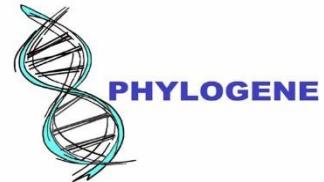
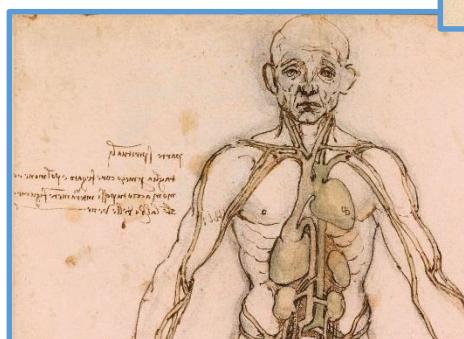
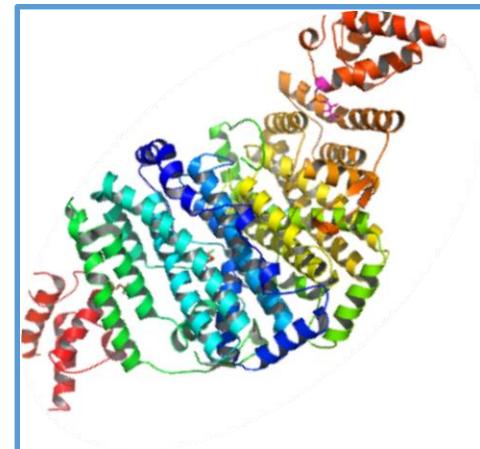
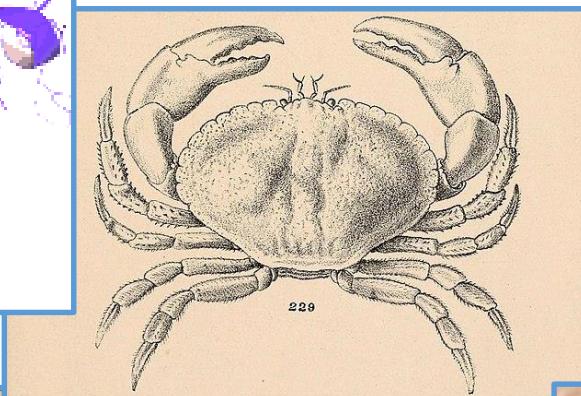
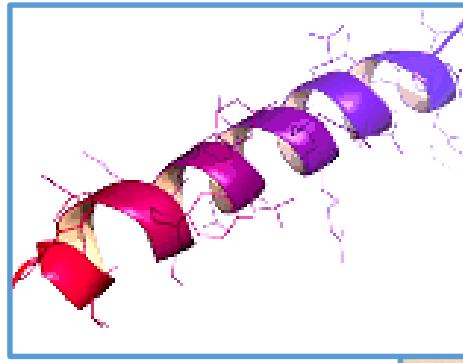


HIGHRES PROTEOMICS FOR DISCOVERY SERVICES



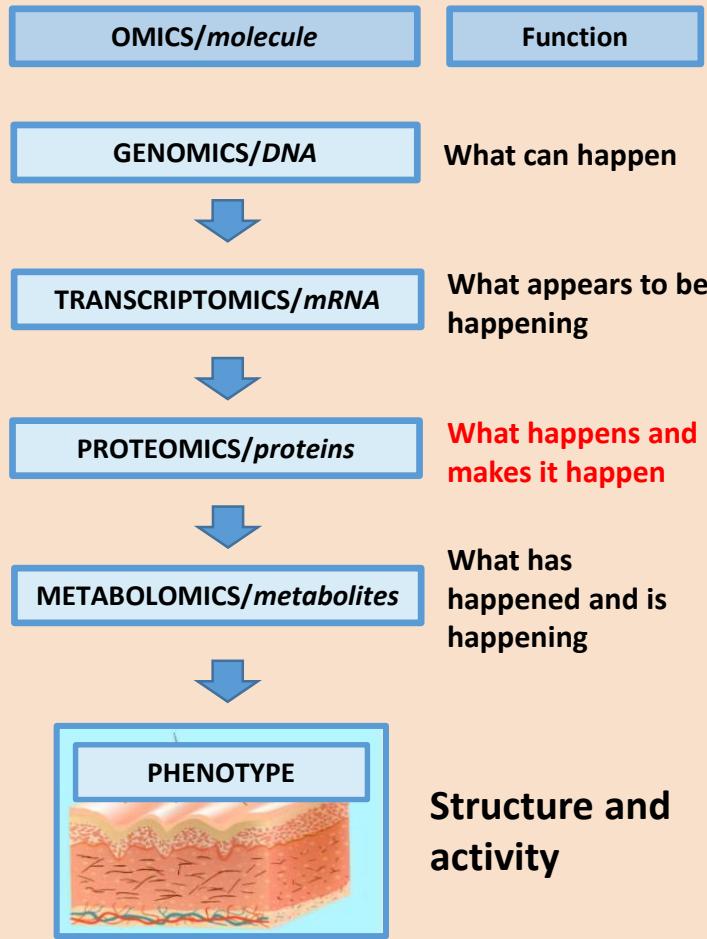
With **PHYLOGENE**,
It's time to think out of the box...



ABOUT PHYLOGENE

A 20 years old ISO 17025 accredited servicing and R&D lab in omics.

OMICS CASCADE

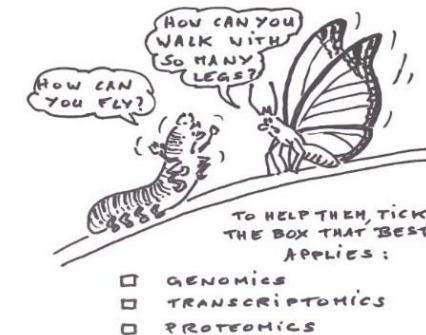


WHY WORK WITH PHYLOGENE?

- Extended experience of omics data processing,
- Expertise in proteomics, metaproteomics and bioinformatics,
- Customized prices and time to results optimization,
- Network of trained CROs,
- Integrated process from sample to result delivery.

WHY USE PROTEOMICS?

- Proteins are directly in charge of cell functions and structures
- Proteomics is very close to phenotype
- Proteomics is based on translated genomics databases, metabolomics is not
- Mass spectrometry nanoLC-MS/MS proteomics** allows detecting thousands of proteins



The Ever Expanding Scope of Electrospray Mass Spectrometry -A 30 Year Journey

"There are huge opportunities for mass spectrometry in clinical applications, such as plasma proteome profiling for precision medicine or cancer tissue Proteomics."

Mann M. 2019 Nat Commun.

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Twitter : https://twitter.com/Phylogene_One



EXPERTISE

-**Proteomics** comparative study of proteomes by relative quantification with nanoLC-MS/MS « shotgun proteomics » and bioinformatics and biostatistics dedicated data processing with CORAVALID™

-**Biomarkers discovery** in a untargeted way followed by targeted **multi-biomarkers validation**

-**Post Translational modifications:** phosphorylations, oxidations...

-**Phosphoproteomics** comparative study of phosphosites to explain regulations not associated with proteins abundance.

-**Oxidation PTMs** - RedOxMics™ to understand the stresses and including sensitive oxidation sites analysis

-**Metabolomics** in a targeted way after proteomics untargeted discovery and pathway analysis, or in untargeted way

-**And also:** Peptide mapping, host cell proteins characterization, histones PTMs...

CORAVALID™ : Complementary analysis of relative quantification data in the comparison of two proteomic conditions.

Enrichment analysis.

CORAVALID is a data complementary analysis, highlighting through KEGG, WIKIPATHWAYS and others: **biological processes, molecular functions, cellular components and signaling and metabolic pathways related to analyzed proteins** significantly regulated from relative quantitation proteomic experiments.

Associations are validated using statistical tests such as Fisher's exact test and manual curation.

Synthesis and interpretation.

CORAVALID makes the **synthesis and interpretation** of these results and informations associated with each protein, in order to highlight the phenomena and mechanisms distinguishing the two compared samples sets. This synthesis makes it possible **to highlight the major biological functions impacted**.

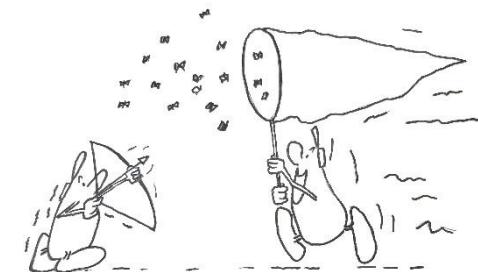
Biological meanings - Claims proposal.

Major biological impacted functions are processed in order to determine if they are positively or negatively regulated. This in-depth analysis will make it possible **to determine the biological significance of the results obtained, to determine phenotypes, and to propose claims.**

Reproducible Quantification of Cancer-Associated Proteins in Body Fluids Using Targeted Proteomics

“...we demonstrate that these SRM assays allow reproducible quantification by monitoring 34 biomarker candidates across 83 patient plasma samples”

Hüttenhain R. and al. 2012 Sci. Transl. Med.



Targeted vs untargeted