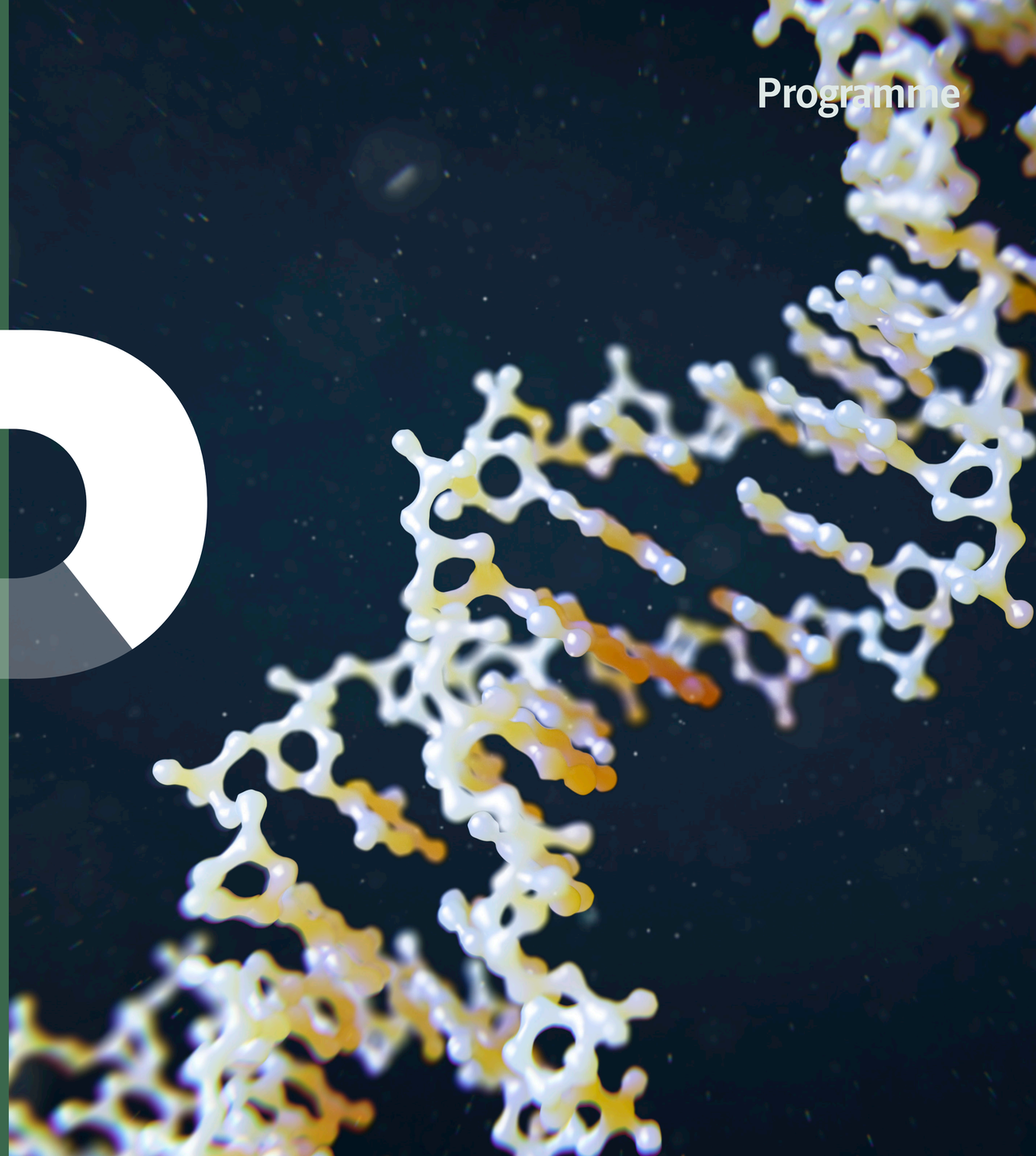
Bioscience Cluster
by novo nordisk fonden

Programme

20-21 June 2024

Genome Editing:
from basic principles to applied science



Programme overview

20 June 2024
Venue: The Novo Nordisk Foundation, Tuborg Havnevej 19, 2900 Hellerup

Time		Speaker	Title
08.30	Arrival and breakfast		
09.00	**Welcome by Thomas Bentin & Eric Paul Bennet**	**Chair:** Thomas Bentin	
	Keynote Speaker	Maria Jasin	Genetic and genomic loss from Cas9 double-strand breaks: application of Flo-LOH
10.00	**Break**		
10.30	**Editing & Repair**	**Chair:** Eric Paul Bennett	
		Jakob Nilsson	Proteome-wide base editor screens to access functionality of protein interaction motifs at scale
		Jacob Corn	Better human genome editing by listening to the cells
		Short talk: Emil Hertz	Identifying genetic determinants of micronuclei formation by genome-wide optical pooled screens
12.00	**Lunch**		
13.00	**Immunity & Evolution**	**Chair:** Morten Sommer	
		Virginijus Siksnys	Harnessing key cellular pathways for antiviral defense in bacteria
		Xu Peng	Viruses fight back: how to escape CRISPR immunity?
		Anna Cereseto	Unlocking the natural reservoir of genome editing tools through a directed evolution approach
14.45	**Break**		
15.15	**Panel discussion: barriers and opportunities in genome editing**		
16.00	**Short Break**		
16.15	**Screening & Diseases**	Chair: Jan Zylicz	
		Short talk: Bjorn Voldborg	Genome Edited CHO Cells for production of the next generation of Biologics
		Benedetta Artegiani & Delilah Hendricks	CRISPR editing for disease modelling in human organoid systems
		Short talk: Svenja Hansson	Exercise regulated skeletal muscle enhancers and their potential role in the muscle-brain crosstalk
17.30	**Bus to Dinner venue**		
18.00	**Dinner at Restaurant Vækst**		
20.15	**Thanks for today!**		

Programme overview

21 June 2024
Venue: The Novo Nordisk Foundation, Tuborg Havnevej 19, 2900 Hellerup

Time		Speaker	Title
08.30	Arrival and breakfast	Arrival and Breakfast	
09.00	**Gene Editing Modalities**	**Chair:** Thomas Bentin	
		Guillermo Montoya	Redesigning the type V-K CRISPR-associated transposon system for genome editing
		Morten Sommer	CRISPR enabled medicines for modulating the microbiome
		Short talk: Kyler Roy	Unlocking Multiplexed CRISPR Potential: A Novel Non-Repetitive CRISPR Toolkit for Advanced Genome Manipulation
10.30	**Break**		
11.00	**On- & Off-Targets**	**Chair:** Mani Arumugam	
		Jan Gorodkin	Computational strategies for CRISPR/Cas gRNA design
		Toni Cathomen	Revelations in Precision: Learning from On- & Off-Target Effects of Gene Editing Tools
		Short talk: Ying Sun	Enhanced CRISPR base editing design from data generation and deep learning
12.30	**Lunch**		
13.30	**Discovery & Therapeutics**	**Chair:** Guillermo Montoya	
		Rasmus Bak	Genetic and transcriptional engineering of hematopoietic stem cells
		Short talk: Kristoffer Haurum Johansen	Antigen-scaffold-mediated expansion of CRISPR-Cas9 knockin CAR- and TCR-T cells generates highly enriched, efficacious T-cell products
		Angelo Lombardo	Programming gene expression by targeted epigenetic editing
		Concluding remarks	
15.00	**Farewell drinks**		
16.00	**Thanks for today!**		