



## Systematic study of lipids and related metabolites

- To reveal the relationship between the composition and localization of lipid molecules in different tissues, cells, and subcells.
- To discover new lipid molecules.
- To facilitate the transition from hypothesis-driven to discovery-driven



systematic research on lipids and related metabolites and functions.



# Study of lipid function and metabolic regulation

Using metabolomics in addition to genomics and proteomics technologies, we analyze lipids for cell and animal models under various conditions to manifest the related composition and dynamic changes, as well as to elucidate the functions and regulations of lipid metabolism.



### Study of lipid metabolic pathways and networks

By analyzing lipid metabolism pathways, we study the physiological or pathological mechanisms of corresponding lipids, thus revealing key regulatory sites and related genes/proteins/enzymes. Therefore, providing an important foundation for new drug target discovery, as well as for the prevention, treatment, and targeted drug development of related diseases.



### **Study of biomarkers**

Lipids and related metabolites are used as indicators for health or disease status; thus, monitoring lipid metabolites will help identify biomarkers for metabolic diseases.

Targeted lipid analysis uses lipidomics methods to target specific lipid molecules and related metabolites in biological samples.

Lipid profiling is the study of various lipids of specific species or pathways in biological samples.

### New drug development and toxicity evaluation



The study of lipid metabolites and related metabolic pathways can be used to define new drug targets, hence accelerating novel drug discovery and development, as well as safety evaluation.

Drug toxicity can disrupt the structural function of normal cells and alter the homeostasis of endogenous metabolites in cellular metabolic pathways, thus altering the plasma composition of target tissues directly or indirectly. By monitoring the abnormal changes in tissue or cell membrane lipid compositions and metabolisms, we can better evaluate the potential toxicity triggered by drug treatment.

Creative Proteomics provides lipidomics solutions in the biomedical field based on GC-MS and high throughput LC-MS/MS technologies. We are capable of performing both untargeted and targeted lipidomics analyses of various panels based on your specific objective. Furthermore, we systematically analyze changes in lipid compositions and expressions to study alterations and functions of lipid families of various biological processes, thereby elucidating the comprehensive mechanisms for your study.





