Biologics UK: In-Person

06 - 07 September 2021 | London, UK

+ Digital Day: 08 September 2021 | Online

ENGAGE, EDUCATE & ELEVATE

400+
LEADING PHARMA, BIOTECH AND ACADEMIC DELEGATES ATTENDING ON-SITE & VIRTUALLY

70+
PRESENTATIONS, CASE STUDIES AND DISCUSSIONS

16+ HOURS
OF INTERACTIVE SESSIONS – Q&As, PANEL DISCUSSIONS, ROUNDTABLES & WORKSHOPS

Conference Brochure

KEY SPEAKERS INCLUDE

Caroline Barelle
Elasmogen

Colette Johnston
Crescendo Biologics

Jens Frauenfeld
Salipro Biotech

Susanne Hipp
Boehringer Ingelheim

Werngard Czechtizky
AstraZeneca

Thomas Tucker
MSD Research Laboratories

Book Online: www.oxfordglobal.co.uk/biologics-series/
Join the Conversation: #BiologicsSeries21

OXFORD GLOBAL CONFERENCES

Welcome Back to Biologics In-Person

Oxford Global are pleased to share with you the 2021 programme of our flagship event, **Biologics UK: In-Person**, returning to London in September. The event features 3 outstanding congress programmes looking at the latest developments in the field: **14th Annual Proteins & Antibodies Congress**, **8th Annual Peptides Congress** and **3rd Annual Bispecifics in Drug Development Congress**.

London's biggest biologics event will be returning in a hybrid format, with a revamped & extended programme featuring cutting-edge presentations and a conference room dedicated to interactive sessions such as roundtables, panel discussions and workshops. Providing a unique opportunity to maximize your event experience, you will have the chance to participate in engaging discussions and meetings delving into some of the main areas of the industry: protein & antibody engineering, bioanalysis, vaccine development, bispecifics development, peptide chemistry, analytical technologies and formulation & delivery.

Benefits to Attending

- Discuss the latest innovations in protein & antibody engineering. Presentations will delve into advanced engineering techniques, cutting-edge antibody discovery platforms, current challenges & future opportunities of ADCs
- Discover collaborative solutions to bioanalysis. Discuss the latest advancements in characterizations, mass spec, developability & aggregation updates
- Join a series of interactive discussions pertaining to the latest biologics research & development: boosting bispecifics efficacy with viruses, approaches to construct design, tackling challenges of complex membrane proteins and a dedicated workshop on 'T Cell engagement & T Cell Activation' looking at the design of T cells, challenges in solid tumours and combinations activating multiple T cells
- New to 2021 is the vaccine development focus where you will be able to join presentations covering using humanized mice to evaluate vaccine efficacy, novel platforms for vaccine research and the impact of COVID-19
- Discover the latest innovations in peptides analytics and CMC. Presentations will cover early peptide analytics, characterization and latest updates in CMC
- Take a deep dive into optimizing the processes in peptide chemistry to help maintain the dominance of peptide therapeutics within the market as well as discussions on the latest research pertaining to peptide formulation & delivery

BROCHURE CONTENTS

02. Welcome
03. Attendees & Sponsors
04. Session Topic Areas
04. Confirmed Speakers
06. Full Programme Agenda: Day One & Day Two
15. Full Programme Agenda: Digital Day
18. Hybrid Event Format

On-site Health & Safety

At Oxford Global, the safety and well-being of our clients is our top priority, and we are committed to ensuring that our congresses remain safe and successful. In anticipation of the return of our In-Person events in 2021, we have reviewed all areas of our congresses and a detailed plan is currently in place; from the registration process and networking activities, to the one-on-one meetings and set-up of our presentations.

We are following all guidelines set out by the Association of Event Organisers and its stakeholders to ensure a safe return to live events. These guidelines have been approved by the UK government. We are confident that your participation will be in a safe and secure environment, and look forward to you joining us in 2021

WHO IS ATTENDING?

400+ VPs, Directors & Senior Managers will be attending on-site and online, coming from leading healthcare, biotech, pharma and research institutions in the following fields and more:

PROTEINS & BISPECIFICS

- Protein Structure
- Protein Design
- Protein Engineering
- Protein Screening
- Vaccine Development
- ADC
- Antibody Design
- Antibody Engineering
- Biotherapeutics
- Display Technologies
- Bispecific Antibodies
- Bioanalysis

PEPTIDES

- Peptide Formulation
- Molecular Biology
- Peptide Design
- Peptide Screening
- Peptide Synthesis
- Peptide Delivery
- Medicinal Chemistry
- Physical Chemistry
- Peptide Analysis
- Purification
- Peptide Therapeutics
- Analytical Development

Projected Attendee Profile

- 70% Pharma, Biotech & Academia
- 30% Solution Providers

- 35% C-Level / Director
- 20% Heads & Managers
- 20% Principles, Senior Scientists & Team Leads
- 25% Scientists

- 55% UK
- 35% Europe
- 10% USA & Rest of World

These companies and many more:

MedinCell, AstraZeneca, novo nordisk, GlaxoSmithKline, SANOFI, REGENERON, NOVARTIS, King's College London, Intarcia, enterome, MSD, Lilly, abbvie, Pfizer, University of Toronto

Formal and informal meeting opportunities offer delegates the chance to discuss key solutions with leading service providers:

PROTEINS & BISPECIFICS

- Expression Platforms
- Engineering Tools
- Conjugation Technologies
- Display Technologies
- Developability
- Assessment
- Computational Tools
- Modelling Platforms
- Conjugation Technologies
- Bioanalysis Tools
- Recombinant Vaccines
- Protein Purification

PEPTIDES

- Peptide Synthesis
- Peptide Design
- Peptide Delivery
- Peptide Conjugation
- Stability Testing
- Peptide Array
- Peptide Predictions
- Analytical Development
- Peptide Analysis Tools
- Peptide Purification
- Peptide Libraries
- Peptide Immunization

WHO IS SPONSORING?

Platinum Sponsors

GenScript – Make Research Easy
Lonza – Pharma & Biotech

Gold Sponsors

GemPharmatech
InstaDeep
SCIEX – The Power of Precision

Silver Sponsors

aic – an LBB Specialties Company
ENPICOM
FUJIFILM Diosynth biotechnologies
PolyPeptide Group – The Ultimate Peptide Partner
RE-FEYN
TWIST Bioscience

Bronze Sponsor

ambio
BACHEM
Berkeley Lights
BIO-RAD
Bio-Works
CODEX DNA
Fluidic Analytics
GYROS PROTEIN Technologies
ImmunoPrecise
PEPSCAN

Network & Programme Sponsors

ALMAC
Benchling
carterra
cytiva
GLS
IBIS Technologies
REDSHIFTbio – See change
HexagonFab
SGS

Webinar Sponsors

Agilent
CEM

SESSION TOPIC AREAS

Biologics UK: In-Person features **2 days** of in-person cutting-edge presentations and knowledge-sharing, including **over 65** industry insights, sponsored presentations, think tank roundtable discussions and complimentary pre-event webinars, followed by a dedicated **Digital Day** delivered through our online event platform.

DAY ONE - 06 SEPTEMBER

Antibody Engineering

- Innovative design and engineering approaches
- ADCs: conjugation chemistry
- New antibody formats
- Advanced bispecific engineering techniques
- Engineering novel proteins to tackle biotherapeutic challenges
- Combination strategies
- Emerging engineering methods & tools

Bioanalysis: Characterisation & Developability

- Characterisation with mass spec
- Developability assessment
- Biosimilar development
- PK/PD

Bispecifics Discovery & Development

- Novel discovery and advanced platforms
- T-Cell re-direction and T-Cell-engaging molecules & strategies
- Validating novel applications
- Enhancing product developability
- Tri-, tetra- and multispecifics – future opportunities and therapeutic potential

Including a workshop on 'T Cell Engagement & T Cell Activation'

Peptide Synthesis, Formulation & Delivery

- Advanced peptide synthesis techniques & technologies
- Enhancing peptide bioavailability
- Late-stage functionalization
- Novel formulation strategies for peptides
- Novel peptide delivery strategies
- Overcoming the challenges of oral peptide delivery

DAY TWO - 07 SEPTEMBER

Protein Engineering

- Machine learning guided protein engineering
- Computational and analytical tools for protein engineering:
  - » Evaluating new modeling softwares & platforms
- Targeting complex membrane proteins
- Mammalian eression platforms

Vaccine Development & Therapeutics

- Evaluating the efficacy of vaccines
- Novel platforms aiding vaccine research
- Developing protein-based vaccines for the treatment of Covid-19
- Antibody-therapies for Covid-19

Advancing Bispecifics To The Clinic & Therapeutic Use

- Combination therapies
- Accelerating bispecifics in the clinic
- Case studies

Peptide Analytics & CMC

- Early peptide analytics and characterization
- Peptide analytical method development
- Analytical and bioanalytical strategies for peptide development
- Immunogenicity assessment
- Peptide purification strategies
- Manufacturing updates

DIGITAL DAY - 08 SEPTEMBER

Presentations & interactive sessions across all above topics, delivered through our virtual event platform

CONFIRMED SPEAKERS – DAY ONE

(Joining Online:) **JENS FRAUENFELD**
Chief Executive Officer, Salipro Biotech

CAROLINE BARELLE
Chief Executive Officer, Elasmogen

(Joining Online:) **WILLIAM OLSON**
Vice President, Therapeutic Proteins, Regeneron

(Joining Online:) **STEFAN WARMUTH**
Vice President, Head CMC, Numab

(Joining Online:) **LAUREN GOODRICH,**
Director, Research & Development
Nimble Therapeutics

(Joining Online:) **SANYOGITTA PURI**
Associate Director, AstraZeneca

(Joining Online:) **RAJKUMAR GANESAN**
Director Antibody Engineering, Alector

RUUD DE WILDT
Director, Head of Lead Discovery, GlaxoSmithKline

STEPHEN HARPER
Associate Director, Immunocore

ERNST WEBER
Head of Molecular Design & Engineering, Bayer AG

(Joining Online:) **HENRY MAUN**
Associate Director, Genentech

(Joining Online:) **ANETTE SUNDSTEDT**
Principal Scientist, Alligator Bioscience

(Joining Online:) **NICOLAS SABARTH**
Research Laboratory Head in Biotherapeutics Discovery / Cancer Immunology, Boehringer Ingelheim

ALEX MACPHERSON
Senior Principal Scientist, UCB

REBECCA ENO
Senior Scientist, Developability Profiling, GlaxoSmithKline

DAN KRISTENSEN
Principal Scientist, Analytics & Formulation, Symphogen

ROBIN CURTIS
Senior Lecturer, The University of Manchester

(Joining Online:) **THOMAS TUCKER**
Principal Scientist, Modalities Chemistry, MSD Reserach Laboratories

ANDREW JAMIESON
Senior Lecturer, University of Glasgow

(Joining Online:) **SYLVESTRE GRIZOT**
Principal Investigator, MedInCell

JOHN MCCAFFERTY
Chief Executive Officer, Maxion

SARAH STUART
Team Leader, GlaxoSmithKline

(Joining Online:) **DARKO SKEGRO**
Senior Principal Scientist, Novartis

(Joining Online:) **CHARLOTTE DEANE**
Professor of Structural Bioinformatics and Head of the Oxford Protein Informatics Group (OPIG), University of Oxford

ROGER NEW
Co-Founder & Chief Scientific Officer, Proxima Concepts Ltd

GOKHAN YAHIOGLU,
Director of Medicinal Chemistry, Antikor

CONFIRMED SPEAKERS – DAY ONE & TWO

(Joining Online:) **COLETTE JOHNSTON**
Senior Director, Research, Crescendo Biologics

THOMAS HUBER
Research Director, Almirall

STEPHEN REECE
Director, Antimicrobial Antibodies and Vaccines, Kymab

(Joining Online:) **THOMAS HØEG-JENSEN**
Scientific Director, Novo Nordisk

KLAUS R. LIEDL
Professor & Head, General, Inorganic & Theoretical Chemistry, University of Innsbruck

TREVOR WILKINSON
Associate Director, AstraZeneca

DALE STARKIE
Principal Scientist – Group Leader Antibody Discovery, UCB Celltech

MAJA FIRCZUK
Protein Chemist, GlaxoSmithKline

MICHAEL MULLIN
Protein Technologies Group Leader, GlaxoSmithKline

MATTHIAS EHEBAUER
Senior Scientist, Ipsen

(Joining Online:) **FRANZISKA MORTENSEN**
Scientist, Protein Engineering, Merus

AHUVA NISSIM
Professor, Queen Mary University

(Joining Online:) **YEHUDA SHOENFELD**
Professor, Tel-Aviv University

(Joining Online:) **MARIA KNUDSEN**
Business Development Director, Salipro Biotech AB

(Joining Online:) **ALBERT ISIDRO LLOBET**
Fellow, GlaxoSmithKline

ANDY WILSON
Professor of Organic Chemistry, University of Leeds

(Joining Online:) **MARTIN KENWORTHY**
Associate Principal Scientist, AstraZeneca

LOUISE WALPORT
Lecturer & Physical Science Group Leader, Francis Crick Institute & Imperial College London

STEVEN MCINTYRE
Peptide Process Development Manager, Almac

GEMMA MUDD
Team Leader, Bicycle Therapeutics

JODY MASON
Professor, Bath University

CONFIRMED SPEAKERS – DIGITAL DAY

OLIVER HILL
Vice President, Drug Discovery / Lead Optimization, Apogenix AG

CHRISTINE ROTHE
Vice President, Research Platform & Alliances, Head of Discovery & Alliance Management, Pieris Pharmaceuticals

MATTHEW SLEEMAN
Vice President, Immunology & Inflammation, Regeneron

WERNGARD CZECHTIZKY
Executive Director, Head Medicinal Chemistry, Respiratory And Immunology, AstraZeneca

JOHANNA MORA
Director, Bristol Myers-Squibb

SEEMA KUMAR
Director and Head of Clinical Bioanalytical Sciences, EMD Serono/Merck

STEFAN ZIELONKA
Associate Director, Protein Engineering & Antibody Technologies, Merck KGaA

CHRISTOPHER KOTH
Principal Scientist and Project Team Leader, Genentech

MICHAEL TESAR
Head of Research Operations, Affimed

SUSANNE HIPP
Senior Associate Director, Boehringer Ingelheim

CHIEN-WEN HUNG
Fellow, Novartis

ANNA-CARIN CARLSSON
Senior Scientist, AstraZeneca

HUYEN TRAN
Senior Research Scientist, Eli Lilly

VOLKER DERDAU
Section Head, Isotope Chemistry, Sanofi

VINCENT DEWAR
Lead Monoclonal Antibodies Platform, GlaxoSmithKline

CARLO BOUTTON
Global Head Innovation, Large Molecule Research Platform, Sanofi

VIRGINIE NAEGELE
Principal Scientist, Amgen

YUEH-MING LOO
Director, Virology and Vaccine Discovery, AstraZeneca

DAVID BRAYDEN
Professor of Advanced Drug Delivery, University College Dublin

Virtual Event Platform Tip

Take advantage of the regular *Live Q&A & Ask The Experts Sessions* on the Digital Day to put your questions directly to the speakers.

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING | PROTEINS & ANTIBODIES: BISPECIFICS | PROTEINS & ANTIBODIES: BIOANALYSIS | PEPTIDES: CHEMISTRY

LIVE AUDITORIUM

07:50 **Oxford Global Welcome Address & Chairperson's Opening Address**

08:00 - 08:30

Keynote Address:
Developing A Well-Tolerated Antibody Fragment Drug Conjugate (FDC) For Superior Treatment Of Solid Tumours

- Antibody Fragment-Drug Conjugates
- Breast Cancer; Gastric Cancer; Solid Tumour; Penetration
- High Drug-to-Antibody Ratio
- PK For Solid Tumours; Tailored Linker

GOKHAN YAHIOGLU, Director of Medicinal Chemistry, **Antikor Biopharma Ltd**

LIVE AUDITORIUM

08:30 - 08:55

Multiparameter Antibody Optimization By A High Throughput Protein Engineering Platform

- Introduction of an HT antibody engineering platform capable of optimizing multiple parameters like stability, x-reactivity, affinity, potency and immunogenicity potential in parallel
- Providing case studies of the platform including the optimization of antibodies targeting GPCRs
- Presenting how to build new in silico prediction tools based on the HT experimental optimization data

ERNST WEBER, Head of Molecular Design & Engineering,
Bayer AG

08:55 - 09:25

Twist Biopharma: Writing The Future Of Biologics To Discover And Optimize Single Domain Antibodies

Utilizing its proprietary DNA technology to write synthetic libraries, Twist Biopharma provides end-to-end antibody discovery and optimization solutions including a panel of highly diverse synthetic naïve single domain antibody phage display libraries. In this presentation, Aaron will give an overview of these libraries and present several case studies.

AARON K. SATO, Chief Scientific Officer, Biopharma, **Twist Bioscience**

TWIST BIOSCIENCE

DISCUSSION ROOM

Roundtable Discussion:
Chemical Modification Of Peptides For Optimal Delivery: Opportunities & Challenges

Moderator: ANDREW JAMIESON, Reader, Group Leader, **University of Glasgow**

A New Turn In Peptide Purification

- Purification of peptides is a challenging task, especially of diverse peptide libraries, due to their potentially broad distribution in physico-chemical properties. The Peptide Easy Clean (PEC) technology is universally applicable and enables the efficient and innovative manufacturing of new peptide based drug modalities
- PEC increases the speed of peptide development since it can be used for parallel purifications, whereas high-pressure liquid chromatography (HPLC) only allows one-by-one processing of single samples. In addition, PEC is an orthogonal approach to chromatographic separation, facilitating the purification of difficult peptides; by using PEC methodology, aggregation or precipitation can be prevented and increased solubility in organic solvents is achieved
- As a result of our continued collaboration, development of the linker molecules was achieved by Belyntic, with Bachem assisting as an industry partner for early testing on pharmaceutically relevant peptides

GAVIN NOBLE, R&D Chemist,
Bachem

ROBERT ZITTERBART, Co-Founder, Head of R&D,
Belyntic GmbH

BACHEM

BREAKOUT ROOM 1

Isolation Of Antigen-Specific Disulphide-Rich Knob Domain Peptides From Bovine Antibodies

- This talk describes the isolation of disulphide-rich mini domains, which are unique to the ultralong CDRH3 of a subset of bovine antibodies, as functional antibody fragments. We show that bovine knob domains can function independently of the VH scaffold, to bind antigen with high affinity. This creates 3-6 KDa autonomous peptides, which are approximately one third of the size of a VHH or VNAR
- This approach harnesses the bovine immune system to affinity maturate cystine rich peptides in vivo and was developed using Complement C5 as a test antigen

ALEX MACPHERSON, Senior Principal Scientist,
UCB

Measuring What Really Matters: Investigating Protein Interactions Under Physiologically Relevant Conditions

- Introduction of the Fluidity One platform to assess protein interactions under physiologically relevant conditions including complex backgrounds (e.g., serum or plasma)
- Examples highlighting the platform capabilities such as the determination of affinity (KD), concentration and stoichiometric information in solution, even with challenging targets such as intrinsically disordered proteins
- Presentation of two case studies in collaboration with the Universities of Yale and Zurich to characterize the immune response against SARS-CoV-2 and its variants

SEBASTIAN FIEDLER, Lead Application Scientist,
Fluidic Analytics

Fluidic Analytics

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING

PROTEINS & ANTIBODIES: BISPECIFICS

PROTEINS & ANTIBODIES: BIOANALYSIS

PEPTIDES: CHEMISTRY

LIVE AUDITORIUM

09:25 - 09:45

Exploiting The Unique Epitope Targeting Ability Of soloMERs To Develop New Therapeutic Biologics

- Elasmogen has established robust, diverse platforms for the isolation of high affinity, highly selective soloMERs
- Our lead domains demonstrate novel targeting via cryptic epitope binding across a number of target classes
- Our lead soloMER-drug conjugate program demonstrates excellent efficacy in PDX models of TNBC

CAROLINE BARELLE, Chief Executive Officer, **Elasmogen Ltd**

09:45 - 10:15

Rapid And Efficient Discovery Of Developable Antibodies With NGS Data And Structural Liability Analysis

We will discuss how you can:

- Perform advanced clustering and phylogenetic analysis, independently and efficiently through an intuitive user interface
- Include structural liability predictions to de-risk candidate selection
- Speed up the selection process by exploring multiple antibody characteristics from sequence and assay data in a single visualization

NICOLA BONZANNI, Chief Product Officer, **Enpicom**

ENPICOM

DISCUSSION ROOM

Oral Delivery of Peptide Therapeutics - A Clinical Case Study

- Characteristics of an ideal formulation for oral peptide delivery
- Phase 2b clinical data from oral insulin study
- Preclinical data on an oral GLP-1 receptor agonist

ROGER NEW, Co-Founder & Chief Scientific Officer, **Proxima Concepts Ltd**

Modulation Of Lymphocyte Potassium Channel KV1.3 By Membrane-Penetrating, Joint-Targeting Immunomodulatory Plant Defensin

- Novel plant defensin peptides were synthesized in an efficient manner folding the 4 disulfide bonds
- The mechanism of action has been determined and found to be unique through a cell-penetrating motif to bind to Kv1.3 channels in a selective manner
- Novel analogs were designed with improved affinity and selectivity
- The analog EgK-5 was tested in an autoimmune model disease (atopic dermatitis) in rats

(Joining Online:) MIKE PENNINGTON, VChief Scientific Officer, **AmbioPharm Inc.**

ambio

BREAKOUT ROOM 1

KnotBodies; Creating Ion Channel Modulating Antibodies By Fusing Knottins Into Antibody Loops

- Venom derived cysteine-rich miniproteins (knottins) have potential as therapeutic agents to block ion channels but suffer from manufacturing difficulties, short half-lives and a lack of specificity
- Maxion have developed a novel molecular format wherein the knottin replaces a peripheral CDR loop of an antibody. This format (termed KnotBodyTM), combines the best features of both molecular classes
- The presentation illustrates the generation of KnotBody inhibitors of multiple ion channels and their optimisation using phage and mammalian display

JOHN MCCAFFERTY, Chief Executive Officer, **Maxion Therapeutics**

Delegates are welcome to attend the co-located sessions

10:15 - 11:15

Networking Break & 1-2-1 Meetings

11:15 - 11:40

Delivery Of Long Acting Parenteral Peptides: Industrial Development Perspective

- Developability assessment guidelines, from discovery to clinical development
- Early formulation protoytpes and characterisation work packages
- Challenges in the field and future opportunities

(Joining Online:) SANYOGITTA PURI, Associate Director, **AstraZeneca**

Panel Discussion: Addressing The Current Challenges & Development Of ADCs In 2021

- In the era of immunotherapy, what is the role of ADCs and other 'armed antibodies/biologics' for future cancer treatment?
- ADCs contain three major components – payload, linker, and antibody. What are the engineering considerations/challenges when combining these component parts?
- With increased approvals of ADCs – where do we look for the next generation of molecules, what will drive differentiation in this space?

Moderator: CAROLINE BARELLE, Chief Executive Officer, **Elasmogen**

Panellists: AHUVA NISSIM, Professor, **Queen Mary University**

AARON K. SATO, Chief Scientific Officer, Biopharma, **Twist Bioscience**

Advancements In Platform Development Of Bispecifics And Related Modalities At Regeneron

Universal Light Chain (ULC) VelocImmune mice and VelociBi technologies enable facile generation of fully human bispecific antibodies in a native IgG format Regeneron bispecific antibodies mediating CD3-driven activation of T cells, CD28-driven costimulation of T cells, oncogene degradation and/or cytotoxin delivery have entered clinical testing This presentation will summarize the generation, preclinical properties and translational data for these bispecific antibodies, along with a preview of next-generation modalities in development

(Joining Online:) WILLIAM OLSON, Senior Vice President, Therapeutic Proteins, **Regeneron**

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING

PROTEINS & ANTIBODIES: BISPECIFICS

PROTEINS & ANTIBODIES: BIOANALYSIS

PEPTIDES: CHEMISTRY

LIVE AUDITORIUM

11:40 - 12:05

Selective Inhibition Of HDAC Corepressor Complexes With Histone Tail Peptidomimetics

- Histone deacetylase (HDAC)
- Peptidomimetics
- Nonproteinogenic amino acid

ANDREW JAMIESON, Reader, Group Leader, **University of Glasgow**

12:05 - 12:35

Purification Of Therapeutic Peptides Using Orthogonal Methods To Achieve High Purity

- Crude peptides need to be purified and the purity requirements for therapeutic peptides are particularly stringent
- Impurities from the peptide feed are prone to cause fouling of the reverse phase chromatography (RPC) column and not all impurities can be resolved on the RPC column
- Addition of an orthogonal step, to both protect the RPC column and to increase the resolution, could solve these issues. For example, a variety of peptide modifications that cannot be removed by RPC can be separated by ion exchange chromatography
- We present two differently produced therapeutic peptides, one solid-phase synthesized peptide and one peptide expressed in Escherichia coli, both purified with an upstream CIEX step before one or two RPC steps. This purification process provided the desired target peptide purity of more than 99% in both of the experimental cases

MIKAEL ANDERSSON SCHÖNN, Process Improvement Engineer, **Bio-Works**

12:35 - 13:05

Radiopharmaceutical Peptides – How Customized Peptides Became Part Of A Clinically Applied Trojan Horse

- Peptides are ideal carriers for delivering radioactive markers and therapies
- We present a case example of complex conjugate-peptide development that conforms to GMP standards to treat liver fibrosis patients

JEROEN BOUWHUIS, Scientist, **Pepscan**

DISCUSSION ROOM

Antibody Discovery Against Complement Receptor-2: More Than Just Binders

This talk will discuss the discovery of an anti CR-2 antibody for treatment of autoimmune diseases. This talk will exemplify GSKs cutting-edge antibody discovery platforms and affinity optimization processes, and demonstrate the need for early developability screening techniques, to identify antibodies with desirable properties for useful therapeutic approaches

RUUD DE WILDT, Director, Head of Lead Discovery at Biopharm, **GlaxoSmithKline**

GenScript Workshop: Discovering Antibody Discovery And Development With GenScript Biotech And GenScript ProBio

Presentation 1: Trends In Antibody Discovery And Development

- GenScript is in a unique position to see global trends in antibody discovery and development
- In this talk we highlight some of these observed recent trends and how this is impacting our business
- We also look at what the future may hold for antibody engineering

LIBBY NAYLOR, Advanced Therapies UK Account Manager, **GenScript Biotech**

Presentation 2: Accelerated COVID-19 Neutralizing Antibody Discovery By Integrated Multi-Specific Antibody Engineering Platform

- COVID-19 has become a lingering epidemic all over the world since the beginning of 2020
- Case study on how GenScript ProBio can generate potent anti-COVID19 neutralizing antibody through multi-modality antibody discovery platforms and multi-specific antibody engineering strategies

LI CHEN, Associate Director of Biologics Discovery, **GenScript ProBio**

BREAKOUT ROOM 1

Development Of A Novel Multi-Specific Antibody

NM21-1480 is a multispecific antibody fragment-based cancer therapeutic in phase 1 clinical testing, that potently stimulates anti-cancer immune responses through concomitant induction of 4-1BB-signaling and PD-L1 blockade in the tumor microenvironment. A format that allows affinity screening for both targets in combination with careful epitope selection that resulted in optimized activity and a favorable safety profile in non-human primates. Additional therapeutic approaches based on Numab's MATCHTM platform are presented

(Joining Online:) STEFAN WARMUTH, Vice President, Head CMC, **Numab**

Leave No Hit Behind: Accelerating Lead Molecule Discovery Against Difficult Targets

Traditional hybridoma and phage display methods have failed to yield therapeutic antibodies against difficult targets like most GPCRs and ion channels. This presentation will introduce Berkeley Lights' new Opto™ Plasma B Discovery 4.0 workflow that enables recovery of 1000s of hits by screening up to 100,000 plasma B cells, down-selection of lead candidates by functional screening, and sequencing and re-expression of >1000 functionally-characterized antibodies ... all in just 1 week. By maximizing the diversity of antibodies through direct functional profiling of plasma B cells, the Opto Plasma B Discovery 4.0 workflow will allow users to tackle even the most challenging targets

JONATHAN DIDIER, Field Application Scientist, **Berkely Lights**

Delegates are welcome to attend the co-located sessions

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING | PROTEINS & ANTIBODIES: BISPECIFICS | PROTEINS & ANTIBODIES: BIOANALYSIS | PEPTIDES: CHEMISTRY

	LIVE AUDITORIUM	DISCUSSION ROOM	BREAKOUT ROOM 1
13:05 - 14:05	Lunch Break		
14:05 - 14:35	**Next Generation Of High-Resolution (HR) LC-MS Solutions For Biopharma** • Learn about electron activated dissociation (EAD) and discover how it compares to electron transfer dissociation (ETD) • Find out about the Zeno trap and how it improves ion transmission to provide the most sensitive QTOF available which rivals triple quadrupole (QQQ) performance • Discover how EAD improves glycan mapping and provides amino acid isomer differentiation enhancing the number of PTMs detected TOM RUANE, Sales Representative, **Sciex**	*Delegates are welcome to attend the co-located sessions*	**Recombinant Antibodies With SpyTag Technology: Switch Between Multiple Format And Conjugation Options In Less Than One Hour** • Introduction to SpyTag technology and how it is incorporated with antibody phage display • How site-directed conjugation and rapid assembly of antibody formats are achieved with SpyCatchers • Examples of use in ligand binding assays to support the development of biologics PAUL ROYLE, Technical Sales Manager - Antibody Content Division, **Bio-Rad**
14:35 - 15:00	**Developability Assays: Comparing Results From Different Expression Systems And High And Low Throughput Methods** • Developability is an important part of the Discovery process, focussing on the manufacturability and stability of a molecule • A Test Set of 94 biophysically diverse antibodies were selected on the basis of yeast data and expressed in mammalian expression systems • A range of high and low throughput assays were carried out on this material • Here, correlations are made between material expressed in yeast vs mammalian and between low and high throughput assays REBECCA ENO, Senior Scientist - Developability Profiling, **GlaxoSmithKline**	**90-Minute Workshop:** T Cell Engagement & T Cell Activation **Presentation 1:** Selective Recruitment Of Gamma/Delta T Cells By Bispecific Antibodies • Redirecting the cytotoxicity of T-cells by CD3e binding based multispecific antibodies has resulted in remarkable clinical activity albeit often accompanied by Immune-related adverse events (IRAEs) • Prime reason for IRAE is due to pan activation of T cells via CD3 rapid signaling leading to severe cytokine storm that limits the dose of the drug resulting in a narrow therapeutic index • To mitigate, emerging approaches to selectively recruit and activate gamma/delta T cells and avoid indiscriminate pan T cell activation *(Joining Online:)* RAJKUMAR GANESAN, Director Antibody Engineering, **Alector**	**Allosteric Anti-Tryptase Antibodies For The Treatment Of Mast-Cell Mediated Severe Asthma** *(Joining Online:)* HENRY MAUN, Senior Principal Scientific Researcher, **Genentech, Inc.**
15:00 - 15:25	**The Delights Of Diversity: A Multitude Of Separation Techniques Combined With Mass Spectrometry For Characterization In Biopharmaceutical Development** • The impact of combining orthogonal separation techniques with mass spectrometry for biopharmaceutical characterization • The importance of the characterization platform in supporting process and formulation development • Case studies from pre-clinical and clinical biopharmaceutical development DAN KRISTENSEN, Principal Scientist, Analytics & Formulation, **Symphogen**	**Presentation 2:** Molecular Design Of T Cell Engagers *(Joining Online:)* NICOLAS SABARTH, Principal Scientist, Biotherapeutics Discovery, **Boehringer Ingelheim**	**Sane In The Membrane - The Salipro Platform For One-Step Reconstitution Of Membrane Proteins For Drug Development** The Salipro® technology stabilises GPCRs, SLCs and ion channels in a lipid environment and makes them accessible for de novo development and characterisation of biologics, including SPR, mass spec, phage display, B-cell sorting and cryoEM. In our presentation, we'll present case studies on: - Direct membrane extraction of membrane protein complexes (GPCRs, transporters, ion channels) into stable lipid Salipro particles - Ligand binding studies via Salipro and SPR - Structure determination of Salipro embedded membrane proteins via cryoEM *(Joining Online:)* JENS FRAUENFELD, Chief Executive Officer, **Salipro Biotech AB**

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING | PROTEINS & ANTIBODIES: BISPECIFICS | PROTEINS & ANTIBODIES: BIOANALYSIS | PEPTIDES: CHEMISTRY

	LIVE AUDITORIUM	DISCUSSION ROOM	BREAKOUT ROOM 1
15:25 - 15:45	Networking Break & 1-2-1 Meetings		
15:45 - 16:05	**Examining The Physical Stability Of Protein Formulations** ROBIN CURTIS, Senior Lecturer, **The University of Manchester**	**90-Minute Workshop (Cont.):** T Cell Engagement & T Cell Activation **Presentation 3:** Staying On Target - Tuning The Specificity Of pHLA-Targeting Reagents In Cancer Immunotherapy Tumour-associated peptide-human leukocyte antigen complexes (pHLA) represent the largest pool of cell surface expressed cancer-specific epitopes, making them attractive targets for cancer therapies. Here, we investigated the molecular mechanisms underpinning pHLA recognition by engineered affinity-enhanced TCRs and TCR-mimics. We found that hotspot binding drove off-target reactivity in the TCR-mimics, but not the affinity-enhanced TCRs. Overall, these data uncover the molecular mechanisms influencing the specificity of pHLA-targeting reagents, and provides a framework to robustly assess their off-target reactivity for drug design STEPHEN HARPER, Associate Director, **Immunocore**	**Designing Peptide Long-Acting Injectables With BEPO®, An In Situ Forming Depot Technology** • Current solutions for designing peptides LAIs • Special focus on BEPO®, an in situ forming depot technology using PEG-PLA copolymers • A case study using the somatostatin analog octreotide *(Joining Online:)* SYLVESTRE GRIZOT, Principal Investigator, **MedInCell**
16:05 - 16:35	**Mass Photometry – A Novel Analysis Method For Biological Samples** • Introduction to mass photometry • Examples of how the technology can be used for the analysis of biologics JAMES WILKINSON, VP of Sales and Customer Success, **Refeyn** REFEYN	**Panel Discussion:** T Cell Engagement & Activation: Breaking The Barriers • Challenges of T cell engagers in solid tumours • Designing T cell engagers • Combinations activating multiple T cells **Moderator:** *(Joining Online:)* NICOLAS SABARTH, Research Laboratory Head in Biotherapeutics Discovery / Cancer Immunology, **Boehringer Ingelheim** **Panellists:** *(Joining Online:)* RAJKUMAR GANESAN, Director Antibody Engineering, **Alector** STEPHEN HARPER, Associate Director, **Immunocore**	**Development, Optimization And Scale Up Of Therapeutic Peptides: Approaches To Solid Phase Synthesis** • Understand how automated parallel synthesizers from Gyros Protein Technologies are used for the manufacture of clinical peptides • Learn how to optimize SPPS through parallel condition screening • Understand how GPT synthesizers can help facilitate the scale up of peptide synthesis ANDREW KENNEDY, Global Product Manager, **Gyros Protein Technologies** GYROS PROTEIN Technologies
16:35 - 17:15	Networking Break & 1-2-1 Meetings		
17:15 - 17:40	**ALG.APV-527, A Tumor-Directed 4-1BBx5T4 Bispecific Antibody Which Induces Anti-Tumor Activity And Long-Term Tumor Immunity** • ALG.APV-527 is designed to induce potent tumor specific CD8 T cell and NK cell activation by stimulating 4-1BB only when simultaneously engaging 5T4 on tumor cells • Pre-clinical in vitro and in vivo data demonstrates that ALG.APV-527 stimulates increased T cell activation in the presence of 5T4-expressing cells. ALG.APV-527 localizes to 5T4 positive tumors, inhibits tumor growth and induce a tumor directed immunological memory *(Joining Online:)* ANETTE SUNDSTEDT, Principal Scientist, **Alligator Bioscience AB**	**Roundtable Discussion:** Characterisation Of Bispecific Antibodies Discussing the challenges of characterising bispecifics compared to standard antibodies. SARAH STUART, Team Leader, **GlaxoSmithKline**	**Neutrophil Activator And A/G Recruiter- Generation Of Novel Class Of Antibodies With Unique Biophysical And Functional Properties** IgG1 antibodies with additional FcaR (CD89) binding to bring-in innate system has been generated and thereby the therapeutic arsenal advanced by so called neutrophil activators and a/g-recruiter. Advantages of such molecules include developability, IgG1-like effector function, IgG1-like half-life and effector functions of IgA. Recruitment and activation of Neutrophils or macrophages via CD89 is possible and shows efficient killing of tumor cells *(Joining Online:)* DARKO SKEGRO, Senior Principal Scientist, **Novartis**

Biologics UK: In-Person

DAY ONE: 06 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING

PROTEINS & ANTIBODIES: BISPECIFICS

PROTEINS & ANTIBODIES: BIOANALYSIS

PEPTIDES: CHEMISTRY

	LIVE AUDITORIUM	DISCUSSION ROOM	BREAKOUT ROOM 1
17:40 - 18:05	**Novel, Highly Potent Cyclic Peptide PCSK9 Inhibitors Derived From An mRNA Display Screen And Optimized Using A Structure-Based Approach** • mRNA Display screening provided novel cyclic peptide leads with sub-micromolar potency • Molecules were optimized for stability, PK, potency, physical properties, and off-target profiles via an approach that utilized classical medicinal chemistry optimization techniques guided by Structure-Based Design • Details of the overall profiles of our optimized molecules will be provided in the presentation *(Joining Online:)* THOMAS TUCKER, Principal Scientist, Modalities Chemistry, **MSD Research Laboratories**	*Delegates are welcome to attend the co-located sessions*	**Humanization Of Antibodies Using A Machine Learning Approach On Large-Scale Repertoire Data** • Monoclonal antibody therapeutics are often produced from non-human sources and can therefore generate immunogenic responses in humans • I will describe our novel, computational humanization tool, Hu-mAb, that suggests mutations to an input sequence to reduce its immunogenicity • Hu-mAb is an effective replacement for trial-and-error humanization experiments, producing similar results in a fraction of the time *(Joining Online:)* CHARLOTTE DEANE, Professor of Structural Bioinformatics and Head of the Oxford Protein Informatics Group (OPIG), **University of Oxford**
18:05 - 18:30	***Bicycles*®: Synthetic, Modular, And Tunable Anti-Cancer Peptide Therapeutics** • Bicycles® are bicyclic peptides constrained via a chemical scaffold, which confers structural stability leading to high affinity • Bicycles targeting tumour surface antigens were identified then chemically optimised. Optimised Bicycles were conjugated to toxin payload MMAE to produce Bicycle Toxin Conjugates, which demonstrate impressive anti-tumour efficacy • The same tumour binding Bicycles were conjugated to Bicycles which bind to CD137. These tumour targeted immune cell agonists (TICAs®) also demonstrated impressive local immune activation and anti-tumour effects GEMMA MUDD, Team Leader, **Bicycle Therapeutics**	**Roundtable Discussion: Combining A Multitude Of Separation Techniques With MS For Intact Biopharmaceutical Characterization** • What separation techniques are combined with MS for intact biopharmaceutical characterization? • What are the advantages/challenges of the different separation techniques when hyphenated to MS? • How robust is the native MS platform? • What about intact MS in QC (for product release testing according to specifications)? • Native intact MS in structure function studies? **Moderator:** DAN KRISTENSEN, Principal Scientist, Analytics & Formulation, Symphogen	**Structure-Function Model - Key Support For Informed Biosimilar Development** It will be demonstrated in this presentation what are the considerations for biosimilar development; how structure function models can be applied to guide process development to be on target with critical quality attributes related to biological functions; and how structure function relationship can support similarity assessment by providing proper justification of minor quality differences observed. By that residual uncertainty of the biosimilar candidate is reduced *(Joining Online:)* CHIEN-WEN HUNG, Fellow, **Novartis**
18:30	**End of Day One & Drinks Reception**		

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING
PROTEINS & ANTIBODIES: BISPECIFICS
PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS
PEPTIDES: ANALYTICS

	LIVE AUDITORIUM	BREAKOUT ROOM 2 (Until Lunch Break)	BREAKOUT ROOM 1
08:00 - 08:25	**Overcoming Challenges In Targeting Complex Membrane Proteins** • Complex multi-spanning membrane proteins such as GPCR's and Ion Channels provide a significant opportunity for Therapeutic Antibodies • Expression and purification of these type of proteins to support Antibody Discovery is challenging • In this presentation the challenges for Antibody Discovery will be explored - A series of case studies will be presented to highlight how the specific challenges for Antibody Discovery may be addressed TREVOR WILKINSON, Director, **AstraZeneca**	**Bispecific CAR-Ts Using Crescendo VH** • Crescendo's proprietary transgenic mouse generates highly diverse fully human VH domain ('Humabody') building blocks • Humabody VH can be combined in various formats which lack the constraints of traditional mAbs, enabling multifunctional molecules to be constructed which deliver enhanced therapeutic benefit • VH are ideally suited to being the antigen binding moiety of a CAR-T due to their small size and lack of a light chain • Data presented will illustrate the superior antitumour effect of Crescendo VH CAR-Ts in mono- and bispecific formats *(Joining Online:)* COLETTE JOHNSTON, Senior Director, Research, **Crescendo Biologics**	**In Vivo Half-Life Extension Using Small-Molecule Human Serum Albumin Binders** • Medicines with longer in vivo half-lives are desirable in order to reduce dosing frequence and increase patient adherence to treatments • Conjugation to a small molecuule Human Serum Albumin binder (AlbuBinder 1) increases more than 20-fold the in vivo half-life in mice of BMP1/ TLL inhibitors • It is envisioned that AlbuBinder 1 conjugation should be applicable to a wide range of peptides and small molecules with short half lives *(Joining Online:)* ALBERT ISIDRO LLOBET, Fellow, **GlaxoSmithKline**
08:25 - 08:55	**PiggyBac'ing Bioprocessing: Improving Expression Of Complex Proteins With A Toolbox Approach** In this presentation an overview of the Lonza GS vector system and its use in cell line construction programs will be given. In addition, we will showcase how the GS piggyBac™ transposase system can be used to improve the performance of stable pools expressing recombinant therapeutic proteins such as bispecific antibodies. *(Joining Online:)* PETER O'CALLAGHAN, Principal Scientist, **Lonza Pharma & Biotech** Lonza Pharma & Biotech	*Delegates are welcome to attend the co-located sessions*	*Delegates are welcome to attend the co-located sessions*
08:55 - 09:20	**100 Years Of Insulin Engineering, From Fast-Acting Over Long-Acting To Future Glucose-Sensitive Insulin Designs** • The need for insulin engineering • Chemical modification of proteins as pioneered with insulin • Once-weely insulin icodec • Glucose-sensitive insulin for protetion against hypoglycemia *(Joining Online:)* THOMAS HØEG-JENSEN, Scientific Director, **Novo Nordisk**	**Beyond Oncology: Monoclonal And Bispecific Antibodies For Immune-Inflammatory Diseases** A historical perspective will be provided how therapeutic antibodies have provided novel treatment options for patients suffering from severe dermatological diseases and helped to understand diseases and disease drivers. A perspective will be provided of what is expected from novel antibody approaches in the future. THOMAS HUBER, Research Director, **Almirall**	**Peptidomimetic Inhibitors Of Protein-Protein Interactions** • Predictive Hot-Spot Identification • Conformational Control and Constrained Peptides • Protein-Protein Interaction Inhibitors ANDY WILSON, Professor of Organic Chemistry, **University of Leeds**

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING | PROTEINS & ANTIBODIES: BISPECIFICS | PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS | PEPTIDES: ANALYTICS

	LIVE AUDITORIUM	BREAKOUT ROOM 2 (Until Lunch Break)	BREAKOUT ROOM 1
09:20 - 09:40	**Networking Break & 1-2-1 Meetings**		
09:40 - 10:10	**Humanized Mouse Models To Support T-Cell bsAb and COVID-19 Preclinical Development** • GPT's current and next-gen tool mouse and service to support CD3 bsAb development • Our mouse models to support COVID research MARK MOORE, Chief Executive Officer, **GemPharmatech**	*Delegates are welcome to attend the co-located sessions*	*Delegates are welcome to attend the co-located sessions*
10:10 - 10:35	**Ensembles In Solution As A New Paradigm For Antibody Structure Prediction And Design** • Paratope states in solution • Antibody-Antigen Recognition KLAUS LIEDL, Professor & Head, General, Inorganic & Theoretical Chemistry, **University of Innsbruck**	**Autoimmune Response To Oxidative Neopitopes** • Formation of oxidative neoepitopes • Immune response to oxidative neopitopes • Early diagnosis of disease • Targeting drugs to disease tissue neoepitopes AHUVA NISSIM, Professor, **Queen Mary University**	*Delegates are welcome to attend the co-located sessions*
10:35 - 11:00	**Fine Tuning Protein Secretion By Differential Codon Adaptation – Does It Work?** • Robust semi-automated platform was established to investigate strategies to boost secretion efficiency • Secreted alkaline phosphatase (SEAP) was used for validation and gave highly reproducible results • 91 different combinations of signal peptide vs. SEAP variant (with different codon content of 5' part of coding sequence) were tested • Little dependence on codon context was seen for SEAP, which is overall very well secreted • The testing of other, this time poorly secreted proteins, is on going MAJA FIRCZUK, Protein Biochemist, **GlaxoSmithKline**	**Roundtable Discussion:** Tackling Challenges Of Complex Membrane Proteins **Moderator:** TREVOR WILKINSON, Associate Director, **AstraZeneca**	**Developing Monoclonal Antibodies As Immunological Tools For The Vaccine Industry** GSK Vaccines: our global presence and portfolio Monoclonal antibodies platform in Vaccine Generation of new immunological tools Production and purification from small to large laboratory scale Characterization Conclusions Perspectives *(Joining Online:)* VINCENT DEWAR, Lead Monoclonal Antibodies Platform, **GlaxoSmithKline**
11:00 - 11:30	**AI And Protein Design: New Opportunities** • The search for small molecule drugs has been largely obtained by a scattershot approach. Biologics, in contrast, are genetically engineered proteins that target specific receptors to achieve the desired effects • Recent advancements in AI have led to the development of powerful tools that can be used to create new protein designs with desired properties • AI has been key in protein structure prediction (prediction of protein structure from sequence) • Language models trained on large corpus of protein sequence data are paramount on the advancements of AI assisted protein design • AI Directed evolution (modelling of directed evolution in silico) uses powerful optimisation tools and fast ways to score protein sequences to optimise for the desired proteins • We also discuss the possibility to automate protein design using these AI assisted protein design tools • Finally, we provide perspectives on the use of computer-aided protein design in future KARIM BEGUIR, Chief Executive Officer and Co-Founder, **InstaDeep**		
11:30 - 11:50	**Networking Break & 1-2-1 Meetings**		

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING

PROTEINS & ANTIBODIES: BISPECIFICS

PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS

PEPTIDES: ANALYTICS

	LIVE AUDITORIUM	BREAKOUT ROOM 2 (Until Lunch Break)	BREAKOUT ROOM 1
11:50 - 12:20	**Solution Provider Presentation** Senior Representative, **PolyPeptide Group**	*Delegates are welcome to attend the co-located sessions*	**Accelerating Protein Engineering Workflows With The BioXp™ System** • The Design-Build-Test cycle of synthetic biology is a recursive process that offers researchers a systematic and efficient approach for interrogating vast sequence spaces in order to ultimately engineer optimal target proteins. Through iterative rounds of experimentation, testing data from one cycle becomes the design input for the next. At the core of this process is an invariable need to accurately and rapidly synthesize nucleic acid sequences at scale to test hundreds if not thousands of variants • Nucleic acid synthesis workflows can thus easily become a major bottleneck particularly when it comes to complexity, length, and long outsourcing lead times for synthesis. When compounded over multiple iterations, constraints on design and delays in build phases can add months of time, and cost to projects • Codex DNA is on a mission to change this. As the creators of the industry-standard Gibson Assembly® method and the BioXp™ system — the first commercially available end-to-end automated workstation that translates a digital DNA sequence to endpoint-ready synthetic DNA— we're empowering researchers to quickly, accurately, and reproducibly build gene fragments, clones, or variant libraries on their benchtop • The BioXp™'s hands-free automation workflow uses Gibson Assembly® and error-correction technology to deliver the industry's fastest turnaround times with high sequence fidelity and superior performance. Build projects can go from weeks and months to just days and hours, accelerating the development of synthetic biology-enabled, novel high-value products • Come learn how the BioXp™ system can help streamline your protein engineering workflow EWA MULARCZYK, Field Application Scientist, **Codex DNA**
12:20 - 12:45	**The Impact Of New Analytical Methodology On The Manufacture Of Peptides For Clinical Development** • Modern analytical methods for peptide analysis have led to better understanding of impurity profiles for synthetic peptides • Increased scrutiny from regulators to ensure impurities in synthetic peptides are understood and under control • Challenge for process development teams to introduce appropriate controls in the manufacture of synthetic peptides STEVEN MCINTYRE, Peptide Process Development Department Manager, **Almac**	**Characterization Of Multiclonics® Antibodies Based On Natural IgG: Developability, Manufacturing And Behaviour In Patients** Many heavily engineered multispecific antibody formats have been generated and are analyzed in preclinical and clinical studies. As designed these molecules often encounter challenges during discovery, manufacturing and finally in patients. We employed the natural IgG format with minimal engineering to generate common light chain bi- and trispecific antibodies (Multiclonics®) with optimal biophysical and pharmacokinetic properties. The discovery, developability and in-patient behavior of our multispecific molecules will be discussed. *(Joining Online:)* FRANZISKA MORTENSEN, Scientist, **Merus**	**A High-Throughput Mammalian Expression Platform For Recombinant Protein Production** • Robust modular expression and purification platform was developed to produce recombinant proteins • A combination of high-throughput molecular biology combined with a protein secretion screening capability allows the triaging of hundreds of expression constructs • Ability to screen combinatorial mix of signal peptides and affinity tags with a target protein of interest MICHAEL MULLIN, Protein Technologies Group Leader, **GlaxoSmithKline**
12:45 - 13:10	**Diverse Binding Modes For A Single Interface: De Novo Cyclic Peptide Binding To The BET Bromodomains** • The mRNA display-based RaPID system was used to develop potent and selective cyclic peptide binders of members of the BET bromodomain family • Structural studies revealed a diverse range of binding modes against these small reader domains all contained within a single library LOUISE WALPORT, Lecturer And Physical Sciences Group Leader, **Francis Crick Institute & Imperial College London**	*Delegates are welcome to attend the co-located sessions*	**A High Throughput Screen To Derive Functional Antagonists Of Transcription Factors** • Protein-protein interactions are compelling drug targets that are often intractable to small molecule approaches • Peptides occupy an attractive middle ground between small molecules and much larger biologics in targeting such PPIs • We utilise in cell peptide library screening approaches to identify selective functionally active peptide-based inhibitors that are capable of functioning within complex cellular environments JODY MASON, Professor, **Bath University**

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING
PROTEINS & ANTIBODIES: BISPECIFICS
PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS
PEPTIDES: ANALYTICS

	LIVE AUDITORIUM	DISCUSSION ROOM (After Lunch Break)	BREAKOUT ROOM 1
13:10 - 14:10	**Lunch Break**		
14:10 - 14:35	**Using Humanized Mice To Evaluate Vaccine Efficacy** STEPHEN REECE, Director, Antimicrobial Antibodies and Vaccines, **Kymab**	**Panel Discussion:** Bispecific Antibodies: Where Are We Now? • Advanced platform development • Future opportunities (tri, multi and tetraspecific antibodies) **Moderator:** *(Joining Online:)* STEFAN WARMUTH, Vice President, Head CMC, **Numab** **Panellists:** DAN KRISTENSEN, Principal Scientist, Analytics & Formulation, **Symphogen** ERNST WEBER, Head of Molecular Design & Engineering, **Bayer AG** THOMAS HUBER, Research Director, **Almirall** MARK MOORE, Chief Executive Officer, **GemPharmatech**	**Increased-Throughput Protein Production Of Novel Botulinum Neurotoxins** We produce engineered protein toxins to support the discovery and development of novel pharmaceutical botulinum toxins. These have traditionally been produced in batch cultures followed by chromatographic purification. We have increased the throughput of neurotoxin production through expression screening. This was achieved using microbioreactors and magnet-based affinity extraction. Selected constructs are then produced in a containment laboratory by batch extracting up to six toxins from lysate in parallel, which has increased novel toxin production four-fold MATTHIAS EHEBAUER, Senior Scientist, **Ipsen**
14:35 - 15:00	**Why We Develop Autoimmunity; Hyper Stimulation Of Genetically Prone Subjects** • Adjuvant can cause autoimmunity • Silicone implants and check point inhibitors and proof of concept • The covid virus is an autoimmune virus *(Joining Online)* YEHUDA SHOENFELD, Professor, **Tel-Aviv University**	**Panel Discussion:** Updates In Oral Delivery Of Peptides • Formulation-based delivery of peptides • Passive permeability in peptide drug discovery **Moderator:** *(Joining Online:)* THOMAS TUCKER, Principal Scientist, Modalities Chemistry, **MSD Research Laboratories** Panellists: *(Joining Online:)* DAVID BRAYDEN, Professor of Advanced Drug Delivery, **University College Dublin** ROGER NEW, Co-Founder & Chief Scientific Officer, **Proxima Concepts Ltd**	**Cutting Edge Antibody Discovery At UCB** DALE STARKIE, Principal Scientist & Group Leader, **UCB Celltech**

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING | PROTEINS & ANTIBODIES: BISPECIFICS | PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS | PEPTIDES: ANALYTICS

LIVE AUDITORIUM

15:00 - 15:30

Evolving Manufacturing Strategies For Antibody Therapeutics

Earlier this year the FDA approved the 100th monoclonal antibody therapeutic. Since the first approval 35 years ago, antibody drugs have become increasingly important and now account for nearly a fifth of the FDA's new drug approvals each year. Despite the industry's experience with these molecules, novel candidate formats and new production technologies are forcing companies developing these products to make choices between manufacturing strategies that significantly impact the net present value of the project. Making the wrong choices can severely restrict the clinical and economic benefits of the programme. This presentation will discuss the important points to consider when progressing an antibody candidate from pre-clinical development through to commercial production using scale-up, scale-out or continuous manufacturing strategies.

NICK HUTCHINSON, Mammalian Cell Culture Business Steering Group Lead, **FUJIFILM Diosynth Biotechnologies**

15:30 - 16:00

Funneling While Maintaining Diversity: Key Strategies Of Therapeutic Antibody Campaigns

Therapeutic antibody campaigns heavily benefit from high diversity, not only on the sequence level, but also with respect to epitope coverage and functionality. This aspect should be taken into account at each step of a discovery program.

The presented case study focuses on the generation of a diversified panel of antibodies directed against a transmembrane protein which is described to play a role in the development of cancer and neurodegenerative diseases via different mechanisms of actions.

Leveraging two distinct, robust, species-agnostic antibody discovery platforms selected to circumvent immune tolerance, we were able to rapidly isolate a diverse panel of multi-species, target-specific antibodies from our in-house human scFv-repertoires and chicken B cell pools. Subsequent high-throughput characterizations facilitated the binning of antibodies based on the epitope landscape profile and functionality for follow-up in in vitro proof of concept studies to address the different therapeutic options, including ADC-based approaches and bispecific-oriented strategies.

DEBBY KRUIJSEN, General Manager, **ImmunoPrecise Antibodies Europe**

DISCUSSION ROOM (After Lunch Break)

Delegates are welcome to attend the co-located sessions

BREAKOUT ROOM 1

15:00 - 15:30

Workshop: Maximize Your Biomolecule Purification Efficiency

CHAIR:
JURGEN MACHIELSE, Director, Life Sciences AIC

Presentation 1: Optimizing Process Development For Biomolecule Purification

The optimal resin for your process is not always commercially available. Resin parameters are fixed by the manufacturer and may limit performance for many applications. Therefore, processes are developed within those parameters which can lead to loss of yield, throughput, or require more steps than desired to meet the production goals.

In this workshop, ABT, a manufacturer of high-quality agarose resins, will discuss how through their decades of experience, they leverage their ability to control all aspects of the resin. Case studies will be presented on the development of custom resins, that lead to higher resolution, capacity, and simplified purification processes. The result being that optimization of agarose resins is an efficient and inexpensive means to optimize your purification process development.

HERNÁN ALARCÓN , Research & Development Scientist, **Agarose Bead Technologies**

15:30 - 16:00

Presentation 2: Single step purification And immobilization Of His-Tag Proteins Using A Novel, Cost-Effective And Scalable Resin Technology

Biocatalytic processes are gaining importance in industry and enzyme immobilization is a key technique for their implementation. At the same time, the enzymes of interest need to be concentrated or isolated from the fermentation broth, and they frequently contain a histidine tag fused to their sequence so they can be purified by IMAC. In this work, we present a newly developed methacrylic iminodiacetic acid-functionalized resin, that allows an effortless capture/immobilization and biocatalytic process using a His-tagged ketoreductase. The study confirms the possibility to immobilize the enzyme in batch or flow immediately after fermentation, perform biocatalytic reactions and remove the enzyme once exhausted. Moreover, the entire process offers the opportunity for an easy scale-up, which can be difficult and expensive in other cases

BENJAMIN D. SUMMERS, Applications Specialist Life Sciences, **AIC**

ALESSANDRA BASSO, Business Development Manager Life Sciences, **AIC**

16:00 - 16:10

10-Minute Break

Biologics UK: In-Person

DAY TWO: 07 SEPTEMBER 2021

PROTEINS & ANTIBODIES: ENGINEERING

PROTEINS & ANTIBODIES: BISPECIFICS

PROTEINS & ANTIBODIES: VACCINE DEV. & THERAPEUTICS

PEPTIDES: ANALYTICS

	LIVE AUDITORIUM	DISCUSSION ROOM (After Lunch Break)	BREAKOUT ROOM 1
16:10 - 16:35	**Panel Discussion:** Vaccine Development – Opportunities & Challenges • Novel platforms • Clinical translation **Moderator:** STEPHEN REECE, Director, Antimicrobial Antibodies and Vaccines, **Kymab** **Panellists:** *(Joining Online:)* VINCENT DEWAR, Lead Monoclonal Antibodies Platform, **GlaxoSmithKline** *(Joining Online:)* YUEH-MING LOO,Director, Virology and Vaccine Discovery, **AstraZeneca**	**Roundtable Discussion:** Approaches To Construct Design • How data is generated • AI/Machine learning **Moderator:** MICHAEL MULLIN, Protein Technologies Group Leader, **GlaxoSmithKline**	**Assessing Sustainability Of Synthetic Peptide Manufacture** • Peptide therapeutics in context of AstraZeneca's portfolio and sustainability ambitions • Review of Peptide therapeutic milestones, manufacturing methods in context of market size • Assessment of sustainability credentials of different drug modalities; how do synthetic peptides compare? • Summary highlights of ongoing efforts to green and increase sustainability of synthetic peptide manufacture *(Joining Online),* MARTIN KENWORTHY, Associate Principal Scientist, **AstraZeneca**
16:35 - 17:00	**Discovery Of Novel Therapeutics Against GPCRs, Ion Channels & Transporters Using Salipro® Technology** • The Salipro® technology is a powerful platform that reconstitutes membrane proteins into membrane-mimetic nanoparticles directly from cells, keeping the membrane proteins in native conformations • Salipro-membrane proteins can be used as antigens in antibody discovery, for example for immunisation, B cell sorting, phage display and epitope mapping by cryoEM • I will share case studies demonstrating that monoclonal antibodies generated with Salipro-ion channel antigens display characteristics such as picomolar affinity and binding to conformational epitopes *(Joining Online)* MARIA KNUDSEN, Business Development Director, **Salipro Biotech AB**	**Roundtable Discussion:** Platforms For Antibody Discovery **Moderator:** DALE STARKIE, Principal Scientist & Group Leader, **UCB Celltech**	**High-Throughput Discovery And Parallel Optimization Of Peptide Therapeutics** *(Joining Online),* LAUREN GOODRICH, Director Research & Development, **Nimble Therapeutics**
17:00	**End of Day Two**		

Biologics UK: In-Person

DIGITAL DAY: 08 SEPTEMBER 2021

Alongside a host of On-Demand digital content, our Digital Day features exclusive talks by speakers not present at the In-Person event, with presentations and group Q&As live-streamed across the day.

All Times Shown are BST (UTC+1)

VIRTUAL EVENT PLATFORM

08:40 - 09:00

Efficient NK Cell Redirection By Targeting NKp30

ENGINEERING

Activating NK cell receptors represent promising target structures to elicit potent anti-tumor immune responses. We have generated efficient NK cell engagers that bridge activating receptor NKp30 on NK cells with EGFR on tumor cells in several multifunctional IgG-like bispecific formats. In this talk I will discuss different strategies for targeting NKp30

STEFAN ZIELONKA, Associate Director, Protein Engineering & Antibody Technologies,
Merck KGaA

Peptide Purification Strategies In Early Drug Discovery

PEPTIDES

- General peptide purification strategies for initial drug testing assays
- Strategies for chromatographic purification of peptides to be used in in vivo studies
- Peptide purification case studies

ANNA-CARIN CARLSSON, Senior Scientist,
AstraZeneca

09:00 - 09.30

Accelerated End-To-End Process Development For Monoclonal Antibodies

ENGINEERING

The objective of this presentation is to describe a new workflow for the development of cell lines and manufacturing processes to supply GMP phase I clinical material. The presentation provides a brief overview of the enabling technologies in the area of process development and highlights some of the key elements to meet the highest quality standards and ensure timely delivery. To save time, early material generated from non-clonal cells is used to develop the purification process and generate sufficient material for formulation development. As a result, a fully developed drug substance process is available at the time of production clone selection and creation of manufacturing cell banks. Quality data showing equivalence between non-clonal material and material generated later during development from the selected clonal cell line will be presented, as this is a key element of this new accelerated end-to-end process.

MATTHIEU STETTLER, Head of Mammlian Development Services,
Lonza Pharma & Biotech

Lonza
Pharma & Biotech

09:30 - 09:50

Trivalent Single-Chain TNFSF Ligands As Building Blocks For Bispecific Fusion Proteins

ENGINEERING

- The engineering concept of scTNFSF-ligands in different bispecific formats will be presented
- Immune-stimulatory scTNFSF-ligands can be combined with any antibody of interest in a bispecific drug compound
- Examples demonstrating the biological activity of scCD40L or sc4-1BBL in combination with anti-PD-L1 will be shown

OLIVER HILL, Vice President, Drug Discovery,
Apogenix AG

09:50 - 10:10

Live Q&A Session & Ask The Experts

ENGINEERING

STEFAN ZIELONKA, Associate Director, Protein Engineering & Antibody Technologies, **Merck KGaA**

OLIVER HILL, Vice President, Drug Discovery / Lead Optimization, **Apogenix AG**

MATTHIEU STETTLER, Head of Mammlian Development Services,
Lonza Pharma & Biotech

10:10 - 10:40

Morning Break

10:40 - 11:00

Bispecific Antibodies For Immuno-Oncology Case Study

BISPECIFICS

CHRISTINE ROTHE, Vice President, Research Platform & Alliances, Head of Discovery & Alliance Management,
Pieris Pharmaceuticals

Late Stage Functionalization And Isotope Labelling Of Peptides

PEPTIDES

- Late Stage Functionalization, Hydrogen Isotope Exchange, Catalysis

VOLKER DERDAU, Senior Distinguished Scientist, Head Of Isotope Chemistry,
Sanofi

11:00 - 11:20

Bispecific T-Cell Engager: Overview Of Amgen's BiTE® Molecules In Solid Tumor Indications

BISPECIFICS

VIRGINIE NAGELE, Principal Scientist,
AMGEN Research Munich

Updates In Early Peptide Analytics And Characterization – Standard Analytics And Degradation Products

PEPTIDES

WERNGARD CZECHTIZKY, Executive Director, Head Medicinal Chemistry Respiratory And Immunology,
AstraZeneca

Biologics UK: In-Person

DIGITAL DAY: 08 SEPTEMBER 2021

Alongside a host of On-Demand digital content, our Digital Day features exclusive talks by speakers not present at the In-Person event, with presentations and group Q&As live-streamed across the day.

VIRTUAL EVENT PLATFORM

11:20 - 11:40

Structure-Guided Engineering Of An ABC Transporter

ENGINEERING

- Development of INSITE method (IN vitro Screening for Inhibitors through Targeted Engineering) to discover novel macrocycle inhibitors of an ABC transporter
- Strategy confirmed through cryo-EM structures of transporter-macrocycle complexes
- First SM inhibitors of an ABC transporter targeting an outward-facing conformation

CHRISTOPHER KOTH, Senior Principal Scientist, Structural Biology, **Genentech**

Oral Peptide Delivery Using Milk-Derived Whey Beads: Insulin Case Study

PEPTIDES

- Food by-products are a source of potential vehicles to enable oral peptide delivery
- Whey protein was isolated from milk and denatured
- It was formed into beads by gelation and insulin was successfully entrapped
- Released insulin was bioactive using in vitro biossays and its structure was maintained
- It delivered insulin to the blood in a rat jejunal instillation in vivo model
- There is potential to combine the bead system with permeation enhancers to maximise bioavailability of orally-delivered peptides

DAVID BRAYDEN, Professor of Advanced Drug Delivery, **University College Dublin**

11:40 - 12:00

Live Q&A Session & Ask The Experts

BISPECIFICS ENGINEERING

CHRISTOPHER KOTH, Senior Principal Scientist, Structural Biology **Genentech**

CHRISTINE ROTHE, Vice President, Research Platform & Alliances, Head of Discovery & Alliance Management, **Pieris Pharmaceuticals**

VIRGINIE NAGELE, Principal Scientist **Amgen**

Live Q&A Session & Ask The Experts

PEPTIDES

ANNA-CARIN CARLSSON, Senior Scientist, **AstraZeneca**

VOLKER DERDAU, Section Head, Isotope Chemistry, **Sanofi**

WERNGARD CZECHTIZKY, Executive Director, Head Medicinal Chemistry Respiratory And Immunology, **AstraZeneca**

DAVID BRAYDEN, Professor of Advanced Drug Delivery, **University College Dublin**

12:00 - 13:20

Lunch Break

13:20 - 13:40

Development Of Costimulatory Bispecific Antibodies As The Next Generation Of Immuno-Therapeutics For The Treatment Af Cancer

BISPECIFICS

MATTHEW SLEEMAN, Vice President, Immunology & Inflammation, **Regeneron**

Considerations In The Preparation Of Immunogenicity Risk Assessments Of PEGylated Biotherapeutics

PEPTIDES

- Background on the preparation of risk assessments
- Current thinking on the presentation of risk assessments
- Structured following the recent "Compendium of Immunogenicity Risk Assessments: an Industry Guidance Built on Experience and Published Work"
- Snippets of case studies to explain how to address specific factors

JOHANNA MORA, Director, **Bristol Myers-Squibb**

13:40 - 14:00

DLL3/CD3 ITE – Targeting DLL3 With A New Modality

BISPECIFICS

DLL3 is a protein selectively expressed on small cell lung cancer cells. An initial approach to target DLL3 with an antibody drug conjugate (ADC) showed only modest benefits in clinical trials. This presentation will describe a new approach of targeting DLL3 with a novel IgG-like bispecific T-cell engaging (ITE) antibody and will provide mechanistic insights into the mode of action of the DLL3/CD3 ITE, which is currently in clinical development.

SUSANNE HIPP, Senior Associate Director, **Boehringer Ingelheim**

Overcoming Challenges Of Oral Peptide Delivery Through Formulation Strategies

PEPTIDES

HUYEN TRAN, Senior Research Scientist, **Eli Lilly**

14:00 - 14:20

Live Q&A Session & Ask The Experts

BISPECIFICS

MATTHEW SLEEMAN, Vice President, Immunology & Inflammation, **Regeneron**

SUSANNE HIPP, Senior Associate Director, **Boehringer Ingelheim**

Live Q&A Session & Ask The Experts

PEPTIDES

JOHANNA MORA, Director, **Bristol Myers-Squibb**

HUYEN TRAN, Senior Research Scientist, **Eli Lilly**

14:20 - 14:40

Afternoon Break

Biologics UK: In-Person

DIGITAL DAY: 08 SEPTEMBER 2021

Alongside a host of On-Demand digital content, our Digital Day features exclusive talks by speakers not present at the In-Person event, with presentations and group Q&As live-streamed across the day.

VIRTUAL EVENT PLATFORM

14:40 - 15:00

DNA-Based Delivery Of Nanobody Formats

VACCINE

Nanobody® single domains with their modular design and tuneable valency show a different pharmacokinetic profile compared to conventional antibodies. This difference in exposure in vivo can be exploited by alternative delivery methods. DNA-based gene transfer of Nanobody constructs and biopharmaceuticals in general is an appealing alternative to conventional protein therapy. We demonstrated that multivalent Nanobody VHH's encoded as DNA result in a stronger, longer-term and more localized exposure compared to conventional protein therapy

CARLO BOUTTON, Global Head Innovation, Large Molecule Research Platform,
Sanofi

15:00 - 15:20

AstraZeneca Long-Acting Antibody Combination For The Prevention And Treatment Of COVID-19

VACCINE

YUEH-MING LOO, Director, Virology And Vaccine Discovery,
AstraZeneca

15:20 - 15:40

PK Analysis Of ADCs: Bioanalytical Challenges & Strategies

BIOANALYSIS

- Unique bioanalytical challenges for ADC include the need for quantitation of multiple ADC analytes to characterize PK, in vivo biotransformation and/or structural instability
- There is no single bioanalytical strategy that could be used for all ADCs. Rather the strategy will need to be adapted on a case-by-case basis depending on the ADC structure and chemistry, target biology and the PK question that needs to be addressed at a specific development stage of the program
- Case studies highlighting some of the bioanalytical challenges will be presented

SEEMA KUMAR, Director and Head Of Clinical Bioanalytical Sciences,
EMD Serono/Merck

15:40 - 16:00

Live Q&A Session & Ask The Experts

VACCINE BIOANALYSIS

YUEH-MING LOO, Director, Virology And Vaccine Discovery, **AstraZeneca**

CARLO BOUTTON, Global Head Innovation, Large Molecule Research Platform, **Sanofi**

SEEMA KUMAR, Director and Head Of Clinical Bioanalytical Sciences, **EMD Serono/Merck**

16:00

End of Digital Day

A NEW CONFERENCE EXPERIENCE

The digital revolution has hit conference organisation

...and just because we're returning to In-Person events doesn't mean a return to the traditional set-ups. It's why we're excited to welcome you to our new and improved In-Person conferences: maintaining the high-quality presentations and networking that you expect from an Oxford Global event but harmonised with digital elements and new formats to optimise attendee experience.

Register Online

Biologics UK: In-Person can be attended in-person or via our virtual events platform.

MORE INFORMATION

You now have more chances than ever to shape your daily agenda around the exact types of sessions you enjoy. Our **AUDITORIUM** is the place to be for our keynote talks, where you can hear high-level strategy and aspirational case studies from the biggest names impacting the industry, from pharma giants and academic innovators through to technology providers ready to help you achieve your research goals.

To delve more deeply into recent updates and novel work done in a specific field, our **BREAKOUT ROOMS** provide themed talks around a particular area of interest. Ideal for gaining insights into the new technologies, modalities and techniques about to impact your workflow, they also allow you to advance your understanding of multiple different topics that cross-over with your expertise.

Prefer to join the conversation via interactive discussions, and keen to benefit from the high levels of networking enabled at in-person events? Our **DISCUSSION ROOM** is jam-packed with panels, roundtables and workshops to encourage as much knowledge-sharing as possible. Join for a specific theme or stay for a full day of debate – who knows where the conversations may lead.

Our agendas are now fully **COLOUR-CODED** so that you can see which room you need to be in for the tracks of interest to you – and don't worry, the room themes only ever change at a breaktime, so you'll be able to grab a coffee, re-charge, and then follow your sessions of interests into the next room.

That's not all... Reflecting the move to a more online conference world, our In-Person events now include an increased amount of digital content and experience: from live streaming of certain auditorium talks, allowing you to catch them digitally, through to a host of online-only content on our **DIGITAL DAY**, bringing you closer to your global peers from the comfort of one location and with instant content accessibility. We've also introduced a variety of industry-leading new event technologies, including an intuitive digital system for question-asking, so that no matter where you are, you're able to submit your questions on the app to benefit as much as possible from the speakers' expertise.

The future is hybrid – and the future is here.
Oxford Global can't wait for you to join us.

CONFIRMED 2021 EVENTS

Biologics Series
www.oxfordglobal.co.uk/biologics/

- **Biologics Europe: Online**
  26 - 27 April 2021 | BST (UTC+1)
- **Oligonucleotides: Chemistry & Therapeutics Symposium**
  28 April 2021 | BST (UTC+1)
- **Biologics UK: In-Person**
  06 - 07 September 2021 | London, UK
- **Biotherapeutics US: Online**
  17 - 18 November 2021 | EST (UTC-5)

Biomarkers Series
www.oxfordglobal.co.uk/biomarkers/

- **Biomarkers Week: Online**
  17 - 21 May 2021 | BST (UTC+1)
- **Advancing Biomarker Analysis Europe: Online**
  14 - 16 September 2021 | BST (UTC+1)
- **Biomarkers UK: In-Person**
  08 - 09 November 2021 | Manchester, UK
- **Digital Biomarkers US: Online**
  07 - 08 December 2021 | EDT (UTC-4)
- **Biomarkers US: In-Person**
  07 - 08 February 2022 | San Diego, USA

Cell Series
www.oxfordglobal.co.uk/cell/

- **Gene Therapy Europe: Online**
  05 - 06 May 2021 | BST (UTC+1)
- **Cell UK: In-Person**
  28 - 29 October 2021 | London, UK
- **3D Cell Culture Symposium**
  02 December 2021 | GMT (UTC+0)

Discovery Series
www.oxfordglobal.co.uk/discovery/

- **Virtual Symposium: Targeted Protein Degradation & PROTAC**
  16 - 17 February 2021 | GMT (UTC+0)
- **Organoid Discovery Symposium**
  13 April 2021 | BST (UTC+1)
- **Discovery Week: Online**
  01 – 04 June 2021 | BST (UTC+1)
- **Discovery UK: In-Person**
  26 - 27 October 2021 | London, UK
- **Discovery Chemistry US: Online**
  15 - 17 November 2021 | EST (UTC-5)

In-Person Event | Online Event | Online Symposium

Formulation & Delivery Series
oxfordglobal.co.uk/formulation/

- **Formulation & Delivery Europe: Online**
  20 - 21 April 2021 | BST (UTC+1)
- **RNA Therapeutics & Delivery US: Online**
  29 - 30 June 2021 | EDT (UTC-4)
- **Formulation & Delivery UK: In-Person**
  21 - 22 September 2021 | London, UK
- **Formulation & Delivery US: In-Person**
  01 - 02 February 2022 | San Diego, USA

Immuno Series
www.oxfordglobal.co.uk/immuno/

- **Oncolytic Viruses Symposium**
  25 May 2021 | BST (UTC+1)
- **Immuno Week: Online**
  06 – 09 July 2021 | BST (UTC+1)
- **Immuno UK: In-Person**
  13 - 14 October 2021 | London, UK
- **Immuno US: In-Person**
  07 - 08 February 2022 | San Diego, USA

NextGen Omics Series
www.oxfordglobal.co.uk/omics/

- **Spatial Biology Europe: Online**
  14 - 16 April 2021 | BST (UTC+1)
- **Spatial Biology US: Online**
  27 - 30 September 2021 | EST (UTC-5)
- **NextGen Omics UK: In-Person**
  04 - 05 November 2021 | London, UK
- **NextGen Omics US: In-Person**
  25 - 26 January 2022 | Boston, USA

PharmaTec Series
www.oxfordglobal.co.uk/pharmatec/

- **Pharma Data Congress: In-Person**
  02 - 03 September 2021 | London, UK
- **SmartLabs Congress: In-Person**
  08 - 09 September 2021 | London, UK
- **Pharma Manufacturing Europe: Online**
  10 - 11 November 2021| GMT (UTC+0)
- **PharmaTec Networking Dinners**
  October / November / December 2021

Other Events
www.oxfordglobal.co.uk/

- **Sustainability in Pharma & Healthcare Symposium**
  04 October 2021 | BST (UTC+1)

COMPLIMENTARY RESOURCES

Visit **www.oxfordglobal.co.uk/hub/** to gain access to our complimentary resources, including Videos, Webinars Recordings, Q&As, Industry Reports, Newsletters, and much more!

OXFORD GLOBAL CONFERENCES

Oxford Global Marketing Ltd.

2nd Floor, Godstow Court
Minns Business Park
Botley, Oxford, OX2 0JB

Tel: +44 (0)1865 248455
Fax: +44 (0)1865 250985
www.oxfordglobal.co.uk

Join the Conversation

@biologicsconf
#BiologicsSeries21