

Advances in Crop Biocontrol



22 April 2021

@BioTechNZ



We are a purpose driven, membership-funded organisation

Our diverse range of members all share a desire to maximise the ways biotech can help address many of the world's agricultural, environmental and health problems.







Zahra Champion, PhD Executive Director

Achieving our Purpose

Creating a Healthy, Clean & Prosperous New Zealand Boosted by biotech

GOVERNMENT

Helping Government to understand the biotech's role

Advance und HEALTH

ENVIRONMENT

Creating an environment for biotech to play a significant role in a healthier, cleaner & more prosperous New Zealand

Working together to enable New Zealand to leverage biotech innovation to solve our biggest problems

Promuter TO NEW ZEALAND Expose the importance of biotech innovation to Kiwi's

TO THE WORLD

Expose New Zealand's biotech innovation to the world

Promoting the importance of biotech innovation to New Zealand and New Zealand biotech innovation to the world.

ACROSS NEW ZEALAND Supporting a growing, integrated, connected ecosystem

TO THE WORLD

Connecting New Zealand to international markets

Supporting the development of an integrated & connected local biotech ecosystem; and connecting the New Zealand biotech ecosystem to the world.



The New BioTechNZ Executive Council



MANYA SABHERWAL Cytiva



ANDREW TOMPKIN Abbvie New Zealand



CRAIG HOUSTON ANZCO Foods



DAVID POWELL University of Otago



IMCHE FOURIE LevelTwo



TREVOR STUTHRIDGE AgResearch



DARRYL GRUMAN Amazon Web Services



JEREMY JONES Victoria University of Wellington

GREG PRINGLE Plant & Food Research



OLLIE CRUSH Mint Innovation





RYAN KAFOURE Marken





ALLIANCE

Biotechnology in New Zealand 2020

New Zealand's thriving biotech sector includes companies working on products and technologies to help improve our lives and our planet, plus supporting services. The biotech sector is highly innovative, research and development intensive and is constantly evolving with new companies. This map will be regularly updated. so please contact us with your suggested additions: info@biotechnz.org.nz



AOTEAROA NEW ZEALAND BOOSTED BY BIOTECH Innovating for a Sustainable Future



Key Highlights

Growing global demand New Zealand for biotechnology positioned well Global market worth **Ranked 4th** US\$729b in the world for innovation potential in biotechnology. by 2025, Global Market Insights New Zealand has a small, but growing and vibrant biotech sector \$2.7b 211 45% Companies Revenues **Based** regionally Plenty of local opportunities from biotech Biotechnology underpins Bark Biorefinery could add: New Zealand \$1.8b to GDP Human Clinical Trials could add \$880m to GDP Bioeconomy Growth constrained by:

Capital access | GMO regulations | Access to skills

The global biopesticides market

Projected to grow from an estimated value of US\$4.3 billion in 2020, to reach US\$8.5 billion by 2025.

This is a small, but rapidly growing part of the almost US\$60 billion global crop protection market.

Grop Protection Chemicals Market Size and Forecasts 2020-2027, Grand View Research 2020

genetics market was worth US\$6 billion in 2018 and is driven by increasing demand for healthier food and milk products.⁵⁹ The focus on animal health is even greater with US\$74 billion expected to be spent globally on animal health by 2027, due to increasing demand for veterinary vaccines and pharmaceuticals, as farming intensifies throughout the world.

Synthetic Meats: Considerable research is occurring internationally on potentially replacing traditional meat and dairy products with lab grown substitutes New Zealand's agricultural sector is key to the economy. It very important that this topic is debated in New Zealand as substituting meat and dairy, with synthetic foods could potentially reduce the amount of land, water, energy, and greenhouse gas emissions.

PLANT BIOTECH

New Zealand pastoral, arable and horticulture farmers have relied on new plant breeding innovations for their success. New Zealand products such as the JAZZ[™] brand apple and ZESPRI[®] GOLD Kiwifruit (\$187 million export revenue in March 2020)⁵⁴ are well known worldwide. New Zealand has been investing in genetics and varietal development on a range of crop types including onion, pea, wheat, barley, clover and ryegrass.

With the opportunity to use new gene-editing technologies, it would enable New Zealand to speed up innovation in alternative proteins, increase crop yields, reduced costs for food production, reduced need for pesticides, enhanced nutrient composition and food quality, resistance to pests and disease.

BIOBASED NATURAL SOLUTIONS

A growing global recognition of the harmful effects of agrochemicals and consumer demand for healthy food is underpinning demand for natural solutions, delivered by plant biotechnologies. The European Union (EU) has recently developed a series of targets to dramatically reduce the amounts of chemicals used on European farms by 2030. These include reducing the use of chemical and hazardous pesticides by 50 percent and reducing the use of fertiliser by 20 percent.

Biotelliga – Biological Crop Protection



New Zealand company Biotelliga develops agricultural crop protection technologies that minimise environmental and toxicological impacts while maximising crop performance and yield. With expertise in fungal biology and active biomolecules the firm designs foliar applied biological products and seed integrated solutions.

Biotelliga undertakes research, development and commercialisation of biological products that provide crop protection from biotic and abiotic stress through active biomolecules coated onto see, or through bioprotective organisms that are inoculated into seed.

With rising demand for biological based crop protection products over synthetic chemistry-based pesticides, Biotelliga is in a position to secure substantial value from its technology development in the large global crop protection market.

SIOTELLIGA



53 Animal Genetics Market Size and Forecasts 2019-2026, Grand View Research, 2019.

54 Overseas Merchandise Trade: March 2020, Statistics New Zealand, 2020.

TechAlliance Member Events

	Mon	Tue	Wed	Thu	8.4	Mon	Tue	Wed	Thu	Fri	Mon	Tue	Wed	Thu	8.4	Mon	Tue	Wed	Thu	8.4	Mon	Tue	Wed	Thu	Fri	Mon	Tue	
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Tech Women]					TW						
Tech-Aliance		2 x Connect event				Auckland					Wellington	
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techweek202

CONNECTING FOR A BETTER FUTURE TE HONOHONO MO TE HEKE MAI PAI AKE

22 - 30 May 2021

techweek.co.nz #techweek2021

Aotearoa Al Summit

Atamai lahiko Artificial Intelligence

Good for Aotearoa, good for the world.

12 May 2021

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