

21st Scientific Symposium of the Austrian Pharmacological Society

16–18 September 2015

GRAZ, Austria



Joint Meeting with the
British Pharmacological Society
and the Pharmacological Societies
of **Croatia, Serbia and Slovenia**

20th Anniversary of APHAR
25th Anniversary of EPHAR



THE FEDERATION OF EUROPEAN
PHARMACOLOGICAL SOCIETIES

www.aphar.at/2015

Medical University and University of Graz



Medical University of Graz

KARL-FRANZENS-UNIVERSITÄT GRAZ
UNIVERSITY OF GRAZ

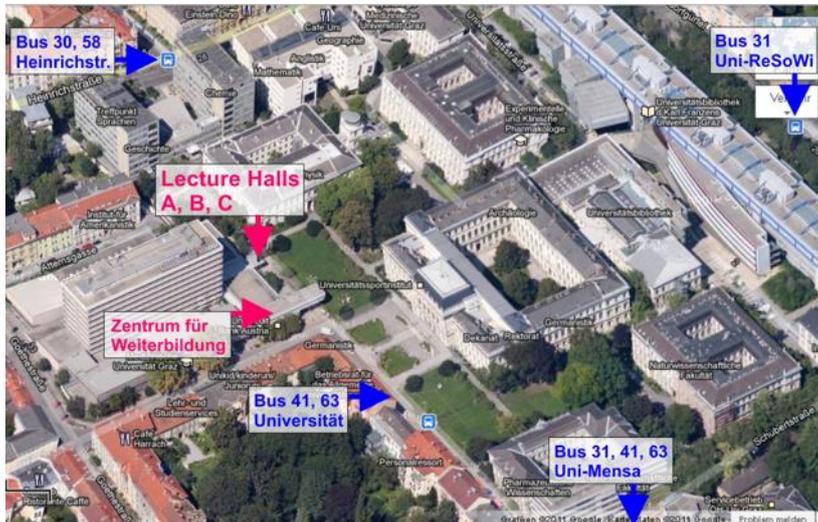


Meeting Programme

General Information

Location:

Lecture Hall A (06.01)
University of Graz
Universitätsplatz 6, Graz



Nearest bus stops:

Universität/Halbärthgasse (Bus 41, 63)
Attemsgasse/Goethestraße (Bus 41, 63)
Mozartgasse/Heinrichstraße (Bus 30, 58)
Uni-Mensa/Sonnenfelsplatz (Bus 31, 41, 63)
Uni-ReSoWi/Geidorfgürtel (Bus 31)

For information on public transport tickets
and travel information see meeting website:
<http://www.aphar.at/2015/travel.html>

Registration:

Please pay your registration fee at the meeting registration desk.

Registration fees:

Member rate¹⁾: 50 €
Non-member-rate: 85 €
Student rate^{*)}: 25 €

¹⁾Members of APHAR, BPS, the pharmacological societies of Croatia, Serbia, Slovenia and Bosnia and Herzegovina, EPHAR officers and delegates to the EPHAR Council.

^{*)}Reduced registration fees for students only upon presentation of the student confirmation form (<http://www.aphar.at/2015/student2015.doc>)

Participation is free of charge for APHAR Honorary members and invited plenary speakers.

CME credits:

The event is registered with the Austrian Medical Chamber
with **27 CME credits** (DFP Diplomfortbildungspunkte) (ID: 529710).

Confirmations will be issued at the registration desk.



Presentations:

All presentations shall be given in **English**.

Short oral communications:

The presentation should be **10 minutes**, followed by a **5 min** discussion.

The lecture room is equipped for presentations with PowerPoint (PC format).

Poster presentations:

Posters shall be mounted on the indicated day prior to the start of the program and should be left on display for the entire day.

Poster dimensions: max. **A0 portrait format** (height: 119 cm; width: 84 cm).

Presenting authors must attend their posters during the designated poster session. **Guided poster tours** will take place during these sessions. Authors should present their work in **3 min** (maximum).

Abstracts:

Abstracts will be published in *Intrinsic Activity*, 2015; 3(Suppl.2):

<http://www.intrinsicactivity.org/2015/3/S2>

(Publications date: 9 September 2015)



Contact:

E-mail for enquiries: office@aphar.at

Wed 16 Sept

8:30– Registration

9:15–9:30 **Opening of the meeting:**
Thomas Griesbacher (Graz)

Oral Communications – Session 1 Chair: Ákos Heinemann (Graz)

- 9:30–9:45 **Adenosine kinase mediates adenosine attenuation of cardiomyocyte microtubule cytoskeletal densification.**
A1.14 [↗](#) *John T. Fassett, Ping Zhang, Graciela Sala-Newby, Christine Hospach, Yingjie Chen and Bernd Mayer (Graz, Minneapolis, Bristol)*
- 9:45–10:00 **Anti-addiction drug ibogaine and the heart: a delicate relation.** *Lena Rubi, Daniel Eckert, Michael Kovar, Vaibhavkumar S. Gawali, Hannes Todt, Stefan Boehm, Walter Sandtner, Xaver Koenig and Karlheinz Hilber (Vienna)*
A1.9 [↗](#)
- 10:00–10:15 **Investigation of the antifibrillatory drug interactions between valsartan and diltiazem in isolated perfused rabbit hearts.**
A1.7 [↗](#) *Abdulrahman Almotrefi and Mohammad S. Alhumayyd (Riyadh)*
- 10:15–10:30 **Cardiac dysfunction in adipose triglyceride-deficient mice: role of the ubiquitin–proteasome system.**
A1.12 [↗](#) *Marion Mussbacher, Heike Stessel, Gerald Wölkart, Guenther Haemmerle, Rudolf Zechner, Bernd Mayer and Astrid Schrammel (Graz)*
- 10:30–10:45 **Doxorubicin nanoparticles conjugated with N-(2-hydroxypropyl)methacrylamide exhibit low cardiotoxicity in rats.**
A1.16 [↗](#) *Marko Vasić, Olivera Šarenac, Maja Losić, Hoay Yan Cheah, Lik Voon Kiew, Lip Yong Chung, Maria J. Vicent, David Murphy and Nina Japundžić-Žigon (Belgrade, Bristol, Kuala Lumpur)*

Coffee Break / Poster

Plenary Lecture Chair: Anna Bucsis (Vienna)

11:15–12:15 **Andrew Brown (Stevenage, UK):**
“Receptors for free fatty acids: emerging therapeutic targets?”

Lunch Break

Poster Session I (see next page)

Oral Communications – Session 2 Chair: Peter Holzer (Graz)

- 13:45–14:00 **Kv7 channels: potential targets for antinociceptive action of paracetamol.**
A2.5 [↗](#) *Sutirtha Ray, Isabella Salzer and Stefan Boehm (Vienna)*
- 14:00–14:15 **New explanations for an old drug: effects of the paracetamol metabolite NAPQI on neurotransmitter transporters.**
X.15 *Derya Erdem, Jürgen Alphonsus, Peter Hasenhuettl, Tina Hofmaier, Marion Holy, Anton Luf, Rainer Schmid, Walter Sandtner, Harald H. Sitte and Oliver Kudlacek (Vienna)*
- 14:15–14:30 **Role of the central kappa opioid system in modulation of salt appetite through central and basolateral amygdala.**
A2.25 [↗](#) *Olivera Šarenac, Nina Japundžić-Žigon and David Murphy (Bristol, Belgrade, Kuala Lumpur)*
- 14:30–14:45 **A pharmacological and computational study on seawarine, a naturally derived alkaloid, as a new ligand interacting with the kappa opioid receptor.**
A7.2 [↗](#) *Aquilino Lantero, Michael Mairegger, Muhammad F. Asim, Elena Guerrieri and Mariana Spetea (Innsbruck)*
- 14:45–15:00 **The G protein-biased kappa opioid receptor agonist 6'-GNTI blocks hippocampal paroxysmal discharges without inducing aversion.**
A2.14 [↗](#) *Luca Zangrandi, Johannes Burtscher and Christoph Schwarzer (Innsbruck)*

Coffee Break / Poster

Oral Communications – Session 3 Chair: Reiner Fischer-Cobrie (Innsbruck)

- 15:30–15:45 **Transient receptor potential ankyrin 1 channels participate in somatic pain hypersensitivity in experimental colitis.**
A2.4 [↗](#) *Piyush Jain, Romina Nassini, Serena Materazzi, Duccio Rossi Degl'Innocenti, Francesco De Logu, Camilla Fusi, Ahmed M. Hassan, Raphaela Mayerhofer, Florian Reichmann, Pierangelo Geppetti and Peter Holzer (Florence, Graz)*
- 15:45–16:00 **Monoglyceride lipase deficiency causes desensitization of intestinal cannabinoid receptors and increased colonic opioid sensitivity.**
X.14 *Ulrike Taschler, Thomas O. Eichmann, Franz P. W. Radner, Gernot F. Grabner, Heimo Wolinski, Martin Storr, Achim Lass, Gunther Marsche, Ákos Heinemann, Rudolf Schicho and Robert Zimmermann (Graz, Munich)*
- 16:00–16:15 **Role of TRPV1, substance P and NK1 receptor genes in the botulinum toxin type A antinociceptive action in mice.**
X.4 *Ivica Mataš, Valeria Tekus, Zdravko Lacković and Zsuzsanna Helyes (Zagreb, Pécs)*
- 16:15–16:30 **Oxidative phosphorylation in the healthy and in the epileptic mouse brain.**
A2.13 [↗](#) *Johannes Burtscher, Luca Zangrandi, Erich Gnaiger and Christoph Schwarzer (Innsbruck)*

Break

Otto Loewi Memorial Lecture: Chairs: Josef Smolle, Peter Scherrer, Ákos Heinemann (Graz)

17:00–18:30 **Francesca Levi-Shaffer (Jerusalem, Israel):**
“The mast cells, the eosinophils and the allergic effector unit: the best pharmacological target for allergy”
Open to the public

Organised by the Medical University of Graz and
the David Herzog Fonds of the universities of Styria



Medizinische Universität Graz

19:30 **Reception by the Mayor of the City of Graz:**
(free for registered participants and guests of the Otto Loewi Memorial Lecture)
See page 8 for detailed information

Wed 16 Sept

12:15–13:45 **Poster Session I**

Group I/1: Chair: Marko Stojanović (Belgrade)

- A1.3** (board 1) **Receptor characterization of serotonin and bradykinin actions on isolated rat peripheral arteries.**
Marko Stojanović, Miroslav Radenković, Nebojša Skorupan and Milica Prostran (Belgrade)
- A1.4** (board 2) **Effect of the potassium channel opener pinacidil on isolated human internal mammary artery grafts from patients with type-2 diabetes mellitus.** *Jovana Rajković, Miodrag Perić, Radmila B. Novaković, Duško Nežić, Vladimir Đokić, Vladimir Živanović, Helmut Heinle and Ljiljana C. Gojković-Bukarica (Belgrade, Tübingen)*
- A1.5** (board 3) **Effects of wine polyphenol resveratrol on the renal artery of diabetic rats.**
Vladimir Đokić, Radmila B. Novaković, Jovana Rajković, Vladimir Živanović, Božena Dimitrijević, Helmut Heinle and Ljiljana C. Gojković-Bukarica (Belgrade, Tübingen)
- A1.8** (board 4) **Regional heterogeneity of vascular dysfunction in db/db mice.**
Nada A. Sallam and Ismail Laher (Cairo, Vancouver)
- A1.20** (board 5) **Chloroquine protects injured rat kidney in an experimental model of ischemia–reperfusion (I/R) injury.**
Branislava Medić, Zoran Todorović, Danijela Krstić, Katarina Savić Vujović, Gordana Basta Jovanović, Sanja Radojević Škodrić and Milica Prostran (Belgrad)
- A4.3** (board 6) **The relaxation of myometrium by the natural polyphenols resveratrol and naringenin.**
Radmila B. Novaković, Jovana Rajković, Sanja Čirović, Jasmina Marković-Lipkovski, Nebojša V. Radunović, Vladimir Đokić, Helmut Heinle, Vladimir Živanović and Ljiljana C. Gojković-Bukarica (Belgrade, Tübingen)
- A1.22** (board 7) **Effects of a water extract of *Ocimum basilicum* on glycemia in normoglycemic and alloxan-induced diabetic rats.**
Branislava Rakić, Svetlana Goločorbin Kon, Nevena Grujić Letić, Aleksandar L. Rašković, Nebojša Stilinović and Momir M. Mikov (Novi Sad)
- A7.4** (board 8) **Oxyresveratrol as a promising drug candidate for metabolic diseases: a pharmacoinformatics study.**
Marija Jelić, Nebojša Pavlović, Nikola Jojić, Karmen Stankov, Bojan Stanimirov, Maja Đanić, Momir M. Mikov (Sremska Kamenica, Novi Sad)

Group I/2: Chair: Jure Levstik (Ljubljana)

- A6.2** (board 9) **LC-MS analysis of phenolic compounds and antioxidant activity of dietary supplement formulations based on edible mushrooms.**
Nebojša Stilinović, Saša Vukmirović, Aleksandar L. Rašković, Nebojša Pavlović, Borislav Dolamić and Velibor Vasović (Novi Sad, Sremska Mitrovica)
- A6.3** (board 10) **Transcriptomic effects of ursodeoxycholic acid treatment on adriamycin-induced oxidative liver injury.**
Bojan Stanimirov, Karmen Stankov, Nebojša Pavlović, Maja Đanić, Vesna Kojić, Iva Salatić and Momir M. Mikov (Novi Sad)
- A6.4** (board 11) **Hyperbaric oxygen protects neurotrophic activity of carbon monoxide-exposed astrocytes.**
Jure Levstik, Miran Brvar, Žarko FINDERLE, Dušan Šuput and Damijana M. Jurič (Ljubljana)
- A6.5** (board 12) **Influence of apigenin on the biochemical serum parameters and histological changes of liver tissue in rats exposed to oxidative stress.** *Slobodan Gigaov, Aleksandar L. Rašković, Nikola Martić, Boris Ž. Milijašević, Ivan Čapo and Momir M. Mikov (Novi Sad)*
- A6.7** (board 13) **Evaluation of fluoride concentration in tapped, bottled and filtered water available in Croatia.**
Ivana Šutej, Krešimir Bašić, Kristina Peroš, Kata Rošin-Grget (Zagreb)
- A6.8** (board 14) **Fluoride content of bottled waters commercially available in Zagreb, Croatia.**
Krešimir Bašić, Ivana Šutej, Kristina Peroš, Kata Rošin-Grget (Zagreb)
- A7.14** (board 15) **Development of flow methods for the determination of *N*-acetyl-L-cysteine in pharmaceutical formulations.**
Lea Kukoč-Modun, Maja Biočić, Tomislav Kraljević and Njegomir Radić (Split, Mostar)

Group I/3: Chair: Bojana Savić (Belgrade)

- A1.18** (board 16) **Neurocardiogenic remodelling in normotensive and spontaneously hypertensive pregnant rats.**
Mirjana Jovanović, Tatjana Tasić, Maja Lozić, Alexander Trbovich, David Murphy and Nina Japundžić-Žigon (Belgrade, Bristol, Kuala Lumpur)
- A1.15** (board 17) **Effects of risk-factor clustering on baroreflex sensitivity and blood pressure variability in borderline hypertensive rats.**
Bojana Savić, Olivera Šarenac, David Murphy and Nina Japundžić-Žigon (Belgrade, Britsol, Kuala Lumpur)
- A1.21** (board 18) **Over-expression of V_{1A} receptors in the hypothalamic paraventricular nucleus induces baroreflex desensitization and increases cardiovascular variability during stress.** *Maja Lozić, Tatjana Tasić, Andrew Martin, Michael Greenwood, Olivera Šarenac, Charles Hindmarch, Julian F. Paton, David Murphy and Nina Japundžić-Žigon (Belgrade, Britsol, Kuala Lumpur)*
- A1.2** (board 19) **Hemodynamic effects of free fatty acids.**
Safoura Sheikh Rezaei, Brigitte Litschauer, Ghazaleh Gouya, Thomas Stulnig and Michael Wolzt (Vienna)
- A1.11** (board 20) **Effect of plasma from high and low serum unconjugated bilirubin individuals on cholesterol efflux.**
Donqdonq Wang, Anela Tosevska, Limei Wang, Karl-Heinz Wagner, Verena M. Dirsch and Atanas G. Atanasov (Vienna, Chengdu)
- A7.5** (board 21) **The role of bile acids in drug penetration through biological membranes.**
Maja Đanić, Nebojša Pavlović, Bojan Stanimirov, Svetlana Goločorbin Kon and Momir M. Mikov (Novi Sad)
- A7.6** (board 22) **The role of bile acid derivatives in transport of drugs through biological membranes.**
Jovana Trifunović, Saša Vukmirović, Svetlana Goločorbin Kon and Momir M. Mikov (Novi Sad)

Thu 17 Sept

Oral Communications – Session 4 Chair: Harald H. Sitte (Vienna)

- 8:00–8:15**
[A2.3](#) ☞ **Mechanism of low-efficacy substrate efflux at the human serotonin transporter.**
Shreyas Bhat, Peter S. Hasenhuettl, Walter Sandtner and Michael Freissmuth (Vienna)
- 8:15–8:30**
[A2.16](#) ☞ **The impact of phosphatidylinositol-4,5-bisphosphate (PIP₂) on serotonin transport function.**
Tina Hofmaier, Oliver Kudlacek, Isabella Salzer, Thomas Stockner, Stefan Boehm and Harald H. Sitte (Vienna)
- 8:30–8:45**
[A2.20](#) ☞ **Kinetic interrogation of substrate binding and transport in the serotonin transporter.**
Peter S. Hasenhuettl, Klaus Schicker, Harald H. Sitte, Michael Freissmuth and Walter Sandtner (Vienna)
- 8:45–9:00**
[A2.1](#) ☞ **Unnatural amino acids as a novel tool to study the folding of the serotonin transporter.**
Carina Kern, Ali El-Kasaby, Thomas Stockner, Michael Freissmuth and Sonja Sucic (Vienna)
- 9:00–9:15**
X.1 **A step towards understanding the energetics of monoamine transporters: lessons learned from a bacterial leucine transporter.**
Kumaresan Jayaraman, Azmat Sohail, Walter Sandtner, Harald H. Sitte and Thomas Stockner (Vienna)
- 9:15–9:30**
[A2.15](#) ☞ **Monitoring the movement of helix 1a of LeuT_{Ad} in micelles versus liposome system by using luminescence resonance energy transfer (LRET).** *Azmat Sohail, Kumaresan Jayaraman, Peggy Stolt-Bergner, Gerhard F. Ecker, Michael Freissmuth, Thomas Stockner, Walter Sandtner and Harald H. Sitte (Vienna)*

Coffee Break / Poster

Oral Communications – Session 5 Chairs: Mojca Kržan (Ljubljana) & Stefan Böhm (Vienna)

- 10:00–10:15**
[A2.21](#) ☞ **Phosphorylation of Kv7.2 regulates its PIP₂ sensitivity.** *Fatma A. Erdem, Isabella Salzer, Wei-Qiang Chen, Seok Heo, Helmut Kubista, Mark S. Shapiro, Gert Lubec, Stefan Boehm and Jae-Won Yang (Vienna, San Antonio)*
- 10:15–10:30**
X.3 **Autism spectrum disorder-related Cav1.3 mutations alter channel function in a splice-variant-dependent manner.**
Alexandra Pinqera, Giulia Negro, Andreas Lieb, Bruno Benedetti, Michaela Lampert, Stefania Monteleone, Klaus R. Liedl, Petronel Tuluc and Jörg Striessnig (Innsbruck)
- 10:30–10:45**
[A2.17](#) ☞ **Functional and physical interactions between P2Y receptors and ion channels.**
Hend Gafar, Manuel Domínguez Rodríguez, Giri K. Chandaka, Klaus Schicker and Stefan Boehm (Vienna)
- 10:45–11:00**
[A7.3](#) ☞ **Deuteration changes the binding of some histaminergic agonists to the histamine H₂ receptor in astrocytes.**
Mojca Kržan and Janez Mavri (Ljubljana)

Plenary Lecture (Jubilee Lecture)

- 11:00–12:00** **Norbert Bischofberger (Gilead Sciences, USA):**
“Antiviral drug discovery and development: combating the global threat of HIV, HCV and Ebola virus”

Lunch Break

Poster Session II (see next page)

Oral Communications – Session 6 Chair: Josef Donnerer (Graz)

- 13:30–13:45**
[A5.4](#) ☞ **Effects of titanium dioxide nanoparticles on growth of malignant melanoma cells.**
Bogdan Zdravković, Tanja Prunk, Mojca Lunder and Polonca Ferik (Maribor, Ljubljana)
- 13:45–14:00**
[A5.6](#) ☞ **Stage-dependent interleukin-6 component in statin-induced apoptosis of metastatic melanoma cells unmasked by tocilizumab.**
Martin Hohenegger, Christoph Minichsdorfer, Christine Wasinger, Bihter Atil and Evelyn Sieczkowski (Vienna)
- 14:00–14:15**
[A5.7](#) ☞ **Characterization of STAT5 serine phosphorylation as a drug target in BCR-ABL1⁺ leukemia.** *Angelika Berger, Andrea Hoelbl-Kovacic, Lukas Höfling, Gregor Hörmann, Stefan Kubicek, Richard Morigg, Fabrice Gouilleux and Veronika Sexl (Vienna, Tours)*
- 14:15–14:30**
[A5.8](#) ☞ **CDK4 and CDK6 cooperate in counteracting the INK4 family of inhibitors during murine leukemogenesis.** *Florian Bellutti, Michaela Prchal-Murphy, Esther Rodríguez-Diez, Victor Quereda, Marcos Malumbres and Veronika Sexl (Vienna, Madrid)*
- 14:30–14:45**
X.9 **The role of the atypical cannabinoid receptor GPR55 in colon carcinogenesis.** *Carina Hasenoehrl, David Feuersinger, Johannes Haybaeck, Rufina Schuligoi, Martin Gauster, Eva Sturm and Rudolf Schicho (Graz)*

Coffee Break / Poster

Oral Communications – Session 7 Chairs: Francesca Levi-Shaffer (Jerusalem) & Mauro Perretti (London)

- 15:15–15:30**
X.10 **LPS-induced expression of the novel inflammatory response factor strawberry notch homolog 2 co-localizes with pY-STAT3 in the central nervous system.** *Magdalena Grill, Taylor E. Syme, Ákos Heinemann and Iain L. Campbell (Graz, Sydney)*
- 15:30–15:45**
X.8 **PGE₂ released by alveolar epithelial cells protects the pulmonary endothelial barrier integrity.**
Thomas Bärnthaler, Jovanna Marić, Viktória Kónya, Wolfgang Platzer, Ilse Lanz, Rufina Schuligoi and Ákos Heinemann (Graz)
- 15:45–16:00**
X.6 **Inhibition of eosinophil infiltration contributes to the improvement of TNBS colitis by the DP₂ antagonist OC000459.**
Balázs Radnai, Eva M. Sturm, Angela Stančić, Katharina Jandl, Magdalena Grill, Christoph Högenauer, Gregor Gorkiewicz, Ákos Heinemann and Rudolf Schicho (Graz)

Plenary Lecture

- 16:00–17:00** **Mauro Perretti (London, UK):**
“Resolution Pharmacology: therapeutic innovation in inflammation”

17:00–18:00
(parallel session)
[room SR 07.11](#) **Speed-Dating for Careers in Science**
Organised by the BPS Young Pharmacologists for PhD Students and early career scientists

17:00–18:30
(parallel session)
[room HS 06.01](#)
(meeting venue) **General Assembly of APHAR**
(Regular members of APHAR; representatives of associated members)

19:30 **APHAR & EPHAR Jubilee Dinner: Celebrating 20 years of the Austrian Pharmacological Society and 25 years of the Federation of European Pharmacological Societies (registered participants and extra tickets). See page 8 for detailed information**

Thu 17 Sept

12:00–13:30

Poster Session II

Group II/1: Chair: Janko Samardžić (Belgrade)

- A2.7** ☞
(board 1) **The role of hydrogen sulfide in the autonomic nervous system.**
Manuel Domínguez Rodríguez, Isabella Salzer, Helmut Drobny, Giri Chandaka and Stefan Boehm (Vienna)
- A2.8** ☞
(board 2) **Mechanisms underlying the excitation of rat sensory neurons via metabotropic 5-HT receptors.**
Enkhbileg Gantumur, Arsalan Yousuf, Isabella Salzer and Stefan Boehm (Vienna)
- A2.9** ☞
(board 3) **In vitro effects of ethanol and gabapentin treatment.**
Janko Samardžić, Marina Morić, Marina Malešević and Dubravka Švob Štrac (Belgrade, Zagreb)
- A3.1** ☞
(board 4) **Neutrophil effector responses are fully suppressed by secretory phospholipase A₂-modified HDL.**
Sanja Čurčić, Michael Holzer, Robert Frei, Lisa Pasterk, Ákos Heinemann and Gunther Marsche (Graz)
- A3.3** ☞
(board 5) **Transmembrane proteins of *Fasciola hepatica*: identification and characterization of new putative drug targets.**
Bulut Hamali, Sandra Pichler, Katrin Jantsch, Nina Hofer, Elisabeth Wischnitzki, Maria Berenyi, Joachim Lipp, Oliver Kudlacek and Silvia Fluch (Vienna)
- A4.1** ☞
(board 6) **Investigation of European medicinal plants to influence small intestinal motility *in vitro*.**
Blaž Praper, Rudolf Bauer and Ulrike Holzer-Petsche (Graz)
- A4.2** ☞
(board 7) **Effects of Ca²⁺-activated K⁺ channel modulators on the contractility of the rat gastric fundus.**
Valeria Ipavec and Diego Currò (Rome)
- A7.7** ☞
(board 8) **A method for quantification of echinocandins in body fluids.**
René Welte and Romuald Bellmann (Innsbruck)

Group II/2 Chair: Florian Reichmann (Graz)

- A2.6** ☞
(board 9) **Neuropeptide Y knockout alters behavioural effects of environmental enrichment.**
Florian Reichmann, Ahmed M. Hassan, Herbert Herzog and Peter Holzer (Graz, Sydney)
- A2.10** ☞
(board 10) **Efficacy of the morphine–ketamine–magnesium sulphate combination in the tail-immersion test in rats.**
Katarina Savić Vujović, Sonja Vučković, Aleksandar Vujović, Branislava Medić, Dragana Srebro, Radan Stojanović, Nevena Divac and Milica Prostran (Belgrade)
- A2.19** ☞
(board 11) **The effect of magnesium sulfate in carrageenan-induced inflammatory pain in rats.**
Dragana Srebro, Sonja Vučković, Radan Stojanović, Katarina Savić Vujović, Nevena Divac, Branislava Medić and Milica Prostran (Belgrade)
- A2.26** ☞
(board 12) **Ethyl-acetate extract of *Artemisia herba-alba* decreases locomotor activity and exhibits muscle-relaxant properties in rats.**
Obrad Đurić, Maja Lozić, Jelica Novaković, Milan Gavrilović, Abdulhimid A. Giweli, Petar D. Marin, Zora Dajić Stevanović, Peđa Janačković and Silvio de Luka (Belgrade, Zintan)
- A2.2** ☞
(board 13) **Exocyst-dependent trafficking of the wild-type dopamine transporter (DAT) and folding-deficient DAT mutants.**
Hafiz M. M. Asjad, Ali El-Kasaby, Sonja Sucic and Michael Freissmuth (Vienna)
- A2.18** ☞
(board 14) **“Second generation” mephedrone analogs, 4-MEC and 4-MePPP, differentially affect monoamine transporter function.**
Kusumika Saha, John S. Partilla, Kurt R. Lehner, Amir Seddik, Thomas Stockner, Marion Holy, Walter Sandtner, Gerhard F. Ecker, Harald H. Sitte and Michael H. Baumann (Vienna, Baltimore)
- A2.24** ☞
(board 15) **Quercetin uptake into neonatal rat astrocytes.**
Lovro Žiberna, Stefano Fornasaro, Zala Guček, Lucija Novak, Sabina Passamonti and Mojca Kržan (Ljubljana, Trieste)

Group II/3 Chair: Thomas Stockner (Vienna)

- X.2**
(board 16) **Psychoactive metabolites explain the sustained mephedrone action.**
Felix P. Mayer, John S. Partilla, Laurin Wimmer, Amir Seddik, Nadine Burchardt, Gerhard F. Ecker, Michael H. Baumann, Marko D. Mihovilovic and Harald H. Sitte (Vienna, Baltimore)
- X.21**
(board 17) **How to rescue a sleepless fly: pharmacochaperoning by noribogaine restores *Drosophila* sleep activity.**
Ameya Kasture, Sonja Sucic, Ali El-Kasaby, Thomas Hummel and Michael Freissmuth (Vienna)
- X.16**
(board 18) **Characterization of intermediate steps during substrate translocation in the aspartate transporter GltPh.**
SanthoshKannan Venkatesan, Kusumika Saha, Azmat Sohail, Walter Sandtner, Gerhard F. Ecker, Michael Freissmuth, Harald H. Sitte and Thomas Stockner et al. (Vienna)
- X.17**
(board 19) **Characterizing the intracellular interaction network of the human dopamine transporter.**
Alexander Morley, Jelena Gotovina, Felix P. Mayer, Harald H. Sitte and Thomas Stockner (Vienna)
- X.19**
(board 20) **The conformation of the transmembrane helix 1A in the leucine transporter (LeuT) is modulated by the environment.**
Kumaresan Jayaraman, Azmat Sohail, SanthoshKannan Venkatesan, Walter Sandtner, Harald H. Sitte and Thomas Stockner (Vienna)
- X.12**
(board 21) **Nature-derived circular plant peptides: orally active immunosuppressive therapeutics.**
Kathrin Thell, Roland Hellinger, Emine Sahin, Gernot Schabbauer, Thomas Haider, Carsten Gründemann and Christian W. Gruber (Vienna, Freiburg)
- X.13**
(board 22) **Target identification of immunosuppressive circular peptides.**
Roland Hellinger, Kathrin Thell, Gernot Schabbauer and Christian W. Gruber (Vienna)
- X.20**
(board 23) **Cannabinoid CB₂ receptor augments human eosinophil responsiveness via Gα_q/MEK/ROCK signaling.**
Robert B. Frei, Miriam Peinhaupt, Gerald P. Parzmair, Silke Schranz, Ákos Heinemann and Eva M. Sturm (Graz)

Fri 18 Sept

Oral Communications – Session 8 Chair: Bernd Jilma (Vienna)

- 8:00–8:15**
X.11 **Effect of artificial tears on tear film thickness in patients with moderate dry eye syndrome.** *Klemens Fondi, Doreen Schmid, Leopold Schmetterer, Katarzyna J. Witkowska, Carina Baar, René M. Werkmeister and Gerhard Garhöfer (Vienna)*
- 8:15–8:30**
A2.27 **Effects of testosterone treatment on hypothalamic microstructure in female-to-male transsexuals.** *Georg S. Kranz, Andreas Hahn, Ulrike Kaufmann, Martin Küblböck, Roland Sladky, Sebastian Ganger, René Seiger, Siegfried Kasper, Christian Windischberger and Rupert Lanzenberger (Vienna)*
- 8:30–8:45**
A2.28 **Changes in progesterone levels correlate with changes in subcortical brain structures in male-to-female transgender subjects after acute high-dose cross-sex hormone administration.** *René Seiger, Andreas Hahn, Allan Hummer, Georg S. Kranz, Sebastian Ganger, Michael Woletz, Christoph Kraus, Ronald Sladky, Siegfried Kasper, Christian Windischberger and Rupert Lanzenberger (Vienna)*
- 8:45–9:00**
A6.1 **Non-linear dose-dependent distribution of tariquidar to the human liver measured with PET.** *Beatrix Wulkersdorfer, Martin Bauer, Markus Zeitlinger, Maria Weber, Cécile Philippe, Johann Stanek, Sabine Strommer, Wolfgang Wadsak, Markus Müller and Oliver Langer (Vienna, Seibersdorf)*
- 9:00–9:15**
X.18 **Outcome prediction of epilepsy surgery based on 10-min PET acquisition: pooled analysis of two European centres.** *Martin Bauer, Maria Feldmann, Rudolf Karch, Wolfgang Wadsak, Markus Zeitlinger, Markus Müller, Ekaterina Patarai, Marie-Claude Asselin, Matthias J. Koepf and Oliver Langer (Vienna, Manchester, London)*

Coffee Break / Posters

Oral Communications – Session 9 Chairs: Brigitte Blöchl-Daum (Vienna) & Darko Modun (Split)

- 9:45–10:00**
A1.1 **Potent irreversible P2Y₁₂ inhibition does not reduce LPS-induced coagulation activation in a randomized, double-blind, placebo-controlled trial.** *Christian Schörghofer, Michael Schwameis, Eva-Luise Hobl, Cihan Ay, Nigel Key, Ulla Derhaschnig, Bernd Jilma and Alexander Spiel (Vienna, Chapel Hill)*
- 10:00–10:15**
X.7 **Morphine decreases ticagrelor concentrations but not its effects: a randomized, double-blind, placebo-controlled trial in healthy volunteers.** *Eva-Luise Hobl, Birgit Reiter, Christian Schörghofer, Michael Schwameis, Ulla Derhaschnig, Thomas Stimpfl and Bernd Jilma (Vienna)*
- 10:15–10:30**
A3.2 **Safety, pharmacokinetics, pharmacodynamics and immunogenicity of a new anti-TNF α monoclonal antibody (GSK2800528).** *Iain McSherry, Malcolm Boyce, Stefano Zamuner, Tarjinder Sahota, Gareth Lewis, Bettina Cortezi, Katherine Davy, Mary Birchler, Juliet Reid, Patty Wolf, Bams Abila and Carol Routledge (London, Milton Keynes, Slough)*

Plenary Lecture

- 10:30–11:30** **Simon Day (London, UK):**
“What constitutes ‘adequate evidence’? — from orphans to mega-trials”

Lunch Break

Poster Session III (see next page)

Plenary Lecture Chairs: Ljiljana Gojković-Bukarica (Belgrade) & Gunther Marsche (Graz)

- 13:00–14:00** **Valery Bochkov (Vienna, Austria):**
“New targets in cellular stress and inflammation: hints from lipid oxidation products”

Oral Communications – Session 10

- 14:00–14:15**
A1.6 **Resveratrol wine polyphenol relaxes rat renal artery in diabetic rats: the role of smooth muscle voltage-sensitive potassium channels.** *Ljiljana C. Gojković-Bukarica, Jasmina Marković-Lipkovski, Radmila B. Novaković, Sanja Ćirović, Jovana Rajković, Vladimir Đokić, Danilo Obradović and Helmut Heinle (Belgrade, Tübingen)*
- 14:15–14:30**
A1.13 **Role of aldehyde dehydrogenase 2-catalyzed nitric oxide formation in nitroglycerin-induced vasorelaxation.** *Marissa Opelt, Michael Russwurm, Doris Koelsing, Astrid Schrammel, John T. Fassett and Bernd Mayer (Graz, Bochum)*
- 14:30–14:45**
A1.10 **Privileged ER Ca²⁺ refilling in vascular endothelial cells: evidence for a role of the Na⁺ / Ca²⁺ exchanger (NCX).** *Cristiana M. L. Di Giuro, Klaus Groschner, Michaela Lichtenegger, Roland Malli, Brigitte Pelzmann, Niroj Shrestha, Cornelis van Breemen and Nicola Fameli (Graz, Vancouver)*

Short Break

APHAR and EPHAR Research Awards Chairs: Thomas Griesbacher (Graz) & Filippo Drago (Catania)

- 15:00–16:00**
- APHAR Hans Horst Meyer Award:** *The Hans Horst Meyer Award is sponsored by* 
Andreas Lieb (Innsbruck): CACNA1D de novo mutations in autism spectrum disorders activate Cav1.3 L-type calcium channels
- APHAR Heribert Konzett Award:** *The Heribert Konzett award is sponsored by* 
Eva Sturm (Graz): Lipid mediators in eosinophilic disorders
- EPHAR Young Investigators Awards:** *The EPHAR Young Investigator Awards are made possible by donation from the British Pharmacological Society* 
Tamás Szél (Szeged): Abnormal repolarization as the basis for late potentials and fractionated electrograms recorded from epicardium in experimental models of Brugada syndrome
Georg Kranz (Vienna): High-dose testosterone treatment increases serotonin transporter binding in transgender people

- 16:00–18:00**
(parallel session)
room HS 06.01
(meeting venue) **Workshop “How to Write Great Papers”:**
Jaap van Harten (Elsevier, Netherlands)
(free for registered participants of the meeting)

- 16:00–18:00**
(parallel session)
room HS 06.02 **EPHAR Council Meeting** (Delegates nominated by EPHAR member societies; EPHAR Executive Committee; invited guests)

- 19:30** **EPHAR Executive Dinner:** (invited guests and extra tickets) See page 8 for detailed information

Fri 18 Sept

11:30–13:00 **Poster Session III**

Group III/1: Chair: Aleksandar L. Rašković (Belgrade)

- A5.1** ☞
(board 1) **The influence of detoxification agents on the intensity of side effects caused by medium-high doses of methotrexate in children with acute lymphoblastic leukemia: case.** *Aleksandar L. Rašković, Jovana S. Šumar, Jovanka L. Kolarović, Nada V. Konstantinidis, Boris Ž. Milijašević, Momir M. Mikov and Ana J. Sabo (Novi Sad)*
- A5.2** ☞
(board 2) **The role of EGFR mutations in lung cancer: molecular basis of targeted therapy.**
Vanesa Stepanov, Karmen Stankov, Momir M. Mikov, Milana Panjković, Živka Eri and Branislav Perin (Sremska Kamenica, Novi Sad)
- A5.3** ☞
(board 3) **The influence of pretreatment with antioxidants on cytotoxicity of the epigenetic agent vorinostat towards HT-29 colon cancer cells.** *Nebojša Pavlović, Karmen Stankov, Bojan Stanimirov, Maja Đanić, Vesna Kojić, Gordana Bogdanović and Momir M. Mikov (Novi Sad, Sremska Kamenica)*
- A5.5** ☞
(board 4) **The influence of N-acetylcysteine on the cytotoxicity of single-walled carbon nanotubes in human lung carcinoma cells.**
Nikola Jojić, Vesna Kojić, Danijela Kojić, Karmen Stankov and Gordana Bogdanović (Novi Sad, Sremska Kamenica)
- A9.1** ☞
(board 5) **Interprofessional pharmacology workshop: intervention to close the gap between physicians' and pharmacists' attitudes toward their mutual collaboration.**
Darko Modun, Ana Šešelja Perišin and Arijana Meštrović (Split)
- A9.2** ☞
(board 6) **Interprofessional students' pharmacology workshop: intervention to improve health profession students' attitudes toward physician–pharmacist collaboration.**
Ana Šešelja Perišin, Arijana Meštrović, Jelena Kačić, Joško Božić and Darko Modun (Split)
- A9.3** ☞
(board 7) **Innovative education and training: a major step forward for Europe through the imi-train initiative.**
Christa Janko, Mike Hardman, Ingrid Klingmann, Nico P. E. Vermeulen, Annie Fourier-Réglat and Michael Wolzt (Vienna, Macclesfield, Amsterdam, Bordeaux)
- A9.4** ☞
(board 8) **on-course®: a major upgrade of this course catalogue enhances its service to the biomedical community.**
Christa Janko, Antony Payton, Rebecca Ludwig, Pavel Dallakian, Mike Hardman and Michael Wolzt (Vienna, Manchester, Braunschweig, Macclesfield)

Group III/2 Chair: Sanja Ćurčić (Graz)

- A1.17** ☞
(board 9) **Ets-2, a possible marker of early instability in coronary artery bypass grafting patients: modulation by drugs.**
Úrsula Medina, Marta Ramajo, Mónica García Bouza, Fernando Reguillo, Manuel Carnero and Teresa Tejerina (Madrid)
- A1.19** ☞
(board 10) **Rice bran enzymatic extract reduces hyperlipidemia and related hepatic steatosis in ApoE^{-/-} mice.**
Cristina Pérez Ternero, María D. Herrera and María Álvarez de Sotomayor (Sevilla)
- A2.11** ☞
(board 11) **The Pro-Gly-containing dipeptidic cognitive enhancer noopept increases the DNA-binding activity of HIF-1.**
Sergey Seredenin, Julia Vakhitova, Rita Ostrovskaya and Tatyana Gudasheva (Moscow, Ufa)
- A2.12** ☞
(board 12) **Effects of hemantane on the activity of proline-specific endopeptidases in plasma of rats with experimental Parkinson's disease.**
Elena Valdman, Elena Ivanova, Nikolay Zolotov, Inga Kapitsa and Tatyana Voronina (Moscow)
- A2.22** ☞
(board 13) **Analgesic action of *Androctonus crassicauda* venom: evidence for new analgesic peptides.**
Süleyman Aydın, Ayça Çakmak and Figen Çalıřkan (Eskişehir, Kayseri)
- A2.23** ☞
(board 14) **Gender-specific analgesic action of thymol.**
Ayça Çakmak and Süleyman Aydın (Kayseri, Eskişehir)
- A6.6** ☞
(board 15) **Forensic significance of determination of the alcohol elimination rate through analysis of blood samples at two times.**
Mensura Aščerić, Sijetlana Loga-Zec and Maida Halilbašić (Tuzla, Sarajevo)

Group III/3 Chair: Georg Wietzorrek (Innsbruck)

- A3.4** ☞
(board 16) **Human bile reduces antimicrobial activity of selected antibiotics against *Escherichia coli* and *Enterococcus faecalis* in vitro.**
David Jaros, Beatrix Wulkersdorfer, Richard Schwameis and Markus Zeitlinger (Vienna)
- A8.1** ☞
(board 17) **Treatment of respiratory tract infections in primary practice: common mistakes in Health Centre Novi Sad.**
Šaša Vukmirović, Ana J. Sabo, Zdenko S. Tomić, Olga J. Horvat, Zoran Bukumirić and Nebojša Stilinović (Novi Sad, Belgrade)
- A8.2** ☞
(board 18) **An analysis of expired medications in Serbian households.**
Milica M. Paut Kusturica, Ana D. Tomas, Bojana Trivić, Zoran Bukumirić, Zdenko S. Tomić and Ana J. Sabo (Novi Sad)
- A8.3** ☞
(board 19) **Guidelines adherence for prescription of oral antidiabetics in Serbia.**
Olga J. Horvat, Jelena Popržen, Zdenko S. Tomić and Ana J. Sabo (Novi Sad)
- A8.4** ☞
(board 20) **Use of drugs for the treatment of diabetes mellitus in the Republic of Serbia.**
Boris Ž. Milijašević, Vedrana Čobanović, Zdenko S. Tomić, Ana Sabo, Dragana Milijašević and Nataša Tomić (Novi Sad)
- A8.5** ☞
(board 21) **Prescription of flunitrazepam in Austria, 2006–2014.**
Georg Wietzorrek (Innsbruck)
- A8.6** ☞
(board 22) **Prescription and savings potential of RAAS inhibitors in Austria, 2012.**
Georg Wietzorrek (Innsbruck)
- A8.7** ☞
(board 23) **Nalmefene and concomitant opioid therapy: a systematic analysis of the global WHO pharmacovigilance database.**
Hendrike Dahmke, Hugo Kupferschmidt, Gerd A. Kullak-Ublick and Stefan Weiler (Zürich)

21st Scientific Symposium of APHAR GRAZ, Austria, 16–18 September 2015

SOCIAL PROGRAM

Wed 16 Sept Reception by the Mayor of the City of Graz



Rathaus (Town Hall)
Hauptplatz 1

Wed 16 Sept, 19:30 hrs

Free for registered participants of the APHAR Symposium

Provided by the City of Graz

Thu 17 Sept APHAR & EPHAR Jubilee Dinner



Brauhaus Puntigam (Hubertussaal)
Triesterstraße 361

Thu 17 Sept, 19:30 hrs

Free for registered participants of the APHAR Symposium; extra tickets for accompanying persons will be available at the registration desk of the APHAR Symposium

Take Tram no.5 (direction Puntigam) and get off at stop Brauhaus Puntigam (penultimate stop)

Supported by EPHAR, the British Pharmacological Society and the Federal State of Styria

Fri 18 Sept EPHAR Executive Dinner



Invited guests only

Restaurant Welscher Stub'n
Schmiedgasse 5-7

Fri 18 Sept, 19:30 hrs

Invited guests only (EPHAR Executive Committee, invited representatives of EPHAR member societies, invited guests); a limited number of extra tickets will be available at the registration desk of the APHAR Symposium

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