

Annual Dutch Diabetes Research Meeting 2014

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)**

27 & 28 November 2014
Hotel de Bilderberg, Oosterbeek

Thursday 27 November 09.30-10.45 Parallel Sessions

08.00-13.15 Registration

Oosterbeek	Renkum	Hevea	Hertog	Bilderberg I & II
<p>09.30-10.45 NVDO/NASO</p> <p>PS1: Timing matters</p> <p>Chair: Patrick Schrauwen</p> <p>9.30-9.45: J. Oosterman (AMC) 1. A time-of-day dependent effect of fat and sugar intake on body weight gain and energy metabolism</p> <p>9.45-10.00: J. Hansen (MUMC) 2. The broken clock: Molecular time keeping is disturbed in skeletal muscle of obese and type 2 diabetes mellitus patients</p> <p>10.00-10.15: A. Opperhuizen (AMC) 3. Nocturnal light exposure acutely reduces glucose tolerance in Wistar rats</p> <p>10.15-10.30: R. van den Berg (LUMC) 4. A single night of sleep curtailment increases acylcarnitines: novel insights in the relationship between sleep and insulin resistance</p> <p>10.30-10.45: R. Versteeg (AMC) 5. Acute effects of light on glucose metabolism in healthy subjects and in patients with type 2 diabetes</p>	<p>09.30-10.45 NVDO/NASO</p> <p>PS2: Cardiovascular health</p> <p>Chair: Erik Serné</p> <p>9.30-9.45: R. Bijkerk (LUMC) 1. Circulating microRNAs associate with diabetic nephro-pathy and systemic microvascular damage and normalize after simultaneous pancreas-kidney transplantation</p> <p>9.45-10.00: M. Nabben (TUE) 2. Metabolic adaptations in diabetes protect the murine heart from pressure overload-induced failure, as evidenced by in vivo PET, MRI, and MRS</p> <p>10.00-10.15: M. Smits (VUMC) 3. GLP-1 receptor agonist exenatide increases capillary perfusion independent of nitric oxide in healthy overweight males</p> <p>10.15-10.30: K. Berk (Erasmus MC) 4. A short-term very low calorie diet reduces plasma endothelial function markers in type 2 diabetes</p> <p>10.30-10.45: J. Woerdeman (VUMC) 5. acute effects of hyper-insulinemia on systemic vascular resistance and its relationship with glucose uptake</p>	<p>09.30-10.45 NDESG</p> <p>PS3: Preventing diabetes and risk of complications</p> <p>Chair: Sabita Soedamah-Mutu</p> <p>9.30-9.45: S. Rauh (VUMC) 1. Self-Reported Hypoglycaemia and Mortality in Type 2 Diabetes Patients Treated with Insulin in the Diabetes Care System West-Friesland, The Netherlands</p> <p>9.45-10.00: H. Bilo (Isala Zwolle) 2. Stable incidence of renal placement therapy for diabetes in The Netherlands: Dutch diabetes estimates (DUDE)-3</p> <p>10.00-10.15: G. Duijzer (WUR) 3. Effect of the SLIMMER diabetes prevention intervention on clinical and metabolic factors, dietary intake, and physical activity</p> <p>10.15-10.30: G. Hulsege (RIVM) 4. Trajectories of BMI, waist circumference, alanine aminotransferase and gamma glutamyltransferase before the onset of type 2 diabetes – The Doetinchem Cohort Study</p> <p>10.30-10.45: S. Geijselaers (MUMC) 5. Arterial stiffness, cognition, and type 2 diabetes mellitus – preliminary results from The Maastricht Study</p>	<p>09.30-10.45 PSAD</p> <p>PS4: PSAD</p> <p>Chair: Maartje de Wit</p> <p>9.30-9.45: E. Kilic (St. Lucas Andreas ZH Amsterdam) 1. Fear of hypoglycemia and the relation with psychiatric comorbidity and clinical values</p> <p>9.45-10.00: M. Schram (MUMC) 2. Psychological and personality factors in type 2 diabetes mellitus, preliminary results from The Maastricht Study</p> <p>10.00-10.15: F. Rutters (VUMC) 3. Stressful life events and the metabolic syndrome – The Hoorn Study</p> <p>10.15-10.30: E. Kayan (VUMC) 4. Cultural adaptation of a web-based cognitive behavioural therapy programme for Turkish diabetes patients with depressive symptoms: Haydi Baklim</p> <p>10.30-10.45: C. Schmidt (St. Lucas Andreas ZH Amsterdam) 5. The association between ethnicity and diabetes specific and aspecific distress</p>	<p>9.30-10.45 NVDO</p> <p>PS5: Klinische diabetologie</p> <p>Chair: Bastiaan de Galan</p> <p>9.30-10.00: I. van Rosentiel (Slotervaart ZH Amsterdam) Obesitas in kinderen, holistische benadering</p> <p>10.00-10.30: F. Holleman (AMC) Diabetesbehandeling bij ouderen: de jaren des onderscheids</p> <p>10.30-11.00: H. Wilmink (AMC) Cardiovasculaire en metabole effecten van cytostatica</p>

10.45-11.30 Coffee break

Thursday 27 November 11.30-12.45 Parallel Sessions

Oosterbeek	Renkum	Hevea	Hertog	Bilderberg I & II
<p>11.30-12.45 NVDO/NASO</p> <p>PS6: Beta cell I</p> <p>Chair: Janine Kruit</p> <p>11.30-11.45: W. Arabieter (Radboud UMC) 1. Non-invasive and repeated monitoring of islet transplants in skeletal muscle by SPECT imaging</p> <p>11.45-12.00: J. Doppenberg (LUMC) 2. Volume increase after day 1 culture of pancreatic islets: a marker for high quality islet isolation?</p> <p>12.00-12.15: L. van Gurp (Hubrecht instituut) 3. Spatiotemporal imaging of islet cell development and dynamic behavior</p> <p>12.15-12.30: A. Smink (UMCG) 4. Selection of polymers applicable for engineering an artificial transplantation site for pancreatic islets</p> <p>12.30-12.45: M. Nijhoff (LUMC) 5. Glycemic stability through islet-after-kidney transplantation using an alemtuzumab-based induction regimen</p> <p>TO BE CONT'D</p>	<p>11.30-13.00 NVDO/NASO</p> <p>PS7: Insulin resistance</p> <p>Chair: Debby Koonen</p> <p>11.30-11.45: H. de Wit (Radboud UMC) 1. The addition of liraglutide in T2DM patients with pronounced insulin-induced weight gain reverses weight, decreases insulin need and improves glycaemic control</p> <p>11.45-12.00: J. Jonker (UMCG) 2. Endocrinization of FGF1 produces a neomorphic and potent insulin sensitizer</p> <p>12.00-12.15: A. Gemmink (MUMC) 3. Increased intramyocellular lipid storage upon fasting is accounted for by PLIN5-coated lipid droplets</p> <p>12.15-12.30: W. Liu (UMCG) 4. Identification of nuclear receptors involved in glucose homeostasis and the development of Type 2 diabetes</p> <p>12.30-12.45: M. Gerards (Slotervaart ZH Amsterdam) 5. Physician's attitudes towards diagnosing and treating gluco-corticoid induced hyperglycemia</p> <p>12.45-13.00: F. Reijne (UMCG) 6. Running wheel access improves healthy aging in low fat, but not high fat feeding mice</p>	<p>11.30-12.45 NDESG</p> <p>PS8: Biomarkers of diabetes and its complications</p> <p>Chair: Annemieke Spijkerman</p> <p>11.30-12.00: Invited Lecture Joline Beulens 'Novel biomarkers for the prediction of diabetes complications'</p> <p>12.00-12.15: M. van Eupen (MUMC) 1. Higher skin autofluorescence, but not plasma AGEs, is associated with lower ankle-brachial index – The Maastricht Study</p> <p>12.15-12.30: M. Hertle (MUMC) 2. Association of the alternative pathway of complement activation with incident cardiovascular diseases – The CODAM Study</p> <p>12.30-12.45: A. Houben (MUMC) 3. Type 2 Diabetes Mellitus is associated with functional capillary rarefaction – The Maastricht Study</p>	<p>12.00-12.45 NVCD</p> <p>PS9: NVCD</p> <p>Chair: Sicco Bus</p> <p>12.00-12.15: M. Prijs (Ziekenhuis Groep Twente Almelo) 1. Diagnostic values of temperature assessment for detection of diabetes-related foot complications</p> <p>12.15-12.30: R. van Eijk (UMCU) 2. Value of surgical decompression of compressed nerves in the lower extremity in patients with painful diabetic neuropathy. A randomized controlled XXXXXXXX</p> <p>12.30-12.45: B. ter Horst (UMCU) 3. Effect of surgical decompression of nerves in the lower extremity in patients with painful diabetic polyneuropathy on stability - A randomized controlled trial</p>	<p>11.30-13.00 NVDO</p> <p>PS5: Klinische diabetologie</p> <p>Chair: Frits Holleman</p> <p>11.30-12.00: B. De Galan (Radboud UMC) Het zoet en zuur van hypoglykemieën</p> <p>12.00-13.00: DEBAT Centers of excellence zijn pure window dressing Pro: T. van Bommel (Gelre ZH Apeldoorn) Contra: H.J. Aanstoot (Diabeter)</p>

12.45-14.00 Lunch break

Thursday 27 November 14.00-15.30 Parallel Sessions

Oosterbeek	Renkum	Hevea	Hertog	Bilderberg I & II
14.00-15.30 NVDO/ NASO	14.00-15.30 NVDO/ NASO	14.00-15.30 NDESG	14.00-15.30 NVCD	14.00-15.30 NVDO/NASO
PS6: Beta cell II	PS7: Insulin resis- tance II	PS10: Type I diabe- tes, fatty liver, renal function	PS9: NVCD Cont'd	PS11: Adipose tissue I
Chair: Eelco de Koning	Chair: Mariëtte Boon	Chair: Geerke Duijzer	Chair: Nicolaas Schaper	Chair: Johan Jocken
14.00-14.15: J. Balak (LUMC) 6. Identification and characterization of a putative progenitor cell subpopulation in the human adult duct cell compartment	14.00-14.15: E. Engwerda (Radboud UMC) 7. A novel formula for the correction of substantial hyperglycaemia in adult patients with insulin-treated diabetes	14.00-14.15: A. Koopman (VUMC) 1. The association between anti-GAD antibody levels and incident diabetes in a population-based cohort	14.00-14.15: S. Bus (AMC) 4. Sub-calcaneal fat-pad infiltration and its effect on plantar pressures in the diabetic neuropathic foot	14.00-14.15: W. Dijk (WUR) 1. Angptl4 is a regulator of lipid uptake in brown and white adipose tissue during cold exposure
14.15-14.30: P. van Dijk (Isala) 7. Near normalization of the growth hormone -insulin-like-growth factor axis with intra-peritoneal as compared to subcutaneous insulin therapy in type 1 diabetes	14.15-14.30: J. ten Kulve (VUMC) 8. Satiating effects of meal intake on central activity in reward circuits is partly mediated by endogenous GLP-1 in patients with diabetes	14.15-14.30: P. Linszen (MUMC) 2. AGE's are associated with left ventricular function primarily in individuals with normal glucose metabolism – The Hoorn Study	14.15-14.30: R. Keukenkamp (AMC) 5. Motivational interviewing to improve footwear adherence in diabetic patients	14.15-14.30: T. Gabriel (AMC) 2. Sphingosine kinase 1 is up-regulated in obese adipose tissue macrophages in response to lipid induced lysosomal dysfunction
14.30-14.45: G. Paredes-Juarez (UMCG) 8. Role of DAMPs in immune response against encapsulated human islets	14.30-14.45: J. Notohardjo (Meander MC) 9. Glucagon-like peptide-1 receptor agonist therapy in patients with long-standing type 2 diabetes mellitus in clinical practice is beneficial	14.30-14.45: M. Kosman (St. Franciscus Gasthuis) 3. Ethnic differences in birth outcome in diabetic women in Rotterdam	14.30: Invited Lecture Kristien van Acker "The team approach in diabetes foot care in the 21st century: need, evidence and certification"	14.30-14.45: M. Hanssen (MUMC) 3. Cold acclimation increases whole-body insulin sensitivity with minor effects on brown adipose tissue activity in type 2 diabetes
14.45-15.00: B. te Riet-Schulte (Radboud UMC) 9. Enterovirus infected, but not cytokine-stressed or apoptotic β -cells, trigger activation of primary human BDCA1+ dendritic cells	14.45-15.00: B. Brouwers (MUMC) 10. Exercise training decreases intrahepatic lipid content in overweight, middle-aged men	14.45-15.00: S. Balk (WUR) 4. Association of diet and lifestyle with glycated haemoglobin in type 1 diabetes in the EURODIAB Prospective Complications Study	Algemene Leden- vergadering NVCD	14.45-15.00: B. Guigas (LUMC) 4. Chronic helminth infection and helminth-derived molecules promote adipose tissue M2 macrophages and improves insulin sensitivity in obese mice
15.00-15.15: A. Zaldumbide (LUMC) 10. Role of ATF3 during auto-inflammatory reaction in human islets	15.00-15.15: T. Sampimom (VUMC) 11. Cross reactivity between short- and long working insulin analogues in patients with clinical immediate type insulin allergy	15.00-15.15: M. van Greevenbroek (MUMC) 5. The terminal complement complex C5b-9, but not the anaphylatoxin C5a, is cross-sectionally associated with fatty liver disease – The CODAM Study		15.00-15.15: I. Zwarts (UMCG) 5. Nuclear receptor regulation of fructose transporters GLUT5 and GLUT7
15.15-15.30: S. Willekens (Radboud UMC) 11. The GIP receptor as a target for beta cell imaging	15.15-15.30: L. van Beek (LUMC) 12. Obesity related IgG antibodies do play a role in the development of insulin resistance, however, not via the Fc γ -receptor pathway	15.15-15.30: M. Weldegiorgis (UMCG) 6. Slope of GFR as clinical trial endpoint		15.15-15.30: A. van Dam (LUMC) 6. The anti-inflammatory drug salsalate reduces obesity and dyslipidemia by activating brown adipose tissue
TO BE CONT'D				TO BE CONT'D

15.30-16.15 Coffee break

Thursday 27 November 16.15-17.05 Plenary Sessions

Bilderberg

16.15-17.05 Gerritzen Award Ceremony for best thesis on diabetes research

Chair: Cees Tack

16.15-16.20 Introduction by the chairman

16.20-16.35 Renate van Genugten
Glucocorticoid-induced diabetes: potential role for incretin-based therapies

16.35-16.50 Mariette Boon
Turning up the heat: role of brown adipose tissue in metabolic disease

16.50-17.05 Nick Wlazlo
Novel aspects of insulin resistance and type 2 diabetes mellitus: iron metabolism, the complement system and liver cirrhosis

17.05-17.30 Snack break

17.30-18.30 State-of-the-Art lecture I

Chair: Matthijs Hesselink

Invited speaker: Dr. David Savage
Congenital syndromes of severe insulin resistance, physiological lessons learnt from rare diseases

18.30-19.30 Dr. F. Gerritzen Award Ceremony (Cont'd)

18.30-18.35 Short address by sponsor

18.35-18.40 Announcement of the winner of the 29th Dr. F. Gerritzen Award

18.40-19.30 Dr. F. Gerritzen party, Rozenhage zaal

19.30-01.00 Dinner, drinks and music

Friday 28 November 09.30-11.15 Parallel Sessions

08.30-09.15 Ledenvergadering NVDO (Hevea)

Oosterbeek	Renkum	Hevea	Bilderberg I & II
<p>09.30-10.15 NVDO/NASO</p> <p>PS6: Beta cell III (Con't)</p> <p>Chair: Daniël van Raalte</p> <p>9.30-9.45: M. Brom (Radboud UMC) 12. In-111-exendin uptake in the pancreas correlates with the beta cell mass but not with the alpha cell mass</p> <p>9.45-10.00: J. Kruit (UMCG) 13. Decreased nuclear integrity in pancreatic islet cells of old mice</p> <p>10.00-10.15: M. Roefs (LUMC) 14. Evidence for epithelial-to-mesenchymal transition (EMT) of both β-cells and α-cells in humans</p>	<p>09.30-10.15 NVDO/NASO</p> <p>PS12: GI tract & Liver</p> <p>Chair: Patrick Rensen</p> <p>9.30-9.45: I. Evers-van Gogh (UMCU) 1. Nur77-induced crosstalk between muscle and liver and its effect on UGT2B7 and TXRND3 expression</p> <p>9.45-10.00: P. Gilijamse (AMC) 2. The effects of 4 weeks oral administration of omega-3 fatty acids on hepatic steatosis and insulin sensitivity in morbidly obese patients undergoing gastric bypass surgery</p> <p>10.00-10.15: S. Janssens (TUE) 3. Effect of caloric and non-caloric sweeteners on liver lipid content and metabolism in rats</p>	<p>9.30-10.15 NVDO/NASO</p> <p>PS13: Food Intake, Obesity & Inflammation</p> <p>Chair: Rinke Stienstra</p> <p>9.30-9.45: L. Steinbusch (Lausanne) 1. Gender differences in glucokinase-dependent hypothalamic glucose sensing</p> <p>9.45-10.00: K. ter Horst (AMC) 2. Identifying insulin-sensitive and resistant obesity in humans</p> <p>10.00-10.15: L. van Bloemendaal (VUMC) 3. GLP-1 receptor activation alters central reward responses to anticipation and consumption of palatable food in humans</p>	<p>09.30-10.15 NVDO/NASO</p> <p>PS11: Adipose tissue II (Con't)</p> <p>Chair: Janna van Diepen</p> <p>9.30-9.45: M. Broekema (UMCU) 7. The novel natural PPARγ L451P mutation: unraveling the molecular mechanisms behind the clinical unresponsiveness to pioglitazone</p> <p>9.45-10.00: J. Jocken (MUMC) 10. Adipose tissue lipase deficiency contributes to mitochondrial dysfunction and insulin resistance in humans</p> <p>10.00-10.15: M. Kilicarslan (AMC) 11. Adipose ChREBP-β expression increases after a hypercaloric diet and is associated with induction of GLUT4 expression</p>

10.15-10.30 Coffee break

<p>10.30-10.45: M. Kracht (LUMC) 15. Preproinsulin processing and autoimmunity</p> <p>10.45-11.00: W. Woliner-van der Weg (Radboud UMC) 16. SPECT imaging of ¹¹¹In-Exendin uptake in patients with type 1 diabetes and healthy controls</p> <p>11.00-11.15: P. de Groot (AMC) 17. Short-chain fatty acid metabolism and the gut microbiome in type 1 diabetes</p>	<p>10.30-10.45: S. van der Tuin (LUMC) 4. Anacetrapib decreases (V)LDL-cholesterol by increasing the uptake of VLDL remnants by the liver</p> <p>10.45-11.00: J. van Diepen (Radboud UMC) 5. Vanin-1 is involved in the development of glucose intolerance and insulin resistance during obesity independently of hepatic steatosis</p> <p>11.00-11.15: T. van Zutphen (UMCG) 6. FGF1, an old newcomer in the battle against diabetes</p>	<p>10.30-10.45: M. Boon (LUMC) 4. Short-term high-fat diet increases macrophage markers in skeletal muscle accompanied by impaired insulin signaling in healthy male subjects</p> <p>10.45-11.00: K. Wouters (MUMC) 5. CD11c⁺ adipose tissue macrophages are bone marrow-derived, nonproliferating cells with a mixed polarization phenotype that accumulate early during obesity</p> <p>11.00-11.15: S. Katiraei (LUMC) 6. Unravelling the mechanism(s) underlying the disturbed metabolic and inflammatory phenotype in experimental bone marrow transplantation studies</p>	<p>10.30-10.45: D. Maessen (MUMC) 12. Glyoxalase-1 overexpression reduces body weight and adipokine expression, and improves insulin sensitivity in high-fat diet-induced obese mice</p> <p>10.45-11.00: L. Boutens (WUR) 13. Evidence for the presence of the phagocytic machinery in adipose tissue</p> <p>11.00-11.15: R. Vink (MUMC) 14. Diet-induced weight loss decreases adipose tissue oxygen tension and is accompanied by improved insulin sensitivity in overweight and obese individuals</p>
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11.45-12.00 Coffee break

Friday 28 November 11.15-14.00 Plenary Sessions

Bilderberg I & II	
11.15-11.45	<p>NVDO - Prof. dr. J. Terpstra Award Ceremony</p> <p>Chairs: Coen Stehouwer and Ingrid Jazet</p>
11.15-11.25	Presentation by Duby Ballak (winner award 2013)
11.25-11.35	Announcement of the 2014 winner
11.35-11.45	Presentation of research proposal by 2014 winner
12.00-13.00	<p>State-of-the-Art lecture II</p> <p>Chair: Frits Holleman</p> <p>Invited speaker: Dr. Katharine Owen Diagnosing monogenic diabetes: genes, biomarkers and inflammation</p>
13.00-13.15 Coffee break	
13.15-14.00	<p>NVDO/NASO</p> <p>PS14: BEST MEETING ABSTRACTS</p> <p>Chair: Ingrid Jazet</p>
13.15-13.30	<p>L. Lindeboom (MUMC) 1H-MRS derived skeletal muscle acetylcarnitine concentration at rest is associated with insulin sensitivity</p>
13.30-13.45	<p>S. Udayappan (AMC) Intestinal Ralstonia pickettii drives visceral adipose inflammation and insulin resistance</p>
13.45-14.00	<p>E. Canfora (MUMC) Colonic short chain fatty acids infusions promote fat oxidation and improve metabolic parameters in overweight males</p>
14.00 Farewell lunch	