

## MEDIA RELEASE

22 September 2014

### Nerve repair development wins student innovation award

It was a tragic accident that spurred Katharina (Kati) Schirmer's interest in developing a solution to heal injured nerves.

As a teenager in Germany, Kati watched her boyfriend fall from his BMX bike and break his third and fourth vertebrae, rendering him a quadriplegic.

With a fierce motivation to help people, and a belief that nature provides us with many answers, Kati completed her Bachelor of Science in Biomimetics (the study of adapting designs found in nature) in Bremen, Germany.

As part of her degree, Kati spent six months at the ARC Centre of Excellence for Electromaterials Science based at the University of Wollongong (UOW), working with a team of nerve repair specialists led by Associate Professor Robert Kapsa.

Influenced by the work taking place at UOW in the field of peripheral nerve repair, Kati's focus turned to this area in which the nerves outside the brain and spinal cord have the possibility of regenerating, given appropriate support.

"I was keen to work where I could make a difference," Kati said.

Now based at UOW's Innovation Campus, Kati is in the final year of her PhD study in which she is developing 3D structures for nerve regeneration.

"I'm developing a method to fabricate conduits that help damaged nerves to reconnect," Kati said. "I'm using hydrogel material with cells and growth factors, plus experimenting with conducting wires such as platinum."

Kati is currently studying the effect of electrical stimulation on nerve repair, and if it proves beneficial, she will trial a graphene composite fibre which could potentially break down in the body after its job is done.

For her academic achievements and enthusiasm for communicating her research, Kati has won the *2014 Bill Wheeler Student Award* and will receive \$2,000 of community-raised funds.

Kati will present a short public talk on *Thursday 2 October* at UOW's Innovation Campus in North Wollongong at the *Bill Wheeler Community Symposium*, alongside renowned cochlear implant surgeon Professor Stephen O'Leary and Mrs Jo Williams, mother of one of Australia's youngest double cochlear implant recipients.

This is a free public event in memory of Bill Wheeler and no prior knowledge is needed to enjoy the presentations.

To register for your free ticket, visit [www.electromaterials.edu.au](http://www.electromaterials.edu.au) or call +61 2 4221 3788.

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