13th German Peptide Symposium-Programme

Monday, 20 March 2017

12:00 – 14:00 Registration & Snacks

14:00 – 14:20 **Opening**
J. Eichler, Symposium Chair, FAU Erlangen-Nürnberg
Welcome Address
F. Paulsen, Vice President, FAU Erlangen-Nürnberg

Session 1: Peptide Pharmacology and Therapeutics
Chair: A. Kapurniotu, TU München/D, C. Becker, Universität Wien/A

14:20 – 15:05 **The P140 peptide as a modulator of autophagy in autoimmune and inflammatory diseases**
S. Muller
CNRS, Strasbourg/F

15:05 – 15:25 **Pharmacokinetic aspects of therapeutic peptides – Can we predict in vivo stability and activity by in vitro assays?**
D. Knappe[1]; R. Böttger[2]; R. Schmidt[2]; R. Hoffmann[1]
[1] Universität Leipzig/D; [2] Universität Leipzig/Fakultät für Physik und Geowissenschaften, Leipzig/D

15:25 – 15:45 **Peptide Dendrimer - Lipid Conjugates are efficient Transfection reagents for DNA and siRNA**
T. Darbre
University of Bern/CH

15:45 – 16:05 **Cytotoxic Peptide-Drug Conjugates for Targeted Therapy**
N. Sewald
Bielefeld University/D

16:05 – 16:35 Coffee Break

16:35 – 16:55 **New highly active and selective ligands for integrins αvβ6 and αvβ8 and its application in molecular imaging**
H. Kessler[1]; O. Maltsev[1]; T. Kapp[1]; F. Reichart[1]; M. Nieberler[2]; U. Reuning[2]; J. Notni[3]; H. Wester[3]
[1] TU München, Garching/D; [2] Klinikum rechts der Isar der TU München/D; [3] Pharmazeutische Radiochemie, Garching/D

16:55 – 17:15 **Urolinin - the first high potency linear urotensin-II analogue**
S. Bandholtz; S. Erdmann; J. von Hacht; S. Exner; C. Grötzinger
Charité – Universitätsmedizin Berlin/D

17:15 – 17:35 **Impact of Isosteric Backbone Modification of a Cyclic Antimicrobial Peptide on its Structure-Activity Attributes: Gramicidin S as a Case Study**
S. Mukherjee; J. Chatterjee
Indian Institute of Science, Bangalore/IND

Selected Short Poster talks (5 minutes each):

17:35 – 17:40 **Alkyne-rigidified crosslink to constrain irregular peptide secondary structures (P 004)**
K. Wallraven, Vrije Universiteit Amsterdam/NL

17:40 – 17:45 **Synthesis & analysis of β-peptides for the specific & non-specific aggregation on model membranes (P 009)**
G. Höger, Universität Göttingen/D

17:45 – 17:50 **Design of three residue loop in peptide hairpins and their remarkable self-assembly into supramolecular hydrogels (P014)**
S. Jadhav, Universität Bielefeld/D

17:50 – 17:55 **Mineralization of silica particles by divalent RRIL peptides (P 016)**
M. Kamalov, Universität Wien/A

17:55 – 18:00 **CPP-integrin ligand conjugates: a new drug delivery system to selectively target cancer cells (P 026)**
L. Feni, Universität zu Köln/D

18:00 – 18:05 **Modular Assembly of Cell Adhesive Peptides, Glycosaminoglycans and Signaling Proteins to Improve Cell-Titanium-Interactions (P 029)**
F. Dreher, Universität Leipzig/D

18:05 – 18:10 **Profiling the phosphotyrosine interactome of receptor tyrosine kinases (P 038)**
R. Zheng, TU München/D

18:10 – 18:15 **Exploring the structural basis of a peptide - peptide interaction (P 036)**
J. Lach, Universität Erlangen-Nürnberg/D

18:15 – 18:20 **Structure-based design of peptidomimetics as inhibitors of protein-protein interactions (P 041)**
A. Glas, Chemical Genomics Centre of the Max Planck Society, Dortmund/D

18:20 – 18:25 **Tailoring short peptidomimetics to disrupt protein-protein interactions targeting Protein Phosphatase 1 in vitro and in living cells (P 032)**
M. Fontanillo Dolz, EMBL Heidelberg/D

18:30 – 21:00 Poster Session I with Lite Bites and Beer
Presentation of even poster numbers

Tuesday, 21 March 2017

Session 2: Protein - Protein Interactions
Chair: N. Sewald, Universität Bielefeld/D, O. Seitz, Universität Berlin/D

09:00 – 09:45 **Detection of Intermolecular NOEs in Small and Large Protein/Peptide Complexes**
J. Anglister[1]; G. Srivastava[1]; M. Abayev[1]; A. Moseri[1]; N. Kessler[1]; B. Arshava[2]; F. Naider[2]
[1] Weizmann Institute of Science, Rehovot/IL; [2] College of Staten Island, City University of New York, Staten Island/USA

09:45 – 10:05 **Computational studies of the conformational stability and aggregation properties of the amyloid-β peptide**
E. Socher; A. Horn; H. Sticht
FAU Erlangen-Nürnberg, Erlangen/D

10:05 – 10:25 **Cross-amyloid interaction surface mimicks as inhibitors of amyloid self-assembly in cell degenerative diseases**
A. Kapurniotu
Technische Universität München, Freising/D

10:25 – 10:45 **Peptide binders based on complementary Armadillo Repeat Protein Fragments**
O. Zerbe; E. Michel; A. Plückthun
Universität Zürich /CH

10:45 – 11:15 Coffee Break

11:15 – 12:00 **Pathogen-Derived Class A Peptidomimetics as Inhibitors of Protein–Protein Interactions**
T. Grossmann
VU University Amsterdam/NL

12:00 – 12:20 **Peptide paratope mimics of the broadly neutralizing HIV-1 antibody b12**
B. Schmidt[1]; C. Haußner[2]; D. Damm[1]; A. Rohrhofer[1]; J. Eichler[2]
[1] Universität Regensburg /D; [2] FAU Erlangen-Nürnberg /D;

12:20 – 12:40 **Semisynthesis of Posttranslationally Modified Proteins**
C. Becker
Universität Wien/A

12:40 – 13:00 **Multicyclic Peptides: Excellent Mimics of Complex Protein Surfaces**
P. Timmerman
Pepscan Presto BV, Lelystad/NL

13:00 – 14:30 Lunch break (meals are not provided)

Session 3: Chemical Biology/Modifications of Proteins/Peptide Materials

Chair: S. Knauer, Universität Duisburg/Essen/D, H.-D. Arndt, Universität Jena/D

14:30 – 15:15 **New Chemical Strategies for Site-Selective Protein Modification**
M. Francis
UC Berkeley, Berkeley/USA

15:15 – 15:35 **Fast labeling of membrane proteins on live cells**
O. Seitz[1]; A. Beck-Sickinger[2]
[1] Humboldt-Universität Berlin/D; [2] Universität Leipzig/D

15:35 – 15:55 **Hapten-Directed Spontaneous Disulfide Shuffling for Site Specific Coupling of Payloads to Antibodies**
E. Hoffmann[1]; S. Dengl[1]; M. Grote[1]; C. Wagner[1]; O. Mundigl[1]; G. Georges[1]; I. Thorey[1]; K. Stubenrauch[1]; A. Bujotzek[1]; H. Josel[2]; S. Dziadek[2]; J. Benz[3]; U. Brinkmann[1]
[1] Roche Pharma Research & Early Development, Large Molecule Research, Roche Innovation Center Munich, Penzberg/D; [2] Roche Diagnostics GmbH, Penzberg/D; [3] Roche Pharma Research & Early Development, Roche Discovery Technologies, Basel, Basel/D

15:55 – 16:15 **Arginine side-chain modification that occurs during copper-catalysed azide-alkyne click reactions resembles an advanced glycation end product**
A. Conibear; K. Farbiarz; R. Mayer; M. Matveenko; H. Kählig; C. Becker
Universität Wien/A

16:15 – 16:45 Coffee Break

16:45 – 17:05 **Green- to Far-Red-Emitting Fluorogenic Tetrazine Probes – Synthetic Access and No-Wash Protein Imaging in Living Cells**
R. Wombacher; A. Wieczorek; P. Werther; J. Euchner
Ruprecht-Karls University, Heidelberg/D

17:05 – 17:25 **The influence of peptide-equipped tobacco mosaic virus on $CaCO_3$ mineralization**
D. Rothenstein[1]; E. Evgrafov[1]; G. Tovar[2]; F. Geiger[3]
[1] Universität Stuttgart/D; [2] Universität Stuttgart, IGVP, Stuttgart/D; [3] Max-Planck-Institut für Intelligente Systeme, Stuttgart/D

17:25 – 17:55 **Peroxidase-like activity of peptide-heme complexes compared to Abeta-heme**
A. Wißbrock
University of Bonn, Pharmaceutical Institute/D

18:00 – 20:00 Poster Session II with Lite Bites and Beer
Presentation of odd poster numbers

Wednesday, 22 March 2017

Session 4: Peptide Structure and Function
Chair: R. Süssmuth, TU Berlin/D, I. Neundorf, Universität Köln/D

09:00 – 09:45 **Unlocking the Mysteries of Amyloid Diseases with Macrocyclic β-Sheet Peptides**
J. Nowick
University of California, Irvine/USA

09:45 – 10:05 **Identification of the binding site of neuropeptide Y receptor agonists and antagonists**
A. Beck-Sickinger
Leipzig University/D

10:05 – 10:25 **Fluorinated amino acids in peptide and protein engineering**
B. Koksch[1]; S. Huhmann[1]; J. Völler[1]; N. Budisa[2]
[1] Freie Universität Berlin/D; [2] Technical University Berlin/D

10:25 – 10:45 **Computational prediction of protein-peptide interactions**
I. Antes; M. Glaser; S. Hecht; I. Ugur
Technische Univeristät München, Freising/D

10:45 – 11:15 Coffee Break

11:15 – 12:00 **Protein design from subdomain-sized fragments**
B. Höcker
Universität Bayreuth/D

12:00 – 12:20 **Virtual screening of naturally occurring antimicrobial peptides in milk and kefir**
T. Benninger, Y. Liu, S. Dalabasmaz, M. Pischetstrieder
Universität Erlangen-Nürnberg (FAU), Erlangen/D

12:20 – 12:40 **Cyclotheonamide E4-based β-Tryptase Inhibitors**
A. Heesemann[1]; D. Janke[1]; C. Sommerhoff[2]; N. Schaschke[3]
[1] Universität Bielefeld/D; [2] Klinikum der LMU, München/D; [3] Hochschule Aalen/D

12:40 – 13:00 **Self-association of the intrinsically disordered helix-loop-helix protein Id2**
C. Roschger[1]; S. Neukirchen[1]; M. Schubert[1]; C. Cabrele[1]
[1] Paris-Lodron Universität, Salzburg/A;

13:00 – 14:30 Lunch Break (meals are not provided)

Session 5: Peptides in Immunology/Glycopeptides/Peptide Carriers

Chair: V. Wittmann, Universität Konstanz/D, B. Koksch, FU Berlin/D

14:30 – 15:15 **Strategies for the Development of Effective Peptide Vaccines**
E. Bianchi
IRBM Science park, Pomezia/I

15:15 – 15:35 **PepID-focused BioDesign of peptides for epitope mapping microarrays in vaccine development by genome analysis**
A. Eberlin[1]; J. Maier[2]; H. Bernauer[1]
[1] ATG:biosynthetics GmbH, Merzhausen/D; [2] IStLS Information Services to Life Science, Obendorf a.N./D

15:35 – 15:55 **Semisynthesis of glycosylated human IgG1 Fc fragments via native chemical ligation**
E. Rozanski
University of Bayreuth/D

15:55 – 16:15 **Synthesis of Glycoforms of Human Erythropoietin**
S. Seeleithner; A. Gros; C. Gra; E. Rozansk; K. Gottwald; L. Perkams; M. Hessefort; D. Rau; L. Kern; C. Unverzagt
University of Bayreuth/D

16:15 – 16:45 Coffee Break

16:45 – 17:05 **Tuning the selectivity of cell-penetrating peptides**
I. Neundorf
Universität Köln/D

17:05 – 17:25 **Ten year experience in practical use of cell-penetrating peptides: Success, failure, problems and future developments**
S. Reissmann
Friedrich Schiller Universität Jena/D

17:25 – 17:45 **Optochemical Biology – In-situ Assembly of Macromolecular Complexes in Four Dimensions**
R. Wieneke
Goethe-Universität Frankfurt am Main/D

19:00 – 21:30 **Symposium Dinner with Live Music by Profs Night Big Band**
Osteria “La vita e bella”.
Address: An den Kellern 30, D-91054 Erlangen
Drinks (such as Beer, Wine and soft Drinks) are included in the price until 21:30 p.m

Poster prizes will be awarded

Thursday, 23 March 2017

Session 6: Peptide and Protein Synthesis
Chair: C. Cabrele, Paris-Lodron Universität, Salzburg/A, N. Schaschke, Hochschule Aalen/D

09:00 – 09:45 **Modifying peptides with supramolecular binding motifs: new structures and functions**
C. Schmuck
University of Duisburg-Essen, Essen/D

09:45 – 10:05 **Total Synthesis and Biological Activity of Microcystins**
V. Wittmann
Universität Konstanz/D

10:05 – 10:25 **Switching and Conformational Fixation of Amides Through Proximate Positive Charges**
A. Bartuschat; K. Wicht; M. Heinrich
FAU Erlangen-Nürnberg, Erlangen/D

10:25 – 10:45 **Peptide-based probes for histone deacetylases**
D. Schwarzer
University of Tübingen/D

10:45 – 11:15 Coffee Break

11:15 – 11:35 **Peptide antibiotics in host pathogen interactions – Bioynthesis, Bioactivities and Combinatorial Biosynthesis**
R. Süssmuth
TU Berlin/D

11:35 – 11:55 **Synthesis of Thymosin-α1 using CEPS: a Novel and Scalable Process**
M. Schmidt[1]; T. Nuijens[2]; A. Toplak[2]; P. Quaedflieg[2]
[1] University of Amsterdam/ EnzyPep BV, Geleen/NL; [2] EnzyPep BV, Geleen/NL

11:55 – 12:15 **New Processes and Tools for Expanding the Use of Microwave SPPS**
J. Collins; S. Singh; K. Porter; M. Karney
CEM Corporation, Matthews/USA

12:15 – 12:35 **Targeting Peptide Secondary Structures with Multicomponent Ligation and Cyclization Strategies**
A. Vasco Vidal[1]; M. García Ricardo[1]; D. García Rivera[2]; L. Wessjohann[1]
[1] Leibniz Institute of Plant Biochemistry, Halle (Salle)/D; [2] University of Havanna, Havanna/C

12:35 – 12:45 Farewell Address

12:45 End of Symposium

Poster:

P 001 **Optimized crude purity of cyclic melanocortin receptor agonist Melanotan II using induction heating**

D. Martinez[1]; C. Ramos-Colon[1]; J. Cain[1]
[1] Gyros Protein Technologies, Tucson/USA

P 002 **Efficient Cost-Effective Production of High Quality Peptides**

M. Hatam[1]; H. Saneii[2]; W. Bennett[3]; F. Karimi[3]
[1] AAPPTec LLC, Louisville/USA; [2] AAPPTec LLC, Louisville/D; [3] AAPPTec LLC, /D

P 003 **Novel hybrid biooligomers as artificial fusogens to dissect the mechanism of SNAREs in membrane docking and fusion**

A. Schirmacher[1]
[1] Georg-August-Universität Göttingen, Institut für Organische und Biomolekulare Chemie, Göttingen/D

P 004 **Alkyne-rigidified crosslink to constrain irregular peptide secondary structures**

K. Wallraven[1]; P. Cromm[2]; A. Fürstner[3]; T. Grossmann[4]
[1] Vrije Universiteit Amsterdam, Amsterdam/NL; [2] Max-Planck-Institute of Molecular Physiology,, Dortmund/D; [3] Max-Planck-Institute for Coal Research, Mülheim/Ruhr/D; [4] Vrije Univeriseit Amsterdam, Amsterdam/NL

P 005 **Orientation and assembly state of β-peptides as transmembrane domains**

D. Zanbot[1]
[1] Georg-August-Universität Göttingen, Institut für Organische und Biomolekulare Chemie, Göttingen/D

P 006 **Characterisation and incorporation of transmembrane β-peptides in lipid membranes**

D. Pahlke[1]; U. Rost[1]
[1] University of Göttingen, Göttingen/D

P 007 **Peptide-based structure-activity studies on G-protein coupled receptor 83 for elucidation of the signaling regulation mechanism**

V. Stulberg[1]; C. Grötzinger[2]; A. Müller[3]; G. Kleinau[3]; B. Koksch[1]
[1] Freie Universität Berlin, Institut für Chemie und Biochemie, Organische Chemie, Berlin/D; [2] Charité – Universitätsmedizin Berlin Med. Kl. m.S. Hepatologie und Gastroenterologie, Berlin/D; [3] Charité – Universitätsmedizin Berlin Institut für Experimentelle Pädiatrische Endokrinologie, Berlin/D

P 008 **Coiled-coil-based synthetic extracellular matrix for stem cell differentiation**

K. Hagen[1]; N. Ma[2]; B. Koksch[1]
[1] Freie Universität Berlin, Institut für Chemie und Biochemie, Organische Chemie, Berlin/D; [2] Helmholtz-Zentrum Geesthacht (HZG), Institut für Biomaterialforschung, Teltow/D

P 009 **Synthesis & analysis of β-peptides for the specific & non-specific aggregation on model membranes**
M. Wiegand; G. Höger
Georg August Universität, Göttingen/D

P 010 **Impact of fluorinated amino acids on the proteolytic stability of peptides**
S. Huhmann[1]; A. Stegemann[1]; V. Asante[1]; K. Folmert[1]; D. Klemczak[1]; M. Kube[1]; B. Koksch[1]
[1] Freie Universität Berlin, Institut für Chemie und Biochemie, Organische Chemie, Berlin/D

P 011 **1,5-disubstituted 1,2,3-triazoles as readily available cis-amide bond mimics for bent and cyclic peptidomimetics**
O. Kracker[1]; N. Sewald[1]
[1] Universität Bielefeld, Bielefeld/D

P 012 **Development of diagnostic tools to study aggregation processes in Amyotrophic lateral sclerosis (ALS) proteins**
V. Mrden[1]; U. Diederichsen[1]; F. Thomas[1]; K. Tittmann[2]; R. Schirmacher[1]
[1] Georg-August-Universität Göttingen, Institut für Organische und Biomolekulare Chemie, Göttingen/D; [2] Georg-August-University Göttingen, Schwann-Schleiden-Forschungszentrum Department of Molecular Enzymology, Göttingen/D

P 013 **Investigation of heme-peptide interactions to reveal sequence requirements for complex formation and prediction of new heme-regulated proteins**
H. Brewitz[1]; A. Wißbrock[1]; N. Goradia[2]; E. Schubert[3]; T. Kühl[1]; G. Hagelueken[3]; O. Schiemann[3]; O. Ohlenschläger[2]; D. Imhof[1]
[1] University of Bonn, Pharmaceutical Institute, Pharmaceutical Chemistry I, Bonn/D; [2] Leibniz Institute on Aging - FLI, Jena/D; [3] Institute of Physical and Theoretical Chemistry, University of Bonn, Bonn/D

P 014 **Design of three residue loop in peptide hairpins and their remarkable self-assembly into supramolecular hydrogels.**
S. Jadhav[1]; N. Sewald[1]
[1] Bielefeld University, Bielefeld/D

P 015 **Chemoenzymatic synthesis of RGD peptides**
I. Kemker[1]
[1] Universität Bielefeld, Bielefeld/D

P 016 **Mineralization of silica particles by divalent RRIL peptides**
M. Kamalov[1]; C. Becker[2]; C. Rentenberger[1]; P. Capel[1]
[1] University of Vienna, Vienna/A; [2] Institute of Biological Chemistry, University of Vienna, Vienna/A

P 017 **Design and Synthesis of small molecules to stabilize the SOD1-dimer regarding Amyotrophic Lateral Sclerosis**

U. Diederichsen[1]; F. Thomas[1]; K. Tittmann[2]; R. Schirmacher[1]; V. Mrden[1]
[1] Georg-August-Universität Göttingen, Institut für Organische und Biomolekulare Chemie, Göttingen/D; [2] Georg-August-Universität Göttingen, Göttingen/D

P 018 **Incorporation of Thioaspartic Acid into Proteins via Fmoc SPPS**

M. Schöwe[1]; V. Wittmann[1]
[1] Universität Konstanz, Konstanz/D

P 020 **Dihydroxylated Gramicidin S Derivatives – Antimicrobial Properties**

C. Priem[1]; A. Wuttke[1]; M. Berditsch[2]; A. Ulrich[2]; A. Geyer[1]
[1] Philipps-Universität Marburg, Marburg/D; [2] Karlsruhe Institute of Technology (KIT), Karlsruhe/D

P 021 **Regioselective Folding of Cycloviolacin O2 - A Novel Perspective for Drug Design**

T. Lindner[1]; U. Haberkorn[1]; W. Mier[1]
[1] Ruprecht-Karls-Universität und UniversitätsKlinikums Heidelberg, Heidelberg/D

P 022 **Synthesis and characterization of novel cell-permeable mitochondria targeting peptides**

A. Klimpel[1]; I. Neundorf[2]
[1] Institute for Biochemistry, University of Cologne, Cologne/D; [2] Institute of Biochemistry, University of Cologne, Cologne/D

P 023 **E-64c-hydrazide-based Cathepsin C Inhibitors: Optimizing the Interactions with the S1'-S2' Area**

N. Tromsdorf[1]; M. Grundhuber[2]; C. Sommerhoff[2]; N. Schaschke[1]
[1] Hochschule Aalen, Aalen/D; [2] Klinikum der LMU, München/D

P 024 **Auxiliary-Mediated Synthesis of Homogeneously Glycosylated Soluble Fas Ligand Variants**

A. Schmid[1]; C. Bello[1]; C. Becker[1]
[1] Institute of Biological Chemistry, University of Vienna, Vienna/A

P 025 **Urotensin-II and Urotensin-Related-Peptide: How to Decipher NMR-Data for Conformational Equilibria with Molecular Dynamics Simulation and Modeling**

E. Haensele[1]; C. Read[2]; D. Whitley[2]; L. Banting[2]; N. Mele[3]; M. Miljak[3]; J. Essex[3]; C. Delépée[4]; J. Sopkova-de Oliveira Santos[4]; A. Lepailleur[4]; R. Bureau[4]; T. Clark[5]
[1] University of Portsmouth, UK, Bad Rappenau/D; [2] University of Portsmouth, UK, Portsmouth/UK; [3] University of Southampton, Southampton/UK; [4] Université de Caen Basse-Normandie, Caen/F; [5] Friedrich-Alexander Uiversität Erlangen Nürnberg, Erlangen/D

P 026 **CPP-integrin ligand conjugates: a new drug delivery system to selectively target cancer cells**

L. Feni[1]; C. Robert[2]; U. Piarulli[2]; I. Neundorf[1]
[1] Institut für Biochemie, Universität zu Köln, Cologne/D; [2] Dipartimento di Scienza e Alta Tecnologia, Università degli Studi dell'Insubria, Como/I

P 027 **High Molecular Weight PEGylation of Human Pancreatic Polypeptide at Position 22 Improves Stability and Reduces Food Intake in Mice**

K. Bellmann-Sickert[1]
[1] Leipzig University, Leipzig/D

P 028 **Alzheimer: Modifying Amyloid beta**

H. Schramm[1]; W. Schramm[2]
[1] MPI Biochemie, ret., Oettingen/D; [2] LMU Munich, München/D

P 029 **Modular Assembly of Cell Adhesive Peptides, Glycosaminoglycans and Signaling Proteins to Improve Cell-Titanium-Interactions**

F. Dreher[1]; M. Pagel[1]; A. Beck-Sickinger[1]
[1] Universität Leipzig, Leipzig/D

P 030 **Structure-based design and synthesis of novel hydroxamates as dual histone deacetylases/ bromodomains epigenetic inhibitors**

E. Ghazy[1]; K. Schmidtkunz[2]; D. Robaa[3]; M. Schmidt[3]; M. Jung[2]; W. Sippl[3]
[1] Institute of Pharmacy, Martin Luther University, Halle-Wittenberg, Halle (Saale)/D; [2] Institute of Pharmaceutical Sciences, Albert-Ludwigs-University of Freiburg, Freiburg/D; [3] Institute of Pharmacy, Martin-Luther University of Halle-Wittenberg, Halle/Saale/D

P 031 **Enhanced Peptide Purification via novel Orthogonal, Doped Reverse Phase Chromatography**

J. Machielse[1]; A. Wild[1]; T. O`Mara[2]
[1] Zeochem AG, Uetikon am See/CH; [2] Itochu Chemicals America Inc., White Plains/USA

P 032 **Tailoring short peptidomimetics to disrupt protein-protein interactions targeting Protein Phosphatase 1 in vitro and in living cells**

M. Fontanillo Dolz[1]; M. Köhn[2]
[1] EMBL - European Molecular Biology Laboratory, Heidelberg, Heidelberg/D; [2] 2BIOSS-Center for Biological Signalling Studies, Department of Biology, University of Freiburg, Freiburg/D

P 033 **Short peptides derived from natural ligands and the binding domains of proteins in oncogenic pathways for the development of targeted theranostic nanoparticles**

L. Yang[1]; X. Guo[2]; W. Chen[2]; H. Zhou[2]; X. Mo[2]; Y. Wang[3]; M. Johns[2]; H. Mao[2]; H. Fu[2]

[1] Emory University School of Medicine, Atlanta, Gerogia,/USA; [2] Emory University School of Medicine, Atlanta/USA; [3] Ocean Nanotech LLC, San Diego/USA

P 034 **Characterization of the SpyTag – SpyCatcher Interaction**

J. Ludwig[1]; N. Ulm[1]; M. Pröschel[1]; H. Sticht[1]; U. Sonnewald[1]; J. Eichler[1]

[1] Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen/D

P 035 **Metal and Polyoxometalate Driven Assembly of a Tripeptide**

A. Gupta[1]; I. Avasthi[2]; S. Verma[2]

[1] Indian Institute of Technology Kanpur, KANPUR/IND; [2] Indian Institute of Technology Kanpur, Kanpur/IND

P 036 **Exploring the structural basis of a peptide - peptide interaction**

J. Lach[1]; R. Kling[1]; T. Clark[1]; J. Eichler[1]

[1] FAU Erlangen-Nürnberg, Erlangen/D

P 037 **Use of Peptide Nucleic Acids for the Chemoselective Ligation of Biomolecules**

J. Beutel[1]; J. Lach[2]; J. Eichler[2]

[1] FAU Erlangen-Nürnberg, Mühlhausen/D; [2] Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen/D

P 038 **Profiling the phosphotyrosine interactome of receptor tyrosine kinases**

R. Zheng[1]; B. Küster[1]

[1] Technische Universität München, Freising/D

P 039 **Exploring Viral Interference of GBV-C and HIV-1 using virus-protein derived Peptides**

R. Hoffmann[1]; J. Schaubächer[2]; B. Schmidt[2]; J. Eichler[1]

[1] FAU Erlangen-Nürnberg, Erlangen/D; [2] University of Regensburg, Regensburg/D

P 040 **Carbaborane Modified Peptide Ligands as Potential Boron Delivery Agents for BNCT**

P. Hoppenz[1]; S. Els-Heindl[2]; E. Hey-Hawkins[3]; A. Beck-Sickinger[2]

[1] University Leipzig, Leipzig/D; [2] University Leipzig, Institute of Biochemistry, Leipzig/D; [3] University Leipzig, Institute of Inorganic Chemistry, Leipzig/D

P 041 **Structure-based design of peptidomimetics as inhibitors of protein-protein interactions**

A. Glas[1]

[1] Chemical Genomics Centre of the Max Planck Society, Dortmund/D

P 042 **Development of fluorescent and isotopic probes for the specific protein detection in cells using mass spectrometric imaging and fluorescent super-resolution microscopy**

S. Kabatas[1]; F. Opazo[1]; K. Saal[2]; U. Diederichsen[3]; S. Rizzoli[1]
[1] Center for Biostructural Imaging of Neurodegeneration/ Department of Neuro- and Sensory Physiology, University Medical Center Göttingen, Göttingen/D; [2] Department of Neuro- and Sensory Physiology, University Medical Center Göttingen, Göttingen/D; [3] Institute for Organic and Biomolecular Chemistry, Georg-August University Göttingen, Göttingen/D

P 043 **The 2,2'-(ethylenedioxy)bis(ethylamine)-modified lipopeptides with high antimicrobial and moderate haemolytic activity**

M. Bauer[1]; D. Neubauer[2]; M. Jaskiewicz[2]; W. Kamysz[1]
[1] Lipopharm.pl, Zblewo/PL; [2] Medical University of Gdansk, Gdansk/PL

P 044 **IMMUNERT: New Approaches for Enzyme Replacement Therapy of Lysosomal Storage Diseases by Mass Spectrometric Identification of Antibody Epitopes**

M. Przybylski[1]
[1] Steinbeis Transfer Zentrum, Rüsselsheim am Main/D

P 045 **Human serum albumin modified by glucose: An immunochemical study**

K. Neelofar[1]; J. Ahmad[1]
[1] Aligarh Muslim University, Aligarh/IND