**Curriculum Vitae – Prof. Dr. Harald Schwalbe**

Lab Institute of Organic Chemistry and Chemical Biology

Center for Biomolecular Magnetic Resonance (BMRZ)

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**Education**

1993-1995 Postdoctoral fellow at the Oxford Centre for Molecular Sciences, Oxford University (Mentor: C.M. Dobson, FRS)

1990-1993 Chemistry, University of Frankfurt, Germany, Ph.D. (summa cum laude; Mentor: C. Griesinger)

1985-1990 Chemistry, University of Frankfurt, Germany, Diploma (summa cum laude; Mentor: C. Griesinger)

**Professional Career**

2011- Speaker: DFG-SFB 902: “Molecular principles of RNA-based regulation”

2009-2012 Speaker: DFG-Cluster of Excellence EXC115: “Macromolecular Complexes”

2007-2009 Speaker: DFG-SFB 579: “RNA-Ligand-Interactions”

2003- Coordinator of 5 EU funded programmes (STREPs, TOKs, Research Infrastructure for NMR (I3))

2002-2006 Managing Director of the Center for Biomolecular Magnetic Resonance, BMRZ

2002- Full Professor (C4), Institute for Organic Chemistry and Chemical Biology, University of Frankfurt

2001 Associate Professor for Biological Chemistry, Massachusetts Institute of Technology

1999-2001 Assistant Professor for Biological Chemistry, Massachusetts Institute of Technology

1995-1999 Work as Habilitand in Chemistry, University of Frankfurt (Mentor: C. Griesinger)

**Honors and Awards**

2014 “Scientist of the Year” of Kassel Foundation, University Frankfurt.

2012 Department Prize for Teaching, University Frankfurt

2006 1822-Prize for Teaching; University Frankfurt

2001 Pew Scholar for Biomedical Sciences, Fellow of the Alfred P. Sloan Foundation

2000 Karl Winnacker Preis of Aventis Foundation

1999 Gerhard Hess Preis of DFG

1996 Liebig Stipend of the Fonds der Chemischen Industrie

1993-1995 Human Capital and Mobility Fellow, EU.

1993 Studienabschlusspreis of the Fonds der Chemischen Industrie, Promotion

1987-1990 Member of the “Studienstiftung des Deutschen Volkes“

**Most important publications**

**Protein Folding**

J. Klein-Seetharaman, M. Oikawa, S.B. Grimshaw, J. Wirmer, E. Duchardt, T. Ueda, T. Imoto, L.J. Smith, C.M. Dobson, **H. Schwalbe** (2002) Long-range interactions within a non-native protein. Science **295**, 1719-1722.

**RNA Folding and Regulation**

P. Wenter, B. Fürtig, A. Hainard, **H. Schwalbe**, S. Pitsch (2005) Kinetic investigation of photoinduced RNA refolding by realtime NMR spectroscopy. Angew. Chem. **117**, 2656-2659.

J. Buck, B. Fürtig, J. Noeske, J. Wöhnert, **H. Schwalbe** (2007) Time-resolved NMR methods resolving ligand-induced RNA folding at atomic resolution. Proc. Natl. Acad. Sci. USA **104**, 15699-15704.

A. Reining, S. Nozinovic, K. Schlepckow, F. Buhr, B. Fürtig, **H. Schwalbe** (2013) Three-state mechanism couples ligand and temperature sensing in riboswitches. Nature **499**, 355-359.

**Membrane Proteins**

J. Stehle, R. Silvers, K. Werner, D. Chatterjee, S. Gande, F. Scholz, A. Dutta, J. Wachtveitl, J. Klein-Seetharaman, **H. Schwalbe** (2014) Solution NMR characterization of simultaneous meta II and meta III decay kinetics in rhodopsin. Angew. Chem. Intl. Ed. **53**, 2078-2084.

V. Zickermann, C. Wirth, H. Nasiri, K. Siegmund, **H. Schwalbe**, C. Hunte, U. Brandt (2015) Mechanistic insight from the crystal structure of mitochondrial complex I. Science **347**, 44-49.

**NMR-based Drug Design**

C. Herbert, U. Schieborr, K. Saxena, J. Juraszek, F. De Smet, C. Alcouffe, M. Bianciotto, G. Saladino, D. Sibrac, D. Kudlinzki, S. Sreeramulu, A. Brown, P. Rigon, J.-P. Herault, G. Lassalle, T.L. Blundell, F. Rousseau, A. Gils, J. Schymkowitz, P. Tompa, J.-M. Herbert, P. Carmeliet, F.L. Gervasio\*, **H. Schwalbe**\*, F. Bono\* (2013) Molecular mechanism of SSR128129E, an extracellularly acting, small molecule, allosteric inhibitor of FGF receptor signaling. Cancer Cell **23**, 489-501.