# Diabetologia Clinical and Experimental Diabetes and Metabolism

Journal of the European Association for the Study of Diabetes (EASD)

Volume 56 Number 1 January 2013

#### **Editor-in-Chief**

Juleen Zierath

# **Managing Editor**

Judy Naylor

#### **Associate Editors**

Inês Barroso Riccardo Bonadonna Alessandro Doria William Jeffcoate Marit Jørgensen Anna Krook Sally Marshall Paolo Meda John Petrie Michael Roden Kei Sakamoto Naveed Sattar Casper Schalkwijk Frans Schuit Norbert Stefan Lars Stene Michael Stumvoll Sarah Wild

# **Advisory Board**

Francesco Beguinot Polly Bingley Miriam Cnop Jose Florez Allan Flyvbjerg Tim Frayling Clemens Fürnsinn **Edwin Gale** Torben Hansen Karin landeleit-Dahm Fredrik Karpe Markku Laakso Mark McCarthy Ingrid Mühlhauser Timo Otonkoski Markus Tiedge Nicholas Wareham

# **Contents**

#### Reviews

Norhammar A, Schenck-Gustafsson K
Type 2 diabetes and cardiovascular disease in women 1

#### Kralisch S, Fasshauer M

Adipocyte fatty acid binding protein: a novel adipokine involved in the pathogenesis of metabolic and vascular disease? 10

#### **Articles**

# **Clinical Science and Care**

Hove KD, Brøns C, Færch K, Lund SS, Petersen JS, Karlsen AE, Rossing P, Rehfeld JF, Vaag A

Effects of 12 weeks' treatment with a proton pump inhibitor on insulin secretion, glucose metabolism and markers of cardiovascular risk in patients with type 2 diabetes: a randomised double-blind prospective placebocontrolled study 22

Marquard J, Welters A, Buschmann T, Barthlen W, Vogelgesang S, Klee D, Krausch M, Raffel A, Otter S, Piemonti L, Mayatepek E, Otonkoski T, Lammert E, Meissner T

Association of exercise-induced hyperinsulinaemic hypoglycaemia with *MCT1*-expressing insulinoma (*Short Communication*) 31

# **Epidemiology**

Raaschou-Nielsen O, Sørensen M, Ketzel M, Hertel O, Loft S, Tjønneland A, Overvad K, Andersen ZJ Long-term exposure to traffic-related air pollution and diabetes-associated mortality: a cohort study 36

# The InterAct Consortium

Association between dietary meat consumption and incident type 2 diabetes: the EPIC-InterAct study 47

#### The InterAct Consortium

The link between family history and risk of type 2 diabetes is not explained by anthropometric, lifestyle or genetic risk factors: the EPIC-InterAct study 60

Ohkuma T, Fujii H, Iwase M, Kikuchi Y, Ogata S, Idewaki Y, Ide H, Doi Y, Hirakawa Y, Mukai N, Ninomiya T, Uchida K, Nakamura U, Sasaki S, Kiyohara Y, Kitazono T Impact of eating rate on obesity and cardiovascular risk factors according to glucose tolerance status: the Fukuoka Diabetes Registry and the Hisayama Study 70

Sjöberg L, Pitkäniemi J, Haapala L, Kaaja R, Tuomilehto J Fertility in people with childhood-onset type 1 diabetes 78

Tielemans SMAJ, Soedamah-Muthu SS, De Neve M, Toeller M, Chaturvedi N, Fuller JH, Stamatakis E Association of physical activity with all-cause mortality and incident and prevalent cardiovascular disease among patients with type 1 diabetes: the EURODIAB Prospective Complications Study 82

Schöttker B, Müller H, Rothenbacher D, Brenner H
Fasting plasma glucose and HbA<sub>1c</sub> in cardiovascular risk prediction: a sex-specific comparison in individuals without diabetes mellitus 92

Charles M, Fleischer J, Witte DR, Ejskjaer N, Borch-Johnsen K, Lauritzen T, Sandbaek A

Impact of early detection and treatment of diabetes on the 6-year prevalence of cardiac autonomic neuropathy in people with screen-detected diabetes: ADDITION-Denmark, a cluster-randomised study 101

#### Kostev K, Rathmann W

Diabetic retinopathy at diagnosis of type 2 diabetes in the UK: a database analysis (Short Communication) 109

Lee CC, Lorenzo C, Haffner SM, Wagenknecht LE, Festa A, Goodarzi MO, Stefanovski D, Olson NC, Norris JM, Rewers MJ, Hanley AJ

The association of inflammatory and fibrinolytic proteins with 5 year change in insulin clearance: the Insulin Resistance Atherosclerosis Study (IRAS) 112

### Genetics

Savic D, Park SY, Bailey KA, Bell GI, Nobrega MA In vitro scan for enhancers at the TCF7L2 locus (Short Communication) 121

#### **Islet Studies**

Taylor-Fishwick DA, Weaver JR, Grzesik W, Chakrabarti S, Green-Mitchell S, Imai Y, Kuhn N, Nadler JL Production and function of IL-12 in islets and beta cells 126

Contents continued on next page





# Diabetes and Metabolism Diabetes and Metabolism

The second section of the second section of

# Immunology and Transplantation

Contents continued

Lin M-H, Chou F-C, Yeh L-T, Fu S-H, Chiou H-YC, Lin K-I, Chang D-M, Sytwu H-K B lymphocyte-induced maturation protein 1 (BLIMP-1) attenuates autoimmune diabetes in NOD mice by suppressing Th1 and Th17 cells 136

Journal of the European Association for the Study of Diabetes (EASD)

### Metabolism

Carey AL, Formosa MF, Van Every B, Bertovic D, Eikelis N, Lambert GW, Kalff V, Duffy SJ, Cherk MH, Kingwell BA Ephedrine activates brown adipose tissue in lean but not obese humans 147

Seghieri M, Rebelos E, Gastaldelli A, Astiarraga BD, Casolaro A, Barsotti E, Pocai A, Nauck M, Muscelli E, Ferrannini E
Direct effect of GLP-1 infusion on endogenous glucose production in humans 156

# **Pathophysiology and Complications**

Balestrieri ML, Servillo L, Esposito A, D'Onofrio N, Giovane A, Casale R, Barbieri M, Paolisso P, Rizzo MR, Paolisso G, Marfella R
Poor glycaemic control in type 2 diabetes patients reduces endothelial progenitor cell number by influencing SIRT1 signalling via platelet-activating factor receptor activation 162

Dentelli P, Barale C, Togliatto G, Trombetta A, Olgasi C, Gili M, Riganti C, Toppino M, Brizzi MF
A diabetic milieu promotes OCT4 and NANOG production in human visceral-derived adipose stem cells 173

Richardson SJ, Leete P, Bone AJ, Foulis AK, Morgan NG Expression of the enteroviral capsid protein VP1 in the islet cells of patients with type 1 diabetes is associated with induction of protein kinase R and downregulation of McI-1 185

Chavey A, Bailbé D, Maulny L, Renard JP, Movassat J, Portha B A euglycaemic/non-diabetic perinatal environment does not alleviate early beta cell maldevelopment and type 2 diabetes risk in the GK/Par rat model 194

Kim MY, Lim JH, Youn HH, Hong YA, Yang KS, Park HS, Chung S, Koh SH, Shin SJ, Choi BS, Kim HW, Kim YS, Lee JH, Chang YS, Park CW
Resveratrol prevents renal lipotoxicity and inhibits mesangial cell glucotoxicity in a manner dependent on the AMPK–SIRT1–PGC1 $\alpha$  axis in db/db mice 204

#### **Research Letter**

Flanagan SE, Mackay DJG, Greeley SAW, McDonald TJ, Mericq V, Hassing J, Richmond EJ, Martin WR, Acerini C, Kaulfers AM, Flynn DP, Popovic J, Sperling MA, Hussain K, Ellard S, Hattersley AT Hypoglycaemia following diabetes remission in patients with 6q24 methylation defects: expanding the clinical phenotype 218

#### Letters

Wheeler-Jones CPD, Clarkin CE, Farrar CE, Dhadda P, Chagastelles P, Nardi N, Jones PM
Endoglin (CD105) is not a specific selection marker for endothelial cells in human islets of Langerhans 222

Zanone MM, Favaro E, Camussi G

Endoglin (CD105) is not a specific selection marker for endothelial cells in human islets of Langerhans. Reply to Wheeler-Jones CPD, Clarkin CE, Farrar CE et al [letter] 225

Perez AT

Pioglitazone and risk of bladder cancer: clarification of the design of the French study 227

Neumann A, Weill A, Ricordeau P, Fagot JP, Alla F, Allemand H
Pioglitazone and risk of bladder cancer: clarification of the design of the
French study. Reply to Perez AT [letter] 228

#### **Erratum**

McNeilly AD, Williamson R, Balfour DJK, Stewart CA, Sutherland C
Erratum to: A high-fat-diet-induced cognitive deficit in rats that is not prevented by improving insulin sensitivity with metformin 230

# **Forthcoming Articles in Print**

published online and citable with the DOI (Digital Object Identifier) can be found at springerlink.com

Indexed in PubMed/Medline and Science Citation Index/Journal Citation Report