

*In 2008 WAIMR celebrates 10 years since its inception and the many internationally-important discoveries which have transformed it into WA's premier adult medical research institute.*



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Media Statement

**HIJACKING BACTERIA TO CREATE MICROSCOPIC DRUG FACTORIES**

Hijacking bacteria to make microscopic drug factories could open the doors for a cheaper, quicker way to create an array of new drugs to treat or prevent serious disease.

A West Australian scientist has received further funding for world-first research looking at a revolutionary way to produce drugs by turning bacteria into microscopic drug factories that make new medicines more quickly and easily than ever before.

Western Australian Institute for Medical Research (WAIMR) Dr Oliver Rackham said bacteria were perfect for drug production because it was easy and cheap to grow large quantities, and an inexpensive way to create medicines.

“In essence we are hijacking the bacteria to produce drugs, which would make it easier and a lot cheaper to produce billions of different drugs in just one test tube,” he said.

“Bacteria, like all living things, have DNA that contains a blueprint for how they are made – we hope to add new instructions to that blueprint, which tells the bacteria how to make drugs that treat human disease.

“Drug production is normally the challenging job of skilled chemists, but if we can create bacteria that do the chemistry for us, it would be fast and simple to make a lot of different drugs in vast quantities.

“Bacteria provide a unique environment for drug production because of their microscopic size – between 500 and 1,000 bacteria can fit on the sharp tip of a pin, so the potential to make very large amounts of drugs very quickly is enormous.”

Dr Oliver Rackham said his work that aimed to create a new resource and make drug discovery more accessible to scientists, could have a huge impact in developing countries.

“This technology would open the door for scientists all over the world to produce drugs inexpensively, which could lead to big advances in drug availability and affordability in developing countries,” he said.

This month, Dr Rackham was awarded \$10,000 from the Department of Health as part of the New Independent Researcher Infrastructure Support Awards that recognise outstanding new independent medical and health researchers in Western Australia.

Dr Rackham’s project is largely funded by the Australian Research Council.

WAIMR Director Peter Klinken said Dr Rackham’s work was not only ground-breaking, but had massive potential to save lives across the globe.

“Dr Rackham’s work has huge promise and takes medical research a step further by looking for solutions to the global crisis of medicine accessibility and production, and it’s just fantastic to see this pioneering work being done in Western Australia,” he said.

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