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Monday, 22 April 2024 (times in CEST)

15:00 - 16:30	**Virtual Event - Selected Presentations** Virtual Selected Presentations	
	15:00 - 15:20 Epigenome Editing for the Effective Treatment of HBV	ID 175 Brian Cosgrove Tune Therapeutics
	15:20 - 15:40 Advances and Challenges of Next-Generation CRISPR Gene-Editing Technology for Drug Development	ID 176 Alvin Luk HuidaGene Therape...
	15:40 - 15:45 GeneAbacusTM: A Novel PCR-free Assay for Gene Editing Validation	ID 186 Iván Hernández Countagen
	15:45 - 16:05 A New Approach to Tackle Cancer Using Programmable Cytotoxic Nucleases	ID 182 Michael Krohn Akribion Genomics
	16:05 - 16:25 EMA's Experience & Support to the Development of Medicinal Products Using Genome Editing	ID 181 Veronika Jekerle European Medicine...
16:30 - 16:40	**Virtual Coffee Break**	
16:40 - 18:00	**Virtual Event - Poster Session** Virtual Poster Session	
	Polyplex-based CRISPR/Cas9 In Vivo Mutagenesis for Efficient Lung Cancer Modeling in Rodents	ID 15 Mirentxu Santos Biomedical Innova...
	CRISPR-Mediated Inactivation of Faah and Magl in Peripheral Nociceptive Neurons: Towards Modulating Endocannabinoid Levels for Pain Control.	ID 17 Diana de Prado-Verdún Unidad de Innovac...
	Disruption of Epidermal Growth Factor Binding Site by Sequential Knock in CRISPR/Cas9 Genome Editing of Epidermal Growth Factor Receptor and Evaluation of Introduced Mutations in Cervical Cancer Cells	ID 29 Jelena Popovic Radiation Oncolog...
	Predicting Off-Target Activity in the CRISPR/Cpf1 System Using Multilayer Perceptron	ID 53 Pragya Kesarwani Regional Centre f...
	Enhancing CRISPR-Cas9-Mediated Homology-Directed Repair Using Modified sgRNAs	ID 72 Eyemen Kheir University of Trento
	Prenatal In Vivo Base Editing for the Treatment of Krabbe Disease	ID 78 Asma Naseem 1Department of In...
	EDSpliCE: A Novel Gene Editing Platform Holding Therapeutic Potential for Splicing Modulation in Inherited Retinal Disorders	ID 83 Pietro De Angeli Institute for Oph...
	CRISPR/Cas9 Based Knock-In/Knock-Out of RAG2 Gene in Jurkat Cells as Model for Genome Editing Screening	ID 88 Zeinab Yousefi-Najafabadi Department of Med...

Tuesday, 23 April 2024 (times in CEST)

12:30 - 14:00	**Doors will open**	
14:00 - 14:15	**Welcome and opening address by CMN** Main Stage	
14:15 - 15:00	**Keynote Lecture - Precision Genetic Engineering of Hematopoiesis by Gene Editing Tools** Main Stage	
	Precision Genetic Engineering of Hematopoiesis by Gene Editing Tools	ID 137 Luigi Naldini San Raffaele Tele...
15:00 - 15:15	**Coffee Break** Main Stage	
15:15 - 17:45	**Selected talks - one featured presentation from each track** Main Stage *Chairs: Alessia Cavazza (University College London) and Marcello Maresca (AstraZeneca)*	
	15:15 - 15:40 Transforming Gene Therapy From the Few to the Many	ID 152 Karina Thorn Novo Nordisk
	15:40 - 16:05 Identification and Evolution of Novel CRISPR-Cas9 Systems From the Human Microbiome	ID 125 Anna Cereseto Department of Cel...
	16:05 - 16:30 Connecting Innovators: CA21113 2nd Year Journey in Fostering Collaborative Networks for Breakthroughs in Genome Editing to Treat Human Diseases (GenE-Humdi COST action)	ID 163 Karim Benabdellah El Khlanji GENYO, Centre for...
	16:30 - 16:55 Precisely Edited Primary Human Muscle Stem Cells as an ATMP in Muscular Dystrophies	ID 145 Simone Spuler Charité Universit...
	16:55 - 17:20 New Insights Into On- And Off-Target Effects of Genome Editing Tools	ID 146 Toni Cathomen University Freiburg
	17:20 - 17:45 CRISPR-Based Functional Genomic Characterization of Mechanisms of Action of Degraders for Targeted Protein Degradation	ID 142 Seung Wook Yang AMGEN
17:45 - 20:00	**Poster Session / Networking Session with Snack** Poster Area	
17:50 - 18:30	**Poster Session A**	
	Highly efficient gene editing in human primary T cells using novel CRISPR effectors from the human microbiome	ID 91 Antonio Carusillo Alia Therapeutics...
	Implementation of TRuC T cells for the treatment of prostate cancer	ID 94 Carla Fuster-Garcia Institute for Tra...

Engineered baculoviral protein and DNA delivery platform for large DNA cargo integration and enhanced gene editing in human cells	ID 95 Francesco Aulicino University of Bri...
On- and off-target effects of paired CRISPR-Cas nickase in primary human cells	ID 96 Julia Klermund Institute for Tra...
Highly efficient and precise gene expression regulation using miniaturized CRISPR-Cas systems	ID 97 Yeounsun Oh Department of Lif...
Deciphering layers of innate immune regulation by genome-wide CRISPR/Cas9 screens	ID 98 Emil Aagaard Thomsen Department of Bio...
Harnessing the diversity of CRISPR-Cas proteins for genome editing	ID 100 Giedrius Gasiunas CasZyme, Vilnius,...
Insights to Cas9-induced host immune activation	ID 101 Virpi Stigzelius Clinical Pharmaco...
Enzymatic synthesis of ultra-pure long single-stranded DNA to enable Cell and Gene Therapies at scale	ID 102 Cosimo Ducani Moligo Technologies
Nomination of Genome-Wide CRISPR-Cas9 Cleavage Activity using rhAmp Technology	ID 103 Garrett Rettig Integrated DNA Te...
CRISPR-Cas9-Mediated WBP2 Knockout Modulates Tamoxifen Resistance Estrogen Receptor Positive Breast Cancer Cells via the Hippo Pathway	ID 104 Ebrucan Bulut Bursa Uludag Univ...
EDSpliCE effectively corrects mis-splicing caused by an exonic variant in ABCA4	ID 105 Arturo Flores-Tufiño Institute for Oph...
GeneAbacus: A novel PCR-free assay for validation of CRISPR-Cas gene editing efficiency with single nucleotide precision	ID 106 Felix Neumann Countagen AB, Nob...
Engineered VLPs facilitates effective delivery of adenine base editor to correct SNPs in neurons.	ID 109 Louise Bomholtz Max Delbrück Cent...
Gene therapy for neurological diseases - In vitro model of a gene therapy for SynGAP1 syndrome using base editing.	ID 110 Daniel Bauersachs Max Delbrück Cent...
Enabling CRISPR-Cas associated research through guide RNA manufacturing solutions	ID 111 Ashley Jacobi Integrated DNA Te...
Efficient detection of CRISPR/Cas9 bulged off-targets with CRISPRoff2	ID 112 Wenhao Gao Center for non-co...
Optimized shRNAmir screens unveil cancer vulnerabilities in the essential gene space.	ID 113 Jakub Zmajkovic IMP-Research Inst...
High Throughput Single Cell Analysis Workflow for Accurate Measurement of Genotoxicity Arising From Gene Editing Experiments	ID 114 Ozcan Sahin Mission Bio
How the Danish Medicines Agency facilitates the entry into the regulatory landscape for advanced therapy medicinal products	ID 115 Lotte Dahl Nissen Danish Medicines ...
Efficient sortase-mediated assembly of CRISPR-Cas9	ID 116 Seyed Hossein Helalat Technical Univers...

Programmable Multi-Kilobase RNA Editing Using CRISPR-Mediated Trans-Splicing	ID 118 Basem Al-Shayeb Amber Bio
Necessity Is the Mother of Innovation, the Ace Pico Protocol Redefining Cell Therapy Delivery	ID 121 Dr. Alaa Abdelkarim Mohammed EW ACE Cells Lab UK
New Approach for Designing Split Genome Editors Without Compromising Editing Efficiency	ID 122 Jure Bohinc Department of Syn...
In Vivo Correction of a Genetically Humanized Fanconi Anemia Mouse Model Using Digital Editing Technologies	ID 123 Colette B. Rogers Department of Ped...
Less is More: Efficient Novel Non-Viral Immune Cell Engineering With Precise Genomic Integration	ID 134 Howard Wu Full Circles Ther...
Xdrop®: changing the approach to gene editing validation and single-cell functional assays	ID 143 Sidsel Alsing Samplix
INDUCE-seq: Ensuring the safe development of cell and gene therapies by gene editing	ID 144 Simon Reed Broken String Bio...
Enabling GMP Production of sgRNA for CRISPR-based Cell and Gene Therapies	ID 155 Kevin Holden Synthego
Charting New Horizons in guide RNA Manufacturing	ID 156 Raoul Hennig BioSpring
Our Karyotyping and FISH Assays as Tools to Evaluate the Genetic Stability of Cell Therapy Products - A Decade of GMP Experience	ID 174 Vasileios Georgakakos DR.
CRISPR cell based functional assays for supporting pre-clinical drug target development and improved patient stratification	ID 177 Arne Nedergaard Kousholt VUS Diagnostics
Software Tools to Enable CRISPR Therapeutics Discovery & Design	ID 179 Pawan Patel Benchling
CRISPR Excellence Unleashed: Custom Nuclease Production Services to Propel Your GCT Research Forward!	ID 180 Zhengzhi Li Biologics Departm...
CRISPR/saCas9 and CRISPR/spCas9 systems for combiatorial genetic screens (CRISPR-KO, CRISPRa, CRISPRi)	ID 183 Nadya Isachenko Cellecta, Inc.
CRISPR-Cas9 genome editing system for functional genetic screening in iPSCs	ID 184 Nadya Isachenko Cellecta, Inc.
OligoSeq: NextGen Im-/Purity Profiling - Oligo Characterization by Next Generation Sequencing	ID 188 Barbara Karolina Pfaff BioSpring
Patient-derived Organoids to identify novel combination strategies using CRISPR-based Functional Genomics	ID 189 Dario De Felice AstraZeneca
High Efficiency CRISPR/Cas9 Cell Engineering with MaxCyte Electroporation	ID 191 Andrew Mancini MaxCyte
Non-viral DNA Payloads for Gene and Cell Therapy - Total Solutions by GenScript	ID 192 Fan Zhou GenScript

	Overview of the NIST Genome Editing Program	ID 194 Samantha Maragh NIST
18:30 - 19:15	**Poster Session B**	
	Development and validation of a novel PD-1/PD-L1 and PD-L2 co-inhibition assay for CRISPR-screening in T cells	ID 47 Beatrice Scapolo T-cells and cance...
	Novel characterization assays enable efficient GMP manufacturing of CRISPR RNP complexes	ID 49 Thomas Lynch Aldevron
	Gene-edited primary muscle stem cells rescue dysferlin-deficient muscular dystrophy	ID 50 Helena Escobar Charité - Univers...
	Revolutionizing CRISPR Therapies: A Scalable Manufacturing Platform for eVLPs production	ID 52 Lúcia Santos iBET, Instituto d...
	Predicting Off-Target Activity in the CRISPR/Cpf1 System Using Multilayer Perceptron	ID 53 Pragya Kesarwani Regional Centre f...
	CRISPRBITS- Empowering Health Precision	ID 54 Reety Arora CRISPRBITS
	Development of a lipidoid library for Cas9-RNP-delivery	ID 55 Zian Xue University of Vienna
	Initiation of a phase I/II trial of CRISPR-Cas9-mediated PD-1-deficient tumour-infiltrating lymphocyte-based adoptive T-cell therapy in metastatic melanoma	ID 56 Michael Crowther National Center f...
	Base editing of hematopoietic stem cells restores immune function in a mouse model of familial hemophagocytic lymphohistiocytosis	ID 57 Lei Lei Institute for Tra...
	Development of a CRISPR-based epigenome editing platform to enhance the long-term engraftment of ex-vivo genetically modified HSPCs	ID 58 Federica Zinghirino University Colleg...
	Improved CRISPR/Cas9 Off-target Assessment based on Guide RNA Binding Energy	ID 59 Dhvani Vora Center for non-Co...
	Genome-wide CRISPR-Cas9 knockout screen identifies DNA damage response pathways and BTK as essential for cisplatin response in diffuse large B-cell lymphoma	ID 61 Issa Ismail Issa Department of Hem...
	Enhanced CRISPR base editing design from data generation and deep learning	ID 62 Ying Sun Center for non-co...
	Genome-wide CRISPR screening in postmitotic hepatocytes of murine liver	ID 63 Joonsun Lee Institute of Mole...
	MyoPax: the vanguard in cell and gene therapies for muscle disorders	ID 64 Eric Metzler-Bräuchle MyoPax GmbH
	Efficient single-cell cloning and culture of hiPSCs in small-scale fluid-walled cell culture chambers	ID 65 Narasimha Telugu MaxDelbruck cente...
	CRISPRon/off: Combined CRISPR/Cas9 on- and off-target design	ID 66 Christian Anthon University of Cop...

	Evaluation of CRISPR off-targets in single cells reveals previously unidentified off-targets and gives mechanistic insights in relation to cellular chromatin and gene expression state	ID 67 Alexandra Madsen Genome Engineerin...
	Development of molecular biology assays to measure precision and fidelity of gene insertions	ID 68 Karl Agger Novo Nordisk
	Image-enabled cell sorting and transcriptomic profiling to identify cellular phenotype-transcriptome relationships	ID 69 Maria Giebler Emerging Innovati...
	Design of highly efficient sgRNA libraries through comprehensive feature analysis	ID 70 Lukas Badertscher Myllia Biotechnology
	Enhancing the precision and fidelity of CRISPR/Cas9 genome editing through chemical inhibition of end-joining repair pathways	ID 71 Sandra Wimberger Genome Engineerin...
	Enhancing CRISPR-Cas9-Mediated Homology-Directed Repair Using Modified sgRNAs	ID 72 Eyemen Kheir University of Trento
	Functionalized Lipid Nanoparticles for Hepatic Delivery of RNA-therapeutics	ID 73 Simon Papai University of Cop...
	Off-targets for good: Mispairing alters the rate and position of AsCas12a cleavage	ID 75 Fausta Michnevičiūtė EMBL Partnership ...
	Generation of an experimental model for whole genome CRISPR screening to study hypoxia-induced drivers of chemotherapy resistance in muscle invasive bladder cancer	ID 76 Danielle Smith Univeristy of Man...
	ePsCas9- a CRISPR tool for in vivo therapeutic genome editing at AstraZeneca	ID 77 Aikaterini Emmanouilidi Genome Engineerin...
	Unraveling genome integrity and safety of gene engineered hematopoietic stem and progenitor cells for the treatment of RAG1 deficiency	ID 79 Chiara Brandas San Raffaele-Tele...
	CRISPR/Cas9-mediated gene editing delivered by a single AAV vector inhibits viral reactivation of HSV-1 in a latent rabbit keratitis model	ID 81 Kevin Luk Excision BioThera...
	Prime editing for correction of GATA2 deficiency in human CD34+ hematopoietic stem cells	ID 82 Jonas H. Wolff Department of Bio...
	EDSpliCE: A Novel Gene Editing Platform Holding Therapeutic Potential for Splicing Modulation in Inherited Retinal Disorders	ID 83 Pietro De Angeli Institute for Oph...
	Gene editing in hematopoietic stem cells by delivery of CRISPR-based genome editing tool kits in lentivirus-derived nanoparticles (LVNPs)	ID 84 Sofie Andersen Department of Bio...
	Exploring the functional impact of lncRNAs through CRISPRi screens in CRC models with KRAS and BRAF mutational background	ID 86 Ante Mihaljevic Department for Bi...
	Prime editing-mediated correction of the FANCA gene in primary patient cells	ID 87 Karolina Skvarova Kramarzova Childhood Leukaem...
19:15 - 20:00	**Poster Session C**	
	Detection of sgRNA via SHERLOCK for CRISPR-related gene doping control purposes	ID 10 Alina Paßreiter Center for Preven...

A CRISPR-based approach using deadCas9-sgRNA to detect SARS-CoV-2	ID 12 Mustapha Aouida Hamad Bin Khalifa...
Revolutionizing CRISPR/Cas9 Gene Therapy with Targeted Chemical Modulation	ID 14 Xinlai Cheng Buchmann institut...
Polyplex-based CRISPR/Cas9 In Vivo Mutagenesis for Efficient Lung Cancer Modeling in Rodents	ID 15 Mirentxu Santos * Biomedical Innova...
Sequence specific depletion of cancer cells using the dsDNA collateral activity of a novel CRISPR/Cas nuclease	ID 16 Paul Scholz Akribion Genomics
CRISPR-Mediated Inactivation of Faah and Magl in Peripheral Nociceptive Neurons: Towards Modulating Endocannabinoid Levels for Pain Control.	ID 17 Diana de Prado-Verdún Unidad de Innovac...
Studying the role of TRIM28 and transposable elements dysregulation in neurodevelopmental disorders using CRISPRed in vitro models	ID 18 Laura Castilla-Vallmanya Laboratory of Mol...
Universal CAST-Seq: Off-target detection of CRISPR nucleases and base editors	ID 19 Masako Kaufmann Institute for Tra...
Base editing mediated correction of severe β0 thalassemia mutations.	ID 20 Giulia Hardouin Imagine Institute...
Conquering gene editing off-target effects with Gibco™ CTS™ HiFi Cas9 Protein	ID 21 Roland Leathers Thermo Fisher Sci...
Precision Gene Editing Corrects Phenotypic Effects of Dominant Keratin 6 Mutation in Pachyonychia Congenita Patient Cells.	ID 22 Angeles Mencía entro de Investig...
Xential: universal toxin-based selection for precise genome engineering	ID 23 Anastasiia Rulina AstraZeneca
A CRISPR-Cas9 double-hit strategy mitigates on-target aberrations and chromosomal translocations	ID 24 Parinaz Zarghamian Institute for Tra...
Genome-wide CRISPR activation and interference screens for decoding the molecular signature of induced pluripotent stem cell to T cell differentiation	ID 25 Íñigo Lacunza DTU Health Tech
Standardization and harmonization of gene editing in human induced pluripotent stem cells: tagging of a lysosomal protein using CRISPR/Cas9	ID 26 Magdalena Madej Cell & Gene Thera...
CRISPR/Cas9-based pipeline to introduce custom edits in patient T cells	ID 27 Shiva Dahal-Koirala Centre for molecu...
REMAX: Innovative REframing Strategies to MAXimize Dystrophin Restoration in DMD	ID 30 Fatwa Adikusuma University of Ade...
CRIPSR screen identifies UBE2A loss-of-function to confer bortezomib sensitivity in diffuse large B-cell lymphoma	ID 31 Hanne Due Department of Hem...
p38 MAPK fuels proliferation stress and DNA damage impairing the functionality of genetically engineered hematopoietic stem and progenitor cells	ID 33 Roberta Vacca Vita-Salute San R...
	ID 34

CRISPR based transcriptional monitoring system	Muhammad Zuhaib Khan TUM
Studying the pre-existing CRISPR/Cas9 immunogenicity in Icelanding population and circumventing the immunogenicity barrier	ID 35 Rakesh Chandode Respiratory & Imm...
Direct delivery of Cas9 or base editor protein and guide RNA complex enables genome editing in the retina	ID 37 Juliette Pulman Sorbonne Universi...
Generation of heterozygous and homozygous NF1 lines from human induced pluripotent stem cells using CRISPR/Cas9 to investigate bone defects associated to neurofibromatosis type 1	ID 38 Nathalie Holic INSERM U861, I-St...
Engineering CRISPR nucleases for allele-specific editing of dominant genetic diseases	ID 39 Alessio Conci Center for Regene...
A new CRISPR-mediated Apc Knockout Allele leads to Pyloric Gland Adenoma-like Gastric Polyps in the Mice with C57BL/6; FVB/N Mixed Background	ID 40 Aysen Gunel Ozcan Hacettepe University
CRISPR/dCas9 gene editing for overexpressing apolipoprotein AI, paraoxonase 1 and cholesterol transporter ABC1 in hepatocytes - a promising tool to obtain functional HDL	ID 41 Laura Toma Lipidomics Depart...
Mitigating the risk of T cell receptor mispairing in CRISPR-T cell receptor-engineered human T cells	ID 42 Laura Stentoft Grand Technical Univers...
He-RASE: a fast cellular model to screen CRISPR/Cas systems editing efficiency and specificity for dominant mutations	ID 43 Alessandra Fabrizi University of Mod...
Antigen-scaffold-mediated expansion of CRISPR-Cas9 knockin CAR- and TCR-T cells generates highly enriched, efficacious T-cell products	ID 44 Kristoffer Haurum Johansen T-cells and cance...
The epigenome as a novel player in CRISPR safety	ID 45 Eve Stalker MRC Toxicology Unit

Wednesday, 24 April 2024 (times in CEST)

06:30 - 07:15 **Optional Social Event: Morning Run in Copenhagen (co-organiser: Vivlion)**

08:00 - 09:25 **Choosing the Right Gene-Editing Approach.**
Facilitator: Antonio Casini PhD (Alia Therapeutics)
Workshop A

08:00 - 09:25 **Navigating the CRISPR Delivery Landscape.**
Facilitator: Alessandro Umbach PhD (Laboratory of Molecular Virology, University of Trento, Italy)
Stage 2

09:30 - 10:15 **Panel Discussion: Standards and Regulations**
Main Stage
Moderator: Rebecca Roberts, Ph.D., CRISPR Medicine News

- Samantha Maragh, Dr., Leader, Genome Editing Program, National Institute of Standards & Technology (NIST), USA.
- Attila Sebe, MD, PhD., Clinical Assessor Advanced Therapy Medicinal Products (ATMPs), Paul-Ehrlich-Institute, Federal Institute for Vaccines and Biomedicines, Division of Haematology, Cell and Gene Therapy, Germany.
- Lotte Dahl Nissen, MSc, Ph.D., Non-clinical Assessor, Quality Assessment & Clinical Trials, Danish Medicines Agency (DKMA), Denmark.
- Veronika Jekerle, PhD., Head of Pharmaceutical Quality, Human Medicines, European Medicines Agency (EMA).

10:15 - 11:35 **Oral Session: Tools/Delivery**
Main Stage
Chairs: Marcello Maresca (AstraZeneca) and Anna Cereseto (University of Trento, Italy)

10:15 - 10:35	Advancing CRISPR medicine by probing the detection, design, and delivery	ID 147 Yonglun Luo Aarhus University
10:35 - 10:55	Xdrop®: changing the approach to gene editing validation and single-cell functional assays	ID 143 Sidsel Alsing Samplix
10:55 - 11:15	Find-and-replace CRISPR Genome Editing HDR2.0: a Promising Therapeutic Strategy	ID 129 Ayal Hendel Bar-Ilan University
11:15 - 11:35	From Allogeneic CAR-T Cells to SMART-CART to Fight Solid Tumors	ID 151 Julien Valton Cellectis

10:15 - 11:35 **Oral Session: Safety**
Stage 2
Chairs: Toni Cathomen (University of Freiburg) and Roberto Nitsch (AstraZeneca)

10:15 - 10:35	Deciphering Cas9 immunogenicity	ID 140 Roberto Nitsch AstraZeneca

	10:35 - 10:55 Base editors provoke non-predictable chromosomal translocations and off-target editing	ID 74 Manuel Rhiel 1 Institute for T...
	10:55 - 11:15 INDUCE-seq: Ensuring the safe development of cell and gene therapies by gene editing	ID 144 Simon Reed Broken String Bio...
	11:15 - 11:35 Updated outcomes of variant detection and quantitation from the first NIST Genome Editing Consortium Interlab Study	ID 141 Samantha Maragh National Institut...
11:35 - 12:00	**Coffee Break**	
12:00 - 13:20	**Oral Session: Functional Genomics** Stage 2 *Chairs: Manuel Kaulich (Goethe University Freiburg) and Bernhard Schmierer (Karolinska Institute, Sweden)*	
	12:00 - 12:20 Functional genomics tools to dissect genetic networks of rejuvenation	ID 136 Jin Chen Altos Labs
	12:20 - 12:40 Deciphering the code of cancer: A deep dive into variants with saturation prime editing	ID 159 Zhenya Ivakine Hospital for Sick...
	12:40 - 13:00 Identification of novel oncology targets using a combination of functional genomics approaches & machine learning tools	ID 133 Fiona Behan GSK
	13:00 - 13:20 "PRCISR CRISPR: How prior knowledge can drive hit confidence in perturbation genomics."	ID 149 Manuel Kaulich Goethe University...
12:00 - 13:20	**Oral Session: Pre-clinical/Clinical Trials** Main Stage *Chairs: Alessia Cavazza (University College London) and Waseem Qasim (UCL Great Ormond Street Institute of Child Health)*	
	12:00 - 12:20 In vivo correction of human phenylketonuria variants via prime editing and base editing: A gateway to equitable treatment of inborn errors of metabolism.	ID 9 Madelynn Whittaker University of Pen...
	12:20 - 12:40 Base and prime editing strategies to re-write CFTR mutations causing cystic fibrosis - validation in patient derived cell models	ID 138 Marianne Carlon KU Leuven Faculty...
	12:40 - 13:00 CRISPR and human induced pluripotent stem cells - the magic duo for medical research	ID 139 Pia Johansson Lund University
	13:00 - 13:20 Cas9-mediated precise and template-free gene editing of a muscular	ID 32 Stefanie Müthel Experimental and ...

dystrophy founder mutation: From single editing and off-target analysis to double editing and clinical translation

13:30 - 14:30 **Lunch Break**

14:30 - 16:30 **Oral Session: Functional Genomics II**

Stage 2

Chairs: Bernhard Schmierer (Karolinska Institute, Sweden) and Manuel Kaulich (Goethe University Freiburg)

14:30 - 14:50
CRISPR functional genomics as a tool in drug discovery
ID 131
Bernhard Schmierer
Karolinska Instit...

14:50 - 15:10
With technology to biology: The single-cell functional genomics revolution
ID 160
Daniel Schraivogel
EMBL

15:10 - 15:30
Integrating RNA structure and attention mechanisms for accurate CRISPR-Cas12a system gRNA efficiency prediction
ID 108
Ziyi Sheng
Center for non-co...

15:30 - 15:50
Advancing Oncology Drug Discovery through Pooled CRISPR Screening
ID 166
Nikhil Gupta
Cancer Research H...

15:50 - 16:10
Genome-wide CRISPR-Cas9 screen for the elucidation of novel mediators of cytotoxicity and cytokine production in natural killer cells
ID 36
Nutsa Burduli
Karolinska Instit...

16:10 - 16:30
Flexible and Scalable Genetic Screens for Discovery and Characterization of Novel Therapeutic Targets
ID 167
Paul Diehl
Cellecta

14:30 - 16:30 **Oral Session: Safety II**

Main Stage

Chairs: Toni Cathomen (University of Freiburg, Germany) and Roberto Nitsch (AstraZeneca)

14:30 - 14:50
Pharmacological Interventions to Enhance Genome Editing Precision
ID 165
Marcello Maresca
AstraZeneca

14:50 - 15:10
Next-Level Insights: High-Resolution Analysis of Chromosomal Aberrations with NHEJ Inhibition
ID 46
Giandomenico Turchiano
UCL

15:10 - 15:30
End-to-End Tools for Interrogation of CRISPR-Cas Associated Genotoxicity
ID 127
Ashley Jacobi
Integrated DNA Te...

15:30 - 15:50
Investigating the interplay between CRISPR-induced double-strand breaks and recombinant AAV Integration in vivo
ID 107
Laura Torella
DNA & RNA Medicin...

15:50 - 16:10
Karyotyping and FISH assays as tools to evaluate the genetic stability of Cell therapy products - A decade of GMP experience
ID 169
Vasileios Georgakakos
Clean Cells

	16:10 - 16:30 Evaluation of CRISPR off-targets in single cells reveals previously unidentified off-targets and gives mechanistic insights in relation to cellular chromatin and gene expression state	ID 67 Alexandra Madsen Genome Engineerin...
16:30 - 16:45	**Coffee Break**	
16:45 - 18:25	**Oral Session: Pre-clinical/ Clinical Trials II** Main Stage *Chairs: Waseem Qasim (UCL Great Ormond Street Institute of Child Health) and Alessia Cavazza (University College London)*	
	16:45 - 17:05 Realizing the Promise of CRISPR Therapeutics	ID 164 Laura Sepp-Lorenzino Intellia Therapeu...
	17:05 - 17:25 The Indel Code and its relevance to clinical development of CRISPR-directed gene editing in cancer	ID 8 Kelly Banas ChristianaCare Ge...
	17:25 - 17:45 Implementation of gene editing to correct hematopoietic stem cells from Fanconi anemia patients	ID 153 Paula Rio CIEMAT
	17:45 - 18:05 CRISPR/Cas9-mediated gene editing delivered by a single AAV vector inhibits viral reactivation of HSV-1 in a latent rabbit keratitis model	ID 81 Kevin Luk Excision BioThera...
	18:05 - 18:25 Enabling GMP Production of sgRNA for CRISPR-based Cell and Gene Therapies	ID 155 Kevin Holden Synthego
16:45 - 18:25	**Oral Session: Tools/Delivery II** Stage 2 *Chairs: Anna Cereseto (University of Trento, Italy) and Marcello Maresca (AstraZeneca)*	
	16:45 - 17:05 FiCAT gene writing platform for advanced therapies	ID 128 Avencia Sanchez-Mejías Integra Therapeutics
	17:05 - 17:25 Computational CRISPR/Cas9 gRNA design	ID 135 Jan Gorodkin University of Cop...
	17:25 - 17:45 Engineered CRISPR Technologies to Improve Genome Editing	ID 130 Ben Kleinstiver Massachusetts Gen...
	17:45 - 18:05 Epigenome editing as a novel and safe strategy to control multiple immune checkpoints expression in CAR T cells	ID 90 Maria Silvia Roman Azcona Institute for Tra...
	18:05 - 18:25 Base editing based on Cas12a variants	ID 158 Stefano Stella Ensoma
19:30 - 22:00	**Conference Dinner** Conference Venue	

Thursday, 25 April 2024 (times in CEST)

08:00 - 09:25 **The Road to Clinical Translation.**
Facilitator: Members of Simone Spuler's group, Charité Universistätsmedizin Berlin / Max Delbrück Center
Stage 2

08:00 - 09:25 **Pre-Clinical Safety Analyses.**
Facilitators: Carla F. García PhD, Julia Klermund PhD and Manuel Rhiel PhD (Uni. Medical Center Freiburg)
Workshop A

09:30 - 11:30 **Oral Session: Tools/Delivery III**
Stage 2
Chairs: Marcello Maresca (AstraZeneca) and Anna Cereseto (University of Trento, Italy)

09:30 - 09:50 CD4 T cell targeting lipid nanoparticles in the search for a genetic HIV cure.	ID 13 Maaike De Cock Ghent University
09:50 - 10:10 Improved synthetic RNA-guided nucleases for human therapeutic use	ID 157 Andre Cohnen Bayer
10:10 - 10:30 Efficient rAAV6-mediated HDR with low toxicity as a therapy for GATA2 deficiency through allele-specific gene correction in hematopoietic stem cells	ID 85 Thomas W. Skov Department of Bio...
10:30 - 10:50 Less is More: Efficient Novel Non-Viral Immune Cell Engineering With Precise Genomic Integration	ID 134 Howard Wu Full Circles Ther...
10:50 - 11:10 Lipid nanoparticle delivery of dCas9-SAM to primary T-cells: towards a CRISPR activation-based therapeutic to cure HIV	ID 51 Paula M. Cevaal Department of Inf...
11:10 - 11:30 Novel DNA Payloads and One-Stop CRISPR Toolbox Accelerate Non-Viral Gene Editing Therapeutics Development	ID 132 Fan Zhou GenScript

09:30 - 11:30 **Oral Session: Pre-clinical/Clinical Trials III**
Main Stage
Chairs: Alessia Cavazza (University College London) and Waseem Qasim (UCL Great Ormond Street Institute of Child Health)

09:30 - 09:50 Preclinical development of gene editing therapies	ID 150 Alessia Cavazza University Colleg...
09:50 - 10:10 Charting New Horizons in guide RNA Manufacturing	ID 156 Raoul Hennig BioSpring
10:10 - 10:30 Efficient large knockins in mice and cells validated using an all-in-one, multiplexed long-read sequencing assay	ID 80 Xiaoxia Cui Washington Univer...
10:30 - 10:50 A novel portfolio approach to CRISPR-based gene therapies with tailored advantages for human therapeutics	ID 126 Antonio Casini Alia Therapeutics

	10:50 - 11:10 Precision targeting tumor cells using cancer-specific genetic alterations with CRISPR/Cas	ID 92 Taejoon Kwon Ulsan National In...
	11:10 - 11:30 Reinventing Cardiovascular Disease Treatment with Single-Course Gene Editing Medicines	ID 154 Andrew Bellinger Verve Therapeutics
11:30 - 11:45	**Coffee Break**	
11:45 - 13:25	**Oral Session: Pre-clinical/Clinical Trials IV** Main Stage *Chairs: Alessia Cavazza (University College London) and Waseem Qasim (UCL Great Ormond Street Institute of Child Health)*	
	11:45 - 12:05 Project Delta Force - Upregulating delta globin as a new avenue to treat hemoglobinopathies	ID 162 Jan Nelis Ariya Bio
	12:05 - 12:25 Base editing mediated correction of severe β0 thalassemia mutations.	ID 20 Giulia Hardouin Imagine Institute...
	12:25 - 12:45 Genome edited therapeutic T cells	ID 170 Waseem Qasim University Colleg...
	12:45 - 13:05 Genetic and transcriptional engineering of primary human blood cells	ID 168 Rasmus O. Bak Aarhus University
	13:05 - 13:25 Exploiting Targeted Epigenome Editing for Therapeutic Applications	ID 124 Angelo Lombardo San Raffaele Tele...
11:45 - 13:05	**Oral Session: Tools/Delivery IV** Stage 2 *Chairs: Marcello Maresca (AstraZeneca) and Anna Cereseto (University of Trento, Italy)*	
	11:45 - 12:05 Pioneering Precision Medicines Using Microbial CRISPR Gene Therapy	ID 185 Jonas Hink SNIPR Biome
	12:05 - 12:25 Software Tools to Enable CRISPR Therapeutics Discovery & Design	ID 179 Pawan Patel Benchling
	12:25 - 12:45 CRISPR associated substrate-linked directed evolution (CaSLiDE) for evolving highly efficient and specific miniature CRISPR-Cas systems	ID 99 Duran Sürün Medical Faculty a...
	12:45 - 13:05 Revolutionizing CRISPR/Cas9 Gene Therapy with Targeted Chemical Modulation	ID 14 Xinlai Cheng Buchmann institut...
13:05 - 14:00	**Lunch Break**	
14:00 - 14:15	**Closing address by CMN** Main Stage	

14:00 - 17:00	**Optional Social Event: Guided boat trip in the Copenhagen canals** Copenhagen

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