

CV Renate Kain

Personal information

Name: Renate Kain
Acad. Degree: MD, PhD
Current Position: Professor for Pathology, Chair, Head of Department of Pathology
Member steering committee (Deputy Director), Comprehensive Cancer
Center, Medical University of Vienna
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Academic milestones and positions

2016 – Professor for Pathology, Head Department of Pathology, Medical University of
Vienna, Austria
2010 – 2016 Ao.Prof. for Pathology, Department of Pathology, Vienna, Austria
2010 Habilitation, Venia docendi in Pathology (MedUni Vienna)
2009 PhD (University of Aberdeen, UK)
2007 ÖÄK Diplom Genetik (Austrian Chamber of Physicians)
2006 – 2010 Assistant Professor, Department of Pathology, Vienna
2005 – 2006 Clinical Senior Lecturer, Department of Pathology, University of Aberdeen, UK
2001 – 2005 NKRF Clinical Senior Research Fellow, Department of Pathology and Immunology
and Inflammation Theme, University of Aberdeen, UK
1998 – 1999 University Assistant, Institute of Pathological Anatomy, University of Vienna
1998 Certified Cytopathologist (Board registration, Austrian Chamber of Physicians)
1994 - 1997 Postdoctoral Research Associate, The Burnham Institute La Jolla, CA, USA.
1992 - 1993 University Assistant, Institute of Pathological Anatomy, University of Vienna
1992 Certified Pathologist (Board registration, Austrian Chamber of Physicians)
1986 - 1992 Postgraduate Trainee in Surgical Pathology, Specialisation in Nephropathology,
Institute of Pathological Anatomy, University of Vienna
1980 - 1986 MD degree, Medical Faculty, University of Vienna,

Areas of research

Pathogenesis of ANCA associated autoimmune vasculitis (AAV), Autoantibodies to human lysosomal
membrane protein-2 (hLAMP-2) and other glycoproteins in AAV, Autoimmunity to membrane
proteins in the pathogenesis of FNGN and AAV, Transcriptomic and genomic signatures in AAV, The
role of matrix proteins in fibrosis in AAV, The role of extracellular vesicles as biomarkers in AAV,
The role of autophagy in antigen presentation and autoimmunity.

Research achievements

Fellowship Awards: 01.10.01-30.09.05. The National Kidney Research Fund Senior Research
Fellowship. 01.01.1995-31.12.1995. FWF Erwin-Schrödinger-Auslandsstipendium. Fellowship of the
Max Kade Foundation, New York.

Prizes: Novartis Award for Vasculitis Research, 12th International Vasculitis and ANCA Workshop, Heidelberg, 2005. Theodor Billroth Preis der Wiener Ärztekammer, 2009. Karl von Rokitansky Forschungspreis Österreichische Gesellschaft für Pathologie, 1996.

Visiting Professorships: 07. – 11.4.2014. Visiting Professorship, INSERM U1109 The Microenvironmental Niche in Tumorigenesis and Targeted Therapy - MN3T, Strasbourg. 18. – 20.7.2011. Visiting Professorship, IKFZ Erlangen. 01.04.94-30.09.94.

Executive boards:

Gesellschaft der Ärzte in Wien – President elect (2024)

Austrian Society of Pathology – Past President (President 2019 - 2021)

Austrian Platform for Personalised Medicine (ÖPPM) – President (2017-2019), Steering Committee (since 2020)

Renal Pathology Society – Board of directors (since 2022)

Chair, EM-WG European Society Pathology (since 2023), Councillor European Society Pathology (since 2023)

Interdisciplinary Amyloidosis Center / Dpt. of Internal Medicine, Medical University of Vienna (Associated National Center of the ERN-EuroBloodNet) – Member (since 2019),

Grants (past 5 years)

1.2.2021- 31.1.2027. H2020-JTI-IMI2-2019-18-two-stage. IMI2-RIA. Digital Pathology for the Development of Artificial Intelligence (BIGPICTURE; <https://bigpicture.eu/>). GA 945358. WP3 lead.

1.1.2019 – 30.06.2023 H2020-MSCA-ITN-2018: HELICAL: HHealth data LInkage for ClinicAL benefit (<https://helical-itn.eu/>). Grant agreement 813545. Principal Investigator. Training coordinator.

1.02.2017 – 31.1. 2020 FWF-ANR 2016 Call for French - Austrian Joint Projects: ACKITEC: From AAV to Chronic KIdney disease: contribution of TEnascin-C (Principal investigators R. Kain Vienna and G. Orend Strasbourg).

1.5.2015 – 31.4.2016. Vasculitis foundation. Role of LAMP-2 in tolerance to ANCA antigens, Principal Investigator

Network Coordination

1.11.2015 – 31.04.2019. Horizon2020, PHC3-2015-two-stage, RIA. RELapses prevENTION in chronic autoimmune disease: common mechanisms and co-morbidities (RELENT), GA 668036-2 (<http://www.relent.eu/>, <https://www.researchgate.net/project/RELENT-project>). Coordinator.

1.11.2010 – 31.04.2015. FP7-HEALTH-2010-single-stage, RIA. Infectious triggers of chronic autoimmunity (INTRICATE), GA 261382: <http://intricate.eu/>. Coordinator.

1.11.2009 – 31.10.2013. FP7-People-ITN-2008. Marie Curie Actions—Networks for Initial Training (ITN). Translational Science in Vascular Inflammation and Remodelling (TransSVIR); GA 238756. (<http://www.meduniwien.ac.at/transvir/en/about-transvir.php>). Training coordinator.

Publications – Ten most important

1. Oszwald A, Mejía-Pedroza RA, Schachner H, Aigner C, Rees AJ, Kain R. Digital spatial profiling of glomerular gene expression in pauci-immune focal necrotizing glomerulonephritis. 2023 Kidney360, 4(1):83-91. doi: 10.34067/KID.000461202.
2. Fayçal CA, Oszwald A, Feilen T, Cosenza-Contreras M, Schilling O, Loustau T, Steinbach F, Schachner H, Langer B, Heeringa P, Rees AJ, Orend G, Kain R. An adapted passive model of anti-MPO dependent crescentic glomerulonephritis reveals matrix dysregulation and is amenable to modulation by CXCR4 inhibition. Matrix Biol. 2022 Feb;106:12-33. doi: 10.1016/j.matbio.2022.01.001.
3. Kitching AR, Anders HJ, Basu N, Brouwer E, Gordon J, Jayne DR, Kullman J, Lyons PA, Merkel PA, Savage COS, Specks U, Kain R. ANCA-associated vasculitis. Nat Rev Dis Primers. 2020 Aug 27;6(1):71. doi: 10.1038/s41572-020-0204-y.
4. Grigorieva IV, Oszwald A, Grigorieva EF, Schachner H, Neudert B, Ostendorf T, Floege J, Lindenmeyer MT, Cohen CD, Panzer U, Aigner C, Schmidt A, Grosveld F, Thakker RV, Rees AJ, Kain R. A Novel Role for GATA3 in Mesangial Cells in Glomerular Development and Injury. J Am Soc Nephrol. 2019 Sep;30(9):1641-1658. doi: 10.1681/ASN.2018111143.

5. Brown M, Johnson LA, Leone DA, Majek P, Vaahtomeri K, Senfter D, Bukosza N, Schachner H, Asfour G, Langer B, Hauschild R, Parapatics K, Hong YK, Bennett KL, Kain R, Detmar M, Sixt M, Jackson DG, Kerjaschki D. Lymphatic exosomes promote dendritic cell migration along guidance cues. *J Cell Biol.* 2018 Jun 4;217(6):2205-2221. doi: 10.1083/jcb.201612051.
6. Leone DA, Peschel A, Brown M, Schachner H, Ball MJ, Gyuraszova M, Salzer-Muhar U, Fukuda M, Vizzardelli C, Bohle B, Rees AJ, Kain R. Surface LAMP-2 is an endocytic receptor that diverts antigen internalized by human dendritic cells into highly immunogenic exosomes. 2017. *J Immunol.* 2017 Jul 15;199(2):531-54. doi: 10.4049/jimmunol.1601263.
7. Hubert V, Peschel A, Langer B, Gröger M, Rees A, Kain R. LAMP-2 is required for incorporating syntaxin-17 into autophagosomes and for their fusion with lysosomes. *Biol Open.* 2016. 5(10):1516-1529. doi: 10.1242/bio.018648.
8. Peschel A, Basu N, Benharkou A, Brandes R, Brown M, Rees AJ and Kain R. Autoantibodies to hLAMP-2 in ANCA negative pauci-immune focal necrotizing glomerulonephritis. *J Am Soc Nephrol.* 2014 25:455-63. doi: 10.1681/ASN.2013030320.
9. Kain R, Tadema H, McKinney EF, Benharkou A, Brandes R, Peschel A, Hubert V, Feenstra T, Sengölge G, Stegeman C, Heeringa P, Lyons PA, Smith KG, Kallenberg C, Rees AJ. High prevalence of autoantibodies to hLAMP-2 in anti-neutrophil cytoplasmic antibody-associated vasculitis. *J Am Soc Nephrol.* 2012, 23:556-66. doi: 10.1681/ASN.2011090920.
10. Kain R, Exner M, Brandes R, Ziehermayr R, Cunningham D, Alderson CA, Davidovits A, Raab I, Jahn R, Ashour O, Spitzauer S, Sunder-Plassmann G, Fukuda M, Klemm P, Rees AJ & Kerjaschki D. Molecular mimicry in pauci-immune crescentic glomerulonephritis. *Nature Medicine.* 2008. 14:1088-1096. doi: 10.1038/nm.1874.

Book: Amman K, **Kain R**, Klöppel G (eds): *PATHOLOGIE*, 3. Edition, Urogenitale und Endokrine Organe, Skelettsystem Springer, Berlin Heidelberg, (2014) ISBN 978-3-642-04565-3

Book chapters: Sunder-Plassmann G, Födinger M, **Kain R**. Fabry Disease. In: Gilbert S, Weiner D, Gipson D, Perazella M, Tonelli M., eds. *National Kidney Foundation. Primer on kidney diseases.* 8th ed. (from 6th ed. onwards). Philadelphia, PA: Saunders Elsevier; 2022. ISBN 9780323791229
Moch, Holger; **Kain, R**; Amann, K; Gaspert, G (2024). Niere. In: Höfler, Gerald; Kreipe, Hans; Moch, Holger. *Pathologie: das Lehrbuch / 7. Auflage.* München: Elsevier, 699-728. ISBN: 9783437423918. No DOI available.
