

Mai, Knut, Prof., MD (A04)

Personal Data

Title	Prof. Dr. med.
First name	Knut
Name	Mai
Current position	Professor of Internal Medicine and Endocrinology, Diabetes and Nutrition (W2), Acting Director Department of Endocrinology, Diabetes and Metabolism, Charité – Universitätsmedizin Berlin, Campus Charité Mitte (CCM), Campus Virchow-Klinikum (CVK) and Campus Benjamin-Franklin (CBF); permanent position
Current institution(s)/site(s), country	Department of Endocrinology, Diabetes and Metabolism, Charité – Universitätsmedizin Berlin, Campus Charité Mitte (CCM), Campus Virchow-Klinikum (CVK) and Campus Benjamin-Franklin (CBF), Charitéplatz 1, 10117 Berlin, Germany
Identifiers/ORCID	ORCID ID: 0000-0003-0126-3155

Qualifications and Career

Stages	Periods and Details
Degree programme: Medicine	1992 – 1994, Humboldt-University of Berlin, Germany
Doctorate: MD thesis	23.05.2007: Supervisor: Dieter L. Munz, “ <i>Assessment of cardiac perfusion and innervation before and after coronary revascularization surgery by quantitative 201-thallium and I-123-metaiodobenzyl-guanidine scintigraphy</i> ”, Charité, Humboldt University, Berlin, Germany
Stages of academic / professional career	
Since 2023	Acting Director Department for Endocrinology, Diabetes and Nutrition, Charité-Universitätsmedizin Berlin, Campus Charité Mitte (CCM), Campus Virchow-Klinikum (CVK) and Campus Benjamin-Franklin (CBF), Berlin, Germany
2020	Board certification <i>Nutritional Medicine</i>
2018 – 2022	Deputy Director Department for Endocrinology, Diabetes and Nutrition, Charité – Universitätsmedizin Berlin, Campus Charité Mitte (CCM), Campus Virchow-Klinikum (CVK) and Campus Benjamin-Franklin (CBF), Berlin, Germany
2017	Head of the Endocrine Tumor Center, Charité – Universitätsmedizin Berlin, Berlin, Germany
2017 – 2022	Professorship (W2) for development and therapy of diabetes, Charité – Universitätsmedizin Berlin, Germany
2015	Board certification <i>Diabetology</i>
2014	Board certification <i>Endocrinology</i>

2011 – 2015	Research group leader, Metabolic Research Unit at Experimental and Clinical Research Center (ECRC) - Charité – Universitätsmedizin Berlin, Campus Buch, Germany
2012	Habilitation and <i>venia legendi</i> , Charité – Universitätsmedizin Berlin, Germany
2009 – 2016	Senior consultant officer, Department for Endocrinology, Diabetes and Nutrition, University Hospital Benjamin Franklin, Freie Universität (FU) Berlin, Germany
2009	Board certification <i>Internal Medicine</i>
2001 – 2008	Senior house officer, Department for Endocrinology, Diabetes and Nutrition, University Hospital Benjamin Franklin, Freie Universität (FU) Berlin, Germany
2000 – 2001	Junior house officer, Department for Endocrinology, Diabetes and Nutrition, University Hospital Benjamin Franklin, Freie Universität (FU) Berlin, Germany

Engagement in the Research System

- Member of the Guideline group: National Guidelines for the treatment of diabetes mellitus type 2 (NVL) (2022)
- Board Member of the project group „Nutrition“ within the German Centre for Cardiovascular Research (DZHK) (2014 – 2017)
- Elected member of the board of the Section Diabetology, Obesity and Metabolism of the German Society of Endocrinology (DGE)
- Elected member of the board of the Working Group on Endocrine and Neuroendocrine Oncology of the German Society of Endocrinology (DGE)
- Member of the German Diabetes Association (DDG), German Endocrine society (DGE), Lipid Liga, German Cancer Society
- Participation in Research Consortia (selected): NutriACT (BMBF, 2015 – 2021), CRG 192 (DFG, 2011 – 2015), SFB/TR 296 Locotact (since 2020), Survivorship (German Innovation Fund, 2020 – 2024)

Scientific Results

Category A, * contributed equally, # open access

1. Wernicke C, Pohrt A, Pletsch-Borba L, Apostolopoulou K, Hornemann S, Meyer N, Machann J, Gerbracht C, Tacke F, Pfeiffer AF, Spranger J, **Mai K**. Effect of unsaturated fat and protein intake on liver fat in people at risk of unhealthy aging: 1-year results of a randomized controlled trial. **Am J Clin Nutr** 2023; 117(4):785-93. doi: 10.1016/j.ajcnut.2023.01.010.
2. Spranger L, Weiner J, Bredow J, Zeitz U, Grittner U, Boschmann M, Dickmann S, Stobaus N, Schwartzberg RJ, Brachs M, Spranger J, **Mai K**. Thrifty energy phenotype predicts weight regain in postmenopausal women with overweight or obesity and is related to FGFR1 signaling. **Clin Nutr** 2023; 42(4):559-67. doi: 10.1016/j.clnu.2023.02.020.
3. Li L, Soll D, Leupelt V, Spranger J, **Mai K**. Weight loss-induced improvement of body weight and insulin sensitivity is not amplified by a subsequent 12-month weight

- maintenance intervention but is predicted by adaption of adipose atrial natriuretic peptide system: 48-month results of a randomized controlled trial. **BMC Med** 2022; 20(1):238. doi: 10.1186/s12916-022-02435-9. #
4. Sbierski-Kind J, Grenkowitz S, Schlickeiser S, Sandforth A, Friedrich M, Kunkel D, Glauben R, Brachs S, **Mai K**, Thurmer A, Radonic A, Drechsel O, Turnbaugh PJ, Bisanz JE, Volk HD, Spranger J, von Schwartzberg RJ. Effects of caloric restriction on the gut microbiome are linked with immune senescence. **Microbiome** 2022; 10(1):57. doi: 10.1186/s40168-022-01249-4. #
 5. Li L, Decker AM, Stobaus N, Beer F, Grittner U, Spranger J, Mai K. Weight loss did not modify macronutrient specific response of hormones and satiety in overweight and obese people without metabolic disease - results from a clinical trial. **Clin Nutr** 2022; 41(4):948-57. doi: 10.1016/j.clnu.2022.02.004.
 6. Jumpertz-von Schwartzberg R, Bisanz JE, Lyalina S, Spanogiannopoulos P, Ang QY, Cai J, Dickmann S, Friedrich M, Liu SY, Collins SL, Ingebrigtsen D, Miller S, Turnbaugh JA, Patterson AD, Pollard KS, **Mai K**, Spranger J, Turnbaugh PJ. Caloric restriction disrupts the microbiota and colonization resistance. **Nature** 2021; 595(7866):272-7. doi: 10.1038/s41586-021-03663-4. #
 7. Pletsch-Borba L, Wernicke C, Apostolopoulou K, Spira D, Pohrt A, Hornemann S, Gerbracht C, Pfeiffer AFH, Spranger J, **Mai K**. Nutritional counseling frequency and baseline food pattern predict implementation of a high-protein and high-polyunsaturated fatty acid dietary pattern: 1-year results of the randomized NutriAct trial. **Clin Nutr** 2021; 40(11):5457-66. doi: 10.1016/j.clnu.2021.09.022.
 8. **Mai K**, Li L, Wiegand S, Brachs M, Leupelt V, Ernert A, Kuhnen P, Hubner N, Robinson P, Chen W, Krude H, Spranger J. An Integrated Understanding of the Molecular Mechanisms of How Adipose Tissue Metabolism Affects Long-term Body Weight Maintenance. **Diabetes** 2019; 68(1):57-65. doi: 10.2337/db18-0440.
 9. **Mai K**, Brachs M, Leupelt V, Jumpertz-von Schwartzberg R, Maurer L, Gruters-Kieslich A, Ernert A, Bobbert T, Krude H, Spranger J. Effects of a combined dietary, exercise and behavioral intervention and sympathetic system on body weight maintenance after intended weight loss: Results of a randomized controlled trial. **Metabolism** 2018; 83:60-7. doi: 10.1016/j.metabol.2018.01.003.

Academic Distinctions

- Menarini-Award of the German Diabetes Society (2012)
- Poster award of the Congress of the German Endocrine Society (2009)
- Schoeller-Junkmann-Award of the German Endocrine Society (2008)
- Award of the „Sektion für angewandte Endokrinologie“ (2006)

Collaborators

No.	Collaboration partners	Location/Institution
1	Andreas Birkenfeld	Tübingen, Germany, University Clinic Tübingen
2	Peter Kühnen	Berlin, Germany, Charité – Universitätsmedizin Berlin

3	Caroline Stokes	Berlin, Germany, Humboldt University
4	Tobias Pischon	Berlin, Germany, MDC
5	Tilman Grune	Potsdam, Germany, German Institute of Nutrition
6	Matthias Kroiss	Munich, Germany, LMU
7	Martin Fassnacht	Würzburg, Germany, University of Würzburg
8	Jürgen Machann	Tübingen, Germany, University Clinic Tübingen