

# SCHRIFTENVERZEICHNIS

Univ. Prof. Dr. Dr. Anette Melk

## PERSÖNLICHE KENNZAHLEN (Stand Januar 2021)

---

<b>Hirsch-Index</b> (aus Web of Science)	34
<b>Originalarbeiten</b>	gesamt: 102
	Erstautorin: 14
	Seniorautorin: 23

## ORIGINALARTIKEL

---

1. Schön A, Leifheit-Nestler M, Deppe J, Fischer DC, Bayazit AK, Obrycki L, Canpolat N, Bulut IK, Azukaitis K, Yilmaz A, Mir S, Yalcinkaya F, Soylemezoglu O, **Melk A**, Stangl GI, Behnisch R, Shroff R, Bacchetta J, Querfeld U, Schaefer F, Haffner D; 4C and Study Consortium and the ESPN CKD-MBD Working Group. Active vitamin D is cardioprotective in experimental uraemia but not in children with CKD Stages 3-5. *Nephrol Dial Transplant*. 2020 Nov 26 [Epub ahead of print].
2. Stocklassa T, Borchert-Mörlins B, Memaran N, Einecke G, Schmitt R, Richter N, Vondran FW, Bauer E, Markefke S, **Melk A\***, Schmidt BMW\*. Sex Differences in Subclinical Cardiovascular Organ Damage After Renal Transplantation: A Single-Center Cohort Study. *J Womens Health (Larchmt)*. 2020 Nov 18 [Epub ahead of print]. \*equal contribution
3. **Melk A**, Schmidt BMW, Geyer S, Epping J. Sex disparities in dialysis initiation, access to waitlist, transplantation and transplant outcome in German patients with renal disease-A population based analysis. *PLoS One*. 2020; 15: e0241556.
4. Holle J, Kirchner M, Okun J, Bayazit AK, Obrycki L, Canpolat N, Bulut IK, Azukaitis K, Duzova A, Ranchin B, Shroff R, Candan C, Oh J, Klaus G, Lugani F, Gimpel C, Büscher R, Yilmaz A, Baskin E, Erdogan H, Zaloszyc A, Özcelik G, Drozdz D, Jankauskiene A, Nobili F, **Melk A**, Querfeld U, Schaefer F; 4C Study Consortium. Serum indoxyl sulfate concentrations associate with progression of chronic kidney disease in children. *PLoS One*. 2020; 15: e0240446.
5. Memaran N, Küpper C, Borchert-Mörlins B, von Wick A, Bauer E, Jäckel E, Maasoumy B, Vondran FWR, Sugianto RI, von der Born J, Schmidt BMW\*, **Melk A\***. Prospective assessment of subclinical cardiovascular damage and associated factors in liver transplant recipients. *Transpl Int*. 2021; 34: 127. \*equal contribution
6. Stenner HT, Eigendorf J, Kerling A, Kueck M, Hanke AA, Boyen J, Nelius AK, **Melk A**, Boethig D, Bara C, Hilfiker A, Berliner D, Bauersachs J, Hilfiker-Kleiner D, Eberhard J, Stiesch M, Schippert C, Haverich A, Tegtbur U, Haufe S. Effects of six month personalized endurance training on work ability in middle-aged sedentary women: a secondary analysis of a randomized controlled trial. *J Occup Med Toxicol*. 2020; 15: 8.
7. Süsal C, Kumru G, Döhler B, Morath C, Baas M, Lutz J, Unterrainer C, Arns W, Aubert O, Bara C, Beiras-Fernandez A, Böhmig GA, Bösmüller C, Diekmann F, Dutkowski P, Hauser I, Legendre C, Lozanovski VJ, Mehrabi A, **Melk A**, Minor T, Mueller TF, Pisarski P, Rostaing L, Schemmer P, Schneeberger S, Schwenger V, Sommerer C, Tönshoff B, Viebahn R, Viklicky O, Weimer R, Weiss KH, Zeier M, Živčić-Ćosić S, Heemann U. Should kidney allografts from old donors be allocated only to old recipients? *Transpl Int*. 2020; 33: 849.

8. van den Belt SM, Heerspink HJL, Kirchner M, Gracchi V, Thurn-Valsassina D, Bayazit AK, Niemirska A, Canpolat N, Kaplan Bulut I, Azukaitis K, Duzova A, Bacchetta J, Shroff R, Paripovic D, Özçakar ZB, Fidan K, Erdogan H, Gellermann J, Wühl E, de Zeeuw D, **Melk A**, Querfeld U, Schaefer F. Discontinuation of RAAS Inhibition in Children with Advanced CKD. *Clin J Am Soc Nephrol.* 2020; 15: 625.
9. Heinemann NC, Tischer-Zimmermann S, Wittke TC, Eigendorf J, Kerling A, Framke T, **Melk A**, Heuft HG, Blasczyk R, Maecker-Kolhoff B, Eiz-Vesper B. High-intensity interval training in allogeneic adoptive T-cell immunotherapy - a big HIT? *J Transl Med.* 2020; 18: 148.
10. Sen P, Helmke A, Liao CM, Sörensen-Zender I, Rong S, Bräsen JH, **Melk A**, Haller H, von Vietinghoff S, Schmitt R. SerpinB2 Regulates Immune Response in Kidney Injury and Aging. *J Am Soc Nephrol.* 2020; 31: 983
11. Memaran N, Schwalba M, Borchert-Mörlins B, von der Born J, Markefke S, Bauer E, von Wick A, Epping J, von Maltzahn N, Heyn-Schmidt I, Grams L, Homeyer D, Kerling A, Stiesch M, Tegtbur U, Haverich A, **Melk A**. Gesundheit und Fitness von deutschen Schulkindern. *Monatsschr Kinderheilkd.* 2020; 168: 597.
12. Francis A, Johnson DW, **Melk A**, Foster BJ, Blazek K, Craig JC, Wong G. Survival after Kidney Transplantation during Childhood and Adolescence. *Clin J Am Soc Nephrol.* 2020; 15: 392.
13. Sugianto RI, Schmidt BMW, Memaran N, Duzova A, Topaloglu R, Seeman T, König S, Dello Strologo L, Murer L, Özçakar ZB, Bald M, Shenoy M, Buescher A, Hoyer PF, Pohl M, Billing H, Oh J, Staude H, Pohl M, Genc G, Klaus G, Alparslan C, Grenda R, Rubik J, Krupka K, Tönshoff B, Wühl E, **Melk A**. Sex and age as determinants for high blood pressure in pediatric renal transplant recipients: a longitudinal analysis of the CERTAIN Registry. *Pediatr Nephrol.* 2020; 35: 415.
14. Holle J, Querfeld U, Kirchner M, Anninos A, Okun J, Thurn-Valsassina D, Bayazit A, Niemirska A, Canpolat N, Bulut IK, Duzova A, Anarat A, Shroff R, Bilginer Y, Caliskan S, Candan C, Harambat J, Özçakar ZB, Soylemezoglu O, Tschumi S, Habbig S, Yilmaz E, Balat A, Zurowska A, Cakar N, Kranz B, Ertan P, **Melk A**, Azukaitis K, Schaefer F. Indoxyl sulfate associates with cardiovascular phenotype in children with chronic kidney disease. *Pediatr Nephrol.* 2019; 34: 2571.
15. Sörensen-Zender I, Chen R, Rong S, David S, **Melk A**, Haller H, Schmitt R. Binding to carboxypeptidase M mediates protective effects of fibrinopeptide B $\beta$ 15-42. *Transl Res.* 2019; 213: 124.
16. Behnisch R, Kirchner M, Anarat A, Bacchetta J, Shroff R, Bilginer Y, Mir S, Caliskan S, Paripovic D, Harambat J, Mencarelli F, Büscher R, Arbeiter K, Soylemezoglu O, Zaloszyc A, Zurowska A, **Melk A**, Querfeld U, Schaefer F; and the 4C Study Consortium. Determinants of Statural Growth in European Children With Chronic Kidney Disease: Findings From the Cardiovascular Comorbidity in Children With Chronic Kidney Disease (4C) Study. *Front Pediatr.* 2019; 7: 278.
17. Koppelstaetter C, Leierer J, Rudnicki M, Kerschbaum J, Kronbichler A, **Melk A**, Mayer G, Perco P. Computational Drug Screening Identifies Compounds Targeting Renal Age-associated Molecular Profiles. *Comput Struct Biotechnol J.* 2019; 17: 843.
18. Aleksandrova K, Leise J, Priesner C, **Melk A**, Kubaink F, Abken H, Hombach A, Aktas M, Essl M, Bürger I, Kaiser A, Rauser G, Jurk M, Goudeva L, Glienke W, Arseniev L, Esser R, Köhl U. Functionality and Cell Senescence of CD4/ CD8-Selected CD20 CAR T Cells Manufactured Using the Automated CliniMACS Prodigy® Platform. *Transfus Med Hemother.* 2019; 46: 47.
19. Duzova A, Karabay Bayazit A, Canpolat N, Niemirska A, Kaplan Bulut I, Azukaitis K, Karagoz T, Oguz B, Erdem S, Anarat A, Ranchin B, Shroff R, Djukic M, Harambat J, Yilmaz A, Yildiz N, Ozçakar B, Büscher A, Lugani F, Wygoda S, Tschumi S, Zaloszyc A, Jankauskiene A, Laube G, Galiano M, Kirchner M, Querfeld U, **Melk A**, Schaefer F, Wühl E; 4C Study Consortium. Isolated nocturnal and isolated daytime hypertension associate with altered cardiovascular morphology and function in

children with chronic kidney disease: findings from the Cardiovascular Comorbidity in Children with Chronic Kidney Disease study. *J Hypertens.* 2019; 37: 2247

20. Eigendorf J, Melk A, Haufe S, Boethig D, Berliner D, Kerling A, Kueck M, Stenner H, Bara C, Stiesch M, Schippert C, Hilfiker A, Falk C, Bauersachs J, Thum T, Lichtenhagen R, Haverich A, Hilfiker-Kleiner D, Tegtbur U. Effects of personalized endurance training on cellular age and vascular function in middle-aged sedentary women. *Eur J Prev Cardiol.* 2019; 26: 1903.
21. Niculovic KM, Blume L, Wedekind H, Kats E, Albers I, Groos S, Abeln M, Schmitz J, Beuke E, Bräsen JH, **Melk A**, Schiffer M, Weinhold B, Münster-Kühnel AK. Podocyte-Specific Sialylation-Deficient Mice Serve as a Model for Human FSGS. *J Am Soc Nephrol.* 2019; 30: 1021.
22. Azukaitis K, Ju W, Kirchner M, Nair V, Smith M, Fang Z, Thurn-Valsassina D, Bayazit A, Niemirska A, Canpolat N, Bulut IK, Yalcinkaya F, Paripovic D, Harambat J, Cakar N, Alpay H, Lugani F, Mencarelli F, Civilibal M, Erdogan H, Gellermann J, Vidal E, Tabel Y, Gimpel C, Ertan P, Yavascan O, **Melk A**, Querfeld U, Wühl E, Kretzler M, Schaefer F; 4C Study; ESCAPE Trial Group. Low levels of urinary epidermal growth factor predict chronic kidney disease progression in children. *Kidney Int.* 2019; 96: 214.
23. Blöte R, Memaran N, Borchert-Mörlins B, Thurn-Valsassina D, Goldschmidt I, Beier R, Sauer M, Müller C, Sarganas G, Oh J, Büscher R, Kemper MJ, Sugianto RI, Epping J, Schmidt BMW, **Melk A**. Greater Susceptibility for Metabolic Syndrome in Pediatric Solid Organ and Stem Cell Transplant Recipients. *Transplantation.* 2019; 103: 2423.
24. Baisantry A, Berkenkamp B, Rong S, Bhayadia R, Sörensen-Zender I, Schmitt R\*, **Melk A\***. Time-dependent p53 inhibition determines senescence attenuation and long-term outcome after renal ischemia-reperfusion. *Am J Physiol Renal Physiol.* 2019; 316: F1124.
25. Memaran N, Borchert-Mörlins B, Schmidt BMW, Sugianto RI, Wilke H, Blöte R, Baumann U, Bauer E, von Wick A, Junge N, Leiskau C, Pfister ED, Thurn-Valsassina D, Richter N, Goldschmidt I\*, **Melk A\***. High Burden of Subclinical Cardiovascular Target Organ Damage After Pediatric Liver Transplantation. *Liver Transpl.* 2019 May;25(5):752-762.
26. Kanzelmeyer NK, Zürbig P, Mischak H, Metzger J, Fichtner A, Ruszai KH, Seemann T, Hansen M, Wygoda S, Krupka K, Tönshoff B, **Melk A**, Pape L. Urinary proteomics to diagnose chronic active antibody-mediated rejection in pediatric kidney transplantation - a pilot study. *Transpl Int.* 2019; 32: 28.
27. Ruben S, Kreuzer M, Büscher A, Büscher R, Thumfart J, Querfeld U, Staude H, Ahlenstiel-Grunow T, **Melk A**, Fischer DC, Leifheit-Nestler M, Pape L, Haffner D. Impaired Microcirculation in Children After Kidney Transplantation: Everolimus Versus Mycophenolate Based Immunosuppression Regimen. *Kidney Blood Press Res.* 2018; 43: 793.
28. Schaefer B, Bartosova M, Macher-Goeppinger S, Sallay P, Vörös P, Ranchin B, Vondrak K, Ariceta G, Zaloszyc A, Bayazit AK, Querfeld U, Cerkauskienė R, Testa S, Taylan C, VandeWalle J, Yap Y, Krmar RT, Büscher R, Mühlig AK, Drozdz D, Caliskan S, Lasitschka F, Fathallah-Shaykh S, Verrina E, Klaus G, Arbeiter K, Bhayadia R, **Melk A**, Romero P, Warady BA, Schaefer F, Ujszaszi A, Schmitt CP. Neutral pH and low-glucose degradation product dialysis fluids induce major early alterations of the peritoneal membrane in children on peritoneal dialysis. *Kidney Int.* 2018; 94: 419.
29. Wernicke K, Zeissler S, Mooren FC, Frech T, Hellmann S, Stiesch M, Grischke J, Linnenweber S, Schmidt B, Menne J, **Melk A**, Bauer P, Hillebrecht A, Eberhard J. Probing depth is an independent risk factor for HbA1c levels in diabetic patients under physical training: a cross-sectional pilot-study. *BMC Oral Health.* 2018; 18: 46.
30. Lerch C, Shroff R, Wan M, Rees L, Aitkenhead H, Kaplan Bulut I, Thurn D, Karabay Bayazit A, Niemirska A, Canpolat N, Duzova A, Azukaitis K, Yilmaz E, Yalcinkaya F,

- Harambat J, Kiyak A, Alpay H, Habbig S, Zaloszyc A, Soylemezoglu O, Candan C, Rosales A, **Melk A**, Querfeld U, Leifheit-Nestler M, Sander A, Schaefer F, Haffner D; 4C study consortium; ESPN CKD-MBD working group. Effects of nutritional vitamin D supplementation on markers of bone and mineral metabolism in children with chronic kidney disease. *Nephrol Dial Transplant*. 2018; 33: 2208.
31. Borchert-Mörlins B, Memaran N, Sauer M, Maecker-Kolhoff B, Sykora KW, Blöte R, Bauer E, Schmidt BMW, **Melk A\***, Beier R\*. Cardiovascular risk factors and subclinical organ damage after hematopoietic stem cell transplantation in pediatric age. *Bone Marrow Transplant*. 2018; 53: 983. \*equal contribution
  32. Schmidt BMW\*, Sugianto RI\*, Thurn D, Azukaitis K, Bayazit AK, Canpolat N, Eroglu AG, Caliskan S, Doyon A, Duzova A, Karagoz T, Anarat A, Deveci M, Mir S, Ranchin B, Shroff R, Baskin E, Litwin M, Özcakar ZB, Büscher R, Soylemezoglu O, Dusek J, Kemper M, Matteucci MC, Habbig S, Laube G, Wühl E, Querfeld U, Sander A\*, Schaefer F\*, **Melk A\***; 4C Study Consortium. Early effects of renal replacement therapy on cardiovascular comorbidity in children with end-stage kidney disease: findings from the 4C-T Study. *Transplantation*. 2018; 102: 484. \*equal contribution
  33. Borchert-Mörlins B\*, Thurn D\*, Schmidt BMW, Büscher AK, Oh J, Kier T, Bauer E, Baig S, Kanzelmeyer N, Kemper MJ\*, Büscher R\*, **Melk A\***. Factors associated with cardiovascular target organ damage in children after renal transplantation. *Pediatr Nephrol*. 2017; 32: 2143. \*equal contribution
  34. Lipska-Ziętkiewicz BS, Gellermann J, Boyer O, Gribouval O, Ziętkiewicz S, Kari JA, Shalaby MA, Ozaltin F, Dusek J, **Melk A**, Bayazit AK, Massella L, Hyla-Klekot L, Habbig S, Godron A, Szczepańska M, Bieniaś B, Drozdź D, Odeh R, Jarmużek W, Zachwieja K, Trautmann A, Antignac C, Schaefer F; PodoNet Consortium. Low renal but high extrarenal phenotype variability in Schimke immuno-osseous dysplasia. *PLoS One*. 2017; 12: e0180926.
  35. Harambat J, Kunzmann K, Azukaitis K, Bayazit AK, Canpolat N, Doyon A, Duzova A, Niemirska A, Sözeri B, Thurn-Valsassina D, Anarat A, Bessenay L, Candan C, Peco-Antic A, Yilmaz A, Tschumi S, Testa S, Jankauskiene A, Erdogan H, Rosales A, Alpay H, Lugani F, Arbeiter K, Mencarelli F, Kiyak A, Dönmez O, Drozdź D, **Melk A**, Querfeld U, Schaefer F; 4C Study Consortium. Metabolic acidosis is common and associates with disease progression in children with chronic kidney disease. *Kidney Int*. 2017; 92: 1507.
  36. Trautmann A, Schnaidt S, Lipska-Ziętkiewicz BS, Bodria M, Ozaltin F, Emma F, Anarat A, **Melk A**, Azocar M, Oh J, Saeed B, Gheisari A, Caliskan S, Gellermann J, Higuita LMS, Jankauskiene A, Drozdź D, Mir S, Balat A, Szczepanska M, Paripovic D, Zurowska A, Bogdanovic R, Yilmaz A, Ranchin B, Baskin E, Erdogan O, Remuzzi G, Firszt-Adamczyk A, Kuzma-Mroczkowska E, Litwin M, Murer L, Tkaczyk M, Jardim H, Wasilewska A, Printza N, Fidan K, Simkova E, Borzecka H, Staude H, Hees K, Schaefer F; PodoNet Consortium. Long-Term Outcome of Steroid-Resistant Nephrotic Syndrome in Children. *J Am Soc Nephrol*. 2017; 28: 3055.
  37. Bhayana S, Baisantry A, Kraemer TD, Wrede C, Hegermann J, Bräsen JH, Bockmeyer C, Ulrich Becker J, Ochs M, Gwinner W, Haller H, **Melk A**, Schmitt R. Autophagy in kidney transplants of sirolimus treated recipients. *J Nephropathol*. 2017; 6: 90.
  38. Schauerte C, Hübner A, Rong S, Wang S, Shushakova N, Mengel M, Dettling A, Bang C, Scherf K, Koelling M, **Melk A**, Haller H, Thum T, Lorenzen JM. Antagonism of profibrotic microRNA-21 improves outcome of murine chronic renal allograft dysfunction. *Kidney Int*. 2017; 92: 646.
  39. McLin VA, Allen U, Boyer O, Bucuvalas J, Colledan M, Cuturi MC, d'Antiga L, Debray D, Dezsofi A, Goyet JV, Dhawan A, Durmaz O, Falk C, Feng S, Fischler B, Franchi-Abella S, Frauca E, Ganschow R, Gottschalk S, Hadzic N, Hierro L, Horslen S, Hubscher S, Karam V, Kelly D, Maecker-Kolhoff B, Mazariegos G, McKiernan P, **Melk A**, Nobili V, Ozgenç F, Reding R, Sciveres M, Sharif K, Socha P, Toso C, Vajro P, Verma A, Wildhaber BE, Baumann U. Early and Late Factors Impacting Patient and

Graft Outcome in Pediatric Liver Transplantation: Summary of an ESPGHAN Monothematic Conference. *J Pediatr Gastroenterol Nutr.* 2017; 65: e53.

40. Schaefer F, Doyon A, Azukaitis K, Bayazit A, Canpolat N, Duzova A, Niemirska A, Sözeri B, Thurn D, Anarat A, Ranchin B, Litwin M, Caliskan S, Candan C, Baskin E, Yilmaz E, Mir S, Kirchner M, Sander A, Haffner D, **Melk A**, Wühl E, Shroff R, Querfeld U; 4C Study Consortium. Cardiovascular Phenotypes in Children with CKD: The 4C Study. *Clin J Am Soc Nephrol.* 2017; 12: 19.
41. Baisantry A, Bhayana S, Wrede C, Hegermann J, Haller H, **Melk A**, Schmitt R. The impact of autophagy on the development of senescence in primary tubular epithelial cells. *Cell Cycle.* 2016; 15: 2973.
42. Doyon A, Schmiedchen B, Sander A, Bayazit A, Duzova A, Canpolat N, Thurn D, Azukaitis K, Anarat A, Bacchetta J, Mir S, Shroff R, Yilmaz E, Candan C, Kemper M, Fischbach M, Cortina G, Klaus G, Wuttke M, Köttgen A, **Melk A**, Querfeld U, Schaefer F; 4C Study Consortium. Genetic, Environmental, and Disease-Associated Correlates of Vitamin D Status in Children with CKD. *Clin J Am Soc Nephrol.* 2016; 11: 1145.
43. Büscher AK, Beck BB, **Melk A**, Hoefele J, Kranz B, Bamborschke D, Baig S, Lange-Sperandio B, Jungraithmayr T, Weber LT, Kemper MJ, Tönshoff B, Hoyer PF, Konrad M, Weber S; German Pediatric Nephrology Association (GPN). Rapid Response to Cyclosporin A and Favorable Renal Outcome in Nongenetic Versus Genetic Steroid-Resistant Nephrotic Syndrome. *Clin J Am Soc Nephrol.* 2016; 11: 245.
44. Baisantry A, Bhayana S, Rong S, Ermeling E, Wrede C, Hegermann J, Pennekamp P, Sörensen-Zender I, Haller H, **Melk A\***, Schmitt R\*. Autophagy induces prosenescent changes in proximal tubular S3 segments. *J Am Soc Nephrol.* 2016; 27: 1609. \*equal contribution
45. Dong L, Nordlohne J, Ge S, Hertel B, **Melk A**, Rong S, Haller H, von Vietinghoff S. T Cell CX3CR1 Mediates Excess Atherosclerotic Inflammation in Renal Impairment. *J Am Soc Nephrol.* 2016; 27: 1753.
46. Wuttke M, Wong CS, Wühl E, Epting D, Luo L, Hoppmann A, Doyon A, Li Y; CKDGen Consortium, Sözeri B, Thurn D, Helmstädtler M, Huber TB, Blydt-Hansen TD, Kramer-Zucker A, Mehls O, **Melk A**, Querfeld U, Furth SL, Warady BA, Schaefer F, Köttgen A. Genetic loci associated with renal function measures and chronic kidney disease in children: the Pediatric Investigation for Genetic Factors Linked with Renal Progression Consortium. *Nephrol Dial Transplant.* 2016; 31: 262.
47. Bhayadia R, Schmidt BM, **Melk A\***, Höemme M\*. Senescence-Induced Oxidative Stress Causes Endothelial Dysfunction. *J Gerontol A Biol Sci Med Sci.* 2016; 71: 161. \*equal contribution
48. Korkmaz E, Lipska-Ziętiewicz BS, Boyer O, Gribouval O, Fourrage C, Tabatabaei M, Schnaidt S, Gucer S, Kaymaz F, Arici M, Dinckan A, Mir S, Bayazit AK, Emre S, Balat A, Rees L, Shroff R, Bergmann C, Mourani C, Antignac C, Ozaltin F, Schaefer F; PodoNet Consortium#. ADCK4-Associated Glomerulopathy Causes Adolescence-Onset FSGS. *J Am Soc Nephrol.* 2016; 27: 63. #Autorin des PodoNet Consortiums
49. Schildhorn C, Jacobi C, Weißbrodt A, Hermstedt C, Westhoff JH, Höemme M, Bhayadia R, Gretz N, Falk CS, Schmitt R, Bröcker V, Kränzlin B, **Melk A**. Renal phenotype of young and old telomerase-deficient mice. *Mech Ageing Dev.* 2015; 150: 65.
50. Hoenecke J, Hartmann H, **Melk A**. Arterial hypertension in children with hemolytic uremic syndrome after kidney transplantation. *Pediatr Transplant.* 2015; 19: 504.
51. Thurn D, Doyon A, Sözeri B, Bayazit AK, Canpolat N, Duzova A, Querfeld U, Schmidt BM, Schaefer F, Wühl E\*, **Melk A\***; 4C Study Consortium. Aortic Pulse Wave Velocity in Healthy Children and Adolescents: Reference Values for the Vicorder Device and Modifying Factors. *Am J Hypertens.* 2015; 28: 1480. \*equal contribution
52. Sörensen-Zender I, Bhayana S, Susnik N, Rolli V, Batkai S, Baisantry A, Bahram S, Sen P, Teng B, Lindner R, Schiffer M, Thum T, **Melk A**, Haller H, Schmitt R. Zinc- $\alpha$ 2-

Glycoprotein Exerts Antifibrotic Effects in Kidney and Heart. *J Am Soc Nephrol*. 2015; 26: 2659.

53. Doyon A, Fischer DC, Bayazit AK, Canpolat N, Duzova A, Sözeri B, Bacchetta J, Balat A, Büscher A, Candan C, Cakar N, Donmez O, Dusek J, Heckel M, Klaus G, Mir S, Özcelik G, Sever L, Shroff R, Vidal E, Wühl E, Gondan M, **Melk A**, Querfeld U, Haffner D, Schaefer F; 4C Study Consortium. Markers of bone metabolism are affected by renal function and growth hormone therapy in children with chronic kidney disease. *PLoS One*. 2015; 10: e0113482.
54. Trautmann A, Bodria M, Ozaltin F, Gheisari A, **Melk A**, Azocar M, Anarat A, Caliskan S, Emma F, Gellermann J, Oh J, Baskin E, Ksiazek J, Remuzzi G, Erdogan O, Akman S, Dusek J, Davitaia T, Özkaya O, Papachristou F, Firszt-Adamczyk A, Urasinski T, Testa S, Krmar RT, Hyla-Klekot L, Pasini A, Özçakar ZB, Sallay P, Cakar N, Galanti M, Terzic J, Aoun B, Caldas Afonso A, Szymanik-Grzelak H, Lipska BS, Schnaidt S, Schaefer F; PodoNet Consortium. Spectrum of steroid-resistant and congenital nephrotic syndrome in children: the PodoNet registry cohort. *Clin J Am Soc Nephrol*. 2015; 10: 592.
55. **Melk A\***, Tegtbur U\*, Hilfiker-Kleiner D, Eberhard J, Saretzki G, Eulert C, Kerling A, Nelius AK, Hömme M, Strunk D, Berliner D, Röntgen P, Kück M, Bauersachs J, Hilfiker A, Haverich A, Bara C, Stiesch M. Improvement of biological age by physical activity. *Int J Cardiol*. 2014; 176: 1187. \*equal contribution
56. Kumarswamy R, Volkmann I, Beermann J, Napp LC, Jabs O, Bhayadia R, **Melk A**, Ucar A, Chowdhury K, Lorenzen JM, Gupta SK, Batkai S, Thum T. Vascular importance of the miR-212/132 cluster. *Eur Heart J*. 2014; 35: 3224.
57. Doyon A, Kracht D, Bayazit AK, Deveci M, Duzova A, Krmar RT, Litwin M, Niemirska A, Oguz B, Schmidt BM, Sözeri B, Querfeld U, **Melk A**, Schaefer F, Wühl E; 4C Reference Study Consortium. Response to intima-media thickness in children--need for more parameters. *Hypertension*. 2014; 63: e121.
58. Bauer A, Loos S, Wehrmann C, Horstmann D, Donnerstag F, Lemke J, Hillebrand G, Löbel U, Pape L, Haffner D, Bindt C, Ahlenstiel T, **Melk A**, Lehnhardt A, Kemper MJ, Oh J, Hartmann H. Neurological involvement in children with *E. coli* O104:H4-induced hemolytic uremic syndrome. *Pediatr Nephrol*. 2014; 29: 1607.
59. Sörensen-Zender I, Rong S, Susnik N, Zender S, Pennekamp P, **Melk A**, Haller H, Schmitt R. Renal tubular Notch signaling triggers a prosenescence state after acute kidney injury. *Am J Physiol Renal Physiol*. 2014; 306: F907.
60. Berkenkamp B, Susnik N, Baisantry A, Kuznetsova I, Jacobi C, Sörensen-Zender I, Broecker V, Haller H, **Melk A\***, Schmitt R\*. *In vivo* and *in vitro* analysis of age-associated changes and somatic cellular senescence in renal epithelial cells. *PLoS One*. 2014; 9: e88071. \*equal contribution
61. Susnik N, Sörensen-Zender I, Rong S, von Vietinghoff S, Lu X, Rubera I, Tauc M, Falk CS, Alexander WS, **Melk A**, Haller H, Schmitt R. Ablation of proximal tubular suppressor of cytokine signaling 3 enhances tubular cell cycling and modifies macrophage phenotype during acute kidney injury. *Kidney Int*. 2014; 85: 1357.
62. Lipska BS, Ranchin B, Iatropoulos P, Gellermann J, **Melk A**, Ozaltin F, Caridi G, Seeman T, Tory K, Jankauskiene A, Zurowska A, Szczepanska M, Wasilewska A, Harambat J, Trautmann A, Peco-Antic A, Borzecka H, Moczulska A, Saeed B, Bogdanovic R, Kalyoncu M, Simkova E, Erdogan O, Vrljicak K, Teixeira A, Azocar M, Schaefer F; the PodoNet Consortium. Genotype-phenotype associations in WT1 glomerulopathy. *Kidney Int*. 2014; 85: 1169.
63. Eberhard J, Stiesch M, Kerling A, Bara C, Eulert C, Hilfiker-Kleiner D, Hilfiker A, Budde E, Bauersachs J, Kück M, Haverich A, **Melk A**, Tegtbur U. Moderate and severe periodontitis are independent risk factors associated with low cardiorespiratory fitness in sedentary non-smoking men aged between 45 and 65 years. *J Clin Periodontol*. 2014; 41 (1): 31.

64. Schock-Kusch D, Geraci S, Ermeling E, Shulhevich Y, Sticht C, Hesser J, Stsepankou D, Neudecker S, Pill J, Schmitt R, **Melk A**. Reliability of transcutaneous measurement of renal function in various strains of conscious mice. *PLoS One*. 2013; 8: e71519.
65. Doyon A, Kracht D, Bayazit AK, Deveci M, Duzova A, Krmar RT, Litwin M, Niemirska A, Oguz B, Schmidt BM, Sözeri B, Querfeld U, **Melk A\***, Schaefer F\*, Wühl E\*; 4C Study Consortium. Carotid artery intima-media thickness and distensibility in children and adolescents: reference values and role of body dimensions. *Hypertension*. 2013; 62: 550. \*equal contribution
66. Sörensen-Zender I, Rong S, Susnik N, Lange J, Gueler F, Degen JL, **Melk A**, Haller H, Schmitt R. Role of fibrinogen in acute ischemic kidney injury. *Am J Physiol Renal Physiol*. 2013; 305: F777.
67. Lipska BS, Iatropoulos P, Maranta R, Cardi G, Ozaltin F, Anarat A, Balat A, Gellermann J, Trautmann A, Erdogan O, Saeed B, Emre S, Bogdanovic R, Azocar M, Balasz-Chmielewska I, Benetti E, Caliskan S, Mir S, **Melk A**, Ertan P, Baskin E, Jardim H, Davitaia T, Wasilewska A, Drozdz D, Szczepanska M, Jankauskiene A, Higuita LM, Ardiissino G, Ozkaya O, Kuzma-Mroczkowska E, Soylemezoglu O, Ranchin B, Medynska A, Tkaczyk M, Peco-Antic A, Akil I, Jarmolinski T, Firszt-Adamczyk A, Dusek J, Simonetti GD, Gok F, Gheissari A, Emma F, Krmar RT, Fischbach M, Printza N, Simkova E, Mele C, Ghiggeri GM, Schaefer F; PodoNet Consortium. Genetic screening in adolescents with steroid-resistant nephrotic syndrome. *Kidney Int*. 2013; 84: 206.
68. **Melk A\***, Schildhorn C\*, Hömme M, Knoch M, Schmidt BM, Serth J, Scherer S, Döhler B, Opelz G. Association of single nucleotide polymorphisms on chromosome 9p21.3 with cardiovascular death in kidney transplant recipients. *Transplantation*. 2013; 95: 928. \*equal contribution
69. Braun H, Schmidt BM, Raiss M, Baisantry A, Mircea-Constantin D, Wang S, Gross ML, Serrano M, Schmitt R, **Melk A**. Cellular senescence limits regenerative capacity and allograft survival. *J Am Soc Nephrol*. 2012; 23: 1467.
70. Kracht D, Shroff R, Baig S, Doyon A, Jacobi C, Zeller R, Querfeld U, Schaefer F, Wühl E, Schmidt BM\*, **Melk A\***; 4C Study Consortium. Validating a new oscillometric device for aortic pulse wave velocity measurements in children and adolescents. *Am J Hypertens*. 2011; 24: 1294. \*equal contribution
71. Sörensen I, Rong S, Susnik N, Gueler F, Shushakova N, Albrecht M, Dittrich AM, von Vietinghoff S, Becker JU, **Melk A**, Bohlmann A, Reingruber S, Petzelbauer P, Haller H, Schmitt R. B $\beta$ (15-42) attenuates the effect of ischemia-reperfusion injury in renal transplantation. *J Am Soc Nephrol*. 2011; 22: 1887.
72. Sörensen I, Susnik N, Inhester T, Degen JL, **Melk A**, Haller H, Schmitt R. Fibrinogen, acting as a mitogen for tubulointerstitial fibroblasts, promotes renal fibrosis. *Kidney Int*. 2011; 80: 1035.
73. Kanzelmeyer NK, Ahlenstiel T, Drube J, Froede K, Kreuzer M, Broecker V, Ehrlich JH, **Melk A**, Pape L. Protocol biopsy-driven interventions after pediatric renal transplantation. *Pediatr Transplant*. 2010; 14: 1012.
74. Querfeld U, Anarat A, Bayazit AK, Bakkaloglu AS, Bilginer Y, Caliskan S, Civilibal M, Doyon A, Duzova A, Kracht D, Litwin M, **Melk A**, Mir S, Sözeri B, Shroff R, Zeller R, Wühl E, Schaefer F; 4C Study Group. The Cardiovascular Comorbidity in Children with Chronic Kidney Disease (4C) study: objectives, design, and methodology. *Clin J Am Soc Nephrol*. 2010; 5: 1642.
75. Westhoff JH, Schildhorn C, Jacobi C, Hömme M, Hartner A, Braun H, Kryzer C, Wang C, von Zglinicki T, Kränzlin B, Gretz N, **Melk A**. Telomere shortening reduces regenerative capacity after acute kidney injury. *J Am Soc Nephrol*. 2010; 21: 327.
76. Schmitt R, Jacobi C, Susnik N, Broecker V, Haller H, **Melk A**. Ageing mouse kidney—not always the SAME old story. *Nephrol Dial Transplant*. 2009; 24: 3002.

77. **Melk A**, Schmidt BM, Braun H, Vongwiwatana A, Urmson J, Zhu LF, Rayner D, Halloran PF. Effects of donor age and cell senescence on kidney allograft survival. *Am J Transplant*. 2009; 9: 114.
78. Billing H, Rieger S, Ovens J, Süsal C, **Melk A**, Waldherr R, Opelz G, Tönshoff B. Successful treatment of chronic antibody-mediated rejection with IVIG and rituximab in pediatric renal transplant recipients. *Transplantation*. 2008; 86: 1214.
79. Westhoff JH, Hilgers KF, Steinbach MP, Hartner A, Klanke B, Amann K, **Melk A**. Hypertension induces somatic cellular senescence in rats and humans by induction of cell cycle inhibitor p16<sup>INK4a</sup>. *Hypertension*. 2008; 52: 123.
80. **Melk A\***, Mansfield ES\*, Hsieh SC, Hernandez-Boussard T, Grimm P, Rayner DC, Halloran PF, Sarwal MM. Transcriptional analysis of the molecular basis of human kidney aging using cDNA microarray profiling. *Kidney Int*. 2005; 68: 2667. \*equal contribution
81. Einecke G, **Melk A**, Ramassar V, Zhu LF, Bleackley RC, Famulski KS, Halloran PF. Expression of CTL associated transcripts precedes the development of tubulitis in T-cell mediated kidney graft rejection. *Am J Transplant*. 2005; 5: 1827.
82. **Melk A**, Schmidt BM, Vongwiwatana A, Rayner DC, Halloran PF. Increased expression of senescence-associated cell cycle inhibitor p16<sup>INK4a</sup> in deteriorating renal transplants and diseased native kidney. *Am J Transplant*. 2005; 5: 1375.
83. Vongwiwatana A, Tasanarong A, Rayner DC, **Melk A**, Halloran PF. Epithelial to mesenchymal transition during late deterioration of human kidney transplants: the role of tubular cells in fibrogenesis. *Am J Transplant*. 2005; 5: 1367.
84. **Melk A**, Daniel V, Mehls O, Opelz G, Tönshoff B. Longitudinal analysis of T-helper cell phenotypes in renal-transplant recipients undergoing growth hormone therapy. *Transplantation*. 2004; 78: 1792.
85. Halloran PF, Urmson J, Ramassar V, **Melk A**, Zhu LF, Halloran BP, Bleackley RC. Lesions of T-cell-mediated kidney allograft rejection in mice do not require perforin or granzymes A and B. *Am J Transplant*. 2004; 4: 705.
86. **Melk A**, Schmidt BM, Takeuchi O, Sawitzki B, Rayner DC, Halloran PF. Expression of p16<sup>INK4a</sup> and other cell cycle regulator and senescence associated genes in aging human kidney. *Kidney Int*. 2004; 65: 510.
87. **Melk A**, Henne T, Kollmar T, Strehlau J, Latta K, Offner G, Jhangri GS, Ehrich JH, Von Schnakenburg C. Cytokine single nucleotide polymorphisms and intrarenal gene expression in chronic allograft nephropathy in children. *Kidney Int*. 2003; 64: 314.
88. **Melk A**, Kittikowit W, Sandhu I, Halloran KM, Grimm P, Schmidt BM, Halloran PF. Cell senescence in rat kidneys in vivo increases with growth and age despite lack of telomere shortening. *Kidney Int*. 2003; 63: 2134.
89. von Schnakenburg C, Strehlau J, Ehrich JH, **Melk A**. Quantitative gene expression of TGF-beta1, IL-10, TNF-alpha and Fas Ligand in renal cortex and medulla. *Nephrol Dial Transplant*. 2002; 17: 573.
90. Daniel V, Huber W, Bauer K, Suesal C, Mytilineos J, **Melk A**, Conradt C, Opelz G. Association of elevated blood levels of pentachlorophenol (PCP) with cellular and humoral immunodeficiencies. *Arch Environ Health*. 2001; 56: 77.
91. Weimer R, **Melk A**, Daniel V, Friemann S, Padberg W, Opelz G. Switch from cyclosporine A to tacrolimus in renal transplant recipients: impact on Th1, Th2, and monokine responses. *Hum Immunol*. 2000; 61: 884.
92. **Melk A**, Ramassar V, Helms LM, Moore R, Rayner D, Solez K, Halloran PF. Telomere shortening in kidneys with age. *J Am Soc Nephrol*. 2000; 11: 444.
93. Daniel V, Süsal C, **Melk A**, Weimer R, Kröpelin M, Zimmermann R, Huth-Kühne A, Uhle C, Opelz G. Reduction of viral load and immune complex load on CD4+ lymphocytes as a consequence of highly active antiretroviral treatment (HAART) in HIV-infected hemophilia patients. *Immunol Lett*. 1999; 69: 283.

94. Inman B, Halloran B, **Melk A**, Ramassar V, Halloran PF. Microchimerism in sensitized renal patients. *Transplantation*. 1999; 67: 1381.
95. Daniel V, **Melk A**, Süssal C, Weimer R, Zimmermann R, Huth-Kühne A, Opelz G. CD4 depletion in HIV-infected haemophilia patients is associated with rapid clearance of immune complex-coated CD4+ lymphocytes. *Clin Exp Immunol*. 1999; 115: 477.
96. Daniel V, Arzberger J, **Melk A**, Weimer R, Ruhstroth A, Carl S, Wiesel M, Opelz G. Predictive indicators of rejection or infection in renal transplant patients. *Transplant Proc*. 1999; 31: 1364.
97. **Melk A**, Daniel V, Weimer R, Mandelbaum A, Wiesel M, Staehler G, Opelz G. P-glycoprotein expression in patients before and after kidney transplantation. *Transplant Proc*. 1999; 31: 299.
98. **Melk A**, Daniel V, Weimer R, Mandelbaum A, Wiesel M, Staehler G, Opelz G. P-glycoprotein expression is not a useful predictor of acute or chronic kidney graft rejection. *Transpl Int*. 1999; 12: 10.
99. Daniel V, Süssal C, Weimer R, Zipperle S, Kröpelin M, **Melk A**, Zimmermann R, Huth-Kühne A, Opelz G. Association of viral load in plasma samples of HIV-infected hemophelia patients with autoantibodies and gp120-containing immune complexes on CD4+ lymphocytes. *Immunol Lett*. 1998; 60: 179.
100. **Melk A**, Mueller-Eckhardt G, Polten B, Lütermann A, Heine O, Hoffmann O. Diagnostic and prognostic significance of anticardiolipin antibodies in patients with recurrent spontaneous abortions. *Am J Reprod Immunol*. 1995; 33: 228.
101. Daniel V, Pasker S, Weimer R, **Melk A**, Zipperle S, Schnobel R, Carl S, Wiesel M, Staehler G, Opelz G. Clinical relevance of interleukin-1 receptor antagonist (IL-1RA) plasma levels in renal transplant recipients. *Infusionsther Transfusionsmed*. 1998; 25: 35.
102. Mueller-Eckhardt G, Mallmann P, Neppert J, Lütermann A, **Melk A**, Heine O, Pfeiffer R, Zingsem J, Domke N, Mohr-Pennert A. Immunogenetic and serological investigations in nonpregnant and in pregnant women with a history of recurrent spontaneous abortions. German RSA/IVIG Study Group. *J Reprod Immunol*. 1994; 27: 95.
103. The German RSA/IVIG Group. Intravenous immunoglobulin in the prevention of recurrent miscarriage. *Br J Obstet Gynaecol*. 1994; 101: 1072.

## ÜBERSICHTSARBEITEN IN ZEITSCHRIFTEN

---

1. **Melk A**, Babitsch B, Borchert-Mörlins B, Claas F, Dipchand AI, Eifert S, Eiz-Vesper B, Epping J, Falk CS, Foster B, Geyer S, Gjertson D, Greer M, Haubitz M, Lau A, Maecker-Kohhoff B, Memaran N, Messner HA, Ostendorf K, Samuel U, Schmidt BMW, Tullius SG, West L, Wong G, Zimmermann T, Berenguer M. Equally Interchangeable? How Sex and Gender Affect Transplantation. *Transplantation*. 2019; 103: 1094.
2. Schmitt R, **Melk A**. Molecular mechanisms of renal aging. *Kidney Int*. 2017; 92: 569.
3. Filler G, **Melk A**, Marks SD. Practice recommendations for the monitoring of renal function in pediatric non-renal organ transplant recipients. *Pediatr Transplant*. 2016; 20: 352.
4. **Melk A**, Baisantry A, Schmitt R. The yin and yang of autophagy in acute kidney injury. *Autophagy*. 2016; 12: 596.
5. Susnik N, **Melk A**, Schmitt R. Cell aging and kidney repair. Editorial. *Cell Cycle*. 2015; 14: 3521.
6. **Melk A**, Schmitt R. Renal senescence: mechanisms and Implications. *ASN Kidney News: Geriatric Nephrology*. August 2015.

7. Schmitt R, Susnik N, **Melk A**. Molecular aspects of renal senescence. *Curr Opin Organ Transplant.* 2015; 20: 412.
8. **Melk A**, Schildhorn C, Kracht D, Wühl E. Kardiovaskuläre Komplikationen bei chronischer Niereninsuffizienz. *Monatsschr Kinderheilkd.* 2013; 161: 1004.
9. **Melk A**, Wühl E, Hansen G. Pädiatrische Nephrologie. *Monatsschr Kinderheilkd.* 2013; 161: 987.
10. Schmitt R, **Melk A**. New insights on molecular mechanisms of renal aging. *Am J Transplant.* 2012; 12: 2892.
11. Jacobi C, Hömme M, **Melk A**. Is cellular senescence important in pediatric kidney disease? *Pediatr Nephrol.* 2011; 26: 2121.
12. **Melk A**. Senescence of renal cells: molecular basis and clinical implications. *Nephrol Dial Transplant.* 2003; 18: 2474.
13. **Melk A**, Gourishankar S, Halloran PF. Long-term effects of nonimmune tissue injury in renal transplantation. *Curr Opin Organ Transplant.* 2002; 7: 171.
14. Gourishankar S, **Melk A**, Halloran PF. Non-immune mechanisms of injury in renal transplantation. *Transplant Rev.* 2002; 16: 73.
15. Halloran PF, **Melk A**. Renal senescence, cellular senescence, and their relevance to nephrology and transplantation. *Adv Nephrol Necker Hosp.* 2001; 31: 273.
16. Halloran PF, **Melk A**. Tailoring therapy: balancing toxicity and chronic allograft dysfunction. *Transplant Proc.* 2001; 33: 7S.
17. **Melk A**, Halloran PF. Cell senescence and its implications for nephrology. *J Am Soc Nephrol.* 2001; 12: 385.
18. Halloran PF, **Melk A**, Barth C. Rethinking chronic allograft nephropathy: the concept of accelerated senescence. *J Am Soc Nephrol.* 1999; 10: 167.

## BUCHBEITRÄGE - AUSFÜHRLICH PUBLIZIERTE VORTRÄGE

---

1. **A. Melk**. Diagnostische Methoden. Kapitel 190 in Pädiatrie, Hoffmann, Lentze, Spranger, Zepp (Hrsg), 4. Auflage, Springer Medizin, 2014.
2. **A. Melk**. Tools for renal tissue analysis. Chapter 3 in Comprehensive Pediatric Nephrology, D.F. Geary and F. Schaefer (Eds.), 1. Edition, Mosby International, 2008.
3. B. Tönshoff, **A. Melk**. Immunosuppression in pediatric kidney transplantation. Chapter 59 in Comprehensive Pediatric Nephrology, D.F. Geary and F. Schaefer (Eds.), 1. Edition, Mosby International, 2008.
4. A. Melk. Tissue repair and senescence in late renal allograft dysfunction. Chapter 5 in Late Allograft Dysfunction, International Transplantation Updates, D. Seron and J.M. Grinyo (Eds.), Permanyer Publications, 2007.
5. G. Einecke, **A. Melk**, P.F. Halloran. Immunosuppressive agents used in transplantation. Section 16, Chapter 90 in Comprehensive Clinical Nephrology, R.J. Johnson, J. Feehally and J. Floege (Eds.), 3. Edition, Mosby International, 2007.
6. **A. Melk**, P.F. Halloran. Immunosuppressive agents used in transplantation. Section 16, Chapter 85 in Comprehensive Clinical Nephrology, R.J. Johnson and J. Feehally (Eds.), 2. Edition, Mosby International, 2003.
7. P.F. Halloran, **A. Melk**, C. Barth. Rethinking chronic allograft nephropathy - the concept of accelerated senescence. In Transplantation Immunobiology, RJ Duquesnoy (Ed.). PR China, Science Press, 2000.
8. P. Halloran, **A. Melk**. Immunosuppressive agents used in transplantation. Section 16, Chapter 85 in Comprehensive Clinical Nephrology, R.J. Johnson and J. Feehally (Eds.), 1. Edition, Mosby International, 2000.

