

PhD Scholarship - University of Mons, Mons, Belgium / Queensland University of Technology (QUT), Brisbane, Australia

Starting Date: October 2021 (application deadline 30/04/2021), **Duration:** 36 months

We are currently seeking a highly motivated candidate with a strong interest in **macromolecular synthetic chemistry and mass spectrometry/molecular modelling** for a PhD thesis focused on the synthesis and characterization of an exciting class of emerging nature-inspired materials: Catalytically active sequence-defined single chain nanoparticles (SCNPs). The ultimate objective of this PhD project is the establishment of SCNPs as a new class of innovative nanoreactors. The successful candidate will work with the latest synthetic and analytic technologies, immersed in a vibrant cross-continental research team in Australia and Belgium, obtaining a dual PhD degree from the University of Mons, Belgium, and the Queensland University of Technology (QUT), Australia.

The PhD student will spend a minimum of one to a maximum of two years at each institution. In Australia, the successful applicant will be based in the School of Chemistry and Physics (<https://www.qut.edu.au/science-engineering/schools/chemistry-physics>) at QUT and will be part of the Soft Matter Materials Laboratory (<http://macroarc.org/>) (supervised by Christopher Barner-Kowollik and Stephen Blanksby). In Belgium, the applicant will benefit from the supervision of Pascal Gerbaux (<https://s2mos.umons.ac.be/>) for mass spectrometry experiments and Jérôme Cornil for theoretical chemistry (<http://morris.umons.ac.be/>) and will be based in the Organic Synthesis and Mass Spectrometry Laboratory (S²MOs).

Skills and experience

- (A) Master degree or equivalent;
- (B) Bachelor degree with at least a 2nd Upper Class Honours or equivalent;
- (C) Macromolecular (organic) synthetic chemistry;
- (D) Background in mass spectrometry and/or molecular modelling will be acknowledged;
- (E) An excellent level of English.

To apply, please provide

- (A) Undergraduate academic transcripts with marks and ranking;
- (B) Two detailed letters of reference (including one from the supervisor of your master research thesis);
- (C) A letter of motivation;
- (D) A full CV and publication list (if applicable)

Please send your completed application in a single PDF document to Dr. Laura Delafresnaye (laura.delafresnaye@qut.edu.au) and Prof Pascal Gerbaux (Pascal.Gerbaux@umons.ac.be).

The applicant must be eligible to enrol in a PhD at the Queensland University of Technology (<https://www.qut.edu.au/courses/doctor-of-philosophy-science-engineering>). The scholarship is indexed annually (starting at AU\$28,905 per annum). The scholarship is tax exempt for full-time students. International students will receive an accompanying QUT Higher Degree Research Tuition Fee Sponsorship. The applicant must also be eligible to enrol in a PhD program at the University of MONS (<https://web.umons.ac.be/en/teaching/lenseignement-superieur-en-federation-wallonie-bruxelles/regulations/>). The scholarship is tax exempt for full-time students and is indexed annually (starting at 24.000 euros per annum).

The full scholarship is also contingent on the acceptance of the joint programme by UMONS based on the CV of the candidate and yearly funding available for joint PhD theses.