



Project presentation: Linking Industry and
Academia in Teaching Pharmaceutical
Development and Manufacture: LIAT-Ph
A Knowledge Alliances Project

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Lifelong
Learning
Programme

Project ID

PROJECT ID

Action

ERASMUS MULTILATERAL PROJECTS

Coordinator

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Duration

1.10.2013. – 30.09.2015.

Budget

419.458 EUR



LIAT-Ph: The Consortium – Full Partners

SCHOOLS / FACULTIES

Trinity College Dublin, Ireland
University of Belgrade, Serbia
University of Ljubljana, Slovenia
University of Helsinki, Finland
Queen's University Belfast, UK



University of Ljubljana
Faculty of Pharmacy



Amebis Ltd., Dunshaughlin, Ireland
APC Ltd., Dublin, Ireland
Brinox inženering d.o.o., Medvode, Slovenia
Innopharma Labs Ltd., Dublin, Ireland
NIBRT, Dublin, Ireland
Pfizer Ireland Pharmaceuticals, Dublin and Cork, Ireland
Sigmoid Pharma Ltd., Dublin, Ireland

amebis



LIAT-Ph: Associate Partners

PIER: Pharmacists in Industry, Education and Regulatory, Ireland

Medicines and Medical Devices Agency of Serbia

Slovenian Drug Agency

Galenika ad, Serbia

Hemofarm ad, Serbia

KRKA d.d., Slovenia

European Pharmaceutical Students Association (EPSA)



Future of industrial pharmacist:

Why does the consortium wish to undertake the project?

- Industrial pharmacists should be equipped to respond to the challenges of the rapidly changing environment in which they work.
- They should be capable of working as part of a **multi-disciplinary team** comprising pharmacists, chemists and engineers, as companies seek an increasingly more integrated approach to the product development cycle.
- The **necessity for partnership and closer collaboration between academia and industry has been recognised** on the national, as well as wider, regional and EU level.



Background: project drivers



Pharmine, previous LLP project final report in 2011.

The Pharmine project: identified the competencies required on “Day 1” of registration for pharmacists entering the pharmaceutical industry.

Pharmine project - a broad Advanced Masters in Industrial Pharmacy-type course was not appropriate for pharmacists working in the pharmaceutical Industry

Specialist post-registration courses appropriate to specific roles in the industry are required.

Other project drivers

- Pharmaceutical Society of Ireland **PEARs report** (Pharmacy Education and Accreditation Reviews report, emphasis on experiential learning), published in 2010
- Tempus **PQPharm** project - modernisation of the Postgraduate Qualification in Pharmacy in Serbia
- Obligation on pharmacists in industry to undertake continuing professional development (CPD)



Rationale of the project

To review the pharmacy curricula in the participant countries to determine:

- (1) what competencies are currently being achieved by graduate pharmacists and
- (2) where deficiencies exist in the current undergraduate curricula.

The academic and industrial partners will work together to identify and **introduce teaching and learning strategies** whereby the required competencies can be met by pharmacy graduates entering the industry.



Rationale of the project

- The consortium has specific expertise in the area of **bio/pharmaceutical product development** and this is the part of the drug product life cycle on which we will focus.
- *PhD students* pursuing PhDs in pharmaceuticals and pharmaceutical technology are ideally positioned to enter the pharmaceutical industry in a variety of roles. **The consortium will develop courses and structure training appropriate for such students.**
- As professionals, *pharmacists in industry* are obliged to undertake **continuing professional development (CPD)**. The consortium is well placed to identify CPD needs of the industrial pharmacist.
- By considering the competencies required of: the “Day 1” pharmacist, the PhD student and the pharmacist in practice we can identify and **develop courses which are appropriate to the lifelong learning needs of the practising pharmacist.**

Project Objectives



Objective 1 – Exploring learning needs

- Explore the learning needs of pharmacy students, at the undergraduate and postgraduate level and practising pharmacists,
 - in the different (participant) countries,
 - in relation to the competencies in industrial pharmacy which have been identified through the Pharmine project and
 - in relation to any additional competencies identified by the industrial and academic partners in the context of current developments in the bio/pharmaceutical sector.

Objective 2 – work together



- Work together (academia and industry from participant countries) on:
 - the development of curricula (content and teaching/learning methods and educational materials)
 - that will ensure the required competencies for industrial pharmacist are covered at an appropriate level.
 - Focus will be placed on enhancing student engagement, developing problem solving skills and encouraging innovation and entrepreneurial thinking.
 - Academic staff up-skilling will form part of the curriculum update and delivery process.

Objective 3- Develop and deliver joint modules

- Develop and deliver joint modules,
 - as part of a structured PhD programme
 - and/or continuing professional development courses
 - for industrial pharmacists and other professionals working in the bio/pharmaceutical industry
 - with a focus on bio/pharmaceutical product development and manufacture.

Where are we at the moment?

- Preparing the first intensive course at **National Institute for Bioprocessing Research and Training 26th to 29th May 2014, Dublin, Ireland.**
- Site visit to Pfizer, Grange Castle, Dublin, Ireland will be included.



NIBRT is a world-class institute that provides training and research solutions for the bioprocessing industry. NIBRT supports the bioprocessing industry by providing a unique learning experience for trainees in an environment that replicates the most modern industrial bioprocessing facility.

Where are we at the moment?

- We have finished survey conducted on competencies for industrial pharmacist in our five countries
- Preparing for the First LIAT-Ph conference on a *Competency Based Curriculum for Industrial Pharmacy* in September 2014 in Portorož
- Preparing the second intensive course entitled *“Computational and mathematical methods within the Quality by Design approach in drug development and manufacture”* in October 2014 in Belgrade

Greetings from Serbia





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