



## **Workshop: Modern mass spectrometry**

### **Dr Tomasz Bieńkowski (Masdiag sp. z o.o.)**

#### **Course contents:**

The history of mass spectrometry has begun in XIX century. Since this time many developments and improvements has been made, which increased the possibilities of this technique. The real growth of the technique has started in last 20 years, since the soft ionization technique has been developed – electrospray and MALDI. Electrospray allows for on-line coupling of mass spectrometer and HPLC. MALDI allows for analysis of big molecules.

During the lectures, the theory and examples of applications of LC/MS/MS and MALDI technique will be presented.

The course will discuss the following topics:

- 1) History and developments of Mass spectrometers
- 2) Different types of mass analyzers
- 3) API and MALDI ionization techniques
- 4) Matrix effect
- 5) Ion mobility mass spectrometry
- 6) Different strategy in quantitation
- 7) Qualitative analysis
- 8) Examples of application:
  - a. Food and Environment,
  - b. Toxicology/Forensic
  - c. Clinical,
  - d. Pharma
  - e. Omics



<b>TERMINY WYKŁADÓW</b>			
<b>Data</b>	<b>Dzień tygodnia</b>	<b>Godzina</b>	<b>Sala</b>
2014-10-20	poniedziałek	9.00 – 12.00	Luwr (Chemia A)
2014-10-21	wtorek	9.00 – 12.00	Luwr (Chemia A)
2014-10-22	środa	9.00 – 12.00	Luwr (Chemia A)
2014-10-23	czwartek	9.00 – 12.00	Luwr (Chemia A)
2014-10-24	piątek	9.00 – 12.00	Luwr (Chemia A)