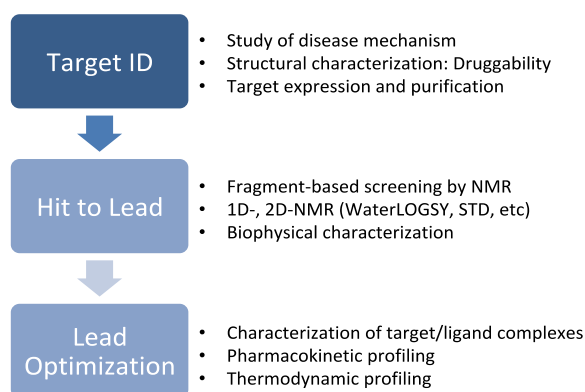


## Drug Development and Innovation Support Unit

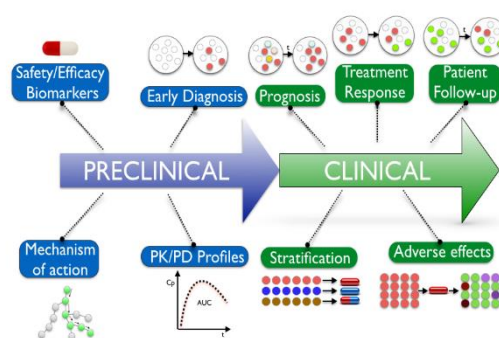
### DESCRIPTION OF THE TECHNOLOGY

The Drug Development and Innovation Support Unit works on the development and evaluation of new therapeutic agents directed at specific molecular targets using an approach based on rational drug design and metabolomics.

To achieve these objectives, the DDU is working on the development of experimental strategies that allow the identification and characterization of pharmacological targets, as well as the search for new therapeutic principles against them.



These objectives are complemented with the identification of pharmacological / clinical biomarkers that can be used for the diagnosis / prognosis of different pathologies, the stratification and monitoring of patients, the characterization of the mechanism of action of drugs, and the evaluation of the safety profiles. therapeutic efficacy of the same.



### MARKET APPLICATION SECTORS

The Drug Development and Innovation Support Unit offers services focused on innovation and development of new diagnostic methods and therapies directed at specific molecular targets, using an approach based on rational drug design and metabolomics. In this context, the main services offered by the DDU are related to:

- Expression and purification of recombinant proteins
- Study of molecular interactions: NMR, SPR, ITC
- Fragment screening by NMR
- Preparation, measurement and analysis of metabolomics samples by NMR
- Integrated analysis of omics data
- Use of equipment by users external to the platform

These services are applicable in different areas, including mainly the development of new drugs and the development of new methods for the diagnosis and monitoring of patients.

### TECHNICAL ADVANTAGES AND BUSINESS BENEFITS

The equipment available at the Drug Development and Innovation Support Unit incorporates the latest scientific and technological advances, thus ensuring its competitiveness:

- FPLC AKTA, GE Healthcare
- PEAQ-ITC Microcal Calorimeter, Malvern Panalytical
- Biacore X100, GE Healthcare

## Drug Development and Innovation Support Unit

- Bruker AVANCE-TM 600 MHz, 5mm BBI probe, 5mm, BBO probe
- SampleJet Bruker Sampler Robot

In addition, the Drug Development and Innovation Support Unit staff has proven experience in the design of protein constructions, in their purification and in their biochemical, biophysical and structural characterization, as well as in the identification of new targets and biomarkers with clinical utility in diagnosis and cancer treatment. The members of the research group come from the pharmaceutical industry and maintain a close collaborative relationship with different companies in the field of identification and evaluation of fragments, small molecular weight compounds that have modest affinities for pharmacological targets. At the national level, there are different scientific-technological services / platforms that offer, in isolation, some of the services available in the Drug Discovery Unit (DDU), but none of them do so in an integrated way. In this context, the DDU is the only technological platform that jointly offers different innovative experimental approaches of great value in the area of drug discovery. This aspect represents a very important competitive advantage over other available scientific-technological services, since it allows optimizing the drug development process, allowing the evaluation and analysis of different pharmacological characteristics in a sequential way.

### COLABORATION SOUGHT

The Drug Development and Innovation Support Unit maintains relationships with different research groups and consortia, both nationally and internationally, with which it collaborates in projects aimed at the identification of new biomarkers and therapeutic targets in cancer, with the ultimate objective of developing new molecules that allow modulating the activity of these targets. In addition, the DDU participates in projects in collaboration with different companies in the field of identification and evaluation of fragments, compounds of small molecular weight that have modest affinities against pharmacological targets.

It offers collaboration and provision of services in the field of new biomarkers identification and therapeutic targets in cancer, as well as the development of new drugs.

### RELATED IMAGES

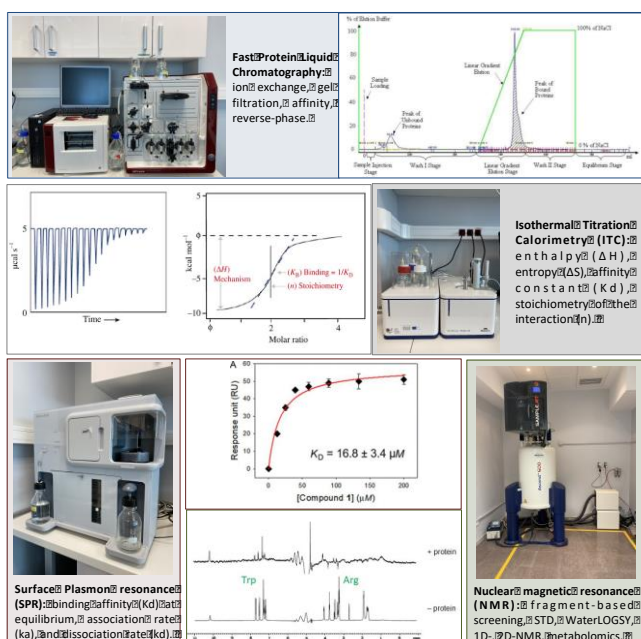


Figure 1: Equipment available in the UD

## Drug Development and Innovation Support Unit

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