

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. Knappe¹; R. Böttger²; R. Schmidt²; R. Hoffmann¹

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 $\alpha v \beta 6$ and $\alpha v \beta 8$ and its application in molecular imaging**

H. Kessler¹; O. Maltsev¹; T. Kapp¹; F. Reichart¹; M. Nieberler²; U. Reuning²; J. Notni³; H. Wester³

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. Anglister¹; G. Srivastava¹; M. Abayev¹; A. Moseri¹; N. Kessler¹; B. Arshava²; F. Naider²
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. Schmidt¹; C. Haußner²; D. Damm¹; A. Rohrhofer¹; J. Eichler²
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. Seitz¹; A. Beck-Sickinger²
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. Hoffmann¹; S. Dengl¹; M. Grote¹; C. Wagner¹; O. Mundigl¹; G. Georges¹; I. Thorey¹; K. Stubenrauch¹; A. Bujotzek¹; H. Josel²; S. Dziadek²; J. Benz³; U. Brinkmann¹
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 CaCO₃ mineralization**
D. Rothenstein¹; E. Evgrafov¹; G. Tovar²; F. Geiger³
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. Kokschi¹; S. Huhmann¹; J. Völler¹; N. Budisa²
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 Universität 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. Pischetrieder
Universität Erlangen-Nürnberg (FAU), Erlangen/D
- 12:20 – 12:40 **Cyclotheonamide E4-based β -Tryptase Inhibitors**
A. Heesemann¹; D. Janke¹; C. Sommerhoff²; N. Schaschke³
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. Roschger¹; S. Neukirchen¹; M. Schubert¹; C. Cabrele¹
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. Kokschi, 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. Eberlin¹; J. Maier²; H. Bernauer¹
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. Rozanski; 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. Neundorff
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- α 1 using CEPS: a Novel and Scalable Process**
M. Schmidt¹; T. Nuijens²; A. Toplak²; P. Quaedflieg²
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 Vidal¹; M. García Ricardo¹; D. García Rivera²; L. Wessjohann¹
¹ Leibniz Institute of Plant Biochemistry, Halle (Salle)/D; ² University of Havana, Havana/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. Martinez¹; C. Ramos-Colon¹; J. Cain¹
¹ Gyros Protein Technologies, Tucson/USA
- P 002 **Efficient Cost-Effective Production of High Quality Peptides**
M. Hatam¹; H. Saneii²; W. Bennett³; F. Karimi³
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. Schirmacher¹
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. Wallraven¹; P. Cromm²; A. Fürstner³; T. Grossmann⁴
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 Univeriteit Amsterdam, Amsterdam/NL
- P 005 **Orientation and assembly state of β -peptides as transmembrane domains**
D. Zanbot¹
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. Pahlke¹; U. Rost¹
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. Stulberg¹; C. Grötzinger²; A. Müller³; G. Kleinau³; B. Kokschi¹
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. Hagen¹; N. Ma²; B. Kokschi¹
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. Huhmann¹; A. Stegemann¹; V. Asante¹; K. Folmert¹; D. Klemczak¹; M. Kube¹; B. Kokschi¹
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. Kracker¹; N. Sewald¹
¹ Universität Bielefeld, Bielefeld/D
- P 012 **Development of diagnostic tools to study aggregation processes in Amyotrophic lateral sclerosis (ALS) proteins**
V. Mrden¹; U. Diederichsen¹; F. Thomas¹; K. Tittmann²; R. Schirmacher¹
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. Brewitz¹; A. Wißbrock¹; N. Goradia²; E. Schubert³; T. Kühl¹; G. Hagelueken³; O. Schiemann³; O. Ohlenschläger²; D. Imhof¹
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. Jadhav¹; N. Sewald¹
¹ Bielefeld University, Bielefeld/D
- P 015 **Chemoenzymatic synthesis of RGD peptides**
I. Kemker¹
¹ Universität Bielefeld, Bielefeld/D
- P 016 **Mineralization of silica particles by divalent RRIL peptides**
M. Kamalov¹; C. Becker²; C. Rentenberger¹; P. Capel¹
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. Diederichsen¹; F. Thomas¹; K. Tittmann²; R. Schirmacher¹;
V. Mrden¹
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 SPSS**
M. Schöwe¹; V. Wittmann¹
¹ Universität Konstanz, Konstanz/D
- P 020 **Dihydroxylated Gramicidin S Derivatives – Antimicrobial Properties**
C. Priem¹; A. Wuttke¹; M. Berditsch²; A. Ulrich²; A. Geyer¹
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. Lindner¹; U. Haberkorn¹; W. Mier¹
¹ Ruprecht-Karls-Universität und UniversitätsKlinikums Heidelberg, Heidelberg/D
- P 022 **Synthesis and characterization of novel cell-permeable mitochondria targeting peptides**
A. Klimpel¹; I. Neundorf²
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. Tromsdorf¹; M. Grundhuber²; C. Sommerhoff²; N. Schaschke¹
¹ Hochschule Aalen, Aalen/D; ² Klinikum der LMU, München/D
- P 024 **Auxiliary-Mediated Synthesis of Homogeneously Glycosylated Soluble Fas Ligand Variants**
A. Schmid¹; C. Bello¹; C. Becker¹
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. Haensele¹; C. Read²; D. Whitley²; L. Banting²; N. Mele³; M. Miljak³; J. Essex³; C. Delépée⁴; J. Sopkova-de Oliveira Santos⁴; A. Lepailleur⁴; R. Bureau⁴; T. Clark⁵
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 Universität Erlangen Nürnberg, Erlangen/D

- P 026 **CPP-integrin ligand conjugates: a new drug delivery system to selectively target cancer cells**
L. Feni¹; C. Robert²; U. Piarulli²; I. Neundorff¹
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-Sickert¹
¹ Leipzig University, Leipzig/D
- P 028 **Alzheimer: Modifying Amyloid beta**
H. Schramm¹; W. Schramm²
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. Dreher¹; M. Pagel¹; A. Beck-Sickinger¹
¹ Universität Leipzig, Leipzig/D
- P 030 **Structure-based design and synthesis of novel hydroxamates as dual histone deacetylases/ bromodomains epigenetic inhibitors**
E. Ghazy¹; K. Schmidtkunz²; D. Robaa³; M. Schmidt³; M. Jung²; W. Sippl³
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. Machielse¹; A. Wild¹; T. O'Mara²
¹ Zeechem 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 Dolz¹; M. Köhn²
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. Yang¹; X. Guo²; W. Chen²; H. Zhou²; X. Mo²; Y. Wang³; M. Johns²; H. Mao²; H. Fu²
¹ Emory University School of Medicine, Atlanta, Georgia, 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. Ludwig¹; N. Ulm¹; M. Pröschel¹; H. Sticht¹; U. Sonnewald¹; J. Eichler¹
¹ Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen/D
- P 035 **Metal and Polyoxometalate Driven Assembly of a Tripeptide**
A. Gupta¹; I. Avasthi²; S. Verma²
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. Lach¹; R. Kling¹; T. Clark¹; J. Eichler¹
¹ FAU Erlangen-Nürnberg, Erlangen/D
- P 037 **Use of Peptide Nucleic Acids for the Chemoselective Ligation of Biomolecules**
J. Beutel¹; J. Lach²; J. Eichler²
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. Zheng¹; B. Küster¹
¹ Technische Universität München, Freising/D
- P 039 **Exploring Viral Interference of GBV-C and HIV-1 using virus-protein derived Peptides**
R. Hoffmann¹; J. Schaubächer²; B. Schmidt²; J. Eichler¹
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. Hoppenz¹; S. Els-Heindl²; E. Hey-Hawkins³; A. Beck-Sickingher²
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. Glas¹
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. Kabatas¹; F. Opazo¹; K. Saal²; U. Diederichsen³; S. Rizzoli¹
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. Bauer¹; D. Neubauer²; M. Jaskiewicz²; W. Kamysz¹
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. Przybylski¹
¹ Steinbeis Transfer Zentrum, Rüsselsheim am Main/D
- P 045 **Human serum albumin modified by glucose: An immunochemical study**
K. Neelofar¹; J. Ahmad¹
¹ Aligarh Muslim University, Aligarh/IND