Research group: Olivier DE BACKER





Molecular Physiology Research Unit (URPhyM)

Functions of MAGE / BOD1 proteins

- 1. Functions of MAGE proteins at the molecular, cellular and organism levels
- in developing and adult skeletal muscle and kidney
- in DNA Damage Response
- 2. Functions of BOD1 protein, which is associated with syndromic intellectual disabilities, in a mouse model





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Research topics

- Development and regeneration of mouse skeletal muscle and kidney
- DNA Damage response
- Protein ubiquitination
- Function of gene BOD1 whose loss of function is responsible for an intellectual disability syndrome in humans

Specific methods

- Genome edition in cells and mice by CRISPR/Cas9
- Mouse model design and development (inducible loss or gain of function, tagging of proteins, reporters...)
- Multiple and rapid site-directed mutagenesis of DNA sequences (overlap extension PCR)
- Detection of RNA or DNA sequences by colorimetric duplex loop-mediated isothermal amplification (LAMP)

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