

**22** MAY  
2025

Thursday

**LECTURE**

11.00am - 12.00pm

**MEET & EAT \***

Light lunch provided

12.00pm - 1.00pm



# Mitochondrial Transporters and the Control of Cellular Metabolism

## ABSTRACT

Humans encounter over 200,000 metabolites through diet and modern living. Intricate mechanisms of cellular compartmentalization enable organisms to orchestrate such metabolic complexity. We explore how organelles control key metabolite concentrations and establish dynamic cellular environments, with a focus on solute carriers and other transport proteins.

One major research direction in our lab aims to define the functions of compartmentalization in metabolic regulation, particularly concerning nicotinamide adenine dinucleotide (NAD). Decreased NAD levels with aging are linked to mitochondrial dysfunction and other aging-related changes. Our recent identification of SLC25A51 as a mitochondrial NAD transporter gives us a tool to understand how intracellular NAD compartmentalization affects key cellular processes and physiological outcomes. Notably, we have identified the mitochondrial NAD transporter SLC25A51 as a modulator of cellular senescence in pancreatic beta cells. We demonstrate that deleting the transporter prevents diabetes-associated beta cell senescence and improves glucose homeostasis and insulin resistance in mice.



## SPEAKER

**Prof Nora Kory**

Assistant Professor of Molecular Metabolism  
Harvard T.H. Chan School of Public Health

## HOST:

Luxembourg Institute of Health

## RESPONSIBLE SCIENTIST:

Johannes Meiser (Johannes.Meiser@lih.lu)

**\*Please note that registration for Meet and Eat is mandatory and open until May 19th via the following link:**

<https://lh1v-limsrvey01.lih.lu/index.php/968633?lang=en>

## Locations:

### Lecture:

CHL - Centre  
Room: Amphitheatre  
4, rue Ernest Barblé  
L-1210 Luxembourg

### Meet & Eat

Room Barbara Mc Clintock