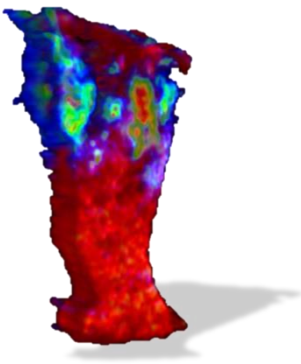


The Next Level Imaging Platform for Better Drug Development And Biomarker Analysis

Newsletter – Sept 2020

Twice a year, we share a compilation of ImaBiotech news and highlights. We are proud to be an active contract research organization that develops technologies and pushes the boundaries to create more effective platforms to support safer and better therapies.
Follow us on www.imabiotech.com or [LinkedIn/ImaBiotech/](https://www.linkedin.com/company/ima-biotech)

INNOVATIONS



Spatial Gene Expression

With integration of Nanostring nCounter gene expression technology, ImaBiotech expand its spatialomics platform. In combination to Mass spectrometry Imaging and Immunofluorescence techniques, we can now locally measure the gene expression levels of 700 genes at the same time as related to drugs, metabolites, lipids and proteins.

[Learn More](#)

Development of Multimaging

The second version of Multimaging has been released to improve drug characterization and activity in tissue. The multimodal imaging solutions affords the ability to measure exact concentration of drugs and biomarkers at single cell resolution. This new release includes morphometry analysis of tissue with Mass Spectrometry Imaging data.

[Learn More](#)



Publication

Lipidome signatures of metastasis in a transgenic mouse model of sonic hedgehog medulloblastoma

Abstract

To examine the metastatic biology of sonic hedgehog (SHH) Medulloblastoma MB, the human MB subgroup with the worst clinical outcome in children, we first generated a robust SmoA1-Math-GFP mouse model that reliably reproduces human SHH MB whereby metastases can be visualized under fluorescence microscopy. Lipidome alterations associated with metastasis were then investigated by applying ultra-performance liquid chromatography-mass spectrometry. This study provides deeper insights into dysregulations of lipid metabolism associated with SHH MB metastatic progression.

[Learn More](#)



Mechanisms of innate events during skin reaction following intradermal injection of seasonal influenza vaccine

Abstract

The skin plays a crucial role in host defenses against microbial attack and the innate cells must provide the immune system with sufficient information to organize these defenses. This unique feature makes the skin a promising site for vaccine administration. Although cellular innate immune events during vaccination have been widely studied, initial events remain poorly understood. Our aim is to determine molecular biomarkers of skin innate reaction after intradermal (i.d.) immunization. Using an ex vivo human explant model from healthy donors, we investigated by NanoLC-MS/MS analysis and MALDI-MSI imaging, to detect innate molecular events (lipids, metabolites, proteins) few hours after i.d. administration of seasonal trivalent influenza vaccine (TIV)...

[Learn More](#)

Nash Biomarker discovery

In Collaboration with Metabrain company, we have published 2 application notes including a full Spatial Multi-omics representation of drug distribution and mechanism of action in liver models. We measured the drug exposure and efficacy of Pioglitazone to specific pathways using gene expression, proteomics and metabolomics information.

[Learn more AN1](#)

[Learn more AN2](#)



TEAM



Meet the new Business Experts

We are pleased to welcome Erika Pfaunmiller, PhD and Florian Barré, PhD, to the BD team.

Erika Pfaunmiller, PhD – Head of Business Development USA

Erika has a background in LC-MS/MS with an emphasis on the development of novel techniques for chromatographic immunoassays. Her PhD research involved designing miniaturized separation and detection methods based on immobilized biological binding agents, such as antibodies or serum proteins.

Prior to joining ImaBiotech she worked as a scientist in a bioanalytical laboratory designing methods to analyze both large and small molecules. In her free time she enjoys group workout classes at her local gym and traveling with her husband!

Florian Barré, PhD, Head of Business Development Western Europe

Florian has a broad background in Mass Spectrometry Imaging with expertise in the analyses of several tissue types (from cartilage to tumors) focused on small molecules and drugs.

During his PhD, he developed innovative tools (fast raster MALDI source, MALDI-2), methods (derivatization, analysis of complex tissues such as cartilage), and collaborate with both academic and private partners. He is now making the liaison between our technical teams and our sponsors and partners.



Join the team

We expand our activities in MultiOmics platform in both locations in USA and Europe. Check out our website and our LinkedIn page to discover these exciting career opportunities!

[Learn More about the Job offers](#)

RESEARCH

Fight Tuberculosis

ImaBiotech Joins the ERA4TB organization. With 200 million euros and 30 organizations, ERA4TB is set to change the paradigm of tuberculosis treatment development by abandoning the sequential approach in favor of a parallel pathway, which will allow the simultaneous investigation of more than a dozen drug candidates. This approach, materialized in a versatile collaborative network, will allow ERA4TB to optimize the development costs of new tuberculosis drugs and, more importantly, greatly reduce the development times of the new regimens needed to eliminate this epidemic.

[Learn More about ERA4TB](#)