Scientific Meetings

Wednesday 18 December 2024
9.30am to 11.30am
GIGA Tower /CHU Liège

Pr Laurent Nguyen
Migrating cells shape cerebral cortex morphogenesis - An evo-devo perspective

Noora Taipale (replacing Veerle Rots)
What microtraces on stone tools reveal about the behaviours of early humans

Pr Michel Georges
Genomics of complex traits in animals and humans

Pr Pierre Close
mRNA translation reprogramming at the heart of phenotype switching

Laurent Nguyen

National Fund for Scientific Research (FNRS)
Research Director
Scientific Director of the GIGA Institute
Head of the Laboratory of Molecular Regulation of Neurogenesis

Dr. Laurent Nguyen holds a PhD in Experimental Biomedical Science and is a FNRS Research Director and WEL Research Institute Investigator. After completing his doctoral dissertation in developmental neurobiology under the supervision of Prof. Gustave Moonen at the University of Liège (ULiège) from 1999 to 2003, Dr. Nguyen received an EMBO research grant and conducted postdoctoral research in Dr. François Guillemot's laboratory at the National Institute for Medical Research in London from 2003 to 2006.

Dr. Nguyen currently leads a team of researchers at the GIGA-Neurosciences laboratory at ULiège. His group focuses on studying the cellular and molecular mechanisms that regulate the development of the cerebral cortex, contributing to the understanding of brain development and its implications in neurological conditions.

Dr. Nguyen's work has been recognized with several prestigious scientific awards, reflecting the impact of his contributions to the field. He has authored approximately forty publications, including articles in renowned scientific journals, highlighting the excellence and relevance of his research.

Links

- *Laurent Nguyen takes part in the UNFOLD project funded by an ERC Synergy Grant*
- *Shaping cerebral cortex by cellular crosstalk*
- *Laboratory of Molecular Regulation of Neurogenesis*
- **ORBi profile** (ULiège scientific repository)

Noora Taipale

National Fund for Scientific Research (FNRS)
Postdoctoral Researcher
TraceoLab

Noora Taipale obtained her PhD at the University of Liège in 2020 and is currently an FNRS Postdoctoral Researcher at TraceoLab. With a Master's degree from the University of Helsinki and training in quartz use-wear analysis at Uppsala University, she has expanded her research from the European Upper Palaeolithic to the Middle and Early Stone Age of Africa. Her work focuses on lithic functional analysis to explore past human adaptations and technological diversity across time and space.

Her PhD, conducted within the ERC-funded project "Evolution of Stone Tool Hafting in the Palaeolithic," explored variability in hafting at Upper Palaeolithic sites Hohle Fels, Maisières-Canal, and Abri Pataud. This groundbreaking research linked hafting patterns to prehistoric subsistence, mobility, and social organization. After completing her doctorate, she joined the interdisciplinary project "Investigating the Deep Roots of Human Behaviour," analyzing Early Stone Age lithic tools from Kalambo Falls in Zambia.

In 2023, Noora received an FNRS postdoctoral fellowship to study Middle Stone Age lithic technologies in South Africa, focusing on materials from Klasies River Main site and Rose Cottage Cave. Collaborating with international researchers, she examines changes in stone tool technology, emphasizing processing activities and the influence of raw material properties. She also develops experimental use-wear collections to improve the interpretation of African archaeological records, contributing to our understanding of Homo sapiens' evolution and dispersal.

Links

- *Exploration of prehistoric raw materials in Southern Africa*
- *Long distance weaponry identified at the 31,000-year-old archaeological site of Masières-Canal*
- *TraceoLab*
- **ORBi profile** (ULiège scientific repository)

Veerle Rots

National Fund for Scientific Research (FNRS)
Research Director
Head of the TraceoLab

Veerle Rots obtained her PhD at KULeuven and subsequently became a postdoctoral research fellow of the Research Fund (2002-2009) and the Fund for Scientific Research of Flanders (FWO) (2009-2011). She was appointed guest lecturer at the Department of Archaeology of the University of Leuven in 2005 until 2012. In 2011, she obtained a permanent position as researcher of the Belgian Fund for Scientific Research (FNRS-FRS) at the University of Liège (Belgium). She was awarded a prestigious ERC starting grant form the European Research Council in 2012 with the project "Evolution of Stone Tool Hafting in the Palaeolithic". In 2019, she became a Senior Research Associate of the F.R.S.-FNRS. She was awarded the **Francqui prize in 2022**. Currently, she is Research Director of the F.R.S.-FNRS (since 2023).

Since her arrival at the University of Liège, she has developed TraceoLab, a research centre in prehistory devoted to use-wear and residue studies of prehistoric stone tools and experimentation. Her personal expertise mainly concerns integrated techno-functional approaches with a particular focus on microscopic use-wear and hafting wear traces on stone tools, associated with systematic experimentation, and with a particular interest in Palaeolithic assemblages.

Over the years, she has been involved in many field projects in Belgium and abroad (e.g., Egypt, Sudan, Ethiopia, Turkey, Poland, South Africa), and she has on-going collaborations to examine the archaeological material of different Palaeolithic sites (Belgium, Germany, France, Italy, Morocco, Ethiopia, South Africa, Zambia).

Links

- *Archaeologists discover the oldest wooden strucutre in the world*
- *Long distance weaponry identified at the 31,000-year-old archaeological site of Masières-Canal*
- *TraceoLab*
- **ORBi profile** (ULiège scientific repository)

Michel Georges

Emeritus Professor
Former head of the GIGA Institute

Dr. Michel Georges began his career as a researcher in the United States before returning to Liège in 1994 to lead the Animal Genomics Unit at the University of Liège (ULiège). Since 2006, this team has been part of the GIGA research center, where Dr. Georges has served as director from 2016 to 2024. A specialist in molecular biology, he is internationally renowned for his contributions to animal genetics and genomics, focusing on characterizing genomes of organisms such as livestock, plants, and humans.

Dr. Georges' lab is a global leader in studying genotype-phenotype relationships in animals, contributing to key discoveries in livestock coat color, sheep muscular hypertrophy, and milk production. The team pioneered the use of genomic tools such as high-density SNP chips and genomic selection, transforming livestock breeding. Recently, his work extended to human medicine, particularly Crohn's disease, uncovering genetic factors that could lead to targeted therapies.

Recognized with prestigious awards like the Wolf Prize in Agriculture (2007) and the **Francqui Prize (2008)**, Dr. Georges' research bridges animal and human genomics. His collaborative efforts with ULiège's Department of Gastroenterology aim to leverage genomic insights for better treatments, advancing understanding of both complex traits in animals and human genetic diseases.

Links

- *Genotype influences the intestinal microbiotia composition*
- *ERC Advanced Grant DAMONA (research into the processes of gene mutation and recombination)*
- *GIGA Institute*
- **ORBi profile** (ULiège scientific repository)

Pierre Close

National Fund for Scientific Research (FNRS)
Research Director
Head of the Laboratory of Cancer Signaling

Pierre Close is a Senior Research Associate for the FRS-FNRS and a WEL Research Institute Investigator. After earning a degree in Pharmacy from ULiège, he completed his PhD in 2002 under Prof. Alain Chariot, where he studied the molecular and cellular functions of Elongator, a six-subunit complex with acetyltransferase activity. This work provided key insights into its roles in cancer cell migration and neuronal development.

In 2006, Dr. Close received an EMBO long-term postdoctoral fellowship and joined Prof. Jesper Svejstrup's lab at the London Research Institute - Cancer Research UK. There, he investigated links between gene transcription, mRNA biology, and proteome expression. His research identified novel proteins connecting transcript elongation to alternative splicing and proteome regulation, offering a deeper understanding of RNA processing.

Since 2013, Dr. Close has led a laboratory at the GIGA-Institute in Liège, focusing on cancer development mechanisms, particularly changes in mRNA translation and proteome expression via tRNA regulation. His recent work highlights the role of wobble uridine tRNA modifications in tumor progression, metastasis, and drug resistance, identifying them as potential therapeutic targets. His ongoing research continues to uncover crucial mechanisms driving cancer adaptation and therapy resistance.

Links

- *Transfer RNAs at the heart of therapeutic resistance*
- *Pierre Close receives an award of the WorldWide Cancer Research*
- *Laboratory of Cancer Signaling*
- **ORBi profile** (ULiège scientific repository)