

# KAROLINSKA INSTITUTET - CURRICULUM VITAE



## NAME

Annika Östman Wernerson

## BIRTH DATA

611220

## PHONE AND EMAIL

Mobile: +46 70 450 76 36

E-mail: [annika.wernerson@ki.se](mailto:annika.wernerson@ki.se)

## COURSES AND DEGREES

2016-2017 SUHF Higher leadership program for leaders in academy "HeLP7"

2000 Completion of residency and board certification in Clinical Pathology

1995 Fully licensed physician, The National Swedish board for health and welfare

1991 Graduation from Medical School, Karolinska Institutet (KI)

1990 Dr Med Sc, KI

## DOCTORAL DEGREE

1990 Dr Med Sc, KI

*Thesis:* "Parathyroid structure related to function. A quantitative study on normal, hyper- and hypocalcemic rats", KI, 1990

## DOCENT-LEVEL COMPETENCE

2003 Clinical Pathology, KI

## CURRENT POSITION

Academic Vice President of Higher Education, KI, since 190101 (60%)

Full professor in Renal and Transplantation Science, Division of Renal Medicine, CLINTEC, KI, since 2016 (permanent position 70%)

Senior consultant in clinical pathology, ME Pathology and Cancer diagnostics, Karolinska University Hospital, since 2004 (permanent position 30%).

Subspecialisation in renal- and transplantation pathology: diagnostic work on biopsies from adults and children with kidney diseases and transplanted patients (kidney-, liver-, heart- and stem cell transplants).

Head of diagnostic electron microscopy, Karolinska University Hospital, since 1998

Assignment as expert in pathology at the core facility for electron microscopy (Emil, 10%), LABMED, KI

## PRIOR POSITIONS

2018-2021 Guest professor in medical education, Örebro University

2015-2018 Dean of Higher Education, KI

2011-2015 Senior lecturer, Division of Renal Medicine, CLINTEC, KI

2003-2005 Adjunct Senior Lecturer, Labmed, KI, Div of Pathology, KI

2006-2007 Director of Studies at Karolinska University Hospital, Huddinge

2000-2003 Specialist in clinical pathology (specialistläkare) Clinical pathology, Huddinge University Hospital

1995-2000 Resident in clinical pathology, Huddinge University Hospital

1991-1995 Clinical training, internship combined with research, Huddinge University Hospital

### **TIME DEDUCTED FROM ACTIVE RESEARCH TIME**

**Parental leave:** 1988 – 1989: 7 months, 1992- 1993: 12 months, 2003 – 2004: part time 18 months

**Resident in pathology:** 1995-2000.

**Director and coordinator, Centre for Clinical Education:** 2007-2014 (70%)

### **SELECTED ACADEMIC DISTINCTIONS AND OTHER MERITS**

2022- ongoing. Chairperson, Council for Environmental and Sustainable development, KI

2021- ongoing. Chairperson, Steering group, 6-year medical programme, KI

2021- ongoing. Member, Steering group WISE and FIELD, KI

2020- ongoing Member, Working group for strengthening young female researchers' qualification opportunities, KI

2019- ongoing. Academic vice president of higher education, KI

2019 – ongoing. Member, Faculty Board, KI

2019- ongoing. Chairperson, Committee for Higher Education; KI

2015 – ongoing. Chairperson, Utbildningsrådet, The collaboration organization KI-Stockholm Region

2019 - 2022 Member, The Recruitment Committee, KI

2015 -2019 Dean of Higher Education, KI

2015- 2019 Chairperson, Board of education, KI

2007-2014 Director and coordinator, Centre for Clinical Education (CKU), 70%, KI and Stockhom Region

2010-2014 Member, Board of the medical programme. KI

2008-2010 Adjunct member, Board of Higher Education, KI

### **Distinctions:**

2012 Awarded the Pedagogical Prize, KI

2011- ongoing. Member of the Pedagogical Academy, KI

2003 Huddinge University Hospitals “Award for supervisors in undergraduate studies” (Handledarpris).

### **SELECTED SCIENTIFIC MERITS**

#### **Bibliography**

More than 100 peer-reviewed scientific international publications. Approximately 10 manuscripts. My research has mainly been focused on renal/transplantation pathology and medical education.

See publication list below.

#### **Current research funding (as PI)**

Swedish Research Council (UV) 2014-2022: 14 435 000 SEK

ALF Medicine 2019-2022: 1 950 000 SEK

ALF Pedagogy 2020-2022: 1 580 000 SEK

CIMED senior project grant 2021-2023: 2 100 000 SEK

Njurfonden 2021-2022: 450 000 SEK

Stig och Gunborg Westmans stiftelse 2021-2023: 900 000 SEK

Gelins Stiftelse 2021: 100 000 SEK

Swedish Research Council, Research links 2019-2021: 900 000 SEK

#### **International collaborations**

*Medical Research.* PI in studies of Mesoamerican Nephropaty / Chronic Kidney Disease of unknown cause.

A collaboration was initiated 2012 to investigate the cause and pathophysiology of chronic kidney disease among poor farmers in Central America and Asia. Collaboration between Nicaragua, El Salvador, Sri Lanka, Mexico, India and USA (Rick Johnson, University of Colorado). We are engaged in CENCAM

<https://cencam.net/about/>

### **National collaborations**

*Pedagogical research.* PI in the collaboration project between KI, LiU, KTH and SU since 2013 “Challenging emotions in medical and teacher education” <https://ki.se/clintec/cemte-challenging-emotions-in-medical-and-teacher-education>

*Medical research.* Coordinator of “KaroKidney - A translational kidney research cluster based in Stockholm” <https://karokidney.org/>

*Medical research.* Collaboration with GU and AstraZeneca in performing multiomics in my project “Structural, genetic and biological markers of importance for diagnosis and treatment of kidney diseases”.

### **SELECTED PEDAGOGICAL MERITS** (see also “Selected academic distinctions” above)

2000- ongoing Several developmental - and research projects in medical education

1986 -ongoing Active teacher in the medical program, currently teaching renal pathology

2015- ongoing. Chairperson of the prize committee for the KI Pedagogical prize and member of the prize committee for the KIPRIME (KI prize for research in medical education)

2007-2014 Director and coordinator Centre for Clinical Education (CKU), 70%. In this role my work was focused on improving work-based education (VFU) for all students at KI.

2006-2007 Director of studies at Karolinska University Hospital, Huddinge

2004-2005 Director of studies and examiner, “Pathology”, Medical programme, 14 cp

2004-2005 Director of studies and examiner “General Pathology”, Dental programme 4,5 cp

#### **Courses:**

2001-2002 Course "Teachers for Tomorrow" (Framtidens lärare), KI, 37, 5 cp

2000 Course "Education for University Teachers", 1,5 cp

### **SUPERVISION**

#### **PhD- Main supervisor**

Jessica Smolander, ongoing, Anna Levin, ongoing, Annalena Lönn, ongoing, Julia Wijkström, dissertation

2017, Jenny Hulkko, dissertation 2015, Maria Weurlander, dissertation 2012

#### **PhD - Co-supervisor**

Johan Nordström, ongoing, Emelie Westergren, ongoing, Jia Sun, dissertation 2016, Malin Ackefors, dissertation 2014, Laleh Sistani dissertation 2012, Fredrik Dunér, dissertation 2010, Helena Genberg, dissertation 2008, Anne Sörenby, dissertation 2007, Nowak Grzegorz, dissertation 2003, Ehab Rafael 1999

### **LEADERSHIP AND COLLABORATION MERITS**

*Dean/Academic vice president of higher education, KI:* the work includes being chairperson of the committee for higher education which has an overall responsibility for undergraduate education at Karolinska Institutet, eg 40 educational programmes and approximately 6000 students.

The responsibility of the committee includes handling matters of strategy and development, follow-up of quality as well as monitoring trends and building and maintaining national and international contacts.

*Collaboration with region Stockholm:* Chairperson for “Utbildningsrådet” since 2015 and member of the “Regional council for competence in health care” since 2021 when it was established.

*Research group leader:* I lead two research teams; one in medical research and one in educational research.

*Chairperson of the steering group* for the project “One KI for sustainable development” 2020-2022

#### **Courses:**

HeLP program: SUHF Higher Leadership program 2015-2017

Effective Motivational Leadership, Next.Peak, equivalent to 2 cp, 2010 - 2011.

Course for Supervisors (Forskarhandledarkurs) 2007-2008.

Effective Personal Leadership, Next.Peak, equivalent to 2 cp, 2006-2007.

### **OTHER MERITS**

2022 Appointed as expert on research-based education, The Royal Academy of Sciences

2022- ongoing. Member of SUHF working group for “Vårdkompetens” (Competence in health care)

2022- ongoing. KI’s representative in “Partnership for sustainable development” lead by G Wikström

## List of publications

### *Dr Med Sc Thesis*

**Wernerson A:** Parathyroid ultrastructure related to function. A quantitative study on normal, hyper-, and hypocalcemic rats. Avhandling, Stockholm, 1990.

### *Scientific publications*

Papers that are included in the thesis are indicated by a \*

1. \*Svensson O, **Wernerson A**, Reinholt FP: Effect of calcium depletion on the rat parathyroids. *Bone Miner* 3:259-269, 1988. PMID: 3207947
2. \***Wernerson A**, Svensson O, Reinholt FP: Stereological studies of the parathyroids in the young rat with hypercalcemia induced by severe phosphate depletion. *Virchows Arch (B)* 55: 85-92, 1988. PMID: 3207947
3. FP Reinholt, **A Wernerson**: Septal distribution and the relationship of matrix vesicle size to cartilage mineralization. *Bone and Mineral* 4:63-71, 1988. PMID: PMID: 3191272
4. \***Wernerson A**, Svensson O, Reinholt FP: Parathyroid cell number and size in hypercalcemic rats: a stereologic study employing modern unbiased estimators. *J Bone Min Res* 4;705-713, 1989. PMID: 2816515
5. \*Svensson O, **Wernerson A**, Reinholt FP: The parathyroid glands in the rat as seen by ultrathin step and serial sectioning. *Bone Miner* 6:237-248, 1989. PMID: 2758155
6. \***Wernerson A**, Mengarelli Widholm S, Svensson O, Reinholt FR: Parathyroid cell number and size in hypocalcemic young rats. *APMIS* 99:1096-1102, 1991. PMID: 1772646
7. Wennberg L, Rafael E, Liu J, Sundberg B, **Wernerson A**, Korsgren O: Allogeneic and xenogeneic islets are rejected by different and specific mechanisms: A study in rodents using a mixed allogeneic-xenogeneic islet transplantation model. *Xenotransplantation* 4:228-234, 1997. PMID: Not found. DOI: 10.1111/j.1399-3089.1997.tb00187.x
8. Duraj F, Lindberg G, Groth C-G, Eleborg L, **Wernerson A**, Saraste L, Meurling S, Wallander J, Wahlberg J, Ejderhamn J, Wilczek H: Tarmtransplantation. Första svenska tunntarmstransplantationen till en vuxen patient med pseudoobstruktion. *Läkartidningen* 95:3172-3176, 1998. PMID: 9700261
9. Rafael E, **Wernerson A**, Arner P, Wu GS, Tibell A: In vivo evaluation of glucose permeability of an immunoisolation device intended for islet transplantation. A novel application of the microdialysis technique. *Cell Transplantation* 8:317-326, 1999. PMID: 10442744
10. Rafael E, **Wernerson A**, Arner P, Tibell A: In vivo studies on insulin permeability of an immunoisolation device intended for islet transplantation using the microdialysis technique. *Eur Surg Res* 31:249-258, 1999. PMID: 10352353
11. Nowak G, Westermark P, **Wernerson A**, Herlenius G, Sletten K, Ericzon B-G: Liver transplantation as rescue treatment in a patient with primary AL kappa amyloidosis. *Transpl Int* 13:92-97, 2000. PMID: 10836644
12. Demetris A, Adams D, Bellamy C, Blakolmer K, Clouston A, Dhillon AP, Fung J, Gouw A, Gustafsson B, Haga H, Harrison D, Hart J, Hubscher S, Jaffe R, Khettry U, Lassman C, Lewin K,

- Martinez O, Nakazawa Y, Neil D, Pappo O, Parizhskaya M, Randhawa P, Rasoul-Rockenschaub S, Reinholt F, Reynes M, Robert M, Tsamandas A, Wanless I, Wiesner R, **Wernerson A**, Wrba F, Wyatt J, Yambe H: Update of the international Banff schema for liver allograft rejection; working recommendations for the histopathologic staging and reporting of chronic rejection. An international panel. *Hepatology* 31;792-9, 2000. PMID: 10706577
13. Tydén G, **Wernerson A**, Sandberg J, Berg U: Development of multicentric renal cell carcinoma in living donor kidney grafts. *Transplantation* 70; 1650-1656, 2000. PMID: 11152228
  14. Tibell A, Rafael E, Wennberg L, Bergström M, Geller RL, Loudovaris T, Johnson RC, Brauker JH, Neuenfeldt S, Nordenström J, **Wernerson A**: Survival of macroencapsulated allogeneic parathyroid tissue one year after implantation in non-immunosuppressed humans. *Cell Transpl*, 10; 591-599, 2001. PMID: 11714193
  15. Zetterqvist H, Hentschke P, Thörne A, **Wernerson A**, Jonas Mattsson, Uzunel M, Remberger M, Hägglund H, Aschan J, Albin N, Ringdén O: A graft-versus-tumour effect in a patient with disseminated colon cancer treated with surgical tumour resection and allogeneic stemcell transplantation. *Bone Marrow Transplantation*. 28; 1161-1166, 2001. PMID: 11803361
  16. Barkholt L, Hentschke P, Zetterqvist H, Mattsson J, Uzunel M, Wersäll P, Martola J, Albin N, Aschan J, Wijkström H, Tillegård A, Öman S, **Wernerson A**, Niederwieser D, Thörne A, Ringdén O: An allogeneic anticancer effect after hematopoietic stem cell transplantation. *Transpl. Proc.* 33:1862-1864, 2001. PMID: 11267544
  17. Pendas AM, Zhou Z, Cadinanos J, Freije JM, Wang J, Hultenby K, Astudillo A, **Wernerson A**, Rodriguez F, Tryggvason K, Lopez-Otin C: Defective prelamin A processing and muscular and adipocyte alteration in Zmpste24 metalloproteinase-deficient mice. *Nat Genet.* 31;94-99, 2002. PMID: 11923874
  18. Hentschke P, Barkholt L, Uzunel M, Mattsson J, Wersäll P, Pisa P, Martola J, Albin N, **Wernerson A**, Söderberg M, Remberger M, Thörne A, Ringdén O: Low intensity conditioning and hematopoietic stem cell transplantation in patients with renal and colon carcinoma. *Bone Marrow Transpl* 31; 253-261, 2003. PMID: 12621459
  19. **Wernerson A**, Dunér F, Erna Pettersson, Mengarelli Widholm S, Berg U, Routsalainen V, Tryggvason K, Hultenby K, Söderberg M: Altered ultrastructural distribution of nephrin in minimal change nephrotic syndrome. *Nephrol Dial Transpl.* 18; 70-76, 2003. PMID: 12480962
  20. Rafael E, Wu GS, Hultenby K, Tibell A, **Wernerson A**: Improved survival of macroencapsulated islets of Langerhans by preimplantation of the immunoisolating device. A morphometric study. *Cell Transpl.* 12; 407-12,2003. PMID: 12911128
  21. Nowak G, Ungerstedt J, **Wernerson A**, Ungerstedt U, Ericzon BG: Hepatic cell membrane damage during cold preservation sensitizes liver grafts to rewarming injury. *J Hepatobil Panc Surg.* 10; 200-05, 2003. PMID: 14605976
  22. Mattsson J, Jansson M, **Wernerson A**, Hassan M: Lung epithelial cells and type II pneumocytes of donor origin after allogeneic hematopoietic stem cell transplantation. *Transplantation.* 78;154-7, 2004. PMID: 15257055
  23. Sörenby A, Rafael E, Tibell A, **Wernerson A**: Improved histological evaluation of vascularity around an immunoisolation device by correlating the number of vascular profiles to glucose exchange. *Cell Transpl.*13;713-9, 2004. PMID: 15648741
  24. Nowak G, Norén U, **Wernerson A**, Marschall HU, Möller L, Ericzon BG. Enteral donor pretreatment with ursodeoxycholic acid protects the liver against ischaemia-reperfusion injury in rats. *Transpl Int* 17:804-9, 2005. PMID: 15815896

25. Dahlgren L-O, Eriksson B, Gyllenhammar H, Korkeila M, Sääf-Rothoff A, **Wernerson A**, Seeberger A: To be and to have a critical friend in medical teaching. *Med Educ* 40;72-8, 2006. PMID: 16441326
26. Sharma A, Sorenby A, **Wernerson A**, Efendic S, Kumagai-Breasch K, Tibell A. Exendin-4 treatment improves metabolic control after islet transplantation. *Diabetologia*. 49(6):1247-53, 2006. PMID: 16609877
27. Sorenby A, Wu GS, Zhu SS, **Wernerson A**, Sumitran-Holgersson S, Tibell A. Macroencapsulation protects against sensitisation after allogeneic islet transplantation in rats. *Transplantation*. 15;82(3):393-7, 2006. PMID: 16906039
28. Genberg H, Hansson A, **Wernerson A** and Tydén G. Pharmacodynamics of rituximab in kidney allotransplantation. *Am J Transplant* 6(10):2418-28, 2006. PMID: 16925569
29. The Banff Working Group:A.J. Demetris, Chris O.C. Bellamy, Andrew Clouston, Albert Czaja, Ierachemiel Daskal, Magda S. El-Monayeri, Evangelio Felekouras, Paulo Fontes, John Fung, Maria Guido, Hironori Haga, John Hart, Eva Honsova, Stefan Hubscher, Tomoo Itoh, Nirag Jhala, Urmilla Khettry, Charles Lassman, Saverio Ligato, John G., Marta Ida Minervini, Amadeo Marcos, Johan Mölne, Mike Nalesnik, Imad Nasser, Desley Neil, Erin Ochoa, Orit Pappo, Parmjeet Randhawa, Finn P. Reinholt, Phil Ruiz, Mylene Seabagh, Aurelio Sonzogni, Athanassios C, **Annika Wernerson**, Tong Wu, Funda Yilmaz;  
  
Liver Biopsy Interpretation for Causes of Late Liver Allograft Dysfunction. *Hepatology*, 44(2):489-501, 2006. PMID: 16871565
30. Genberg H, Hansson A, **Wernerson A** and Tydén G. Pharmacodynamics of rituximab in kidney transplantation. *Transplantation* 84; 33-36, 2007. PMID: 18162986
31. Raschperger E, Neve NP, **Wernerson A**, Hultenby K, Pettersson RF, Majumdar A. The coxsackie and adenovirus receptor (CAR) is required for renal epithelial differentiation within the zebrafish pronephrons. *Developmental Biology* 313(1): 455-64, 2008. PMID: 18062954
32. Dunér F, Patrakka J, Xiao, Z., Larsson J, Vlamis A, Pettersson E, Tryggvason K, Hultenby K, **Wernerson A**. Dendrin expression in glomerulogenesis and in human Minimal Change Nephrotic Syndrome. *Nephrol Dial Transpl* 23; 2504-2511, 2008. PMID: 18356187
33. Sörenby A, Kumagai-Braesch M, Sharma A, Hultenby KR, **Wernerson AM**, Tibell AB. Preimplantation of an immunoprotective device can lower the curative dose of islets to that of free islet transplantation: studies in a rodent model. *Transplantation* 86; 364-366, 2008. PMID: 18645504
34. Weurlander M, Masiello I, Söderberg M, **Wernerson A**. Meaningful learning: students' perceptions of a new form of case seminar in pathology. *Medical Teacher* 31:e248-253, 2009. PMID: 19811156
35. Dunér F, Lindström K, Hultenby K, Hulkko J, Patrakka J, Tryggvason K, Haraldsson B, **Wernerson A**, Pettersson E. Permeability, ultrastructural changes, and distribution of novel proteins in the glomerular barrier in early puromycin aminonucleoside nephrosis. *Nephron Exp Nephrol* 116:42-52, 2010. PMID: 20588063
36. Krmar RT, Holtbäck U, Linné T, Berg UB, Celsi G, Söderberg MP, **Wernerson A**, Szakos A, Larsson S, Skattum L, Bányai P: Acute renal failure in dense deposit disease: complete recovery after combination therapy with immunosuppressant and plasma exchange. *Clinical Nephrology* 75 Suppl 1:4-10., 2011. PMID: 21269585
37. Sistani L, Duner F, Udumala S, Hultenby K, Uhlen M, Betsholtz C, Tryggvason K, **Wernerson A**, Patrakka J. Pdlim2 is a novel actin-regulating protein of podocyte foot processes. *Kidney Int.*;80:1045-54, 2011. PMID: 21814175

38. Weurlander M, Söderberg M, Hult H, **Wernerson A**. Exploring formative assessment as a tool for learning: students' experiences of different methods of formative assessment. *Assessment and Evaluation in Higher Ed* 37: 747-760, 2011. DOI: 10.1080/02602938.2011.572153.
39. Remberger M, Ackefors M, Berglund S, Blennow O, Dahllöf G, Dlugosz A, Garming-Legert K, Gertow J, Gustafsson , Hassan M, Hassan M, Hauzenberger D, Hägglund H, Karlsson H, Klingspor L, Kumlien G, Le Blanc K, Ljungman P, Machaczka M, Malmberg KJ, Marschall HU, Mattsson J, Olsson R, Omazic B, Sairafi D, Schaffer M, Svahn BM, Svenberg P, Swartling L, Szakos A, Uhlin M, Uzunel M, Watz E, Wernerson A, Wikman A, Wikstrom AC, Winiarski J, Ringden O: Improved Survival after Allogeneic Hematopoietic Stem Cell Transplantation in Recent Years. A Single-Center Study. *Biol Blood Marrow Transplant* 17; 1688-97, 2011. PMID: 21620989
40. Nihshibori Y, Katayama K, Parikka M, Oddsson A, Nukui M, Hultenby K, **Wernerson A**, Hee B, Ebarasi L, Raschberger E, Norlin J, Uhlén M, Patrakka J, Betsholtz B, Tryggvason K: Glcci1 deficiency leads to proteinuria. *J Am Soc Nephrol*. 22:2037-46, 2011. PMID: 21949092
41. Ackefors M, Gjertsen H, **Wernerson A**, Weiland O: Concentration Guided Ribavirin dosing with Darbeopetin Support and Peg-IFN alfa-2a for Treatment of Hepatitis C Recurrence after Liver Transplantation. *J Viral Hepat*. 19;635-639, 2012. PMID: 22863267
42. The Banff Working Group on Liver Allograft Pathology (including **Wernerson A**): Importance of liver biopsy findings in immunosuppression management. Biopsy monitoring and working criteria for patients with operational tolerance. *Liver Transplant* 18;1154-1170, 2012. PMID: 22645090
43. Weurlander M, Scheja M, Hult H, **Wernerson A**. Emotionally challenging learning situations: medical students' experiences of autopsies. *Int J Med Ed*; 3; 63-70, 2012. PMID: PMC4205524
44. Perisic L, Lal M, Hulkko J, Hultenby K, Önfeldt B, Sun Y, Dunér F, Patrakka J, Betsholtz C, Uhlén M, Brismar H, Tryggvason K, **Wernerson A\***, Pikkarainen T\*. \* equal contribution. Plekkh2, a novel podocyte protein downregulated in human focal segmental glomerulosclerosis, is involved in matrix adhesion and actin dynamics. *Kidney Int*;82:1071-83, 2012. PMID: 22832517
45. Olauson H, Lindberg K, Jia T, Amin R, **Wernerson A**, Andersson G, Larsson TE: Targeted Deletion of Klotho in Kidney distal tubules disrupts mineral metabolism and elevated FGF23. *J Am Soc Nephrol* 23:1641-1651, 2012. PMID: 22878961
46. Tydén G, Hagerman I, Grinnemo KH, Svenarud P, van der Linden J, Kumlien G, **Wernerson A**. Intentional ABO-incompatible heart transplantation: a case report of 2 adult patients. *J Heart Lung Transplant* 31:1307-10, 2012. PMID: 23107062
47. Jia X, Amit Sharma A, Kumagai-Braesch M, **Wernerson A**, Sörenby A, Yamamoto S, Wang F, Tibell A. Exendin-4 increases the expression of hypoxia-inducible factor-1alpha in rat islets and preserves the endocrine cell volume of both free and macroencapsulated islet grafts. *Cell Transplantation*. 21:1269-83, 2012. PMID: 22405036
48. Krmar R, Kågebrand M, Hansson M, Halling E, Asling-Monemi K, Herthelius M, Holtbäck U, Christensson M, **Wernerson A**, Bruchfeld A: Renal-Limited Vasculitis in Children: a Single-Center Retrospective Long-term Follow-up analysis. *Clin Nephrol*; 80:388-394, 2013. PMID: 22541686
49. Kumagai-Braesch M, Jacobson S, Moria H, Jia X, Takahashia T, **Wernerson A**, Flodström-Tullberg M, Tibell A: The TheraCyte™ Device Protects against Islet Allograft Rejection in Immunized Hosts. *Cell Transplantation*. 22;1137-1146, 2013. PMID: 23043940
50. Sistani L, Rodriguez P, Hultenby K, Uhlen M, Betsholtz C, Jalanko H, Tryggvason K, **Wernerson A**, Patrakka J: Neuronal proteins are novel components of podocyte major processes and their

- expression in glomerular crescents supports their role in crescent formation. *Kidney Int* 83:63-71, 2013. PMID: 22913984
51. Rodriguez PQ, Lohkamp B, Celsi G, Mache CJ, Auer-Grumbach M, **Wernerson A**, Hamajima N, Tryggvason K, Patrakka J: Novel INF2 mutation p. L77P in a family with glomerulopathy and Charcot-Marie-Tooth neuropathy. *Pediatr Nephrol* 28:339-343, 2013. PMID: 22961558
  52. Ackefors M, Nyström J, **Wernerson A**, Gjertsen H, Sönerborg A, Weiland O. Evolution of fibrosis during HCV recurrence after liver transplantation--influence of IL-28B SNP and response to peg-IFN and ribavirin treatment. *J Viral Hepat.* 20:770-8, 2013. PMID: 24168256
  53. Wijkström J, Leiva R, Elinder CG, Leiva S, Trujillo Z, Trujillo L, Söderberg M, Hultenby K, **Wernerson A**. Clinical and pathological characterization of mesoamerican nephropathy: a new kidney disease in central america *Am J Kidney Dis*;62:908-18, 2013. PMID: 23850447
  54. Jia T, Olauson H, Lindberg K, Amin R, Edvardsson K, Lindholm B, Andersson G, **Wernerson A**, Sabbagh Y, Schiavi S, Larsson TE. A novel model of adenine-induced tubulointerstitial nephropathy in mice. *BMC Nephrol*;14:116, 2013. PMID: 23718816
  55. Magné J, Aminoff A, Perman Sundelin J, Mannila MN, Gustafsson P, Hultenby K, **Wernerson A**, Bauer G, Listenberger L, Neville MJ, Karpe F, Borén J, Ehrenborg: The minor allele of the missense polymorphism Ser251Pro in perilipin 2 (PLIN2) disrupts an  $\alpha$ -helix, affects lipolysis, and is associated with reduced plasma triglyceride concentration in humans. *E. FASEB J* 27:3090-9, 2013. PMID: 23603836
  56. Turunen Olsson P, Weurlander M, Mattiasson A-C, Wärn Hede G, Panagiotidis G, Broberger B, Hult H, **Wernerson A**. "It's all connected!" Nursing students' experiences of an integrated case seminar. *Innov Educ Teach Int*. DOI:10.1080/14703297.2014.943786, 2014.
  57. Yamamoto S, Schwarz R, Weiland O, Oksanen A, **Wernerson A**, Söderdahl G, Sönerborg A, Ericzon BG: Long term outcome of liver transplantation in HIV-1 positive patients: 15 year follow-up. *ISRN Transplantation Article ID 480582*, 2013.
  58. Weurlander M, Scheja M, Hult H, **Wernerson A**: The struggle to understand: Exploring students' experiences of learning and understanding during a university course. *Studies in higher education*. DOI: 10.1080/03075079.2014.930122, 2014.
  59. Lal MA, Andersson AC, Katayama K, Xiao X, Nukui M, Hultenby K, **Wernerson A**, Tryggvason K: Rhophilin-1 is a key regulator of the podocyte cytoskeleton and is essential for glomerular filtration. *J Am Soc Nephrol* 26:647-62, 2014. PMID: 25071083
  60. Hulkko J, Patrakka J, Lal M, Tryggvason K, Hultenby K, **Wernerson A**: Neph1 is reduced in primary focal segmental glomerulosclerosis, minimal change nephrotic syndrome, and corresponding experimental animal models of adriamycin- induced nephropathy and puromycin aminonucleoside nephrosis. *Nephron Extra*, 19;4:146-54, 2014. PMID: 2540493
  61. Fenhammar J, Rundgren M, Forestier J, Eriksson S, Ozenci V, Hultenby K, **Wernerson A**, Frithiof R: Renal effects of treatment with a TLR4 inhibitor in conscious septic sheep. *Critical Care* 3;18:488, 2014. PMID: 25182709
  62. Kaxiras A, Yamamoto S, Söderdahl G, **Wernerson A**, Axelsson R, Ericzon BG: Cyclosporin A, but not tacrolimus, negatively affects the hepatic extraction fraction of hepatobiliary scintigraphy in liver transplant recipients: *EJNMMI Research*, 4:73, 2014. DOI 10.1186/s13550-014-0073-z
  63. Lindberg K, Amin R, Moe OW, Hu MC, Erben RG, **Östman Wernerson A**, Lanske B, Olauson H, Larsson TE. The kidney is the principal organ mediating klotho effects. *J Am Soc Nephrol* 23: 2169-75, 2014. PMID: 24854271
  64. Magné J, Gustafsson P, Jin H, Maegdefessel L, Hultenby K, **Wernerson A**, Eriksson P, Franco-Cereceda A, Kovanen PT, Gonçalves I, Ehrenborg E. ATG16L1 Expression in Carotid



- Atherosclerotic Plaques Is Associated With Plaque Vulnerability. *Arterioscler Thromb Vasc Biol.* Mar 12. pii: ATVBHA.114.304840. [Epub ahead of print], 2015. PMID: 25767270
65. Ackefors M, Castedal M, Dahlgard O, Verbaan H, Gjertsen H, **Wernerson A**, Weiland O. Peg-IFN and ribavirin treatment for recurrence of genotype 2 and 3 hepatitis C after liver transplantation. *Infect Dis.* 47:209-17, 2015. PMID: 25650729
  66. Perisic L, Rodriguez PQ, Hultenby K, Sun Y, Lal M, Betsholtz C, Uhlén M, **Wernerson A**, Hedin U, Pikkarainen T, Tryggvason K, Patrakka J: Schip1 is a novel podocyte foot process protein that mediates actin cytoskeleton rearrangements and forms a complex with Nherf2 and Ezrin. *PLoS One.* 25;10(3):e0122067, 2015. PMID: 25807495
  67. Rodriguez PQ, Oddsson A, Ebarasi L, He B, Hultenby K, **Wernerson A**, Betsholtz C, Tryggvason K, Patrakka J. Knockdown of Tmem234 in zebrafish results in proteinuria. *Am J Physiol Renal Physiol.* 2015;1;309:F955-66.
  68. Qureshi AR, Olauson H, Witasp A, Haarhaus M, Brandenburg V, **Wernerson A**, Lindholm B, Söderberg M, Wennberg L, Nordfors L, Ripsweden J, Barany P, Stenvinkel P: Increased circulating sclerostin levels in end-stage renal disease predict biopsy-verified vascular medial calcification and coronary artery calcification. *Kidney Int.* 2015; 88(6):1356-1364.
  69. F. Kobayashi, H., Liu, Q., Binns, T.C., Urrutia, A.A., Davidoff, O., Kapitsinou, P.P., Pfaff, A., Olausson, H., **Wernerson, A.**, Fogo, A.B., Fong, G-H., Gross K.W., Haase VH. Distinct subpopulations of FOXD1 stroma-derived cells regulate renal erythropoietin. *JCI. J Clin Invest.* 2016; 126(5):1926-38.
  70. Chen Z, Sun J, Haarhaus M, Barany P, Wennberg L, Ripsweden J, Brismar TB, Lindholm B, **Wernerson A**, Söderberg M, Stenvinkel P, Qureshi AR. Bone mineral density of extremities is associated with coronary calcification and biopsy-verified vascular calcification in living-donor renal transplant recipients. *J Bone Miner Metab.* 35 (5):536-543, 2016.
  71. Demetris AJ, Bellamy C, Hübscher SG, O'Leary J, Randhawa PS, Feng S, Neil D, Colvin RB, McCaughan G, Fung JJ, Del Bello A, Reinholt FP, Haga H, Adeyi O, Czaja AJ, Schiano T, Fiel MI, Smith ML, Sebagh M, Tanigawa RY, Yilmaz F, Alexander G, Baiocchi L, Balasubramanian M, Batal I, Bhan AK, Bucuvalas J, Cerski CT, Charlotte F, de Vera ME, ElMonayeri M, Fontes P, Furth EE, Gouw AS, Hafezi-Bakhtiari S, Hart J, Honsova E, Ismail W, Itoh T, Jhala NC, Khettry U, Klintmalm GB, Knechtle S, Koshiha T, Kozlowski T, Lassman CR, Lerut J, Levitsky J, Licini L, Liotta R, Mazariegos G, Minervini MI, Misdraji J, Mohanakumar T, Mölne J, Nasser I, Neuberger J, O'Neil M, Pappo O, Petrovic L, Ruiz P, Sa?ol Ö, Sanchez Fueyo A, Sasatomi E, Shaked A, Shiller M, Shimizu T, Sis B, Sonzogni A, Stevenson HL, Thung SN, Tisone G, Tsamandas AC, **Wernerson A**, Wu T, Zeevi A, Zen Y. 2016 Comprehensive Update of the Banff Working Group on Liver Allograft Pathology: Introduction of Antibody-Mediated Rejection. *Am J Transplant.* 16:2810-2835, 2016.
  72. Wijkström J, González-Quiroz M, Hernandez M, Trujillo Z, Hultenby K, Ring A, Söderberg M, Aragón A, Elinder CG, **Wernerson A**. Renal Morphology, Clinical Findings, and Progression Rate in Mesoamerican Nephropathy. *Am J Kidney Dis.* 2017; 69:626-636.
  73. Sun J, Hultenby K, Axelsson J, Nordström J, He B, **Wernerson A**, Lindström K. Proximal Tubular Expression Patterns of Megalin and Cubilin in Proteinuric Nephropathies. *Kidney Int Rep* 2:721-732, 2017.
  74. Stenvinkel P, Luttrupp K, McGuinness D, Witasp A, Qureshi AR, **Wernerson A**, Nordfors L, Schalling M, Ripsweden J, Wennberg L, Söderberg M, Bány P, Olauson H, Shiels PG. CDKN2A/p16INK4a expression is associated with vascular progeria in chronic kidney disease. *Aging (Albany NY).* 9:494-507, 2017.

75. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg: Resolving feelings of professional inadequacy: Student teachers' coping with distressful situations. *Teaching and teacher ed.* 2017; 64; 270-79.
76. Weurlander M, Lönn A, Seeberger A, Hult H, **Wernerson A**: How do medical and nursing students experience emotional challenges during clinical placements? *Int J Med Ed* 27: 74-82, 2018.
77. Wijkström J, Jayasumana C, Dassanayake R, Priyawardane N, Godakanda N, Siribaddana S, Ring A, Hultenby K, Söderberg M, Elinder CG, **Wernerson A**. Morphological and clinical findings in Sri Lankan patients with chronic kidney disease of unknown cause (CKDu): Similarities and differences with Mesoamerican Nephropathy. *PLoSOne* 13:e0193056, 2018.
78. Ma X, Schwarz A, Zambrano Sevilla S, Levin A, Hultenby K, **Wernerson A**, Lal M, Patrakka J: Depletion of Gprc5a promotes development of diabetic nephropathy. *J Am Soc Nephrol* 29:1679-1689, 2018.
79. Xu H, Hashem A, Witasp A, Mencke R, Goldsmith D, Barany P, Bruchfeld A, **Wernerson A**, Carrero JJ, Olauson H: Fibroblast growth factor 23 is associated with fractional excretion of sodium in patients with chronic kidney disease. *Nephrol Dial Transplant.* 34(12):2051-2057. 2019.
80. Zambrano S, Möller-Hackbarth K, Li X, Rodriguez PQ, Charrin E, Schwarz A, Nyström J, **Wernerson A**, Patrakka J: GPRC5b modulates inflammatory response in glomerular diseases via NF- $\kappa$ B pathway. *J Am Soc Nephrol.* 30(9) 1573-1586, 2019
81. Weurlander M, Lönn A, Seeberger A, Hult H, Thornberg R, **Wernerson A**: Emotional challenges of medical students generate feelings of uncertainty. *Medical Education.* 53:1037-1048, 2019.
82. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg R: Conflicts viewed through the micro-political lens: Beginning teachers' coping strategies for emotionally challenging situations. *Research Papers in Education.* 2019. [https://doi-org.proxy.kib.ki.se/10.1080/02671522.2019.1633559](https://doi.org.proxy.kib.ki.se/10.1080/02671522.2019.1633559)
83. Amin R, He R Gupta D, Zheng W, Burmakin M, Mohammad DK, DePierre JW, Sadeghi B, Olauson H, **Wernerson A**, El-Andaloussi S, Hassan M, Abedi-Valugerdi M. The kidney injury caused by the onset of acute graft-versus-host disease is associated with down-regulation of  $\alpha$ Klotho. 6. *Int Immunopharmacol.* 2020 Jan;78:106042. doi: 10.1016/j.intimp.2019.106042. Epub 2019
84. Gavin C, Boberg E, Von Bahr L, Bottai M, Andrén AT, **Wernerson A**, Davies LC, Sugars RV, Le Blanc K. Tissue immune profiles supporting response to mesenchymal stromal cell therapy in acute graft-versus-host disease-a gut feeling. *Stem Cell Res Ther.* 2019 Nov 20;10(1):334. doi: 10.1186/s13287-019-1449-9.
85. Schwarz A, Möller-Hackbarth K, Ebarasi L, Unnersjö Jess D, Zambrano S, Blom H, **Wernerson A**, Lal M, Patrakka J. Coro2b, a podocyte protein downregulated in human diabetic nephropathy, is involved in the development of protamine sulphate-induced foot process effacement. *Sci Rep.* 9:8888. doi: 10.1038/s41598-019-45303-y, 2019.
86. Nilsson LM, Zhang L, Bondar A, Svensson D, **Wernerson A**, Brismar H, Scott L, Aperia A. Prompt apoptotic response to high glucose in SGLT-expressing renal cells. *Am J Physiol Renal Physiol.* 316:F1078-F1089, 2019
87. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg R: Boundaries as a coping strategy: emotional labour and relationship maintenance in distressing teacher education situations. *European J of Teacher Education.* 42:5, 634-649, 2019.

88. Levin L, Reznichenko A, Witasp A, Liu P, Greasley PJ, Sorrentino A, Blondal T, Zambrano S, Nordström J, Bruchfeld A, Barany P, Ebefors K, Erlandsson F, Patrakka J, Stenvinkel P, Nyström J, **Wernerson A**. Novel insights into the disease transcriptome of human diabetic glomeruli and tubulointerstitium. *Nephrol Dial Transplant* 4;35(12):2059-2072, 2020.
89. Seeberger A, Lönn A, Hult H, Weurlander M, **Wernerson A**. Can empathy be preserved in medical education? *Int J Med Educ* 20; 83-89, 2020
90. Wijkström J, Elinder CG, Hultenby K, Söderberg M, **Wernerson A**: "Dysmorphic" lysosomes in proximal tubular cells are not specific for CINAC/CKDu and do not provide evidence that CINAC/CKDu is a toxin-induced disease. *Kidney Int* 98:786-787, 2020.
91. Unnersjö-Jess D, Butt L, Höhne M, Witasp A, Kühne L, Hoyer PF, Patrakka J, Brinkkötter PT, **Wernerson A**, Schermer B, Benzing T, Scott L, Brismar H, Blom H. A Fast and Simple Clearing and Swelling Protocol for 3D In-Situ Imaging of the Kidney across Scales. *Kidney Int*. 2020;S0085-2538(20)31409-5. PMID: 3328514
92. Lindqvist H, Thornberg R, Weurlander M, **Wernerson A**: Change advocacy as coping strategy: how beginning teachers cope with emotionally challenging situations. *Teachers and Teaching* 27 (6); 474-487, 2021.
93. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg R: Talk of teacher burnout among student teachers. *Scand J Educational Res*, 1266-1278, 2021. <https://doi-org.proxy.kib.ki.se/10.1080/00313831.2020.1816576>
94. Wijkström J, Gonzalez-Quiroz M, Leiva R, Trujillo ZC, Elinder CG, **Wernerson A**. Mesoamerican Nephropathy and Kidney Disease Progression: A Case Series of Individuals with Kidney Biopsies From Nicaragua and El Salvador. *Kidney Med* 2021;3(5):871-873.
95. Möller-Hackbarth KMH, Dabaghie DD, Charrin EC, Zambrano SZ, Genové GG, Li XL, **Wernerson A**, Patrakka JP. Retinoic acid receptor responder1 promotes development of glomerular diseases via NF- $\kappa$ B signaling pathway. *Kidney International* 2021;100(4):809-823
96. He B, Chen P, Zambrano S, Dabaghie D, Hu Y, Möller-Hackbarth K, Unnersjö-Jess D, Korkut G, Charrin E, Jeansson M, Bintanel-Morcillo M, Witasp A, Wennberg L, **Wernerson A**, Schermer B, Benzing T, Ernfors P, Betsholtz C, Lal M, Sandberg R, Patrakka J. Single-cell RNA sequencing reveals the mesangial identity and species diversity of glomerular cell transcriptomes. *Nature communications* 2021;12(1):2141.
97. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg R: The emotional journey of the beginning teacher: Phases and coping strategies. *Research Papers in Education*, 1-21, 2022.
98. Levin A, Schwarz A, Hulkko J, He L, Sun Y, Barany P, Bruchfeld A, Herthelius M, Wennberg L, Ebefors K, Patrakka J, Betsholtz C, Nyström J, Mölne J, Hultenby K, Witasp A, **Wernerson A**. The role of Dendrin in IgA Nephropathy. *Nephrol Dial Transplant*. 2022 Jun 29:gfac208. doi: 10.1093/ndt/gfac208. Online ahead of print.
99. Sasai F, Rogers KL, Orlicky DJ, Stem A, Schaeffer J, Garcia G, Fox J, Ray MS, Butler-Dawson J, Gonzalez-Quiroz M, Leiva R, Taduri G, Anutrakululchai S, Venugopal V, Madero M, Glaser J, Wijkstrom J, **Wernerson A**, Brown JM, Johnson RJ, Roncal-Jimenez CA. Inhaled silica nanoparticles cause chronic kidney disease in rats. *Am J Physiol Renal Physiol*. 2022 Jul 1;323(1):F48-F58. doi: 10.1152/ajprenal.00021.2022. Epub 2022 May 30.

### **Submitted manuscripts**

1. Lönn A, Weurlander M, Seeberger A, Hult H, Thornberg R & **Wernerson A**. How can emotionally challenging situations play an important role in medical students' professional development? Submitted to *Advances in Health Sciences Education*.

2. Barman L, Weurlander M, Lindqvist H, Lönn A, Thornberg R, Hult H, Seeberger A, **Wernerson A**. Hardness or resignation: How emotional challenges during work-based education influence the professional becoming of medical students and student teachers. Submitted to *Vocations and Learning*.
3. Lindqvist H, Weurlander M, Barman L, **Wernerson A**, Thornberg R. Lack of progression as the dividing line: Mentoring teachers' perspectives of student teachers' coping with emotional challenges. Submitted to *Teacher Development*.
4. Thornberg R, Lindqvist H, Weurlander M, **Wernerson A**. Motives to Become a Teacher, Coping Strategies, Teacher Efficacy and Mental Health among Swedish Student Teachers. Submitted to *European Journal of Teacher Education*.
5. Lindqvist H, Weurlander M, **Wernerson A**, Thornberg R. Engagement and teaching adjustments: Mentoring teachers' perspective of student teachers' emotional challenges. Submitted to *Educational Review*.

### **Manuscripts**

6. Wijkström J, Chakravarthy Annadatta K, Bharati G, Rajendiran S, Ring A, Elinder CG, Venugopal V, **Wernerson A**. Chronic kidney disease of unknown cause in India – Kidney biopsies and clinical findings. Manuscript.
7. Revêchon G, Viceconte N, Helgadottir HT, Witasp A, Whisenant D, Carvajal AS, McGuinness D, Abutaleb NO, Machtel P, Artiach G, Wallén Arzt E, Soveri I, Babler A, Ziegler S, Kramann R, Bäck M, Thorell A, Truskey GA, Wennberg L, Shiels PG, **Wernerson A**, Stenvinkel P, Eriksson M. Somatic LMNA mutation and expression of progerin in early vascular aging of chronic kidney disease. Manuscript.
8. Grigorea TV, Zuidsherwoude M, Witasp A, Barany P, **Wernerson A**, Bruchfeld A, Xu H, Olauson H, Hoenderop JGJ: FGF23 is independently associated with renal magnesium handling in patients with chronic kidney disease. Manuscript.
9. Weurlander M, Wänström, Barman L, Lönn A, Seeberger A, Hult H, Thornberg R, **Wernerson A**. Exploring medical students' coping strategies in emotionally challenging situations: how are coping associated with motives, self-efficacy and mental health? Manuscript.
10. Weurlander M, Wänström L, Barman L, Lönn A, Seeberger A, Hult H, Thornberg R, **Wernerson A**. Development and validation of the Physician Self-Efficacy Scale. Manuscript.
11. Lindqvist H, Weurlander M, Barman L, **Wernerson A**, Thornberg R. Mentoring teachers' readiness for action related to emotional challenging episodes in work placement education. Manuscript.
12. Nordström N, Badia-i-Mompel P, Witasp A, Evenepoel P, Wennberg L, Saez-Rodriguez J, **Wernerson A**, Olauson H. Defining the molecular response to ischemia-reperfusion injury and remote ischemic preconditioning in human kidney transplantation. Manuscript.

### **Review articles and chapters in text books**

1. B Engfeldt, A Hjerpe, FP Reinholt, **A Wernerson**: Size distribution of matrix vesicle during mineralization of epiphyseal growth cartilage. In Ali (ed): *Cell Mediated Calcification and Matrix Vesicles*, pp 247-256, 1986, Elsevier, Amsterdam.
2. **A Wernerson**, O Svensson, FP Reinholt: Quantitative and three-dimensional aspects of the rat parathyroid gland in normo-, hypo- and hypercalcemia. Review. *Micr Res Techn* 32;129-147, 1995. PMID:8580508.

3. **Wernerson Östman A**, Wijkström J, Elinder CG, Leiva R: Morphological examination of renal biopsies to assess and evaluate nephrotoxicity, and in particular Mesoamerican Nephropathy. Proceeding, 1st Int Research Workshop on MeN, Costa Rica, 2012.
4. **Wernerson A**, Wijkström J, Elinder CG: Update on endemic nephropathies. *Curr Opin Nephrol Hypert.* 23:232-8, 2014. PMID: 24717833
5. Elinder, C.-G, A. **Wernerson A**. Mesoamerican Nephropathy, in UpToDate, T.W. Post, Editor. 2022, UpToDate: Waltham, MA.
6. Elinder CG, **Wernerson A**, and Wijkström J, Mesoamerican Nephropathy (MeN): A 'New' Chronic Kidney Disease related to Occupational Heat Exposure with Repeated Deprivation of Salts and Water. 2015. 1(2).
7. **Wernerson A**, Wijkström J: Pathology and pathophysiology of Mesoamerican nephropathy and comparison with hypertension/diabetes CKD and CKD of unknown cause outside Mesoamerica. Proceeding, 2<sup>nd</sup> Int Research Workshop on MeN, Costa Rica, 2015.
8. Lusco MA, Fogo AB, **Wernerson A**, Najafian B, Alpers CE: AJKD Atlas of renal pathology: CKD of unknown cause (CKDu): Mesoamerican Nephropathy. *Am J Kidney Dis* 2017: 70: e17-e18.