

### **Personal Data**

Date of birth 11.04.1977  
Place of birth Wurzen  
Nationality German  
Languages German, English

### **Professional Experience**

Since 01/2007 Group leader Protein Sample Production Facility (PSPF), Max Delbrück Center (MDC), Berlin, Germany  
- Cloning, expression, purification, crystallization, and biophysical characterization of human proteins with medical relevance  
- aiming habilitation

02/2005-12/2006 Postdoctoral Scientist at the Structural Genomics Consortium (SGC), Toronto, Canada  
- Analyzing structure and function of human proteins involved in transcriptional regulation (histone modifying enzymes, nuclear receptors)

09/2002-01/2005 Research assistant, enzymology group, Dept. of Biochemistry and Biotechnology, Martin-Luther-University Halle-Wittenberg, Germany  
- Dissertation on “Structural and kinetic analyses of indolepyruvate decarboxylase from *Enterobacter cloacae*“  
- Supervised practical training courses in enzymology

1998 Two months practical course in Research Biochemistry, Höchst-Schering AgrEvo GmbH, Frankfurt am Main, Germany

08/1995-07/1998 Coaching English, mathematics, and chemistry, “Studienkreis“ Halle, Germany

### **Education**

2000-2004 Ph.D., Dept. of Biochemistry and Biotechnology, Martin-Luther-University Halle-Wittenberg, Germany

1995-2000 B.Sc. Biochemistry, Martin-Luther-University Halle-Wittenberg, Germany

### **Scholarships, Grants & Committees**

Since 01/2008 Member of the Scientific Council at the Max Delbrück Center of Molecular Medicine (MDC), Berlin, Germany

2003 Financial means for consumables and equipment (1000 €) from the Martin-Luther-University Halle-Wittenberg, Germany

03-05/2002 Two scholarships of the German Academic Exchange Service (DAAD) for research stays at the Karolinska Institute, Dept. of Medical Biochemistry and Biophysics, Molecular Structural Biology (Prof. G. Schneider), Stockholm, Sweden

10/2000-08/2002 Ph.D. scholarship of the federal state of Saxony-Anhalt, Germany

## Publications

K.I. Pardee, X. Xu, J. Reinking, A. Schütz, A. Dong, S. Liu, R. Zhang, J. Tiefenbach, G. Lajoie, A.N. Plotnikov, A. Botchkarev, H.M. Krause, and A. Edwards (2009) The structural basis of gas-responsive transcription by the human nuclear hormone receptor REV-ERB $\beta$ . *PLoS Biol.*, **7**, 384-398.

U.-P. Guenther, L. Handoko, R. Varon, U. Stephani, C.-Y. Tsao, J.R. Mendell, S. Lützkendorf, C. Hübner, K. von Au, S. Jablonka, G. Dittmar, U. Heinemann, A. Schütz, and M. Schuelke (2009) Clinical variability in distal spinal muscular atrophy type 1 (DSMA1): determination of steady-state IGHMBP2 protein levels in five patients with infantile and juvenile disease. In press. *J. Mol. Med.*, **87**, 31-41.

A. Schütz, J. Min, A. Allali-Hassani, M. Schapira, M. Shuen, P. Loppnau, R. Mazitschek, N.P. Kwiatkowski, T.A. Lewis, R.L. Maglathin, T.H. McLean, A. Bochkarev, A.N. Plotnikov, M. Vedadi, and C.H. Arrowsmith (2008) Human HDAC7 harbors a class IIa HDAC-specific zinc binding motif and cryptic deacetylase activity. *J. Biol. Chem.*, **283**, 11355-11363.

T. Werther, M. Spinka, K. Tittmann, A. Schütz, R. Golbik, C. Mrestani-Klaus, G. Hübner, and S. König (2008) Amino acids allosterically regulate the thiamine diphosphate-dependent  $\alpha$ -keto acid decarboxylase from *Mycobacterium tuberculosis*. *J. Biol. Chem.*, **283**, 5344-5354.

S. Gräslund *et al.* (2008) Protein production and purification. *Nat. Methods*, **5**, 135-146.

A. Schütz, G. Bernstein, A. Dong, T. Antoshenko, H. Wu, P. Loppnau, A. Bochkarev, and A.N. Plotnikov (2007) Crystal structure of a binary complex between human GCN5 histone acetyltransferase domain and acetyl coenzyme A. *Proteins*, **68**, 403-407.

A. Schütz, J. Min, T. Antoshenko, C.-L. Wang, A. Allali-Hassani, A. Dong, P. Loppnau, A. Bochkarev, R. Sternglanz, and A.N. Plotnikov (2007) Structural basis for the inhibition of human NAD<sup>+</sup>-dependent deacetylase SIRT5 by suramin. *Structure*, **15**, 377-389.

A. Schütz, A. Allali-Hassani, F. Martín, P. Loppnau, M. Vedadi, A. Bochkarev, A.N. Plotnikov, C.H. Arrowsmith, and J. Min (2006) Structural basis for molecular recognition and presentation of histone H3 by WDR5. *EMBO J.*, **25**, 4245-4252.

A. Schütz, R. Golbik, S. König, G. Hübner, and K. Tittmann (2005) Intermediates and transition states in thiamin diphosphate-dependent decarboxylases. A kinetic and NMR study on wild-type indolepyruvate decarboxylase and variants using indolepyruvate, benzoylformate, and pyruvate as substrates. *Biochemistry*, **44**, 6164-79.

A. Schütz, R. Golbik, K. Tittmann, D.I. Svergun, M.H.J. Koch, G. Hübner, and S. König (2003) Studies on structure-function relationships of indolepyruvate decarboxylase from *Enterobacter cloacae*, a key enzyme of the indole acetic acid pathway. *Eur. J. Biochem.*, **270**, 2322-2331.

A. Schütz, T. Sandalova, S. Ricagno, G. Hübner, S. König, and G. Schneider (2003) Crystal structure of thiamindiphosphate-dependent indolepyruvate decarboxylase from *Enterobacter cloacae*, an enzyme involved in the biosynthesis of the plant hormone indole-3-acetic acid. *Eur. J. Biochem.*, **270**, 2312-2321.

### **Conferences, Presentations & Workshops**

PSPF - A protein sample production facility for structural biologists. 17<sup>th</sup> Annual Meeting of the German Society for Crystallography, Hannover, Germany, Mar 9-12, 2009, (talk).

SPINE2C: 2<sup>nd</sup> Annual Congress, Strasbourg, France, Jul 4-6, 2008, (poster).

SPINE2C: Coexpression Benchmark Meeting, London, UK, Jun 12, 2008, (talk).

Practical course on biophysical characterization of proteins, Stockholm, Sweden, May 8-9, 2008.

Workshop in protein production for structural genomics, Stockholm, Sweden, May 7, 2008.

1<sup>st</sup> PSPF User Meeting, Berlin, Germany, Apr 16, 2008, (talk).

SPINE2C: Coexpression Benchmark Meeting, Amsterdam, Netherland, Apr 4, 2008, (talk).

PSPF - A protein sample production facility for structural biologists. 16<sup>th</sup> Annual Meeting of the German Society for Crystallography, Erlangen, Germany, Mar 3-6, 2008, (poster).

SPINE2C: Coexpression Meeting, York, UK, Dec 13-14, 2007.

PSPF: A new protein sample production facility for structural biologists. 10<sup>th</sup> Heart of Europe bio-Crystallography Meeting, Bedlewo, Poland, Sept 27-29, 2007, (talk).

SPINE2C: Mammalian Expression Systems Workshop, Oxford, UK, Mar 25-29, 2007.

Crystal structure of human SIRT5 in complex with suramin. The B.R.A.I.N. Platform, Dept. of Physiology, University of Toronto, Toronto, Canada, Jun 15, 2006, (talk).

Crystal structure of indolepyruvate decarboxylase from *Enterobacter cloacae*, an enzyme involved in the biosynthesis of the plant hormone indole-3-acetic acid. 5<sup>th</sup> Heart of Europe bio-Crystallography Meeting Goslar, Germany, Sept 25-27, 2002, (talk).

Crystallization of the recombinant wild type of indolepyruvate decarboxylase from *Enterobacter cloacae*. 3<sup>rd</sup> Heart of Europe bio-Crystallography Meeting Poznan, Poland, Sept 28-30, 2000, (talk).

### **PDB Entries**

1OVM, 1Z4R, 2B4Y, 2GL8, 2GNQ, 2H9L, 2H9M, 2H9N, 2H9P, 2NYR, 2O9K, 2OB0, 2PSW, 2QW4, 3C0Y, 3C0Z, 3C10, 3C5K, 2WBS, 2WBU