CLINICAL PHARMACOLOGY MENTORING CENTERS

The Clinical Pharmacology Division of IUPHAR has developed an innovative new strategy to support building capacity in clinical pharmacology internationally, called the “Mentoring Centers” program. There is a pressing need to improve and optimize the use of medicines to maximize their effectiveness and minimize their harms. This can best be achieved by expanding the influence of clinical pharmacology and therapeutics (CPT) expertise around the world, especially in developing areas of the world. All countries face challenges over using medicines effectively, safely and cost effectively and CPT knowledge and skills are a key part of that strategy.

An important part of this strategy will be capacity building and this, in turn, will depend on centers that are willing to support, mentor or train future generations with skills to undertake CPT research and teaching, and to serve on governmental organizations involved in regulation and health technology assessment. One approach is to identify a list of high performing and recognised CPT departments that are willing and able to mentor newly established departments or those in developing areas. The Clinical Pharmacology Division has resolved to undertake a pilot program to establish the demand for, and value of, such a strategy.

The roles of the listed mentor centers might range from basic email contact and advice to collaborative research and researcher exchange. The Clinical Pharmacology Division identified several CPT Centers with expertise in specific areas of clinical pharmacology that are willing to provide mentorship and advice to developing clinical pharmacologists and departments. These include centers in Edinburgh, Scotland; Malaga, Spain; Busan, South Korea; Sydney, Australia; and Toronto, Canada. The details of this program are available on the IUPHAR website at the following address:

www.iuphar.org/index.php/clinical-division/mentoring-centers
Creditworthy Courses in Croatia

Established in 1994, the IUPHAR Gastrointestinal (GI) Section has successfully organized during the past 20 years numerous conferences and symposia to exchange original ideas and preliminary results among its members. During 2016 two educational opportunities, a drug discovery symposium and a summer school on stress, were hosted in Croatia.

Drug Development and New Frontiers in Gastrointestinal Diseases

Held 9 - 11 June 2016 in Novigrad, Croatia, Professors Predrag Sikiric (Croatia) and Duan Chen (Norway) oversaw the organization of the conference. The key topics for the symposium were: 1) preclinical/clinical interface in validating drug targets, drug repurposing and their biomarkers in GI; 2) pharmacological aspects of gut microbiota, inflammation and metabolic diseases; 3) GI immunity, metabolism and potential drug development; 4) GI mucosal injury and permeability; 5) gut-brain axis in neurological diseases; and 6) rethinking of stress and stress significance in GI tract.

The symposium included a full range of academic sessions, plenary lectures, oral and poster presentations. The following lectures were featured:

- Tomasz Brzozowski (Poland) Gaseous mediators in protection of the stomach: Do they interact each other?
- Andre Buret (Canada) Enteropathogens disrupt microbiota biofilms to cause post-infectious inflammation;
- Duan Chen (Norway) Repurposing Botox to target the vagus nerve for treatments of gastric cancer and obesity; Roles of GLP-1 and PYY in diabetes remission following gastric bypass surgery; Targeting the vagus nerve for obesity control;
- Ronnie Fass (USA) Non-medical therapeutic modalities for GERD: What’s in the toolbox?; How to optimize medical treatment for GERD in 2016;
- Ludmila Filaretova (Russia) Rethinking of stress and stress significance in GI tract; Analgesic effect of Corticotropin-Releasing Factor (CRF): Involvement of CRF receptors subtype 1 and 2, opioid receptors and glucocorticoid;
- Kavita Gulati (India) Sexual dimorphism during stress gastric ulceration and its regulation by nitric oxide: An experimental study;
- Klara Gyires (Hungary) Endocannabinoids and gastric mucosal defense (oral);
- Ki Baik Hahn (Korea) 8-OHdG as anti-inflammatory, anti-cancer, and anti-metastatic agent through inhibiting ERM signaling in GI diseases;

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GAstrointestinal Section Symposium
Creditworthy Courses in Croatia
(continued)

- Gaetano Iaquinto (Italy) *The role of AIEC in Crohn’s Disease: Clinical, immunohistochemical and pathogenetic aspects*
- Joshua Ko (Hong Kong, China) *Exploration of the novel anticancer mechanisms of medicinal compounds by regulation of calpain and S100A4 in the treatment of colon cancer*
- Martina Lovric Bendc (Croatia) *BPC 157: Link between GI-tract and cardiovascular system*
- Jong Min Park (Korea) *Cytoprotective mechanisms of BPC 157 applicable to various kinds of gastrointestinal diseases*
- Kim Rainsford (UK) *What is the place of stress conditions in NSAID- and Helicobacter pylori-related upper Gastrointestinal ulcerogenesis*
- Arunabha Ray (India) *The brain-immune axis and stress ulcerogenesis: A pharmacological analysis*
- Sven Seiwert (Croatia) *The BPC 157 story: A pathology view point*
- Rosa Serio (Italy) *Angiotensin II type-2 receptor inhibitor reduces severity of 2,4-dinitrobenzene sulfonic acid-induced colitis in rat*
- Predrag Sikiric (Croatia) *Was Robert wrong? Novel concept of cytoprotection and adaptive cytoprotection: Role of pentadecapeptide BPC 157 and NO-system; BPC 157 significance of cytoprotection: Blood vessels*
- Sandor Szabo (USA) *Ulcerative & inflammatory GI lesions: Prevention and/or treatment?; Ulcer development and healing: A life-time focus on vascular factors*
- Ivana Tkak Geiger (Croatia) *Appliance of BPC 157 for Nosema spp. invasions control in honeybee colonies (Apis mellifera)*
- Gabor Varga (Hungary) *Mesenchymal stem cells as potential tools to treat inflammatory diseases*
- Nathalie Vergnolle (France) *Proteases and inflammatory bowel diseases: What’s up Doc?*
- John L. Wallace (Canada) *H2S-based anti-inflammatory drugs: Lost and found in translation*
- Jack Wood (USA) *Dopaminergic neurotransmission in the ENS*
- Zoltan Zadori (Hungary) *The role of alpha2-adrenoceptors and imidazoline receptors in murine colitis*
- Oksana Zayachkivska (Ukraine) *Stress and foregut: Novel pharmacological implications*
- Chun Mei Zhao (Norway) *A potential new regimen (“Tricyclic”) for treatment of gastric cancer: Targeting glutamine-dependent WNT/β-catenin-mTOR signaling*

Other symposia of related interest were convened in conjunction with the IUPHAR GI Section symposium. The Croatian Surgical Society organized a lecture on ‘Fistulas Healing and GI-tract Healing’. A symposium entitled, ‘Protection of Gastroduodenal Mucosa: From Drugs to Bacteria’ was held by the Adriatic Club for Mucosal Immunology; the Croatian Society for Mucosal Immunology (Croatian Medical Association); and the Section for Mucosal Immunology, Nutritive Allergy and Intolerance within the Croatian Society of Gastroenterology.

The GI Section cordially invites you to the next IUPHAR GI-Section Meeting being held in Novigrad, Croatia on 8 - 10 June 2017 at the Hotel Maestral [see page 49 for details]. The theme is ‘Drug Development and New Frontiers in Gastrointestinal Diseases’ as a contribution towards the celebration by the Medical Faculty University of Zagreb, Croatia on its hundredth anniversary [www.gi-iuphar-section-meeting-2017.com]. We look forward to welcoming you to Novigrad!

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GASTROINTESTINAL SECTION SYMPOSIUM ON Creditworthy Courses in Croatia
(continued)

Summer School on Stress: From Hans Selye’s Original Concept to Recent Advances

On the 80th anniversary of the first description of biologic stress by Hans Selye (Nature, 1936), the June 13-17, 2016 event was held at the Strossmayer University School of Medicine in Osijek, Croatia. The Local Organizing Committee, under the leadership of Professor Marija Heffer and PhD Candidate Marta Balog, created a very original illustration for the cover of this year program (at right). These educational research conferences are sponsored by the IUPHAR GI Section since one of the main stress-related diseases are gastrointestinal structural and functional disorders, with huge pharmacological implications. The course directors are the last three (out of the 40) PhD students of Hans Selye, the ‘father of biologic stress’: Professors Arpad Somogyi (Germany/Belgium - photo at left), Sandor Szabo (USA) and Yvette Tache (USA). After the initial symposium at the Hungarian Academy of Sciences in Budapest, Hungary in 2013, the subsequent week-long summer conferences were held in Zagreb, Croatia (2014) and Grenoble, France (2015).

This year’s event was held in the old, but renovated, historic building of the Rectorate of this rapidly growing university in Eastern Croatia, the former Yugoslavia, shadowed by the more established universities of Zagreb and Belgrade. It was attended by about 60 students and young investigators, mostly PhD and medical students, from Croatia, Serbia, Hungary, Slovakia, Ukraine and Russia. As in previous years, the program included invited lectures by the course directors and core international faculty such as Professors Bruno Bonaz (France), Ludmila Filaretova (Russia), Klara Gyires (Hungary), Martina Rojnic Kuzman (Croatia), Predrag Sikiric (Croatia), Jackie Wood (USA), and Oksana Zayachkivska (Ukraine). There were also longer presentations by experts from local and regional universities in Croatia, Serbia, Austria, Hungary and Slovakia.

The topics covered the origins of stress concept and the seminal discoveries of Hans Selye: distress vs. eustress and transtress – similarities in the adrenal glands, notable differences in the brain; the neuroendocrine mechanisms of stress; physiological and pharmacological actions of glucocorticoids; stress and structural GI diseases (e.g., gastroduodenal ulcers, IBD); stress and functional GI disorders (such as motility disorders); IBS; PTSD; and other organ systems involved in biologic stress; management strategies

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for stress-pharmacologic interventions or lifestyle changes. This year we also hosted very interesting lectures by a veterinary expert, Dr. Jelena Suran (Croatia), on stress in animals and plants as well as a neuropsychiatrist, Dr. Janos Filakovszky (Austria/Slovakia) on stress in the workplace. In addition to these 30-minute interactive presentations, there was a successful poster competition accompanied by a session of short oral presentations (photo at right) based on the submitted abstracts from mostly young participants, primarily medical and PhD students. Several open forum discussions were initiated throughout the course to involve participants and share ideas (photo at right).

As in previous years, we had an educational, historic sight-seeing tour of Osijek for the international participants (photo below), pointing out the statues of two Nobel Prize winners in chemistry, Professors Leopold Ruzicka (below left) and Vladimir Prelog (below right), who were born or studied in Osijek.

The 2017 (when Hans Selye would have been 110 years old) “Summer School on Stress: From Hans Selye’s original concept to recent advances” will be held in Komarno, Slovakia where Selye grew up, went to elementary and high school (gymnasium) and his father had a private clinic. The local organizer is the relatively new “Selye Janos Egyetem/Universitat” in Komarno, Slovakia. The dates are June 26-30, 2017 (see page 49) and the conference website (www.stresseducation.org) will be soon open for early registration, participation details and submission of abstracts.

Predrag Sikiric, Sandor Szabo, and Duan Chen (Chair, GI@IUPHAR.org - www.GI.IUPHAR.org)
IUPHAR Gastrointestinal Section
Upcoming Events

June

**Symposium on Drug Development and New Frontiers in Gastrointestinal Diseases**
presented by the IUPHAR Gastrointestinal Section as a contribution to 100 years of
Medical Faculty University of Zagreb
June 8 - 10 in Zagreb, Croatia

**2017 Annual Meeting of the Canadian Society of Pharmacology and Therapeutics**
June 14 - 16, 2017 in Halifax, Nova Scotia, Canada
[https://pharmacologycanada.org/pages/national](https://pharmacologycanada.org/pages/national)

**37th Congress of the Spanish Society of Pharmacology** with guest society the British Pharmacological Society
June 18 - 21, 2017 in Barcelona, Spain

**2017 Congress of the European Society for Developmental Perinatal and Pediatric Pharmacology**
June 20 - 23, 2017 in Leuven, Belgium
[http://www.esdppp.org](http://www.esdppp.org)

**13th European Congress of Clinical Pharmacology and Therapeutic**
June 24 - 27, 2017 in Prague, Czech Republic

**First National Workshop of the Immunopharmacology and Biotechnology**
Section of the Cuban Society of Pharmacology, the IV International Congress on Immunopharmacology (IMMUNOPHARMACOLOGY 2017 with participation by the IUPHAR ImmuPhar Section), and the IV International Congress on Pharmacology of Vaccines (VACCIPHARMA 2017)
June 25 - 29, 2017 in Varadero Beach, Cuba
[http://www.immunovaccinopharmacuba.com](http://www.immunovaccinopharmacuba.com)

**3rd MURIA Training Workshop on Drug Utilization Research** co-organized by the IUPHAR Clinical Pharmacology in Developing Countries Subcommittee of the Clinical Pharmacology Division
June 26 - 28, 2017 in Namibia

**Summer School on Stress: From Hans Selye’s original concept to recent advances** co-organized by the IUPHAR Gastrointestinal Section
June 26 - 30, 2017 in Komarno, Slovakia
[http://www.stresseducation.org](http://www.stresseducation.org)

July

**Scientific Frontier in Natural Product-Based Drugs** by the Pharmacological Society of Singapore and the National University of Singapore Departments of Pharmacology & Pharmacy
July 6 - 7, 2017 in Singapore
[http://medicine.nus.edu.sg/medphc](http://medicine.nus.edu.sg/medphc)

**IUPHAR Member Societies**: To include your events here, please e-mail the details to iuphar@kumc.edu.
Please join us to honor

**Hans Selye**

in the year of his 110th birthday!

26 - 30 June 2017

J. Selye University
Komárno, Slovakia

[www.stresseducation.org](http://www.stresseducation.org)