



Zentraleuropäische Diabetesgesellschaft  
Central European Diabetes Association

Föderation der Internationalen Donau-Symposia über Diabetes mellitus  
Federation of International Danube-Symposia on Diabetes mellitus

## Brief Notes on the 29<sup>th</sup> Congress of the Federation of the International Danube Symposia on Diabetes Mellitus and the 9<sup>th</sup> Congress of the Central European Diabetes Association (26–28 June 2014, Jurmala, Latvia)!

Time has passed since that autumn in 2003, when Latvian endocrinologists travelled through Europe by a minibus to get to Wiesbaden for the 18<sup>th</sup> Congress of the Federation of the International Danube Symposia on Diabetes mellitus for the first time. Nonetheless, this congress still carries the most pleasant memories, which is a rarity in the recent times of increasing congressional events. Thus, Latvian endocrinologists have managed to evolve along the ideas of the congress, which began as the Congress of the Federation of the International Danube Symposia on Diabetes mellitus with the first congress in Vienna in 1969, symbolising the flow of Danube from Central to Eastern Europe, carrying along developments in trade and culture, as well as medicine. Over the past nine years, following the initiative of Professor Michael Roden and maintaining the flow of river Danube as a symbol, the idea of the Federation has grown and now includes many more European countries, giving rise to the Central European Diabetes Association.

### Building bridges

The programme of the 29<sup>th</sup> Congress of the Federation of the International Danube Symposia on Diabetes mellitus and the 9<sup>th</sup> Congress of the Central European Diabetes Association was also created to build bridges between a holistic view, provided by extensive experience, and a fresh

search for new ideas. A clinically and socially significant, yet still controversial topic 'The aging male, testosterone and diabetes' was reviewed by the former ESE President Professor Eberhard Nieschlag. On the one hand, late-onset hypogonadism is often associated with obesity, metabolic syndrome and type 2 diabetes, on the other hand, these conditions can

pharmacotherapy, testosterone should only be given to men with subnormal testosterone levels and symptoms of testosterone deficiency/hypogonadism. Testosterone is not a life saver under conditions such as severe cardiac insufficiency and should only be administered with extreme caution in such conditions. These controversial aspects are also widely discussed in the latest



**Fig. 1:** The new honorary members of the CEDA/FID, getting their diplomas (from the left): Professor Dr. Nanette Schloot, Professor Dr. Roger Lehmann, Professor Dr. Michael Roden, Professor Dr. Dr. h. c. Helmut Schatz, Professor Dr. Eberhard Standl, Professor Dr. Dr. h. c. Sotirios Raptis, and Professor Dr. Werner Waldhäusl.

also cause hypogonadism through high aromatase activity in adipose tissue and direct action of cytokines. Therefore, patients with these conditions should be investigated for symptoms of hypogonadism (including sexual functions) and early morning testosterone should be measured. It is important that healthy life style (physical activity, diet, avoidance of toxins) can maintain testosterone levels in the physiological range. Considering

issue of 'Diabetes-Congress-Report', which maintains the German language as an important unifying aspect.

### Holistic view on pathogenesis

A holistic view on pathogenesis of type 2 diabetes was outstandingly delivered in the lecture based on extensive scientific research by Professor Michael Roden 'Diabetes

and the liver', which was in concert with the lecture by Professor Hans-Ulrich Haering 'Pathogenesis of Type 2 Diabetes: on the Role of Fatty liver and Brain'.

Timing for the congress was chosen to be right after the summer solstice celebration, when the nature is full of energy. Since the sun gives off lots of light and warmth at this time of the year, people say that the herbs gathered on this day have special inherent powers.

#### Honorary member diploma

So it is a great pleasure that Jurmala was the place chosen for the current CEDA President Professor Roger Lehmann and the Past President Professor Michael Roden to present an honorary member diploma to four members of the society without whose invaluable contribution CEDA/FID would not be what it is today: Professor Dr. Werner Waldhäusl, Professor Dr. Dr. h. c. Sotirios Raptis, Professor Dr. Eberhard Standl and Professor Dr. Dr. h. c. Helmut Schatz. They were crowned with laurel wreaths – the antique symbol of fame – to acknowledge their excellence and expressing our gratitude for their work.

#### Broadening contacts and gaining experience

Formal and informal networking is a tradition and a strength of the congress. These contacts broaden our view – this is evidenced by a history of a rich reciprocity in Baltic and worldwide science. Therefore, each of the 35 abstract authors had the opportunity to gain experience in presenting their scientific data, come across new ideas when answering questions and learn advice from experienced colleagues. New, groundbreaking discoveries often occur when looking at an old problem from a new perspective. This course was commenced by Professor Peter Paul Nawroth on the opening day of the congress, discussing that elevated

blood glucose alone cannot explain the development and progression of late diabetes complications. Indeed, extensive results from experimental animal and clinical studies suggest that diabetic complications arise from the deleterious actions of reactive metabolites. This new perspective on the pathogenesis of late diabetic complications drives the search for specific analysis of affected pathway before specific, targeted therapy is initiated.

#### Carnitine: deep roots in Latvia

L-carnitine is a very popular food supplement due to its safety profile, antioxidant-type activity and suggested effects on energy metabolism even though the scientific evidence supporting its efficacy is inconclusive. Research on carnitine has deep roots in Latvia, because it was discovered in meat extract by a Latvian biochemist Professor Roberts Krimbergs in 1905. Professor Maija Dambrova from the Latvian Institute of Organic Synthesis brought our attention to this discrepancy, pointing out that supplementation studies have shown that L-carnitine promotes insulin sensitivity and has lipid-lowering actions, it also facilitates the elimination of short- and medium-chain fatty acids accumulating in mitochondria as a result of normal or abnormal metabolism. At the same time, increased concentrations of acylcarnitines disturb mitochondrial energy metabolism. In the same way gut microbiota-dependent production of trimethylamine-N-oxide (TMAO) from dietary L-carnitine increase TMAO serum concentrations thereby indicating an increased risk of cardiovascular disease. Therefore, the risks and benefits of L-carnitine supplementation in diabetes remain 'to be studied further'.

#### Understanding old questions with modern technologies

With the help of modern day technologies and meticulous data analysis

we can now try to understand some old questions, e.g. how glucocorticoids both can promote adipose tissue accumulation and still make it insulin resistant. This issue was addressed in an outstanding lecture by Professor Jeremy W. Tomlinson titled 'Tissue Specific Regulation of Metabolic Phenotype by Glucocorticoids'. It revealed that the long-standing consensus of glucocorticoid induced pan-tissue insulin resistance may only hold true considering rodents, not humans. Emerging evidence suggests insulin sensitization of human adipose tissue by glucocorticoids. Even in the context of hyperinsulinaemia, glucocorticoids further enhance adipocyte differentiation and lipid accumulation. These mechanisms are suggested to explain the increase in subcutaneous adiposity associated with glucocorticoid excess. Another important point of the lecture was the pre-receptor regulation of glucocorticoid action and its potential as a therapeutic target. This knowledge may one day lead to novel classes of glucocorticoids that are therapeutically efficacious, but do not drive adiposity.

#### 2015 in Düsseldorf

We believe that every attendant of the 29<sup>th</sup> Congress of the Federation of the International Danube Symposia on Diabetes mellitus and 9<sup>th</sup> Congress of the Central European Diabetes Association gained some important insights to be applied in everyday diabetes medicine back home. Therefore we are looking forward to even more at this year's congress in Düsseldorf!

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