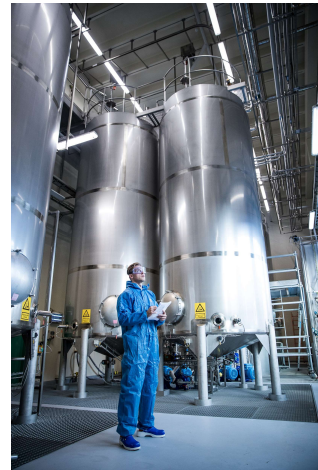


Programme overview



The Future Scientists Summer Camp

Driving change for generations

Full week programme

| Time slot | Arrival day | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Departure day |
|-------------|---------------|---|---|--------------------------|--|---|----------------|
| | 6 August 2023 | 7 August 2023 | 8 August 2023 | 9 August 2023 | 10 August 2023 | 11 August 2023 | 12 August 2023 |
| 7:30-8:00 | | Breakfast | Breakfast | Breakfast | Breakfast | Breakfast | Breakfast |
| 8:00-8:30 | | Transport | Transport | Transport | Transport | Transport | |
| 8:30-9:00 | | Opening speech | Keynote session: Our relationship with food | | Team building activities, forest tower and lunch at Camp Adventure | Keynote session: The dilemmas around plastics | |
| 9:00-9:30 | | Opening presentation | | Production facility tour | | Hands-on session (continues below) | |
| 9:30-10:00 | | LIFE Campus exploration | Transport | | Lunch | | |
| 10:00-10:30 | | Keynote session: A promising healthcare | | Lunch | | Lunch | |
| 10:30-11:00 | | | Transport | | Lunch | | |
| 11:00-11:30 | | Transport | | Lunch | | | |
| 11:30-12:00 | | | Transport | | Lunch | | |
| 12:00-12:30 | | Transport | | Lunch | | | |
| 12:30-13:00 | | | Transport | | Lunch | | |
| 13:00-13:30 | | Transport | | Lunch | | | |
| 13:30-14:00 | Transport | | Lunch | | | | |
| 14:00-14:30 | | Transport | | Lunch | | | |
| 14:30-15:00 | Transport | | Lunch | | | | |
| 15:00-15:30 | | Transport | | Lunch | | | |
| 15:30-16:00 | Transport | | Lunch | | | | |
| 16:00-16:30 | | Transport | | Lunch | | | |
| 16:30-17:00 | Transport | | Lunch | | | | |
| 17:00-17:30 | | Transport | | Lunch | | | |
| 17:30-18:00 | Transport | | Lunch | | | | |
| 18:00-18:30 | | Transport | | Lunch | | | |
| 18:30-19:00 | Transport | | Lunch | | | | |
| 19:00-19:30 | | Transport | | Lunch | | | |
| 19:30-20:00 | Transport | | Lunch | | | | |
| 20:00-20:30 | | Transport | | Lunch | | | |
| 20:30-21:00 | Transport | | Lunch | | | | |
| 21:00-21:30 | | Transport | | Lunch | | | |
| 21:30-22:00 | Transport | | Lunch | | | | |
| 22:00-22:30 | | Transport | | Lunch | | | |
| 22:30-23:00 | Transport | | Lunch | | | | |

- Learning activities
- Leisure activities
- Meals
- Transportation
- Free time

Learning activities

Keynote sessions

For the keynote sessions, we have invited speakers from industry and academia to discuss topics of interest with the participants. Each session will last 1 hour and all participants will attend them together at LIFE Campus' auditorium. There will be 4 keynote sessions:

- A promising healthcare
- Our relationship with food
- The dilemmas around plastics
- A career in STEM

Hands-on sessions

In the hands-on sessions, teachers will help participants dive into a specific topic via experimentation. Each session will last 5 hours and participants will take them in groups of 25, at different LIFE Campus labs. Every participant will participate in all of the sessions, but on different days throughout the week. There will be 4 hands-on sessions:

- Disease & Diagnose
- Good health
- Zero hunger
- Climate action

Production facility tour

On 10 August, participants will visit Novo Nordisk's production facilities. They will be divided in groups and each group will get their own guided tour. This is a great opportunity to see how drugs and medical devices are manufactured.

Keynote session | A promising healthcare

7 August 11:00-12:00 CET

Learn about innovative therapies and integrated healthcare solutions that improve the patient experience.



Jonathan Niclis

Principal Scientist, Novo Nordisk

Jonathan Niclis holds a PhD in Stem Cell and Neural Development Biology from Monash University. After concluding his studies, he completed two postdocs in neuroscience institutes at the University of Melbourne and the University of Copenhagen. He joined Novo Nordisk in 2018 and has been part of the cell therapy unit since.



Rasmus Just

VP Device Innovation, Novo Nordisk

Rasmus Just joined Novo Nordisk in 2022 and is currently working within Device and Delivery Solutions, heading up the Device Innovation area. Prior to joining Novo Nordisk, he worked within medtech development, helping people with intimate healthcare needs, developing a broad range of devices from single use disposables and electro-mechanical durables to implants and surgical instruments. Rasmus holds a MSc in Applied Mechanics from Aarhus University and an eMBA in Management of Technology.



Maria Joao Pereira

Scientific Communication Partner, Novo Nordisk

Maria Joao Pereira holds a PhD in Neuroscience and Stem Cell Biology from Lund University. After concluding her studies, she initiated a career in the pharmaceutical industry, at Novo Nordisk, where she has been involved in the preclinical testing and development of cell therapies for the treatment of chronic diseases, with a focus on animal models and in vivo functionality tests. Within Novo Nordisk, she recently changed career path and is currently a Scientific Communication Partner in R&ED, where she supports the scientific communication of Marcus Schindler, CSO & EVP of R&ED, and across the R&ED organization.



Mark Joseph Guarraia

VP Design & User Experience, Novo Nordisk

Mark Joseph Guarraia is a designer specialised in healthcare products, services and systems. After working in biomedical companies like Ximedica and Teva Pharmaceuticals, he joined Novo Nordisk in 2018. He currently heads up Design and User Experience. In addition to his day job, Mark is an experienced design educator and a relentless design advocate. He holds a BFA in Industrial Design from Rhode Island School of Design and a MA in Design Management from Savannah College of Art and Design.

Keynote session | Our relationship with food

8 August 9:00-10:00 CET

Discover the challenges we face in producing and consuming food and how these may be solved.



Signe Skjoldborg Brieghel

Postdoc researcher, University of Copenhagen

Signe Skjoldborg Brieghel's research is oriented towards the cultural histories and practices of farmed environments in Denmark and beyond, asking how these co-shape what we eat, how we live, and how we see the world. She currently sits at the Centre for Sustainable Futures at the University of Copenhagen, where she looks into the possibilities and barriers for thinking Danish cattle farming within planetary boundaries. Signe holds a PhD in Ethnology from the University of Copenhagen.



Annemarie Olsen

Associate Professor, University of Copenhagen

Annemarie Olsen heads the Food Design and Consumer Behaviour team at the University of Copenhagen. Her research covers human eating behaviours, contextual factors that influence food choices and amounts consumed, and intervention strategies to redirect our food preferences. Annemarie holds a PhD in Sensory Science from the University of Copenhagen.



Kylian Manon Eggink

Postdoc researcher, Technical University of Denmark

Feeding nearly 10 billion people by 2050 within planetary boundaries? That is a goal that Kylian Manon Eggink, postdoctoral researcher at the Technical University of Denmark, hopes to contribute to. Manon's passion is to produce sustainable food for people all over the world – she currently works with fish and insects as sustainable food sources. She is also investigating how we can use current food waste streams, such as bakery products, more efficiently by optimising their use in animal feed. Manon holds a PhD in Nutrition from the Technical University of Denmark.

Keynote session | The dilemmas around plastics

10 August 9:00-10:00 CET

Hear about our current use of plastics and what can be done to find sustainable solutions.



Anders Egede Daugaard

Associate Professor, Technical University of Denmark

Anders Egede Daugaard is an Associate Professor at the Technical University of Denmark and responsible for polymer chemistry at the Danish Polymer Centre. He has worked with polymer synthesis for more than 15 years. Recently, he has been focused on the preparation of materials from bio-based sources or sustainable raw materials, as well as materials designed for easier recycling. Anders holds a PhD in Polymer Chemistry from the Technical University of Denmark.



Baijia Huang

Global Environmental Lead, Novo Nordisk

Baijia Huang is responsible for translating Novo Nordisk's plastic strategy into tangible targets and initiatives. She has over 10 years of experience within environmental sustainability and circular economy across different sectors, including wool, construction, and more recently pharma. For 6 years, she worked as a consultant to the European Commission on ecodesign legislations, carrying out impact assessments and reviewing studies that supported policymaking. Baijia holds a MSc in Low Carbon Building Design and Modelling from Loughborough University.



Maria Rosenberger Petersen

Senior Manager Environmental Sustainability, The LEGO Group

Maria Rosenberger Petersen is a senior environmental specialist at the LEGO Group, where she has worked for 7 years. She has over a decade of experience within environmental sustainability, focusing on the development of more sustainable plastics from an end-to-end perspective. She represents the LEGO Group in the Bioplastic Feedstock Alliance, a WWF-led initiative that provides thought leadership on responsibly sourced bioplastics as part of a circular economy. Maria holds a MSc in Geology from Aarhus University.



Jesper Bøgelund

Senior Sustainability Scientist, Novo Nordisk

Jesper Bøgelund is engaged in Novo Nordisk's Circular for Zero strategy, trying to find environmentally benign methods to deliver treatments to users. At the moment, he works on lower-environmental-impact materials for future devices. He has 30 years of experience on polymer materials, their applications and their environmental analysis. Jesper holds a MSc in Material Chemistry from the University of Copenhagen.

Keynote session | A career in STEM

11 August 9:00-10:00 CET

Join a conversation with a diverse set of panelists who will showcase what a career in STEM can look like.



Timothy Patrick Jenkins

Head of Data Science and Assistant Professor,
Technical University of Denmark

Timothy Patrick Jenkins is an Assistant Professor at the Technical University of Denmark, leading the Digital Biotechnology Lab. He is passionate about harnessing modern technologies to innovate the biotechnological landscape and develop real world solutions. His research focuses on discovering and understanding protein-based binders (antibodies, nanobodies, minibinders...) as well as exploring their use in cost-effective therapeutics against infectious and/or neglected tropical diseases. Timothy holds a PhD in Biology and Biomedicine from the University of Cambridge.



Lotte Bjerre Knudsen

Chief Scientific Advisor, Novo Nordisk

Lotte Bjerre Knudsen is Chief Scientific Advisor and member of the leadership team for Research & Early Development in Novo Nordisk. Originally trained in biotechnology, she is a Doctor of Medical Sciences, and was Adjunct Professor in translational medicine at Aarhus University. She has worked at Novo Nordisk for 34 years. Lotte was responsible for inventing liraglutide and has been scientific lead for long-acting GLP-1 in obesity, cardiovascular, kidney, NASH, Alzheimer's, and oral absorption. She has published numerous papers on GLP-1, liraglutide, semaglutide, mode(s) of action, toxicology, and receptor expression, and has received several awards for her work.



Fatima AlZahra'a Alatraktchi

Assistant Professor, Roskilde University

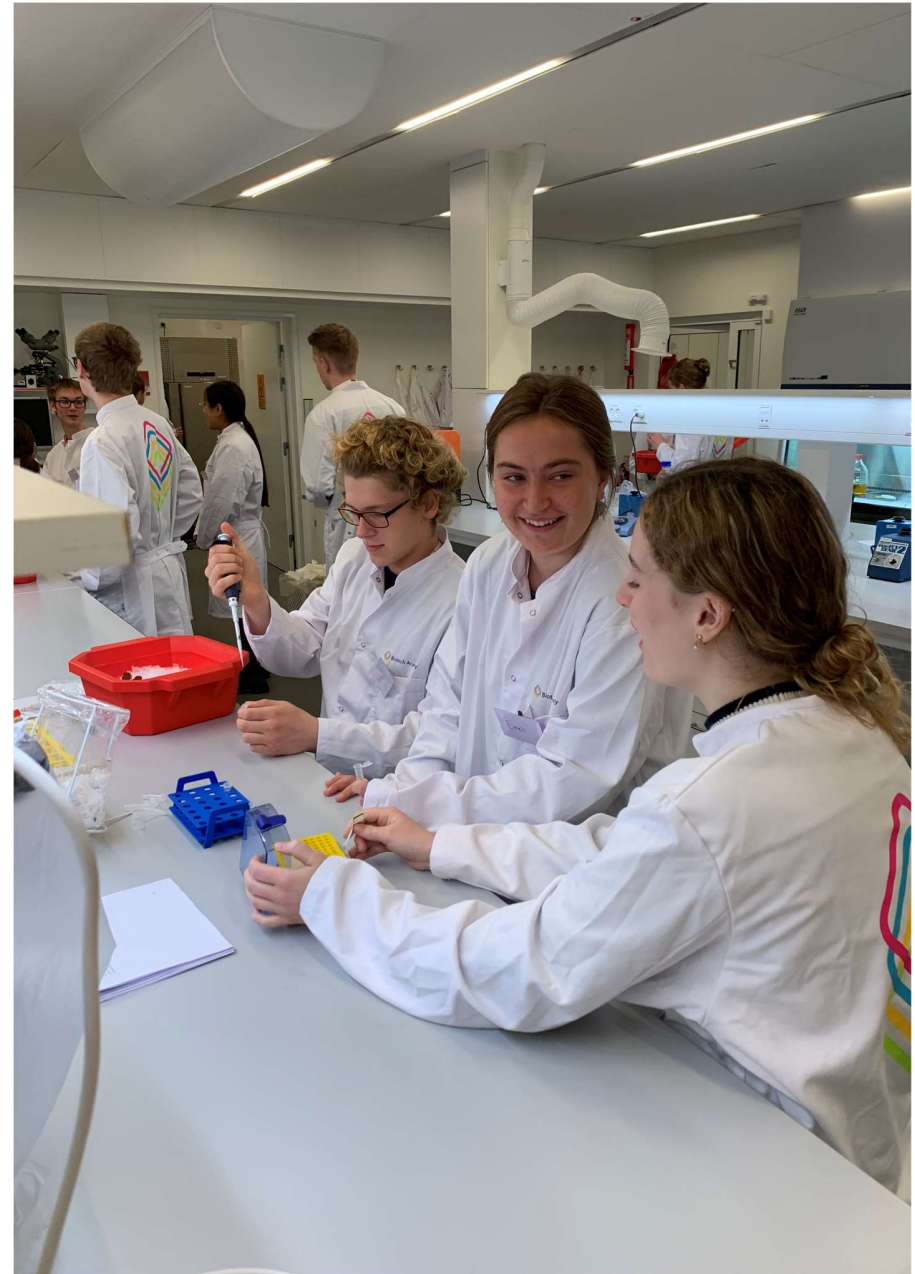
Fatima AlZahra'a Alatraktchi is a TED-speaker, a renowned fiction writer, research group leader at Roskilde University, and the founder of PreDiagnose - where she has created next-generation diagnostics for early bacterial detection. As a result of her academic track, Fatima has received a number of prestigious awards, including the L'ORÉAL-UNESCO Science Prize, the Lundbeck Foundation Talent Prize for outstanding research talents in medicine and health, and the PhD thesis of the year Award by the Technical University of Denmark. In 2019, Forbes Business Magazine listed her as one of the 30 most influential people under 30 in Europe within science and health. Fatima holds a PhD in Nanotechnology and Molecular Biology from the Technical University of Denmark.

Hands-on session | Disease & Diagnose

Explore how DNA extracted from bacteria can be used as biomarkers, a cornerstone of disease diagnosis.

Biosensors play a vital role in scientific research, particularly in the field of disease detection and drug analysis. These innovative devices enable scientists to investigate important questions such as: How can we detect diseases? What are the properties of the drugs we study? Can we improve disease and drug detection? To solve these challenges, scientists need a deep understanding of biosensors and how they are made.

In this hands-on session, you will be an aspiring scientist and get the opportunity to build your very own biosensor. For that, you will isolate DNA, work with live bacteria, and master the art of cloning. Prepare yourself for some fun in the lab!



Hands-on session | Good health

Examine how bodies react to different activities and learn how sports can lead to a healthier life.

56 million people died in 2017. Of those, 18.5 million died from cardiovascular diseases and 1.5 million died from diabetes. By far the most important factor in preventing these lifestyle diseases is physical activity. In many parts of the world, the average persons' life has become increasingly sedentary due to a high degree of mechanisation of work that was previously done manually. Transportation by car is another important factor that has led to decreased physical activity.

In this hands-on session, you will investigate how physical activity affects the human body (your bodies!), you will measure some relevant health metrics and you will discuss possible solutions to the problem of sedentary lifestyle in your home country.



Hands-on session | Zero hunger

Explore how catalysis in ammonia production can help feed the growing global population.

The world's population is growing. Feeding future populations sustainably will require new approaches and technologies. Currently, 30% of the world's population would not be able to eat without fertilizer dependent farming systems. This figure will increase dramatically in the future and, as a result, the production of central substances like ammonia will need to keep pace.

In this hands-on session, you will learn about ammonia production and how catalysts are used to boost the chemical processes involved. You will make ammonia in the lab and take a virtual trip to a full-scale ammonia plant, where you will try your hand at running some of the central processes of a plant that produces thousands of tons of ammonia yearly.

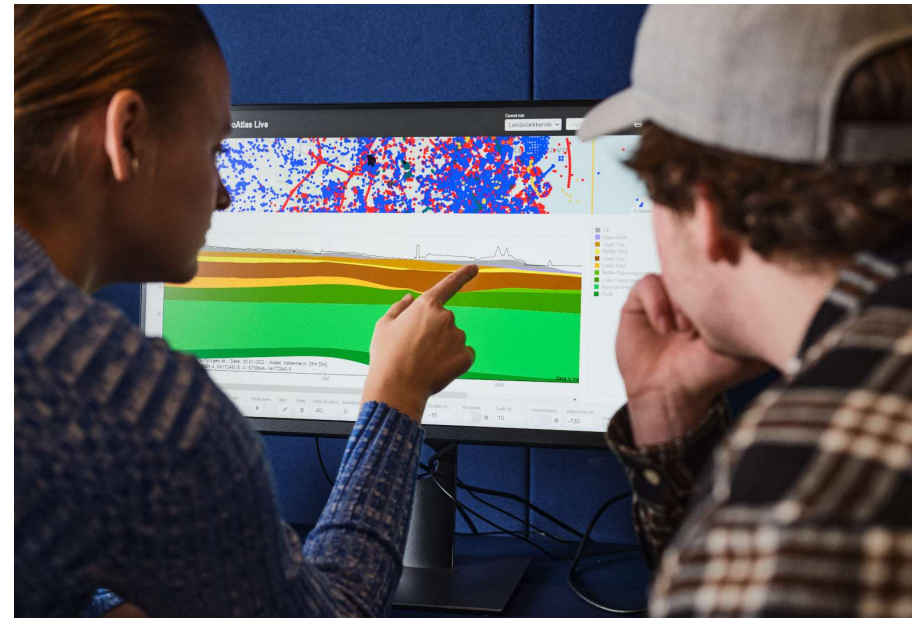


Hands-on session | Climate action

Investigate how local solutions can be applied to future challenges of global climate change.

Human emissions of green-house gasses are changing the climate. International efforts aim at achieving complete CO₂ neutrality towards the end of the century. However, even if we completely stop emitting tomorrow, we will still experience significant changes in our climate due to the CO₂ already emitted. As a result, future efforts on climate change will have to target both the reduction of emissions, as well as the adaptation to the effects of a changing climate. Do you know how climate changes will affect the place you live, within your lifetime?

In this hands-on session, you will explore how future climate changes will manifest in various parts of the world. Using Denmark as an example, you will dive into consequences for local infrastructure of effects like cloud bursts and storm surges. Lastly, you will apply these insights to address a real climate related problem from one of your local areas and share your ideas with the other participants.



Leisure activities

Social evenings

After spending much of the day in learning sessions, participants will gather to have dinner and socialise. Throughout the summer camp, there will be 4 of these special evenings:

- On 7 August, participants will have icebreaker activities and a barbeque at Raadvad Vandrerhjem
- On 9 August, participants will have dinner and watch a Danish movie at Raadvad Vandrerhjem
- On 10 August, LIFE Campus will host a dinner where participants build their own meals
- On 11 August, there will be a farewell pizza dinner at Raadvad Vandrerhjem

Trip to Copenhagen

On 8 August, participants will head to Copenhagen and spend the afternoon in the city. The visit will include two activities:

- A boat tour across Copenhagen's canals with a focus on its architecture
- Dinner and garden tour at Øens Have, the largest urban farm in Scandinavia

Trip to Copenhagen's surroundings

On 9 August, participants will head south of Copenhagen and spend the day in two unique places.

- At Camp Adventure, participants will participate in team-building activities and ascend a 45-meter-high forest tower
- At Stevns Klint, participants will walk by the UNESCO World Heritage site coastline, do orienteering with a focus on Danish nature, and explore an exhibition about dinosaurs' extinction