

POSITION PAPER

The Lifelong Learning Conference

Developed by the LifeTrain community*

Summary

The constantly changing and unpredictable biomedical science environment is slowing down the development of better medicines for patients. Having a flexible strategy for both career development and maintaining professional competence is the best way to deal with this challenge.

The EMBL Conference on Lifelong Learning in the Biomedical Sciences was the latest step on a journey to share good practice and to drive the implementation of the LifeTrain principles. The conference was an expansion from a predominantly European, to a broader global focus. It covered career development and continuing professional development (CPD) from: industry; academia; Regulatory; training and policy. Although it was clear that significant progress has been made, there is still a great deal to be done.

In order to deal with the ongoing challenge we need the following:

1. Defragmentation of the activities by development of a stronger global network
2. Incorporation of other parts of the scientific community, especially postdocs
3. Development of harmonised tools, processes, and good practices to facilitate development and maintenance of more high-quality competency profiles
4. Implementation of transformative learning that leads to competence
5. A forum for sharing emerging ideas and practices, e.g. an annual conference

Position paper

LifeTrain is an open community working together to build a coherent framework for continuing professional development (CPD) across all career stages in the biomedical sciences [1]. It is based on the premise of, “*No research without trained researchers*”. Thus, every professional needs to develop and maintain an optimal level of competence to contribute to the development of better medicines for patients. This flexible strategy is the only way to deal with the constantly changing and unpredictable environment. The education and training of academic scientists and professionals, their ability to work in multidisciplinary teams and to communicate with the public has even broader ramifications since society as a whole needs the innovations from science.

LifeTrain emerged from a series of workshops where the stakeholders (employers, professional/scientific bodies, Regulators, course providers, and individual professionals) developed the key messages, principles, benefits, case studies and a database of examples of competency profiles. Many of the workshop participants became “Signatories” of LifeTrain; agreeing to continue to work together to help in its implementation.

Competencies and competency profiles have emerged as the “currency” of continuing professional development, allowing tailored programmes to be designed, and supporting mobility across geographical, sectoral and discipline boundaries. In conjunction with LifeTrain, a number of groups have developed competency profiles. These include: the Specialist in Medicines Development (PharmaTrain–IFAPP), Safety Scientists (imi-train), Research Infrastructure leaders and technical staff (CORBEL and Rltrain), researchers in translational science (C-COMEND), and Bioinformatics core competencies (International Society of Computational Biology). Other profiles already existed and are included on the website, e.g. Regulatory Affairs (TOPRA), core competencies for Clinical Research Professionals (IAoCR and the Joint Task Force for

Clinical Trial Competency) and Guidance on CPD for Qualified Persons (EIPG). Examples of certification processes can also be found on the website, e.g. the European Register of Toxicologists (EUROTOX) and European Certified Pharmacologists (EPHAR).

The Lifelong Learning Conference

The EMBL Conference on Lifelong Learning in the Biomedical Sciences was the latest step on a journey to share good practice and to drive the implementation of the LifeTrain principles. The conference was an expansion from a predominantly European, to a broader global focus. It covered continuing professional development from: industry; academia; Regulatory; training and policy.

The four main themes were: Stimulating inter-sectoral mobility; Fostering competency and inter-disciplinarity; Developing cross-cutting skills and Transformative learning: applying learning in the workplace. Optional workshops were held post conference enabling participants to apply concepts highlighted in the four sessions. The programme and presentation materials can be found on the website [2].

Evidence presented showed that although gaining a tenure track position is seen as the aim of PhD and postdoctoral training, in reality it's an alternative career. Therefore, we need to talk more openly about the wide variety of career options and provide the support to enable informed career decisions and training. Examples of such support came from both the USA and Europe. We heard about many different approaches to training the emerging or established professional in the workplace, including: face-to-face, e-learning, and on-the-job, for the individual and for the multidisciplinary team. This could be summed up as, the right training to the right people at the right time. There were inspiring examples of how great scientists can become great leaders and how employer commitment to training and development can produce measurable impacts, and a more skilled and loyal workforce.

*E-mail for correspondence: mike.hardman@astrazeneca.com

To drive this message home was an anecdote (from Simon Brown):

Question: *“What happens if we train our people and they leave?”*

Answer: *“What happens if we don’t train them and they stay?”*

We also learnt how the highly collaborative nature of current scientific research in academia and industry is breaking down barriers to mobility between sectors. The discussions during the Conference, and the Conference itself, demonstrated that we are communal “animals” and thrive on face-to-face contact and there was overwhelming support to continue in a similar forum.

Despite a number of excellent initiatives and success stories, it was clear that there is still a large amount to be done and barriers to be overcome. Strong communication between stakeholders to share good practice is needed to avoid the danger of reinventing the wheel. Competencies are still not well understood and are not yet universally established as a “global currency”. There is a need to establish best practice for the development and maintenance of competency profiles. Although each individual is responsible for his/her own career, the scientific community has a responsibility to support them, and society needs the innovation that only science can provide.

Next steps

We have a solid foundation but need to continue to build until we reach the point where all of the above become part of the fabric of the scientific culture and can then continue to evolve. In order to achieve that we need the following:

1. Defragmentation of the activities by development of a stronger global network
2. Incorporation of other parts of the scientific community, especially PhDs and postdocs
3. Development of harmonised tools, processes, and good practices to facilitate development and maintenance of more high-quality competency profiles
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We invite other members of the biomedical community to join the community of LifeTrain signatories and support these aims.

Links:

1. <http://www.lifetrain.eu>
2. <http://www.lifetrain.eu/join-us/embl-lifelong-learning-conference-2016/>

