

BIOTRANSFORMATION

Scion provides fundamental research to underpin future focused forestry and manufacturing technologies. We specialise in using biological approaches to enhance raw materials and their processing.

PLANT BIOTECHNOLOGY

Scion specialises in conifer biotechnology with a focus on radiata pine. We investigate molecular and physiological aspects of wood, with an emphasis on wood quality, tree growth, cell wall formation and plant metabolite formation, for example, terpenes.

Knowledge arising from this research is applied to improving forest health, productivity and the suitability of wood for specific end uses.

Our capabilities across the Biotransformation Team include:

- Molecular biology
- Biochemistry
- Microbiology
- Enzyme technology
- Organic chemistry
- Plant physiology
- Genomics
- Fermentation
- Microscopy.

CONTACT

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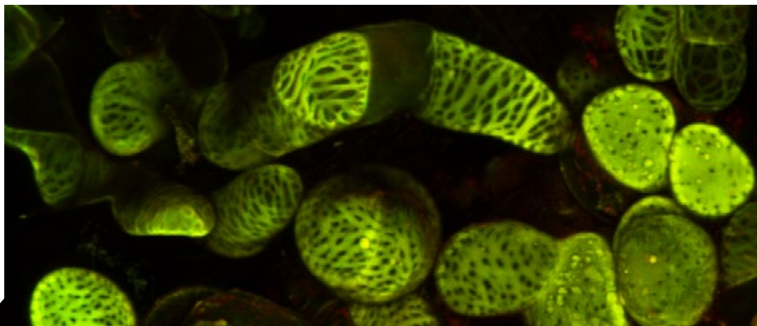
INDUSTRIAL BIOTECHNOLOGY

Scion is engaged in research that enables New Zealand to move from a non-renewable petrochemical based economy to one using biological processes and renewable materials from planted forests.

We focus on using biological approaches, such as enzyme-based or microbial fermentation, in industrial processes associated with biorefineries. Our speciality is transforming materials derived from forest resources.

We work in collaboration with national and international research teams to adopt and develop rapidly evolving technologies for biorefinery processing.





BIOTRANSFORMATION STAFF

General Manager Manufacturing & Bioproducts

Elsbeth MacRae

BSc (Hons) (Botany)
PhD (Plant physiology)

Science Leader

Gareth Lloyd-Jones

Biotechnology scientist
BSc (Hons) (Biochemistry)
PhD (Biochemistry)

Team Manager

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Chemist
MSc (Chemistry)
Post Grad Dip (Pulp & paper
technology)

Delwyn Murphy

Management assistant

Plant Biotechnology

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Research leader
Molecular biologist
BSc (Hons) (Microbial
genetics)
PhD (Plant molecular
genetics)

Agnieszka Boron

Plant biotechnologist
MSc (Biotechnology)
PhD (Biology)

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Microscopist
BSc (Botany)
MSc (Hons) (Botany)
DSc (Wood science)

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Molecular biologist
MSc (Plant biotechnology)
PhD (Agriculture science)

Heather Flint

Molecular biologist
BSc (Zoology)
MSc (Hons) (Cellular and
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Molecular biologist
NZCS (Biochemistry/Biology)

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Industrial Biotechnology

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Research leader
Industrial biotechnologist
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PhD (Environmental science/
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Molecular microbiologist
BSc Tech (Environmental
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MSc (Microbiology/Genetics)

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BSc (Cellular and molecular
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MSc (Biophysics)
PhD (Chemistry/Biophysical
chemistry)

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PhD (Organic chemistry)

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MSc (Biochemistry)
MSc Tech (Biotechnology/
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PhD (Chemistry)

Mark West

Biochemist
BSc (Hons) (Biochemistry/
Microbiology)
PhD (Biochemistry/
Microbiology)