

PhD Student Day

Tuesday May 23, 2023

University of Namur
S01 auditorium



Program

08:00-08:40	<i>Welcome coffee</i>
08:40-08:45	<i>Introduction by Prof. Thierry Arnould, UNamur</i>
08:45-10:15	Short talks 1-7
10:15-11:15	Poster session (odd numbers) & Coffee break
11:15-12:45	Short talks 8-14
12:45-13:45	<i>Lunch</i>
13:45-15:15	Short talks 15-21
15:15-16:15	Poster session (even numbers) & Coffee break
16:15-17:45	Short talks 22-27
17:45-18:00	<i>Awards & Closing remarks by Prof. Henri-François Renard, UNamur</i>



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Short talks

08:45-10:15

- 1. Characterization of NtWoolly and NtRAX2-like, two transcription factors involved in the development of glandular trichomes of *Nicotiana tabacum***
Louis GUEUNING, UCLouvain (promoter: Prof. Charles Hachez)
- 2. Engineering human-like O-glycosylation in *Nicotiana tabacum* BY-2 cells**
Nicolas BAILLY, UCLouvain (promoter: Prof. François Chaumont)
- 3. Identification and characterization of transcription factors regulating aquaporin gene expression**
Maxime LAURENT, UCLouvain (promoter: Prof. François Chaumont)
- 4. The transcription factor NAC24 regulates the *PIP2;5* aquaporin gene in maize**
Estelle TEIRLINCKX, UCLouvain (promoter: Prof. François Chaumont)
- 5. Non-cell autonomous regulation of pre-motor interneuron development in the embryonic spinal cord**
Andrea ANGLA NAVARRO, UCLouvain (promoter: Prof. Frédéric Clotman)
- 6. Contribution of the paralog factors Lhx3/Lhx4 and Isl1/Isl2 to V2 interneuron vs motor neuron segregation during spinal cord development**
Estelle RENAUX, UCLouvain (promoter: Prof. Frédéric Clotman)
- 7. Effects of mild and repeated contusions on the appearance and exacerbation of tauopathies in a murine model of spinal cord injury**
Nicolas HALLOIN, UNamur (promoter: Prof. Charles Nicaise)

11:15-12:45

- 8. Characterization of the yeast Gdt1 $\text{Ca}^{2+}/\text{Mn}^{2+}/\text{H}^{+}$ antiporter using intraorganellar measurements of ion concentrations and mutagenesis**
Quentin LEJEUNE, UCLouvain (promoter: Prof. Pierre Morsomme)
- 9. Role of clathrin-independent endocytosis and retrograde transport in cancer cell immunogenicity**
Shiqiang XU, UNamur/UCLouvain (promoters: Prof. Henri-François Renard & Prof. Pierre Morsomme)
- 10. Role of endophilin-A3-dependent endocytosis and its cargo CD166 in cancer**
Emilie RIGAUX, UNamur (promoter: Prof. Henri-François Renard)
- 11. Study of the AMPK role in autophagic alterations in renal proximal tubular epithelial cells exposed to fatty acids**
Louise PIERRE, UNamur (promoter: Prof. Thierry Arnould)
- 12. Characterization of the transmembrane lysosomal protein SLC35F6**
François VAN DEN BOSSCHE, UNamur (promoter: Prof. Michel Jadot)
- 13. Do Lysosomal Storage Disorder play a role in cancer?**
Maxence TOUSSAINT, UNamur (promoters: Prof. Marielle Boonen & Prof. Michel Jadot)
- 14. *S. aureus* adheres to human skin through the interaction between SdrD and the desmoglein-1**
Constance CHANTRAINE, UCLouvain (promoter: Prof. Yves Dufrêne)

13:45-15:15

15. Structural and functional characterization of Tn4430 transposase : a new mechanism for RNase H domain activation

Nicolas ARYANPOUR, UCLouvain (promoter: Prof. Bernard Hallet)

16. CovM, an accessory regulator of CovS in *Streptococcus salivarius* mandatory for competence

Géraldine HOUSSA, UCLouvain (promoter: Prof. Pascal Hols)

17. The second messenger (p)ppGpp regulates cell cycle progression in *Caulobacter crescentus* by reprogramming transcription

Aishwarya SAXENA, UNamur (promoter: Prof. Régis Hallel)

18. More than a stress response molecule, (p)ppGpp regulates cell cycle progression in replete conditions in *Caulobacter crescentus*

Elie MARCHAND, UNamur (promoter: Prof. Régis Hallel)

19. Characterization of the molecular role of PcoB in copper efflux in *Caulobacter crescentus*

Amira KHOCHTALI, UNamur (promoter: Prof. Jean Yves Matroule)

20. A TonB-dependent receptor and its associated oxygenase connect Fe and Cu homeostases

Pauline CHERRY, UNamur (promoter: Prof. Jean-Yves Matroule)

21. ADAM : Automatic Detection of new Antiviral Mechanisms

Rémy DUGAUQUIER, UNamur (promoter: Prof. Gipsi Lima Mendez)

16:15-17:45

22. Specification of precursor germ cells from somatic cells during early embryogenesis in *C. elegans*

Pauline PONSARD, UNamur (promoter: Prof. Hermand Damien)

23. Usability of *C. elegans* as a model to investigate the FLASH effect in protontherapy

Lucas SCHOENAUEN, UNamur (promoter: Prof. Anne-Catherine Heuskin)

24. Regulation of PD-L1 expression by radiation therapy in HPV- and HPV+ head and neck squamous cell carcinoma

Christoph SCHIFFLERS, UNamur (promoter: Prof. Carine Michiels)

25. Punicic acid, a lipid weapon with three conjugated double bonds against prostate cancer

Perrine VERMONDEN, UCLouvain (promoter: Prof. Yvan Larondelle)

26. Evaluation of the cytotoxicity activity of conjugated linolenic acids on a cellular model of zebrafish melanoma

Zhuo ZHANG, UCLouvain (promoter: Prof. Yvan Larondelle)

27. Resistance to ClnA-induced ferroptosis is acquired in Caco2 cells upon differentiation

Géraldine CUELIER, UCLouvain (promoters: Prof. Yvan Larondelle & Prof. René Rezsöházy)

POSTERS

- P1. Characterization of the composition and oxidative stability of *Ricinodendron heudelotii* kernel oil, a natural source of conjugated linolenic acids**
Antoine IDE, UCLouvain (promoter: Prof. Yvan Larondelle)
- P2. Development of a biosourced polymer with a specific three-dimensional structure as a regenerable filter aid for the beer industry**
Nicolas DECLERCQ, UCLouvain (promoter: Prof. Sonia Collin)
- P3. Study of the impact of UVB-induced senescent keratinocytes on skin cancer cells**
Inès BOURIEZ, UNamur (promoter: Prof. Florence Chainiaux)
- P4. Neuroinvasion of SARS-CoV-2 in SH-SY5Y cells can be partially blocked by using entry inhibitors**
Margaux MIGNOLET, UNamur (promoter: Prof. Charles Nicaise)
- P5. Deciphering spatiotemporal regulation of antibiotic and copper coresistance in *C. crescentus***
Marine OTE, UNamur (promoter: Prof. Jean-Yves Matroule)
- P6. Investigation of the Antibacterial Properties of Silver-Doped Amorphous Carbon Coatings Produced by Low Pressure Magnetron Assisted Acetylene Discharges**
Valentin JOB, UNamur (promoter: Prof. Stéphane Lucas)
- P7. High-throughput screening for Elongator inhibitors**
Pauline TRICQUET, UNamur (promoter: Prof. Damien Hermand)
- P8. Development and Validation of Multi-Analyte Methods for the Analysis of Flavouring Substances in Belgian Foodstuffs**
Alexandre DUSART, UCLouvain (promoter: Prof. Sonia Collin)
- P9. Development of a model of renal cell senescence**
Hélène MARLIER, UNamur (promoter: Prof. Florence Debacq-Chainiaux)
- P10. Generation of a xCT/Slc7a11 reporter mouse using epitope tagging method.**
Lindsay SPRIMONT, UNamur (promoter: Prof. Charles Nicaise)
- P11. How bacteria wake up from a Cu-induced dormant state**
Timothej PATOCKA, UNamur (promoter: Prof. Jean-Yves Matroule)
- P12. *In-vitro* flash study of spheroids irradiated with proton beam at ultra-high dose rate (1000 Gy/s)**
Andrea SCARMELOTTO, UNamur (promoter: Prof. Stephane Lucas)
- P13. Interactome and chromatin structure of the RMM condensates involved in meiotic DNA double strand break formation**
Marita HADDAD, UCLouvain (promoter: Prof. Corentin Claeys Bouuaert)

- P14. Is protease gene knockout the key to solving recombinant glycoprotein degradation in *Nicotiana tabacum* BY-2 cells?**
Mathilde MOENS, UCLouvain (promoters: Prof. François Chaumont & Prof. Catherine Navarre)
- P15. Towards the development of covalent inhibitors for *Brucella melitensis* SerB through crystallography and kinetics**
Tanguy SCAILLET, UNamur (promoter: Prof. Johan Wouters)
- P16. Development of personalized neutron capture therapy using theranostic carriers**
Eloïse RAPPORT, UNamur (promoter: Prof. Carine Michiels)
- P17. Investigation of the bidirectional copper transport across the inner membrane of the free-living *Caulobacter crescentus***
Hala KASMO, UNamur (promoter: Prof. Jean-Yves Matroule)
- P18. Metabolic control of different responses of human cancer cells to X-ray and proton radiotherapy**
Eléonore HARDY, UNamur (promoter: Prof. Anne-Catherine Heuskin)
- P19. Characterization of the assembly of the meiotic DNA double strand break machinery by atomic force spectroscopy**
Karen MECHLEB, UCLouvain (promoter: Prof. Corentin Claeys Bouuaert)
- P20. Purification and comparative analysis of plant cells autophagosomes' proteome**
Jérôme KOESTEL, UCLouvain (promoter: Prof. Henri Batoko)
- P21. Venomics to break the deadlock of refractory esophageal adenocarcinoma**
Chloé MATTHYS, UNamur (promoter: Prof. Jean-Pierre Gillet)
- P22. Determination of the genes implicated in intrinsic resistance to proton beam therapy for the treatment of glioblastoma**
Hortence PAREE, UNamur (promoter: Prof. Carine Michiels)
- P23. A role for Maged2 in myogenic differentiation and muscle regeneration**
Axelle NOLMANS, UNamur (promoter: Prof. Olivier De Backer)
- P24. Development of a novel bacterial host as a new cell factory**
Mélanie GREGOIRE, UNamur (promoter: Prof. Francesco Renzi)
- P25. Role of the MRX complex in meiotic DNA double-strand break formation**
Priyanka PRIYADARSHINI, UCLouvain (promoter: Prof. Corentin Claeys Bouuaert)
- P26. Transient vs permanent gene inactivation: the case of *Peroxiredoxin-5***
Marine DELSAUTE, UCLouvain (promoters: Prof. Bernard Knoops & Prof. Isabelle Donnay)
- P27. Using whole genome assemblies to understand ecological differentiation in a cryptic species complex (*Melampus*)**
Jessica ODY, UNamur (promoter: Prof. Alice Dennis)

- P28. Advances in Molecular Characterization for non-small cell lung carcinoma patients (AMoChar)**
Céline MASCHIETTO, UNamur/CHU UCL Namur (promoter: Prof. Carine Michiels & Prof. Sebahat Ocak)
- P29. Structural characterisation of amyloidogenic intrinsically disordered zinc finger protein isoforms DPF3b and DPF3a**
Julien MIGNON, UNamur (promoter: Prof. Catherine Michaux)
- P30. Discovery of mechanisms of interactions between bacteria and bacteriophages in the human gut microbiome**
Diana BITTREMIEUX, UNamur (promoter: Prof. Gipsi Lima Mendez)
- P31. The role of meiotic chromosome axis in the assembly of DNA double-strand-break machinery**
Chi Wai WONG, UCLouvain (promoter: Prof. Corentin Claeys Bouuaert)
- P32. On the way to deciphering the downstream molecular network of HOXA5 in post-mitotic neurons: establishment of a new cellular model for chromatin immunoprecipitation.**
Amandine VANDENBERGHE, UCLouvain (promoter: Prof. Françoise Gofflot)
- P33. ToF-SIMS as a tool to study membrane lipids alteration after CONV and UHDR proton irradiation**
Charlotte ROSSI, UNamur (promoter: Prof. Laurent Houssiau)
- P34. Study of treatment induced senescence (TIS) in head and neck squamous cell carcinoma (HNSCC) according to the HPV status**
Karim BOUHJAR, UNamur/UMontreal (promoters: Prof. Carine Michiels & Dr. Francis Rodier)
- P35. The knockout of SPG21, the gene mutated in hereditary spastic paraplegia 21, leads to pro-cathepsin D hypersecretion and TFEB deregulation in HeLa cells**
Thomas JACQMIN, UNamur (promoter: Prof. Marielle Boonen)
- P36. Non-covalent synthesis of porous organic salts**
Liuxi YANG, UNamur (promoter: Prof. Bao-Lian Su)
- P37. Endogenous TOM20 proximity labeling: a Swiss-knife for the study of mitochondrial proteins in human cells**
Sébastien MEURANT, UNamur (promoter: Prof. Patricia Renard)
- P38. *Streptococcus thermophilus* for the directed evolution of proteins expressed from the chromosome**
Steve ALARCIA, UCLouvain (promoter: Prof. Patrice Soumillion)
- P39. Study of the role of mitochondrial Sirtuins 3, 4 and 5 in the differentiation of hiPSCs into hepatocyte-like cells and in the early events of NAFLD/NASH**
Debakshee GOSWAMI, UNamur (promoter: Prof. Patsy Renard & Prof. Thierry Arnould)

P40. *In vivo* characterization of *A. baumannii* lung infection in mice

Thomas ROUMA, UNamur/ULB (promoters: Prof. Xavier De Bolle Xavier & Prof. Eric Muraille)

P41. Consequences of the inactivation of the mannose-6-phosphate pathway on the growth, migration and drug sensitivity of HeLa cells.

Aseña AYNACI, UNamur (promoters: Prof. Marielle Boonen & Prof. Michel Jadot)

P42. Deciphering the RNA-mediated allosteric regulations of the bifunctional (p)ppGpp synthetase/hydrolase enzyme in alphaproteobacteria

José MAIO, UNamur (promoter: Prof. Régis Hallez)

P43. Functional characterization of the interplay between the APOBEC host deaminases and the SARS-CoV-2 proteins and their role in SARS-CoV-2 evolution

Alexandra DECLoux, UNamur (promoter: Prof. Nicolas Gillet)

P44. Persistent organic pollutants decrease *ex vivo* lipolysis of precision-cut adipose tissue slices from pig

Laura PIRARD, UCLouvain (promoter: Prof. Cathy Debier)

P45. Antagonization of the APOBEC3B antiviral factor by adenoviruses

Sarah MATHIEU, UNamur (promoter: Prof. Nicolas Gillet)