

September 14, 2009

Media Statement

**TWO PERTH SCIENTISTS WIN PRESTIGIOUS NATIONAL AWARDS**

Two West Australian scientists have each been awarded a prestigious national *Future Fellowship* by the Australian Research Council.

The Western Australian Institute for Medical Research's (WAIMR) Dr Aleksandra Filipovska and Dr Oliver Rackham were among 200 outstanding national and international researchers announced last week by Federal Minister for Innovation, Industry, Science and Research, Senator Kim Carr.

The four-year fellowships recognise the work of outstanding mid-career researchers with winners receiving up to \$740,000 each towards their research.

WAIMR Director Professor Peter Klinken said he was thrilled Dr's Filipovska and Rackham had been honoured for their outstanding contributions to medical research.

"Both Aleksandra and Oliver have already made some enormously exciting discoveries so it's wonderful not only that they have been recognised, but also that they have been given vital funding to continue their important research," Prof Klinken said.

Dr Filipovska and her team at WAIMR have identified two new proteins that may be important for how mitochondrial genes are turned on and off.

"Mitochondria are known as the powerhouses of the cell, and are responsible for producing 90 per cent of the energy needed by our body to sustain life," Dr Filipovska said.

Mitochondrial diseases occur when there is a mutation in the mitochondrial genome.

Because the expression of mitochondrial genes is poorly understood, the onset of these diseases is still much of a mystery – a better understanding of proteins that control mitochondrial genes could provide insight into the onset of mitochondrial diseases.

The research was published in the August editions of *Nucleic Acids Research* and *FEBS Letters*.

**DR ALEKSANDRA FILIPOVSKA**  
***Targeting mitochondrial dysfunction in disease***

Dr Filipovska's fellowship has been awarded to further her research into the role of mitochondria in human disease.

Mutations in the DNA of mitochondria can lead to severe neurodegenerative diseases and contribute to the development of cancer. There are no effective treatments for these diseases, with most current treatment mostly confined to supportive measures.

Dr Filipovska's research looks into the proteins that regulate gene expression within mitochondria which provides an unexplored resource of potential disease modulators and drug targets.

Dr Filipovska's research aims to create new strategies in the design of improved anticancer drugs, which will ultimately promote and maintain good health, and provide potential commercial outcomes.

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**DR OLIVER RACKHAM**  
***Engineering synthetic genetic codes***

Dr Rackham's fellowship has been awarded to further his research into producing drugs by turning bacteria into microscopic drug factories that make new medicines more quickly and easily than ever before.

Using bacteria is an effective way to produce drugs because it is easy and cheap to grow large quantities, and an inexpensive way to create medicines.

Dr Rackham's research offers huge potential for scientists all over the world to produce drugs inexpensively, and lead to big advances in drug availability and affordability in developing countries.

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