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CAMBRIDGE HEALTHTECH INSTITUTE'S 8TH ANNUAL

Immuno-Oncology SUMMIT EUROPE 2024

HARNESSING THE IMMUNE SYSTEM FOR BREAKTHROUGH THERAPIES

23 - 25 APRIL 2024 | LONDON, UK & ONLINE (BST)

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2024 CONFERENCE PROGRAMS

- **Modulating the Tumour Microenvironment**
- **Therapeutic Cancer Vaccines**
- **Next Generation Cell-Based Immunotherapies**
- **Bispecific and Multi-Specific Antibody Therapeutics**

PLENARY KEYNOTES

Vaccines and T Cell Strategies to Mobilise Neoantigen-Specific Responses

George Coukos, MD, PhD, Director, Oncology, Ludwig Institute for Cancer Research; Professor, Oncology, University Hospital (CHUV) and University of Lausanne (UNIL)

Afami-cel: The Journey from TCR Engineering towards Commercial Cell Therapy

Joanna Brewer, PhD, CSO, Adaptimmune R&D

Immuno-OncologyEurope.com

Experience the Future of Immuno-Oncology

Now into our 8th year, CHI's **Immuno-Oncology Summit Europe** is the premier event for immuno-oncology professionals who want to learn about the latest advancements and innovations in the field. The Summit will take place on **23-25 April 2024 in London,** one of the world's leading hubs for biomedical research and clinical development.

With a comprehensive agenda encompassing four distinct yet related programs — **Modulating the Tumour Microenvironment, Next Generation Cell-Based Immunotherapies, Bispecific and Multi-specific Antibody Therapeutics** and **Therapeutic Cancer Vaccines,** the Summit promises to be a forum for the exchange of cutting-edge research, and a platform for collaboration among the global immuno-oncology community.

Highlights include a **plenary keynote session** featuring 2 distinguished speakers; engaging **breakout discussions** that bring peers together to chat about the most pressing or contentious topics; a **balanced faculty** of industry and academia speakers; **posters** showcasing innovative studies and an **Exhibit Hall** gathering the technology leaders in the IO space.

Join us at the Immuno-Oncology Summit Europe 2024 to meet peers, exchange ideas, and find collaborators to accelerate your next IO program.

CONFERENCE-AT-A-GLANCE

TUESDAY 23 APRIL	WEDNESDAY 24 APRIL	THURSDAY 25 APRIL
Modulating the Tumour Microenvironment		
Therapeutic Cancer Vaccines		
	Next Generation Cell-Based Immunotherapies	
	Bispecific and Multi-Specific Antibody Therapeutics	

PLENARY KEYNOTE SESSION

WEDNESDAY, 24 APRIL 2024

11:15 Plenary Chairperson's Remarks

Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

11:20 PLENARY KEYNOTE PRESENTATION:

Vaccines and T Cell Strategies to Mobilise Neoantigen-Specific Responses

George Coukos, MD, PhD, Director Oncology Department, Lausanne University Hospital, and Director Ludwig Institute for Cancer Research Lausanne Branch

11:55 PLENARY KEYNOTE PRESENTATION:

Afami-cel: The Journey from TCR Engineering towards Commercial Cell Therapy

Joanna Brewer, PhD, CSO, Adaptimmune R&D

Afami-cel is a first-generation engineered TCR-T cell product targeting MAGE-A4 expressing solid tumours. Afami-cel has the potential to be the first marketed product of its kind and Adaptimmune is close to completing its BLA submission. Afami-cel has demonstrated substantial clinical benefit for people with synovial sarcoma who have had multiple prior lines of therapy. This is the story of afami-cel from early discovery through clinical development, and commercial strategy.

BIOGRAPHIES:

Dr. George Coukos is Full Professor at the Faculty of Biology and Medicine in Lausanne, Director of the Department of Oncology at the University Hospital (CHUV) and University of Lausanne (UNIL), and Director of the Ludwig Institute for Cancer Research Lausanne Branch. He is also the Head of Immuno-Oncology at CHUV. A leading investigator in the field of tumor immunology and ovarian cancer, he is the PI of many early-phase clinical studies in cancer immunotherapy. Furthermore, he is interested in elucidating fundamental mechanisms in the tumor microenvironment (TME) that determine the fate of antitumor immunity, focusing on the study of the deregulation of tumor-infiltrating lymphocytes (TILs). These studies are expected to yield novel pharmacologic approaches to restore antitumor immunity as well as novel methodologies to select and expand TILs for adoptive therapy. He is also involved in the study of the tumor vasculature as a barrier to effective T cell infiltration in many tumors, but also as a potential target for therapy. Prof. Coukos is pursuing T cell engineering approaches as a means to address the deregulation of T cells in the TME, and for redirecting them against relevant tumor targets, including the vasculature, with the ultimate goal of translating basic discovery to the clinic.

Dr. Joanna Brewer is the CSO of Adaptimmune and has over 20 years' experience in immunotherapy research in oncology. She was one of the founding scientists at Adaptimmune, where she built multiple research teams working on TCR T-cell therapies, including afamicel (MAGE A4) and lete-cel (NY-ESO) products for sarcoma as well as follow on next gen products and an allogeneic platform based on edited induced pluripotent stem cells.

FEATURED SPEAKERS

Antibody-Cytokine Fusions Directed against Splice-Variants of Fibronectin: From Discovery to Advanced Clinical Results

Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

The Requirement of Myeloid Effector Cells for Therapeutic Vaccine Efficacy

Sjoerd H. Van Der Burg, PhD, Head, Experimental Cancer Immunology and Therapy Group, Leiden University Medical Center

mRNA Therapeutics in Cancer: Coming of Age

Praveen Aanur, Therapeutic Area Head, Oncology, Moderna Inc.

Targeting Clonal Neoantigens with Precision T Cell Therapies

Sergio A. Quezada, PhD, Professor, Cancer Immunology & Immunotherapy, University College London

Using Protein Geometry to Optimise Cytotoxicity and the Cytokine Window of a ROR1-Specific T Cell Engager

Harald Kolmar, PhD, Professor and Head, Institute for Organic Chemistry and Biochemistry, Technische Universität Darmstadt

Breaking the Solid Tumour Stromal Barriers Using Targeting Trispecific Agents

Mark L. Chiu, PhD, CSO, Tavotek Biotherapeutics

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CII offers comprehensive packages that can be customized to your budget and objectives. Sponsorship allows you to achieve your goals before, during, and long after the event. Packages may include presentations, exhibit space and branding, as well as the use of delegate lists. Signing on early will maximize your exposure to qualified decision-makers and drive traffic to your website in the coming months.

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Showcase your solutions to a guaranteed, targeted audience through a 15- or 30-minute presentation during a specific program, breakfast or lunch. Package includes exhibit space, on-site branding, and access to cooperative marketing efforts by CII. Lunches are delivered to attendees who are already seated in the main session room. Presentations will sell out quickly! Sign on early to secure your talk.

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Select specific delegates from the preregistration list to attend a private function at an upscale restaurant or a reception at the hotel. From extending the invitations, to venue suggestions, CII will deliver your prospects and help you make the most of this invaluable opportunity

ONE-TO-ONE MEETINGS

CHI will set up 6-8 in-person meetings during the conference, based on your selections from the advance registration list. Our staff will handle invites, confirmations, and reminders, and walk the guest over to the meeting area. This package also includes a meeting space at the venue, complimentary main-conference registrations, branding, an 2m x 3m exhibit space, and more.

EXHIBIT

Exhibitors will enjoy facilitated networking opportunities with qualified delegates, making it the perfect platform to launch a new product, collect feedback, and generate new leads. Exhibit space sells out quickly, so reserve yours today!

ADDITIONAL BRANDING AND PROMOTIONAL OPPORTUNITIES ARE AVAILABLE, INCLUDING:

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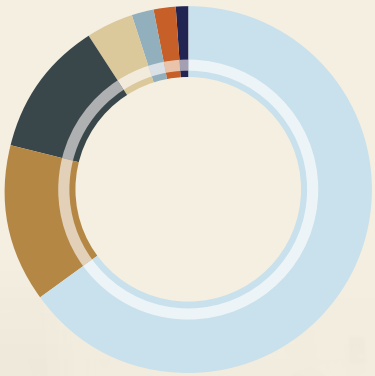

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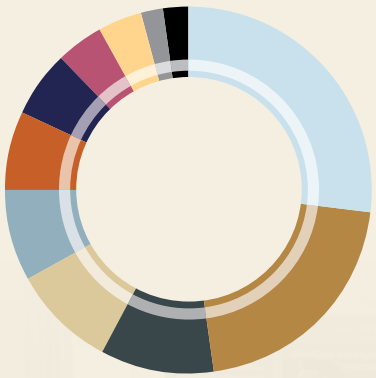

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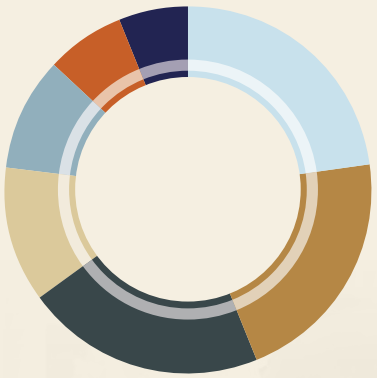

DELEGATE TITLE

Scientist/Technologist	23%
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Director	12%
Professor	10%
Manager	7%
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For more information regarding exhibit and sponsorship, please contact:

Phillip Zakim-Yacouby
Senior Business Development Manager
781-247-1815
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Modulating the Tumour Microenvironment

Novel Approaches to Target and Reprogram the TME

TUESDAY 23 APRIL

7:45 Registration and Morning Coffee

8:30 Organiser's Welcome Remarks

IMMUNE CELLS IN THE TUMOUR MICROENVIRONMENT AND THEIR ROLES IN TUMOURIGENESIS AND PROGRESSION

8:35 Chairperson's Remarks

Anna Tocheva, PhD, Assistant Professor, Genetics & Genomic Sciences, Icahn School of Medicine at Mount Sinai

8:40 Restricting Hinge Flexibility to Drive Receptor Agonism

Mark S. Cragg, PhD, Professor, Experimental Cancer Biology, Antibody and Vaccine Group, School of Cancer Sciences, University of Southampton

Immunostimulatory antibodies (ISAs) represent a promising strategy for cancer immunotherapy. However, to develop more effective therapeutics, we need a deeper understanding of the structure-function relationships under-pinning activity. We explored a series of mutations designed to provide hinge restriction in different ISAs and employed a suite of biophysical, biochemical, and cellular assays to discern their impact. These approaches provide a rational means to develop more powerful ISAs.

9:10 Novel Approaches to Recruit Neutrophils as Effector Cells against Tumours

Thomas Valerius, MD, Professor, Stem Cell Transplantation & Immunotherapy, Christian Albrechts University of Kiel

Neutrophils (PMN) have often been described to promote tumour growth and invasiveness. However, when PMN are properly activated they can also effectively kill tumour cells. During this presentation approaches will be presented which may recruit PMN's tumour-cell killing activity to increase the efficacy of tumour immunotherapy.

9:40 Targeting the IL-6/AUF1 Loop in Active Breast Cancer-Associated Fibroblasts

Abdelilah Aboussekhra, PhD, Principal Scientist, Molecular Oncology, King Faisal Specialist Hospital & Research Center

The Il-6/AUF1 positive feedback loop plays a major role in the activation of breast cancer-associated fibroblasts. We have shown that tocilizumab, an IL-6R inhibitor, can target this loop and inhibits the cancer-promoting cross-talk between cancer cells and their supporting stromal fibroblasts.

10:10 Morning Refreshment Break

10:40 Basophils in Cancer: Studying Tumour-Infiltrating and Circulating Basophils

Heather J. Bax, PhD, Postdoctoral Research Fellow, St. John's Institute of Dermatology, School of Basic & Medical Biosciences, King's College London

To date basophils have received little attention in cancer. We found basophil markers in the tumour microenvironment and circulating basophils in cancer patient blood. Patient survival outcomes were associated with the presence of these cells. We demonstrated that circulating basophils from patient blood can be activated by immune stimuli *ex vivo* and used the basophil-activation test (BAT) to study the potential for Type I hypersensitivity reactions to anti-cancer IgE therapeutics.

11:10 Oncogenic Pathways Underlying Tumour Sensitivity to Interferon Gamma Stimulation

Anna Tocheva, PhD, Assistant Professor, Genetics & Genomic Sciences, Icahn School of Medicine at Mount Sinai

Most cancer patients fail to respond to immune checkpoint blockade immunotherapies (ICB), and ICB-induced IFN-gamma (IFNg) drives immunotherapeutic resistance by altering the tumour-intrinsic immune phenome associated with the upregulation of immune checkpoints and immunosuppressive mediators. A major bottleneck to improving the efficacy of IFNg-inducing immunotherapies is our lack of knowledge as it pertains to the oncogenic pathways that drive tumour-intrinsic differences in IFNg sensitivity.

11:40 Sponsored Presentation *(Opportunity Available)*

12:10 Luncheon Presentation *(Sponsorship Opportunity Available)* **or Enjoy Lunch on Your Own**

12:40 Session Break

NEW AND EMERGING THERAPEUTIC STRATEGIES TARGETING THE TME

13:10 Chairperson's Remarks

Mark S. Cragg, PhD, Professor, Experimental Cancer Biology, Antibody and Vaccine Group, School of Cancer Sciences, University of Southampton

13:15 Modulation of the Tumour Microenvironment Using CD40 Targeting Neo-X-Prime bsAbs Developed Using the RUBY Format

Ida Uddback, PhD, Senior Scientist, Alligator Bioscience

Alligator´s Neo-X-Prime platform is built to induce efficient neoantigen cross-priming of tumour-specific T cells to drive efficacy of CD40 targeting therapies and to modulate the tumour microenvironment. The platform is built on bispecific antibodies targeting CD40 and highly expressed tumour-associated antigens (TAA). The lead candidate, ATOR-4066, targets CD40 and CEACAM5 and induces superior anti-tumour activity by myeloid cell-mediated and T cell-dependent mechanisms.

13:45 Bispecific Vγ9Vδ2-T Cell Engagers for Cancer Immunotherapy

Hans van der Vliet, MD, PhD, CSO, Lava Therapeutics

Vγ9Vδ2-T cells represent a relatively homogeneous population of proinflammatory immune effector cells. The presentation will provide an update on the preclinical and early clinical development of bispecific Vγ9Vδ2-T cell engagers as a novel approach for cancer immunotherapy.

14:15 The Role of Plasmacytoid Dendritic Cells in Cancer and How They Mitigate Tumour Microenvironment

Iulia Diaconu, PhD, CSO, Unikum Therapeutics

Our genetic-engineered plasmacytoid dendritic cells (UpDC) are a novel cell therapy that may change the paradigm of solid-tumour treatment by the inhibitory effects on tumour cells of Type I interferons, combined with the release of pro-inflammatory cytokines, resulting in recruitment and engagement of other immune cells. This activity is further complemented by direct tumour- cell killing. We are currently moving towards a Phase I study of autologous UpDCs.

14:45 Antibody-Cytokine Fusion Proteins for the Treatment of Cancer

Roberto De Luca, PhD, Head, Therapeutic Antibodies, Philochem AG

Engineering antibody-cytokine fusion proteins (immunocytokines) for cancer therapy. Immunocytokines can increase the therapeutic index of the cytokine payload. Immunocytokines can selectively localise at the tumour site. Immunocytokines can induce potent anti-cancer activity either alone or in combination with other immunomodulatory drugs.

15:15 Refreshment Break in the Exhibit Hall with Poster Viewing

15:30 Unlocking New Frontiers in Anti-Cancer Immunity: Combining Adenoviral Vector-Delivered IgA with CD47-SIRPa Axis Inhibition

Wouter P.R. Verdurmen, PhD, Assistant Professor, Medical Biosciences, Radboud University Nijmegen

I will present our latest work on our novel anti-cancer immunotherapy using a retargeted adenoviral vector. Targeting overexpressed tumour cell receptors with binding proteins, we achieve localised IgA-antibody and CD47-blocker production. Mechanistic studies of activity will be demonstrated in biological models with increasing levels of complexity, e.g., focusing on neutrophils utilising antibody-dependent cellular cytotoxicity and macrophages employing antibody-dependent cellular phagocytosis for efficient tumour cell elimination.

16:00 Biomarker-Activatable Probes for Selective Targeting Subpopulations of Immune Cells in Tumours

Marc Vendrell, PhD, Professor, Translational Chemistry & Biomedical Imaging, College of Medicine and Veterinary Medicine, University of Edinburgh

Our group pioneered the design of activatable chemokine conjugates for targeting of tumour-associated macrophages, compatible with both fluorescent and therapeutic cargos. These constructs exploit the high expression of chemokine receptors and the activity of cysteine cathepsins to target tumour-associated macrophages over other macrophages and immune cells in tumours. Furthermore, our group has also designed novel fluorogenic reagents to detect physiological concentrations of active gransymes as biomarkers of immune-mediated anticancer activity.

16:30 LSTA1—A Novel Tumour-Targeting and Penetration Peptide that Modifies the Tumour Microenvironment for Optimal Therapeutic Effect

David J. Mazzo, PhD, President & CEO, Lisata Therapeutics

LSTA1 (certepetide), a novel investigational drug that selectively actuates the CendR active transport mechanism, ferries anti-cancer drugs more efficiently through stroma and into solid tumours. LSTA1 has been shown to modify the tumour microenvironment by depleting intratumoural immunosuppressive cells, thereby combating anti-cancer agent resistance. LSTA1 has also been shown to inhibit metastases in highly fibrotic tumours. Validating preclinical and positive clinical data in pancreatic ductal adenocarcinoma will be presented.

17:00 Welcome Reception with Exhibit and Poster Viewing

18:00 Close of Day

WEDNESDAY 24 APRIL

8:00 Registration and Morning Coffee

CYTOKINES AND FUSIONS FOR IMMUNE-MODULATION

8:30 Chairperson's Remarks

Thomas Valerius, MD, Professor, Stem Cell Transplantation & Immunotherapy, Christian Albrechts University of Kiel

8:35 FEATURED PRESENTATION: Antibody-Cytokine Fusions Directed against Splice-Variants of Fibronectin: From Discovery to Advanced Clinical Results

Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

The alternatively spliced EDB domain of fibronectin is an extracellular matrix component which is abundantly expressed in the tumour stroma and around tumour blood vessels for the majority of aggressive solid malignancies and lymphomas. Here, I will present preclinical and clinical results obtained with antibody-cytokine fusions proteins, that recognise EDB fibronectin and selectively localise to tumour blood vessels, following intravenous administration in cancer patients and in animal models of the disease.

9:05 InCephalo's Compartment Lock Approach as Demonstrated in InC01

Johannes vom Berg, PhD, CSO, InCephalo Therapeutics AG; Group Leader Immunotherapy, Lab Animal Science, University of Zurich

InCephalo's compartment lock (C-Lock) technology allows high local CNS levels at minimal systemic exposure, increasing the therapeutic index for locally applied biologics such as antibodies or antibody-Fc-fragment fusions to treat neurological diseases. InC01 is a C-Locked IL-12-based biologic which InCephalo develops for the treatment of brain cancer. Preclinical data on the development and proof of concept in relevant murine and human *ex vivo* models will be presented.

9:35 Reprogramming of Immuno-Oncology Cell Targets with on-Target, Cis-Acting Cytokines

Erik Depla, PhD, Director, Biology, Orionis Biosciences NV

To achieve spatial control of cytokine bioactivity upon drug administration, we have evolved a proprietary biologics platform integrating a strategic plug-and-play assembly of modular, biomolecular building blocks into therapeutic agents with unique conditional effector functions and target selectivity (A-Kines). The presentation will review various approaches to the reprogramming of myeloid cells, T cells, and tumour microenvironments, with A-Kines that exhibit exquisite target-cell selectivity.

10:05 Single-Domain Antibody-Based Bispecifics Mimicking Cytokine Functionalities

Stefan Zielonka, PhD, Senior Director, Global Head of Antibody Discovery & Protein Engineering (ADPE) Research & Development, Merck Healthcare KGaA, Professor, Biomolecular Immunotherapy Technische Universität Darmstadt

Cytokines emerged as promising molecules for therapeutic intervention in order to modulate the immune response. However, their often pleiotropic nature, combined with their high potency when administered systemically, restricts their therapeutic applicability. We have generated cytokine mimetics with tailor-made mode-of-actions based on multifunctional antibody derivatives.

10:35 Coffee Break with Exhibit and Poster Viewing

PLENARY KEYNOTE SESSION

11:15 Chairperson's Remarks

Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

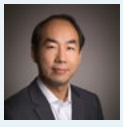
11:20 PLENARY KEYNOTE: Vaccines and T Cell Strategies to Mobilise Neoantigen-Specific Responses

George Coukos, MD, PhD, Director, Department of Oncology, Lausanne University Hospital, and Director, Ludwig Institute for Cancer Research Lausanne Branch, University of Lausanne

11:55 PLENARY KEYNOTE: Afami-cel: The Journey from TCR Engineering towards Commercial Cell Therapy

Joanna Brewer, PhD, CSO, Adaptimmune R&D

Afami-cel is a first-generation engineered TCR T cell product targeting MAGE-A4 expressing solid tumours. Afami-cel has the potential to be the first marketed product of its kind and Adaptimmune is close to completing its BLA submission. Afami-cel has demonstrated substantial clinical benefit for people with synovial sarcoma who have had multiple prior lines of therapy. This is the story of afami-cel from early discovery through clinical development and commercial strategy.



12:30 LUNCHEON PRESENTATION: HCAb Harbour Mice® Advances Multispecific, CART, and ADC Therapy in a New Level

Jiyong Zhang, Head of Business Development, Nona Biosciences

HCAb Harbour Mice® of Nona Biosciences is the first fully human heavy chain only antibody (HCAb) transgenic mice platform in history. It is optimized, clinically validated with global patent protection. HCAb Harbour Mice® efficiently produces high affinity, and functional HCAbs with excellent biophysical characteristics. Fully human heavy chain only antibodies are the ideal antibody format to generate a multitude of next-generation therapeutic modalities including bispecific/multispecific antibodies, CART, ADC, and mRNA therapy.

13:00 Session Break

13:55 Close of Modulating the Tumour Microenvironment Conference

Therapeutic Cancer Vaccines

Immunological Advances for Cancer Treatment

TUESDAY 23 APRIL

7:45 Registration and Morning Coffee

8:30 Organiser's Welcome Remarks

THERAPEUTIC CANCER VACCINES: OVERVIEW

8:35 Chairperson's Remarks

Sjoerd H. Van Der Burg, PhD, Head, Experimental Cancer Immunology and Therapy Group, Leiden University Medical Center

8:40 The Requirement of Myeloid Effector Cells for Therapeutic Vaccine Efficacy

Sjoerd H. Van Der Burg, PhD, Head, Experimental Cancer Immunology and Therapy Group, Leiden University Medical Center

Therapeutic vaccines do not turn a cold tumour into hot. Neutrophils/m1 macrophages are attracted to the tumour and are required for therapeutic T cell-based vaccine efficacy. The pre-treatment tumour microenvironment composition (cellular ecosystem) determines vaccine efficacy.

9:10 Development of VB10.16, an APC-Targeting Therapeutic Cancer Vaccine for HPV-16 Induced Tumours

Karoline Schjetne, PhD, Vice President and Head of Biomarker and Translational Science, Nykode Therapeutics

Progress on the development and clinical results with VB10.16, an off-the-shelf antigen-presenting cell-targeting therapeutic cancer vaccine for HPV-16 induced tumours will be presented. The use of HPV ctDNA as a biomarker in HPV-induced tumours will also be discussed.

9:40 Understanding The Tumor Leads to Novel Class of Vaccine Development

Cedric Bogaert, CEO and Founder, MyNEO Therapeutics

The results from profiling more than 1500 tumor biopsies and TME evaluations will be presented, including characterization of camyopeptides derived from tumor-specifc lncRNAs. Understanding immunological responses reveal first-in-class potential of shared tumor targets. Progress in the design of mRNA-LNP vaccines will be discussed.

10:10 Morning Refreshment Break

NOVEL TARGETS

10:40 Vaccinating against a Hallmark of Cancer: Clinical Activity of a Telomerase-Based Cancer Vaccine UV1

Espen Basmo Ellingsen, MD, PhD, Director Medical Affairs, Ultimovacs

UV1 is therapeutic cancer vaccine generating immune responses against telomerase, a hallmark of cancer. As an off-the-shelf peptide-based vaccine, UV1 is developed in combination with immune checkpoint inhibitors across 5 randomized Phase 2 trials. Building on encouraging Phase 1 data, UV1 recently demonstrated a near doubling of objective responses and showed improvement in overall survival in a randomized Phase 2 trial in patients with malignant pleural mesothelioma.

11:10 Configuring Cryptic TSA to Build the Best Therapeutic Cancer Vaccines

Jonathan D. Moore, PhD, Founding CEO & CSO, Epitopea Ltd.

Epitopea is exploiting a new family of mass spec-identified wild-type TSAs derived from so-called non-coding DNA, representing the major opportunity for T cell-mediated control of tumours. Configured into an LNP-mRNA vaccine, the mouse counterparts of these antigens control tumour growth as single agents. We are configuring human cryptic TSAs into highly effective cancer vaccines, where each Class I TSAs within can be confirmed to be presented by mass spectroscopy.

11:40 *In situ* Vaccination by Viral Immunotherapy to Induce a Personalised Anti-Tumour Immune Response against Solid Tumours

Paul Peter Tak, MD, PhD, FMedSci, President & CEO, Candel Therapeutics

Candel's viral immunotherapies are designed to cause *in situ* vaccination against the unique antigens presented when tumour cells lyse and stimulate activation of both innate and adaptive immune mechanisms. The patient and tumour-specific memory response has been shown to produce a systemic and sustained anti-cancer effect. Data will be presented showing proof-of-concept in non-small cell lung cancer, pancreatic cancer, prostate cancer, and high-grade glioma.

12:40 Session Break

PEPTIDE-BASED VACCINES

13:10 Chairperson's Remarks

Inge M. Svane, MD, PhD, Professor & Director, National Center for Cancer Immune Therapy, CCIT-DK, Department of Oncology, Copenhagen University Hospital

13:15 Peptide-Based Cancer Vaccines Targeting Neoantigens and Immune Suppression

Inge M. Svane, MD, PhD, Professor & Director, National Center for Cancer Immune Therapy, CCIT-DK, Department of Oncology, Copenhagen University Hospital

Tumour mutations give rise to immunogenic HLA-presented neoantigens. Immune suppressive proteins like IDO and PD-L1 are expressed not only by melanoma cells but also by suppressive immune cells. Peptide-based cancer vaccines targeting patient-specific neoantigen or immune suppressive proteins elicit anti-cancer T cell responses and could be attractive therapeutic avenues to augment the effect of checkpoint inhibitor treatments.

13:45 Design and Development of PolyPEPI1018, an off-the-Shelf Peptide Vaccine against Colorectal Cancer

Eniko Toke, PhD, CSO, R&D, Treos Bio Ltd.

Strategies are needed to convert immunologically "cold" MSS CRC to "hot," responsive to immunotherapies. PolyPEPI1018 is an off-the-shelf, multi-peptide vaccine computationally designed to address both host and tumour heterogeneities. It has been tested in combination with other therapies in 3 Phase I/II clinical studies in MSS mCRC. These studies show that PolyPEPI1018 has a role in improving clinical outcome for a subset of patients identified with a candidate genetic biomarker.

14:15 New Class of Antigen-Specific Cancer Active Immunotherapies Based on an off-the-Shelf Antigen-Presenting Cell Line (PDC*line)

*Eric Halioua, PhD, CEO, PDC*Line Pharma*

PDC*line is a new, potent and scalable therapeutic cancer vaccine based on a proprietary allogenic cell line of plasmacytoid dendritic cells. It is much more potent to prime and boost anti-tumour antigens, including neoantigens, specific cytotoxic T cells, than conventional vaccines and improves the response to checkpoint inhibitors. The first results of the ongoing Phase I/II clinical trial for NSCLC patients will be presented.

14:45 Clinical Update on the DC Targeting Melanoma Vaccine, SCIB1 and The Modi-1 Vaccine Targeting Citrullination

Lindy Durrant, BSc, PhD, Professor, CEO, Scancell Ltd.

SCIB1 a DC targeting DNA vaccine gives at impressive 85% response rate in combination with ipilimumab and nivolumab in advanced melanoma. Citrullination occurs in stressed tumor cells and makes an excellent target for a universal cancer vaccine. Modi-1 targeting citrullination is currently in phase II clinical trial

15:15 Breakout Discussion with Afternoon Refreshments

Breakout Discussions are informal, moderated discussions, allowing participants to exchange ideas and experiences and develop future collaborations around a focused topic. Each discussion will be led by a facilitator who keeps the discussion

on track and the group engaged. To get the most out of this format, please come prepared to share examples from your work, be a part of a collective, problem-solving session, and participate in active idea sharing. Please visit the Breakout Discussions page on the conference website for a complete listing of topics and descriptions.

BREAKOUT DISCUSSION: TOPIC: The Pros and Cons of Personalized vs Off-the-Shelf Cancer Vaccines

Jonathan Kwok, CEO, Infinitopes

The genetic aberrations of each individual patient with cancer is different, which creates a challenge for the development of therapeutic cancer vaccines. The challenge is how to make them sufficiently targeted and effective across a wide range of individuals. The pros and cons of these two approaches will be discussed.

16:00 **Highlighting the Advancements in Computational Methods for Algorithm Testing of Neoantigens**

Andrew Craig, PhD, Vice President, Bioinformatics, Achilles Therapeutics

16:30 **Preclinical Proof Of Concept Studies of a Novel Human HER-2 Virus Like Particle as a Vaccine Candidate for Human Breast Cancers**

Farshad Guirakhoo, PhD, CSO, ExpresS2ion Biotechnologies Aps

We developed a human HER-2 vaccine candidate based on a proprietary VLP platform allowing assembly of ~50 molecules of HER-2 ECD on the surface of each particle. The vaccine showed promising therapeutic and prophylactic activities in human HER-2 transgenic mice, where animals were cured and remain tumor-free for their entire lives. The vaccine is ready to enter clinical trials in breast cancer patients in 2024 upon a successful CTA submission.

17:00 **Welcome Reception with Exhibit and Poster Viewing**

18:00 **Close of Day**

WEDNESDAY 24 APRIL

8:00 **Registration and Morning Coffee**

CLINICAL RESULTS

8:30 **Chairperson's Remarks**

Robert S Meehan, MD, Senior Director Clinical Development, Moderna

8:35 **mRNA Therapeutics in Cancer: Coming of Age**

Robert S Meehan, MD, Senior Director Clinical Development, Moderna

The advent to mRNA technology has unleashed a new wave of medicines, starting with COVID vaccine. The recent exciting data in melanoma and pancreatic cancer portends the power of this platform for unique applications in cancer. This presentation will highlight the latest developments of mRNA technology for immuno-oncology, including emerging clinical and translational data, ongoing studies and future development opportunities with this platform.

9:05 **Clinical Trial Results with a Personalised Neoantigen Vaccine in a Cold Tumour—Can We Bring the Heat?**

Andrew R. Allen, PhD, Co-Founder & President & CEO, Gritstone Bio

Delivering select neoantigens in a heterologous prime-boost vector system (adenoviral prime/samRNA boost) primes strong neoantigen-specific CD8 responses. In patients with advanced cold tumours, can this therapeutic approach drive immune responses, tumour cell destruction, and clinical benefit? Clinical trial data addressing these key questions will be reviewed.

9:35 **A First-in-Human Study to Evaluate a Personalised Neoantigen-Based mRNA Loaded Dendritic Cell Vaccine in Combination with Ablation in Patients with Hepatocellular Carcinoma**

Zhipeng Wang, Vice President of Translational Medicine & Clinical Development, Likang Life Sciences

In this clinical trial, the safety and T cell immune response of a personalized neoantigen-based mRNA loaded DC vaccine combined with regular ablation in HCC patients were evaluated. Results showed combination with ablation therapy, vaccine had a manageable safety profile, showing the evidence of immune activation, both preexisting immune response and *de novo* immune response that targeted neoantigens were observed, and potential of prolonged survival in HCC patients.

10:05 **Randomized Phase 3 Positive Results with OSE2101, an off-the-Shelf CD8 Neoepitopes Therapeutic Cancer Vaccine**

Silvia Comis, MD, Head of Clinical Development and Regulatory Affairs, OSE Immunotherapeutics

The CD8 T cell neoepitopes cancer vaccine, OSE2101, has been optimised to break self-tolerance against shared tumour-associated antigens by increasing affinity for TCR/HLA interactions. The presentation will highlight the positive Phase 3 results of OSE2101 evaluated in monotherapy versus chemotherapy in advanced non-small-cell lung cancer (NSCLC) patients who progress after immune checkpoint blockade: significantly better overall survival and quality-of-life, better safety profile.

10:35 **Coffee Break with Exhibit and Poster Viewing**

PLENARY KEYNOTE SESSION

11:15 **Chairperson's Remarks**

Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

11:20 **PLENARY KEYNOTE: Vaccines and T Cell Strategies to Mobilise Neoantigen-Specific Responses**

George Coukos, MD, PhD, Director, Department of Oncology, Lausanne University Hospital, and Director, Ludwig Institute for Cancer Research Lausanne Branch, University of Lausanne

11:55 **PLENARY KEYNOTE: Afami-cel: The Journey from TCR Engineering towards Commercial Cell Therapy**

Joanna Brewer, PhD, CSO, Adaptimmune R&D

Afami-cel is a first-generation engineered TCR T cell product targeting MAGE-A4 expressing solid tumours. Afami-cel has the potential to be the first marketed product of its kind and Adaptimmune is close to completing its BLA submission. Afami-cel has demonstrated substantial clinical benefit for people with synovial sarcoma who have had multiple prior lines of therapy. This is the story of afami-cel from early discovery through clinical development and commercial strategy.

12:30 **LUNCHEON PRESENTATION: HCAb Harbour Mice® Advances Multispecific, CART, and ADC Therapy in a New Level**

Jiyong Zhang, Head of Business Development, Nona Biosciences

HCAb Harbour Mice® of Nona Biosciences is the first fully human heavy chain only antibody (HCAb) transgenic mice platform in history. It is optimized, clinically validated with global patent protection. HCAb Harbour Mice® efficiently produces high affinity, and functional HCAbs with excellent biophysical characteristics. Fully human heavy chain only antibodies are the ideal antibody format to generate a multitude of next-generation therapeutic modalities including bispecific/multispecific antibodies, CART, ADC, and mRNA therapy.

13:00 **Session Break**

13:55 **Close of Therapeutic Cancer Vaccines Conference**

Next Generation Cell-Based Immunotherapies

Advances in Engineering and Development of CARs, TILs, and TCRs

WEDNESDAY 24 APRIL

PLENARY KEYNOTE SESSION

11:15 Chairperson's Remarks
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13:00 Session Break

ENGINEERING T CELLS

13:55 Chairperson's Remarks
John Maher, PhD, Consultant & Senior Lecturer, Immunology, King's College London; CSO, Leucid Bio

14:00 Targeting the Unconventional
Michele Mishto, PhD, Reader & Group Leader, Immunobiology, Francis Crick Institute
Since 2004, we have known that proteasomes can ligate peptide fragments through a process called peptide splicing, though few examples of their immunogenicity in the context of cancer have been published. We developed several pipelines to identify and predict these unconventional epitopes and tested their immunogenicity and potential for therapeutical applications mediated by CD8+ T cell cytotoxic activity.

14:30 Sequential Engineering of T Cell Receptor Chains through Functional Display Enables Removal of Cross-Reactivity
Sebastien Lalevee, PhD, Principal Scientist, Engimmune Therapeutics AG
TCR T cell therapy is an emerging therapeutic modality for the treatment of solid malignancies. Despite promising signs of clinical efficacy, the therapeutic potential of TCR T cells is limited by the risk of cross-reactivity to healthy tissues, which has previously resulted in severe toxicity. Here we report the removal of TCR cross-reactivity to specific off-targets using TCR-Engine, a high-throughput protein engineering method leveraging CRISPR-targeted TCR mammalian display, functional screening, and deep sequencing.

15:00 Sponsored Presentation *(Opportunity Available)*

15:30 Refreshment Break with Exhibit Hall and Poster Viewing

16:00 From NEXT to NICE: From Nanoparticle-Based *ex vivo* Therapeutics to Nanoparticle-Based *in vivo* Cell Engineering
Cecile Bauche, PhD, CSO, R&D & Manufacturing, Ixaka France
Alaya.bio develops targeting polymeric nanoparticles that can be used either *ex vivo* or *in vivo* for efficient and stable transduction of quiescent cells (like T cells) while preserving their naive and memory phenotypes. This new generation of polymeric nanoparticle is actually evaluated for *in vivo* CAR T therapy applications.

16:30 Engineering CAR T Cells to Enhance Homing and Infiltration to the Tumour Site
Marta Serafini, PhD, Head, Stem Cells and Immunotherapy Unit, Centro Tettamanti, IRCCS San Gerardo, Monza; Associate Professor, School of Medicine and Surgery, University of Milano-Bicocca
CAR Ts have produced remarkable clinical responses in acute lymphoblastic leukemia. Unfortunately, CAR Ts have not been successful in acute myeloid leukemia (AML). This is partially due to AML antigen selection and to biologic characteristics of the leukemic stem cells (LSCs). Armoring CAR Ts in order to drive them preferentially to the BM niche and consequently target LSCs at their location may enhance the potency of the conventional CAR Ts.

17:00 Novel Protein Engineering Strategies for Next Generation CAR T Cells
Michael Traxlmayr, PhD, Group leader, CD Laboratory for Next-Generation CAR T Cells, University of Natural Resources & Life Sciences
Major limitations in the CAR field include the poor controllability of CAR T cells after administration *in vivo* and their limited tumor specificity. In this talk, I will present novel protein engineering strategies for CAR binding domains with improved tumor specificity, as well as engineered protein switches that allow for functional control of CAR T cells with orally available small molecule drugs.

17:30 Close of Day

THURSDAY 25 APRIL

8:00 Registration and Morning Coffee

NOVEL APPROACHES TARGETING SOLID TUMOURS

8:30 Chairperson's Remarks
Cecile Bauche, PhD, CSO, R&D & Manufacturing, Ixaka France

8:35 Updates on LEU011: An Adaptor CAR Platform
John Maher, PhD, Consultant & Senior Lecturer, Immunology, King's College London; CSO, Leucid Bio
LEU011 consists of autologous T cells engineered to co-express an NKG2D-targeted adaptor CAR and CXCR2 chemokine receptor. Immunotherapy with LEU011 has achieved compelling efficacy in a broad range of solid tumour models, encompassing both immortalised xenografts and PDX. Leucid Bio has recently secured regulatory approval to undertake a Phase 1 clinical trial in which LEU011 will be evaluated in patients with a range of NKG2D ligand solid tumours.

9:05 Harnessing the Power of Engineered Macrophages to Treat Solid Tumours

Tom Wilton, Chief Business Officer, Carisma Therapeutics

Cell therapies have revolutionised how we treat cancer; however, there remains an unmet need for improved treatment of solid tumours. Carisma is developing a differentiated cell therapy platform focused on engineered macrophages, cells that play a crucial role in both the innate and adaptive immune response. The first applications of the platform are CAR-macrophages for the treatment of solid tumours, and the potential to transform the treatment of cancer.

9:35 Engineer CAR-Neutrophils for Targeted Chemoimmunotherapy against Glioblastoma

Xiaoping Bao, PhD, Assistant Professor, Chemical Engineering, Purdue University

Glioblastoma is the most common type of primary brain tumour with a high mortality rate, and the existence of blood-brain barrier (BBB) has impeded efficient delivery of promising therapeutics, including CAR T cells, into the brain to treat glioblastoma. Given the native ability of neutrophils to cross BBB, we tested the therapeutic concept that neutrophils could be engineered with CARs to target glioblastoma and effectively deliver chemo-drugs to cross BBB.

10:05 Coffee Break with Exhibit and Poster Viewing

10:35 The Role of Checkpoint Inhibition in TIL-Based Adoptive Cell Therapy

Inge M. Svane, MD, PhD, Professor & Director, National Center for Cancer Immune Therapy, CCIT-DK, Department of Oncology, Copenhagen University Hospital

The possibility to combine checkpoint inhibitors with TIL-based adoptive cell therapy is an appealing therapeutic approach. Preclinical models demonstrate that CPIs can benefit the phenotype of TILs and clinical trials have suggested a potential benefit. Furthermore, overexpression of PD-1 and LAG-3 on *in vitro*-expanded TILs indicates that blockade could be a relevant combination strategy to prevent TIL inactivation *in vivo*.

11:05 Development of a Neoantigen-Specific TILs Therapy in Advanced Carcinoma

Balkese Alhamad, PhD, Postdoc, Cancer Department, King Abdullah International Medical Research Center (KAIMRC)

Tumour infiltration lymphocytes (TILs) therapy showed a great result in some types of cancers such as melanoma. Yet, it is not the case in other solid cancers and is more challenging. Therefore, a next-generation TILs is needed where the TILs become more functional with the help of neoantigen discovery. Neoantigens are unique to tumour cells and make them more immunogenic.

11:35 CoStAR, a Chimeric Costimulatory Antigen Receptor, Enhances Anti-Tumour Activity of T Cells and Tumour-Infiltrating Lymphocytes

John Bridgeman, PhD, Director, Cell Therapy Research, Instil Bio

12:05 Breakout Discussions with Hosted Luncheon

Breakout Discussions are informal, moderated discussions, allowing participants to exchange ideas and experiences and develop future collaborations around a focused topic. Each discussion will be led by a facilitator who keeps the discussion on track and the group engaged. To get the most out of this format, please come prepared to share examples from your work, be a part of a collective, problem-solving session, and participate in active idea sharing. Please visit the Breakout Discussions page on the conference website for a complete listing of topics and descriptions.

TOPIC: Optimizing Cell Therapy: Antigen Selection, Sequence and Targeting Strategies

Sebastian Kobold, MD, Professor, Clinical Pharmacology, Klinikum der Universität München

- How can we pick the best antigens for targeting?
- How many antigens and in which sequence do we need?
- What would the properties of ideal adaptors or modules for cell therapy look like?
- Will targeting be enough?

TOPIC: TOPIC: Engineering Strategies for Next-Generation CAR T Cells

Michael Traxlmayr, PhD, Group leader, CD Laboratory for Next-Generation CAR T Cells, University of Natural Resources & Life Sciences

- Logic gated CAR T cells
- Small molecule-regulated switches to control CAR T cell function
- Improving efficacy, while maintaining safety

13:05 Session Break

NOVEL APPROACHES TARGETING SOLID TUMORS (CONT'D)

13:10 Chairperson's Remarks

Tom Wilton, Chief Business Officer, Carisma Therapeutics

13:15 Medigene's MDG1015, a Third-Generation TCR T Therapy Incorporating the PD1-41BB Costimulatory Switch Protein, Advancing to the Clinic

Kirsty Crame, MD, Vice President & Head Clinical R&D, Medigene AG

Advancing the clinical success of adoptive cell therapy to solid tumours is challenging. For TCR T therapies to be successful in solid tumours, a specific, sensitive and safe(3S) TCR, engineered to overcome the immunosuppressive tumour microenvironment, administered in the optimal drug product cell composition, is required. Here, we discuss data from MDG1015 (NY-ESO-1/LAGE-1a) and MDG2011 (KRASG12V mutation)-targeted TCR T therapies, co-expressing a 3S TCR and PD1-41BB costimulatory switch protein.

13:45 The Best of Two Worlds: Using Antibody Derivatives for Modular Cellular Therapies of Cancer

Sebastian Kobold, MD, Professor, Clinical Pharmacology, Klinikum der Universität München

A major barrier to cellular therapies in oncology is the adequate choice of antigen. In the absence of truly specific cancer surface antigens, targeting remains a trade-off between efficacy and toxicity. At the same time, cancer is heterogeneous and prone to downregulate antigens, driving therapeutic pressure. This talk will be dedicated to modular cell therapies that use antibody derivatives both as flexible targeting modality and safety control module.

14:15 Strategies for Boosting Anti-Cancer Immune Responses by Coordinated Combination Immunotherapies

Dilara Sahin, PhD, Postdoctoral Researcher, BoymanLab, Immunology, University Hospital Zurich

The ability of interleukin-2 to strongly stimulate effector cells has promoted its approval as the first cancer immunotherapy. Thirty years later, numerous improved IL-2-based biologics are entering clinical testing. We have generated a unique anti-IL-2 antibody that can bind IL-2 in a distinct way and direct its action to desired immune cells. Subsequently, using a novel cytokine-CDR grafting approach, we have developed a second-generation, single-molecule, biased-IL-2 construct.

14:45 CLOSING KEYNOTE: Targeting Clonal Neoantigens with Precision T Cell Therapies

Sergio A. Quezada, PhD, Professor, Cancer Immunology & Immunotherapy, University College London

Whilst tumour mutations are considered key targets in cancer immunotherapy, a body of evidence points now to the superior and unique value of clonal neoantigens over subclonal neoantigen-targeting in cancer. We will discuss the data supporting the role of clonal neoantigens in solid-tumour immunotherapy and the tools and platforms we have developed at Achilles Therapeutics to target this unique class of antigens.

15:15 Close of Conference

Bispecific and Multi-Specific Antibody Therapeutics

Advancing Biotherapeutic Formulation, Analysis, and Delivery

WEDNESDAY 24 APRIL

PLENARY KEYNOTE SESSION

11:15 Chairperson's Remarks
Dario Neri, PhD, CEO and CSO, Philogen; Professor, Chemistry and Applied Biosciences, ETH Zurich

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George Coukos, MD, PhD, Director, Department of Oncology, Lausanne University Hospital, and Director, Ludwig Institute for Cancer Research Lausanne Branch, University of Lausanne

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13:00 Session Break

IMPROVING SAFETY AND STABILITY PROFILES

13:55 Chairperson's Opening Remarks
Simon Krah, PhD, Associate Director, Protein Engineering & Antibody Technologies, Merck KGaA

14:00 Dissecting the Mechanisms Underlying the Cytokine Release Syndrome (CRS) Mediated by T Cell Bispecific Antibodies
Claudio Schmidt, Research Associate, Cancer Immunotherapy, Roche
CRS is one of the major safety liabilities associated with treatment with T cell engaging therapies in the clinic, including CAR T cells and T cell engagers. A series of *in vitro* and *in vivo* preclinical studies were conducted to gain a better understanding of the biological mechanisms inducing CRS, providing new avenues for the mitigation of the same.

14:30 FEATURED PRESENTATION: Using Protein Geometry to Optimise Cytotoxicity and the Cytokine Window of a ROR1-Specific T Cell Engager
Harald Kolmar, PhD, Professor and Head, Institute for Organic Chemistry and Biochemistry, Technische Universität Darmstadt
Cytokine release syndrome represents a major obstacle upon application of T cell engagers. Using ROR1 as model TAA and modular camelid nanobodies, we describe the engineering of next-generation decoupled TCEs that incorporate a "cytokine window" defined as a dose range in which maximal killing is reached and butcytokine release is attenuated. The optimised molecule induced significant tumour growth inhibition *in vivo* and no signs of adverse events were observed.

15:00 Enhanced Multifunctional Antibody Evaluation with *Ex Vivo* Circulating Human Whole Blood Test system (ID.Flow®) Immuneed.
Sakthi Srinivasan, Ph.D., Customer Project Lead, Immuneed AB
Nonclinical drug-development models have limitations, resulting in less relevant assessments of human immune responses to antibody-based drugs. This talk focuses on case studies demonstrating a simultaneous investigation of the immunotoxicity and efficacy of multifunctional antibodies in ID.Flow®. ID.Flow® is an *ex vivo* test system using minimally manipulated whole blood, including blood immune cells and serum immunoglobulins, intact complement, and coagulation cascade systems. It shows high sensitivity in detecting acute immune-mediated reactions.

15:30 Refreshment Break with Exhibit Hall and Poster Viewing

OPTIMISING DESIGN AND ENGINEERING

16:00 Selection and Bispecific Engineering of Ultralong CDR-H3 Antibodies
Simon Krah, PhD, Associate Director, Protein Engineering & Antibody Technologies, Merck KGaA
This talk gives an overview of the identification and engineering of cattle-derived ultralong CDR-H3 antibodies. Specifically, a novel symmetric bispecific antibody format based on engraftments of cattle-derived knob paratopes onto peripheral loops of the IgG1 Fc region will be presented. For this, knob architectures were inserted into the AB loop or EF loop of the CH3 domain, enabling the generation of a novel symmetric bispecific antibody format.

16:30 Modular Biomolecular Designs for Multifunctional Antibodies
Ken Howard, PhD, Associate Professor, Interdisciplinary Nanoscience Center, Aarhus University
This talk will describe albumin-based biomolecular designs utilising nucleic acid assemblies for incorporation of functionalised modules into bispecific T cell engagers. The inclusion of albumin sequences with different FcRn affinity used to tune pharmacokinetics and efficacy exhibited in double transgenic human albumin/human FcRn mouse models. A design for synergistic immuno-oncology biologic combinations will be presented.

17:00 Directed Assembly of Bispecific Antibodies by Electrostatic Steering—The FAST-Ig Platform

Hikaru Koga, PhD, Research Scientist, Biologics R&D, Chugai Pharmaceutical Co. Ltd.

To address chain-pairing issues when expressing bispecific antibodies, we established a technology called FAST-Ig which promotes correct heavy- and light-chain assembly through electrostatic steering. Using NXT007 as an example, I will discuss critical factors like pairing potency, titre, physicochemical properties, and purification when applying FAST-Ig to clinical candidate antibodies. Additionally, I will introduce a next-generation T cell engager targeting CLDN6 that also utilises FAST-Ig.

17:30 Close of Day

THURSDAY 25 APRIL

8:00 Registration and Morning Coffee

NOVEL APPROACHES AND APPLICATIONS TO SOLID TUMOURS

8:30 Chairperson's Opening Remarks

Luis Álvarez-Vallina, PhD, Head, H12O-CNIO Cancer Immunotherapy Clinical Research Unit, Spanish National Cancer Research Centre (CNIO)

8:35 Novel Bispecific Immunocytokines to Recruit Neutrophils as Effector Cells in Cancer

Marjolein van Egmond, PhD, Professor, Oncology and Inflammation, Surgery/ Molecular Cell Biology and Immunology, Amsterdam UMC

Antibody-based immunotherapy is a promising strategy in cancer treatment. IgG eliminates tumor cells through NK cell-mediated ADCC and macrophage-mediated antibody-dependent phagocytosis. Neutrophils have been largely overlooked as potential effector cells, because IgG ineffectively recruits neutrophils. Bispecific antibodies, which potently activate neutrophils and induce migration through FcaRI have been developed. Coupling of cytokines or chemokines further recruits neutrophils as effector cells, which will be discussed.

9:05 OpTiMus: A Novel Transgenic Mouse Platform for Discovery of Fully Human Therapeutic-Grade TCRs and Generation of Bispecific T Cell Engagers

Wei Wang, PhD, Senior Director, Research, T Therapeutics

We are at the dawn of a wave of TCR-based biologics and cell therapies recognising peptide-MHC, which expands oncology target opportunities beyond traditional mAb targets. I will provide an update on the development of T-Therapeutics' OpTiMus platform which is a novel mouse transgenic platform for discovery of fully human therapeutic TCRs and bispecifics. It will cover an overview of our state-of-the art discovery process with data on our bispecific modality.

9:35 Combination Therapy with a Bispecific Antibody Targeting the hERG1/β1 Integrin Complex and Gemcitabine in Pancreatic Ductal Adenocarcinoma

Claudia Duranti, PhD, Full-Time Researcher, Experimental and Clinical Medicine, University of Florence

During this presentation, we'll delve into a groundbreaking PDAC treatment approach. Combining gemcitabine with the novel bispecific antibody scDb-hERG1-ß1, we validate its efficacy *in vitro* and in an orthotopic xenograft mouse model. We discuss enhanced cytotoxicity, reduced tumour masses, increased survival, and minimized toxicity. The scDb-hERG1-ß1 targets the hERG1/ß1 integrin complex, offering a promising therapeutic avenue for PDAC—leveraging low chemotherapy doses to mitigate side effects and resistance

10:05 Coffee Break with Exhibit and Poster Viewing

10:35 Breaking the Solid Tumour Stromal Barriers Using Targeting Trispecific Agents

Mark L. Chiu, PhD, CSO, Tavotek Biotherapeutics

TAVO412, a trispecific anti-cMET x anti-EGFR x anti-VEGF antibody, has strong preclinical activity in triple negative breast cancer, gastric cancer, pancreatic cancer, and small cell lung cancer in CDX and PDX models. We highlight how engineering the mechanisms of action contributed to better solid tumour growth inhibition. In addition, we describe how several strategies of using combinations of standards-of-care treatments demonstrated stronger tumour growth inhibition.

10:55 Novel Bispecific Antibodies Targeting the HERG1/BETA1 Integrin Complex in Cancer

Annarosa Arcangeli, Professor, Experimental Pathology & Oncology, University of Florence

This presentation will discuss the development of a novel single-chain bispecific antibody, scDb-hERG1-β1, designed to target the hERG1 potassium channel and β1 integrin subunit. Demonstrating specificity for cancer cells, it effectively downregulates the hERG1/β1 complex, inhibits Akt phosphorylation, and reduces cell survival and migration. *In vivo*, scDb-hERG1-β1 exhibits promising pharmacokinetics, lacking general toxicity. This innovative antibody presents a potential therapeutic avenue for solid cancers overexpressing the hERG1/β1 integrin complex.

11:15 New Delivery Strategies for Bispecific Antibody-Based Therapies

Luis Álvarez-Vallina, PhD, Head, H12O-CNIO Cancer Immunotherapy Clinical Research Unit, Spanish National Cancer Research Centre (CNIO)

T cell-redirecting immunotherapies toward tumour cells are actively being investigated. The clinical success of bispecific T cell-engaging (TCE) antibodies and CAR T cells in haematological malignancies, has led to renewed interest in a novel cancer immunotherapy that combines features of antibody- and cell-based therapies. This approach is based on the secretion of TCEs by engineered T cells (STAb-T cells) has demonstrated anti-tumour activity in both solid tumour and haematologic tumours.

11:35 Accelerating Bispecific Discovery with Alloy's Common Light Chain Fully Human Transgenic Mouse Platform

Alloy Therapeutics

Mike Schmidt, PhD, Chief Scientific Officer, Alloy Therapeutics

Alloy bispecific discovery services integrate best-in-class platforms with world class scientists to serve as an extension of your R&D team. Building on industry leading mouse platforms for fully human antibody discovery, Alloy has created Common Light Chain strains, ATX-CLC, to build bispecifics with better developability profiles by solving heavy and light chain pairing. Leveraging ATX-CLC Alloy supports bispecific discovery through format engineering and functional assessment to move candidates forward rapidly.

12:05 Breakout Discussions with Hosted Luncheon

Breakout Discussions are informal, moderated discussions, allowing participants to exchange ideas and experiences and develop future collaborations around a focused topic. Each discussion will be led by a facilitator who keeps the discussion on track and the group engaged. To get the most out of this format, please come prepared to share examples from your work, be a part of a collective, problem-solving session, and participate in active idea sharing. Please visit the Breakout Discussions page on the conference website for a complete listing of topics and descriptions.

TOPIC: Optimizing Engineering of Bi and Multi-specific Antibodies

Hikaru Koga, PhD, Research Scientist, Biologics R&D, Chugai Pharmaceutical Co. Ltd.

- Lead BsAb screening and optimizing binding affinity
- Leveraging computational tools
- Engineering for developability and optimal manufacturability
- Mitigating off-target effects

TOPIC: Drugging the Unreachable: Strategies for Tissue-Specific Intracellular Delivery
Maria P. MacWilliams, PhD, Vice President Molecular Biology, Tavotek Biotherapeutics

13:05 **Session Break**

ANALYSIS, CHARACTERISATION, AND SCREENING

13:10 **Chairperson's Remarks**
Tilman Schlothauer, PhD, Senior Principal Scientist, Roche Diagnostics GmbH

13:15 **eIg-Based Bispecific T Cell Engagers: Format Matters**
Oliver Seifert, PhD, Senior Scientist, Institute of Cell Biology and Immunology, University of Stuttgart
The eIg platform technology was used to generate a set of bispecific TCEs targeting EGFR and CD3. In total, eleven different TCE formats were analysed for binding to target and T cells, T cell-mediated killing of tumour cells, and for the activation of T cells. Our findings support that screening of a panel of formats is beneficial to identify the most potent bispecific TCE—and that format matters.

13:45 **Characterisation of T Cell-Recruiting Bispecific Antibody Formats by New Developed Analytical Methods**
Tilman Schlothauer, PhD, Senior Principal Scientist, Roche Diagnostics GmbH
T cell-engaging bispecific antibodies (TCBs) targeting CD3 and tumour-specific antigens are very promising therapeutic modalities. New complex antibody formats harbor some analytical challenges that are ideally assessed by advanced and new developed methods. Here, we report a study to separate and identify critically modified proteoforms of TCBs using functional CD3 target affinity chromatography (AC) coupled with online mass spectrometry (MS).

14:15 **Multispecific Antibody Generation Using a Novel Toolkit Facilitating Functional Screening and Selection of Therapeutic Leads**
Bradley M. Lunde, PhD, Group Leader, Adimab LLC
While multispecific antibodies are a promising class of therapeutics entering clinical pipelines, they are inherently more complex in their design and generation. To that end, we describe a molecular toolkit for the robust generation of multispecific antibodies. The toolkit includes novel Fc and Fab pairing solutions, and versatile production and purification approaches. We demonstrate the broad applicability of our toolkit by interrogating a diverse panel of CD3- and CD28-containing multispecifics.

14:45 **Analysis of Binary and Ternary Binding Kinetics of Multispecific Antibodies on Biosensors and Cells**
Ulrich Rant, PhD, CEO, R&D, Dynamic Biosensors GmbH
This presentation delves into the analysis of binary and ternary binding kinetics of multispecific antibodies using biosensors and cell-based approaches. Insights from this examination contribute to refining therapeutic strategies and optimising antibody design for enhanced efficacy in diverse biological contexts.

15:15 **Close of Conference**

HOTEL AND TRAVEL

Conference Venue and Hotel:
Hilton London Canary Wharf
South Quay, Marsh Wall
London, E14 9SH, United Kingdom

Discounted Room Rate: £269, includes full breakfast and Wi-Fi
Discounted Room Rate Cut-off Date: 15 March 2024

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