

**32<sup>nd</sup> International  
Winter-Workshop  
Clinical, Chemical and  
Biochemical Aspects of Pteridines**



**Society for Exploitation of Education and Research in  
Immunology and Infectious Diseases, Innsbruck**

**in collaboration with  
The International Society of Pteridinology**

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

[www.pteridines.org](http://www.pteridines.org) – [www.pteridines.sk](http://www.pteridines.sk) - [www.oeglmkc.at](http://www.oeglmkc.at) - [www.neopterin.net](http://www.neopterin.net)

**February 24<sup>th</sup> – March 3<sup>rd</sup>, 2013**

**in**

**St.Christoph/Arlberg, Austria**



MEDIZINISCHE UNIVERSITÄT  
INNSBRUCK

## Sunday, February 24<sup>th</sup>, 2013

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

Thereafter, dinner will be served at the **BRUDERSCHAFTSSTUBE**

## Monday, February 25<sup>th</sup>, 2013

3:15 p.m. - 6:30 p.m.: Scientific Sessions

### 3:15 Introduction

Fuchs D (Innsbruck, Austria)

3:20 – 4:40 Chair: Reibnegger G (Graz, Austria)

### Neuropsychimmunology

#### 3:20 Immune response influences metabolism of aromatic amino acids

Geisler S, Gostner JM, Fuchs D (Innsbruck, Austria)

#### 3:40 Increased IDO activity and neopterin concentrations in euthymic overweight bipolar patients

Reininghaus EZ, Reininghaus B, Bengesser S, Lackner N, Kattnig F, Unterweger R, Kapfhammer HP, McIntyre RS, Zelzer S, Fuchs D, Mangge H (Graz & Innsbruck, Austria; Toronto, Canada)

#### 4:00 Does stress in healthy individuals influence the phenylalanine-tyrosine pathway?

Koudouovoh-Tripp PM, Kandler C, Malik P, Geisler S, Riederer M, Fuchs D, Sperner-Unterweger B (Innsbruck, Austria)

#### 4:20 Dynamic interdependencies between emotional states and urinary zinc concentrations under everyday life conditions

Schubert C, Schmuckermair C, Haberkorn J, Singewald N, Fuchs D (Innsbruck, Austria)

4:40 – 5:10 Coffee Break

5:10 – 6:30 Chair: Reininghaus BE (Graz, Austria)

### Immune System Biomarkers

#### 5:10 A critical comparison of creatinine-based GFR formulae with kinetically measured glomerular filtration rate

Reibnegger G, Zitta S, Estelberger W, Rosenkranz A (Graz, Austria)

#### 5:30 Changes in neopterin levels and kynurenine pathway in bitumen workers

Palabiyik SS, Girgin G, Tutkun E, Yilmaz H, Baydar T (Ankara, Turkey)

#### 5:50 Preoperative serum neopterin concentration and tryptophan degradation pattern in patients with late stage larynx carcinoma

Engin AB, Gunaydin RO, Kesikli SA, Fuchs D, Hosal AS (Ankara, Turkey; Innsbruck, Austria)

#### 6:10 Neopterin: biomarker for chronic lymphocytic leukemia?

Parrak V, Stefanikova Z, Secnik P, Mistrik M, Melichar B, Novak P, Fuchs D (Bratislava & Lucenec, Slovak Republic; Olomouc, Czech Republic; Innsbruck, Austria)

**Tuesday, February 26<sup>th</sup>, 2013**

**9:00 a.m. - 1:00 p.m.: Meet the Experts**

**3:15 p.m. - 6:30 p.m.: Scientific Sessions**

**3:15 – 4:35 Chair:** Werner ER (Innsbruck, Austria)

**Iron Metabolism and Anemia**

**3:15 Iron in the control of innate immune function**

Weiss G (Innsbruck, Austria)

**3:45 The effects of infections caused by gram-negative, extracellular bacteria on the iron metabolism in an HFE deficient mouse model**

Demetz E, Weiss G (Innsbruck, Austria)

**4:05 The role of heme oxygenase-1 in regulating iron homeostasis and innate immune response to *Salmonella* infection**

Mitterstiller AM, Geley S, Nairz M, Weiss G (Innsbruck, Austria)

**4:25 Anaemia and immune activation in patients with angiographic coronary artery disease**

Kurz K, Weiss G, Grammer TB, Kleber ME, Rose DM, Winkelmann BR, Boehm BO, März W, Fuchs D (Innsbruck, Austria; Mannheim, Heidelberg & Ulm, Germany)

**4:45 – 5:10 Coffee Break**

**5:10 – 6:30 Chair:** Fuith LC (Eisenstadt, Austria)

**Pteridine cofactors**

**5:10 Biogenesis and catabolism of molybdopterin-dependent enzymes**

Schwarz G, Csaszar J, Roeper J, Belaidi AA (Cologne, Germany)

**5:30 Physiological roles of alkylglycerols**

Werner ER, Katrin Watschinger K (Innsbruck, Austria)

**5:50 Dependence of alkylglycerol monooxygenase activity on intracellular tetrahydrobiopterin concentrations**

Watschinger K, Crabtree MJ, Keller MA, Hale A, Hermetter A, Golderer G, Werner-Felmayer G, Werner ER, Channon KM (Innsbruck, & Graz, Austria; Oxford, UK)

**6:10 Tetrahydrobiopterin prevents murine isograft from brain death exacerbated ischemia reperfusion injury**

Oberhuber R, Cardini B, Ritschl P, Fabritius C, Hermann M, Obrist P, Werner ER, Maglione M, Pratschke J, Kotsch K (Innsbruck & Zams, Austria)

**Wednesday, February 27<sup>th</sup>, 2013**

**9:00 a.m. - 1:00 p.m.: Meet the Experts**  
**3:15 p.m. - 6:30 p.m.: Scientific Sessions**

**3:15 – 4:45 Chair:** Leblhuber F (Linz, Austria)

**Neurodegeneration In Vitro and In Vivo (II)**

**3:15 Guanosine protects neuronal PC12 cells from serum deprivation-induced cell death**  
Thauerer B, Baeumer BE, Fellner L, Kuzdas D, Ramberger M, Baier-Bitterlich G  
(Innsbruck, Austria)

**3:35 Possible consequences of antioxidants in (alcoholic) beverages**  
Gostner JM, Fuchs D (Innsbruck, Austria)

**3:55 Neopterin, tryptophan breakdown and Phe/Tyr in chronic alcoholism**  
Gleissenthall G, Geisler S, Benicke H, Fuchs D, Mechtcheriakov S (Innsbruck, Austria)

**4:15 Neopterin, tryptophan breakdown and Phe/Tyr in acute alcohol withdrawal**  
Benicke H, Gleissenthall G, Geisler S, Fuchs D, Mechtcheriakov S (Innsbruck, Austria)

**4:35 – 5:00 Coffee Break**

**5:00 – 6:30 Chair:** Haeger M (Gothenburg, Sweden)

**Neurodegeneration In Vitro and In Vivo (II)**

**5:00 Serum tryptophan and phenylalanine metabolism in patients with Alzheimer's disease**  
Leblhuber F, Geisler S, Fuchs D (Linz & Innsbruck, Austria)

**5:20 Influence of catecholamines on the activation-induced tryptophan breakdown and neopterin formation in human PBMC**  
Schoettl Y, Gostner J, Schennach H, Fuchs D (Innsbruck, Austria)

**5:40 Effects of globularifolin on cell survival, inflammation markers and free radical scavenging**  
Sipahi H, Becker K, Gostner J, Charehsaz M, Kirmizibekmez H, Schennach H, Aydin A, Fuchs D (Istanbul, Turkey & Innsbruck, Austria)

**6:00 Immunosuppressive properties of bisphenol A**  
Raggl E, Geisler S, Schennach H, Gostner JM, Fuchs D (Innsbruck, Austria)

**6:20 Neopterin in normal CSF is brain-derived and not associated with blood CSF barrier dysfunction in non-inflammatory psychiatric diseases**  
Kuehne LK, Reiber H, Bechter K, Hagberg L, Fuchs D  
(Innsbruck, Austria; Sao Paulo, Brasil; Gothenburg, Sweden)

**Thursday, February 28<sup>th</sup>, 2013**

**9:00 a.m. - 1:00 p.m.: Meet the Experts**

**3:15 p.m. - 5:40 p.m.: Scientific Sessions**

**5:40 p.m.: General Assembly of ISP**

**3:15 – 4:35 Chair:** Woloszczuk W (Vienna, Austria)

**Analytics**

**3:15 IFN- $\gamma$  ELIspot vs. neopterin ELISA for diagnosis of *M. tuberculosis* infection**  
Geisler S, Nairz M, Weiss G, Fuchs D (Innsbruck, Austria)

**3:35 Pathogen-derived volatile metabolites as breath markers of the microbial lung infections in the mechanically ventilated patients**  
Filipiak W, Sponring A, Beer R, Filipiak A, Ager C, Nagl M, Troppmair J, Amann A (Dornbirn, Innsbruck, Austria)

**3:55 Detection of trimethylamine in haemodialysis patients**  
Ruzsanyi V, Grabowska-Polanowska B, Amann A (Dornbirn & Innsbruck, Austria)

**4:15 LC-MS/MS platforms for endogenous metabolites: lessons learned from testosterone**  
Seger C (Innsbruck, Austria)

**4:35 – 5:00 Coffee Break**

**5:00 – 5:40 Chair:** Melichar B (Olomouc, Czech Republic)

**Laboratory Diagnosis**

**5:00 PSA, neopterin and tryptophan breakdown in patients with cancer of the prostate**  
Murr C, Stenzel B, Klocker H, Culig Z, Fuchs D (Innsbruck, Austria)

**5:20 Neopterin and cholesterol concentrations and blood pressure in repeated voluntary blood donors**  
Mühlbacher A, Mayersbach P, Hörtnagl P, Schennach H (Innsbruck, Austria)

**5:40 Annual General Assembly of the International Society of Pteridinology (ISP)**  
(ISP-members only)

Friday, March 1<sup>st</sup>, 2013

9:00 a.m. - 1:00 p.m.: Meet the Experts  
3:15 p.m. - 6:20 p.m.: Scientific Sessions

3:15 – 4:45 **Chair:** Engin B (Ankara, Turkey)

**Neopterin and IDO, Clinical Studies**

3:15 **Urinary neopterin during neoadjuvant chemotherapy in patients with breast cancer**

Melichar B, Kalábová H, Procházková-Študentová H, Vitásková D, Zezulová M, K. Melicharová, Krčmová L, Solichová D (Olomouc & Hradec Králové, Czech Republic)

3:35 **Neopterin and prognosis of patients with gastrointestinal stromal tumors**

Zezulová M, Kalábová H, Procházková-Študentová H, Krčmová L, K. Melicharová, Solichová D, Melichar B (Olomouc & Hradec Králové, Czech Republic)

3:55 **Influence of sodium sulfite on IDO mediated tryptophan catabolism and chronic allograft vasculopathy**

Mohr E, Sucher R, Oberhuber R, Cardini B, Steger C, Pratschke J, Brandacher G, Fuchs D (Innsbruck, Austria; Baltimore, MD)

4:15 **CTLA4-Ig promotes IDO mediated tolerance to murine cardiac allografts**

Sucher R, Oberhuber R, Zelger B, Werner ER, Schneeberger S, Pratschke J, Fuchs D, Brandacher G (Innsbruck, Austria; Baltimore, MD)

4:35 – 5:00 **Coffee Break**

5:00 – 6:20 **Chair:** Pellegrin K (Cape Pendleton, CA)

**Neopterin and IDO, *In vivo* and *In Vitro***

5:00 **Tryptophan breakdown in patients with HCV infection relates to IL28B polymorphism**  
Jenal A, Zoller H, Schloegl A, Schroecksnadel S, Vogel W, Fuchs D (Innsbruck, Austria)

5:20 **Influence of nitrite on HPLC measurement of tryptophan and kynurenine concentrations in human and murine serum**

Geisler S, Gostner JM, Fuchs D (Innsbruck, Austria)

5:40 **Effects of campherol on *in vitro* models of inflammation**

Becker K, Geisler S, Fuchs JE, Schennach H, Ueberall F, Fuchs D, Gostner JM (Innsbruck, Austria)

6:00 **Lavender oil suppresses indoleamine 2,3 dioxygenase activity in human peripheral blood mononuclear cells**

Gostner JM, Becker K, Geisler S, Schroecksnadel S, Ueberall F, Schennach H, Fuchs D (Innsbruck, Austria)

**Saturday, March 2<sup>nd</sup>, 2013**

**9:00 a.m. - 1:00 p.m.: Meet the Experts**  
**3:15 p.m. – 6:00 p.m.: Scientific Sessions**  
**6:00 p.m.: Blair-Curtius-Pfleiderer-Wachter AWARD**

**3:15 – 4:15 Chair:** Gostner JM (Innsbruck, Austria)

**Inflammation Assays**

**3:15 Stick-test for neopterin measurements**

Von der Lage P; Maier F (Freiburg, Germany)

**3:35 Risk profiles in obese juveniles versus adults - the STYJOBS/EDECTA cohort**

Mangge H, Almer G, Zelzer S, Meinitzer A, Weghuber D, Fuchs D, Prassl R, Reininghaus E, Summers K (Graz & Innsbruck, Austria)

**3:55 Effect of hypocaloric nutrition on inflammation markers and insulin sensitivity**

Berger K, Strasser B, Fuschelberger R (Lans/Innsbruck, Austria)

**4:15 Coffee extracts suppress tryptophan breakdown in mitogen-stimulated peripheral blood mononuclear cells**

Schroecksadel S, Jenny M, Klein A, Kurz K, Ueberall F, Schennach H, Fuchs D (Innsbruck, Austria)

**4:35 – 5:00 Coffee Break**

**5:00 – 6:00 Chair:** Seger C (Innsbruck, Austria)

**Allergy**

**5:00 Histamine intolerance - does it exist? A clinician's view**

Kofler H (Hall, Austria)

**5:20 Antioxidant compounds suppress activity of diaminoxidase (DAO)**

Gostner JM, Becker K, Ueberall F, Fuchs D (Innsbruck, Austria)

**5:40 Preliminary results of serum neopterin levels and tryptophan degradation in food allergy**

Girgin G, Büyüktiryaki B, Saçkesen C, Baydar T (Ankara, Turkey)

**6:00 Blair-Curtius-Pfleiderer-Wachter AWARD for Pteridine Research**

**Closing remarks**