

Summer School in Pharmaceutical Analysis

SSPA 2015

16-18 September 2015

Rimini

**ADVANCED ANALYTICAL METHODOLOGIES
FOR MEDICINAL PLANTS CHARACTERIZATION**

Wednesday, September 16

8.30-9.30	Registration
9.30-10.00	Opening- Prof. G. Aldini, Chair of SSPA; Prof. Vincenza Andrisano, past-Chair and delegate of Rimini Campus; Prof. G. Costantino, delegate of the Division of Medicinal Chemistry (SCI).
10.00-11.00	Plenary lecture Giovanni Appendino - <i>The standardization of medicinal cannabis: current challenges and future opportunities.</i> Department of Pharmaceutical Sciences, University of Eastern Piedmont, Novara, Italy.
11.00-11:20	<i>Coffee break</i>

I SESSION – Regulatory aspects

11.20-12.10	Paola Minghetti - <i>Herbal derivatives as medicinal products, medical devices and health food ingredients.</i> Department of Pharmaceutical Sciences, Università degli Studi di Milano, Milan, Italy.
12.10-12.50	Karin Schleisiek - <i>Quality requirements for medicinal herbal products.</i> Dr. Willmar Schwabe GmbH & Co. KG, Karlsruhe, Germany.
12.50-14.00	<i>Lunch</i>

II SESSION – Analytical methods in medicinal plant characterization/standardization: chromatographic methods

14:00-15:00	Rod McIlwrick - <i>Medical Plant Identification and Quantification by HPLC and TLC-MS.</i> Merck Millipore
15.00-15.40	Angela Mari - <i>Mass Spectrometry in medicinal plant analysis: an insight into LC-MS techniques.</i> Università degli Studi di Salerno, Salerno, Italy.
15.40-16.00	<i>Coffee break</i>

III SESSION - The role of analysis in the ethnopharmacological approach

16.00-16.40

Gloria Brusotti - *The role of analysis in the ethnopharmacological approach: from raw material to bioactive compound.*
Department of Pharmaceutical Sciences, Università di Pavia, Pavia, Italy.

Ph.D student presentations

16:40 - 17:00

Cláudia Seidl - *High-performance liquid chromatography with on-line immobilized enzyme reactors for the screening of inhibitors in natural products - from isolated compounds to highly complex matrices.*
University of São Paulo, Ribeirão Preto-SP-Brasil.

17:00 - 17:20

Eirini Kouloura - *Integrated NMR and UPLC-HRMS plant metabolomics strategies for the investigation of *Acronychia* genus.*
University of Athens, Athens 15771, Greece.

17:20 - 17:40

Roberta Tardugno - *Phytochemical investigation on essential oils by using advanced analytical techniques.*
Università degli Studi di Modena e Reggio Emilia, Modena, Italy

17:40 - 18:00

Alessandra Altomare - *Health benefits of bovine colostrum revealed by an in depth proteomic analysis*
Università degli Studi di Milano, Milan, Italy

Thursday 17, September

IV SESSION – Case reports

9.30-10.20

Jean-Luc Wolfender - *Challenges for a comprehensive metabolome characterization of medicinal plants.*
School of Pharmaceutical Sciences, University of Geneva - University of Lausanne, Geneva, Switzerland.

10.20-11.10

Michela Burico - *How to analyze natural complex substances: from composition to stability studies up to batch to batch reproducibility by metabolomic analysis.*
Aboca S.p.A, Sansepolcro (AR), Italy.

11.10-11.30

Coffee break

11.30-12.00

Sergio Gallo - *Internal Ion Mobility, the latest frontier of mass spectrometry: new solutions.*
Waters Italia.

12.00-12.30 **Franco Abballe** - *Sample prep challenge: automated extraction*
Thermo Fisher Scientific, Italy.

12.30-14.00 *Lunch*

V SESSION Analytical methods in the discovery of bioactive plant components

14.00-14.50 **Nicola Sardone, Eric De Combarieu** - *Metabolomic comparison of plant extracts: a case study on Ginkgo biloba extract.*
Indena S.p.A, Milan, Italy.

14.50-15.40 **Rudolf Bauer** - *The role of European Pharmacopeia monographs in the quality control of herbal drugs.*
Institute of Pharmaceutical Sciences, Department Pharmacognosy, Karl-Franzens Universitat, Graz, Graz, Austria.

15:40-16.10 **Claudia Napoli** - *NMR ultimate tools for natural substances and complex mixtures analysis.*
Bruker.

16.10-16.30 *Coffee break*

16.30-17.20 **Anna Rita Bilia** - *Science meets regulation*
Dipartimento di Chimica 'Ugo Schiff', University of Florence, Florence, Italy.

Ph.D student presentations

17.20 -17-40 **Sara Tengattini** - *Rational design and analytical characterization of potential neo-glycovaccines against tuberculosis.*
Università degli Studi di Pavia, Pavia, Italy

17.40- 18.00 **Rossana Canavesi** - *Chemical and metabolic stability studies of propargylamine-containing drugs.*
Università degli Studi del Piemonte Orientale, L.go Donegani 2, 28100 Novara, Italy.

20:00 **Social dinner**

Friday 18, September

VI SESSION – OMICS techniques in plant analysis

9.30-10.20 **Young Hae Choi** - *NMR-based metabolomics as a tool of natural products research*
Natural Products Laboratory, Leiden University, Leiden, The

	Netherlands.
10.20-11.10	Piero Traldi - <i>Natural extracts and Mass Spectrometry: an old but well consolidated affair</i> IENI CNR, Padova, Italy.
11.10-11.30	<i>Coffee break</i>
11.30-12.00	Alessandro Armandi - <i>The benefits of LC-HRMS in the qualitative and quantitative characterization of natural compounds</i> Sciex, Italy.
12.00-12.50	Closing lecture Carlo Bicchi – <i>Strategies of analysis of plant volatile fraction and higher level of information.</i> Dipartimento di Scienza e Tecnologia del Farmaco, University of Turin, Turin, Italy.
12:50-13:00	Closing remarks
13.00-14.00	Lunch