



# Sementis

## Revolutionising the global vaccine industry

Sementis has teamed up with The University of South Australia through a STEM+ Business project looking to fast track drug discovery.



### THE CHALLENGE

Almost one in five Australians suffer from an allergy, with cat allergy affecting five to 10 per cent of the population.

Emerging biotechnology company Sementis develops innovative vaccines to prevent infectious diseases and treat immune-mediated diseases. Using their novel proprietary vaccine delivery platform, the Sementis Copenhagen Vector (SCV), Sementis aims to improve current broad and long term treatments for allergies. Having already worked on developing a therapeutic peanut hypo-allergy vaccine and a preventative vaccine for mosquito-transmitted Chikungunya, Sementis sought to tackle cat allergy next. To do this, Sementis needed to invest in further research to advance their vaccine technology.



### WHAT WE'RE DOING

During a previous research engagement with University of South Australia, Sementis built a trusted relationship with early career researcher Dr Tamara Cooper. With a PhD in Molecular Biology, Dr Cooper's sophisticated molecular, cellular and immunological skillset, together with Sementis-specific skills and knowledge, made her a perfect fit for this partnership.

Together, Sementis and Dr Cooper embarked on a STEM+ Business project facilitated by SME Connect: Constructing a cat hypoallergy vaccine and testing it in a preclinical proof-of-concept mouse model of cat allergy.



### BENEFITS FOR AUSTRALIA

Through the STEM+ Business program, Sementis were able to fast-track the application of their SCV platform against allergic disease and build a knowledge base for tackling more complex allergies in the future. The project has supported Sementis' establishment of commercial relationships with vaccine manufacturers.

For Dr Cooper, the project presented opportunities for advanced technical and analytical training in molecular biology, virology and immunology, as well as invaluable commercial and business experience.

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