

*InnoTech Alberta is a research and innovation organization, with a range of technologies available for licensing. Our focus is on the growth and development of technology-based sectors and the commercialization of technology in Alberta. We provide business and technical services, and initiatives that encourage a strong science, technology and entrepreneurial culture in Alberta.*

## LICENSING OPPORTUNITY

# Novel Method for Variegation in Plants

### LEVERAGE OUR TECHNOLOGY

InnoTech Alberta has a variety of technologies available for licensing. We will work with companies, from small to large, to set up mutually beneficial licensing deals. With more than 90 years in applied research and development, we are an experienced commercialization partner. InnoTech's licensing opportunities are the result of our world-renowned research programs. Contact us to explore these opportunities.

### TECHNOLOGY OVERVIEW

The InnoTech Alberta technology uses a stable genetic construct to modify bleaching in green plant tissue to induce a variegated phenotype. Depending on the promoter used in the construct, the variegation can be throughout the whole plant, or limited to a specific tissue or developmental stage. In addition, an inducible promoter can be used for more specific control of the phenotype.

The construct can also be used to express a second gene of interest, thereby linking the gene with the variegation phenotype. Thus, the presence of bleached plant tissue provides a visible marker to track expression of the gene of interest.



### ADVANTAGES

- » Stable variegation phenotype: Transformed plants are viable and reproductive.
- » Proven in multiple plant species including Arabidopsis, Brachypodium, Tobacco, Canola and Rice.
- » Convenient phenotype control using specific promoters: For example, with an alcohol-inducible promoter, variegation can be induced by spraying plant leaves with ethanol.
- » Visible Selection: Plants carrying a gene of interest can be easily identified without antibiotics or other chemicals.



*T1 tobacco plants expressing the InnoTech construct. A range of variegation and color is shown. A control wild plant is shown in the right hand side of figure b).*

# Novel Method for Variegation in Plants

## COMMERCIAL APPLICATIONS

- » Production of variegated ornamental plants
- » Visible identification of genetically modified plants

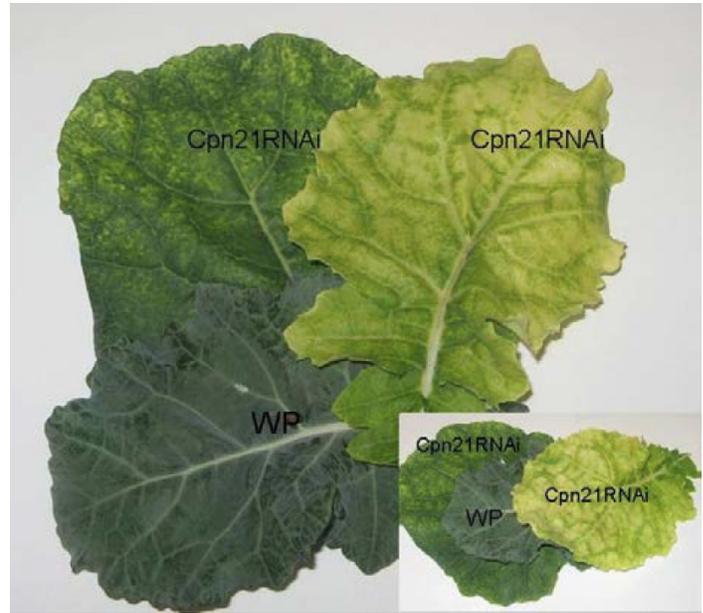
## STATUS

This technology is available for licensing.

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## WANT TO EXPLORE THIS OPPORTUNITY?

[Licensing@albertainnovates.ca](mailto:Licensing@albertainnovates.ca)



*Variegation in canola expressing the AITF construct (Cpn21RNAi), compared to control wild plant (WP).*

Our province is blessed with abundant natural resources, world-class infrastructure and research institutions, a highly skilled workforce, and a dynamic, entrepreneurial business community. Alberta Innovates harnesses these strengths by acting as the catalyst between government, industry and academia, to solve some of the biggest challenges facing our province.

### TECHNICAL SERVICES

Helping organizations develop their technologies faster and smarter through a subsidiary, InnoTech Alberta.

- » 100,000 m<sup>2</sup> of product/process development and scale-up facilities in the areas of petroleum, environment and carbon management, bio and industrial technologies
- » 300 hectare research farm, three greenhouses, and 36 growth chambers

### FUNDING PROGRAMS

- » Fostering an entrepreneurial culture and increasing Alberta's critical mass of innovation talent
- » Post-secondary investment programs offer a broad range of support to researchers at all stages of their careers, from graduate students to the world's top researchers

- » Industry investment programs offer support to Alberta-based SMEs in a variety of ways to help accelerate their growth and success

### REGIONALLY ACCESSIBLE COMMERCIALIZATION SUPPORT

- » Making connections and pointing businesses and entrepreneurs in the right direction
- » Alberta Regional Innovation Network System - an integrated province-wide system ensuring SMEs and innovators have access to vital services and resources to help them succeed

### LICENSING SERVICES

- » Managing the translation of Alberta Innovates intellectual property into business solutions
- » Facilitating licensing deals with industry anywhere in the world