

## Prof. Dr. Beat Ernst, University of Basel, Switzerland

### List of Publications/Patents/Books

#### Publications 1978

- "Anti- and syn-Tricyclo [4.2.1.1<sup>2,5</sup>] decane"  
B. Ernst, C. Ganter, *Helv. Chim. Acta* **1978**, 61, 1107-1109.
- "Tricyclo [4.2.2.2<sup>2,5</sup>] dodecane and Tricyclo [4.2.2.1<sup>2,5</sup>] undecane"  
B. Ernst, C. Ganter, *Helv. Chim. Acta* **1978**, 61, 1775-1777.

#### Publications 1981

- "3-Acyltetramic Acid Antibiotics: 1. Synthesis of Tirandamycic Acid"  
R.E. Ireland, P.G.M. Wuts, B. Ernst, *J. Amer. Chem. Soc.* **1981**, 103, 3205-3207.

#### Publications 1985

- "Intramolecular [2 + 2] Cycloadditions of Ketenes and Keteniminium Salts to Olefins"  
I. Markó, B. Ronsmans, A.-M. Hesbain-Frisque, S. Dumas, L. Ghosez, H. Greuter, B. Ernst, *J. Amer. Chem. Soc.* **1985**, 107, 2192-2194.

#### Publications 1988

- "Cyclobutanones and Cyclobutenones in Nature and in Synthesis"  
D. Bellus, B. Ernst, *Angew. Chem.* **1988**, 100, 820-850.
- "The Dimeric and Polymeric Anhydride of 2,3-O-Isopropylidene-β-D-ribofuranose. An NMR Study"  
T. Winkler, B. Ernst, *Helv. Chim. Acta* **1988**, 71, 120.
- "Intramolecular [2 + 2] Cycloaddition of Vinylketenes to Olefins. Part II. The Synthesis of a Linear Annulated Triquinane Derivative"  
A. De Mesmaeker, S.J. Veenstra, B. Ernst, *Tetrahedron Lett.* **1988**, 29, 459-462.
- "Intramolecular [2 + 2] Cycloadditions of Ketenes and Vinylketenes to Olefins-III. The Synthesis of Angular Annulated Triquinane Derivatives"  
S.J. Veenstra, A. De Mesmaeker, B. Ernst, *Tetrahedron Lett.* **1988**, 29, 2303-2306.
- "Stereoselective C-C Bond Formation in Carbohydrates by Radical Cyclization Reactions-I"  
A. De Mesmaeker, P. Hoffmann, B. Ernst, *Tetrahedron Lett.* **1988**, 29, 6585-6588.

#### Publications 1989

- "Stereoselective C-C Bond Formation in Carbohydrates by Radical Cyclization Reactions-II"  
A. De Mesmaeker, P. Hoffmann, B. Ernst, *Tetrahedron Lett.* **1989**, 30, 57-60.
- "Synthesis of the Oviposition-Deterring Pheromon in *Rhagoletis cerasi* L"  
B. Ernst, B. Wagner, *Helv. Chim. Acta* **1989**, 72, 165-171.
- "Intramolecular [2 + 2] Cycloadditions of Ketenes and Olefins"  
B. Ernst, A. De Mesmaeker, H. Greuter, S.J. Veenstra: in *Strain and its Implications in Organic Chemistry*, A. de Meijere and S. Blechert (eds), **1989**, 207-234, by Kluwer Academic Publishers
- "Stereoselective Ketene-Claisen Rearrangement of Chiral Allylthioethers"  
R. Oehrlein, R. Jeschke, B. Ernst, D. Bellus, *Tetrahedron Lett.* **1989**, 30, 3517-3520.

- “A New Protected Form of Glucuronic Acid for the Synthesis of Labile 1-O Acyl- $\beta$ -D-Glucuronides”  
A. De Mesmaeker, P. Hoffmann, B. Ernst, *Tetrahedron Lett.* **1989**, 30, 3773-3776.
- “Preparation on Glycosyl Halides under Neutral Conditions”  
B. Ernst, T. Winkler, *Tetrahedron Lett.* **1989**, 30, 3081-3084.
- “Stereoselective C-C Bond Formation in Carbohydrates by Radical Cyclization Reactions-III. Strategy for the Preparation of C(1)-Glycosides”  
A. De Mesmaeker, P. Hoffmann, B. Ernst, P. Hug, T. Winkler, *Tetrahedron Lett.* **1989**, 30, 6307-6310.
- “Stereoselective C-C Bond Formation in Carbohydrates by Radical Cyclization Reactions-IV. Application for the Synthesis of  $\alpha$ -C(1)-Glucosides”  
A. De Mesmaeker, P. Hoffmann, B. Ernst, P. Hug, T. Winkler, *Tetrahedron Lett.* **1989**, 30, 6311-6314.

### Publications 1990

- “Haloenamines-II. A Rapid and Efficient Synthesis of Carbohydrate 1,2-Orthoesters”  
B. Ernst, A. De Mesmaeker, B. Wagner, T. Winkler, *Tetrahedron Lett.* **1990**, 31, 6107-6170.
- “Glycopeptide Solid-Phase Synthesis with an Acetic Acid-Labil Trialkoxy-Benzhydryl Linker”  
H. Rink, B. Ernst, Eds: E. Girald, D. Andreu, Proc. Eur. Pept. Symp., 21<sup>st</sup>, **1990**, 418-419, Sci. Publ. Leiden, NL.

### Publications 1991

- “1,2-Asymmetric Induction in Ketene Claisen Rearrangement of Allylsulfides”  
U. Nubbemeyer, R. Öhrlein, J. Gonda, B. Ernst, D. Bellus, *Angew. Chem. Int. Ed. Engl.* **1991**, 30, 1465-1467.

### Publications 1992

- “Galactosylation of Non-Natural Glycosides with Human Galactosyltransferase on a Preparative Scale”  
R. Öhrlein, B. Ernst, E.G. Berger, *Carbohydr. Res.* **1992**, 236, 335-338.
- “Biosynthesis and Chemical Synthesis of Carboxyl-Linked Glucuronide of Lithocholic Acid”  
I. Panfil, P.A. Lehman, P. Zimniak, B. Ernst, T. Franz, R. Lester, A. Radominiska, *Bichim. Biophys. Acta* **1992**, 1126, 221-228.
- “Tarsal contact chemoreceptors of the cherry fruit fly, *Rhagoletis cerasi*: specificity, correlation with oviposition behaviour, and response to the synthetic pheromone”  
E. Städler, B. Ernst, J. Hurter, E. Boller, M. Kozlowski, Proc. 8th Int. Symp. Insect-Plant Relationships, Dordrecht, S.B.J. Menken, J.H. Visser and P. Haarewijn (Eds), **1992**, 143-145, by Kluwer Academic Publishers.

### Publications 1993

- “Diastereoselective Synthesis of 1,2-Diamines by Palladium Catalyzed Aza-Claisen Rearrangement (*Feature Article*)”  
J. Gonda, A.-C. Helland, B. Ernst, D. Bellus, *Synthesis*, **1993**, 729-733.

### Publications 1994

- “Facile Preparation of 1,6-Anhydrohexoses Using Solvent Effects and a Catalytic Amount of a Lewis Acid”

P.-M. Åberg, B. Ernst, *Acta Chem. Scandinavica*, **1994**, 48, 228-233.

- “Tarsal Contact Chemoreceptor for the Host Marking Pheromone of the Cherry Fruit Fly, *Rhagoletis cerasi*: Responses to Natural and Synthetic Compounds”  
E. Städler, B. Ernst, J. Hurter, E. Boller, *Physiological Entomology* **1994**, 19, 139-151.

### Publications 1995

- “Determination of the Bioactive Conformation of the Carbohydrate Ligand in the E-Selectin / Sialyl Lewis<sup>x</sup> Complex”  
K. Scheffler, B. Ernst, A. Katopodis, J.L. Magnani, W.-T. Wong, R. Wiesemann, T. Peters, *Angew. Chem. Int. Ed. Engl.* **1995**, 34, 1841.
- “Synthesis and Biological Activity of Oligosaccharide Libraries”  
Y. Ding, O. Kanic, J. Labbe, M.M. Palcic, B. Ernst, O.H. Hindsgaul, in *Glycoimmunology, Advances in Experimental Medicine and Biology Series*, A. Alavi, J.S. Axford (Eds), **1995**, 376, 261, by Plenum New York.
- “A Strategy of Random Glycosylation for the Production of Oligosaccharide Libraries”  
O. Kanic, F. Barresi, Y. Ding, J. Labbe, A. Otter, L.S. Forsberg, B. Ernst, O. Hindsgaul, *Angew. Chem. Int. Ed. Engl.* **1995**, 34, 2720.

### Publications 1996

- “Enzymatic Galactosylation of Non-Natural Glucosamide Receptors”  
G. Baisch, R. Öhrlein, B. Ernst, *Bioorg. Med. Chem. Lett.* **1996**, 6, 749.
- “Enzymatic  $\alpha$ (2-3)-Sialylation of Non-Natural Disaccharides with Cloned Sialyltransferase”  
G. Baisch, R. Öhrlein, M. Streiff, B. Ernst, *Bioorg. Med. Chem. Lett.* **1996**, 6, 755.
- “Enzymatic Fucosylation of Non-Natural Trisaccharides with Cloned Fucosyl-transferase VI”  
G. Baisch, R. Öhrlein, A. Katopodis, B. Ernst, *Bioorg. Med. Chem. Lett.* **1996**, 6, 759.

### Publications 1997

- “False Sugar Sequence Ions in Electrospray Tandem Mass Spectrometry of Underivatized Sialyl-Lewis Type Oligosaccharides”  
B. Ernst, D. Müller, W. J. Richter, *Int. J. Mass Spectrom. Ion Processes*, **1997**, 160, 283.
- “Investigation of the Chemo- and Stereoselectivity of the Ketene-Claisen Rearrangement”  
B. Ernst, J. Gonda, R. Jeschke, U. Nubbemeyer, R. Öhrlein, D. Bellus, *Helv. Chim. Acta* **1997**, 80, 876.
- “Development of Tools for the Design of Selectin Antagonists”  
H. C. Kolb, B. Ernst, *Chem. Eur. J.* **1997**, 3, 1571.
- “Application of Homonuclear 3D and Pseudo-3D NMR Experiments to Elucidate Fine Details in 2D-trNOESY Spectra of Sialyl Lewis<sup>x</sup> Bound to E-Selectin”  
K. Scheffler, J.-R. Brisson, R. Weisemann, J.L. Magnani, W.-T. Wang, B. Ernst, T. Peters, *J. Biomol. NMR* **1997**, 9, 423.
- “Synthesis of Sialyl Lewis<sup>x</sup> Mimics: Replacement of Galactose by Aromatic Spacers”  
R. Bänteli, B. Ernst, *Tetrahedron Lett.* **1997**, 38, 4059.
- “Enzymatic Large-Scale Production of 2-Keto-3-deoxy-D-glycero-D-galacto-octopyranulosonic acid (KDN) in Enzyme Membrane Reactors”  
C. Salagnad, A. Gödde, B. Ernst, U. Kragl, *Biotech. Prog.* **1997**, 13, 810.
- “Synthesis of Oligosaccharide-Polylysine Conjugates: A Well Characterized Sialyl Lewis<sup>a</sup> Polymer for ELISA”

- G. Thoma, J.L. Magnani, R. Öhrlein, B. Ernst, F. Schwarzenbach, R.O. Duthaler, *J. Am. Chem. Soc.* **1997**, 119, 7414.
- “Recent Progresses in the Glycodrug Area”  
H.C. Kolb, B. Ernst, *Pure Appl. Chem.* **1997**, 69, 1879.
  - “Comparison of the Bioactive Conformations of Sialyl Lewis<sup>x</sup> and a Potent Sialyl Lewis<sup>x</sup> Mimic”  
W. Jahnke, H. C. Kolb, M.J.J. Blommers, J.L. Magnani, B. Ernst, *Angew. Chem. Int. Ed. Engl.*, **1997**, 36, 2603.
  - “Design and Synthesis of Sialyl Le<sup>x</sup> Mimetics based on Carbocyclic Scaffolds Derived from (-)Quinic Acid”  
S. Hanessian, G.V. Reddy, H.K. Huynh, J. Pan, S. Pedatella, H. Kolb, B. Ernst, *Bioorg. Med. Chem. Lett.*, **1997**, 7, 2729.
  - “Synthesis of Sialyl Lewis<sup>x</sup> Mimics: Replacement of Galactose by Aromatic Spacers”  
R. Bänteli, B. Ernst, *Tetrahedron Lett.*, **1997**, 38, 4059.
  - “Synthesis and characterization of polyaspartic acid-carbohydrate conjugates: multivalent sialyl Lewis<sup>x</sup>”  
G. Thoma, B. Ernst, F. Schwarzenbach, R.O. Duthaler, *Bioorg. Med. Chem. Lett.* **1997**, 7, 1705-1708.

### Publications 1998

- “Sialyl Lewis<sup>x</sup> and the sLe<sup>x</sup> Mimic CGP69669A Disrupt E-Selectin Dependent Leukocyte Rolling *in Vivo*”  
K.E. Norman, G.P. Anderson, H.C. Kolb, K. Ley, B. Ernst, *Blood*, **1998**, 91, 475.
- “Synthesis of Benzylated (*R*)- and (*S*)-Aminoethyl-C- $\alpha$ -D-Mannosides as Conformationally Restricted Building Blocks for the Preparation of E- and P-Selectin Antagonists”  
D. Roche, R. Bänteli, T. Winkler, F. Casset, B. Ernst, *Tetrahedron Lett.*, **1998**, 39, 2545.
- “Exploration of  $\beta$ -Turn Scaffolding Motifs as Components of Sialyl Le<sup>x</sup> Mimetics and their Relevance to P-Selectin”  
S. Hanessian, H.K. Huynh, G.V. Reddy, G. McNaughton-Smith, B. Ernst, H. Kolb, J. Magnani, C. Sweeley, *Bioorg. Med. Chem. Lett.* **1998**, 8, 2803.
- “Synthesis of Sialyl Lewis<sup>x</sup> Mimetics Using the Ugi Four-Component Reaction”  
C.-Y. Tsai, W.K.C. Park, G. Weitz-Schmidt, B. Ernst, C.-H. Wong, *Bioorg. Med. Chem. Lett.* **1998**, 8, 2333.

### Publications 1999

- Oviposition Stimulants for the Cabbage Root Fly: Isolation from Cabbage Leaves”  
J. Hurter, T. Ramp, B. Patrian, E. Städler, P. Roessingh, R. Baur, R. de Jong, J.N. Nielsen, T. Winkler, W.J. Richter, D. Müller, B. Ernst, *Phytochemistry* **1999**, 51, 377.
- “Bio-Affinitäts NMR-Identifizierung eines E-Selectin-Antagonisten in einem Substanzgemisch durch Transfer-NOE”  
D. Henrichsen, B. Ernst, J.L. Magnani, W.-T. Wang, B. Meyer, T. Peters, *Angew. Chem. Int. Ed. Engl.*, **1999**, 38, 98-102.
- “Stable-Isotope-Assisted NMR Studies on <sup>13</sup>C-Enriched Sialyl Lewis<sup>x</sup> in Solution and Bound to E-Selectin”  
R. Harris, G.R. Kiddie, R.A. Field, M.J. Milton, B. Ernst, J. Magnani, S. Homans, *J. Am. Chem. Soc.*, **1999**, 121, 2546-2551.
- “Substrate and Donor Specificity of Glycosyl Transferases”  
B. Ernst, R. Öhrlein, *Glycoconj. J.* **1999**, 16, 161.

- “Versatile Functionalization of Polylysine: Synthesis, Characterization, and Use of Neoglycoconjugates”  
G. Thoma, J.T. Patton, J.L. Magnani, B. Ernst, R. Öhrlein, R. O. Duthaler, *J. Am. Chem. Soc.* **1999**, 121, 5919-5929.

## Publications 2000

- “Substrate Specificity of Fucosyl Transferase III: An Efficient Synthesis of Sialyl Lewis<sup>x</sup>-, Sialyl Lewis<sup>a</sup>-derivatives and Mimetics thereof”  
B. Ernst, B. Wagner, G. Baisch, A. Katopodis, T. Winkler, R. Öhrlein, *Can. J. Chem.*, **2000**, 78, 892.
- “NMR Binding Studies on the Interactions of sLe<sup>x</sup> and sLe<sup>a</sup> with E- and P-Selectin”  
T. Biet, M. Vogtherr, M. Rinnbauer, G. Thoma, A. Katopodis, R. Oehrlein, B. Ernst, J.L. Magnani, T. Peters, Proceedings of the 15th European Experimental NMR Conference **2000**.

## Publications 2001

- “Design and Synthesis of E-Selectin Antagonists”  
B. Ernst, Z. Dragic, S. Marti, C. Müller, B. Wagner, W. Jahnke, J.L. Magnani, K.E. Norman, R. Oehrlein, T. Peters, *Chimia* **2001**, 55, 268.
- “Synthesis of Sialyl Lewis<sup>x</sup> Mimetics. 2. Modification of the 6-Position of Galactose”  
R. Bänteli, B. Ernst, *Bioorg. Med. Chem. Lett.* **2001**, 11, 459.
- “Solid-phase Synthesis of Hydroxyproline-based Cyclic Hexapeptides”  
Andrea Basso, B. Ernst, *Tetrahedron Lett.* **2001**, 42, 6687.
- “Entropic Contributions to Ligand Binding: Pre-Organization of the Bioactive Conformation in Sialyl Lewis<sup>x</sup> Analogs Correlates with their Affinity to E-Selectin”  
G. Thoma, J.L. Magnani, J.T. Patton, W. Jahnke, B. Ernst, *Angew. Chem. Int. Ed.* **2001**, 40, 1941.
- “1,2-Asymmetric Induction in the Ketene Claisen Rearrangement of (2S,3E)-5-(isopropylsulfanyl)-3-pentenes”  
J. Gonda, M. Martinkova, B. Ernst, D. Bellus, *Tetrahedron* **2001**, 57, 5607.

## Publications 2002

- “New Trends of NMR in Drug Discovery”  
O. Schwardt, H.C. Kolb, B. Ernst, *Curr. Top. Med. Chem.* **2002**, 2, 1269-1277.
- “Self-Assessment in naturwissenschaftlichen Disziplinen”  
S. Lichtsteiner, B. Ernst, T. Gyalog, M. Guggisberg, H.-J. Güntherodt, S. Rizzotti, H. Burkhart in *Campus 2002*, Vol. 18, G. Bachmann; Ed., Waxmann Verlag GmbH, Münster **2002**.
- “Towards a Virtual Education in Pharmaceutical Sciences”  
V.V. Tran, S. Lichtsteiner, B. Ernst, M. Otto, G. Folkers in *Telemedicine and Teledermatology*, B. Burg; Ed., Karger Verlag, Basel **2002**.

## Publications 2003

- “Epitope Mapping of Sialyl Lewis<sup>x</sup> Bound to E-Selectin using Saturation Transfer Difference NMR-Experiments”  
M. Rinnbauer, B. Ernst, B. Wagner, J. Magnani, A.J. Benie, T. Peters, *Glycobiology* **2003**, 13, 435-443.
- “Catalytic Glycosylation with Rhodium(III)-Triphos Catalysts”  
B. Wagner, M. Heneghan, G. Schnabel, B. Ernst, *Synlett* **2003**, 9, 1303.

- "Pharmasquare (pharma<sup>2</sup>)"  
S. Lichtsteiner, S. Rizzotti, C. Weber, A. Vögtli, H. Burkhart, R. Neier, V.V. Khov-Tran, G. Folkers, B. Ernst, *Chimia* **2003**, 57, 116.
- "The Swiss virtual campus"  
Cornelia Rizek-Pfister, Beat Ernst, *Chimia* **2003**, 57, 93.
- "Towards a virtual education in pharmaceutical sciences"  
Tran Van Van, Salome Lichtsteiner, Beat Ernst, Mark Otto, Gerd Folkers, *Current Problems in Dermatology* **2003**, 32, 43-51.
- "Drug Discovery Today"  
O. Schwardt, H.C. Kolb, B. Ernst, *Curr. Top. Med. Chem.* **2003**, 3, 1-9.

### Publications 2004

- "Substrate Specificity and Preparative Use of Recombinant Rat ST3Gal III"  
O. Schwardt, G.-P. Gao, T. Visekruna, S. Rabbani, E. Gassmann, B. Ernst, *J. Carbohydr. Chem.* **2004**, 23, 1-28.
- "Saturation Transfer Difference NMR Spectroscopy for Identifying Ligand Epitopes and Binding Specificities"  
B. Meyer, J. Klein, M. Mayer, R. Meinecke, H. Moller, A. Neffe, O. Schuster, J. Wulfken, Y. Ding, O. Kanie, J. Labbe, M.M. Palcic, O. Hindsgaul, B. Wagner, B. Ernst, *Schering Res. Foundation Workshop 2004*, 44, 149-167.
- "Drug Discovery Today"  
O. Schwardt, H. Kolb, B. Ernst, *Frontiers in Med. Chem.* **2004**, 4, 1-11.
- "Chemo-enzymatic Synthesis of Antagonists of the Myelin-associated Glycoprotein (MAG)"  
G. Gao, O. Schwardt, T. Visekruna, S. Rabbani, B. Ernst, *Chimia* **2004**, 58, 215-218.
- "Synthesis of Aryl Sialosides Using Mitsunobu Conditions"  
G. Gao, O. Schwardt, B. Ernst, *Carbohydr. Res.* **2004**, 339, 2835-2840.

### Publications 2005

- "Drug Discovery Today"  
O. Schwardt, B. Cutting, H. Kolb, B. Ernst, *Frontiers in Med. Chem.* **2005**, 2, 533-543.
- "Carbohydrate mimics in drug discovery"  
O. Schwardt, H.C. Kolb, B. Ernst in *The Organic Chemistry of Sugars*, P. Fügedi, D.E. Levy; Eds., Marcel Dekker, New York, **2005**.
- "Systemic administration of a TLR7 ligand leads to transient immune incompetence due to peripheral leukocyte depletion"  
M. Gunzer, H. Riemann, Y. Basoglu, A. Hillmer, C. Weishaupt, B. Benninghoff, B. Ernst, M. Steinert, T. Scholzen, C. Sunderkötter, S. Grabbe, *Blood* **2005**, 106, 2424.
- "Impact of induced fit on ligand binding to the androgen receptor: A multidimensional QSAR study to predict endocrine-disrupting effects of environmental chemicals"  
Markus A. Lill, Fabienne Winiger, Angelo Vedani, B. Ernst, *J. Med. Chem.* **2005**, 48, 5666.
- "Comparative Epitope Mapping with STD NMR of sialyl Lewis<sup>a</sup> Compounds and derivatives bound to a monoclonal antibody"  
L. Herfurth, B. Ernst, R. Öhrlein, B. Wagner, J.L. Magnani, A.J. Benie, T. Peters, *J. Med. Chem.* **2005**, 48, 6879-6886.
- "PCR-Cloning, Expression and Characterization of a Novel *Helicobacter pylori* α-1,4 Fucosyltransferase"  
S. Rabbani, V. Miksa, B. Wipf, B. Ernst, *Glycobiology* **2005**, 15, 1076.
- "Synthetic Potential of FucT III for the Synthesis of Fluorescent-labeled Milk Oligosaccharides"

### Publications 2006

- “Glycosyltransferases: An Efficient Tool for the Enzymatic Synthesis of Oligosaccharides and Derivatives as well as Mimetics Thereof”  
S. Rabbani, O. Schwardt, B. Ernst, *Chimia* **2006**, 60, 23.
- “A safe and convenient method for the preparation of triflyl azide, and its use in diazo transfer reactions to primary amines”  
A. Titz, Z. Radic, O. Schwardt, B. Ernst, *Tetrahedron Lett.* **2006**, 47, 2383.
- “Bacterial sialyltransferases for carbohydrate synthesis”  
O. Schwardt, Tamara Visekruna, S. Rabbani, B. Ernst, *Chimia* **2006**, 60, 234-240.
- “A Thorough Training in Modern Drug Design”  
A. Vedani, O. Schwardt, S. Rabbani, B. Ernst, *Chimia* **2006**, 60, 70-75.
- “Antagonists of the Myelin-associated Glycoprotein: A New Class of Tetrasaccharide Mimics”  
Daniel Schwizer, Heiko Gähde, Soerge Kelm, Michele Porro, Oliver Schwardt, Beat Ernst, *Bioorg. Med. Chem.* **2006**, 14, 4944-4957.
- “Cloning, Expression and Preparative Application of a Mutated, Bifunctional  $\alpha$ (2-3/8)-Sialyltransferase from *Campylobacter jejuni*”  
O. Schwardt, T. Visekruna, G. Zenhäusern, S. Rabbani, B. Ernst, *J. Carbohydr. Chem.* **2006**, 25, 543-556.
- “Preface”  
Alex N. Eberle, Helma Wennemers, Oliver Naylor, Beat Ernst, Gerd Folkers, Vladimir Pliska, Ernst Burgisser, *J. Receptor Signaling Transduction* **2006**, 26, 359-360.

### Publications 2007

- “Simulating  $\alpha/\beta$ -Selectivity at the Human Thyroid Hormone Receptor: Consensus Scoring Using Multidimensional QSAR”  
A. Vedani, M. Zumstein, M.A. Lill, B. Ernst, *ChemMedChem* **2007**, 2, 78-87.
- “Mimetics of Sialyl Lewis $\alpha$ : The Pre-organization of the Carboxylic Acid is Essential for Binding to Selectins”  
A. Titz, B. Ernst, *Chimia* **2007**, 61, 194-197.
- “Sensitivity Enhancement in Saturation Transfer Difference Experiments Through Optimized Excitation Schemes”  
B. Cutting, S.V. Shelke, Z. Dragic, B. Wagner, H. Gathje, S. Kelm, B. Ernst, *Magnetic Resonance in Chemistry* **2007**, 45, 720-724.
- “Simulating  $\alpha/\beta$  Selectivity at the Human Thyroid Hormone Receptor: Consensus Scoring Using Multidimensional QSAR”  
A. Vedani, M. Zumstein, M.A. Lill, B. Ernst, *ChemMedChem* **2007**, 2, 78-87.
- “Synthesis of sialic acid derivatives as ligands for the myelin-associated glycoprotein (MAG)”  
S.V. Shelke, G.-P. Gao, S. Mesch, H. Gähde, S. Kelm, O. Schwardt, B. Ernst, *Bioorg. Med. Chem.* **2007**, 15, 4951-4965.
- “Predicting the toxic potential of drugs and chemicals *in silico*: A model for the peroxisome proliferators-activated receptor  $\gamma$  (PPAR $\gamma$ )”  
A. Vedani, A.-V. Descloux, M. Spreafico, B. Ernst, *Toxicology Lett.* **2007**, 173, 17-23.
- “Extraction and analysis of intact glucosinolates”  
T. Mohn, B. Cutting, B. Ernst, M. Hamburger, *J. Chromatography A* **2007**, 1166, 142-151.

- “Mimetics of the Tri- and Tetrasaccharide Epitope of GQ1b $\alpha$  as Myelin-associated Glycoprotein Ligands”  
G.-P. Gao, M. Smiesko, O. Schwardt, H. Gähjje, S. Kelm, A. Vedani, B. Ernst, *Bioorg. Med. Chem.* **2007**, 15, 7459-7469.
- “Peripheral lipopolysaccharide administration transiently affects expression of brain-derived neurotrophic factors, corticotropin and proopiomelanocortin in mouse brain”  
S. Schnydrig, L. Korner, S. Landweer, B. Ernst, G. Walker, U. Otten, D. Kunz, *Neuroscience Lett.* **2007**, 429, 69-72.

### Publications 2008

- “Is adamantine a suitable substituent to pre-organize the acid orientation in E-selectin antagonists?”  
A. Titz, J. Patton, A.M. Alker, M. Porro, O. Schwardt, M. Hennig, E. Francotte, J. Magnani, B. Ernst, *Bioorg. Med. Chem.* **2008**, 16, 1046.
- “Fluorescent Trivalent Gal/GalNAc-containing Ligands Designed for the Asialoglycoprotein Receptor”  
O. Khorev, D. Stokmaier, O. Schwardt, B. Cutting, B. Ernst, *Bioorg. Med. Chem.* **2008**, 16, 5216-5231.
- “New sialyl Lewisx mimic containing an  $\alpha$ -substituted  $\beta$ 3-amino acid spacer”  
S. Pedatella, M. De Nisco, B. Ernst, A. Guaragna, B. Wagner, R.J. Woods, G. Palumboa, *Carbohydr. Res.* **2008**, 343, 31-38.
- “Consistent Bioactive Conformation of the Neu5Ac $\alpha$ (2→3)Gal Epitope Upon Lectin Binding”  
A. Bhunia, O. Schwardt, H. Gähjje, G.-P. Gao, S. Kelm, A.J. Benie, M. Hricovini, T. Peters, B. Ernst, *ChemBioChem* **2008**, 9, 2941-2945.
- “Binding Epitopes of Gangliosides to their Neuronal Receptor, Myelin-Associated Glycoprotein, from Saturation Transfer Difference NMR”  
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