

Title	Delivering methane inhibitors to pasture-fed ruminants
Project Timeframe	May 2018 – Sep 2020
Countries Involved	New Zealand (Victoria University of Wellington, University of Canterbury, Callaghan Innovation, Massey University)
Aim	To develop a proof of concept method for modifying filamentous fungi to produce methane inhibitors for supply to pasture-grazing ruminants.
Research Highlights	<ul style="list-style-type: none"> • Reconstituted methane inhibitor biosynthetic pathway to enable production in culture using our previously verified cloning technology, MIDAS, in a fungal host. • Optimised the componentry for efficient compound production.
Future Work	<ul style="list-style-type: none"> • Optimise fungal systems for high-level inhibitor production <ul style="list-style-type: none"> – Full chemical and genetic analysis of <i>P. paxilli</i> transformants • Test the system on other inhibitors
Key Research Output(s)	<p><u>Journal article(s)</u></p> <p>Two journal articles are in preparation and will await further decisions around IP before submission.</p> <p><u>IP(s)</u></p> <p>Discussions with AJ Park and NZAGRC are currently underway.</p>