



UNIVERSITY OF GDANSK



MOBI4Health

## WP 4. Achieve a critical mass in research tools



IFB



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 316094

WP 1. Achieve international impulses for new research pathways: Increasing Human Potential.

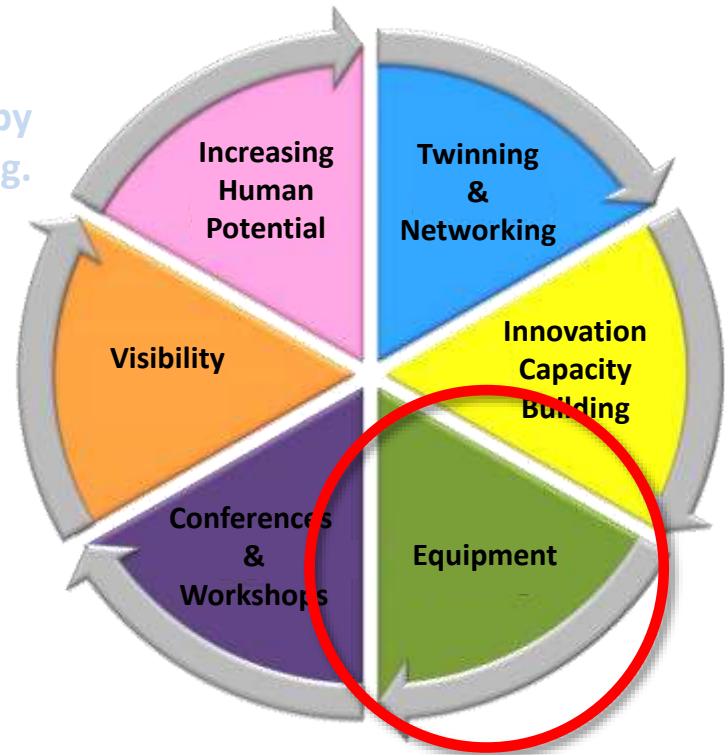
**WP 2. Obtain significant increase of scientific expertise by international cooperation, twinning and networking.**

WP 3. Boost innovation capacity: IP management and technology transfer.

**WP 4. Achieve a critical mass in research tools.**

WP 5. Create platforms and events to exchange knowledge.

WP 6. Give additional dimensions to the results by promotion of the Faculty and MOBI4Health achievements in society.



As defined by the SWOT analysis, the weak point of the research capacity of IFB UG & MUG is the lack of infrastructure and expertise in high throughput mass spectrometry techniques able to support research projects in proteomics, genomics and lipidomics but also in other – omics.

Therefore, the action plan in this Work Package is dedicated to complex steps towards establishing the core facility infrastructure of IFB UG & MUG based on two different mass spec systems: e.g. MALDI TOF for genomics and proteomics with the MALDI Imaging, Orbitrap system (or equivalent) for native MS.

## Tasks:

1. Mass spectrometer for genomic analysis based on MALDI-TOF technology
2. Mass spectrometers for proteomics, lipidomics, metabolomics based on:  
MALDI-TOF technology with MALDI Imaging,  
Electrospray ionization technology with possibility of Ion Mobility MS  
(for so-called “native MS” studies) for qualitative and quantitative analysis.
3. Additional equipment

**Official request for technical specifications and pricing information has been sent to the following companies, representatives in Poland of major mass spec manufacturers:**

MS manufacturer	Supplier/ representative in Poland
AB Sciex	AB Sciex Sp. z o.o.
Agilent	Perlan Technologies Polska Sp. z o.o.
Bruker	Bruker Polska Sp. z o.o.
Sequenom	Kawa.ska Sp. z o.o.
Shimazu	„SHIM-POL A.M.BORZYMOWSKI” E. Borzymowska-Reszka, A. Reszka sp. j.
Thermo Scientific	Anchem sp. j.

**The public procurement notice has been published on 13 August 2013**  
**Opening of tenders on 23 September 2013**

## Mass spectrometer for genomic analysis based on MALDI-TOF technology

**Selected system: MassARRAY Analyser 4, manufacturer: Sequenom, supplier in Poland: KaWaska Sp. z o.o.**



Mass spectrometers for proteomics, lipidomics, metabolomics ect.

Selected systems: MALDI-TOF/TOF 5800, QTRAP 6500, TripleTOF 5600+,  
manufacturer: AB Sciex, supplier in Poland: AB Sciex Sp. z o.o.



**MALDI-TOF/TOF 5800**



**QTRAP 6500**



**TripleTOF 5600+,**

**MassARRAY Analyser 4, manufacturer Sequenom.  
Delivery and installation was completed on 31 October 2013**

**MALDI-TOF/TOF 5800, QTRAP 6500 with Selexion and TripleTOF 5600+, manufacturer AB Sciex.**

**All equipment was delivered to customer till the end of November 2013. With the beginning of December the installation of all mass spectrometers started. The AB Sciex field service engineers with the supervision of Mr. Marek Kamiński performed all works and till the 20 December 2013 mass spectrometry laboratory was ready to operate.**



## **Additional equipment**

**Public tender underway, expected delivery and equipment installation the end of August 2014**

## **Personel training including visits in „demolabs”**

**On site training provided by equipment suppliers finished (the end of May 2014)**

**Training in „demolabs” April-December 2014**