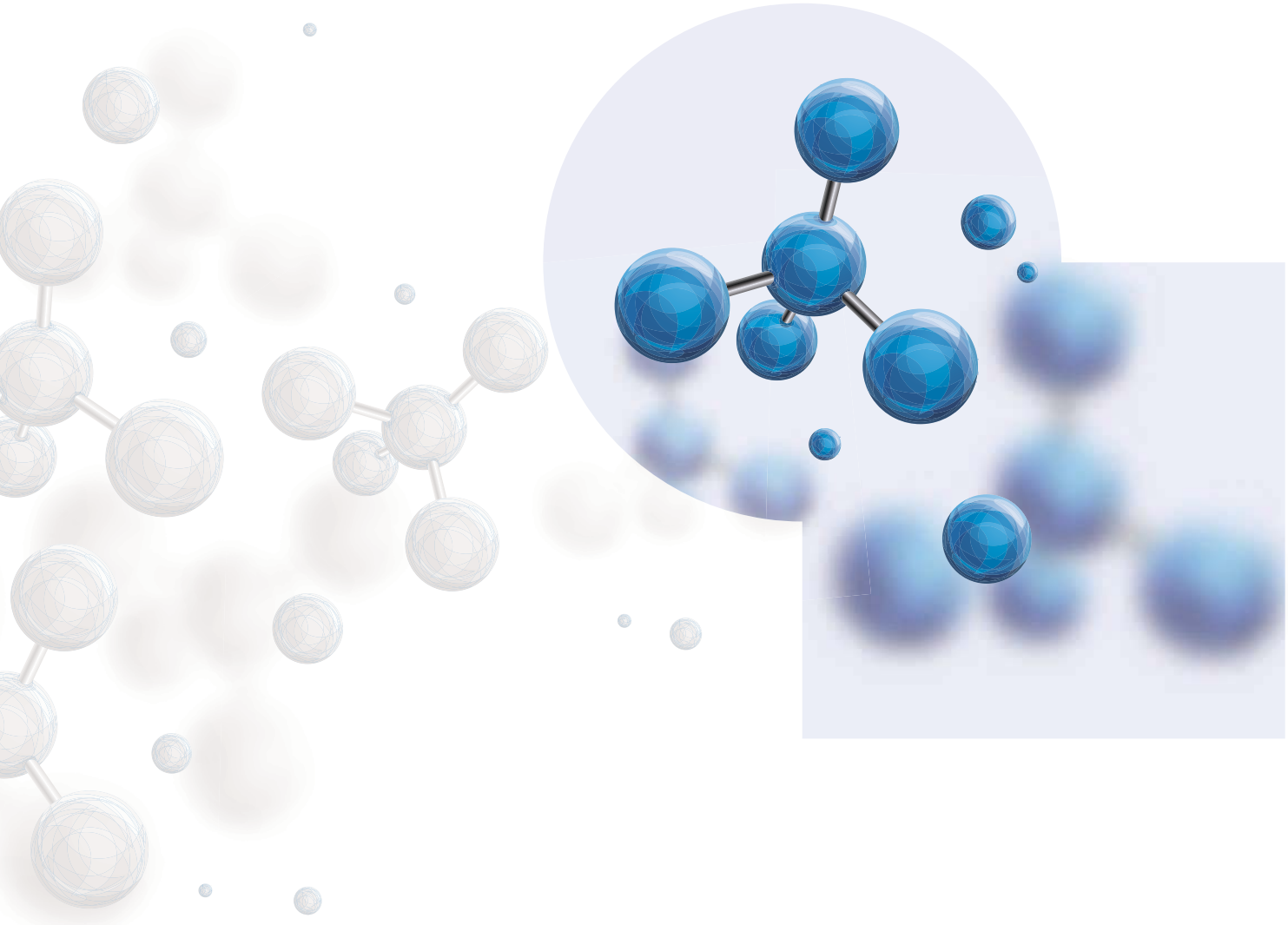


Brochure

# Advancing your molecule with speed and agility

Aliri
BIOANALYSIS

WE HELP YOU ADVANCE FROM DISCOVERY THROUGH APPROVAL, BACKED BY A NETWORK OF SEASONED SCIENTISTS AND TECHNICAL EXPERTS

## ABOUT ALIRI

Aliri is a bioanalytical CRO with facilities in the U.S. (Colorado Springs, Salt Lake City) and Lille, France. Aliri combines innovative mass spectrometry imaging, traditional LC-MS/MS platforms, and spatial biology (histology, multi-omics, spatialomics) techniques in order to decipher the complexity of drug activities. The combination of unique capabilities with advanced digital pathology tools makes possible the measurement of drug activity and drug response, simultaneously, at the single cell level.

CONTENTS

5M+
SAMPLES ANALYZED

## BIOANALYTICAL LAB, SPATIAL BIOANALYSIS, AND SPATIAL BIOLOGY SOLUTIONS

With increased focus on precision medicine, oncology, and other therapies, there has been a shift in how companies are planning and executing drug discovery and clinical development. Navigating a robust regulatory environment, advancing your development program with speed, and accessing a breadth of technical expertise are all critical factors to the success of your program.

Aliri provides a range of bioanalytical lab, spatial bioanalysis, and spatial biology solutions. As a result, we will help you advance your molecule from discovery through clinical development and NDA approval, while being backed by a network of seasoned scientists and technical experts.

The complexities of building a robust strategy for drug discovery and development can often be overwhelming and arduous. To build, execute, and optimize your strategy, it's important to work with a bioanalytical partner that has not only proven operational excelence across a range of traditional and cutting-edge technologies, but also the experience to support the unique needs of your development program. Work with our team of dedicated scientists, program managers, quality specialists, and industry experts to:

- Access quality data for filing your IND, NDA, or CTA with speed
- Anticipate technical issues or potential roadblocks that may cause delays
- Elucidate drug efficacy in the pertinent spatial context up to cellular level, for more efficient and effective drug candidate evaluation and selection
- Maximize the value of your drug discovery and development investments

2,500+
BIO-ASSAYS


Our team of seasoned scientists and industry experts are here to help manage and advance your projects.

1. COLORADO SPRINGS, COLORADO
2. SALT LAKE CITY, UTAH
3. LILLE, FRANCE

## BIOANALYTICAL: DISCOVERY

| DISCOVERY | PRE-CLINICAL / CLINICAL | CLINICAL |
|---|---|---|
| • 48-hour data delivery* | • Initiate method development within 6–8 weeks of proposal | • Support through Phase IV<br>• 3-day data delivery for first-in-human studies<br>• High throughput for large clinical studies |

*Small molecule bioanalytical lab projects only; does not include spatial bioanalysis projects

Our experience with more than 1,500 drugs and metabolites and more than 150 types of biological specimens assures expertise on all types of chemistries, from small and large molecules through the most leading-edge gene therapies.

We have supported a variety of complex chemistries in drug development — oligonucleotides, siRNA, mRNA, delivery modalities including lipid nano-particles, chiral molecules, therapeutic peptides, complex antivirals, and biomarkers.

1,587
DRUGS AND METABOLITES

150+
BIOLOGICAL SPECIMENS

## QUICKLY GAIN ACCESS TO DATA THAT SUPPORTS YOUR DRUG CANDIDATE SELECTION

We understand the importance of quick turnarounds during discovery and lead optimization. Therefore, we provide technical expertise and solutions, so you can select your drug candidate and move on to the next phase with ease and efficiency. Working with us at the start of your project enables:

48-HOUR
DATA DELIVERY
FOR DISCOVERY
STUDIES

- 48-hour data delivery for discovery studies*
- Data in the format consistent with your processes
- Identification of options and opportunities for molecule advancement
- Access to a variety of simple and complex matrices
- Flexibility to changing or accelerated timeline

*Small molecule bioanalytical lab projects only; does not include spatial bioanalysis projects

## SPATIAL BIOANALYSIS: MASS SPECTROMETRY IMAGING

With oncology and precision medicine on the rise, the need for innovation, agility, and optimization within your strategy is critical for success; embedding spatial bioanalysis into your strategy early on can help you save money and time in the long run. Our proprietary drug and biomarker imaging workflows will enable you to study the distribution of drugs and biomarkers simultaneously at the site of action, enabling us to:

- Understand localization, quantification, and distribution of drugs at the site of action
- Measure the impact of drugs on cells and their efficacy at the cellular level
- Decipher the complexity of the tissue microenvironment (TME) with quantification of the cell organization through transcriptomic, metabolomic, or proteomic changes in disease models and human samples

47 PATENTS
IN IMAGING
TECHNOLOGIES

50+ DRUG DEVELOPMENT STUDIES USING MASS SPECTROMETRY IMAGING

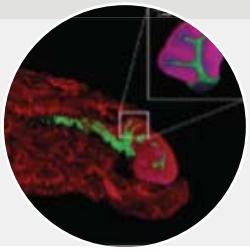
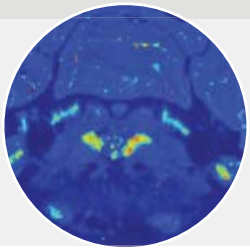
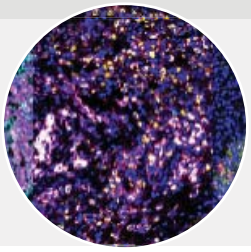
15+ YEARS OF DEVELOPING ROBUST & QUANTITATIVE METHODS

SIMULTANEOUSLY IMAGE 40+ MARKERS FROM A SINGLE SLIDE USING IMAGING MASS CYTOMETRY

SIMULTANEOUSLY DETECT >1,000 MOLECULES WITH MASS SPECTROMETRY IMAGING

Our team is the leader in spatial bioanalysis and spatial biology with innovative technologies and proprietary software and methods. The imaging technologies we developed have been used by small and large pharma companies for more than a decade to detect small drugs, elements, and biomolecules up to single-cell level. Leveraging our imaging platforms enables:

- High multiplexing for simultaneous localization and quantification of thousands of biomolecules and small drug drugs
- Quantitative data for accurate and precise methods that enable strategic decision making

| | IMAGING TECHNOLOGY | | |
|---|---|---|---|
| | Matrix assisted laser desorption ionization technique (MALDI) imaging | Laser ablation inductively coupled plasma (LA-ICP) imaging | Imaging mass cytometry – Hyperion imaging |
| |  |  |  |
| OVERVIEW | Detect intact molecules amino acids, metabolites, small drugs, lipids from a tissue section | Detects elements from tissue section | High multiplex immune staining technique that uses antibodies coupled to stable metal isotopes |
| THROUGHPUT | 1 to 10 samples per day | 1 to 10 samples per day | Up to 4 slides a day |
| RESOLUTION | 20 µm | Subcellular | Subcellular |
| PLEXING | +1000 | 100 | 40 |
| | MALDI, LA-ICP and mass cytometry imaging are a strong combination due to the ability to multiplex large quantities of targets molecules, single cell resolution, and quantification. | | |

| DETECTION TARGETS | |
|---|---|
| Molecules | Elements |
| • Small drugs<br>• Metabolites<br>• Lipids<br>• Peptides<br>• Proteins | • Zinc<br>• Copper<br>• Gold<br>• Calcium<br>• Iron<br>• Gadolinium<br>• Other |

Leveraging mass spectrometry imaging will help you with the evaluation and selection of your drug candidate by helping you answer these questions:

- Is this molecule getting to the target tissue?
- If so, how quickly?
- What is its mechanism of action?
- Is it toxic?
- Is it efficient?

## SPATIAL BIOLOGY: BIOMARKERS

The ability to understand tissue heterogeneity is critical to answering key biological questions that will enable you to advance your molecule to the next phase. We have developed routine analysis of innovative high multiplex immuno-staining services in GLP environment for many applications in oncology, CNS, or cardio-metabolic disorders with a unique testing panel.

Click here to create your own panel by exploring target, pathways, phenotypes, and therapeutic area.

## DISCOVER AND MONITOR YOUR BIOMARKERS TO PROVIDE A MEASURABLE WAY TO CHARACTERIZE DISEASE STATE

Biomarker research or monitoring helps to characterize animal models by identifying the contents of proteins, metabolites, lipids, etc. It can also help to compare animal models to human for better translational research and finally improve drug development with precise medicine. Working with us, you will gain access to our industry experts as well as our technologies to access and analyze spatial molecular arrangements in tissues, including spatial -omics (lipidomics, metabolomics, or proteomics).

Spatial transcriptomics enable us to find new biomarkers and monitoring targeted biomarkers, especially in oncology, rare diseases, fibrotic tissues, and CNS. Through Multimaging™ software and digital pathology, we can propose different programs to identify, quantify, and localize biomarkers related to therapy or diseases.

The team has developed a huge expertise in metabolomics, lipidomics, transcriptomics, and proteomics with 100+ publications in these fields and 2,500+ bio-assays. The possibility to correlate distribution maps of multiple markers and drugs simultaneously with histological and clinical features makes it an ideal tool to deliver precision medicine.

1,000+ MOLECULAR IMAGES ANALYZED

100+ PUBLICATIONS GENERATED FOCUSING ON METABOLOMICS, LIPIDOMICS, TRANSCRIPTOMICS, AND PROTEOMICS

## BIOANALYTICAL: METHOD DEVELOPMENT AND VALIDATION

Once you have your drug candidate selected, we will work with you in method development and validation to quickly evolve your project with precision and flexibility. We understand the importance of developing robust methods, so you can quickly get the data you need in clinic.

To file your IND with precision and speed, let us help you with the following study types:

- PK/TK
- Bioavailability
- Efficacy biomarker

5,000 BIOMARKER PANELS TO COVER THE PATHWAY AND CELL MARKER ANALYSIS

We work with a variety of different matrices within non-GLP and GLP, which include:

- Urine
- CSF
- Gut slurry
- Feces
- Plasma and blood similiar
- Various tissues:
  - Brain
  - Lung
  - Kidney
  - Cornea
  - Optic nerve
  - Umbilical cord
  - Spinal cord
  - Ocular
  - Liver
  - Other

17 FDA AUDITS

## BIOANALYTICAL: SAMPLE ANALYSIS

Since clinical trials are one of the critical parts to the safety and efficacy of a new drug, it's vital to find a bioanalytical partner that will manage your program with speed and integrity. Work with us to ensure that the methods you have built translate into a robust sample analysis strategy that will enable scale, speed, and integrity throughout the process. Our scientists and program managers will help you:

- Ensure proper handling and QA/QC
- Validate the outcome of the method
- Provide reliable analytical results and other data
- Build in flexibility to accommodate modifications as needed
- Accommodate small and large sample analysis projects

We have a breadth of mass spectrometry equipment to accommodate small and large molecule projects.

For large molecule, our bioanalytical experience and solutions in applying LC/MS/MS and HRMS (high-resolution mass spectrometry) include:

- Vast biologic diversity spanning from small (1 kDA) therapeutic peptides to large (900 kDA IgM) proteins
- A wide range of sample preparation methods — simple protein precipitation to complex affinity capture enrichment techniques
- Development and validation of mass spectrometry assays using surrogate peptides produced by proteolytic digestion of proteins for quantification
- Semi-quantitative analysis of intact proteins (>10 kDA)

We work with a variety of different matrices within non-GLP and GLP, which include:

- Development of robust and quantitative methods
- Access to a breadth of non-proprietary assays
- Leverage state-of-the-art mass spectrometry equipment, which also include automated for high throughput

Contact us to learn how we can help you advance your molecule to the next phase.



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BIOANALYSIS