finland, 9.-10.11.1989.

1990

19. Nuutinen P, Sainio V, Puolakkainen P, Kivisaari L, Schröder T. Contrast enhanced CT in the diagnosis and classification of acute pancreatitis - a 7-year experience. XXIII Nordic Congress of Gastroenterology and XIV Nordic Endoscopy Meeting, Reykjavik, Iceland, 14.-16.6.1990. *Scand J Gastroent* 1990;25, Suppl 176: 78.

20. Puolakkainen P, Schröder T. Akuutin haimatulehduksen hoitolinjat. (The current treatment of acute pancreatitis). The Meeting of Lääketiede 90 Medicin, Helsinki, Finland, 1990.

21. Puolakkainen P. Early assessment of acute pancreatitis: A comparative study of computed tomography and laboratory tests. *Curr Surg* 1990;47:307.

22. Saarinen P, Lipasti J, Hukki J, Puolakkainen P, Schröder T. New observations on healing of laser wounds. 2nd International Gastro-Surgical Club Joint Meeting of Surgeons and Gastroenterologists, Athens, Greece, 14.-17.11.1990.

23. Schröder T, Sainio V, Nuutinen P, Puolakkainen P, Kivisaari L. Contrast enhanced CT in the diagnosis and classification of acute pancreatitis - a 7-year experience. American Gastroenterologic Association (AGA) and American Association for the Study of Liver Diseases, San Antonio, Texas, USA, 13.-16.5.1990.

1991

24. Twardzik D, Paciucci P, Ranchalis J, Oleksowicz L, Puolakkainen P. Interleukin-2 augments the expression of transforming growth factor beta (TGF $\beta$ ) and its proform in patients with disseminated cancer. Second Annual Scientific Poster Session, Bristol-Myers Squibb Pharmaceutical Research Institute, Princeton, NJ, USA, Nov 21-22, 1991. *Current Science Highlights*, Bristol-Myers Squibb Pharmaceutical Research Institute, 1991:S9.

1992

25. Gombotz W, Pankey S, Braatz J, Ranchalis J, Puolakkainen P. The controlled release of TGF- $\beta$ 1 from different formulations for wound healing. 19th International Symposium on Controlled Release of Bioactive Materials, Orlando, FL, 26-31.7. 1992. *Proceed Intern Symp Control Res Bioact Mater* 1992;19:108-109.

26. Puolakkainen P, Paciucci P, Ranchalis J, Oleksowicz L, Twardzik D. Interleukin-2 augments the expression of transforming growth factor beta in patients with disseminated cancer. *Growth Factors, Peptides and Receptors '92*. XIIIth Washington International Spring Symposium, Washington D.C., June 1-5, 1992.

27. Puolakkainen P, Ranchalis J, Reed M, Pankey S, Gombotz W. TGF- $\beta$ 1's wound healing effect depends on the carrier. Second Annual Meeting of The Wound Healing Society, Richmond VA, 23.-26.4.1992.

28. Puolakkainen P, Reed M, Iruela-Arispe L, Lane T, Bornstein P, Sage H. Distribution of ECM pro-teins in wound repair. Second Annual Meeting of The Wound Healing Society, Richmond VA, 23.-26.4.1992.

1993

29. Bouchard LS, Mumper RJ, Puolakkainen P, Gombotz W. Controlled release of TGF- $\beta$ 1 to the small intestine using an alginate based delivery system. Bristol-Myers Squibb PRI Second Annual Scientific Poster Session, Seattle, WA, 1993.

30. Gombotz W, Bouchard L, Pankey S, Hawkins M, Puolakkainen P. Osteogenic implants containing TGF- $\beta$ 1. 20th International Symposium of Controlled Release Society, Washington DC, 1993.

31. Puolakkainen P, Pankey S, Bouchard L, Ranchalis J, Gombotz W. Controlled release of TGF- $\beta$ 1 from a biodegradable matrix for bone regeneration. XXVIII Congress of The European Society for Sur-gical Research, Turku, Finland, 23.-26.5.1993.

32. Puolakkainen P, Ranchalis JE, Saarinen P, Twardzik DR. Activation of latent TGF- $\beta$ 1 by human wound exudates. First Joint Meeting of The Wound Healing Society and the European Tissue Repair Society. Amsterdam 1993. Wound Repair and Regeneration 1993;1:119.

33. Puolakkainen P, Ranchalis JE, Strong DM, Twardzik DR. The effect of sterilization on TGF-beta isolated from demineralized human bone. 16th Annual Meeting of American Association of Tissue Banks. San Diego, California, USA, Aug 24-26, 1992, Transfusion 1993;33:612.

34. Puolakkainen P, Reed M, Lane T, Dickerson D, Bornstein P, Sage H. Expression of SPARC and thrombospondin 1 in wound repair: immunolocalization and in situ hybridization. Keystone Symposia on Molecular and Cellular Biology, Breckenridge, CO, 1993. J Cell Biochem 1993; Suppl 17E: 117.

35. Reed M, Puolakkainen P, Abrass I, Sage EH. Transforming Growth Factor Beta 1 reverses the impaired wound healing in aged rats. Annual Scientific Meeting of the American Geriatrics Society, New Orleans, LA, 1993.

36. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Schröder T, Lempinen M, Haapiainen R, Kivilaakso E. Prophylactic antibiotic treatment in acute necrotizing pancre-atitis. Digestive Disease Week and 94th Annual Meeting of the American Gastroenterologic Association, Boston, MA, 1993. Gastroenterology 1993;104:A332.

37. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Haapiainen R, Schröder T, Lempinen M, Kivilaakso E. Early antibiotic treatment in acute necrotizing pancreatitis. XXVIII Congress of The European Society for Surgical Research, Turku, Finland, 23.-26.5.1993.

1994

38. Puolakkainen P, Ranchalis J, Gombotz I, Mumper R, Twardzik D. A novel delivery system for in-ducing quiescence in intestinal stem cells in rats by TGF- $\beta$ 1. The Meeting of the American Gastroen-terological Association, 15.-18.5.1994, New Orleans, USA.

39. Puolakkainen P, Reed M, Abrass I, Gombotz W, Sage H. TGF- $\beta$ 1 reverses the impaired wound healing in aged rats. Fourth annual meeting of the Wound Healing Society. 18.-21.5.1994, San Francis-co, USA.

40. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Haapiainen R, Schröder T, Lempinen M, Kivilaakso E. Profylaktinen antibioottihoito nekrotisoivassa pankreatiitissa. (Prophylactic Antibiotic Therapy in Acute Pancreatitis; the Meeting of the Finnish Surgical Association) 13. Kirurgipäivät, Helsinki, 10.-11.11.1994.

41. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Haapiainen R, Schröder T, Kivilaakso E. Early antibiotic treatment in acute necrotizing pancreatitis. The Meeting of the American Gastroenterological Association, 15.-18.5.1994, New Orleans, USA.

1995

42. Hedström J, Korvuo A, Kenkimäki P, Tikanoja S, Haapiainen R, Kivilaakso E, Sainio V, Kempai-nen E, Puolakkainen P, Stenman UH. Virtsan trypsinogeeni-2-testiliuska, uusi pikatesti akuutin haimatu-lehduksen diagnostiikassa. The Meeting of The Finnish Surgical Association, Helsinki, 23.-24.11.1995.

43. Kempainen E, Sainio V, Haapiainen R, Kivisaari L, Kivilaakso E, Puolakkainen P. Early localization of necrotic areas by contrast enhanced computed tomography is important in predicting outcome in severe acute pancreatitis. The Meeting of The Finnish Surgical Association, Helsinki, 23.-24.11.1995.



44. Puolakkainen P, Karjalainen-Lindsberg ML, Vaalamo A, Airola T, Kivilaakso E, Saarialho-Kere U. Expression of matrix metalloproteinases (MMPs) in peptic ulcers and in inflammatory bowel disease. The Meeting of the American Gastroenterological Association, San Diego, USA, 13.-19.5.1995

45. Sainio V, Kempainen E, Puolakkainen P, Taavitsainen M, Kivisaari L, Valtonen V, Haapiainen R, Schröder T, Kivilaakso E. Early antibiotic treatment reduces mortality in acute necrotizing pancreatitis. The Meeting of The Finnish Surgical Association, Turku, 18.-19.5.1995

46. Sainio V, Puolakkainen P, Kempainen E, Hedström J, Haapiainen R, Kivisaari L, Stenman U, Schröder T, Kivilaakso E. Serum trypsinogen-2, a new reliable assay for the early diagnosis and prediction of outcome in acute necrotizing pancreatitis. The Meeting of the American Gastroenterological Association, San Diego, USA, 13.-19.5.1995

47. Vento P, Kiviluoto T, Kivilaakso E, Reed M, Lehtonen E, Sage EH, Puolakkainen P. Expression of TGF $\beta$ 1 and SPARC in the healing of intestinal anastomoses and in short bowel syndrome. The Meeting of the American Gastroenterological Association, San Diego, USA, 13.-19.5.1995

1996

48. Hedström J, Puolakkainen P, Sainio V, Kempainen E, Haapiainen R, Kivilaakso E, Stenman UH. Urinary trypsinogen-2 test strip: new rapid test for the early diagnosis of acute pancreatitis. The Meeting of the American Gastroenterological Association, San Francisco, USA, 19.-22.5.1996

49. Kempainen E, Hedström J, Puolakkainen P, Sainio V, Haapiainen R, Perhoniemi V, Kivilaakso E, Stenman UH. Urinary trypsinogen-2 test strip for screening acute pancreatitis. The Meeting of the Finnish Surgical Association, Helsinki 21.-22.11. 1996

50. Kempainen E, Sand J, Puolakkainen P, Laine S, Hedström J, Sainio V, Haapiainen R, Nordback I. Pancreatitis associated protein as a marker of acute pancreatitis. The Meeting of the American Gastroenterological Association, San Francisco, USA, 19.-22.5.1996

51. Kokkola A, Laxen F, Puolakkainen P, Haapiainen R, Kivilaakso E, Virtamo J, Sipponen P. Maha-syövän riski atrofiseen gastriittiin liittyvässä dysplasiassa. The Meeting of The Finnish Surgical Association. Helsinki 21.-22.11. 1996

52. Kokkola A, Monni O, Puolakkainen P, Haapiainen R, Kivilaakso E, Knuutila S. DNA copy number changes in gastric carcinoma (GC) as evaluated by comparative genomic hybridization (CGH). The Meeting of the American Gastroenterological Association, San Francisco, USA, 19.-22.5.1996 / Gastroenterology suppl. 110:A544, 1996

53. Puolakkainen P, Kiviluoto T, Lehtonen E, Paimela H, Watanabe S, Sato N, Kivilaakso E. The intracellular signaling pathway for gastric epithelial cell restitution in monolayer cell culture includes activation of tyrosine kinase and Na<sup>+</sup>/H<sup>+</sup> antiport. The Meeting of the American Gastroenterological Association, San Francisco, USA, 19.-22.5.1996

54. Puolakkainen P, Kokkola A, Valle J, Haapiainen R, Sipponen P, Kivilaakso E. Helicobacter pylori infection in young patients with gastric carcinoma. Gastroenterology 1996;110: A579.

1997

55. Heinonen P, Blomqvist K, Jousela I, Puolakkainen P, Nordin A, Takkunen O. Comparison of the Tonocap to the saline tonometry in anesthetized pigs with high gastric PCO<sub>2</sub> values. Meeting of the European Society of Intensive Care Medicine. Brussels, 1997.

56. Hietaranta A, Kempainen E, Peuravuori H, Puolakkainen P, Sainio V, Haapiainen R, Kivilaakso E, Nevalainen T. Bactericidal / permeability-increasing protein (BPI), group II phospholipase A<sub>2</sub> and pancreatic PLA<sub>2</sub> in acute pancreatitis. The Meeting of the American Gastroenterological Association, Washington DC, 1997.

57. Kempainen E, Hedström J, Puolakkainen P, Sainio V, Haapiainen R, Perhoniemi V, Kivilaakso E, Stenman UH. Simple urinary trypsinogen-2 test strip for screening acute pancreatitis. The Meeting of the American Gastroenterological Association, Washington DC, 1997.

58. Kiviluoto T, Watanabe S, Hirose M, Sato N, Ranta-Knuutila T, Puolakkainen P, Lehtonen E, Kivilaakso E. Direct effects of endogenous and exogenous nitric oxide on wound repair in a cultured gastric epithelial cell model. The Meeting of the American Gastroenterological Association, Washington DC, 1997.

59. Kokkola A, Monni O, Puolakkainen P, Nordling S, Haapiainen R, Kivilaakso E, Knuutila S. DNA copy number changes in gastric adenomas as evaluated by comparative genomic hybridization. Gastroenterology suppl. 112:A593, 1997.

60. Latvala T, Uusitalo M, Puolakkainen P, Kivelä T, Tervo T. Transforming growth factor-1 (TGF-1), tenascin, and sparc in secondary cataract. Joint European Research Meeting in Ophthalmology and Vision, October 15-19, 1997, Montpellier,

France, p.40

61. Nevalainen T, Hietaranta A, Kempainen E, Peuravuori H, Puolakkainen P, Sainio V, Haapiainen R, Kivilaakso E. Phospholipases A2 and bactericidal/permeability increasing protein in acute pancreatitis. Abstract for European Pancreatic Club. *Digestion* 58(suppl.2):166, 1997.
62. Puolakkainen P, Kempainen E, Hedström J, Halttunen J, Sainio V, Haapiainen R, Kivilaakso E, Stenman UH. Increased serum trypsinogen-2 and trypsin-2-alpha1-antitrypsin complex values identify ERCP-induced pancreatitis with high accuracy. *Gastroenterology suppl.* 112:A474, 1997.
63. Puolakkainen P, Lax M, Lehtonen E, Kiviluoto T, Ranta-Knuutila T, Watanabe S, Kivilaakso E. Distribution of microfilaments, adhesion plaques and intermediate filaments in isolated gastric cell culture, a confocal microscopic study. The Meeting of the American Gastroenterological Association, Washington DC, 1997.
64. Puolakkainen P, Rautelin H, Sipponen P, Färkkilä M, Kosunen T, Haapiainen R, Kivilaakso E, Kokkola A. Comparison of histology, 13C-urea breath test and serology for detecting H. Pylori infection in patients with atrophic gastritis. The Meeting of the American Gastroenterological Association, Washington DC, 1997.
65. Sainio V, Puolakkainen P, Kempainen E, Kivisaari L, Haapiainen R, Schröder T, Lehtonen E, Kivilaakso E. Incorrect estimation of severity in acute pancreatitis by contrast-enhanced computed tomography. *Gastroenterology suppl.* 112:A478, 1997.
- 1998
66. Aarnio M, Kokkola A, Puolakkainen P, Larramendy M, El-Rifail W, Monni O, Kivilaakso E, Knuutila S. Amplification of 17q12-21 in sporadic gastric carcinomas but not in gastric carcinoma from patients with HNPCC. *Digestive Disease Week, Meeting of American Gastroenterologic Association, New Orleans, LA, May, 1998.*
67. Halonen K, Puolakkainen P, Leppäniemi A, Kempainen E, Haapiainen R. Ennustetekijät vaikeassa haimatulehduksessa - 270 potilaan kliininen tutkimus. 17. Kirurgipäivät, 12.-13.11.1998, Tampere (Meeting of the Finnish Surgical Association).
68. Hietaranta A, Kempainen E, Puolakkainen P, Sainio V, Haapiainen R, Kivilaakso E. Extracellular phospholipases A2 in severe acute pancreatitis associated systemic inflammatory response syndrome (SIRS). *Digestive Disease Week, Meeting of American Gastroenterologic Association, New Orleans, LA, May, 1998.*
69. Kempainen E, Hietaranta A, Puolakkainen P, Hedström J, Haapiainen R, Stenman UH. Seerumin trypsinogeeni-2:n ja trypsin-2-alfa1- antitrypsiniin ns. time course profile akuutissa pankreatiitissa. Su-omen kirurgiyhdistyksen kokous 23.-24.4.1998 Oulu (Meeting of the Finnish Surgical Association).
70. Kempainen E, Hietaranta A, Puolakkainen P, Sainio V, Halttunen J, Haapiainen R, Kivilaakso E, Nevalainen T. Bactericidal/permeability increasing protein and group I and II phospholipases A2 during the induction phase of human acute pancreatitis. *Digestive Disease Week, Meeting of American Gastroenterologic Association, New Orleans, LA, May, 1998.*
71. Kiviluoto T, Lax M, Lehtonen E, Ranta-Knuutila T, Watanabe S, Sato N, Kivilaakso E, Puolakkainen P. Early phase of epithelial cell migration; Distribution of microfilaments and focal adhesions in calcium-depleted gastric cell culture. *Digestive Disease Week, Meeting of American Gastroenterologic Association, New Orleans, LA, May 1998.*
72. Kiviluoto T, Watanabe S, Hirose M, Sato N, Mustonen H, Puolakkainen P, Ranta-Knuutila T, Kivilaakso E. Exogenous nitric oxide impairs healing of wounded rabbit epithelial cell monolayer culture. *World Congresses of Gastroenterology, Sep 6-11.1998, Vienna, Austria. Digestion 1998;59 Suppl 3:247.*
73. Kokkola A, Puolakkainen P, Rautelin H, Sipponen P, Färkkilä M, Haapiainen R, Kivilaakso E, Kosunen TU. Positive serology indicates an active H.pylori infection in patients with atrophic gastritis in spite of negative histology and 13C-urea breath test (13C-UBT). *World Congresses of Gastroenterology, Sep 6-11.1998, Vienna, Austria. Digestion 1998;59 Suppl 3:466.*
74. Kokkola A, Savolainen H, Färkkilä M, Haapiainen R, Kiviluoto T, Kivilaakso E, Puolakkainen P. Endoskooppinen UÄ-tutkimus mahasyövän preoperatiivisessa selvityksessä. 17. Kirurgipäivät, 12.-13.11.1998, Tampere (Meeting of the Finnish Surgical Association).
75. Lonka K, Pitkälä K, Puolakkainen P, Sauri P, Vanhanen H. A problem-based tutorial laboratory - a method of mentoring medical teachers. Meeting of the European Society for Medical Teachers. Gothenburg, Sweden, 1998.
76. Nevalainen T, Kempainen E, Hietaranta A, Puolakkainen P, Haapiainen R, Kivilaakso E. Bactericidal/permeability increasing protein and group I and II phospholipases A2 in ERCP-induced acute pancreatitis. *Digestion 1998;59:95*

77. Puolakkainen P, Kiviluoto T, Lax M, Lehtonen E, Ranta-Knuuttila T, Watanabe S, Sato N, Kivilaakso E. Early phase of gastric epithelial cell migration: distribution of microfilaments and focal adhesions in calcium-depleted gastric cell culture; A confocal microscopic study. *World Congresses of Gastroenterology*, Sep 6-11. 1998, Vienna, Austria. *Digestion* 1998;59 Suppl 3:96.
78. Puolakkainen P, Kiviluoto T, Ranta-Knuuttila T, Watanabe S, Kivilaakso E. Calcium/Calmodulin dependent pathway plays a second messenger role in signal transduction of migrating cultured gastric epithelial cells. *World Congresses of Gastroenterology*, Sep 6-11. 1998, Vienna, Austria. *Digestion* 1998;59 Suppl 3:672.
79. Puolakkainen P, Kokkola A, Haapiainen R, Laxen F, Kivilaakso E, Sipponen P. Natural course of atrophic gastritis: A prospective 6-year follow-up study. *Gastroenterology* 1998;114:A263.
80. Puolakkainen P, Kokkola A, Rautelin H, Sipponen P, Färkkilä M, Haapiainen R, Kivilaakso E, Ko-sunen TU. Positive serology indicates an active H.pylori infection in patients with atrophic gastritis in spite of negative histology and 13C-urea breath test (13C-UBT). *Scand J Gastroent* 1998;33 Suppl. 227:F4.
81. Puolakkainen P, Vaalamo M, Karjalainen-Lindsberg ML, Kere J, Kivilaakso E, Saarialho-Kere U. Distinct expression profiles of stromelysin 2, collagenase-3, macrophage metalloelastase and TIMP-3 in intestinal ulcerations. *Gastroenterology* 1998;114:A1064
82. Ranta-Knuuttila T, Puolakkainen P, Kiviluoto T, Mustonen H, Kivilaakso E. Calcium/calmodulin toimii toisilähtettinä mahalaukun pintaepiteelisolujen migraation signaalinvälityksessä. 17. Kirurgipäivät, 12.-13.11.1998, Tampere (Meeting of the Finnish Surgical Association).
83. Ranta-Knuuttila T, Puolakkainen P, Kiviluoto T, Watanabe S, Sato N, Kivilaakso E. Calcium/calmodulin dependent pathway plays a second messenger role in signal transduction of migration in cultured gastric epithelial cells. *Digestive Disease Week, Meeting of American Gastroenterologic Association*, New Orleans, LA, May, 1998.
84. Tielinen L, Manninen M, Puolakkainen P, Pätäälä H, Pohjonen T, Rautavuori J, Rokkanen P. Bioha-joavasta polyaktidisaavasta vapautuvan TGF-Beta1:n vaikutus kokeellisen osteotomian paranemiseen rotalla. *Lääkäripäivät*, 1998, Helsinki.
85. Tielinen L, Manninen M, Puolakkainen P, Pätäälä H, Pohjonen T, Rautavuori J, Rokkanen P. Combining TGF-Beta1 to a bioabsorbable self-reinforced polylactide pin for bone healing. 8th Annual Meeting, European Orthopaedic Research Society, May 7-10. 1998, Amsterdam.
86. Tielinen L, Puolakkainen P, Pohjonen T, Rautavuori J, Törmälä P, Rokkanen P. The effect TGF-beta released from a bioabsorbable self-reinforced polylactide pin, on a bone defect. *Acta Orthop Scand* 1998;69 Suppl 280, 24.
87. Vanhanen H, Puolakkainen P, Pitkälä K, Strandberg T, Lonka K. The problem based learning tutorial laboratory - a method of teaching medical teachers. *Meeting for Medical Teachers*, Prague, 1998.
- 1999
88. Halonen K, Puolakkainen P, Leppäniemi A, Lundin J, Kempainen E, Hietaranta A, Kivilaakso E, Haapiainen R: Severe acute pancreatitis – prognostic factors in 270 consecutive patients. *Gastroenterology* 116: A1130, 1999
89. Kempainen E, Kylänpää-Bäck L, Hedström J, Haapiainen R, Perhoniemi V, Kivilaakso E, Stenman U-H, Puolakkainen P. Reliable screening for acute pancreatitis with rapid trypsinogen-2 test strip. *Ann Chir Gynaecol* Vol 88 (2):155, 1999
90. Kempainen E, Puolakkainen P, Hietaranta A, Hedström J, Haapiainen R, Kivilaakso E: Time course profile of serum trypsinogen-2 and trypsin-2-alpha1-antitrypsin with acute pancreatitis. *Gastroenterology* 116: G4929, 1999
91. Kempainen E, Takala A, Kylänpää-Bäck M-L, Puolakkainen P, Haapiainen R, Repo H. Procalcitonin, E-selectin and IL-2R as early markers of severity in acute pancreatitis. *Pancreas*, vol 19(4):427, 1999
92. Kokkola A, Puolakkainen P, Rautelin H, Sipponen P, Haapiainen R, Kivilaakso E, Kosunen T: Time-course of H.pylori antibody titres in patients with atrophic corpus gastritis. *European Helicobacter Pylori Study Group*, 2-4 September, Helsinki, 1999, *Gut* Vol 45(111): A54, 1999
93. Kokkola A, Puolakkainen P, Rautelin H, Sipponen P, Haapiainen R, Kivilaakso E: Spontaneous decline of H.pylori antibody titres in patients with advanced atrophic gastritis. *Gastroenterology* 116: A218, 1999
94. Kylänpää-Bäck M-L, Takala A, Kempainen E, Puolakkainen P, Leppäniemi A, Haapiainen R, Repo H. Plasma level of procalcitonin determined on admission to hospital predicts the severity of acute pancreatitis. 12th Annual Congress, European Society of Intensive Care Medicine, Berlin, Germany 3-6 October, 1999, Vol 25(1), 77, 1999

95. Neoptolemos JP, Raraty MGT, Slavin J, Kempainen E, Hietaranta A, Puolakkainen P, Fitzpatrick J, Mayer J, Beger H-G. Urinary trypsinogen activation peptide is a reliable early predictor of severity in acute pancreatitis. *Pancreas* Vol.19(4):432, 1999

96. Puolakkainen P, Kylänpää-Bäck M-L, Kempainen E, Hedström J, Haapiainen R, Perhoniemi V, Kivilaakso E, Stenman U-H: Rapid urine trypsinogen-2 test strip provides reliable screening for acute pancreatitis. 38th World Congress of Surgery, International Surgical Week ISW99, August 15-20, 1999

97. Puolakkainen P, Neoptolemos J, Mayer J, Raraty M, Slavin J, Fitzpatrick J, Hietaranta A, Sainio V, Beger H, Kempainen: Urinary trypsinogen activation peptide (TAP) for the assessment of severity in acute pancreatitis – a prospective multicenter study. *Gut* 1999; 45 (Suppl V): A316.

98. Puolakkainen P, Neoptolemos J, Mayer J, Raraty M, Slavin J, Fitzpatrick J, Hietaranta A, Sainio V, Beger H, Kempainen: Urinary trypsinogen activation peptide (TAP) for the assessment of severity in acute pancreatitis – a prospective multicenter study. *Ann Chir Gynaecol* Vol 88 (2):164, 1999

99. Puolakkainen P, Vakkari M-L, Kokkola A, Varis A, Haapiainen R, Kivilaakso E, Knuutila S: DNA copy number changes in gastric adenocarcinoma (GC) cell lines evaluated by comparative genomic hybridization (CGH). 3rd International Gastric Cancer Congress, Seoul, April 27-30, 1999, p. 272

100. Rautemaa R, Meri S, Puolakkainen P, Kokkola A, Kärkkäinen P, Rautelin H. Acquired resistance of helicobacter pylori to complement lysis by incorporation of GPI-anchored protectin (CD59). Europe-an Helicobacter Pylori Study Group, 2-4 September, Helsinki, 1999, *Gut* Vol 45(111): A26, 1999

101. Tielinen L, Manninen M, Puolakkainen P, Rokkanen P, Kellomäki M, Törmälä P, Rich J, Seppälä J. Inability of local application of transforming growth factor- $\beta$ 1, combined to bioabsorbable polymers mass, to promote healing of bone defects in the distal femur. 9th Transactions of the European Ortho-pedic Research Society (EORS), Brussels, June 3-4, 1999, p. 135

2000

102. Halonen K, Leppäniemi A, Lundin J, Puolakkainen P, Kempainen E, Haapiainen R. Predicting fatal outcome in early phase of severe acute pancreatitis. *Gastroenterology* Vol 118(4): A421, 2000 (AGA Abstracts 2175)

103. Halonen K, Pettilä V, Leppäniemi A, Kempainen E, Puolakkainen P, Haapiainen R. Elinvaurioiden ja monielinvauriopiisteiden (SOFA, MODS ja LODS) hyödyllisyys sairaalakuolleisuuden ennustamisessa vaikeassa haimatulehduksessa. Suomen Kirurgiyhdistys, Helsingin Messukeskus, 8-10.11.2000. The Meeting of The Finnish Surgical Association

104. Kempainen E, Mayer J, Puolakkainen P, Raraty M, Slavin J, Fitzpatrick J, Hietaranta A, Beger H-G, Neoptolemos J. Trypsinogen activation peptide (TAP) in plasma of patients with acute pancreatitis. *Gastroenterology* Vol 118(4): A161, 2000 (AGA Abstracts 918)

105. Kokkola A, Puolakkainen P, Haapiainen R, Rautelin H, Kosunen T, Kivilaakso E, Sipponen P: The effect of H.pylori eradication on atrophic corpus gastritis. *Gastroenterology* 118: A1259, 2000

106. Kylänpää-Bäck ML, Kempainen E, Puolakkainen P, Hedström J, Haapiainen R, Stenman UH. Comparison of urine trypsinogen-2 test strip with serum lipase in the diagnosis of acute pancreatitis. *Gastroenterology* Vol 118(4): A162, 2000 (AGA Abstracts 919)

107. Puolakkainen P. Antibioottiproylaksian käyttö akuutissa pankreatiitissa. Lääkäripäivät, Helsingin Messukeskus, p. 242, 2000. The Finnish Medical Convention

108. Puolakkainen P. Current concepts in acute pancreatitis. Harvard Medical School, 28.5.2000

109. Puolakkainen P, Kempainen E, Mayer JM, Fitzpatrick JM, Raraty M, Slavin J, Beger H, Hietaranta A, Neoptolemos J. A multicentre study of early prediction of severity in acute pancreatitis by urinary trypsinogen activation peptide. *Gastroenterology* 118(4): 929, 2000

110. Salmela M, Saarialho-Kere U, Karjalainen-Lindsberg M-L, Salo J, Puolakkainen P. Upregulation and differential expression of matrixlylin, metalloelastase and timp-3 in Barrett's carcinoma. *Gastroenterology* Vol 118(4): A37, 2000 (AGA Abstracts 415)  
2001

111. Halonen KI, Pettilä V, Leppäniemi AK, Kempainen EA, Puolakkainen P, Haapiainen R. Multiple organ dysfunction associated with severe acute pancreatitis (SAP). *Gastroenterology* 120(5): A644-5, 2001

112. Kylänpää-Bäck M-L, Takala A, Kemppainen EA, Puolakkainen PA, Haapiainen RK, Repo H: The strip test of procalcitonin in early detection of severe acute pancreatitis. *Gastroenterology* 120(5): A469, 2001

113. Puolakkainen P, Bradshaw A, Kyriakides T, Lehman A, Brekken R, Bornstein P, Sage EH: Reduced foreign body response to implanted biomaterials in sparc-null mice. *Reparative Medicine: Growing Tissues and Organs*, June 25-26, 2001, Natcher Conference Center, National Institutes of Health, Maryland, p. 37

114. Puolakkainen P, Bradshaw A, Kyriakides T, Lehman A, Brekken R, Bornstein P, Sage EH: Reduced foreign body response to implanted biomaterials in sparc-null mice. *Frontiers in Cardiovascular Research*, Bell Harbor International Conference Center, Seattle, Washington, October 29-30, 2001, p. 15

115. Puolakkainen P, Bradshaw A, Kyriakides TR, Lehman A, Brekken R, Bornstein P, Sage EH. Reduced foreign body response in sparc-null mice. (11th Annual Educational Symposium of the Wound Healing Society, May 17, 2001) *Wound Repair and Regeneration* 2001;9(2):162

116. Puolakkainen P: The dermal fibrotic response to implanted biomaterials in mice. Invited lecture in Vascular Biology Lab Seminars, 14.2.2001

117. Raraty M, Slavin J, Kemppainen E, Fitzpatrick J, Beger HG, Hietaranta A, Puolakkainen P, Neoptolemos JP. Serum amyloid A is an early prognostic marker in human acute pancreatitis – results from a prospective multicenter trial. *Gastroenterology* 120(5): A468, 2001

118. Reed MJ, Koike T, Sadoun E, Sage EH, Puolakkainen P: Inhibition of TIMP1 enhances angiogenesis in vivo. *Frontiers in Cardiovascular Research*, Bell Harbor International Conference Center, Seattle, Washington, October 29-30, 2001, p. 8

2002

119. Bradshaw AD, Puolakkainen P, Dasgupta J, Davidson JM, Wight TN, Sage EH. SPARC influences the structure and composition of the dermal ECM. *Basement Membrane Gordon Conference*, Holderness School, Plymouth, NH, June 9-14, 2002

120. Brekken RA, Puolakkainen P, Graves DC, Workman G, Bradshaw D, Sage H. Enhanced growth of implanted tumors in SPARC-null mice. *Keystone Symposia*, Banff Centre, Banff Alberta, Canada, February 8-13, 2002, abs. 239, p. 135

121. Järveläinen H, Puolakkainen P, Brown EL, Höök M, Iozzo RV, Sage H, Wight TN. Decorin-deficient mice exhibit delayed cutaneous wound healing and increased fibrovascular invasion in polyvinyl alcohol sponges. *10th Gordon Research Conference on Proteoglycans*, Proctor Academy Andover, New Hampshire, July 7-12, 2002, p. 5

122. Puolakkainen P, Bradshaw A, Kyriakides T, Reed M, Brekken R, Bornstein P, Sage EH. Reduced foreign body response to implanted biomaterials in sparc-null mice. *Keystone Symposia*, Banff Centre, Banff Alberta, Canada, February 8-13, 2002, abs. 301.

123. Puolakkainen PA, Brekken RA, Sage H. Enhanced growth of implanted pancreatic tumors in SPARC-null mice. *Gastroenterology* 122(4): A-489, 2002

2003

124. Kivilaakso E, Lepistö A, Mustonen H, Lehtonen S, Lehtonen E, Puolakkainen P, Kiviluoto T. CD2-associated protein (CD2AP) interacts with E-cadherin in a cell culture model simulating gastric restitution. *11th European Gastroenterology Week*, November 1-5, 2003

125. Kokkola A, Louhimo J, Haglund C, Alfthan O, Rautelin H, Puolakkainen P. H.pylori infection and low serum pepsinogen I as risk factors for gastric cancer. *11th European Gastroenterology Week*, November 1-5, 2003

126. Lepistö A, Mustonen H, Lehtonen S, Puolakkainen P, Kivilaakso E: CD2-associated protein (CD2AP) interacts with E-cadherin in a cell culture model simulating gastric restitution. *Gastroenterology* 124 (4)(Suppl 1): T908, 2003

127. Mentula P, Kylänpää ML, Kemppainen E, Jansson SE, Sarna S, Puolakkainen P, Haapiainen R, Repo H. Elinvaurion varhainen ennustaminen akuutissa pankreatiitissa. *Operatiiviset päivät*, Helsingin Messukeskus, 19.-21.11.2003, Vol. 24 (4): 92, 2003. *The Meeting of The Finnish Surgical Association*

128. Puolakkainen P, Bradshaw A, Brekken R, Reed M, Kyriakides T, Bornstein P, Sage H. Sparc-thrombospondin-2 double-null mice exhibit enhanced epidermal closure and dermal wound healing. *Wound Repair and Regeneration* Vol. 11, no. 2, A23, 2003.

129. Puolakkainen PA, Brekken RA, Sage H. Enhanced growth and decreased levels of apoptosis of pancreatic tumors in sparc-null mice is associated with altered extracellular matrix. *Gut* 52 (Suppl VI): A48, 2003

2004

130. Kivilaakso E, Mustonen H, Kiviluoto T, Lepistö A, Paimela H, Puolakkainen P. Ethanol induces cell volume decrease and inhibits gap junctional traffic via calcium signaling pathway in cultured rat gastric mucosal cells. *Gut* 2004;53(Suppl V):A96

131. Kokkola A, Louhimo J, Puolakkainen P, Alfthan H, Haglung C, Rautelin H: Helicobacter pylori infection, low serum pepsinogen I level and parietal cell antibodies as risk factors for gastric carcinoma. The XXXII Meeting of the International Society for Oncodevelopment Biology and Medicine, ISOMB 2004, June 19-23, 2004, Helsinki, Finland

132. Kokkola A, Sipponen P, Puolakkainen P. Pylori eradication therapy without endoscopy may delay the diagnosis of gastric cancer. *Gut* 53 (Suppl VI): A126, 2004

133. Lepistö A, Mustonen H, Kiviluoto T, Lehtonen S, Lehtonen E, Puolakkainen P, Kivilaakso E. CD2-associated protein contributes to cell membrane-cytoskeleton interaction and cell migration in a cell culture model simulating gastric restitution. *Gut* 2004;53(Suppl VI):A97

134. Mustonen H, Kiviluoto T, Paimela H, Puolakkainen P, Kivilaakso E: Ethanol induced volume decrease and inhibition of gap junctional traffic is mediated by calcium signalling in cultured gastric epithelial cells. *Gastroenterology* 126 (Suppl 2): A537-8, 2004

135. Mustonen H, Lepistö A, Lehtonen S, Lehtonen E, Puolakkainen P: CD2-associated protein contributes to cell membrane-cytoskeleton and cell migration in cultured gastric epithelial cells. *Gastroenterology* 126 (Suppl 2): A538-9, 2004

136. Puolakkainen P, Salmela MT, Pender SL, Karjalainen-Lindsberg M, MacDonald TT, Saarialho-Kere U. Collagenase-1 (MMP-1), matrilysin-1 (MMP-7), and stromelysin-2 (MMP-10) are expressed by migrating enterocytes during intestinal wound healing. *Gut* 53 (Suppl VI): A127, 2004

2005

137. Halttunen J, Weckman L, Kylänpää ML, Puolakkainen P. Haiman pseudokystien endoskooppinen hoito. Operatiiviset päivät, Helsingin Messukeskus 23-25.11.2005, Vol. 26(4): 99, 2005. The Meeting of The Finnish Surgical Association

138. Kiviluoto T, Kokkola A, Danielson H, Kivilaakso E, Puolakkainen P.: Complications and survival following curative D1 vs. D2-3 gastrectomy for gastric cancer. 6th International Gastric Cancer Congress, Yokohama, May 4-7, 2005

139. Kylänpää L, Puolakkainen P, Weckman L, Halttunen J. Endoscopic treatment of pancreatic pseudocysts. *Pancreas* 31(4), 450, 2005 (36th Annual Meeting of the American Pancreatic Association, November 3-4, 2005)

140. Lawrence I, Lloyd F, Puolakkainen P, Sage EH, Raye W: SPARC protects against chronic murine inflammation-induced intestinal fibrosis. *Gastroenterology* 128(4): S1395, 2005

141. Mentula P, Kylänpää ML, Kempainen E, Jansson SE, Puolakkainen P, Haapiainen R, Repo H: Elinvaurion varhainen ennustaminen akuutissa haimatulehduksessa. *Duodecim* 2005;121:1331

142. Mentula P, Lindström O, Kylänpää L, Kempainen E, Puolakkainen P, Haapiainen R, Fernandez JA, Griffin JH, Repo H, Petäjä J. Up-regulated but insufficient generation of activated protein C is associated with development of multi-organ failure in severe acute pancreatitis. *Pancreas* 31(4), 456, 2005 (36th Annual Meeting of the American Pancreatic Association, November 3-4, 2005)

143. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Heat shock pretreatment inhibits ethanol induced, calcium mediated Nfkb activation in cultured rat gastric mucosal cells. *Gastroenterology* 128(4): W1367, 2005

144. Myllykangas S, Junnila S, Kokkola A, Autio R, Saharinen J, Karjalainen-Lindsberg ML, Puolakkainen P, Monni O, Knuutila S. Associations between fragile sites, genen copy number aberrations and gene expression changes in gastric cancer. *Fragilome, Chromosomal instability, fragile sites, and cancer*. Heidelberg, German Cancer Research Center, DKFZ February 17-19, 2005

145. Puolakkainen P, Sipponen P, Kiviluoto T, Kivilaakso E, Kokkola A: H. pylori eradication may delay the diagnosis of gastric cancer. 6th International Gastric Cancer Congress, Yokohama, Japan, May 4-7, 2005, p. 163

146. Tukiainen E, Kylänpää M-L, Puolakkainen P, Kempainen E, Halonen K, Methuen T, Salaspuro M, Haapiainen R, Repo H. TNF- $\alpha$ , HSP70-2 and CD14 polymorphisms in acute pancreatitis. *Pancreas* 31(4), 456, 2005 (36th Annual

Meeting of the American Pancreatic Association, November 3-4, 2005)

2006

147. Junnila S, Myllykangas S, Kokkola A, Autio R, Saharinen J, Karjalainen-Lindsberg M-L, Puolakkainen P, Knuutila S, Monni O. Characterization of primary gastric tumors with CGH and expression microarray analyses. *Lääkäripäivät, Helsingin Messukeskus 8.-12.1.2006*, p. 227, The Finnish Medical Convention.

148. Lindström O, Kylänpää L, Jarva H, Puolakkainen P, Kemppainen E, Haapiainen R, Repo H, Meri S. Elevated serum level of the complement regulator protein CD59 is a predictor of organ failure in acute pancreatitis. *Pancreatology 2006;6:377-8* (38th European Pancreatic Club, Tampere, Finland, June 7-10, 2006)

149. Lindström O, Kylänpää L, Jarva H, Puolakkainen P, Kemppainen E, Haapiainen R, Repo H, Meri S. Elevated serum level of the complement regulator protein CD59 is a predictor of organ failure in acute pancreatitis. *The 38th Meeting of the European Pancreatic Club, Tampere, Finland, June 7-10, 2006*, p. 42

150. Lindström O, Kylänpää L, Jarva H, Puolakkainen P, Kemppainen E, Haapiainen R, Repo H, Meri S. Elevated serum level of the complement regulator protein CD59 is a predictor of organ failure in acute pancreatitis. *Pancreas 2006; 33(4): 478*.

151. Mentula P, Kylänpää L, Puolakkainen P, Kemppainen E. Obesity correlates with early hyperglycaemia in patients with acute pancreatitis who developed organ failure. *The 38th Meeting of the European Pancreatic Club, Tampere, Finland, June 7-10, 2006*, p. 46

152. Mentula P, Kylänpää L, Puolakkainen P, Kemppainen E. Obesity correlates with early hyperglycaemia in patients with acute pancreatitis who developed organ failure. *Pancreatology 2006;6:387* (38th European Pancreatic Club, Tampere, Finland, June 7-10, 2006)

153. Mentula P, Kylänpää L, Kemppainen E, Puolakkainen P. Obesity correlates with early hyperglycaemia in patients with acute pancreatitis who developed organ failure. *Pancreas 33(4): 483-4*.

154. Methuen T, Kylänpää M-L, Kekäläinen O, Halonen T, Tukiainen E, Sarna S, Puolakkainen P, Kemppainen E, Haapiainen R, Salaspuro M. Disialotransferrin, determined by capillary electrophoresis, is an accurate and rapid test for detecting alcoholic cause of acute pancreatitis. *The 38th Meeting of the European Pancreatic Club, Tampere, Finland, June 7-10, 2006*, p. 33

155. Methuen T, Kylänpää M-L, Kekäläinen O, Halonen T, Tukiainen E, Sarna S, Puolakkainen P, Kemppainen E, Haapiainen R, Salaspuro M. Disialotransferrin, determined by capillary electrophoresis, is an accurate and rapid test for detecting alcoholic cause of acute pancreatitis. *Pancreatology 2006;6:358* (38th European Pancreatic Club, Tampere, Finland, June 7-10, 2006)

156. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Taurocholate potentiates ethanol induced NfκB Activation and inhibits caspase-3 activity in cultured rat gastric epithelium. – *Gastroenterology 130(4): W1720*, 2006 (Digestive Disease Week® and the 107th Annual Meeting of the American Gastroenterological Association Institute, May 20-205, 2006, Los Angeles, CA)

157. Nylander-Koski O, Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Simultaneous effects of nitric oxide and growth factors on wound healing in cultured gastric mucosal epithelium. *Gastroenterology 130(4): W1713*, 2006 (Digestive Disease Week® and the 107th Annual Meeting of the American Gastroenterological Association Institute, May 20-205, 2006, Los Angeles, CA)

158. Puolakkainen P. Akuutti haimatulehdus. Suomen Gastroenterologiyhdistys RY:n 50-vuotisjuhlakokous, 7.-8.9.2006 Turun Messu- ja kongressikeskus, pp. 22-23.

159. Puolakkainen P, Junnila S, Myllykangas S, Kokkola A, Autio R, Karjalainen-Lindsberg M, Scheinin I, Knuutila S, Monni O. Integrated gene copy number and expression microarray analysis of primary gastric tumors highlights potential gastric cancer target genes. – *Gut 2006; 55 (Suppl V) A30: OP-G-130*  
2007

160. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Ethanol induced NF-κB activation protects against cell injury in cultured rat gastric mucosal epithelium. Poster 316389 (Digestive Disease Week® Washington Convention Center in Washington, DC, May 19-24, 2007)

161. Mustonen H, Kiviluoto T, Puolakkainen P, Kivilaakso E. Taurocholate inhibits caspase-3 activity in ethanol exposed cultured rat gastric epithelium. Poster S1888 (Digestive Disease Week® Washington Convention Center in Washington, DC, May 19-24, 2007)

162. Petrova TV, Nykänen A, Norrmén Camilla, Andersson L, Haglund C, Puolakkainen P, Vanharanta S, Aaltonen L, Taipale J, Alitalo K. Novel role for PROX1 in the control of colon tumor growth and differentiation. – Helsinki Biomedical Graduate School, Transcription: for molecular mechanisms to disease, February 9-10, 2007, Biomedicum Helsinki, Finland

163. Tukiainen E, Kyläpää M-L, Puolakkainen P, Kemppainen E, Halonen K, Methuen T, Salaspuro M, Haapiainen R, Repo H. Sytokiiniengenien TNF, CD14 ja HSPA1B polymorfismien merkitys alkoholin aiheuttamassa akuutissa haimatulehduksessa. – 9. Gastropäivät, Suomen Gastroenterologiyhdistys ry, Helsinki, Marina Congress Center, 15.-16.2.2007. Meeting of The Finnish Gastroenterological Association.

164. Rau B, Matt S, Kemppainen E, Bassi C, Buchler M, Beger H, Puolakkainen P. Defining early organ failure in acute pancreatitis: a prospective international multicenter evaluation of the SOFA- versus the Marshall system. *Pancreas* 2007, 35:424,

2008

165. Puolakkainen P. Alcohol as the cause of acute and chronic pancreatitis. Annual Meeting of The Finnish Digestive Surgeons, Helsinki

166. Puolakkainen P, Kiviluoto T, Lehtonen E, Lehtonen S, Mustonen H. CD2 associated protein expression at plasma membrane is increased and associates with cell junction disruption after extracellular Calcium – depletion in rat gastric epithelia. *Digestive Disease Week*, San Diego, USA

167. Kauhanen SP, Komar G, Seppänen MP, Dean KI, Minn HR, Kajander SA, Rinta-Kiikka I, Alanen K, Borra RJ, Puolakkainen P, Nuutila P, Ovaska JT. A prospective diagnostic accuracy study of 18F-fluoreoxyglucose positron emission tomography/computed tomography, multidetector row computed tomography, and magnetic resonance imaging in primary diagnosis and staging of pancreatic cancer. *United European Gastroenterology Week*, Vienna

168. Nieminen A, Kokkola A, Ylä-liedenpohja J, Louhimo J, Mustonen H, Puolakkainen P. Varhaisvaiheen mahasyöpä (Early gastric cancer). Annual Meeting of The Finnish Surgical Society. Helsinki

2009

169. Surgeon's view; is it an abdominal tumor? *The Finnish Medical Convention*, 2009

170. Kauttu T, Rantanen T, Sihvo E, Räsänen J, Puolakkainen P, Salo J. Esophageal adenocarcinoma arising after fundoplication: a population based analysis. *Digestive Disease Week*, USA, 2009.

171. Kauttu T, Rantanen T, Sihvo E, Räsänen J, Puolakkainen P, Salo J. Fundoplikaation jälkeinen ruokatorven adenokarsinoma: väestötason analyysi. *The Annual Meeting of the Finnish Surgical Society, Operatiiviset päivät*, 2009

172. Puolakkainen P, Repo H, Vainionpää S, Kylänpää L, Oiva J, Kemppainen E, Mustonen H. Defects in monocyte signalling in patients with acute pancreatitis. *American Pancreatic Association Annual Meeting*, Honolulu, USA

173. Kauhanen S, Komar G, Seppänen M, Dean K, Borra R, Puolakkainen P, Nuutila P. A prospective diagnostic accuracy study of 18F-fluoreoxyglucose positron emission tomography/computed tomography, multidetector row computed tomography, and magnetic resonance imaging in primary diagnosis and staging of pancreatic cancer. *American Pancreatic Association Annual Meeting*, Honolulu, USA

174. Kylänpää O, Lindström O, Tukiainen E, Mentula P, Puolakkainen P, Repo H. Circulating levels of SRAGE and HMGB1 in patients with acute pancreatitis. *American Pancreatic Association Annual Meeting*, Honolulu, USA

175. Lindström O, Tukiainen E, Kylänpää L, Mentula P, Puolakkainen P, Wartiovaara-Kautto U, Repo H, Petäjä J. Disturbed tissue factor regulation associates with organ failure and predicts death in acute pancreatitis. *American Pancreatic Association Annual Meeting*, Honolulu, USA

176. Kemppainen E, Pettilä V, Kyhälä L, Kylänpää L, Tallgren M, Repo H, Puolakkainen P. Activated protein C in acute pancreatitis. A double-blinded randomized human pilot study. *American Pancreatic Association Annual Meeting*, Honolulu, USA

177. Pelli H, Mustonen H, Vainionpää S, Repo H, Kemppainen E, Puolakkainen P. Invasion of the pancreatic cancer – dependence on the cancer cell-macrophage interaction. *American Pancreatic Association Annual Meeting*, Honolulu, USA

178. Puolakkainen P, Kauhanen SP, Komar G, Seppänen MP, Dean KI, Minn HR, Kajander SA, Rinta-Kiikka I, Alanen K,



Borra RJ, Nuutila P, Ovaska JT. A prospective diagnostic accuracy study of 18F-fluoreoxyglucose positron emission tomography/computed tomography, multidetector row computed tomography, and magnetic resonance imaging in primary diagnosis and staging of pancreatic cancer. International Surgical Week, Adelaide, Australia.

2010

179. Kokkola A, Louhimo J, Puolakkainen P. Does non-curative operation improve the outcome of patients with metastatic gastric cancer. Annual Meeting of the Finnish Surgical Society, Helsinki

180. Oiva J, Muston H, Kylänpää L, Kyhälä L, Siitonen S, Kemppainen E, Repo H, Puolakkainen P. Abnormal lymphocyte signalling in severe acute pancreatitis. Annual Meeting of the Finnish Surgical Society, Helsinki

181. Puolakkainen P, Oiva J, Kylänpää ML, Kyhälä L, Siitonen S, Kemppainen E, Repo H, Mustonen H. Patients with severe acute pancreatitis show abnormal lymphocyte signalling profile assessed by phospho-specific flow cytometry. United European Gastroenterology Week, Barcelona, Spain.

182. Oiva J, Mustonen H, kylänpää ML, Kyhälä L, Siitonen S, Kemppainen E, Repo H, Puolakkainen P. Patients with acute pancreatitis complicated by organ dysfunction show abnormal lymphocyte signalling. American Pancreatic Association, Chicago, 2010.

183. Puolakkainen P, Mustonen H, Vainionpää S, Kemppainen E, Repo H, Pelli H. Pancreatic cancer cell invasion is increased in hypoxia induced MMP9 mRNA expression. American Pancreatic Association, Chicago, 2010

etc.

#### OTHERS PUBLICATIONS

1. Puolakkainen P, Schröder T: Laseri parantaa (Lasers in Medicine; A Review) (in Finnish) Tiede 2000, 1990; 52-55.

2. Puolakkainen P. Somatostatiini ja oktreotidi abdominaali-kirurgiassa.(Somatostatin and octreotide in abdominal surgery; review in Finnish.) Sandoreport 3:5-8, 1996.

3. Puolakkainen P, Turunen JP, Kivisaari L, Kekki P: Kurssimuotoisen koulutuksen laatu ja vaikuttavuus ja niiden arviointi erikoislääkärikoulutuksessa. Suomen Lääk L 2001;56(51-52):5295-300.

4. Rau BM, Kemppainen EA, Gumbs AA, Uhl W, Büchler MW, Wegscheider K, Bassi C, PA Puolakkainen, Beger HG, Schilling MK: Prokalsitoniini haiman infektioiden ja kokonaisennusteen arvioinnissa vaikeaa akuuttia haimatulehdusta sairastavilla potilailla: prospektiivinen, kansainvälinen monikeskustutkimus. Early assessment of pancreatic infections and overall prognosis in severe acute pancreatitis by procalcitonin (PCT). a prospective international multicenter study. Duodecim 2007;123:1256-1257

5. Mentula P, Kemppainen E, Puolakkainen P. Sappikivitaudin hoito akuutin sappikivien aiheuttama-haimatulehduksen yhteydessä. Duodecim 2007; 123: 2449-53

6. Järvinen M, Höckerstedt K, Alhava E, Juvonen T, Puolakkainen P et al. Kirurgian professorit: selvityshenkilöiltä varsin radikaaleja ehdotuksia erikoislääkärikoulutuksesta. Suomen Lääkärilehti 2007; 41: 3777-9

7. Rau BM, Kemppainen EA, Gumbs AA, Uhl W, Büchler MW, Wegscheider K, Bassi C, PA Puolakkainen, Beger HG: Prokalsitoniini haiman infektioiden ja kokonaisennusteen arvioinnissa vaikeaa akuuttia haimatulehdusta sairastavilla. In press, Duodecim 2007;123:1256-7

8. Puolakkainen P, Aaltonen L, Alitalo K. Äyräpään palkinto 2011 Juha Kerelle. Duodecim 2011;127:107-8

#### APPENDIX

TEACHING-focused CV / Pauli Puolakkainen 2017

Pedagogical training (University of Helsinki unless other vice marked)

- Tutor teaching course (1 day)1996/ Teaching EBM-course (1-day)1996/ "Simulated patients" (1-day)1996 / A course of University pedagogy (Korkeakoulupedagogiikan kurssi)(6 sw) accepted with distinction and special honours (Professor Lonka,1997-8)/ The course "Portfolio", (2-days)1997-1998/ Information technology in medical education (1-day) 2004/ Electronic library services (1-day)2004/ The OSCE examination training (1-day)2005/ Train the Trainers international pedagogical workshop (4-day course), World Gastroenterology Organization, Uruguay, 2005/ MD Profession – Medical teaching (1-day)2007/ The AMEE Meeting, Prague 2008, Lyon 2012, Milan 2014/ The day of learning in the Faculty of Medicine – Comparing educational practices between Helsinki and Lindköping 2009/ IT-Medi semi-nar, (1-day)2010/

Blended-learning –symposium 2010/ Moodle- basic course(1-day) 2010/ Several iPad courses 2014

#### Practical teaching experience

I have been teaching medicine /surgery for 20 years

- Lecturer, School for Dental Technicians and Schools of Nursing, 1983-2000 Helsinki/ Teaching some medical students (as Visiting Professor) at Benaroya Research Institute and at University of Washington, Seattle, USA, 2000-2002/ Intensive programme in surgery co-ordinating meeting, Göttingen, Germany, 1999/ Lecturer: Harvard Digestive Disease Center, Boston USA 1999/ Teaching medical (and dental) students and surgical residents (as Assistant Professor / Senior Lecturer) at University of Helsinki, 1994-2000, 2002-2007, 2010- (as Professor, ongoing) / Teaching medical students and surgical residents (Professor of Surgery) at University of Turku, 2007-2010/ Supervising several “Extended studies” –programs for medical students 1994-ongoing/ Teaching abdominal surgery in English to international medical students, University of Helsinki, 2002- ongoing / Annual educational site visit (surgery) with medical students to Stockholm, 1994-/ - Supervisor of 8 completed PhD theses, 5 ongoing, managing own Puolakkainen laboratory in Bio-medicum Helsinki since 2002.

- Planning, lecturing, arranging, organizing and participating educational annual symposia: Finnish Digestive Surgeons (board member), The Finnish Gastroenterological Association (Vice President 2009-11, President 2011-2013), The Finnish Surgical Society (board member, Vice President 2010-2012, President 2012-2014.), Joint Education Committee: The Finnish Digestive Surgeons and The Finnish Gastroenterological Association; Program Committee, The Annual Finnish Medical Convention

- Planning, lecturing, arranging, organizing and participating in educational and scientific international symposia : European Pancreatic Club 2006, Nordic Meeting of Gastroenterology 2008, International Surgical Week (World Congress in Surgery) 2013 (Vice President)

- Annual Hanasaari -symposium for residents: Gastroenterological diseases, (2 days), 2007-
- Experimental animal hands-on courses (Lap-simulator, endo-simulator, experimental animals) for residents and specialists on techniques in abdominal surgery, 2005- (mean of 8-10 one-day courses/year)
- Courses on surgery and emergency surgery, Department of General Medicine, University of Helsinki, 2002-
- Lecture series “Abdominal complaints – how should I treat ? ” in over 20 health care centres in Finland, 2005-6
- “Every man’s surgery” – annual symposium during Finnish Medical Convention, 2006-
- “Acute abdomen in the elderly”, Annual Lecture series, Lahti / University of Helsinki, 2005-
- “To be a certified MD in Finland” – lecture series for foreigners, University of Helsinki, 2008, 2011-
- In addition, tens of educational talks over the years in different levels of medical profession in conferences and meetings in Finland and abroad (Sapporo, Tallin, Dallas)

#### Contribution in the Development of teaching

- I was actively involved in the development of Helsinki 2000 teaching curriculum at Faculty of Medicine, University of Helsinki (1996-2000). Curriculum represent a hybrid including both conventional teaching methods and problem based learning (PBL). Curriculum includes mentor teaching, a technique in developing of which I was actively involved. In 2005 we updated the program according to Bologna process. During the last 3 years I have been heavily involved in the development of our curriculum to Helsinki 2020.

- As coordinator of surgical teaching in the Faculty of Medicine, University of Helsinki, I have been responsible for applying modern pedagogical techniques in teaching. I have been involved in planning the “Learning laboratory / Taitopaja” for hands-on practicing for medical students. Recently, I have started to apply a simulator in teaching surgical residents (operating a “virtual patient”). I have also been organizing courses of operative techniques using experimental animals. Teaching videos and virtual patient concept have also been implemented as part of the development process.

- For our residents I have started to organize courses including theoretical lectures, experimental animal training on operative techniques, simulators and finally, teaching operations. Titles include surgery on: Hernias, Thyroid, Gallbladder, Liver, and GERD.

- I have actively participated in the development of teaching in various other projects as a member of the Council of the basic medical teaching (perustutkinnon suunnittelutoimikunta) 2002-.

- In University of Turku (as a Professor 2007-2010) I up-dated the teaching methods and practices of both C7 (Basics and introduction to surgery) and C12 (Surgery) courses to meet both national and international modern standards.

- Other teaching planning projects include:

- “Abdominal diseases” – block as part of Helsinki 2000 curriculum

- Development of the assessment of OSCE examination

- “Organization, quality and validation of postgraduate theoretical courses / Teoreettisen kurssimuotoisen koulutuksen organisointi, laatu ja validointi erikoislääkärikoulutuksessa” -, 2000.

- Vice Chair (educational issues), Institute of Clinical Medicine; University of Helsinki, 2010-

- Member, Council of medical professionals, Ministry of Social Affairs and Health, Finland 2010-

#### Related pedagogical publications

- Lonka K, Pitkälä K, Puolakkainen P, Sauri P, Vanhanen H. A problem -based tutorial laboratory - a method of mentoring medical teachers. Meeting of the European Society for Medical Teachers. Gothenburg, Sweden, 1998. Abstract.

- Vanhanen H, Puolakkainen P, Pitkälä K, Strandberg T, Lonka K. The problem based learning tutorial laboratory - a method of teaching medical teachers. Meeting for Medical Teachers, Prague, 1998. Abstract

- Vanhanen H, Pitkälä K, Puolakkainen P, Strandberg TE, Lonka K. The problem-based learning tutorial laboratory – a method for training medical teachers. *Med Teach* 2001;23:99-101. Original paper
- Puolakkainen P, Turunen JP, Kivisaari L, Kekki P: Kurssimuotoisen koulutuksen laatu ja vaikuttavuus ja niiden arviointi erikoislääkärikoulutuksessa. *Suomen Lääk L* 2001;56(51-52):5295-300. Original report and review.
- Several articles and reviews in Finnish (*Duodecim*, *Suomen Lääkäreilehti*)
- Editor: *Gastroenterology and Hepatology*, 2013, (*Gastroenterologia ja hepatologia; The Finnish Text-book*).
- Puolakkainen P. Proktiitit. Kirjassa: *Sukupuolitaudit*. *Duodecim*, (*Proctitis ; A Review in the textbook of sexually transmitted diseases*) (in Finnish), Helsinki, 1994.
- Puolakkainen P: Akuutti haimatulehdus. Kirjassa: *Kunnamo I (päätoim.) Lääkärin käsikirja* 2004. Helsinki: Kustannus Oy Duodecim, 2004; s. 374-5. 951-656-144-6
- Puolakkainen P: Krooninen haimatulehdus. Kirjassa: *Kunnamo I (päätoim.) Lääkärin käsikirja* 2006. Helsinki: Kustannus Oy Duodecim, 2006; s. 383-5. 951-656-213-2
- Puolakkainen P: Krooninen haimatulehdus [online]. *Lääkärin tietokannat/Lääkärin käsikirja*. Helsinki: Kustannus Oy Duodecim, 2005. [päivitetty 5.3.2005]. Saatavilla Internetissä (vaatii käyttäjätunnuksen): <http://www.terveysportti.fi>
- Puolakkainen P: Acute pancreatitis. In: *Evidence-Based Medicine Guidelines*. Ed. Kunnamo I, John Wiley & Sons, Ltd, England, ISBN 0-470-01184-X, pp. 338-39, 2005. A book chapter
- Puolakkainen P: Akuutti haimatulehdus [online]. *Lääkärin tietokannat/Lääkärin käsikirja*. Helsinki: Kustannus Oy Duodecim, 2006. [päivitetty 24.5.2005]. Saatavilla Internetissä (vaatii käyttäjätunnuksen): <http://www.terveysportti.fi>
- Puolakkainen P: Akuutti haimatulehdus. Kirjassa: *Jousimaa JP (päätoim.) Lääkärin käsikirja* 2011. Helsinki: Kustannus Oy Duodecim; s. 380-81
- Puolakkainen P: Krooninen haimatulehdus. Kirjassa: *Jousimaa JP (päätoim.) Lääkärin käsikirja* 2011. Helsinki: Kustannus Oy Duodecim s. 381-3.
- Puolakkainen P: Haimasyöpä. Kirjassa: *Jousimaa JP (päätoim.) Lääkärin käsikirja* 2011. Helsinki: Kustannus Oy Duodecim s. 384-5.

#### Teaching merits, feedback, awards and recognition

- Supervised thesis (Esko Kemppainen) was accepted with special honours, and was awarded as the best surgical dissertation of the year in Finland, 1997
  - Numerous very positive feed-back reports over the years: applying to both lectures and group teaching (both medical students and residents and doctors undergoing CME training).
  - The group teacher of the year, 1999, Faculty of Medicine, University of Helsinki (chosen by the medical students)
  - Speciality in medical teaching /education, 2008 (The Finnish Medical Association)
  - Teaching person of the year, 2012, University of Helsinki (chosen by the medical students)
  - dedicated song in the song book of medical students ("Kultainen uvula", song 136)
  - I have received annual grant from the Helsinki University Central Hospital Research Funds (EVO) for the development of teaching techniques, personnel and related purposes (over 100 000 E during the last 5 years)
- Teaching demonstration of teaching skills
- Formal lectures assessing teaching skills (both graded as excellent):
- 1994 Docent in experimental surgery, University of Helsinki
  - 1999 Docent in gastrointestinal surgery, University of Helsinki
  - Site visit /evaluation of centres of excellence in university education: Observation of teaching activities; tutorial at the clinical stage of studies (2008), University of Helsinki
  - Teaching skills were demonstrated in all during the process that led to the Speciality in Medical Education and Professorship in Surgery first in Turku and 2011 in Helsinki