



Answers for Science.  
Knowledge for Life.™



### Dr. Martin Giera

Associate Professor,  
Head Metabolomics Group

Leiden University Medical Center  
(LUMC)

## Case Study

### Project Goal

To apply lipidomics to a variety of disease areas, such as inflammation, infection, obesity, and migraine in mechanistic as well as large-scale research studies involving thousands of samples.

Specifically, to carry out smaller research projects on sepsis, intraperitoneal feeding and immune cell metabolism.

### The Challenges

- The ability to quantify the totality of lipids in our samples.
- To robustly handle with high uptime complex biological samples.
- Identifying thousands of lipids with confidence and avoiding the common challenge of isotopic and isobaric overlap.

### The Solution

A complete package for lipidomics analysis that can differentiate and quantify over a thousand lipid molecular species across 13 lipid classes of complex lipid metabolism.

### The Outcomes

- Generation of reproducible data from large-scale studies.
- Investigations of lipid remodelling during acute inflammation, the effects of bioactive lipids on the course of inflammation, and metabolic profiling in the field of biomarker discovery.

“We believe that the SCIEX Lipidyzer will bring us a step forward towards precision medicine; it will give us true insight into the physiological and non-physiological concentrations of hundreds to thousands of lipids.”

#### Type of Organization

Metabolomics and Clinical Research Centre

#### Goals

To identify and measure lipids as biomarkers, and thereby find novel diagnostic and mechanistic disease markers.

#### Applications

Untargeted and targeted lipidomics, MRM quantification

#### SCIEX products

- Lipidyzer™ Platform
- Lipidyzer Kits
- QTRAP® 6500 System
- SelexION® ION Mobility Technology

For Research Use Only. Not for use in diagnostic procedures.

AB Sciex is operating as SCIEX. © 2017 AB Sciex. The trademarks mentioned herein are the property of the AB Sciex Pte. Ltd. or their respective owners. AB Sciex™ is being used under license. RUO-MKT-20-6193

Answers for Science. Knowledge for Life.™