

Pteridines  
Vol. 23, 2012

Program of the

# **31<sup>st</sup> International Winter-Workshop Clinical, Chemical, & Biochemical Aspects of Pteridines**

**The International Society of Pteridinology**

in collaboration with

**the Austrian Society of Laboratory Medicine and Clinical Chemistry**

and

**Exposure to Nanoparticles in Human Populations: Immune System Biomarkers**  
*in vitro and in vivo*

**European Commission (ERA NET - New INDIGO Program, NanoLINEN  
project, PIM2010ENI-00632)**

**February 26<sup>th</sup> to March 4<sup>th</sup>, 2012, St.Christoph/Arlberg, Austria**

**Scientific Committee:**

Bonassi S (Rome, Italy)  
Dhawan A (Lucknow, India)  
Fuchs D (Innsbruck)  
Griesmacher A (Innsbruck)  
Karahalil B (Ankara, Turkey)  
Reibnegger G (Graz)

**Honorary Committee:**

Pfleiderer W (Konstanz)

## **Sunday, February 26<sup>th</sup>, 2012**

**7:00 p.m. Welcome Cocktail at the Chimney-Hall, Arlberg-Hospiz Hotel**

## **Monday, February 27<sup>th</sup>, 2012**

**10:15 - 12:30 Chair:** Karahalil B (Ankara, Turkey), Fuchs D (Innsbruck, Austria)

**10:15 Introduction - NewIndigo / nanoLINEN**  
Karahalil B (Ankara, Turkey)

**Introduction - Biomarker Workshop**  
Fuchs D (Innsbruck, Austria)

- 10:30 Multidimensional immunoinflammatory monitoring in acute inflammation and septic states**  
Faist E (Munich, Germany)
- 11:10 Applications of immune system biomarkers in clinical studies**  
Fuchs D (Innsbruck, Austria)
- 11:30 Immune system biomarkers in cardiovascular disease - A clinical perspective**  
Kaski JC (London, United Kingdom)
- 12:00 Identification and application of biomarkers in kidney transplantation**  
Müller TF (Edmonton, Canada)
- 12:30 - 3:15 p.m. Break**
- 3:15 - 5:15 Chair:** Bonassi S (Rome, Italy), Fuith LC (Eisenstadt, Austria)
- 3:15 Interferon- $\gamma$ -induced biochemical pathways - friend and foe in tumor immunology**  
Brandacher G (Baltimore, MD)
- 3:45 IL28B polymorphism, IP10 and other biomarkers in patients with hepatitis C virus infection**  
Zoller H (Innsbruck, Austria)
- 4:15 Pathophysiological networks and new therapeutic approaches in the anemia of chronic disease**  
Weiss G (Innsbruck, Austria)
- 4:45 Innate and adaptive immune system in Alzheimer's disease: therapeutic implications**  
Blasko I (Innsbruck, Austria)
- 5:15 - 5:40 Coffee Break**
- 5:40 - 6:50 Chair:** Debbage P (Innsbruck, Austria)
- 5:40 In-vitro models for the detection of long-term nanoparticle effects**  
Froehlich E (Graz, Austria)
- 6:10 Nano versus bulk toxicity: need for critical human biomarkers**  
Tripathi A, Roy R, Dwivedi PD, Das M (Lucknow, India)
- 6:30 Influence of TiO<sub>2</sub> nanoparticles vs. bulk material on human peripheral blood cells and on myelomonocytic cell line THP-1**  
Schrocksnadel S, Herlin N, Carriere M, Fuchs D (Innsbruck, Austria; Grenoble & Sarclay, France)

## **Tuesday, February 28<sup>th</sup>, 2012**

- 10:15 - 12:25 Chair:** Karakaya A (Ankara, Turkey), Herlin N (Sarclay, France)
- 10:15 Biomonitoring studies in exposed populations: An epidemiological perspective**  
Bonassi S (Rome, Italy)
- 10:45 Biomonitoring of occupational exposure to styrene**  
Teixeira JP (Porto, Portugal)

- 11:15 Evidence for short-term hepatotoxicity of gadolinium-bearing albumin-based nanoparticles in a rat model**  
Debbage P (Innsbruck, Austria)
- 11:45 Nanoparticle interaction with proteins: Does it co-relate with toxicity?**  
Dwivedi PD, Roy R, Tripathi A, Das M (Lucknow, India)
- 12:05 Different patterns of cytotoxicity in titanium dioxide nanoparticle treated cell lines**  
Engin AB, Karahalil B (Ankara, Turkey)
- 12:25 - 3:15 p.m. Break**
- 3:15 - 5:15 Chair: Müller TF (Edmonton, Canada), Brandacher G (Baltimore, MD)**
- 3:15 Microarray-based gene expression profiling: possibilities and limitations**  
Gostner J (Innsbruck, Austria)
- 3:45 Limitations of LC-tandem mass spectrometry in the clinical laboratory**  
Seger C (Innsbruck, Austria)
- 4:15 Neopterin and progress of malignant diseases - a glimpse of host-tumour interaction?**  
Reibnegger G (Graz, Austria)
- 4:45 Psychoneuroimmunology of HIV infection**  
Kurz K, Zangerle R, Weiss G, Fuchs D (Innsbruck, Austria)
- 5:15 - 5:40 Coffee Break**
- 5:40 - 6:50 Chair: Fröhlich E (Graz, Austria)**
- 5:40 Changes in neopterin levels and tryptophan degradation with silica nanoparticles**  
Palabiyik SS, Girgin G, Tutkun E, Yilmaz H, Baydar T (Ankara, Turkey)
- 6:00 Effect of occupational zinc nanoaerosol exposure on neopterin levels and tryptophan degradation**  
Girgin G, Sarac ES, Baydar T, Aydin A, Sahin G (Ankara, Turkey)
- 6:20 Evaluation of genotoxicity in infertile men**  
Coskun E (Ankara, Turkey)
- 6:40 Closing remarks - NanoWorkshop**  
Bonassi S (Rome, Italy)

## Wednesday, February 29<sup>th</sup>, 2012

- 3:15 - 5:00 Chair: Fuchs D (Innsbruck, Austria), Werner ER (Innsbruck, Austria)**
- 3:15 Welcome Address - Pteridines Workshop**
- 3:20 Impact of stress on urinary 8-hydroxy-2'-deoxyguanosine and neopterin in breast cancer: a time series analysis approach**  
Schubert C, Engin B, Karahalil B, Haberkorn J, Fuchs D (Innsbruck, Austria; Ankara, Turkey)

- 3:40 Lead-lag-analysis of urinary sTNFR and ARC in a patient with SLE under real-life conditions**  
Haberkorn J, Fuchs D, Ocana-Peinado FM, Schubert C (Innsbruck, Austria; Granada, Spain)
- 4:00 The active site of alkylglycerol monooxygenase**  
Werner ER, Watschinger K, Fuchs JE, Yarov-Yarovoy V, Hermetter A, Golderer G, Keller M, Hulo N, Werner Felmayer G (Innsbruck & Graz, Austria; Davis, CA)
- 4:20 Kinetic and mechanistic properties of recombinant human fatty aldehyde dehydrogenase**  
Keller M, Kreutz C, Müller T, Watschinger K, Golderer G, Werner-Felmayer G, Kräutler B, Werner ER (Innsbruck & Graz, Austria)
- 4:40 Recombinant expression of human alkylglycerol monooxygenase fragments in E. coli**  
Meyer M, Keller M, Watschinger K, Werner-Felmayer G, Werner ER, Golderer G (Innsbruck, Austria)
- 5:00 - 5:20 Coffee Break**
- 5:20 - 6:40 Chair:** Liedl K (Innsbruck, Austria), Teigen K (Bergen, Norway)
- 5:20 Immune system activation in patients with cardiovascular disease correlates with phenylalanine to tyrosine ratios**  
Schröcksnadel S, Mangge H, Schnedl W, Fuchs D (Graz, Bruck/Mur & Innsbruck, Austria)
- 5:40 Conformational changes of phenylalanine hydroxylase upon simulated oxidative stress**  
Fuchs JE, Huber RG, Wallnoefer HG, von Grafenstein S, Spitzer GM, Fuchs D, Liedl KR (Innsbruck, Austria)
- 6:00 L-Phe treatment stimulates tetrahydrobiopterin synthesis in the ENU1/2 mice**  
Sarkissian CN, Ying M, Scherer T, Thöny B, Martinez A (Montreal, Canada; Zurich, Switzerland & Bergen, Norway)
- 6:20 Interplay of 14-3-3 $\gamma$ , tyrosine hydroxylase and the lipid membrane**  
Halskau O, Skjevik AA, Baumann A, Ying M, Martinez A, Teigen K (Bergen, Norway)

## Thursday, March 1<sup>st</sup>, 2012

- 3:15 - 4:35 Chair:** Luyckx VA (Edmonton, Canada), Schobersberger W (Natters, Austria)
- 3:15 Serum neopterin concentrations vs. systolic blood pressure in 48223 blood donors**  
Mühlbacher A, Hörtnagl P, Mayersbach P, Schennach H (Innsbruck, Austria)
- 3:35 High performance rapid dipstick and ELISA testing systems for neopterin**  
Inness-Turnbull M, Duffin G, Dessi J, Stappenbeck R, Thompson S, Self CH (Newcastle, UK)
- 3:55 Biomarkers of inflammation in juvenile idiopathic arthritis**  
Giner T, Fuchs D, Weiss G, Brunner J (Innsbruck, Austria)
- 4:15 Mediation of multi-organ injury via oncostatin M and its receptor - a stereotyped systemic inflammatory response**  
Luyckx VA, Cairo LV, Compston CA, Phan WL, Mueller TF (Edmonton, Canada)

**4:35 - 5:00**      **Coffee Break**

**5:00 - 5:35**      **Chair:** Leblhuber F (Linz, Austria)

**5:00**      **Phe/Tyr as indicator of neurotransmitter disturbances in patients with depression**  
Sperner B (Innsbruck, Austria)

**5:15**      **Oxidative stress and tryptophan degradation pattern of acute *Toxoplasma gondii* infection in mice**  
Engin AB, Dogruman-Al F, Elcin U, Celebi B, Babur C, Bukan N (Ankara, Turkey)

**5:45**      **Annual General Assembly of the International Society of Pteridinology (ISP)**  
(ISP-members only)

## Friday, March 2<sup>nd</sup>, 2012

**3:15 - 4:55**      **Chair:** Zangerle R (Innsbruck, Austria), Woloszczuk W (Vienna, Austria)

**3:15**      **Neopterin in patients with metastatic malignant melanoma during the therapy with Ipilimumab**  
Melichar B, Zezulová M, Beneš P, Krcmová L, Kapustová M, Procházková H, Kalábová H, T. Adam T, Solichová D (Olomouc, Czech Republic)

**3:35**      **Serum concentrations of neopterin and tryptophan, and survival after thoracic surgery**  
Posch F, Fuchs D, Öfner D, Weber M, Müller MR, Watzka SB (Wien, Innsbruck & Salzburg, Austria)

**3:55**      **Immune modulating effects of lignans from *Carthamus tinctorius* L.**  
Kuehnl S, Schroecksnadel S, Schennach H, Schwaiger S, Rollinger JM, Fuchs D, Stuppner H (Innsbruck, Austria)

**4:15**      **The antimalarial drug chloroquine exhibits immunomodulatory properties *in vitro***  
Gostner J, Schröcksnadel S, Jenny M, Schennach H, Überall F, Fuchs D (Innsbruck, Austria)

**4:35**      **Ayurvedic myrobalane extracts inhibit LPS-induced tryptophan breakdown in THP-1 cells**  
Becker K, Gostner J, Klein A, Schroecksnadel S, Magnus B, Jenny M, Fuchs D, Ueberall F (Innsbruck, Austria & Salzburg, Austria)

**4:55 - 5:15**      **Coffee Break**

**5:00 - 6:40**      **Chair:** Haeger M (Gothenburg, Sweden)

**5:15**      **Neopterin and tryptophan breakdown in alcoholism**  
Gleissenthall G, Schroecksnadel S, Fuchs D, Mechtcheriakov S (Innsbruck, Austria)

**5:35**      **Antiretroviral therapy in patients with HIV-1 infection is associated with an increase of 25-hydroxyvitamin D blood concentrations**  
Zangerle R, Haara A, Seger C, Schroecksnadel S, Kitchen M, Sarcletti M, Griesmacher A, Fuchs D (Innsbruck, Austria)

**5:55**      **Serum uric acid during therapy with high-dose folinic acid**  
Melichar B, Kalábová H, Hyšpler R, Zezulová M, Procházková H, Holecková P (Olomouc, Czech Republic)

**6:15 TD-GC-MS analysis of volatile metabolites released by *S. aureus*, *P. aeruginosa*, *S. pneumoniae* and *H. influenzae***

Sponring A, Filipiak W, Baur M, Wiesenhofer H, Nagl M, Troppmair J, Amann A (Innsbruck & Dornbirn, Austria)

**Saturday, March 3<sup>rd</sup>, 2012**

**3:15 - 4:45 Chair:** Postolache T (Baltimore, MD), Ledochowski M (Innsbruck, Austria)

**3:15 Tryptophan, neopterin and nitrite in allergy**

Ciprandi G, Fuchs D (Genova, Italy; Innsbruck, Austria)

**3:30 Antioxidant compounds, leukotrienes and allergy**

Ledochowski M, Fuchs D (Innsbruck, Austria)

**3:50 Impact of sodium sulfite injection on the outcome of vascular allograft survival in mice**

Mackovitz M, Sucher R, Kronberger I, Kern B, Steger C, Schneeberger S, Pratschke J, Fuchs D, Brandacher G (Innsbruck, Austria; Baltimore, MD, USA)

**4:10 Vitamin D and tryptophan metabolism in patients with Alzheimer's dementia**

Leblhuber F, Schröcksnadel S, Fuchs D (Linz & Innsbruck, Austria)

**4:30 Phenylalanine to tyrosine ratio in patients with Alzheimer's dementia**

Wissmann P, Schröcksnadel S, Leblhuber F, Fuchs D (Linz & Innsbruck, Austria)

**4:45 - 5:00 Coffee Break**

**5:00 - 6:10 Chair:** Griesmacher A (Innsbruck, Austria)

**5:00 Pathogens, the immune system, and suicidal behavior: an update**

Postolache T (Baltimore, MD)

**5:20 Neopterin and clinical status in patients with chronic lymphocytic leukemia**

Parrak V, Secnik P, Mistrik M, Fuchs D (Bratislava & Lucenec, Slovakia; Innsbruck, Austria)

**5:30 Kynurenine serum levels for monitoring acute graft-versus-host disease**

Kircher B, Schröcksnadel S, Nachbaur D, Fuchs D (Innsbruck, Austria)

**6:00 Can the spear thrust into the crucified Jesus explain his resurrection?**

Ledochowski M, Fuchs, D (Innsbruck, Austria)

**6:10 Blair-Curtius-Pfleiderer-Wachter AWARD for Pteridine Research 2011**

**Closing Remarks**