

Programme - MONDAY JUNE 10

Time	MONDAY JUNE 10 - Scandic Spectrum
08:00-08.30	Arrival and breakfast
08:30-08:45	Welcome by Scientific Committee Alberto Santos Delgado , Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark Lea Sommer , Novonosis, Denmark Kasper Lage , Novo Nordisk Foundation Centre for Genomic Mechanisms of Disease at the Broad Institute of MIT and Harvard, US and Denmark
08:45-09:30	Introduction to Novo Nordisk Foundation Centers Kasper Lage , Novo Nordisk Foundation Centre for Genomic Mechanisms of Disease at the Broad Institute of MIT and Harvard, US and Denmark Simon Rasmussen , Novo Nordisk Foundation Centre for Protein Research, University of Copenhagen, Denmark Tune Pers , Novo Nordisk Foundation Centre for Basic Metabolic Research, University of Copenhagen, Denmark Richard Dennis , Novo Nordisk Foundation Centre for Stem Cell Medicine, reNEW, University of Copenhagen, Denmark Shilpa Garg , Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark
09:30-10:15	Session 1 KEYNOTE SPEAKER: Lars Keld Nielsen , Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark Abstract title: The Automated Scientist: the emergence of AI-guided Biofoundries Topic: The future of data and data science and their impact on current world challenges
10:15-10:45	Coffee break

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10:45-12:00

Session 2

SHORT TALK: Karina Banasik, Copenhagen University Hospital, Amager Hvidovre Hospital, Denmark

Abstract title: Multi-Omics studies in Women's Health and reproduction

SHORT TALK: Annelaura Bach Nielsen, University of Copenhagen, Denmark

Abstract title: Improving Clinical Diagnostics by integrating Data Science and Technological Advances

SHORT TALK: Alexander Henriksen, University of Copenhagen, Denmark

Abstract title: ServerEmissions: A tool to estimate resource use of large-scale server-based computations

SHORT TALK: Sumesh Sukumara, Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark

Abstract title: Tools for automating sustainability assessment workflows coupled with microbial production data throughout the product development phase.

Chair: Tune Pers, Novo Nordisk Foundation Center for Metabolic Research, University of Copenhagen, Denmark

12:00-13:00

Lunch

13:00-14:45

Session 3

INVITED SPEAKER: David Ochoa, EMBL-EBI, United Kingdom

Abstract title: Open Targets: towards informed target identification and prioritization

Topic: Democratizing knowledge by building and sharing data resources

SHORT TALK: Maria Dalby, Muna Therapeutics, Denmark

Abstract title: Cellular resilience to Alzheimer's disease pathology by spatial and single-cell transcriptomics

SHORT TALK: Nils Hofmann, Technical University of Denmark, Denmark

Abstract title: ExpoSeq: simplified analysis of high-throughput sequencing data from antibody discovery campaigns

SHORT TALK: Angel Phanthanourak, Technical University of Denmark, Denmark

Abstract title: KGQC: A Standard Framework for the Evaluation of Biological Knowledge Graph Quality

SHORT TALK: Elysia Gao, Technical University of Denmark, Denmark

Abstract title: Decoding Cell Behavior Patterns in Bioreactors: Interpreting Latent Spaces with Deep Autoencoders

Chair: Simon Rasmusen, Novo Nordisk Foundation Centre for Protein Research, University of Copenhagen, Denmark

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14:45-15:15 Coffee break

15:15-17:15 Session 4

INVITED SPEAKER: Anika Gupta, Google Ventures, United States

Abstract title: Going farther together: effectively communicating innovation in data-driven biomedicine

Topic: Communication about data and data science and making them attractive to diverse audiences.

SHORT TALK: Adrian Geissler, University of Copenhagen, Denmark

Abstract title: Show and tell: Visualize comparative genomics RNA structure predictions with Quarto and ObservableJS

SHORT TALK: Anna Svetlova, Novo Nordisk Foundation Center for Biosustainability, Technical University of Denmark

Abstract title: Data-Driven Investigation of Secondary Metabolism in Actinomycetes

SHORT TALK: David Westergaard, Copenhagen University Hospital Hvidovre, Denmark

Abstract title: Uncovering the Heritable Components of Multimorbidities and Disease Trajectories: A Nationwide Cohort Study

SHORT TALK: Nadezhda Doncheva, University of Copenhagen, Denmark

Abstract title: Cytoscape stringApp 2.0: Analysis and Visualization of Heterogeneous Biological Networks

Chair: Line K.H. Clemmensen, Department of Applied Mathematics and Computer Science, Technical University of Denmark, Denmark

17:15-19:00 Poster session and drinks

Programme - TUESDAY JUNE 11

Time	TUESDAY JUNE 11 - Scandic Spectrum
08:30-09:00	Arrival and breakfast
09:00-11:00	Session 5: Panel debate and Group discussion Opportunities for innovation and improvement within the areas of research data management, data science and science communication Chairs: Alberto Santos Delgado, Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark and Lea Sommer, Novonosis, Denmark
11:00-12:00	Session 6 SHORT TALK: Beatrice Dyring-Andersen , Gentofte Hospital, Denmark Abstract title: The spatial proteome of psoriasis SHORT TALK: Michel Edwar Mickael , Institute of Genetics and Animal Biotechnology, Poland Abstract title: Adera2.0 a novel AI-based pipeline for drug repurposing SHORT TALK: Bunia Adersen , Technical University of Denmark, Denmark Abstract title: Design, Production and Analysis of Minibinders against Gremlin-1 SHORT TALK: Isabel Díaz-Pinés Cort , University of Copenhagen, Denmark Abstract title: The Inflammatome: A Meta-Analysis of Human Genes Regulated During Inflammation Chair: Jens Vinge Nygaard, Department of Biological and Chemical Engineering, Medical Biotechnology, Aarhus University, Denmark
12:00-13:00	Lunch
13:00-14:30	Session 7 INVITED SPEAKER: Niklas Blomberg , IHI JU, Belgium Abstract title: Innovative Health Initiative – Europe’s public-private partnership for health research Topic: How to solve the complexity of data FAIRification (making data FAIR) SHORT TALK: Igor Marín de Mas , Copenhagen University Hospital, Rigshospitalet, Denmark Abstract title: A Protocol for the Automatic Construction of Highly Curated Genome-Scale Models of Human Metabolism SHORT TALK: Narod Kebabci , University College Dublin, Ireland Abstract title: Predicting context-specific synthetic lethality between paralogs in cancer

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13:00-15:00

Session 7

SHORT TALK: Ester Milesi, Technical University of Denmark, Denmark

Abstract title: Building an Omics Data Infrastructure to Integrate Data Management and Data Science

SHORT TALK: Eleonora Nigro, Scientific Illustrator, Denmark

Title: From Data to Drawing: A (scientific) illustrated journey

Chair: Richard Dennis, Novo Nordisk Foundation Centre for Stem Cell Medicine, reNEW, University of Copenhagen, Denmark

15:00 - 15:30

Coffee break

15:30-17:30

Session 8

INVITED SPEAKER: Adriana Tomic, Boston University, United States

Abstract title: Creating Smarter Vaccines: Understanding Human Immune System with Artificial Intelligence

Topic: Omics technologies and AI with a focus on vaccine development

SHORT TALK: Yesid Cuesta Astroz, University of Antioquia, Colombia

Abstract title: OrthoHPI 2.0: A renewed and extended interactive resource of predicted human-parasite protein-protein interaction networks

SHORT TALK: Julia Villarroel, ZS Discovery, Denmark

Abstract title: Novel algorithm-driven vaccine design framework, built to ensure optimal coverage of both population diversity and pathogen variation, aimed at eliciting strong cellular and humoral response, as well as lasting immune memory

SHORT TALK: Timothy Jenkins, Technical University of Denmark, Denmark

Abstract title: Decode, Design, Deliver: Machine Learning Revolutionises Target Identification and Therapeutic Discovery

SHORT TALK: Boyang Ji, BioInnovation Institute, Denmark

Abstract tile: Modeling the Human Gut Microbiome - Towards a Virtual Environment-Human-Microorganisms Model

Chair: Shilpa Garg, Novo Nordisk Foundation Centre for Biosustainability, Technical University of Denmark, Denmark

Programme - TUESDAY JUNE 11 & WEDNESDAY JUNE 12

Time	TUESDAY JUNE 11 - Scandic Spectrum
17:30-19:00	Poster session and drinks
19:30-22:00	Dinner w. announcement of poster winners
22:00-00:00	Party

Time	WEDNESDAY JUNE 12, Novo Nordisk Foundation, Hellerup
09:15-09:45	Arrival and coffee
09:45-11:00	Session 9

INVITED SPEAKER: Birte Höcker, Bayreuth University, Germany

Abstract title: Learning from nature how to design new proteins

Topic: Computational and experimental design of protein function

SHORT TALK: Martin Miller, AstraZeneca, United Kingdom

Abstract title: Modelling multi-omic, real-world data reveals immunogenomic drivers of resistance to cancer immunotherapy

SHORT TALK: Francesc Fernández, Data Science in R&D, Almiral, Spain

Abstract title: 3D modelling with VR and indication expansion

Chair: Alberto Santos Delgado, Novo Nordisk Foundation Centre for Biosustainability, Denmark

11:00-11:30	Coffee break
11:30-12:30	Session 10

INVITED SPEAKER: Lars Juhl Jensen, Novo Nordisk Foundation Center for Protein Research, University of Copenhagen, Denmark

Abstract title: Simplifying the complex: Communicating data and concepts to non-expert users

Topic: Communication of science network biology and text mining

Chair: Kasper Lage, Novo Nordisk Foundation Centre for Genomic Mechanisms of Disease at the Broad Institute of MIT and Harvard, US and Denmark

Programme - WEDNESDAY JUNE 12

12:30-13:30 Lunch

13:30-14:30 Session 11

SHORT TALK: Alisa Pavel, Technical University of Denmark, Denmark

Abstract title: Knowledge Graphs for Integrated Data Analysis in Toxicology and Pharmacology

SHORT TALK: Naba Al-Sari, Novo Nordisk, Denmark

Abstract title: Identification of non-invasive biomarkers for predictive and prognostic use for end-stage renal disease

SHORT TALK: Lukas Huschet, Ludwig Maximilian University (LMU), Germany

Abstract title: Circadian dynamics of the nuclear proteome in time and space and its modulation by metabolic state

Chair: Kasper Lage, Novo Nordisk Foundation Centre for Genomic Mechanisms of Disease at the Broad Institute of MIT and Harvard, US, and Denmark

14:30-15:00 Coffee break

15:00-15:45 Session 12: Keynote speaker 4

INVITED SPEAKER: Emma Lundberg, Stanford University and KTH Royal Institute of Technology, US and Sweden

Abstract title: From subcellular mapping to modeling the human cell

Topic: Combining imaging and spatial multi-omics

15:45-16:15 Closing remarks by the Scientific Committee