



The Novo Nordisk Postdoctoral Fellowship Programme at KI was initiated in 2015 and has completed six annual rounds of recruitments and we have to date appointed 24 postdoctoral fellows. The Fellowship Programme aims to support the development of a new generation of exceptional young diabetes and metabolism researchers, to become future leaders in the field, while further developing scientific excellence within these areas ultimately improving the lives of patients.

We welcome the 2020 intake

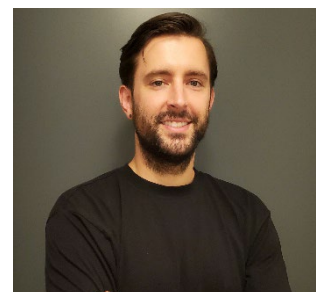
Aida Collado Sánchez completed her PhD in Biomedicine and Pharmacy at the University of Valencia, Spain. Aida started her Novo Nordisk fellowship in November 2020 in a project led by John Pernow, Per Eriksson and Zhichao Zhou at the Department of Medicine, Solna. The project is focused on the study of red blood cells (RBCs) as novel mediators of vascular endothelial injury in the context of type 2 diabetes. The aim of this project is to identify the molecular signalling mechanism by which RBCs induce endothelial dysfunction in type 2 diabetes. Her project is entitled: “The red blood cell as a novel mediator of vascular endothelial injury in type 2 diabetes.”



Prasad Kamble completed his PhD at the Department of Medical Sciences, Uppsala University, Sweden. Prasad started his Novo Nordisk fellowship in January 2021 in a project led by Juleen Zierath at the Department of Molecular Medicine and Surgery. The project will explore the mechanisms by which energy-sensing pathways contribute to circadian metabolism. Besides, study how exercise affects such pathways to regulate systemic metabolism. His project is entitled: “Role of energy sensing pathways in the circadian control of metabolism.”



Scott Frendo-Cumbo completed his PhD in Cell Biology at the University of Toronto, Canada. Scott started his Novo Nordisk fellowship in April 2021 in a project led by Mikael Rydén and Niklas Mejhert at the Department of Medicine, Huddinge. The project will broadly focus on examining human adipose tissue biology and how pathological cellular conditions promote whole-body insulin resistance. His project is entitled: “Identifying mechanisms linking adipocyte-derived metabolites to inflammation and metabolic disorders.”



Publications

Since the Fellowship Programme began, fellows have published 11 first-author research articles, 21 co-authored research articles and 6 reviews relating to their fellowship work.

Recent selected publications:

- **Aida Collado et al** (2021) [MicroRNA: A mediator of diet-induced cardiovascular protection](#). Review, *Curr Opin Pharmacol*
- **Thomas Ebert et al** (2020) [Insights in the regulation of trimethylamine N-oxide production using a comparative biomimetic approach suggest a metabolic switch in hibernating bears](#). *Sci Rep*
- **Thomas Ebert et al** (2021) [Time-dependent lipid profile inversely associates with mortality in hemodialysis patients - independent of inflammation/malnutrition](#). *J Intern Med*
- **Thomas Ebert et al** (2021) [Inflammation and Oxidative Stress in Chronic Kidney Disease and Dialysis Patients](#). Review, *Antioxid Redox Signal*
- Franziska G Rauscher,..., **Thomas Ebert** (2021) [Renal function and lipid metabolism are major predictors of circumpapillary retinal nerve fiber layer thickness-the LIFE-Adult Study](#). *BMC Med*
- **Katharina Herzog et al** (2021) [Combined lifestyle factors and the risk of LADA and type 2 diabetes - Results from a Swedish population-based case-control study](#). *Diabetes Clin Res Pract*
- **Kelvin H M Kwok et al** (2021) [A longitudinal study of the antilipolytic effect of insulin in women following bariatric surgery](#). *Int J Obes (Lond)*
- Enrichetta Mileti, **Kelvin H M Kwok et al** (2021) [Human white adipose tissue displays selective insulin resistance in the obese state](#). *Diabetes*
- Simon Lecoutre,..., **Alison Ludzki et al** (2020) [Glutamine metabolism in adipocytes: a bona fide epigenetic modulator of inflammation](#). Review, *Adipocyte*
- **Noah Moruzzi et al** (2021) [Tissue-specific expression of insulin receptor isoforms in obesity/type 2 diabetes mouse models](#). *J Cell Mol Med*
- Rasmus JO Sjögren*, **David Rizo-Roca* et al** (2021) [Branched-chain amino acid metabolism is regulated by ERR \$\alpha\$ in primary human myotubes and is further impaired by glucose loading in type 2 diabetes](#). *Diabetologia*, *Co-first authorship
- Allesandro L Galina,..., **Vladimir Shavva et al** (2021) [AMPA-Type Glutamate Receptors Associated With Vascular Smooth Muscle Cell Subpopulations in Atherosclerosis and Vascular Injury](#). *Front Cardiovasc Med*
- Kristoffer Bernhem, Jacopo M Fontana, **Daniel Svensson et al** (2021) [Super-resolution microscopy reveals that Na⁺/K⁺-ATPase signaling protects against glucose-induced apoptosis by deactivating Bad](#). *Cell Death Dis*

Conferences and Workshops

Invited external talks:

- **Alison Ludzki** was invited speaker at the Faculty of Applied Health Sciences Graduate Seminar at Brock University, St Catharines, Ontario, Canada. Title of the talk: “Adipose tissue heterogeneity and metabolic health” – virtual, 2021.
- **Thomas Ebert** was invited speaker at the Annual Meeting of the German Diabetes Society (DDG) May 2021.
- **Ilke Sen** was invited speaker at the Rising Star Symposium, 57th EASD Virtual Annual Meeting, September 2021.

Recent oral presentations at national and international conferences include:

- **Katharina Herzog** – “Combined lifestyle factors and the risk of LADA and type 2 diabetes”, 56th Annual Meeting of the European Association for the Study of Diabetes (online), September 2020;
- “Alterations in biomarkers of carbohydrate and lipid metabolism up to 20 years before the diagnosis of type 1 diabetes – findings from the AMORIS cohort”, The 55th Annual Meeting of the Scandinavian Society for the Study of Diabetes (online), March 2021, and 57th Annual Meeting of the European Association for the Study of Diabetes (online), September 2021.

Recent poster presentations at national and international conferences include:

- **Thomas Ebert** - 56th EASD Annual Meeting, virtual (21 – 25 September 2020), and 58th ERA-EDTA Congress, virtual, 5–8 June 2021.
- **Katharina Herzog** – “Combined lifestyle factors and the risk of LADA and type 2 diabetes”, 56th Annual Meeting of the European Association for the Study of Diabetes (online), September 2020.
- **Ilke Sen** - Scandinavian Physiological Society Meeting, Stockholm, 2021.

Grants and Awards

Osman Ahmed was awarded the Young Investigator Fellowship from the European Atherosclerosis Society (EAS) at the Virtual Congress 2021 in Helsinki, Finland.

Ilke Sen was awarded the European Association for the Study of Diabetes (EASD) Rising Star Award, 2021, including a grant from European Foundation for the Study of Diabetes (EFSD); and a grant from Karolinska Institute Research Foundation Special Grant 2020/2021.

Aida Collado was awarded The García-Blanco medal award in its forty-first edition (2020), which distinguishes the scientific work of young researchers in Science and Biomedicine.

Alumni Fellows and Next Steps

We have recently said farewell to the following fellows:

Sanna Hellberg (2017 intake) ended her fellowship in October 2020. Sanna has moved back to Finland with the aim for a career outside academia, but with the wish to stay in close contact with science. Sanna currently holds a position as Scientific Project Manager at MedEngine, in Helsinki.

Noah Moruzzi (2017 intake) ended his fellowship in October 2020. Noah is currently continuing a postdoctoral position in the research group of Ingo Leibiger and Per-Olof Berggren at the Department of Molecular Medicine and Surgery.

Kelvin Kwok (2017 intake) ended his fellowship in January 2021. Kelvin is currently employed as a Senior Scientist at Schain Research, a startup medical consulting company based in Stockholm specializing in real-world evidence.

Daniel Svensson (2017 intake) ended his fellowship in January 2021. Daniel has just ended a project at KTH in Stockholm and is currently looking for new opportunities within the pharmaceutical industry.

Katharina Herzog (2019 intake) ended her fellowship in August 2021. Katharina was offered and accepted a position as lead data scientist at Methods, Innovation & Outreach at Novo Nordisk as of September 1st, 2021.

Upcoming conferences

Alison Ludzki will attend the Strategic Research Program in Diabetes Retreat Nov 15-16, and the Virtual European Lipid Droplet Workshop Nov 19.

Thomas Ebert will attend the EASD 2021 meeting, and the upcoming European Uremic Toxin work group meeting, and the DDG annual autumn meeting (German Diabetes Association).

Katharina Herzog will attend the EASD 2021 meeting.

Save the date

15-16 November 2021 - 10th SRP Diabetes - EndoMet - MetEndo retreat. Will be held at Vår Gård conference resort in Saltsjöbaden.

29 November 2021 – 6th Annual KI-Novo Nordisk Workshop, Virtual webinar meeting. Arranged by the Novo Nordisk Postdoc Fellowship Programme.

Current Fellows

	Current Fellows	Supervisors	Mentor
2018 intake	Vladimir Shava - Neural regulation of inflammation in atherosclerosis.	Peder Olofsson	Michael Nyberg
	Thomas Ebert - Chronic kidney disease – exploration of novel diagnostic, preventive and therapeutic targets for an emerging public health priority.	Peter Stenvinkel, Annika Wernerson	Thomas Idorn
2019 intake	David Rizo Roca - Metabolic crosstalk and the regulation of insulin sensitivity in Type 2 diabetes.	Juleen Zierath, Anna Krook	Damien Demozay
	Osman Ahmed - Neural control of inflammation and metabolism in liver disease.	Peder Olofsson, Stephen Malin	Louise Zeuthen
	Alison Ludzki - Identifying the role of human white adipose tissue for the development of cardiovascular complications in type 2 diabetes.	Mikael Rydén, Peter Arner	Jakob Hansen
2020 intake	Ilke Sen - lncRNAs regulating skeletal muscle metabolism.	Anna Krook, Juleen Zierath	Bo Falck Hansen
	Aida Collado Sánchez - The red blood cell as a novel mediator of vascular endothelial injury in type 2 diabetes.	John Pernow, Per Eriksson, Zhichao Zhou	Laurent Burnier
	Prasad Kamble - Role of energy sensing pathways in the circadian control of metabolism.	Juleen Zierath	Birgitte Andersen
	Scott Frendo-Cumbo - Identifying mechanisms linking adipocyte-derived metabolites to inflammation and metabolic disorders.	Mikael Rydén, Niklas Mejhert	Johan Paulsson

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Please visit our webpage for more information about the current fellows and the Fellowship Programme:

<http://ki.se/en/srp-diabetes/novo-nordisk-fellowships>