Joint Meeting

31st International Winter-Workshop
Clinical, Chemical and 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

www.nanolinen.org

February 26th – March 4th, 2012 in
St. Christoph/Arlberg, Austria

Program
Sunday, February 26th, 2012
7:00 p.m.  Welcome Cocktail at the Chimney-Hall, Arlberg-Hospiz Hotel
            Thereafter, dinner will be served at the BRUDERSCHAFTSSTUBE

Monday, February 27th, 2012  10:15 a.m. - 6:50 p.m.: Scientific Sessions

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-γ-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)
5:45 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 TiO₂ nanoparticles vs. bulk material on human peripheral blood cells and on myelomonocytic cell line THP-1  
Schröcksnadel S, Herlin N, Carriere M, Fuchs D (Innsbruck, Austria; Grenoble & Sarclay, France)
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)

genolinEN – Business Meeting
Karahalil B (Ankara, Turkey)
Wednesday, February 29th, 2012
9:00 a.m. - 1:00 p.m.: Meet the Experts
3:15 p.m. - 6:40 p.m.: Scientific Sessions

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, Ocaña-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**

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 14-3-3γ, tyrosine hydroxylase and the lipid membrane**
   Halskau Ø, Skjevik ÅA, Baumann A, Ying M, Martinez A, Teigen K (Bergen, Norway)
Thursday, March 1st, 2012

9:00 a.m. - 1:00 p.m.: Meet the Experts
3:15 p.m. - 5:35 p.m.: Scientific Sessions
5:45 p.m.: General Assembly of ISP

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)
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**

3:35  **Serum concentrations of neopterin and tryptophan, and survival after thoracic surgery**

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)

4:55 - 5:15  **Coffee Break**

5:15 - 6:35  **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**

5:55  **Serum uric acid during therapy with high-dose folinic acid**
Melichar B, Kalábová H, Hyšpler R, Zezulová M, Procházková H, Holečková 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, Wiesenoher H, Nagl M, Troppmair J, Amann A (Innsbruck & Dornbirn, Austria)
3:15 – 4:40 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**  
Closing remarks