A PhD student position is available to work on herbicide target discovery in sunny Perth, Western Australia. The position is with Associate Professor Josh Mylne, based within the School of Molecular Sciences, which runs the majors of genetics, biochemistry and chemistry at The University of Western Australia (www.uwa.edu.au) in Perth, Australia. This is a 3-year position and carries a tax-free stipend of AUD 30,000 p.a. Associate Professor Mylne is a former Australian Research Council QEII and Future Fellow (2008-2016), the 2012 Goldacre medalist, a 2018 Fulbright Professional Scholar and laboratory head (www.mylne.org) since 2013. His lab is organising the Herbicide Discovery & Development meeting in Perth in 2020 (http://hdd2020.org).

The PhD project pursues new herbicide targets, both their discovery and characterization. The success of glyphosate and spiraling cost of bringing new compounds has meant no new herbicide mode of action has reach the market in several decades. Herbicide resistance also has growers concerned. Using antimalarial drug libraries, knowledge of malarial drug action and by looking more broadly, the team working in this area are attempting to put as many new modes of action ‘on the table’ as possible.

The PhD project will involve recombinant protein production, enzymology, biochemical assays, and protein crystallography. There is also scope to acquire skills in classical forward genetics and reverse genetics in Arabidopsis thaliana.

References relevant to the project and see http://mylne.org/herbicides.html


Applicants should eligible for a PhD in Australia (any queries to joshua.mylne@uwa.edu.au) and have a degree in Biochemistry. Molecular Biology or a related discipline, with excellent communication skills. Experience in protein biochemistry or plant chemical biology is a plus.

Interested candidates should send, before 18 February 2019, their CV and a letter of
motivation including a brief description of previous activities to
joshua.mylne@uwa.edu.au. Short listed candidates will be asked to provide 2-3 letters of
reference. Please do not send publications or letters of reference or copies of degrees etc
unless asked for.

The Mylne lab is based in the Bayliss Building which is a hub of molecular research
housing the School of Molecular Sciences as well as the ARC Centre of Excellence in
Plant Energy Biology. The School of Molecular Sciences is a large, research intensive
school with 100 staff, 100 PhD students, and more than 600 undergraduate students. The
School is committed to achieving international excellence in teaching, research and
service, with activity spanning Chemistry, Biochemistry, Molecular Biology and
Molecular Genetics. The building boasts outstanding plant growth facilities as well as
established, high-throughput, crystal-condition screening platforms and home-source X-
ray beam-line. Overall this makes it the ideal research environment for plant biological
chemistry

The University of Western Australia (UWA) is ranked amongst the top 100 universities
in the world and a member of the prestigious Australian Group of Eight research-
intensive. For details see http://www.web.uwa.edu.au/university/highlights/reputation

Perth is a stunning part of the world to live in; the population is 2 million and it’s located
on the Swan River where it meets the western coastline. Perth has pristine beaches with
crystal clear water and a Mediterranean climate of warm hot summers, and mild winters.
On a bike ride to work along the river (most of Perth is flat) you are likely to spot
dolphins, pelicans and black swans. Perth has the benefits of cosmopolitan big city living,
but without the overcrowding. We like to think Australia is ‘the lucky country’, but we’re
not the only ones to think so, see this special issue on Australia from the Economist
published October 2018 at http://goo.gl/rewBbs

Remember to submit CV and a letter of motivation to joshua.mylne@uwa.edu.au by 18
February 2019.