

Michael Famulok

Date of birth:	May 9, 1960
Nationality:	German
Position:	Professor of Biochemistry and Chemical Biology, LIMES Institute, University of Bonn
Education:	1979–1980 Oceanographics, University of Kiel 1981–1986 Chemistry, University of Marburg 1987–1989 PhD with Prof. Dr. Gernot Boche, “Synthese von N-Acyloxyverbindungen carcinogener Arylamine und ihre <i>in vitro</i> -Reaktion mit (Bio)nucleophilen”, University of Marburg
Awards:	1989–1990 Postdoc with Julius Rebek, Jr., MIT 1990–1992 Postdoc with Jack W. Szostak, Massachusetts General Hospital 1996 “Dozentenstipendium” of the Verband der Chemischen Industrie 1998 Otto-Klung Award for Chemistry 1998 Förderpreis of the Karl-Ziegler-Stiftung 2000 Steinhof Award 2002 Gottfried-Wilhelm-Leibniz Award 2008 GlaxoSmithKline Award for Outstanding Achievements in Chemical Biology
Current research interests:	Aptamer- and allosteric ribozymes in diagnostics, biosensing, chemistry, and molecular biomedicine; search of drug-like compounds by aptamer displacement and their chemical biology in cells and model organisms (<i>Drosophila</i> , mice) for the functional elucidation of target proteins; DNA nanoarchitectures
Hobbies:	Chess, modern art



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My favorite piece of research is... the recent progress in the generation of purely synthetic protocells.

The secret of being a successful scientist is... to recognize an innovative idea and to creatively track it.

My favorite subject at school was... Art. We had two excellent teachers in high school and I grew up in Kassel, the city of the “documenta”, one of the world’s most important modern art exhibitions.

The most significant scientific advance of this century has been... the discovery and formulation of the quantum theory.

My first experiment was... to craft a Cartesian diver.

If I wasn’t a scientist, I would be... probably something like a chicken salter at the Oktoberfest.

My most exciting discovery to date has been... the regulation of insulin signalling by cytohesins.

In a nutshell, my research involves... a broad variety of methods – from organic synthesis to organismic biology.

In ten years time I will be... a grandfather–hopefully.

The part of my job which I enjoy the most is... the suspense that comes along with an important experiment and the fulfilment about an exciting result.

The most significant advance in chemistry of this century has been... the elucidation of the structure of DNA.

My five top papers:

1. “Protein-Dependent Ribozymes Report Molecular Interactions in Real-Time”: J. S. Hartig, S. H. Najafi-Shoushtari, I. Grüne, A. Yan, A. D. Ellington, M. Famulok, *Nat. Biotechnol.* **2002**, 20, 717–722.
2. “Inhibition of Cytohesins by SecinH3 Leads to Hepatic Insulin Resistance”: M. Hafner, A. Schmitz, I. Grüne, S. G. Srivatsan, B. Paul, W. Kolanus, T. Quast, E. Kremmer, I. Bauer, M. Famulok, *Nature* **2006**, 444, 941–944.
3. “Aptamer Displacement Identifies Alternative Small-Molecule Target Sites That Escape Viral Resistance”: S. Yamazaki, L. Tan, G. Mayer, J. S. Hartig, J.-N. Song, S. Reuter, T. Restle, S. D. Laufer, D. Grohmann, H.-G. Kräusslich, J. Bajorath, M. Famulok, *Chem. Biol.* **2007**, 14, 804–812.
4. “DNA Minicircles with Gaps for Versatile Functionalization”: G. Rasched, D. Ackermann, T. L. Schmidt, P. Broekmann, A. Heckel, M. Famulok, *Angew. Chem.* **2008**, 120, 981–984; *Angew. Chem. Int. Ed.* **2008**, 47, 967–970.
5. “Fluorescent-Activated Cell Sorting Enriches Cell-Targeting and Population-Specific Aptamers”: M.-S. Raddatz, E. Endl, Dolf, P. Knolle, M. Famulok, G. Mayer, *Angew. Chem.* **2008**, 120, 5268–5271; *Angew. Chem. Int. Ed.* **2008**, 47, 5190–5193.

The author presented on this page has recently published his **10th article** since 2000 in *Angewandte Chemie*:

“Affinity-Based Labeling of Cytohesins with a Bifunctional SecinH3 Photoaffinity Probe”:

X. Bi, A. Schmitz, A. M. Hayallah, J.-N. Song, M. Famulok, *Angew. Chem.* **2008**, 120, 9707–9710; *Angew. Chem. Int. Ed.* **2008**, 47, 9565–9568.



M. Famulok has featured on the cover of *Angewandte Chemie*:

G. Rasched, D. Ackermann, T. L. Schmidt, P. Broekmann, A. Heckel, M. Famulok, G. Mayer, N. Kuhn, *Angew. Chem.* **2008**, 120, 815; *Angew. Chem. Int. Ed.* **2008**, 47, 803.

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