Research group
Thierry ARNOULD - Patsy RENARD
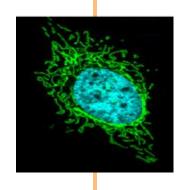
ORBI : ORganelle Blology

The ORBI team mainly explores **the biology of mitochondria and other organelles**, as well as their **dysfunction** in mammalian cell responses related to **metabolism**, **obesity**, **stem cell differentiation**, **infection by intracellular bacteria**, **cancer cell irradiations**,...

Laboratory of Cellular and Molecular Biology
(URBC-NARILIS)

narilis
NAmur Research Institute for LIfe Sciences

UNIVERSITÉ DE NAMUR

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Expertise

Cell Biology, Cell Signaling and cell stress response, Biochemistry, Proteomics …

Mitochondria in Stem Cells

- **Hepatogenic differentiation** : role of sirtuins
- **Study of mitochondria** in embryonic stem cells during early developement
- Intercellular **mitochondria transfer**

Mitochondria and Membranes

- Control of **protein import** machinery
- Role of **MPV17** and identification of protein partners in MPV17 complex

Mitochondria dysfunction

Study of cell responses to mtDNA mutations, depletion, uncoupling agents… : cell signaling, metabolism, adipogenic differentiation, apoptosis, er and mtUPR, autophagy, …

In collaboration

- **Host-pathogen interactions** : Mitochondria interactions with intracellular bacteria (*Xavier De Bolle, UNamur*)
- **Encapsulation of stem cells** differentiated in beta cells for type I diabetes treatment (*Bao-Lian Su, UNamur*)
- Study of autophagic flux in kidney cells exposed to fatty acids - **obesity in mice** (*Anne-Emilie Decleves, UMons*)
- **Adipogenic differentiation : role of oestrogen in lipedema** *(Christine Deconinck, Morgane Cannone, CHU UCL Namur - Godinne)*
- **Irradiation and mitochondria** biology in cancer cells (*Anne-Catherine Heuskin, UNamur*)

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Group leaders

Thierry Arnould

Patsy Renard

PhD students

Sébastien Meurant

Jérémy Verbeke

Louise Feller

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Shadi Moyashedi

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Master Students (2022)

Pamela June Tamfompa

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