

| | | |
|--|------------------------------------|----|
| Ak, Ceylan | Presenter: Kilic Eren, Mehtap | |
| Oncogenic PPM1D/WIP1 Phosphatase enhances the induction of basal and chemotherapy-induced autophagy in cancer cells | | 40 |
| Albitz, Evelin | | |
| Bioorthogonal ligation-activated fluorogenic FRET dyads | | 41 |
| Antonenko, Anastasiia | | |
| New efficient enzymatic strategy for the semisynthesis of metallothionein | | 42 |
| Ballhaus, Florentine | Presenter: Dauphinee, Adrian | |
| Leveraging chemical genetics to modulate and unravel plant autophagy | | 43 |
| Bartsch, Simon | | |
| Characterization of PPIP5Ks using pharmacological and chemical biology approaches | | 44 |
| Beaussart, Audrey | Presenter: Rahuel-Clermont, Sophie | |
| Probing the mechanism of the peroxiredoxin decamer interaction with its reductase sulfiredoxin from the single molecule to the solution scale | | 45 |
| Bhattacharjee, Rajanya | | |
| Film-like designer membraneless organelles enable spatial separation of eukaryotic translation | | 46 |
| Bilgen, Nüket | | |
| Identification with a synthetic DNA barcode, DNAidCode | | 47 |
| Bottone, Sara | | |
| A chemogenetic fluorescent reporter for observing ternary interactions | | 48 |
| Brustur, Delia | | |
| Discovery and development of Rab27A covalent inhibitors | | 49 |
| Busquets, Carla | | |
| Using hydroxylamines for the study of S-acylation | | 50 |

| | | |
|---|---------------------------------------|----|
| Caesar, Lindsay | Presenter: Dainko, David | |
| Correlative-based metabologenomics strategy for identification of fungal secondary metabolite and gene cluster family linkages | | 51 |
| Canyelles, Francesca | | |
| Fluorescent probes for the simultaneous detection of pairs of analytes in live cells | | 52 |
| Ceeney, Georgia | | |
| Monitoring the kynurenine pathway using fluorescence spectroscopy | | 53 |
| Chen, Yong | | |
| Multivalent PROTACs comprising two ubiquitin E3 ligase recruiters and two target protein ligands exhibit strongly improved targeted protein degradation efficiency | | 54 |
| Chen, Yushu | | |
| Defining the key role of trehalose in mycolic acid biosynthesis and transport in mycobacteria | | 55 |
| Cheng, Xinlai | | |
| Targeting splicing factor 3B1 by a proteolysis-targeting chimeras (PROTAC) | | 56 |
| Claudel, Anne-Lise | | |
| In vitro and in cellulo characterization of the sulfide oxidation unit (SOU) complex using fluorescence methods | | 57 |
| Cook, Alex | | |
| Hybrid Molecular Probes for Photoacoustic Imaging | | 58 |
| Cortez, Jeremy | | |
| Biosensor for branched-chain amino acid metabolism in yeast and applications in isobutanol and isopentanol production | | 59 |
| Coupland, Claire | Presenter: Andrei, Sebastian | |
| Structure and mechanism of hedgehog acyltransferase | | 60 |
| Date, Amrita | Presenter: Wall, Archie; Date, Amrita | |
| Affinity-based protein profiling of MDM2 inhibitors | | 61 |

| | |
|---|--------------------------------|
| De Vita, Elena | |
| Structure-based design of the first targeted covalent inhibitors that engage the small GTPase Rab27 in cellulo | 62 |
| Debon, Aaron | |
| Directed evolution using microfluidic droplet sorting | 63 |
| Deen, Matthew | |
| A versatile fluorescence-quenched substrate for quantitative measurement of glucocerebrosidase activity within live cells | 64 |
| Dehghan Harati, Helia | |
| Defining the machinery underlying up- and down-regulation by miRNA | 65 |
| Durairaj, Thiyagarajan | |
| Combinatorial effect of PqsR inhibitors with tobramycin-loaded squalene hydrogen sulphate nanoparticles on Pseudomonas aeruginosa 14 biofilm | 66 |
| Eid, Mohammad | |
| Using the heme peroxidase APEX2 to probe intracellular H₂O₂ flux and diffusion | 67 |
| El Hajji, Lina | |
| Directed evolution of near-infrared fluorescent chemogenetic reporters for deep tissue imaging in vivo | 68 |
| Ferro, Elsi | Presenter: Campa, Carlo Cosimo |
| Mapping the surface organization of endocytic structures using biomolecular switches | 69 |
| Freund, Niklas | |
| Unlocking enzymatic synthesis and evolution of 2'-O-methyl- and 2'-O-(2-methoxyethyl)-RNA by polymerase engineering | 70 |
| Fujioka, Hiroyoshi | |
| Multicolor activatable Raman probes for detecting enzyme activities in live-cells or tissues | 71 |

| | | |
|---|--------------------------|----|
| Fujita, Kyohhei | | |
| Identification and utilization of α-mannosidase 2C1 as a biomarker enzyme for rapid and clinical fluorescence imaging of breast tumors | | 72 |
| Ghonaim, Lobna | Presenter: Ziko, Laila | |
| Mining biosynthetic gene clusters for detecting novel bioactive molecules from microbial metagenomes | | 73 |
| Gilormini, Pierre-André | | |
| Activity-based high-throughput screening in live cells for the discovery of biological modulators of lysosomal glycosidase glucocerebrosidase | | 74 |
| Ging, Kathi | | |
| Identification of transcription factors regulating β-glucocerebrosidase activity | | 75 |
| Giofrè, Sabrina | | |
| Halogen-containing non-canonical amino acids as genetically encoded tool for measuring intrinsically disordered protein dimensions through (A)SAXS measurement | | 76 |
| Gorski, Christopher | | |
| The structure of the physcomitrium patens photosystem I reveals unique Lhca2 paralog replacing Lhca4 | | 77 |
| Gray, Janine | | |
| Novel inhibitors of efflux pump NorA to target antimicrobial resistance | | 78 |
| Green, Ori | | |
| Activity-based molecular CO₂ sensing | | 79 |
| Grenier, Vincent | | |
| Chemigenetic mapping of neurotransmission using a split self-labeling protein | | 80 |
| Grethe, Christian | Presenter: Gersch, Malte | |
| Structural basis for specific inhibition of the deubiquitinase UCHL1 | | 81 |

| | | |
|---|-----------------------------|----|
| Grethe, Christian | | |
| Structural basis for specific inhibition of the deubiquitinase UCHL1 | | 82 |
| | | |
| Gülseren, Gülcihan | | |
| Highly versatile carbon platform for mimicking and understanding of natural enzymes | | 83 |
| | | |
| Gutierrez-Rus, Luis I | Presenter: Risso, Valeria A | |
| Rapid engineering of efficient de novo catalysis using ancient proteins | | 84 |
| | | |
| Halfin, Olga | | |
| Artificial protein-protein communication with bifunctional molecules that exchange binding partners | | 85 |
| | | |
| Harmel, Robert | | |
| EU-OPENSREEN ERIC: A collaborative approach to accelerate chemical tool discovery | | 86 |
| | | |
| Hassan, Sarah | | |
| Deconvoluting prenylation switch dynamics of Ras oncogenes using dual chemical isoprenoid probes | | 87 |
| | | |
| He, Nianzhe | | |
| Identifying the targets of (oxy)sterols by targeted protein degradation | | 88 |
| | | |
| Hegedus, Zsafia | | |
| Influence of CITED2 backbone modifications on the allosteric regulation of the p300/HIF-1alpha inhibition | | 89 |
| | | |
| Hellweg, Lars | | |
| ChemoX-NAD – a palette of multicolor biosensors to multiplex subcellular NAD+ pools in real-time | | 90 |
| | | |
| Hellweg, Lars | Presenter: Hiblot, Julien | |
| ChemoX: a chemogenetic platform of FRET pairs for the rapid development of biosensors offering tunable wavelengths and multi-modal readout | | 91 |

| | |
|--|-----|
| Hennigan, Sean Thomas | |
| Fluorinated rhodamine dyes as ligands for self-labeling proteins | 92 |
| Holland, Katie | |
| Rational design and synthesis of tuned hydroxymethyl-Si-rhodamines for single-molecule localization microscopy | 93 |
| Huang, Kuan-Ting | |
| Zebrafish-REX enables precision interrogation into electrophilic metabolite/drug-regulated pathways | 94 |
| Ito, Ren | |
| Fluorescence imaging of LAT1-expressing cancer cells based on intracellular click reaction | 95 |
| Jain, Prashant | |
| Directed evolution approach to study complex kinase signaling | 96 |
| Jansen, Suzanne | |
| Toward a phenotypic selection platform for the continuous evolution of biocatalysts | 97 |
| Jimenez Lopez, Cristina | |
| Reconstituting lipid asymmetry in a minimal model membrane | 98 |
| Kallemeijn, Wouter | |
| From foe to friend: In vivo reprogramming of tumor-associated macrophages to an anti-cancer phenotype by modulating N-myristoyltransferase activity | 99 |
| Karpenko, Julie | |
| Fluorogenic probes for background-free live-cell imaging of GPCRs | 100 |
| Ketprasit, Nutpakal | |
| Targeting <i>Plasmodium falciparum</i> tRNA charging to combat malaria | 101 |
| Kirchgässner, Sören | |
| Acetyl-lysine mimicking amino acids for bromodomains | 102 |

| | |
|--|-----------------------|
| Kompa, Julian | |
| Exchangeable HaloTag Ligands (xHTLs) for multi-modal super-resolution fluorescence microscopy | 103 |
| (Kröber) Aguirre, Tim | |
| Identification of an isoform-selective IP6K inhibitor by unconventional gatekeeper mutation and high-throughput screening | 104 |
| Kuhn, Sascha | |
| Quantitative calcium imaging & information processing in GPCR mediated signalling | 105 |
| Kühn, Stefanie | |
| Engineering toward SNAP-tag 2.0 for super-resolution imaging | 106 |
| Laurent, Arthur | |
| Photoactivatable Spexin derivatives to study the implication of GALR2 in non-opioid pain pathways | 107 |
| Lenz, Thomas | |
| Utilizing similar isothermal dose-responses from thermal proteome profiling to determine protein-protein interactions in living cells by smarTPCA | 108 |
| Leveson-Gower, Reuben | |
| Artificial enzyme iminium catalysis | 109 |
| Li, Lanxin | Presenter: Qiao, Yuan |
| Chemoenzymatic probes reveal peptidoglycan recognition and uptake mechanisms in Candida albicans | 110 |
| Lim, Zhong Hui | |
| Enantioselective engineering at the single-molecule level | 111 |
| Lin, Weifeng | |
| Unique chemoselective probes for discovery and investigation of metabolites in human samples with enhanced mass spectrometric sensitivity | 112 |

| | |
|--|-----|
| Lin, Yin-Hsi Toward efficient endogenous protein tagging using a peptide-based split HaloTag7 | 113 |
| Mahia Moros, Alejandro A stable α-lactam as electrophilic warhead for bioconjugation and proteomic profiling | 114 |
| Majid, Aatikah Switch-on/switch-off optical probes for different DNA topologies | 115 |
| Malde, Roshni Novel quantitative methodology for studying inhibition of protein-protein interactions | 116 |
| Mandi, Chandra Sova Targeting DNA abasic sites with aminoquinoxaline compound induces cytotoxicity and DNA damage in combination with chlorambucil in HCT116 cells | 117 |
| Mao, Runyu Robust methodology for assembling peptides and proteins with tryptophan C-mannosylation | 118 |
| Marker, Teresa Zinc finger proteins are novel targets of proton pump inhibitors | 119 |
| Mathieu, Julie Comparative analysis of the regulation of <i>saccharomyces cerevisiae</i> thiol peroxidases Tsa1 and Tsa2 by sulfinylation | 120 |
| Menon, Anjana Peethambaran Mycobacterial membrane-derived liposomes for high throughput drug screening | 121 |
| Mortishire-Smith, Ben A photoredox reaction for the selective detection of 5-carboxycytosine in DNA | 122 |
| Moyano Villameriel, Jaime Understanding the activity of polyether ionophore lasalocid acid | 123 |

| | |
|---|-----|
| Mukherjee, Mandrita CircRNAs act as let-7 miRNA decoy in fetal hemoglobin regulation | 124 |
| Mutabdzija, Lana Unraveling diterpenoid alkaloid biosynthesis in Aconitum | 125 |
| Nguyen Trung, Minh Unraveling inositol polyphosphate metabolism with ¹³C-isotopomers | 126 |
| Ngwadam, Chiagoziem Engineering designer pyrroloquinoline quinone glucose dehydrogenase-based tools via functional complementation in auxotrophic E. coli | 127 |
| Olesinska, Magdalena Development of photoswitchable probes for fluorescence imaging in deep tissue | 128 |
| Oppewal, Titia Rixt Selection of chemically-upgraded macrocyclic peptides by phage display | 129 |
| Perina, Miroslav Production of transferases for ligand discovery and structural biology | 130 |
| Petracca, Rita RaPID selection of novel macrocyclic peptides as modulators of Rab27a-effector interactions | 131 |
| Porebski, Bartlomiej Phenotypic screening in ALS - alleviating toxicity of di-peptide repeats | 132 |
| Pöschko, Philipp Novel plant hormone-based chemical inducers of proximity for in vivo applications | 133 |

| | |
|---|--|
| Quast, Robert B. | |
| Dissection of metabotropic glutamate receptor activation by single molecule FRET using minimally invasive click chemistry | 134 |
| Rahaman, Motiur | |
| Single nucleotide polymorphisms(SNPs) as clinical predictors of phenotypic heterogeneity in HbE/β-thalassemia disease | 135 |
| Rakotoarison, Louise-Marie | |
| Improving chemogenetic reporters of protein-protein interactions using orthologous proteins | 136 |
| Rasmussen, Michelle Hundevad | |
| Studies of the biosynthetic machinery underlying a cryptic C-H oxidation within the lysocellin polyether ionophore family | 137 |
| Rehkopf, Luisa | |
| Probing readers and erasures of protein acetylation with peptide substrates containing acetyl-lysine derivatives | 138 |
| Resnick, Efrat | |
| Novel covalent technologies for challenging protein targets | 139 |
| Revuru, Bharadwaj | |
| Transcription factor engineering to manipulate the expression of carnosol biosynthetic pathway genes to enhance the diterpenoid content in <i>Salvia officinalis</i> | 140 |
| Richter, Annika | |
| Deciphering inositol polyphosphate-protein interactions using non-covalent probes | 141 |
| Rimbault, Charlotte | Presenters: Darribere, Manon; Trivunovic, Ivana |
| Directed protein evolution and engineering for the investigation of endogenous synaptic proteins | 142 |
| Saibo, Nikita Veronica | |
| Study of the molecular basis of function and regulation of Hox transcription factors SCR and HoxA9 | 143 |

| | | |
|--|------------------------------|-----|
| Sánchez, Maria Florencia | | |
| Ligand-free in situ confinement for GPCR activation and signal transduction | | 144 |
| Sander, Philipp | | |
| PhenoDEL: towards Phenotypic DNA-encoded chemical library selections in mammalian cells | | 145 |
| Schilling, Danny | | |
| Commonly used alkylating agents limit persulfide detection by converting protein persulfides into thioethers | | 146 |
| Sharma, Gaurav | | |
| High-throughput screening for small molecule inhibitor of the PCNA ubiquitination cascade | | 147 |
| Sharma, Sachi | | |
| Target-directed synthesis of α-helix mimetics | | 148 |
| Singh, Avinash Kumar | | |
| Highly efficient sortase-A and Ulp1-mediated purification method for the expression and purification of recombinant human MT3 in bacterial system | | 149 |
| Smalley, Joshua | Presenter: Hodgkinson, James | |
| Chemical degrader probes for class I histone deacetylase enzymes in a 'complex' environment | | 150 |
| Sun, Deen | | |
| Engineering of chemogenetic integrators for imaging kinase activities | | 151 |
| Svenningsen, Esben | | |
| The covalent reactivity of functionalized 5-hydroxy-butyrolactams underlies is the basis for targeting of FABP5 by the neurotrophic agent MT-21 | | 152 |
| Swietlikowska, Anna | | |
| Conformational nanoswitches for continuous biosensing | | 153 |

| | |
|--|-----------------------------|
| Tan, Yaw Bia | |
| Molecular architecture of chikungunya virus replication complexes for antiviral therapeutic development | 154 |
| Tang, Cong | |
| Natural product Piperlongumine inhibits SARS-CoV-2 by selectively ROS induction | 155 |
| Teslenko, Alexandra | |
| Single-molecule enzymology study of chromatin ubiquitination by PRC1 | 156 |
| Thoidingjam, Leishemba Khuman | |
| Small molecule inhibitors of interferon-induced JAK-STAT signalling | 157 |
| Tobias, Janelle | |
| Unraveling endocannabinoid signaling in pancreatic β-cells with Optically-Cleavable Targeted (OCT)-ligands | 158 |
| Tököli, Attila | |
| Two anchor point binding of the SSB C-terminal to DNA metabolizing proteins facilitates development of enhanced inhibitors | 159 |
| Tomkins, Josh | |
| Targeting DNA replication in cancer via peptide-based inhibition of origin licensing | 160 |
| Trobe, Melanie | Presenter: Breinbauer, Rolf |
| A modular approach for the synthesis of a comprehensive library of teraryl-based alpha-helix mimetics | 161 |
| Vaidya, Kaveri | |
| ABHD14B - a novel lysine deacetylase | 162 |
| van der Veer, Harm | |
| RPA-LUNAS: rapid one-pot bioluminescent nucleic acid detection based on isothermal amplification and dCas9-induced split luciferase complementation | 163 |

| | | |
|---|-------------------------------------|-----|
| Walterspiel, Franziska | | |
| Hybrid photoswitchable fluorophores for biological imaging | | 164 |
| Weiss, Lucille | | |
| Fluorescent turn-on detection of bacteria with targeted bioconjugates | | 165 |
| Wendt, Mathias | Presenter: Yeste Vazquez, Alejandro | |
| β-Sheet mimetics that Target the Transcriptional Coactivator β-Catenin | | 166 |
| Westberg, Michael | | |
| Photoswitchable repeat protein binders | | 167 |
| Wilhelm, Jonas | | |
| Mapping neuronal connectivity and synaptogenesis with a computationally engineered split HaloTag | | 168 |
| Yeh, Johannes | | |
| Reshaping kinase accessibility by peptide macrocycles to achieve target efficacy | | 169 |
| Yönet, Nilay | | |
| Unraveling unknowns of plant secondary metabolites through retrosynthesis | | 170 |
| Zanon, Patrick R. A. | Presenter: Hacker, Stephan | |
| Profiling the proteome-wide selectivity of diverse electrophiles | | 171 |
| Zeisel, Lukas | Presenter: Thorn-Seshold, Oliver | |
| Probes for dithiol/disulfide oxidoreductase activity: regiocontrolled reactivity dictates enzyme-selectivity | | 172 |
| Bhowmick, Chiranjib | | |
| ML ACP: Detection of Anti cancer peptides using PELF for cancer therapeutics | | 173 |