

# ROLF MÜLLER



- \*1965** Düren
- 1986-1990** Pharmacy studies at Bonn University
- 1991** Approbation as pharmacist
- 1991-1994** Promotion (Ph.D.) at the Department of Pharmaceutical Biology at Bonn University (Workgroup of Prof. E. Leistner)
- 1995** Post-doc at the same department, Recognition as Fachapotheker for Pharmaceutical Analytics
- 1996-1997** Research scholarship of the Deutsche Forschungsgemeinschaft (2 years) at the University of Washington, Department of Chemistry in Seattle, USA (Group of Prof. H.G. Floss)
- 1998-2003** Junior group leader at the Gesellschaft für Biotechnologische Forschung in Braunschweig (Germany), at the same time research assistant at the Technical University Braunschweig, Department of Pharmaceutical Biology (Workgroup Prof. T. Hartmann)
- 2000** Habilitation: "Molecular biology of the biosynthesis of antibiotics in actinomycetes and myxobacteria," Lehrbefugnis for "Microbiology and Pharmaceutical Biology"
- 2001** Phoenix-Pharmacy Research Award 2001
- 2002** DECHEMA award for natural products research; appointment offer to the University of Greifswald "Pharmaceutical Biotechnology"
- 2003** BioFuture Award of the Federal Ministry for Education and Research; Appointment offer to the University of Halle "Pharmaceutical Molecular Biology"; Appointment offer to Saarland University "Pharmaceutical Biotechnology"; since October Professor of Pharmaceutical Biotechnology at Saarland University
- 2004** Decline of a calling to TU Braunschweig "Pharmaceutical Biology"
- 2007** Phoenix-Pharmacy Research Award 2007
- since 2008** Chairman to the DECHEMA board "Low molecular natural products with biological activity"
- since 2009** Head and director of the newly established Helmholtz Institute for Pharmaceutical Research Saarland, Saarbrücken/Germany
- 2010** DECHEMA-Prize 2010 of the Max-Buchner-research foundation
- 2012** Elected member of acatech (National Academy of Science and Engineering)
- 2014** Honorary director of the Shandong University joint Helmholtz Institute of Biotechnology, Honorary professorship at Shandong University, China
- 2016** David Gottlieb Lecturer 2016, Howard Hughes Medical Institute, Univ. of Illinois
- 2016** Invitation Fellowship for Research in Japan", Japan Society for the Promotion of Science (JSPS)
- 2016** Elected member of the National Academy of Sciences (Leopoldina)
- 2016** PHOENIX Pharmacy Research Award 2016
- 2016** Coordinator of the Thematic Translational Unit "Novel Antibiotics", German Center for Infection Research (DZIF)
- 2017** Elected member of the German Academy of Sciences and Literature, Mainz

### **10 of the most relevant publications:**

- 1) Fu, C., Keller L., Bauer A., Brönstrup, M., Froidbise, A., Hammann, P., Herrmann, J., Mondesert, G., Kurz, M., Schiell, M., Schummer, D., Toti, L., Wink, J. and Müller, R. Biosynthetic studies of telomycin reveal new lipopeptides with enhanced activity, **Journal of the American Chemical Society**, 2015, 137 (24): 7692-705.
- 2) Kling, A., Lukat, P., Almeida, D.V., Bauer, A., Fontaine, E, Sordello, S., Zaburanyi, N., Herrmann, J., Wenzel, S.C., König, C., Ammerman, N.C., Barrio, M.B., Borchers, K., Bordon-Pallier, F., Brönstrup, M., Courtemanche, G., Gerlitz, M., Geslin, M., Hammann, P., Heinz, D.W., Hoffmann, H., Klieber, S., Kohlmann, M., Kurz, M. Lair, C., Matter, H., Nuermberger, E., Sandeep T., Fraise, L., Grosset, J.H. Lagrange, S. and Müller, R. Antibiotics.Targeting DnaN for tuberculosis therapy using novel griselimycins, **Science**, 2015, 348 (6239): 1106-12.
- 3) Hoffmann, T., Müller, S., Nadmid, S., Garcia, R. and Müller, R. Microsclerodermins from terrestrial myxobacteria: An intriguing biosynthesis likely connected to a sponge symbiont, **Journal of the American Chemical Society**, 2013, 135 (45), 16904-11.
- 4) Meiser, P., Bode, H.B. and Müller, R. The unique DKxanthene secondary metabolite family from the myxobacterium *Myxococcus xanthus* is required for developmental sporulation, **Proceedings of the National Academy of Sciences of the United States of America**, 2006, 103 (50): 19128-19133.
- 5) Cortina, N.S., Krug, D., Plaza, A., Revermann, O. and Müller, R. Myxoprincomide: a natural product from *Myxococcus xanthus* discovered by comprehensive analysis of the secondary metabolome, **Angewandte Chemie International Edition**, 2012, 51 (3): 811-816.
- 6) Fu, J., Bian, X., Hu, S., Wang, H., Huang, F., Seibert, P.M., Plaza, A., Xia, L., Müller, R.\* , Stewart, A. F.\* and Zhang Y.\* Full-length RecE enhances linear-linear homologous recombination and facilitates direct cloning and bioprospecting, **Nature Biotechnology**, 2012, 30: 440-446. (\* Corresponding authors)
- 7) Quade, N., Huo, L., Rachid, S., Heinz D.W. and Müller, R. Unusual carbon fixation gives rise to diverse polyketide extender units, **Nature Chemical Biology**, 2012, 8 (1): 117-124.
- 8) Schneiker, S., Perlova, O., Kaiser, O., Gerth, K., Alici, A., Altmeyer, M.O., Bartels, D., Bekel, T., Beyer, S., Bode, E., Bode, H.B., Bolten, C.J., Choudhuri, J.V., Doss, S., Elnakady, Y.A., Frank, B., Gaigalat, L., Goesmann, A., Groeger, C., Gross, F., Jelsbak, L., Jelsbak, L., Kalinowski, J., Kegler, C., Knauber, T., Konietzny, S., Kopp, M., Krause, L., Krug, D., Linke, B., Mahmud, T., Martinez-Arias, R., McHardy, A.C., Merai, M., Meyer, F., Mormann, S., Muñoz-Dorado, J., Perez, J., Pradella, S., Rachid, S., Raddatz, G., Rosenau, F., Rückert, C., Sasse, F., Scharfe, M., Schuster, S.C., Suen, G., Treuner-Lange, A., Velicer, G.J., Vorhölter, F.J., Weissman, K.J., Welch, R.D., Wenzel, S.C., Whitworth, D.E., Wilhelm, S., Wittmann, C., Blöcker, H., Pühler, A. and Müller R. Complete genome sequence of the myxobacterium *Sorangium cellulosum*, **Nature Biotechnology**, 2007, 25 (11): 1281-1289.
- 9) Wenzel, S.C., Meiser, P., Binz, T.M., Mahmud, T. and Müller, R. Nonribosomal peptide biosynthesis: Point mutations and module skipping lead to chemical diversity, **Angewandte Chemie International Edition**, 2006, 45 (14): 2296-2301.
- 10) Gaitatzis, N., Kunze, B. and Müller, R. In vitro reconstitution of the myxochelin biosynthetic machinery of *Stigmatella aurantiaca* Sg a15: Biochemical characterization of a reductive release mechanism from nonribosomal peptide synthetases, **Proceedings of the National Academy of Sciences of the United States of America**, 2001, 98 (20): 11136-11141.