

New compounds could lead to next generation of cancer drugs

*Written by Ajanthy Arulpragasam
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A WA laboratory is using high-throughput screening of a chemical library in an effort to discover new drugs leads for diseases such as cancer.

Using the **InCell Analyser 1000** to screen the chemical library, Molecular Discovery Systems (MDSystems) has already found several compounds which look promising as potential drug leads capable of inhibiting cell division - a process central to the development of cancer.

“The deregulated proliferation of cells is what drives tumour growth and targeting of cell division is an effective therapeutic strategy,” says MDSystems Principal Scientist, Dr Robin Scaife.

“I think there’s a lot of potential to further exploit cell division for cancer drug development.

“We’ve been able to identify new drugs that affect cell division.”

Dr Scaife says that the compounds in the recently-obtained chemical library had been synthesised in the last couple of years and were largely untested drug-like molecules.

“We purposefully went after the most recent collection of compounds that we could get our hands on and these are structures are relatively complex.

“The earlier chemical libraries that were available to scientists were the compounds that could be made most easily and relatively simple chemical molecules.

“The compounds that we’ve got now are more complex but they also have what seem to be more interesting biological properties.”

MDSystems, a BPH Corporate Ltd spin-out company, will be offering contract screening services and are interested in collaboration opportunities.

“We can stream-line the drug discovery process for things that are entirely unrelated to oncology.

“We’d be interested in finding other projects because we’ve got the resources and expertise to develop the drug discovery programme using the InCell Analyser 1000,” says Dr Scaife.

As well as high-throughput screening of chemical libraries, MDSystems offers expertise in high content, high-resolution imaging and analysis with the MDSystems-owned InCell Analyser 1000.

MDSystems are currently collaborating with researchers at the Western Australian Institute for Medical Research and the Scott Kirkbride Melanoma Research Centre to identify new drug leads for melanoma.

Further information: [Dr Robin Scaife](#)



Dr Robin Scaife, with the InCell Analyser 1000
Image: Molecular Discovery Systems