

## **Publications Jörg Renkawitz**

### **Primary Research Papers**

Ishikawa-Ankerhold H, Kroll J, van den Heuvel D, Renkawitz J, Müller-Taubenberger A. (2022) Centrosome Positioning in Migrating Dictyostelium Cells. **Cells**, 11(11), 1776.

Holtkamp SJ, Ince LM, Barnoud C, Schmitt MT, Sinturel F, Pilorz V, Pick R, Jemelin S, Mühlstädt M, Boehncke WH, Weber J, Laubender D, Philippou-Massier J, Chen CS, Holtermann L, Vestweber D, Sperandio M, Schraml B, Halin C, Dibner C, Oster H, Renkawitz J, Scheiermann C. (2021) Circadian clocks guide dendritic cells into skin lymphatics. **Nature Immunology**, 11:1375-1381. (*recommended in F1000*).

Kopf A, Renkawitz J, Hauschild R, Girkontaite I, Tedford K, Merrin J, Thorn-Seshold O, Trauner D, Häcker H, Fischer KD, Kiermaier E, Sixt M. (2020) Microtubules control cellular shape and coherence in amoeboid migrating cells. **Journal of Cell Biology**, 219(6):e201907154.

(*in JCB collection 'The Year in Cell Biology 2020'; highlighted in Spotlight 'Microtubules keep large cells in shape' Journal of Cell Biology 2020; recommended in F1000*).

Renkawitz J\*, Kopf A, Stopp J, de Vries I, Driscoll MK, Merrin J, Hauschild R, Welf ES, Danuser G, Fiolka R, Sixt S\*. (2019) Nuclear positioning facilitates amoeboid migration along the path of least resistance. **Nature**, 568(7753), 546–550. (\*corresponding authors). (*highlighted in Nature Video; recommended in F1000*).

Hons M, Kopf A, Hauschild R, Leithner A, Gaertner F, Abe J, Renkawitz J, Stein JV, Sixt M. (2018) Chemokines and integrins independently tune actin flow and substrate friction during intranodal migration of T cells. **Nature Immunology** 19:606-16. (*highlighted in News & Views 'CCR7 fuels and LFA-1 grips' Nature Immunology 2018; recommended in F1000*).

Leithner A, Renkawitz J, De Vries I, Hauschild R, Häcker H, Sixt M. (2018) Fast and efficient genetic engineering of hematopoietic precursor cells for the study of dendritic cell migration. **European Journal of Immunology**. 48:1074-77.

Frick C, Dettinger P, Renkawitz J, Jauch A, Berger CT, Recher M, Schroeder T, Mehling M. (2018) Nano-scale microfluidics to study 3D chemotaxis at the single cell level. **PLoS One**. 7;13(6):e0198330.

Lademann CA, Renkawitz J, Pfander B, Jentsch S. (2017) INO80-C removes H2A.Z to promote presynaptic filament formation during homologous recombination. **Cell Reports**, 16;19(7):1294-1303.

Renkawitz J, Lademann CA, Kalocsay M, Jentsch S. (2013) Monitoring homology search during DNA double-strand break repair in vivo. **Molecular Cell**. 50:261-72. (*highlighted in News & Views 'DNA repair: search space' Nat Rev Genet 2013*).

Renkawitz J, Schumann K, Weber M, Lämmermann T, Pflücke H, Piel M, Polleux J, Spatz JP, Sixt M. (2009) Adaptive force transmission in amoeboid cell migration. **Nature Cell Biology**. 11:1438-43. (*highlighted in News & Views 'Migration without a clutch' Nat Cell Biol 2009; recommended in F1000*).

Lämmermann T, Renkawitz J, Wu X, Hirsch K, Brakebusch C, Sixt M. (2009) Cdc42-dependent leading edge coordination is essential for interstitial dendritic cell migration. **Blood**. 113:5703-10. (*highlighted in 'Close encounters of the 3D kind' Blood 2009*).

Mertins P, Eberl HC, Renkawitz J, Olsen JV, Tremblay ML, Mann M, Ullrich A, Daub H. (2008) Investigation of protein-tyrosine phosphatase 1B function by quantitative proteomics. **Mol Cell Proteomics**. 7:1763-77.

Geiger SR, Kuhn CD, Leidig C, Renkawitz J, Cramer P. (2008) Crystallization of RNA polymerase I subcomplex A14/A43 by iterative prediction, probing and removal of flexible regions. **Acta Crystallogr Sect F Struct Biol Cryst Commun**. 64:413-8.

### **Reviews**

Kameritsch P, Renkawitz J\*. (2020) Principles of Leukocyte Migration Strategies. **Trends in Cell Biology**, 30(10):818-832.

Renkawitz J\*, Lademann CA\*, Jentsch S. (2014) Mechanisms and principles of homology search during recombination. **Nature Reviews Molecular Cell Biology**. 15:369-83 (\*contributed equally).

Renkawitz J, Sixt M. (2010) Mechanisms of force generation and force transmission during interstitial leukocyte migration. **EMBO Reports**. 11:744-50.

### **Methods, Protocols & Book Chapters**

Kroll J, Ruiz-Fernandez MJA, Braun MB, Merrin J, & Renkawitz J\*. (2022) Quantifying the probing and selection of microenvironmental pores by motile immune cells. **Current Protocols**, 2, e407. doi: 10.1002/cpz1.407.

Renkawitz J, Reversat A, Leithner A, Merrin J, Sixt M. (2018) Micro-engineered 'Pillar Forests' to Study Cell Migration in Complex but Controlled 3D Environments. **Methods in Cell Biology**, 147:79-91.

### **Editorials, Comments, and News & Views**

Renkawitz J, Donnadiou E, Moreau HD. (2022) Editorial: Immune Cell Migration in Health and Disease. **Frontiers in Immunology**, 13, 897626.

Mogessie B\*, Zenner H\*, Renkawitz J\*. (2019) Meeting report – Cell dynamics: organelle–cytoskeleton interface. **Journal of Cell Science**, 132(16) (\*corresponding authors)

Renkawitz J, Sixt M. (2016) Formin' a nuclear protection. **Cell**. 167:1448-1449.

Renkawitz J, Sixt M. (2016) A Radical Break: Restraining Neutrophil Migration. **Developmental Cell**. 38:448-50.

Renkawitz J, Lademann CA, Jentsch S. (2013)  $\gamma$ H2AX spreading linked to homology search. **Cell Cycle**. 12:2526-7.