



**3<sup>rd</sup> WORLD CONGRESS ON  
GLYCATION**

**GLYCATION - MAILLARD 2016**

**GLYCATION 2016: TARGETING GLYCATION IN HEALTH & DISEASES**

**MAY 26-27, 2016**

**HUNGARIAN ACADEMY OF SCIENCES**

**BUDAPEST, HUNGARY**

**3<sup>rd</sup> World Congress on**

## **Maillard Reaction & Glycation**

**Health & Diseases – Agro-Food Industries**

**May 26-27, 2016**

**Academy of Sciences, Budapest, Hungary**

*Scientific Agenda*



[www.glycation-site.com](http://www.glycation-site.com)

**3<sup>rd</sup> World Congress on  
Maillard Reaction & Glycation**

**May 26-27, 2016  
Academy of Sciences, Budapest, Hungary**

Dear Colleagues,

On behalf of the International Society of Antioxidants in Nutrition and Health (ISANH), it is a pleasure to welcome you for the **3<sup>rd</sup> World Congress on Maillard Reaction** which will be held at **Academy of Sciences, Budapest, Hungary** on **May 26-27, 2016**.

The Maillard Reaction Congress will be divided in two parts:

- Part 1 will be dedicated to **Maillard Reaction & Glycation in Health & Diseases** and will highlight the following topics:
  - Recent Scientific Advances & Directions
  - Maillard Reaction in Pathologies & Diseases
  - Ageing, Redox Process & Ageing-related pathologies
  - Strategies & Innovations
- Part 2 will be dedicated to **Maillard Reaction & Glycation in Agro-Food Industry** and will highlight the following topics:
  - Recent Scientific Advances & Directions
  - Maillard Reaction & Acrylamid
  - Impact on taste and organoleptic aspects
  - Strategies & Innovations in Agro-Food Industry

To conclude this congress, a **general discussion** will be held between speakers, scientists and industry sector about Maillard Reaction, Glycation and what about tomorrow. We will discuss about where we are now in the glycation science and what kind of strategies we need urgently to target clinical diseases related to glycation.

The other point is how we can clarify the situation with the agro-food industry mainly in term of how to decrease the intake of the glycated products in food.

We look forward welcoming you during Maillard Reaction congress.

**Pr Ladislav Robert - President of Maillard Reaction 2016**

**Pr Marvin Edeas - Chairman of the Scientific Committee**

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Day 1: May 26, 2016

Maillard Reaction & Glycation in Health & Diseases

7h30 Opening of Registration – Welcoming of attendees

8h55 Introduction Remarks by Chairpersons  
*Prof. Ladislav Robert & Prof. Marvin Edeas*

With the participation of the honorary committee:

*Prof. Gyorgy Kosztolanyi, President of the Medical Section of the Hungarian Academy of Sciences, Budapest, Hungary*

*Prof. Tamas Freund, Vice President of Hungarian Academy of Sciences, Budapest, Hungary*

*Prof. Anna Kadar, Medical University Semmelweis, Budapest, Hungary*

*Prof. Karoly Kocsis, President of the council of external members of the Hungarian Academy of Sciences*

*Prof. Karoly Lapis, Medical University Semmelweis, Budapest, Hungary*

*Prof. Sylvester Vizedy, Past President of Hungarian Academy of Sciences, Budapest, Hungary*

9h30 Science in Hungary & Hungary in Science

*István Hargittai, Budapest University of Technology and Economics, Budapest, Hungary*

Session 1: Recent Scientific Advances & Directions

10h00 Introductory Lecture: The History of Redox Biology, from "Reduktone" of Hans von Euler to Free Radicals, exemplified by the Maillard Reaction and Atherogenesis: A Review  
*Ladislav Robert & Jacqueline Labat-Robert, Hôtel Dieu, Paris, France*

10h45 Coffee Break & Posters Session

11h15 Oxidative Stress, Glycation & Redox 2016: Questions, controversies & perspectives in Health and Diseases  
*Marvin Edeas, Chairman of ISANH, Paris, France*

11h45 Extracellular matrix glycation, redox status and cross-linking  
*Sylvie Ricard-Blum, Université Lyon 1, Lyon France*

12h15 Poly(ADP-ribose) signalise in oxidative stress  
*Laszlo Virag, University of Debrecen, Debrecen, Hungary*

12h45 Lunch Break & Posters Session

14h00 Concepts and misconceptions regarding the nature of oxygen free-radicals in the living systems  
*Imer Zs Nagy, University of Debrecen, Debrecen, Hungary*

## Session 2: Maillard Reaction in Pathologies & Diseases

- 14h30 **AGE-RAGE interaction in fibrosis of the eye**  
*Ram Nagaraj, University of Colorado School of Medicine, Colorado, USA*
- 15h00 **Microbiota & Maillard Reaction: Metabolization of Maillard reaction products by the human colonic microbiota**  
*Michael Hellwig, Technische Universität, Dresden, Germany*

### 15h30 Coffee Break & Posters Session

- 16h00 **AGE-RAGE axis: implication in fibrosis and aging**  
*Eric Boulanger, INSERM-Lille2, Lille, France*
- 16h30 **Effect of AGE intake on inflammation and ageing: state of sciences and perspectives**  
*Ivan Bautmans, Vrije Universiteit, Brussels, Belgium*
- 17h00 **Supra-additive impact of mitochondrial dysfunction and subsequent oxidative stress in central nervous system pathology**  
*Beata Sperlagh, Hungarian Academy of Sciences, Hungary*
- 17h30 **Short oral presentations upon abstracts submission**

Among the presentations selected:

**Glycated Human Albumin Triggers Mitochondrial Metabolism of Preadipocyte Cells**  
*Philippe Rondeau, UMR Diabète Athérombose Thérapies Réunion Océan Indien (DéTROI), France*

**Glycation Abolishes The Cardioprotective Effects of Albumin during Ischemia-Reperfusion**  
*Faadiel Essop, Stellenbosch University, South Africa*

**Prevention of glycosylation by natural and synthetic antioxidants**  
*Izabela Sadowska-Bartosz, University of Rzeszów, Poland*

**A rapid evaluation of glycated apoA-I and high-density lipoproteins to cause pro-oxidative and inflammatory death in zebrafish embryo**  
*Kyung-Hyun Cho, Yeungnam Univ, Korea*

18h30 **End of First Day**

20h00 **Speakers Dinner**  
*To participate to this dinner, please register online.*

## Day 2: May 27, 2016

8h55 Introduction of the second day

9h00 Diet-induced accumulation of AGEs contribute to metabolic diseases onset by interfering with SREBP-1c activity

*Raffaella Mastrocola, University of Turin, Turin, Italy*

9h30 The role of hemoglobin derived heme in the pathogenesis of vascular disorders

*György Balla, University of Debrecen, Debrecen, Hungary*

10h00 Exercise and brain function: is it redox regulated?

*Zsolt Radak, University of Physical Education, Budapest, Hungary*

### **10h30 Coffee Break & Posters Session**

### **Session 3: How to Evaluate Glycation & Glycated-End Products in Health & Diseases?**

11h00 Detection of AGEs as markers for carbohydrate metabolism and protein denaturation

*Ryogi Nagai, Tokai University, Kumamoto, Japan*

11h30 Glycation of lens proteins in diabetes & its non-invasive assessment

*Jan Skrha, Charles University, Prague, Czech Republic*

12h00 Skin collagen fluorescence as marker of diabetic retinopathy intensity: recent advances and perspectives

*Michel Sternberg, Université René Descartes, Paris, France*

### **12h30 Lunch Break & Posters Session**

### **Session 4: AGEs & RAGEs: Strategies & Innovations**

14h00 Delayed intervention with pyridoxamine improves metabolic function and prevents adipose tissue inflammation and insulin resistance

*Casper G. Schalkwijk, Maastricht University, Maastricht, The Netherlands*

14h30 i-RAGE as a novel carboxymethylad peptide to prevent AGE-induced apoptosis and endoplasmic reticulum stress in vascular smooth muscle cells

*Jean-Sébastien Maltais, Sherbrooke University, Québec, Canada*

15h00 What do Dietary Maillard Reaction Products and in vivo AGEs have in common? Are they a risk to human health?

*Frédéric Tessier, Faculté de Médecine, Université Lille 2, Lille, France*

### **15h30 Coffee Break & Posters Session**

16h00 Short oral presentations upon abstracts submission

17h00 Round Table Discussion: AGEs 2016: Between Prevention & Therapeutics

In the presence of Organizers & Speakers from scientific committee

**Maillard Reaction Awards 2016**

17h30 End of Maillard Reaction 2016