Production of capsules for pine needle extract.

DATE: July 2014

"All the patient and focused work pays off, when one meets a motivated cooperation partner"

Linda Gabrusenoka
Head of Technology Transfer Office, Riga Stradins University

FAST FACTS

Country or Region:

LATVIA

University:

RIGA STRADINS UNIVERSITY (RSU)

Business partners:

- BF-ESSE Ltd

Area of UBC:

- RESEARCH & DEVELOPMENT

Project start date: 2006./2007.

Project end date: On going

Keywords:

- Gastroenterology
- Pharmacy
- Food supplements
- Pine needle extract
- Pharmaceutical capsules

Key Objectives:

- To find a technology for capsules that could tolerate the high biological activity of

PROJECT SUMMARY

This case study is about Riga Stradins University's (henceforth – RSU) cooperation with BF-ESSE to create a capsule that would be able to withhold pine tree extract and to commercialise such a product. By working together, the parties have managed to bring this type of product to the market and the product has been awarded the prize of being the most innovative of the year.

CASE STUDY IN DETAILS

Project Background and Needs

The work on pine needle extract has been going on since 1980ies. At that time BF-ESSE was thinking about the products that could be manufactured from pine needle extract. The biggest problem with such products was that people were reluctant to buy and use them due to their pungent taste. In 2007 BF-ESSE approached RSU with the need to design a capsule that would be able to withhold the extract - the problem with ordinary capsules was that they could not withhold the extract due to its high biological activity.

Project Solution from University's Side

The university put in the research aspect of the cooperation. A PhD student based her thesis research on finding the best technology for capsule that would withhold extract from pine needles.

Project Solution from Partner's Side

BF-ESSE has been doing all the marketing activities and ensuring that the product is entering the market.

Achievements and Impact

1. The end product of the cooperation has been a capsule made from gel. The product has been internationally patented and the brand name "Fitesten" is an international trade mark registered in more than 20 countries.
2. The end product of the cooperation, Fitesten capsules, are now being manufactured in Belarus.

the pine needle extract.

Lessons learned:

- An important factor for success was the motivation of the partner. The project partner was active in ensuring that there is a progress in the project and the partner was active in ensuring that there are the necessary resources available.
- It has been said that intellectual property that is owned jointly by university and a business is a hindering factor. In this experience of cooperation, that was not the case.
- If the project partner is ready for cooperation that is over a long period of time, then the university can motivate PhD students to work on a thesis that would be connected to the subject matter of the cooperation

University profile:

Riga Stradings University (RSU) acquired its status as a university in 2002, however its historical roots extend back to Rīga Medical Institute, founded in 1950. Today RSU trains not only doctors, dentists, pharmacists and nurses, but also specialists in rehabilitation, public healthcare, social sciences and law. RSU has a total of 7,096 students, the majority of which are full-time students, and 423 academic staff members. There are 5,656 undergraduates studying at RSU, while the number of those studying in master's degree and doctoral programmes is 1,440. The vast majority of medical professionals working in various fields in Latvia have acquired their education at Riga Stradins University.

3. As a result of the cooperation a contract of commercialisation was signed with BF-ESSE, which stipulates that part of the income from product sales are paid to university.
4. The cooperation between BF-ESSE and RSU is still on-going.
5. In 2011, Fitesten won Investment and Development Agency of Latvia's "Prize of export and innovation 2011" as the most innovative product in Latvia that year.
6. Encapsulation of pine needle extract was a thesis of a PhD student, the dissertation about which was defended in 2011.

Quantifiable Outputs for University and for the Partner

1. A PhD dissertation on gel capsules (research was financially backed by BF-ESSE).
2. A patent for gel capsule jointly owned by RSU and BF-ESSE.
3. Registered trademark of "Fitesten" - the product that uses the gel capsules.
4. An agreement of commercialisation which stipulates that part of the income from the sales of the product goes to university.
5. Cooperation between RSU and BF-ESSE continues (there are 3 on-going projects).

CHECKLIST OF PREREQUISITES TO SUCCESS

Formal aspects

- Formal practical level Co-operation Agreement is signed between University and Partner(s) which defines particular roles, outputs, reporting mechanisms and other relevant aspects.
- Clear roles and responsibilities are defined for University.
- Clear roles and responsibilities are defined for Partner(s).
- Project partners have agreed on specific deliverables to be produced as a result of the co-operation.
- Project is related to at least one strategic priority of the University.
- Project is related to at least one strategic priority of the Partner(s).
- There is a contract of commercialisation between university and the project partner.

Financial and/or Infrastructure aspects

- University invests financial resources in the project.
- Co-operation Partner invests financial resources in the

project.

- University invests infrastructure and/or material type (in kind) resources in the project.
- Co-operation Partner invests infrastructure and/or material type (in kind) resources in the project.
- University gains monetary benefits from the project.
- Co-operation Partner gains monetary benefits from the project.
- University gains non-monetary but measurable and verifiable benefits from the project.
- Co-operation Partner gains non-monetary but measurable and verifiable benefits from the project.

Human capital aspects

- University is devoting its human capital, know-how, competence to the mutual cooperation, specifically, academic staff, R&D staff, students, and administrative staff.
- Co-operation Partner is devoting its human capital, know-how, competence to the mutual cooperation.

Marketing and communication aspects

- Project and/or project results are communicated within mass media channels.
- Project and/or project results are communicated within social media channels.
- Project and/or project results are presented in trade-shows, conferences, seminars, other marketing events.
- Project and/or project results are communicated within academic and/or scientific communication channels (research papers, scientific conferences and activities).
- Project and/or project results are communicated within internal marketing and/or communication channels within the University and/or Partner institution.

For More Information

For more information about the case study contact Linda Gabrusenoka linda.gabrusenoka@rsu.lv.

For more information about the project “FROM BRIDGING TO SUCCEEDING. University and Business Co-operation Through Success Stories.” and for more case studies visit www.university-business.net

For more information about the Nordplus Horizontal programme visit www.nordplusonline.org