

1 General information

Name: Klemens Josef Rottner, Prof. Dr. rer. nat., *April 8th, 1970
 Citizenship: Austrian

Address: Division of Molecular Cell Biology
 Zoological Institute
 Technische Universität Braunschweig
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 Position: Professor (W2)
 Marital Status: married with one child

2 Academic education and degrees

1995 Diploma thesis "Stabile Expression eines rekombinanten Markergens in Zelllinien glatter Muskulatur H-2K^b-tsA58-transgener Mäuse", Austrian Academy of Sciences, Institute of Molecular Biology, Department of Cell Biology, Salzburg/Austria (Dr. med. Annette Draeger)

1988 - 1995 Diploma Program of Biology (Zoology), University of Salzburg/Austria

3 Scientific degrees

1995 – 1999 PhD thesis "The regulation of actin cytoskeleton dynamics during cell locomotion", Austrian Academy of Sciences, Institute of Molecular Biology, Department of Cell Biology, Salzburg/Austria (Prof. Dr. J. Victor Small).
Date of award: July 30th, 1999

4 Community service

1999 – 2000 Obligatory Community Service, Red Cross, Salzburg/Austria

5 Academic and research appointments

2014 - present Professor (W2) and Head of Division of Molecular Cell Biology, Zoological Institute, Technische Universität Braunschweig

2010 – 2014 Professor (W2) and Head of *Actin Dynamics and Motility Unit*, Institute of Genetics, University of Bonn

2004 - 2010 Independent Group Leader: *Cytoskeleton Dynamics Group*, Helmholtz Centre for Infection Research (HZI), Braunschweig

2002 - 2004 Postdoctoral scientist and since 05/2003 Project Leader in the Department of Cell Biology, HZI, Braunschweig

2000 - 2002 EMBO-longterm-fellow in the Department of Cell Biology, HZI, Braunschweig (Prof. Dr. Juergen Wehland)

2000 Postdoctoral researcher in the Department of Cell Biology, Salzburg/Austria (Prof. Dr. J. Victor Small)

6 Selected Scientific Activities

2009 - present Editorial Board member of *Journal of Cell Science*
 2010 - present Review Editor: *Frontiers in Cellular and Infection Microbiology*
 2010 - present Editorial Board member of *Small GTPases*
 2021 – present Editorial Board member of *International Journal Molecular Science*
 2011 - present Academic Editor of *PLoS ONE*
 2010 - 2016 Co-coordinator of the DFG Priority Program SPP1464: *Principles and Evolution of Actin-Nucleator Complexes*
 2010/2012/2015 Member of the organizing committee of International Meetings on *Actin Dynamics* in Jena (2010) and Regensburg (2012/2015)
 2010 - 2012 Member of the Advisory Board of the German Society for Cell Biology
 2012-2014 Elected member of the Executive Committee (Secretary) of the German Society for Cell Biology
 2014-2016 Elected member of the Executive Committee (Vice CEO) of the German Society for Cell Biology
 2010-2012/2014 Lecturer and Co-organizer: Summer School on *Actin Dynamics*, Regensburg, DFG Priority Program SPP1464
 09/2021 Co-organizer of the 35th ECF-meeting in Hannover/Germany

7 Publications (~115 articles on Pubmed; *h*-Index: 55, SOURCE: [GoogleScholar](#))

Ten selected, peer-reviewed publications

- 1) Dimchev, G., Amiri, B., Humphries, A.C., Schaks, M., Dimchev, V., Stradal, T.E., Faix, J., Krause, M., Way, M., Falcke, M., **Rottner, K.** (2020) Lamellipodin tunes cell migration by stabilizing protrusions and promoting adhesion formation. **J Cell Sci** 133, jcs239020. (7 citations)
- 2) Schaks, M., Singh, S.P., Kage, F., Thomason, P., Klünemann, T., Steffen, A., Blankenfeldt, W., Stradal, T.E., Insall, R., **Rottner, K.** (2018) Distinct interaction sites of Rac GTPase with WAVE regulatory complex have non-redundant functions in vivo. **Curr Biol** 28, 3674-84. (recommended twice on F1000Prime) (32 citations)
- 3) Kage, F., Winterhoff, M., Dimchev, V., Mueller, J., Thalheim, T., Freise, A., Brühmann, S., Kollasser, J., Block, J., Dimchev, G., Geyer, M., Schnittler, H.-J., Brakebusch, C., Stradal, T.E., Carlier, M.-F., Sixt, M., Käs, J., Faix, J., **Rottner, K.** (2017) FMNL formins boost lamellipodial force generation. **Nat Commun** 8, e14832. (78 citations)
- 4) Leithner, A., Eichner, A., Müller, J., Reversat, A., Brown, M., Schwarz, J., Merrin, J., de Gorter, D., Schur, F., Bayerl, J., de Vries, I., Wieser, S., Hauschild, R., Lai, F.P., Moser, M., Kerjaschki, D., **Rottner, K.**, Small, J.V., Stradal, T.E., Sixt, M. (2016)

Diversified actin protrusions promote environmental exploration but are dispensable for locomotion of leukocytes. **Nat Cell Biol**, 18, 1253-9. (78 citations)

- 5) Dang, I., Gorelik, R., Sousa-Blin, C., Derivery, E., Guérin, C., Linkner, J., Nemethova, M., Dumortier, J.G., Giger, F.A., Chipysheva, T.A., Ermilova, V.D., Vacher, S., Campanacci, V., Herrada, I., Planson, A.G., Fetics, S., Henriot, V., David, V., Oguievetskaia, K., Lakisic, G., Pierre, F., Steffen, A., Boyreau, A., Peyriéras, N., **Rottner, K.**, Zinn-Justin, S., Cherfils, J., Bièche, I., Alexandrova, A.Y., David, N.B., Small, J.V., Faix, J., Blanchoin, L., Gautreau, A. (2013) Inhibitory signalling to the Arp2/3 complex steers cell migration. **Nature** 503, 281-4. (173 citations)
- 6) Block, J., Breitsprecher, D., Kühn, S., Kage, F., Geffers, R., Duwe, P., Rohn, J.L., Baum, B., Brakebusch, C., Geyer, M., Stradal, T.E.B., Faix, J., **Rottner, K.** (2012) FMNL2 drives actin-based protrusion and migration downstream of Cdc42. **Curr Biol** 22, 1005-12. (173 citations)
- 7) Lai, F.P.L., Szczodrak, M., Oelkers, J.M., Ladwein, M., Acconcia, F., Benesch, S., Auinger, S., Faix, J., Small, J.V., Polo, S., Stradal, T.E.B., **Rottner, K.** (2009) Cortactin promotes migration and platelet-derived growth factor-induced actin reorganization by signaling to Rho-GTPases. **Mol Biol Cell** 20, 3209-23. (115 citations)
- 8) Lai, F.P., Szczodrak, M., Block, J., Faix, J., Breitsprecher, D., Mannherz, H.G., Stradal, T.E.B., Dunn, G.A., Small, J.V., **Rottner, K.** (2008) Arp2/3-complex interactions and actin network turnover in lamellipodia. **EMBO J** 27, 982-92. (324 citations)
- 9) Benesch, S., Polo, S., Lai, F.P.L., Anderson, K.I., Stradal, T.E.B., Wehland, J., **Rottner, K.** (2005) N-WASP deficiency impairs EGF internalization and actin assembly at clathrin coated pits. **J Cell Sci** 118, 3103-15. (184 citations)
- 10) **Rottner, K.**, Hall, A., Small, J.V. (1999) Interplay between Rac and Rho in the control of substrate contact dynamics. **Curr Biol** 9, 640-8. (756 citations)