

CELL PHYSIOPATHOLOGY AND BIOENERGY LABORATORY

PRESENTATION

Director: Juan Carlos Rodríguez Aguilera

Research Group: Physiology and biochemistry of cell growth (CVI177)

Area: Cell Biology

Universidad Pablo de Olavide

The services provided by this Laboratory are the result of core research developed for 20 years by the group of experts in charge, and through the technological development of specific and reliable protocols for the diagnosis of biopsies and the molecular diagnosis of mitochondrial disorders. Furthermore, new tools are currently being developed that will expand the scope of the laboratory and diversify its technical offer.



The Laboratory is accredited by [ENAC 548/LE1150](#) in accordance with the [ISO15189](#) international standard governing quality in clinical laboratories.

SERVICES

CLINICAL SERVICES AND DIAGNOSES

- Biochemical diagnosis of mitochondrial disorders in human biological samples of muscle tissue and skin fibroblasts.
- Identification and characterisation of the pathogenicity of CoQ gene mutations in patients with primary coenzyme Q10 deficiency.
- Measurement of enzyme activity as indicators of muscular energy production capacity from diet. (*)
- Measurement of Coenzyme Q content and biosynthesis capacity in biological samples (*).
- Measurement of Coenzyme Q content in food products and cosmetics.

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In the case of the clinical sector, the aim is to assist diagnosis by conducting tests that detect rare disorders

BIOTECHNOLOGY SERVICES

- Testing for the toxicity of pharmaceutical drugs on mitochondrial physiology.

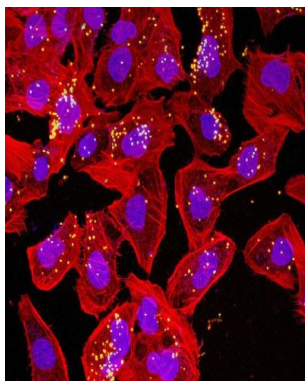
SPORTS SERVICES

- Analysis of muscular energy capacity to determine the physical condition of athletes.
- Analysis of muscular energy capacity to determine the aptitude of competition animals
- Measurement of enzyme activity as indicators of muscular energy production capacity from diet.

The group responsible for this Service is part of the national network of mitochondrial disorders

SECTORS OF APPLICATION

- Clinical: insurance firms and public/private hospital clients
- Animal competitions: stables, studs or sport livestock rearing
- Sporting: professional athletes, gyms and sports schools
- Pharmacological: pharmaceutical and biotechnology companies



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