

BACKGROUND

One of the main challenges of the 21st century is to provide dietary choices that allow people to remain in good health. This challenge has encouraged innovation in the health foods sector and led to significant changes in the way agrifood businesses operate. As a result, there is a pressing need for versatile, highly qualified personnel in the agrifood and health sectors to transfer new knowledge, tackle the many challenges these sectors face, and spearhead the development of new functional foods and health-friendly ingredients.

**DRIVING
PROGRESS**
FOR 350 ANS



Food Advancement through Science and Training (FAST) Program

The mission of FAST is to provide professionals and young researchers with advanced research training and knowledge in the health foods sector, including product development, marketing, and the regulatory environment.

The health foods and related technologies sector is characterized by a multidisciplinary R&D environment that relies on the food and nutritional sciences, engineering, and a strong health science component. The innovative training approach and cross-disciplinary learning opportunities generated by FAST will ease the transition of program participants to their future jobs in the sector. The program targets graduate students in science and engineering and the health and social sciences.

FAST is a joint initiative of Université Laval and the University of Manitoba established with funding from the Natural Sciences and Engineering Research Council of Canada CREATE program. The funding expires next year, which is why the program must now find the means to stand on its own feet.

More than 90
students have been
trained under FAST
since 2011.

The primary aim of the FAST program is to meet Canada's pressing need for specialists knowledgeable about food and its impact on health. A new cohort of highly qualified personnel is required to fill numerous key positions in the agrifood and health food industries, as well as at ministries and research centres active in the priority sectors of agrifood, nutrition, and health.

More specifically, FAST's objectives are to:

- Provide scholarships for specialized multidisciplinary training in the health foods field
- Promote hands-on training and student mobility
- Foster development of cross-disciplinary skills

By meeting these objectives, FAST eases the transition of future graduates to the job market and responds to market needs. The program is based on five measures designed to benefit students during their graduate research training in science and engineering and the health and social sciences:

- 1) Multidisciplinary scientific support
- 2) Participation in an intensive summer school every two years
- 3) Internship opportunities in national and international research centres, government departments (Agriculture and Agri-Food Canada, Health Canada), or industry
- 4) Participation in a student symposium held every two years, alternately with the summer school
- 5) Participation in high level scientific seminars and technology meetings on industry issues

Graduates trained under FAST are better prepared to meet industry needs and transition more easily to the labour market in the health foods and related technologies sector.

BUDGET

The success of FAST depends on its ability to attract top-level candidates prepared to make the extra effort to complete the supplementary training required under the program. **A \$7,000 contribution is enough to support a PhD student for one semester.**

Over in scholarships
\$ 700 000 awarded

11 Master's students

23 PhD students

IMPACT

The main impact for the biofood industry will be the arrival of a **new generation of highly trained professionals better prepared** for the job market thanks to

- Newly acquired **cross-disciplinary skills** (scientific communication, entrepreneurship, food innovations, regulation, etc.)
- Immersion in a **multidisciplinary research environment** (science and engineering, health sciences, social sciences)
- Participation in the **FAST summer school** on important themes in the field
- Involvement in **organizing a student symposium** on functional foods and natural health products
- Expanded opportunities for **internships and networking** with industry and government departments and agencies
- High-level seminars and technology & industry meetings augmented by **national and international partnerships**

The main impact for Université Laval and INAF will be a **greater capacity to attract and retain** top-level graduate candidates.