Regional Report

European Chapter

Report by Prof. Dr. Rudolf Bauer,
Chairman of the European Chapter of CGCM
and Past President of GP-TCM Research Association

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#07 TCM Research Center Graz, University of Graz and Medical University of Graz
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Prof. Litscher Gerhard

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#55 Sardegna Ricerche
Prof. Biggio Giovanni

#56 The University of Florence
Prof. Bilia Anna Rita

**Denmark**

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Prof. Clark Brian

**The Netherlands**

# Sino-Dutch Center for preventive and personalized Medicine
Prof. Van der Greef Jan
The GP-TCM Research Association

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The 5th Annual Meeting of GP-TCM Research Association-cum-Summit on *Compendium of Materia Medica* and Innovative Drug Discovery in Chinese Medicine

**FIRST ANNOUNCEMENT**

9-10 August 2016

Room 103, Dr. Hari Harilela Lecture Theatre, The Wing Lung Bank Building for Business Studies
Hong Kong Baptist University (Shaw Campus), 34 Renfrew Road, Kowloon Tong, Hong Kong

“The 5th Annual Meeting of GP-TCM Research Association-cum-Summit on *Compendium of Materia Medica* and Innovative Drug Discovery in Chinese Medicine”, jointly organised by GP-TCM Research Association, School of Chinese Medicine of Hong Kong Baptist University, and TCM Chemistry Specialty Committee and TCM Pharmaceutical Analysis Specialty Committee of WFCMS, will be held on 9-10 August 2016 on the campus of Hong Kong Baptist University, Hong Kong.

This international academic event is hosted by the School of Chinese Medicine to celebrate the 60th anniversary of the Hong Kong Baptist University. The details are set out below.
All activities are published in the Newsletters
( Editor in Chief: Taiping Fan, assisted by Qihe Xu)

http://www.gp-tcm.org/news-list/

Elaboration of Monographs for TCM herbs by the European Pharmacopoeia

TCM-Working Party

Chairman: Gerhard FRANZ
Elaboration of Monographs for TCM herbs for the European Pharmacopoeia

European Pharmacy

- 60 Monographs adopted by the Eur. Pharmacopoeia Commission
- Approximately 30 attributed to Specialists
- Monographs published as drafts in PHARMEUROPA
- Monographs for General Methods
  - Chapter on processing: published
  - Test for aristolochic acids: published
  - Test for pyrrolizidine alkaloids: pending

Elaboration of Monographs for TCM herbs for the European Pharmacopoeia

University of Cagliari Prof. Enzo Tramontano

Sennoside A, derived from the traditional Chinese medicine plant Rheum L., is a new dual HIV-1 inhibitor effective on HIV-1 replication

Francesca Esposito1, Ilaria Carli1, Claudia Del Vecchio1, Lijia Xu1, Angela Corona2, Nicole Grandi1, Dario Piano1, Elia Maccioni2, Simona Distinto2, Cristina Parolin1,2,***

Enzo Tramontano1,2

Department of Life and Environmental Sciences, University of Cagliari, Cagliari 09124, Italy
1 Department of Molecular Biology, University of Palermo, Via delle Scienze 122, 90128 Palermo, Italy
2 Institute of Medicinal Plant Development (INPRA), BTV, Melzio North Road, Melzio, 20018 Monza, Italy

Phytomedicine

Original article

**ABSTRACT**

Background: Despite the availability of effective antiretroviral therapies, drugs for HIV-1 treatment with new mode of action are still needed. An innovative approach is aimed to identify dual HIV-1 inhibitors: small molecules that can inhibit two viral functions at the same time. Rhubarbs, originated from Rheum palmatum L. and Rheum officinarum Bull., are one of the oldest and most commonly used medicinal plants in "Traditional Chinese Medicine" (TCM) practice. We wanted to explore TCM for the identification of new chemical scaffolds with dual action abilities against HIV-1.

Methods: R. palmatum L. and R. officinarum Bull extracts along with their main single isolated constituents aristolochic acid derivatives were tested on both HIV-1 Reverse Transcriptase (RT)-associated DNA Polymerase (Grazing) and Ribonuclease H (RNase H) activities in biochemical assays. Active compounds were then evaluated for their effects on HIV-1 infectious RD, intronase (IN) and viral replication.

Results: Both R. palmatum L. and R. officinarum Bull extracts inhibited the HIV-1 RT-associated RNase H activity. Among the isolated constituents, Sennoside A and 3 were more effective against both RRIP and RNase H RT-associated functions in biochemical assays. Sennoside A was less potent when tested on INPR, YU209, YU204 and QUEFA isolated INs, suggesting the involvement of two RT binding sites for its antiviral activity. Sennoside A affected also HIV-1 IN activity in vivo and HIV-1 replication in cell-based assays. Viral DNA production and time of addition studies showed that Sennoside A targets the HIV-1 reverse transcription process.

Conclusion: Sennoside A is a new scaffold for the development of HIV-1 dual RT inhibitors.
Sino-Dutch Center for Preventive and Personalized Medicine

Prof. Jan Van der Greef

Publications:


Activities: made major progress in using ultra-low photon emission (UPE) as a new methodology to characterize TCM diagnosis and TCM herbal medicine in the last period.

TCM Research Center Graz, Herbal Medicine, University of Graz

Prof. Rudolf Bauer

Published papers on TCM related topics in 2015 and 2016:


Published papers on TCM related topics in 2015 and 2016:


3rd Phase of Sino-Austrian TCM Research Projects

- Overall topic discussed within Austrian partners during a meeting in Vienna on 18. March 2015, and subsequently negotiated with CACMS
- 3. August 2015: Confirmation letter by CACMS to support 3rd Phase
- end of 2015: Application forms and project proposals finalized by Austrian partners and jointly submitted to BMWFW
- 16./17. October 2016: 2nd Phase Final Meeting and Preparatory Meeting for 3rd Phase at CACMS, Beijing
3rd Phase of Sino-Austrian TCM Research Projects

- 25. April 2016: Confirmation letter by the Austrian Federal Ministry of Science, Research and Economy that 3rd Phase projects will be funded
- 26. April 2016: Cooperation Agreement on Sino-Austrian TCM Research on Lifestyle Related Diseases between China Academy of Chinese Medical Sciences and Herbal Medicinal Products Platform Austria
- 5. Juli 2016: Kick-off Meeting in Vienna

Aims of the project

- to investigate and evaluate TCM plants, formulas and treatments for lifestyle related diseases
- nine subprojects with different aspects of TCM research on lifestyle related diseases
- research on quality assessment, as well as metabolic, immune related, and neuromodulatory effects of acupuncture and Chinese herbs
<table>
<thead>
<tr>
<th>Principal Investigator (Austria)</th>
<th>PI and Project Partners in China</th>
<th>Topic</th>
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<tr>
<td>Univ.-Prof. Dr. Rudolf Bauer, Institute of Pharmaceutical Sciences, TCM Research Center Graz, Medical University of Graz</td>
<td>Prof. Dr. Tongxia, Endocrinology, Guang'anmen Hospital, CAMS, Dr. Tan, Jiaoting, Endocrinology, Guang'anmen Hospital, CAMS, Academican Prof. Dr. Huaxing, Prof. Institute of Chinese Materia Medica, CAMS, Dr. Yang, Bin, Institute of Basic Research in Clinical Medicine, CAMS, Prof. Dr. Xijun, Heilongjiang University of Chinese Medicine, Harbin, Prof. Dr. Yongli, Beijing University of Chinese Medicine</td>
<td>Interaction of Chinese herbal medicine with the human intestinal microbiome in order to treat and prevent lifestyle related diseases</td>
</tr>
<tr>
<td>Univ.-Prof. Dr. Adalbert H. Brantner, Institute of Pharmaceutical Sciences / Pharmacognosy, University of Graz</td>
<td>Prof. Dr. Baolin, Institute of Chinese Materia Medica, CAMS</td>
<td>Sino-Austrian TCM research on lifestyle related diseases: Research on the ancient Chinese medicinal formula Fang Feng Tong Sheng as modern therapeutic against gout</td>
</tr>
<tr>
<td>Univ.-Prof. Dr. Verena Dirsch, Department of Pharmacognosy, University of Vienna</td>
<td>Prof. Dr. Humin, Institute of Chinese Materia Medica, CAMS</td>
<td>Identification of natural products from Paridis rhizoma (Chonglou) as liver X receptor (LXR) and farnesoid X receptor (FXR) ligands</td>
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<tr>
<td>Univ.-Prof. Dr. Christian Huck, Dr. Univ.-Prof. Dr. Günther Bohn, Institute of Analytical Chemistry and Radiochemistry, CCB-Center of Chemistry and Biomedicine, University of Innsbruck</td>
<td>Prof. Dr. Bin, Institute of Chinese Materia Medica, CAMS</td>
<td>Novel analytical tools for the quality assessment of Chinese herbs with metabolic, immune related neuromodulatory effects</td>
</tr>
<tr>
<td>Assoc. Prof. Dr. YanXia, Division of Comparative Immunology and Oncology, Department of Pathology, physiology and Allergy Research, Center of Pathophysiology, Infektiology &amp; Immunology, Vienna General Hospital, Medical University of Vienna</td>
<td>Prof. Dr. Jiping Fan, CAMS, Prof. Dr. Daizhu Shu, Xiyuan Hospital, CAMS, Assoc. Prof. Liuxia Li, Beijing Dongzhimen Hospital, Beijing University of Chinese Medicine, Prof. Dr. Lu Liu, Beijing Traditional Chinese Medicine Hospital, Beijing Capital Medical University</td>
<td>Evaluation of Chinese herbal medicine therapy of lifestyle related diseases: myocardial infarction, prostate cancer and depression - from biomedical research to translational medicine</td>
</tr>
<tr>
<td>Assoc. Prof. Dipl. Ing. Dr. Wolf Dieter Rausch, Institute for Chemistry and Biochemistry, University of Veterinary Medicine, Vienna</td>
<td>Prof. Dr. Shanshan Cai, Prof. Dr. Xiaotong, Institute of Basic Research in Clinical Medicine, CAMS, Assoc. Prof. M.D. Ph.D., Department of Physiology, Institute of Acupuncture and Moxibustion, CACMS, Prof. M.D. Ph.D., Institute of Acupuncture and Moxibustion, CACMS, Prof. M.D. Ph.D., Institute of Acupuncture and Moxibustion, CACMS, Fengxia LIANG, Ph.D.</td>
<td>Life Style Associated Diseases - the Potential of TCM and MM for the treatment of colorectal cancer</td>
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<td>Univ.-Prof. Dr. Hermann Stuppner, CCB-Center of Chemistry and Biomedicine University of Innsbruck</td>
<td>Prof. Dr. Jianrong WANG, Xiyuan Hospital, CAMS</td>
<td>Anti-inflammatory potential of TCM drugs – new bioactive compounds and quality issues</td>
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5. Juli 2016: University of Graz signed MoU with China Academy of Chinese Medical Sciences

The International Society of Ethnopharmacology organized its 16th congress under the chairmanship of Prof. Rudi Bauer in Yulin, Guangxi Zhuang Autonomous Region, China during May 16-18, 2016
Besides the participation in the Science TCM supplement we were able to publish the verification of the neuroprotective effects of Huang Lian, Rhizoma coptidis in a MPP+/MPTP cell and mouse model.

Furthermore we could finalize the experiments on Chinese herbs for the regulation of brown fat activity and on herbal extracts for cutaneous wound healing. We are now working on the first draft of papers for both projects.

In the acupuncture field, we finished the clinical research on adhesive capsulitis (frozen shoulder) and just recently submitted the paper.

The large ACUDIN and ACUCIN studies have been finished. In the ACUDIN study 3x60 patients with diabetic neuropathy were treated in three groups (needle acupuncture, laser-acupuncture, laser placebo). In the ACUCIN study 60 patients with Chemotherapy induced neuropathy were treated in a cross over design. We are now working on the first drafts of papers for both projects.

An experimental acupuncture study was performed with healthy volunteers using press tack acupuncture for a double blind design. We measured the temporal dynamics of acupuncture induced analgesia against artificial pain. Beside clinical outcomes, Heart rate variability and EEG patterns were measured. We are now working on the first draft of a paper.
Publications and ongoing Projects since August 2015

Publications:

Ongoing projects:
  A randomized controlled double-blinded study - submitted
- ACUDIN: 3x60 patients with diabetic neuropathy, needle acupuncture, laser-acupuncture, laser placebo. First draft of paper.
- ACUCIN 60 patients with Chemotherapy induced neuropathy. Needle acupuncture. First draft of paper.
- Chinese herbal extracts and the regulation of brown fat activity. First draft of paper
- Chinese herbal extracts for cutaneous wound healing. First draft of paper
- Temporal dynamics of acupuncture induced analgesia. Press-Tack Acupuncture, double blind experimental study with artificial pain, EEG. First draft of paper
Outlook

The 6th GP-TCM RA Annual Meeting will be held in Kew Gardens at the beginning of July 2017.