

## Registration Form

Advances and Controversies in B-Vitamins and Choline  
5-8 March 2012 • Leipzig (DE)

Please fax this form to +49 (0)3641 311 62 44  
Per mail to Conventus GmbH • Carl-Pulfrich-Straße 1 • 07745 Jena (DE)  
Online registration at [www.b-vitamins-conference.de](http://www.b-vitamins-conference.de) preferred.  
Phone +49 (0)3641 311 61 60

Personal Details (please print in block letters)

Mr  Mrs Academic Title

First Name

Last Name

Institution

Department

Street/No.  /

Postal Code/City/State  /  /

Phone/Fax  /

E-mail

Registration (please check)

Fees	Early Registration until 31/01/2012	Late Registration from 01/02/2012
<input type="checkbox"/> Regular	375 EUR	400 EUR
<input type="checkbox"/> Student/Post Docs*	200 EUR	225 EUR

\* Please provide proof via fax to Conventus +49 (0)3641 311 62 44, or per mail to Conventus GmbH • Password: B-Vitamins • Carl-Pulfrich-Straße 1 • 07745 Jena

Social Programme

- Welcome Reception, 5 March (free of charge)  persons
- Get-Together, 6 March (free of charge)  persons
- Gala Dinner, 7 March (30 EUR p.P.)  persons
- "Grosses Concert" at the Gewandhaus Leipzig, 8 March (19,40 EUR p.P.)  persons

Payment (please check)

by Bank Transfer

Upon receipt of invoice the total amount should be transferred to the conference bank account with reference to your name and invoice number.

by Credit Card

Master  Visa  AmEx  JCB

Name of Cardholder

Card Number

Verification Code\*\*  Expiry Date

\*\* The three-digit CVV code is found on the back of your credit card next to the signature, for American Express cardholders, the four-digit CVV code is found on the front.

Date  Signature\*\*\*

\*\*\* By signing I agree to the General Terms and Conditions and the rules of cancellation on the conference website found in the imprint.

## General Information

Venue and Date

University of Leipzig  
Universitätsstraße 1 • Campus Augustusplatz • 04109 Leipzig (DE)  
5-8 March 2012

Hosting Organisation

Homocysteine Expert Panel Germany (HEP)



Conference Chair

Jun. Prof. Dr. Rima Obeid  
Prof. Dr. med. habil. Dr. rer. nat. Wolfgang Herrmann  
Department of Clinical Chemistry and Laboratory Medicine  
University of Saarland  
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Scientific Committee

Henk Blom (Amsterdam/NL)  
Andrew E. Czeizel (Budapest/HU)  
Dragan Djuric (Belgrade/RS)  
Jürgen Geisel (Homburg/DE)  
Jean-Louis Guéant (Vandoeuvre lès Nancy/FR)  
Markus Herrmann (Mortlake NSW/AU)  
Donald Jacobsen (Cleveland, OH/US)  
Ebba Nexø (Aarhus/DK)  
Sigfrido Scarpa (Rome/IT)  
Per Mangne Ueland (Bergen/NO)  
Steven Zeisel (Kannapolis, NC/US)

Conference Organisation

Conventus Congressmanagement & Marketing GmbH  
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Conference Website

[www.b-vitamins-conference.de](http://www.b-vitamins-conference.de)

Certification/CME Points

CME points are applied for at the Medical Chamber of Saxony.

Accommodation

We have reserved a contingent of rooms at special rates in Leipzig.  
Please find a list of hotels online on the conference website  
[www.b-vitamins-conference.de](http://www.b-vitamins-conference.de).

## Leipzig – Music, Exhibitions and Books

Music, museums, economy, business and books are only some keywords to describe Leipzig. Leipzig is a strong candidate for the European capital of Culture 2020. Your journey will guide every visitor to the "Thomaskirche", where the famous "Thomanerchor" has its seeds and where Johann Sebastian Bach worked for 27 years as cantor. His grave is in the chancel of the church. The city dedicated a museum to him which is opposite the church.

Other touristic attractions are the Sunday concerts in the Mendelssohn-House or the events in the "Opern- und Gewandhaus". In both houses you can see the "Leipziger Gewandhausorchester", which is more than 250 years old.

Leipzig was already one of the biggest centers for business and commerce in the world in the 7<sup>th</sup> century. The Sorbs called the city "Lipzk", which means city near the two lindens. In 1165 they received the municipal law and the privileges to do business. 332 years later, in 1497, Maximilian I awarded Leipzig the exhibition privilege. Since that time Leipzig is an exhibition town with European esteem.

Due to this fact the big book exhibitions, which takes place in Leipzig once a year, complete the repertoire of the city's calendar of events. In 2011, 163,000 people visited this exhibition. Because of the business in the 7<sup>th</sup> century Leipzig was named "Bücherstadt", the city of the books. In 1481 the first book was printed there.

Another historical sight in Leipzig is the "Leipziger Völkerschlachtdenkmal" which was inaugurated in 1913 as a historical site for the 100<sup>th</sup> commemoration of the Battle of Nations near Leipzig as the largest monument in Europe. Delightful is the rise of the crypt to the viewing platform of 364 steps at 91 m in height. 61 piers support the 300,000-ton stone colossus

Photos: LMT Andreas Schmidt; Fotolia © Harald Lange, LE image, Sandor Jackel, Ellie Nator, Thomas Becker, Rena Marijn, Tino Herrmann

## Leipzig – Music, Exhibitions and Books

In 1915 the largest terminal station in Europe was built in Leipzig. The cathedral-like structure made of stone and steel, built by the architect William Lossow and Hans-Max Kühne, embodies an impressive self-confidence of the bourgeoisie. What makes the Leipzig Central Station specific is primarily a symmetrical design which is based on a rivalry between the Prussian and Saxon railway companies, which operated the station together. To avoid further controversy, it was decided that both companies should get exactly the same construction.

When you gaze out over the city, you always will see the main building of the University. 1409, the Leipzig University was founded. It is therefore to Heidelberg, the second oldest university in Germany, which has maintained without interruption to their teaching. Since time immemorial, they played for the intellectual life of the city a fruitful role. Personalities like Munzer, Telemann, Leibniz, Wagner, Schumann, Goethe and Lessing studied here.

More than 450 years ago, Elector Moritz of Saxony, gave his close friend Hieronymus Lotter the order to build Leipzig's city fortification. As one of the four corner bastions arising on the hangman's or Peter's Bastion, which is the vernacular later gave the name of the prince: Moritzbastei.

Built in 1878 the zoological garden was found as a private enterprise. A strong entrepreneurial spirit results 20 years later in an transformation from a private enterprise into a joint-stock company. Continuous amplification of land and livestock, as well as entertainment and good breeding results ensured the survival till this day.

You can feel how life is pulsating in Leipzig. Tradition versus modern lifestyle, a successful economy versus innovation. In the last years the city exploded into a metropolis, which is waiting for you!

Welcome to Leipzig!

## Gewandhaus Leipzig

After the Three Swans Inn, the concert hall in the Gewandhaus, the New Gewandhaus in the music district and the orchestra's temporary home in the Congress Hall after 1944, the „third“ Gewandhaus was opened on Augustusplatz on 8 October, 1981, providing the orchestra with a modern performance venue after over 37 years in interim quarters. The chief architect was Rudolf Skoda, whose team worked in close cooperation with Kurt Masur, then the Gewandhaus Music Director, during the 57-month construction period. The concert hall stands on the site where the Museum of Fine Arts once displayed its treasures. The Great Hall, Mendelssohn Hall, the foyers and an enormous ceiling fresco together form a coherent ensemble. The three-level Main Foyer is dominated by the vibrantly colourful painting „Song of Life“ by the Leipzig artist Sighard Gille. It extends over four sloped ceilings with an area of 712 square metres, making it Europe's largest contemporary ceiling fresco. Illuminated by spotlights at night, it makes a striking impression when seen through the glass façade of the building from the square outside. The Great Hall provides amphitheatre-style seating for over 1,900 listeners. Outstanding ensembles also appear regularly in the 498-seat Mendelssohn Hall. The hexagonal, wood-panelled hall is ideally suited for a wide range of events, such as conferences and congresses, in addition to musical performances. Variable seating, a sound studio, projection screens, flybars and interpreters' booths ensure maximum flexibility. The Gewandhaus presents approximately 180 events each season, including 70 concerts by the Gewandhaus Orchestra. All told, approximately 600 events take place here during the season. Nearly half a million people visit the concert hall on Augustusplatz each year. In May 2005, the Gewandhaus welcomed its ten millionth guest since the building opened in 1981.

GROSSES CONCERT

Gewandhausorchester  
Herbert Blomstedt – Dirigent  
Olli Mustonen – Klavier

Béla Bartók  
3. Konzert für Klavier und Orchester Sz 119  
-Break-  
Anton Bruckner  
2. Sinfonie c-Moll

We have allocated a contingent of cards for the concert on 8 March, 2012. Please book your seats not later than 31 January, 2012. The ticket costs 19,40 EUR p.P. upon availability.

## Advances and Controversies in B-Vitamins and Choline

5-8 March 2012  
Leipzig • Germany

UNIVERSITÄT LEIPZIG



NUTRITION  
(EPI)GENETICS  
HEALTH & AGING  
METABOLISM



CALL FOR ABSTRACTS

## Welcome Note

Dear Colleagues,

We are pleased to announce that the conference on „Advances and Controversies in B-Vitamins and Choline“ will be held at the University of Leipzig (Germany) from 5–8 March, 2012. This conference is a continuation of our earlier international conferences held in Saarbrücken, which were focused on the topic hyperhomocysteinemia. Choline and B-Vitamins are the most important nutrients linking our diet to our health. With the continual interest in choline and B-Vitamins functions, deficiency, supplementation, metabolic aspects and the related diseases, researchers, doctors and medical practitioners from around the world are keen to present their latest results, exchange knowledge, and to be up-to-date in this field.

The aim of the conference is to provide an opportunity to update delegates with the latest advances in scientific research, academic and clinical knowledge, as well as facilitating networking with other scientists working on this hot topic. The conference is attracting the leading experts in the field of choline and B-Vitamins. The programme includes several plenary sessions, workshops and a poster session. Several leading scientists in this field have been selected by the scientific organising committee. Significant papers will be selected from the submitted abstracts by the scientific committee, and will be offered the opportunity to be presented as oral presentations or posters.

Founded in 1409, the University of Leipzig can look back over an exciting history. The second-oldest university in Germany, where teaching has continued uninterrupted for 600 years, has been held in high esteem down the centuries for its academic achievements. We would like to welcome you in Leipzig. Leipzig is a city of history, modernism, trade fairs, glorious poets and writers, such as Johann Sebastian Bach and Goethe. Cozy little cafés in the old town are welcoming you for staying and opening yourself to the beauty of this city.

We invite you to visit the conference in Leipzig and we promise you a stimulating scientific meeting!

Your conference chairs

Rima Obeid

Wolfgang Herrmann

## Abstracts and Dates

### Abstract Submission

We cordially invite you to submit your abstract. Abstracts can be selected for Oral Presentation or Poster Session. Abstracts for presentations or posters are to be submitted in English only online at [www.b-vitamins-conference.de](http://www.b-vitamins-conference.de).

All abstracts will be published in the Journal of Clinical Chemistry and Laboratory Medicine, Walter de Gruyter. Authors have also the opportunity to publish a full length review or original studies in a Special Issue of the Journal of Clinical Chemistry and Laboratory Medicine. After the conference, full length papers will be peer-reviewed but there is no guarantee for publication.

### Abstract Topics

- B-Vitamins and choline in age associated diseases
- B-Vitamins and choline in birth defects
- B-Vitamin supplementation
- B12, biochemistry, transport, metabolism and disorders
- Choline and Betaine
- Folate and Homocysteine
- Genetics and Epigenetics
- Methodology
- Molecular and cellular mechanisms
- Other topics

### Deadlines

Abstract submission	30 October 2011
Application for travel grants	31 October 2011
Confirmation of acceptance (abstract)	15 December 2011
Confirmation of acceptance (travel grant)	15 December 2011
Early bird registration	31 January 2012

### Awards

The best poster presentations will be appreciated with a poster award. More detailed information will be published soon on the conference website.

### Travel Grants

Six travel scholarships in the amount of 300 EUR will be granted to applicants who meet following requirements:

- submission of abstract (abstract selection will be on competitive basis: the best 6 abstracts will be selected)
- young scientist (<30 years)
- applicants must prove that he/she is from a less developed country

Only one abstract per candidate can be considered for the travel grant.

For further information, please refer to [www.b-vitamins-conference.de](http://www.b-vitamins-conference.de)

## Scientific Programme • Monday, 5 March 2012

08<sup>00</sup>–08<sup>30</sup> **Welcome Note**

08<sup>30</sup>–10<sup>00</sup> **Plenary Session 1 • Advances in Cobalamin Research**

- New insights into cobalamin absorption and metabolism using accelerator mass spectrometry  
*Ralph Green* (Davis, CA/US)
- Mouse transcobalamin has features resembling both human transcobalamin and haptocorrin  
*Ebba Nexo* (Aarhus/DK)
- Avances in cobalamin research, targeting TC-receptor  
*Edward Quadras* (New York, NY/US)
- Insights into functional cobalamin deficiency: the MMACHC proteome  
*Luciana Hannibal* (Cleveland, OH/US)

10<sup>00</sup>–10<sup>30</sup> Coffee

10<sup>30</sup>–12<sup>00</sup> **Plenary Session 2 • Transsulfuration and glutathione metabolism**

- Generation of H<sub>2</sub>S through the transsulfuration pathway  
*Ruma Banerjee* (Ann Arbor, MI/US)
- Hydrogen sulfide and oxygen sensing  
*Kenneth Olson* (South Bend, IN/US)
- B<sub>6</sub>, Inflammation, tryptophan pathway  
*Simone Eussen* (Bergen/NO)
- Cystathionine gamma-lyase dependent H<sub>2</sub>S formation in perivascular adipose tissue in fructose-induced metabolic syndrome  
*Jerzy Beltowski* (Lublin/PL)

12<sup>00</sup>–13<sup>30</sup> Lunch

13<sup>30</sup>–15<sup>00</sup> **Workshop 1 • B-Vitamins in health and disease**

**Workshop 2 • B12, biochemistry, metabolism and disorders**

15<sup>30</sup>–17<sup>00</sup> **Plenary Session 3 • Vitamin B6 and Riboflavin**

- Vitamin B-6 and folate affect the association between MAT1A variants and hypertension, stroke, and markers of DNA damage  
*C. Q. Lai* (Boston, MA/US)
- Role of Vitamin B6 and its metabolite in Ca<sup>2+</sup>-handling and cardiac function  
*Naranjan S. Dhalla* (Winnipeg/CA)
- Riboflavin as a determinant of iron status  
*H. J. Powers* (N.N./GB)

17<sup>00</sup>–17<sup>30</sup> Coffee

17<sup>30</sup>–19<sup>00</sup> **Plenary Session 4 • B-Vitamins and age-associated diseases: Neurology**

- B-Vitamins in Epilepsy: a prospective study  
*Michael Linnebank* (Zurich/CH)
- Effects of cobalamin deficiency on the CNS  
*Giuseppe Scalabrino* (Milan/IT)

## Scientific Programme • Monday, 5 March 2012

- Mechanisms of Neurological complications in HHcy  
*Aron Troen* (Rehovot/IL)

19<sup>00</sup> Get together

## Scientific Programme • Tuesday, 6 March 2012

08<sup>00</sup>–09<sup>30</sup> **Plenary Session 5 • B-Vitamins and age-associated diseases: Osteoporosis**

- Altered bone structure and decreased bone formation, the role of folate, vitamin B<sub>6</sub> and laminin  
*Markus Herrmann* (Penrith/AU)
- The effect of one year B + D vitamin supplementation on bone turnover markers, metabolites and vitamin status  
*Wolfgang Herrmann* (Homburg/DE)
- Homocysteine mediated decrease in bone blood flow and remodeling: role of folic acid  
*Neetu Tyagi* (Louisville, KY/US)
- Molecular mechanisms of homocysteine effect on osteoporosis  
*Eleftherios Paschalis* (Vienna/AT)

09<sup>30</sup>–10<sup>00</sup> Coffee

10<sup>00</sup>–11<sup>30</sup> **Plenary Session 6 • B-Vitamins and Diabetes and renal dysfunction & CVD**

- Thiamine deficiency plays a central role in diabetes complications  
*Paul Thornalley* (Warwick/GB)
- Intracellular cobalamin status in diabetes and polyneuropathy  
*Rima Obeid* (Homburg/DE)
- mechanisms of H<sub>2</sub>S signaling in hemodialysis  
*Alessandra Perna* (Naples/IT)

11<sup>30</sup>–13<sup>30</sup> Lunch

13<sup>00</sup>–14<sup>30</sup> **Plenary Session 7 • B-Vitamins and choline: Pre- and postnatal health**

- Molecular mechanisms of B-vitamin deficiency in neural tube defects  
*Henk Blom* (Amsterdam/NL)
- Folic acid supplementation during pregnancy and cancer risk in the offspring  
*Young-In Kim* (Toronto/CA)
- Folic acid supplementation and foetal development  
*Rima Rozen* (Montreal/CA)

14<sup>30</sup>–15<sup>00</sup> Coffee

## Scientific Programme • Tuesday, 6 March 2012

15<sup>00</sup>–16<sup>30</sup> **Plenary Session 8 • Nutrients as methyl donors**

- Betaine a methyl donor and an osmolyte: focus on the BHMT pathway  
*Michael Lever* (Christchurch/NZ)
- Functional effects of methyl group modifications in cystic fibrosis  
*Sheila Innis* (Vancouver/CA)
- Choline intake and cancer risk: epidemiologic studies  
*Eunyoung Cho* (Boston, MA/US)
- N.N.  
*N.N.* (N.N./N.N.)

16<sup>30</sup>–17<sup>15</sup> **Open Round Table Discussion Evaluation of holo-transcobalamin as a marker for B12 status**

19<sup>00</sup> **Social Evening**

## Scientific Programme • Wednesday, 7 March 2012

08<sup>30</sup>–10<sup>00</sup> **Plenary Session 9 • Advances in choline research**

- Choline metabolism is related to endoplasmicreticulum stress response in vascular- and metabolic disease  
*Gerd Schmitz* (Regensburg/DE)
- Choline and epilepsy  
*Jan Blusztajn* (Boston, MA/US)
- Fatty acid metabolism in choline and methionine deficient diet  
*David Macfarlane* (Dundee/GB)
- Choline-containing phospholipids on brain functional pathways  
*Seyed Khosrow Tayebati* (Camerino/IT)

10<sup>00</sup>–10<sup>30</sup> Coffee

10<sup>30</sup>–12<sup>00</sup> **Plenary Session 10 • B-Vitamins and choline: Alcohol and liver function**

- Liver disease & transsulfuration, transmethylation  
*Charles Halsted* (Davis, CA/US)
- Choline and fetal alcoholic syndrome  
*Jennifer Thomas* (San Diego, CA/US)
- Cobalamin and hyperhomocysteinemia in alcoholic liver disease  
*Donald Jacobsen* (Cleveland, OH/US)
- Methionine metabolism in liver diseases  
*Kusum Kharbanda* (Omaha, NE/US)

12<sup>00</sup>–13<sup>30</sup> Lunch

13<sup>30</sup>–15<sup>00</sup> **Satellitesymposium (in German)**  
• Hot Topics - aktuelle Aspekte der B-Vitaminforschung

13<sup>30</sup>–15<sup>00</sup> **Workshop 3 • Folate & Homocysteine**

**Workshop 4 • Choline**

## Scientific Programme • Wednesday, 7 March 2012

15<sup>30</sup>–17<sup>00</sup> **Plenary Session 11 • (Epi)genetics, Diseases: The role of nutrients**

- Epigenetics and choline  
*Steven Zeisel* (Kannapolis, NC/US)
- Epigenomic effects of methyl donors deficiency  
*Jean-Louis Guéant* (Nancy-Vandoeuvre/FR)
- The role of epigenetics in neurodegeneration  
*Andrea Fusco* (Roma/IT)
- Varied maternal choline intake in humans alters metabolic, epigenomic and epigenetic marks  
*Marie Caudill* (Ithaca, NY/US)

17<sup>00</sup>–17<sup>30</sup> Coffee

17<sup>30</sup>–19<sup>00</sup> **Plenary Session 12 • Concerns on B-vitamin supplementation**

- Folic acid and tumorigenesis, molecular mechanisms  
*Joel Mason* (Boston, MA/US)
- The pros and cons of B-vitamin supplement: renal function as a determinant  
*David Spence* (London/GB)
- From raw to „ready-to-eat“ foods: metabolic priorities of methyl donors nutrients at life stages and physiological status  
*Georgio Varela Moreiras* (N.N./N.N.)

## Scientific Programme • Thursday, 8 March 2012

08<sup>00</sup>–09<sup>30</sup> **Plenary Session 13 • Molecular mechanisms**

- Cellular damage by homocysteine: the role of homocysteinylolation  
*Hieronim Jakubowski* (Newark, NJ/US)
- Overexpression of dimethylarginine dimethylamino-hydrolase protects against cerebral vascular effects of hyperhomocysteinemia  
*Steven R. Lentz* (Iowa, IA/US)
- Cellular damage by homocystein: the role of protein homocysteinylolation  
*Dragan Djuric* (Belgrade/RS)
- Folic acid from coronary vasodilation to neuroprotection  
*Dietmar Fuchs* (Innsbruck/AT)

10<sup>00</sup>–11<sup>30</sup> **Workshop 5 • B-vitamin supplementation**

**Workshop 6 • Molecular mechanisms**

11<sup>30</sup>–12<sup>00</sup> **Closing**