

Boston, USA, 21-29 Sep 2017



Personal impressions by Prof. Dr. Bernd Markert & Dr. Simone Wünschmann, Germany



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**22nd International Conference of FFC- 10th International Symposium of ASFFBC**  
**Functional Foods and Chronic Diseases: Science and Practice,**  
September 22-23, 2017, at Harvard Medical School, Boston, MA, USA



Harvard Medical School, Main Building at Longwood Area

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“Functional Food Center is pleased to announce its 22nd International Conference "Functional and Medical Foods for Chronic Diseases: Bioactive Compounds and Biomarkers". The conference will be held in Joseph B. Martin Conference Center at Harvard Medical School Boston, USA on September 22-23, 2017. This conference will bring together experts in medicine, biology, and the food industry to discuss the functional foods with bioactive compounds as dietary interventions for chronic diseases.”



Prof. Dr. Bernd Markert



Dr. Danik M. Martirosyan, Dr. Simone Wünschmann, Stefanie (Assistant)

#### Main Conference Topics/Sessions

Functional Food Definition and the Status of Functional Foods in Japan, US and other Countries

Functional Foods and Obesity

Functional Foods and Diabetes

Functional Foods and Neurological Diseases

Functional Foods and Cardiovascular Diseases (CVD)

Functional Foods and Cancer

Functional Foods with Bioactive Compound(s): Prevention and Management of Noncommunicable Diseases

Safety of the Bioactive Compounds and Functional Foods

Biomarkers and Functional Food

Special Session: Functional Food, Microbiome and Cancer

Special Session: Dietary Exosomes and their Cargos

Special session: Engineering bioaccessibility and bioavailability of bioactive compounds

Current Research and Development of New Functional Food Products

## Main Conference Organizers:

**Jin-Rong (Joseph) Zhou**, Ph.D, Associate Professor of Surgery, Director of Nutrition/Metabolism Laboratory at Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA

**Danik Martirosyan**, PhD, President, Functional Food Center/Functional Food Institute, Dallas, TX, USA

**Gabriela Riscuta MD**, CNS, Program Director, Nutritional Science Research Group, Division of Cancer Prevention, National Cancer Institute, NIH, Bethesda, MD, USA

**Janos Zemleni**, Ph.D, Willa Cather Professor of Molecular Nutrition, Director of the Nebraska Center for the Prevention of Obesity Diseases through Dietary Molecules, Director of the Nebraska Gateway to Nutrigenomics, Department of Nutrition and Health Sciences, University of Nebraska-Lincoln. Lincoln, NE, USA

**Debasis Bagchi**, PhD, Chief Scientific Officer, Cepham Research Center, Piscataway, NJ, USA; Department of Pharmacological and Pharmaceutical Sciences, University of Houston College of Pharmacy, Houston, TX, USA

**Uri Lesmes**, PhD, Associate Professor, Head of the Laboratory of Food Chemistry and Bioactives Department of Biotechnology and Food Engineering, Technion – Israel Institute of Technology, Haifa, Israel.

## Conference Program

September 22, 2017

8:15 -8:45 **Registrations**

8:45-8:50 Welcome and Opening Remarks: **Jin-Rong (Joseph) Zhou, Co-chairman**: Ph.D, Associate Professor of Surgery, Director of Nutrition/Metabolism Laboratory at Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA; **Danik Martirosyan, Co-chairman**, PhD: President, Functional Food Center; Dallas, TX, USA.

**Session 1: Functional Food Definition, Status, and Regulation**. Session chairs: Nicholas V. Perricone, MD, Michigan State University, College of Human Medicine, East Lansing, MI, USA.

8:50-9:15 Danik Martirosyan, PhD, Functional Food Center, USA. FFC's Advancement of functional food definition.

9:15-9:40 Debasis Bagchi, PhD, Professor, Department of Pharmacological and Pharmaceutical Sciences, University of Houston College of Pharmacy, Houston, TX, USA. Regulation of functional foods in USA and Japan.

9:40-10:05 (Special Lecture) Nicholas V. Perricone, MD, Michigan State University, College of Human Medicine, East Lansing, MI, USA. Water infused with molecular hydrogen increases skin NADH.

**Session 2: Engineering bioaccessibility and bioavailability of bioactive compounds**. Special Session Chair: Uri Lesmes, PhD, Technion – Israel Institute of Technology, Haifa, Israel.

10:15 -10:35 David Julian McClements, PhD, Distinguished Professor, (expert on delivery of bioactives via food emulsions and novel particulates) Fergus Clydesdale Endowed Chair, Department of Food Science, University of Massachusetts Amherst, Amherst, MA, USA. Designing biopolymer microgels for encapsulation, protection, and release of bioactives.

10:35-10:55 Tara Grauwet, PhD, Laboratory of Food Technology, Department of Microbial and Molecular systems, KU Leuven, Belgium. Processing as a tool to modify natural and create process-induced barriers in plant-based foods with the aim of tailoring food digestion.

10:55-11:15 Avi Shpigelman, PhD, Laboratory for novel food and bioprocessing, Faculty of Biotechnology and Food Engineering, Technion, Haifa, Israel. Bioaccessibility of polyphenols – limitations and opportunities.

11:15-11:40 Uri Lesmes, PhD, Associate Professor, Head of the Laboratory of Food Chemistry and Bioactives Department of Biotechnology and Food Engineering, Technion – Israel Institute of Technology, Haifa, Israel. Physicochemical engineering of macronutrient digestibility and control of bioactive release in the human gastrointestinal track.

**Session 3. Microbiome: Health and Cancer.** Session Chair: Gabriela Riscuta MD, CNS, Program Director, Nutritional Science Research Group, Division of Cancer Prevention, National Cancer Institute, NIH, Bethesda, MD, USA.

11:40-12:00 Amedeo Amedei, PhD, Professor, Department of Experimental and Clinical Medicine, University of Florence, Viale Pieraccini, Florence, Italy. Functional characterization of specific immune response and comparison of oral and intestinal human microbiota in patients with colorectal cancer after treatment with probiotic / prebiotic.

12:00-12:20 Danyue Zhao, PhD, New Use Agriculture and Natural Plant Products Program, Department of Plant Biology, School of Environmental and Biological Sciences, Rutgers University, New Brunswick, New Jersey, USA. Insights into bioavailability and microbial catabolism of grape polyphenols in mice using an efficient UPLC-Triple quadrupole-MS/MS method.

12:20- 13:05 Lunch

13:05-1:25 Erika Angle, PhD, CEO and Co-Founder, Ixcela: The Internal Fitness Company, Bedford, MA, USA. Effects of Gut Microbiota Modulation on Performance of Professional Athletes.

13:25-13:45 W.L.Wendy Hsiao, PhD, Professor, State Key Laboratory of Quality Research in Chinese Medicine, Macau University of Science and Technology, Macau, China. Polysaccharides from two medicinal mushrooms *Ganoderma lucidum* and *Poria cocos* reveal prebiotic effects in mice.

13:45-14:10 Gabriela Riscuta MD, CNS, Program Director, Nutritional Science Research Group, Division of Cancer Prevention, National Cancer Institute, NIH, Bethesda MD, USA. Functional food, microbiome, aging and cancer.

**Session 4: Functional Foods and Chronic Diseases.** session Chairs: Jin-Rong Zhou, Ph.D, Associate Professor of Surgery, Director of Nutrition/Metabolism Laboratory at Department of Surgery, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA, and Palayakotai Raghavan, PhD, Nanorx Inc. NY, USA.

#### **a. Neurological Diseases**

14:10-14:30 Bernd Markert, PhD, Professor, Environmental Institute of Scientific Networks (EISN), Haren, Erika, Germany. Is the biological system of the elements a scientific and practical tool for functional food therapy on chronic diseases? – Lithium accumulating food being given to patients of bipolar disorders might represent a beneficial relationship for curing a chronic neurological disease.

14:30-14:50 Cristiana Caliceti, PhD, Laboratory of Analytical and Bioanalytical Chemistry, Department of Chemistry, University of Bologna, Bologna, Italy. The fermentation with lactic acid bacteria further enhances the immunomodulatory and antioxidant properties of a Carica Papaya Linn formulation in comparison with yeast fermentation.

#### **b. Cardiovascular Diseases**

15:00-15:25 Harry G. Preuss, PhD, Department of Biochemistry, Georgetown University Medical Center, Washington, D.C. Blood Pressure Regulation: Evidence for interplay between common dietary sugars and table salt.

15:25-15:45 Bradley Ferguson, PhD, Assistant Professor, Department of Agriculture, Nutrition and Vet Sciences, The University of Nevada Reno, Reno, NV, USA. Potential implications for dietary HDAC inhibitors in the heart.

15:45-16:05 Chiara Santi, PhD, Department of Sustainable productive and territorial systems, Laboratory of Bioprocesses and Bio products, ENEA Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Rome, Italy. Evaluation of the hazelnuts as functional food: molecular effects of long maceration raw kernel extract in HepG2 human hepatocarcinoma cell line.

16:05-16:25 Hossein Mirmiranpour, PhD, MD, Assistant Professor, Department of Biochemistry, School of Medicine, Alborz University of Medical Sciences, Karaj, Iran. Effect of vitamin C supplementation on oxidant and antioxidant status in patients with systemic lupus erythematosus.

16:25-16:50 Palayakotai Raghavan, PhD, Nanorx Inc. NY, USA. Metadichol® a novel VDR inverse agonist and control of Hypertension in Patients with Metabolic Syndrome.

Interesting participants from all over the world and from different fields of research joined the conference. We had a fantastic exchange of knowledge.





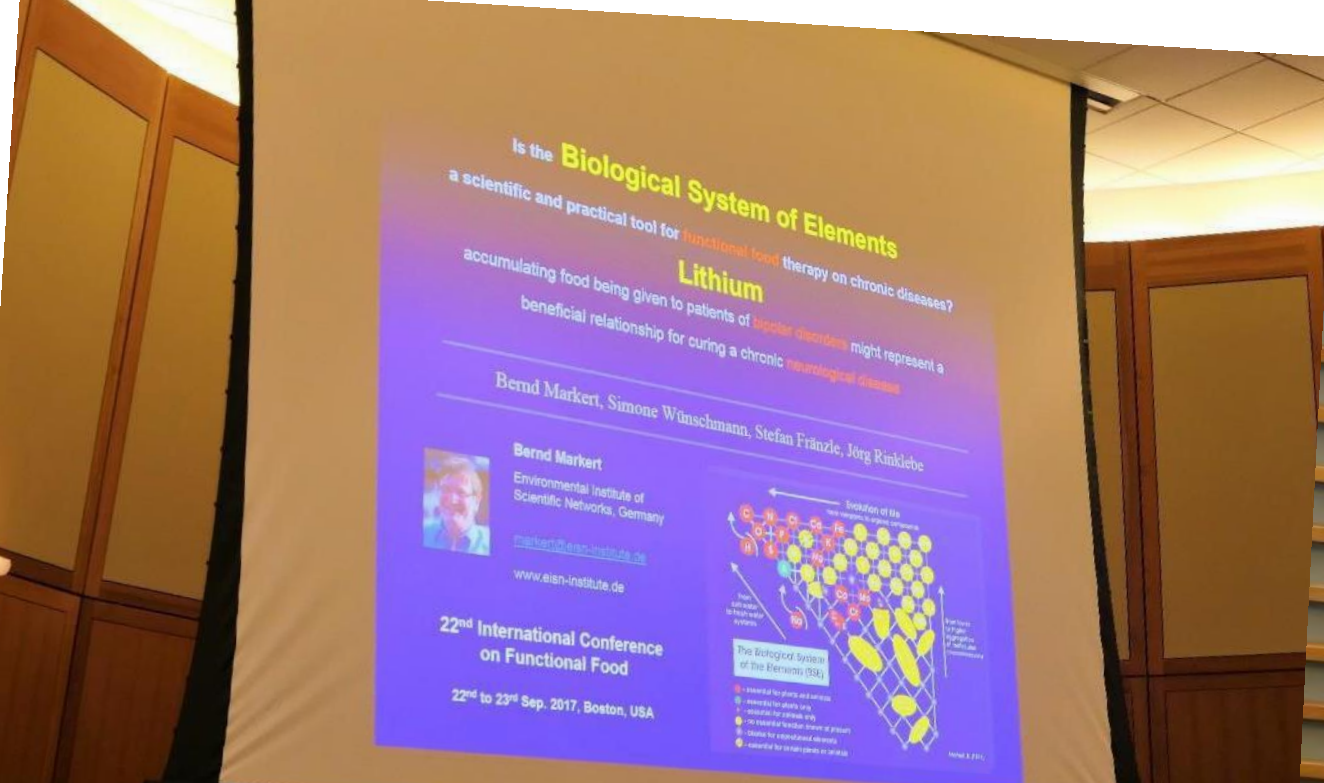
**22<sup>nd</sup> International Conference of Functional Food Center**  
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**Polysaccharides from two medicinal mushrooms  
*Ganoderma lucidum* and *Poria cocos*  
reveal prebiotic effects in mice**

**W.L. Wendy HSIAO, Ph.D.**  
State Key Laboratory of Quality Research in Chinese Medicine  
Macau University of Science and Technology

This study is supported by Macau FDCT

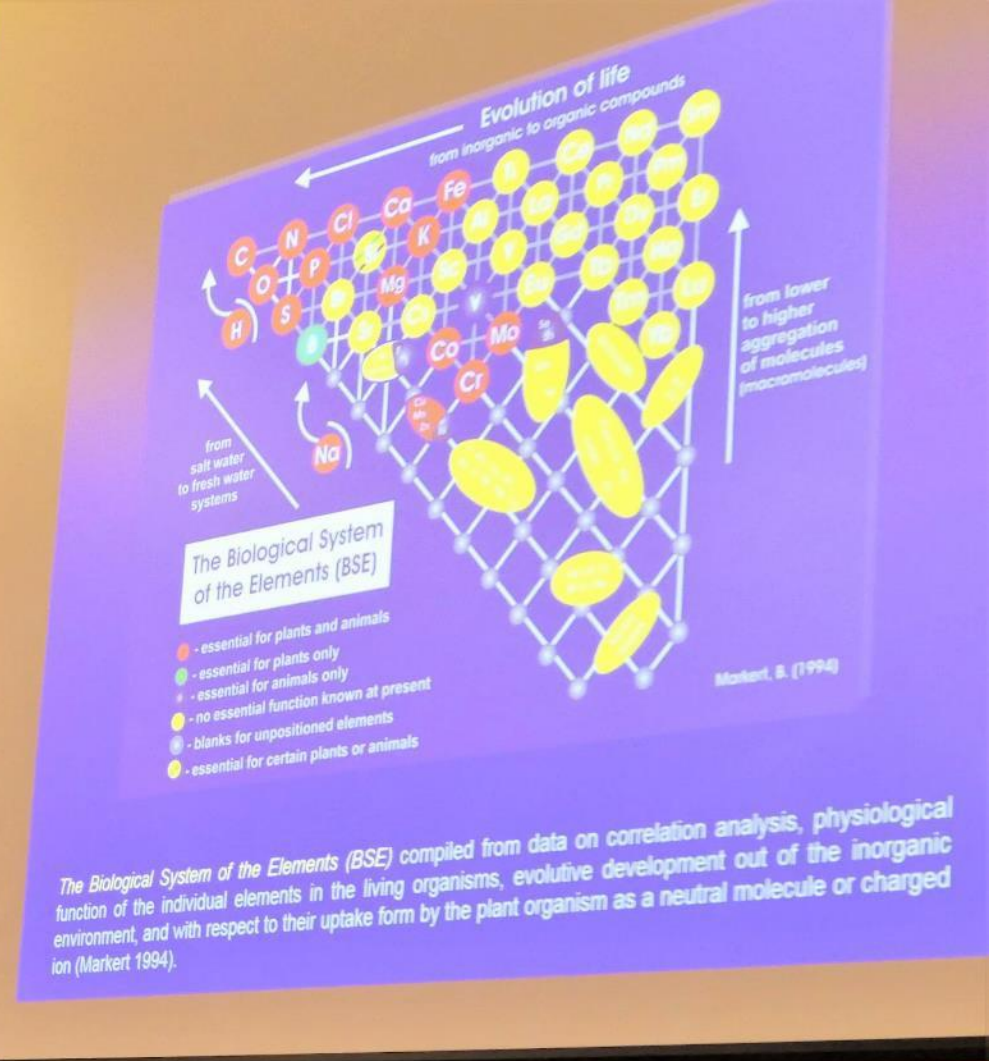


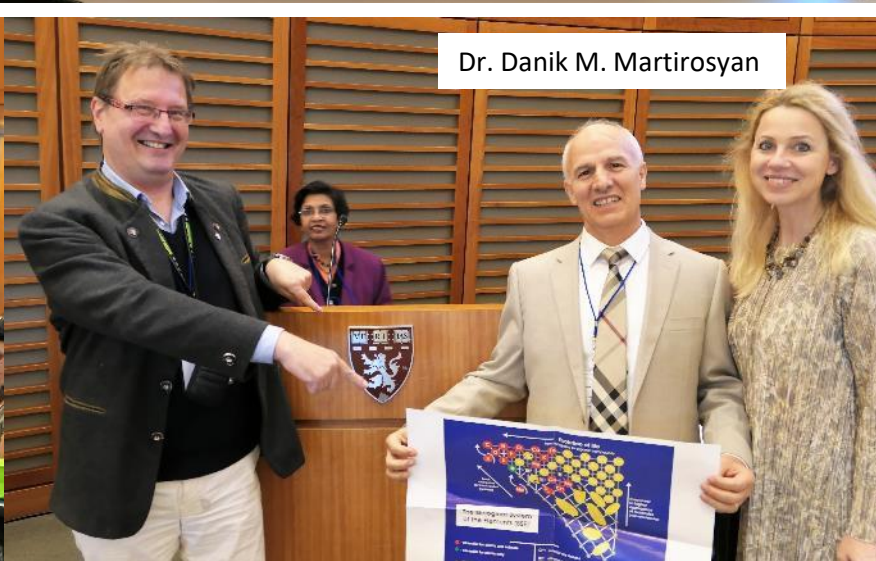


Prof. Dr. Bernd Markert



The Biological System of the Elements, Prof. Dr. Bernd Markert





After the closing ceremony of the conference and after learning a lot new knowdlege we walked around and found a fantastic Tavern.





24 Sep 2017

**2017**  
Bundestagswahl

## Bundestags elections in Germany

The time difference between Boston and Germany is 6 hours. Before watching the election via Bloomberg-TV in the hotel we had a fantastic coffee at Starbucks.

We had hoped that the outcome would be clear - but from our point of view, the main thing is that Angela Merkel will remain German Chancellor.

**Germany Decides** **MERKEL WINS 4TH TERM AS GERMAN CHANCELLOR**

**TOP NEWS**  
Canada Nafta Negotiator Sees More Movement Than Labor Leader  
Talks toward reworking the North American Free Trade Agreement are progressing well, even though the U.S. hasn't made detailed proposals in some of the most divisive areas, Canada's chief negotiator said.  
For more information on this story, go to [TOP-GO](#)

Bloomberg	DOW FUT	S&P FUT	NDX FUT	FTSE FUT	CAC FUT	DAX FUT
24 SEP 7:05 ET @BUSINESS	2-DAY VIEW	2-DAY VIEW	2-DAY VIEW	2-DAY VIEW	2-DAY VIEW	2-DAY VIEW

**MERKEL'S INCONCLUSIVE WIN**

**TOP NEWS**  
Jaguar Land Rover's Owner Boosts Cash Hoard by 87% to Expand  
Tata Motors, which has reported three straight quarters of sales declines, gets 78 percent of its revenue from the luxury brands and plans to use its record cash pile to add new products, technology and manufacturing capacity, according to C Ramakrishnan, group chief financial officer at Tata Motors.

Bloomberg	DOW FUT	S&P FUT	NDX FUT	RUS 2K FUT	TSX FUT	VIX (C)
24 SEP 7:00 ET @BUSINESS	22312.00	2501.00	5940.00	1451.80	904.20	9.59
	+13.00 0.06%	+1.50 0.06%	+4.25 0.07%	+0.60 0.04%	-1.40 0.15%	-0.08 0.83%



Next day we had the pleasure of seeing Charles Staff and his son who is living in Boston. We had a day full of knowledge and discovered Boston as a city worth living in. Have many, many thanks for the time you both have given us on that day.





On our way from Boston City to Cambridge visiting Harvard Campus and MIT (Massachusetts Institute of Technology). Here you can see the impressive skyline of Boston City.

Harvard is a large, highly residential research university. It operates several arts, cultural, and scientific museums, alongside the Harvard Library, which is the world's largest academic and private library system, comprising 79 individual libraries with over 18 million volumes. Harvard's alumni include eight U.S. presidents, several foreign heads of state, 62 living billionaires, 359 Rhodes Scholars, and 242 Marshall Scholars. To date, some 130 Nobel laureates, 18 Fields Medalists, and 13 Turing Award winners have been affiliated as students, faculty, or staff. In 2017 Harvard University counts 21,000 students.





Harvard Yard with the statue of John Harvard



Harvard Memorial Church





Science Center





Beautiful houses





Of course, you also have to see the harbour of Boston by boat.



Boston is a  
fascinating city!  
We are coming  
back soon!

