HB11 Energy, Deakin Uni secure $2m for hydrogen fusion advanced fuel development

By Matt Ogg

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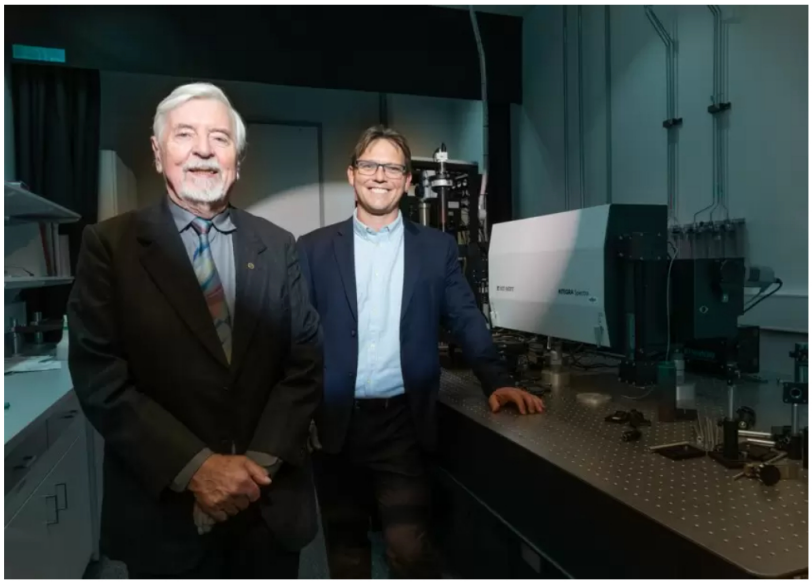

HB11 Energy founders Heinrich Hora and Dr Warren McKenzie.

Researchers from Deakin University and Sydney-based startup HB11 Energy have been granted $2 million to develop new fuels for hydrogen-boron fusion, which could potentially pave the way to re-establish Australia as a leader in clean energy technology.

The backing from the Australian Research Council (ARC) Linkage Grant follows a $4.8 million oversubscribed pre-seed raise earlier this year for HB11 Energy, which was founded by Dr Warren McKenzie and theoretical physicist Heinrich Hora.

"This is a key project in HB11 Energy's scientific roadmap towards unlimited and safe nuclear energy, using boron as a fuel," McKenzie says.

"The fuels we develop will be tested on various petawatt laser facilities around the world as there are no such facilities in Australia.

"Other collaborators come from the University of Rochester, University of Bordeaux, Queens University Belfast, University of Texas, UNSW Sydney and Macquarie University."

The research team will be led by internationally renowned nanomaterials expert Professor Ying 'Ian' Chen and include chief investigators Dr Srikanth Mateti and Dr Qiran Cai, alongside Dr McKenzie.

Chen thanks Dr McKenzie and HB11 Energy for the opportunity to collaborate in this "very exciting new field".

"Deakin's Nanotechnology team is pleased to receive this ARC Linkage grant, which allows us to develop new hydrogen storage materials and technology required for clean fusion energy generation," says Chen.

"The team has over 20 years' research experience in nanomaterial discoveries, including those relating to hydrides with the highest hydrogen storage

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hydrides with the highest hydrogen storage.

"We have also produced different boron nitride nanomaterials for several decades. This combined expertise gives us an advantage in the development of new fuel materials for hydrogen-boron fusion reactions."

HB11's star-studded line-up of executives and experts continues to grow as well.

After appointing German internet entrepreneur and deep-tech investor Lukasz Gadowski, who is known for his involvement with Berlin-headquartered Delivery Hero, the group has now appointed Dr Adrian Paterson, former CEO of the Australian Nuclear Science and Technology Organisation (ANSTO), to its scientific advisory board.

"This project opens a new chapter in fusion energy research as we aim to realise the promise of fusion as a large-scale source of clean energy for the next generation," Dr Paterson says.

"The distinctive hydrogen-boron fusion reaction is aneutronic, promising a safe and sustainable reaction with no intractable long-term waste."

Dr Paterson notes it was the Australian Sir Mark Oliphant who first discovered nuclear fusion and dreamed of the peaceful use of this energy source for the whole world.

"The research and development surrounding this program has been championed by an Australian HB11 Energy founder Prof Heinrich Hora - and the technology has the potential to re-stablish Australia as a leader in clean energy technology," he says.

"In this context, the ARC Linkage Grant announced this week has special resonance and importance for this globally important Australian project.

"I'm very happy to be involved in a project that aims to make major developments in next-generation laser technology to optimise the specialised fuels that are being developed."

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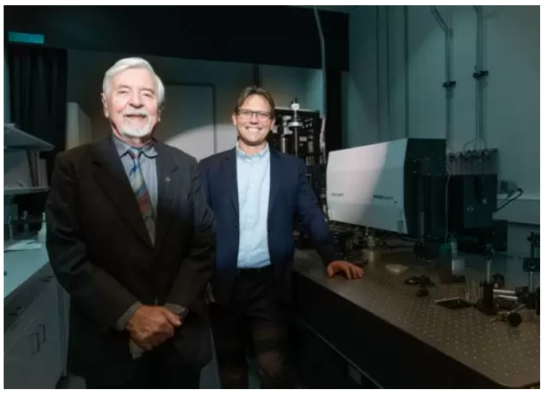

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