

The Opportunity

Roswell Park Cancer Institute, in collaboration with the Boyce Thompson Institute for Plant Research at Cornell University, has perfected the expression of immunogenic hepatitis B surface antigens in transgenic plants.

Benefits

The extensively-developed technology provides a convenient vaccine for hepatitis B. It uses potatoes as the production source to enable the production and isolation of inexpensive hepatitis proteins that can be ingested to generate an immune response to HBV.

The inventors employ genetic engineering to produce a transgenic plant capable of expressing immunogenic polypeptides, including hepatitis B antigen (HBsAg) in quantities sufficient to elicit an immune response in a human or animal that consumes the plant.

Roswell's transgenic potato enables economical production and efficient distribution of an oral HBV vaccine.

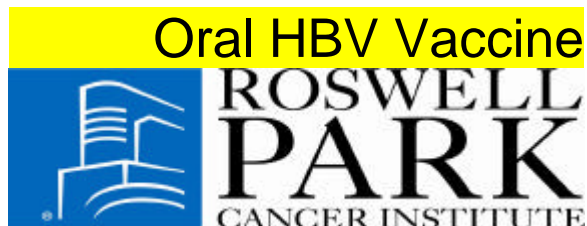
Intellectual Property

An impressive estate of IP protects the innovations by principal investigators Dr. Yasmin Thanavala from Roswell Park and a team of researchers from the Boyce Thompson Institute for Plant Research in Ithaca, NY. The IPR includes the following:

"Expression of Immunogenic Hepatitis B surface antigen in Transgenic Plants":

- US patent no. 6,551,820 (12/23/1999);
- Australia patent no. 776855 (12/23/1999);

Roswell Park Cancer Institute (RPCI), founded in 1898, is the nation's first cancer research, treatment and education center. RPCI is a member of the prestigious National Comprehensive Cancer Network, an alliance of the nation's leading National Cancer Institute-designated comprehensive cancer centers. Visit RPCI's website at www.roswellpark.org.



- Mexico patent no. 227779 (12/23/1999);
- Application pending in Brazil, China, Japan, PCT (12/23/1999);
- Divisional US patent application pending on unallowed claims, no. 10/335,774 (published as 20040086530);

Additional filings include:

"Oral Immunology Using a Plant Product Containing Hepatitis Surface Antigen":

- Application no. 09/420,695 (10/19/1999) filed in US, Chile, Japan, Mexico;

"Oral Immunology Using Plant Product Containing a Non-Enteric Pathogen Antigen":

- Application no. 09/464,416 (12/16/1999) filed in US, Brazil, Canada, Chile, EP, India, Japan, Mexico, Singapore;

"Oral Immunology Using Plant Product Containing a Non-Enteric Pathogen Antigen":

- Application no. 09/464,414 (12/16/1999) filed in US, Taiwan, Singapore, Chile, Japan, Brazil, Canada (published as attached as 20020004076).

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