

Annual Dutch Diabetes Research Meeting 2022

Nederlandse Vereniging voor Diabetes Onderzoek (NVDO)

Nederlandse Associatie voor de Studie van Obesitas (NASO)

Netherlands Diabetes Epidemiology Study Group (NDESG)

Psychosocial Aspects of Diabetes (PSAD) Study Group

Nederlandse Vereniging voor Neurovasculaire Complicaties van Diabetes (NVCD)



3 & 4 November 2022

Wageningen International Congress Centre

08.30-09.30 Welcome and registration

09.30-09.45 Plenary start of the 48th Annual Dutch Diabetes Research Meeting

09.45-11.15 NVDO/NASO
Expert street

PS1: ABSTRACTS
Obesity/Adipose tissue
Chair:

09.45-10.00: Rosalie Baak, UMC Utrecht, **The ubiquitin E3 ligase Rnf125 is a novel PPAR γ target gene in adipocytes**

10.00-10.15: Mariëtte Boon, Leiden University Medical Center, **Cold-induced thermogenesis shows a diurnal variation, that unfolds differently in males and females**

10.15-10.30: Yan Fang, Wageningen University, **High fat and high glucose mixed meal affect distinct lipid metabolism gene expression pathways in adipose tissue from abdominal obese subjects with high liver fat and low liver fat**

10.30-10.45: Mariëtte Boon, Leiden University Medical Center, **Stimulation of the beta-2-adrenergic receptor with salbutamol activates human brown adipose tissue**

10.45-11.00: Lisa Smeehuijzen, Wageningen University, **Exploring immune cell metabolism to identify hallmarks of obesity**

09.45-11.15 NVDO/NASO
Expert street

PS2: ABSTRACTS
Clinical track
Chair:

09.45-10.00: Henk-Jan Aanstoot, Diabeter, **Evaluation of Diabetes eHealth application CloudCare**

10.00-10.15: Milena Jancev, UMC Utrecht, **Design of the Dual Hormone Fully Closed Loop in Type 1 Diabetes: a Randomized (DARE) Trial**

10.15-10.30: Minou van Os, Radboudumc, **Healthcare needs of adults with type 1 diabetes considering, in transfer to, using or formerly building/using open-source artificial pancreas systems**

10.30-10.45: Ryan de Vries, Eindhoven University of Technology, **Playing your Diabetic Life: Personalized Data-Driven Game for Diabetes Self-Management Education**

10.45-11.00: Miranda Thoosen, CWZ, **Telemonitoring using a smart app for type 2 diabetes patients increases time in range.**

09.45-11.15 NVDO/NDESG
Expert street

PS3: ABSTRACTS
Lifestyle interventions
Chair:

09.45-10.00: Charlotte Andriessen, Maastricht University, **Amount and timing of physical activity in relation to sleep in the general population**

10.00-10.15: Emma Bouman, Amsterdam UMC, **The association between social jetlag and parameters of Metabolic Syndrome and Type 2 Diabetes: a systematic review and meta-analysis**

10.15-10.30: Ayano Shiba, Netherland Institute of Neuroscience, **Know your clock!: Optimal exercise timing to maximise its benefits**

10.30-10.45: Anhui Wang, Amsterdam UMC, **Metabolic effects of acute circadian desynchronization**

10.45-11.00: Joëlle Oosterman, TNO, **The effect of extended personalization to a combined lifestyle intervention program**

09.45-11.15 NVDO/NASO
Expert street

PS4: ABSTRACTS
Gastro-intestinal and & liver biology
Chair:

09.45-10.00: Emanuel Canfora, Maastricht University, **The HMO 2'-fucosyllactose in combination with resistant starch increased distal colonic short-chain fatty acid production in lean men and in men with prediabetes and obesity**

10.00-10.15: Vivian de Jong, UMC Utrecht & Julius Clinical, **PPAR- α / γ modulation on non-invasive tests of liver steatosis and fibrosis in T2DM - Post-hoc analysis AleCardio RCT**

10.15-10.30: Amber Korn, Amsterdam UMC, **Hepatic fat and macrophages are increased in livers of diabetic patients without NAFLD**

10.30-10.45: Ruifang LI, Leiden University Medical Center, **Postprandial histidine levels and responses of IDL and SHDL to a liquid mixed meal are associated with incidence of type 2 diabetes**

10.45-11.00: Soumia Majait, Amsterdam UMC, **Metabolic effects and safety of glycodeoxycholic acid (gDCA) in healthy lean men: a proof of concept study**

09.45-11.15 NVDO
Hugotech
SESSION IN DUTCH

PS5 Klinische diabetologie
Voorzitter:

09:45-10:45
Niet-alcoholische leververvetting en diabetes mellitus type 2 – raakvlak tussen endocrinologie en hepatologie
Dr. Onno Holleboom
Dr. Maarten Tushuizen

10:45-11:15
ADA/EASD Position statement 2022: Management of Type 2 Diabetes
Prof. Dr. Chantal Mathieu

11.15-11.45 Coffee break

11:45-13.15 NVDO
Expert street

PS6: ABSTRACTS

Brain

Chair:

11.45.12.00: Eline Berends, Maastricht University, **Glyoxalase 1 overexpression reduces cognitive decline in diabetic mice**

12.00.12.15: Han Jiao, Amsterdam UMC, **Time-restricted feeding reprograms microglial day-night immunity in the hypothalamus.**

12.15.12.30: Eduardo Rivera Mancilla, Erasmus MC, **Migraine and diabetes: is there any association?**

12.30-12.45: Colin van Kalker, Maastricht University, **Using a complex carbohydrate mixture and a high-protein Diet to STEer fermentation and improve metabolic, gut and brain health: the DISTAL-study design**

12.45.13.00: Rita Varkevisser, Universitair Medisch Centrum Groningen, **Potential genetic determinants for impaired awareness of hypoglycaemia in people with diabetes: Genome-wide association meta-analyses.**

13.00-13.15: Namam Ali, Radboudumc, **Sharp fall in prevalence of impaired awareness of hypoglycaemia in individuals with type 1 diabetes over the recent years**

11:45-13.15 NVDO
Expert street

PS7: ABSTRACTS

Beta cell

Chair:

11.45.12.00: Elena Rampanelli, Amsterdam UMC, **Microbial 6-bromotryptophan ameliorates autoimmune type 1 diabetes by limiting inflammation and rewiring the immune and pancreatic beta-cell metabolism**

12.00.12.15: Esmée Dekker, Leiden University Medical Center, **Enhanced BMP signalling alters human β -cell identity and function**

12.15.12.30: Noura Faraj, Universitair Medisch Centrum Groningen, **A zebrafish model to address beta-cell stress following exocrine damage**

12.30-12.45: Amadeo Munoz Garcia, Leiden University Medical Center, **Pancreatic beta-cells express MT1 as stress defense mechanism compromising beta-cell identity and function**

12.45.13.00: Miriam Paz Barba, Leiden University Medical Center, **The Apolipoprotein L family genes as markers of islet inflammation**

11:45-13.15 NVCD
Expert street

PS8: ABSTRACTS
Cardiovascular function

Chair:

11.45.12.00: Elisa Dal Canto, UMC Utrecht, **Impaired endothelial-dependent systemic microvascular function is associated with higher risk of heart failure with preserved ejection fraction in women with type 2 diabetes**

12.00.12.15: Marleen Goedendorp-sluijmer, Erasmus MC, **Oral Glucose Tolerance Test for the Screening of Glucose Intolerance Long Term Post-Heart Transplantation**

12.15.12.30: Evelien Vandercappellen, Maastricht University, **Accelerometer-derived physical activity and sedentary time and cardiac biomarkers: The Maastricht Study**

12.30-12.45: Rutger Welling, Antonius Hospital Nieuwegein, **Digital Acceleration Time (DAT), a novel method to detect ischemia in lower extremity arterial disease.**

12.45.13.00: Mandy van Hoek, Erasmus MC, **IgG N-glycans are associated with prevalent and incident complications of type 2 diabetes**

13.00-13.15: Jihee Han, Leiden University Medical Center, **The association between the levels of coagulation factors and the incidence of type 2 diabetes in the NEO study**

11:45-13.15 PSAD
Expert street

PS9: ABSTRACTS

Chair:

11.45.12.00: Jiska Embaye, Amsterdam UMC, **MyDiaMate: implementing self-guided web-based support for mental health in type 1 diabetes.**

12.00.12.15: Stein Exterkate, Voetencentrum Wender, **Effect of motivational interviewing on adherence to wearing orthopaedic shoes: a multicentre cluster-randomized controlled trial**

12.15.12.30: Sanne Kremers, Amsterdam UMC, **The association between dietary total, animal, and plant-based protein intake and depressive symptoms in Dutch adults with type 2 diabetes: the Hoorn Diabetes Care System cohort**

12.30-12.45: Ann-Kristin Porth, Medical University Vienna, **Gender differences in the prioritisation of health outcomes in diabetes: Informing gender-sensitive diabetes care**

12.45.13.00: Hannah Regeer, Leiden University Medical Center, **The strength of the social group in achieving behavior change in people with type 2 diabetes: a qualitative study on the working mechanisms of a group-based walking intervention**

11:45-13.15 NVDO
Hugotech
SESSION IN DUTCH

PS5 Klinische diabetologie

Voorzitter:

11.45-12.45
Nieuwe incretines hoe werken ze en wat kunnen we verwachten?

Prof. dr. Patrick Rense
Dr. André van Beek

12.45-13.15
Pompen en sensoren: zien we door de bomen bos nog?
Dr. Titia Vriesendorp

14.15-15.45 NDESG
Expert street

PS10: ABSTRACTS
Lifestyle interventions
Chair:

14.15-14.30: Tessa de Bie, Wageningen University, **12-week oral GABA supplementation reduces fasting glucose concentration but does not change postprandial glucose response in adults with prediabetes: A double-blind, randomized, placebo-controlled trial**

14.30-14.45: Joëlle Oosterman, TNO, **Personalized Nutritional and Sleep Advice To Improve Short-term Fitness and Long-term Health In Shift Workers**

14.45.15.00: Robert Memelink, Amsterdam University of Applied Sciences, **Additional effects of exercise to hypocaloric diet on body weight, body composition, glycaemic control, and cardio-respiratory fitness in adults with overweight or obesity and type 2 diabetes: a systematic review and meta-analysis**

15.00.15.15: Willem van den Brink, TNO, **Digital biomarkers to support personalized lifestyle and disease management in diabetes type 2**

15.15.15.30: Tim Snel, Roche, **Modeling the effects of lifestyle on daily glucose profiles in individuals with type 2 diabetes using machine learning**

14.15-15.45 NASO
Expert street

PS11: ABSTRACTS
Pathogenesis of insulin resistance
Chair:

14.15-14.30: Anne Gemmink, Maastricht University, **Day-night rhythm in skeletal muscle mitochondrial network integrity is disturbed in older, obese metabolically compromised individuals**

14.30-14.45: Elena Tore, Maastricht University, **The SCD enzyme and ghrelin mediate the associations of plasma cysteine with obesity and insulin resistance: The Maastricht Study**

14.45.15.00: Anouk Gijbels, Wageningen University, **Hepatic insulin resistance and muscle insulin resistance are characterised by distinct postprandial metabolite profiles**

15.00.15.15: Komal Waqas, Erasmus MC, **Bone endocrine factor – Osteocalcin, Advanced glycation end products and type 2 diabetes mellitus – a low-profile step in the pathophysiology**

15.15.15.30: Xiaodi Zhang, Maastricht University, **Increased methylglyoxal formation in plasma and tissues during a glucose tolerance test originates from exogenous glucose and is enhanced in diabetes**

14.15-15.45 NVCD
Expert street

PS8: ABSTRACTS
Chair:

14.15-14.30: Sicco Bus, Amsterdam UMC, **Pressure-relieving effect of different insole top covers in people with diabetes at high risk of foot ulceration**

14.30-14.45: Chantal Hulshof, Amsterdam UMC, **Cumulative plantar tissue stress and its association with foot ulcer recurrence in people with diabetes**

14.45.15.00: Rimke Lagrand, Amsterdam UMC, **Concordance between culture, Molecular Culture and illumina 16S rRNA gene amplicon sequencing of bone and ulcer bed biopsies in people with diabetic foot osteomyelitis**

15.00.15.15: Bas Vierhout, Wilhelmina Hospital Assen, **Comparing a non-removable total contact cast with a non-removable softcast in diabetic foot ulcers: A retrospective study of a prospective database**

15.15.15.30: Edgar Peters, Amsterdam UMC, **Duration of Antibiotic Treatment Following Amputation: Two versus Fourteen Days of Postoperative Antibiotic Therapy Following Toe Amputation for Diabetic Foot Osteomyelitis**

15.30-15.45: Jaap van Netten, Amsterdam UMC, **Comparison of measures of adherence and wearing time of prescribed footwear among people at risk of diabetes-related foot ulcers**

14.15-15.45 NVDO
Expert street

PS13: ABSTRACTS
Clinical track
Chair:

14.15-14.30: Joannet Onvlee, Radboudumc, **None of currently available diabetes data platforms meet the necessary functionality according to health care professionals and patients**

14.30-14.45: Esther Speksnijder, Amsterdam UMC, **The Effect of Hormone Replacement Therapy on Glucose Regulation in Postmenopausal Women with Type 1 and Type 2 Diabetes: A Systematic Review and Meta-analysis**

14.45.15.00: Michiel Wieërs, Erasmus MC, **Effects of Short-Term Potassium Chloride Supplementation in Patients with CKD"**

15.00.15.15: Julia van Heck, Radboudumc, **The inflammatory response to hypoglycaemia occurs largely independent of prior exposure to hypoglycaemia in humans.**

15.15.15.30: Maaike Veenstra, Universitair Medisch Centrum Groningen, **Glucose-insulin responses following meal- and oral glucose tolerance tests during early and late pregnancy in overweight women**

14.15-15.45 NVDO
Hugotech
SESSION IN DUTCH

PS5 Klinische diabetologie
Voorzitter:

14.15-15.00
Complexe obesitas voor de internist
Prof. dr. Mireille Serlie

15.00-15.45
Jaarvergadering
Diabeteskamer

15:45-16.30 Snack break

16.30-17.15 Key-note lecture

Adipose tissue in obesity: size, sites and cytes

Dr. Gijs Goossens

Chair:

Gerritzen Award Ceremony for best thesis on diabetes research

Chair: Dr. Esther Phielix

Dr. F. Gerritzen Award 2022

17.15-17.20 Introduction

17.20-18.00 Presentation candidates

18.00-18.15 Mini break

18.15-19.15 Terpstra Award ceremony

Chair: Prof. dr. Bastiaan de Galan

**Prof. dr. J. Terpstra Young
Investigator Award 2022**

18.15-18.30 Opening and winner of the award in 2021

18.30-19.15 Announcement and lecture by the 2022 awardee

19.15-19.30 Gerritzen Award Ceremony

Dr. F. Gerritzen Award 2022

19.15-19.30 Announcement of the winner of the 37th Gerritzen award

19.30-00.00 Drinks followed by a walking dinner

08.30-09.15 Algemene Ledenvergadering NVDO (Expert street)

09.15-10.00
Expert street

PS14: ABSTRACTS
Gastrointestinal and liver
Chair:

09.15-09.30: Zhewen Ren, Maastricht University, **Physical activity, fructose from sugar-sweetened beverages and alcohol are mediators of the association between socioeconomic position and intrahepatic lipid content: The Maastricht Study**

09.30-9.45: Theresa Stangl, Amsterdam UMC, **Low SHBG is related to increased liver fat, which mediates a small part of the association between SHBG and T2D**

9.45-10.00: Julia Brake, Radboudumc, **Dual RNA-sequencing to understand host-pathogen interactions in Mycobacterium tuberculosis-infected macrophages from people with diabetes mellitus**

09.15-10.00
Expert street

PS15: ABSTRACTS
Type 1 diabetes
Chair:

09.15-09.30: Dion Muller, Amsterdam UMC, **No effect of time on pregnancy outcomes in women with type 1 diabetes**

09.30-09.45: Linda Drenthen, Radboudumc, **No long-acting insulin dose adjustment required after aerobic exercise for people with type 1 diabetes on insulin degludec; the ADREM study**

09:45-10:00: Mandala Ajie, Radboudumc, **Glucose variability impacts long term immune alterations and hypoglycemia-induced inflammation in people with type 1 diabetes**

09.15-10.00
Expert street

PS16: ABSTRACTS
Clinical
Chair:

09.15-09.30: Marjella Eijmael, Leiden University Medical Center, **The efficacy and safety of a hybrid closed loop insulin delivery system in patients with type 1 diabetes mellitus with poor glycaemic control**

09:30-09:45 Dick Mul, Diabeter, **Significant difference in glucometric outcome between automated insulin delivery (AID, 780G+ RTCGM) versus traditional 'playing pancreas' (780G+FGM) in adults with type 1 diabetes**

09:45-10:00 William van Houtum, Spaarne Gasthuis, **Insulin-Sparing Effects of Oral Semaglutide: An Analysis of PIONEER 8**

09.15-10.00
Expert street

PS17: ABSTRACTS
Beta cell
Chair:

09.15-09.30: Maarten Tol, Leiden University Medical Center, **Islet yield and function after total pancreatectomy with islet autotransplantation**

09:30-09:45: Coco Fuhri Snethlage, Amsterdam UMC, **The high prevalence of gastrointestinal symptoms in type 1 diabetes shows no association with residual beta cell function**

09:45-10:00: Fransje Boot, Leiden University Medical Center, **Alpha cells exhibit beta cell-like stress during inflammation, but show resistance to oxidative stress.**

09.15-10.00 jNVDO
Hugotech
SESSION IN DUTCH

PS18: CLINICAL CASES
Chair:

09.15-09.35:
Alternative management in a pregnant woman with GCK-MODY
Martijn de Voogd, Erasmus MC

09.35-09.55:
Euglycemische ketoacidose tijdens gebruik van een hybride closed loop systeem in de zwangerschap
Dirk Westenberg, Amsterdam UMC

10.00-10.45 Key-note lecture

Mendelian randomization and other emerging methodologies

Prof. dr. Harold Snieder

Chair: TBD

10.45-11.15 Coffee break

11.15-12.00 Key-note lecture

Nudging and prevention in the social domain

Prof. dr. Joline Beulens

Chair: TBD

12.00-13.00 Best Meeting Abstracts 2022

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Chair: TBD

13.00 Farewell lunch

