

7 September 2016

Dear HKSMS members,

HKSMS Lecture:

“Frontiers of Orbitrap Mass Spectrometry” by Dr Alexander A. Makarov

You are cordially invited to attend our upcoming HKSMS Lecture by Dr Alexander A. Makarov for Wednesday, 12 October 2016, 4:30 pm - 5:30 pm, at The Hong Kong Polytechnic University, sponsored by Thermo Fisher Scientific.

Dr Alexander Makarov is a world-leading scientist who led the team that developed the Orbitrap technology. He has received numerous prestige awards, including the 2008 Distinguished Contribution in Mass Spectrometry of ASMS, 2011 Science and Technology Award of HUPO, 2012 Thomson medal of IMSP and others. In this lecture, Dr Makarov will share with us the most recent advances in his Orbitrap technology.

Details of the lecture are available in the attached Registration Form. All members can enjoy this HKSMS Lecture free-of-charge. Registration from non-members are also welcome upon joining HKSMS.

If you have any enquiries, please feel free to call our membership administration officer – Ms Rebecca Chau at 3568 3581 during office hours (10:00-17:00) or send an email to info@hksms.org.

Yours sincerely,

April Wong
President, HKSMS

Registration Dr. Alexander Macarov Lecture

Name of Member: _____

Contact Telephone No. : _____

Email / Fax No.* : _____ (*for notification of acceptance)

Company / Institution : _____

Membership category:

Full Member

Corporate Member

Student Member

Registration:

Dr. Alexander Macarov Lecture on 12th October 2016 (HK\$100.00 deposit for each member)

Registration for the HKSMS Lecture is free of charge, however a cheque deposit of HK\$100 is required which will be returned upon attendance but charged for non-attendance.

Cheque should be made payable to "Hong Kong Society of Mass Spectrometry"

Note:

- i) Registration is on a "First-come-first-served" basis.
- ii) Cheque will be returned to participants upon attendance of the lecture.
- iii) Non-members can join the lecture upon joining HKSMS.
- iv) Please register ASAP by fax or e-mail, following by sending the original registration form and cheque to be received before 05 October 2016.

.....
Please send the completed registration form and cheque by post attention to **Dr Andy Siu**, HKSMS, c/o HOS Membership and Conference Management Co. Ltd., Block B, 5th Floor, Lead On Building, 18 Ng Fong Street, San Po Kong, Hong Kong on or before 5 October 2016.

Details:

Title:	Frontiers of Orbitrap Mass Spectrometry	
Speaker:	Dr. Alexander A. Makarov Inventor of Orbitrap Technology Director of Research, Life Science Mass Spectrometry, Bremen, Germany Chair, High Resolution Mass Spectrometry, Utrecht University, Netherlands	
Venue:	Room 715-716, 7/F., Lee Shau Kee Building (Block Y), The Hong Kong Polytechnic University, Hunghom, Kowloon.	
Time:	12 th October 2016 (Wednesday) 4:30p.m. – 5:30p.m.	
Schedule:	4:00p.m. – 4:30p.m.	Registration
	4:30p.m. – 5:30p.m.	Lecture

Frontiers of Orbitrap Mass Spectrometry**Dr. Alexander A. Makarov**

Thermo Fisher Scientific, Hanna-Kunath Str. 11, Bremen, Germany

This talk presents first-hand a short but eventful history of Orbitrap mass spectrometry, from laying down the first principles to its current status as the leading mass spectrometric technique for high-resolution, high mass accuracy quantitative analysis.

Ever increasing requirements on throughput of mass spectrometric analysis are enabled by increasing speed of chromatographic separations and demand higher spectral acquisition rates and better control of different ion optical devices within mass spectrometers. Recent improvements in this area are exemplified for Q Exactive and Orbitrap Fusion families of instruments, with numerous new modes of operation enabled by parallelization of detection and ion processing and concerted operation of different ion-optical devices. A special emphasis is made on technical solutions that allow quantitative analysis in these instruments, despite Orbitrap analyzer being of an ion trapping type. New modes of data-independent, targeted and top-down acquisitions are overviewed.

In conclusion, future trends and perspectives of Orbitrap mass spectrometry are discussed, including its inroads into emerging areas of mass spectrometric analysis. It is shown that Orbitrap-based mass spectrometers possess compelling potential as an (ultra-) high resolution platform not only for high-end proteomic applications but also for screening, trace and targeted analysis by LC/ and GC/MS.

***** Biography of Dr. A. A. Makarov *****

Alexander Makarov was born in a Siberian town of Irkutsk in 1966 and went to study to Moscow Engineering Physics institute where he also obtained his PhD. After 2 post-doc years in Warwick Univ., he joined a small high-tech company HD Technologies in Manchester (UK). There he has started his work on the Orbitrap mass analyzer. Following the acquisition of the firm by Thermo Electron Corp. in 2000, Alexander has provided scientific leadership of the Orbitrap R&D which led to the commercial launch of LTQ Orbitrap mass spectrometer in 2005 and subsequent numerous extensions of this technology, with many thousands instruments of 3 major families installed worldwide. He has received Award for Distinguished Contribution in Mass Spectrometry of ASMS, Science and Technology Award of HUPO, Thomson medal of IMSF and others. His hobbies include traveling, mountain skiing, roller-blading. He holds position of Director of Research, Life Science Mass Spectrometry in Bremen, Germany and a Chair in High Resolution Mass Spectrometry at Utrecht University in Netherlands.