LIFE Capital move people forward

LIFE Capital - move people forward, proudly launches four pilot modules within the program Groningen Human Capital for Life Sciences. In close collaboration with the leading knowledge institutions UMCG and Hanze and industry partners, those courses help the life science professionals to keep ahead of the game in the field of Bioanalysis and Genetechnology.

LIFE Capital
move people forward

Module 1:

Revolutionizing disease modelling and drug discovery with iPSCs: principles & applications

This course introduces participants to the emerging field of iPSCs and their potential in disease modelling, drug development and treatment. Participants will learn the fundamental principles of iPSCs and explore the numerous possibilities of iPSCs in disease modelling, drug discovery and disease treatment. Optionally, participants may gain hands-on experience with IPSCs culture and passaging as well as learn how to evaluate the pluripotency of iPSCs.

When: March – April 2026 Duration: approximately 50 hours

This first module will take place in March and April. The on-site (live) training days are Friday, March 13 and Friday, April 17. Participants will receive access to the online learning materials from approximately March 1.

Format: The course combines two full days on location with interactive sessions and workshops, complemented by online e-learning modules and knowledge clips to support flexible learning schedules. The final assignment is based on an authentic case identified by the participant.

Target group: Professionals from the pharmaceutical industry interested in learning the fundamental principles and applications of the emerging iPSC technology. Participants will collaborate with PhD students affiliated with the Graduate School of Medical Sciences (UMCG), fostering both knowledge exchange and networking opportunities.

Requirements: This is a post-HBO/WO level course. Participants should have a basic understanding on human genetics. A VMT certificate and/or experience with cell culture is required to participate in the optional hands-on practicum. A pre-course intake will be scheduled with each participant to discuss individual goals and alignment with the requirements.

Capacity: 5 -10 participants (or 10-15 when combined with the PhD students). Last spots available, sign up now!

Interested? Contact Sven Stielstra (sven@lifecooperative.nl)

Participants who successfully complete the module will be awarded a Proof of competence certificate.

Module 2:

Drug discovery and disease modelling with Organoids & Organ-on-a-Chip.

This course introduces participants to the emerging fields of organoids and organ-on-a-chip technology, emphasizing their potential in drug discovery and disease modeling. Participants will explore the biological principles of these models/technologies, critically evaluate their applications, interpret experimental outcomes and perform experimental design.

When: May – June 2026 **Duration:** approximately 50 hours
This first module will take place in May and June. The on-site (live) training days are Friday, May 8 and Friday, June 12.

Format: The course combines two full days on location with interactive sessions and workshops, complemented by online e-learning modules and knowledge clips to support flexible learning schedules. The final assignment is based on an authentic case identified by the participant.

Target group: Professionals from the pharmaceutical industry interested to explore the fundamental principles and applications of the emerging organoids/ Organ-on-a-chip technologies. Participants will collaborate with PhD students affiliated with the Graduate School of Medical Sciences (UMCG), fostering both knowledge exchange and networking opportunities
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Requirements: Requirements: This is a post-HBO/WO level course. Participants should have a basic understanding on human genetics. A pre-course intake will be scheduled with each participant to discuss individual goals and alignment with the requirements.

Capacity: 5-10 participants (or 10-15 when combined with the PhD students).

Last spots available, sign up now!

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Module 3:

LC-MS analysis of small molecules

The module is interactive, alternating theoretical explanations with activating assignments. Participants are encouraged to contribute examples from their own practice, preferably prior to the start of the course. Naturally, there will be ample opportunity to ask questions and exchange experiences.

Learning objectives:

- You will develop a (bio-)analytical method through a project proposal and be able to evaluate, logically combine, critique results, and provide recommendations for further research.
- You will understand the consequences of deviations in obtained results and be able to advise on necessary changes in the applied methods.
- You will explain the various components of an LC-MS/MS system and recommend settings for given analytes.
- You will formulate a well-founded hypothesis regarding the behavior of components during sample preparation and LC-MS/MS analysis and interpret the obtained results.
- You will be familiar with the regulations for quality assurance of analytical methods.

When: March 5 to May 7 (every Thursday) **Duration:** 5 ECTS × 28 hours = 140 hours, of which approximately 70 hours at Hanze University and 70 hours of self-study.

Target group: Professionals with a Bachelor's or Master's degree, or an MBO degree with at least 5 years of work experience with LC-MS.
You are an (assistant) analyst, laboratory technician, or project leader within, for example, the pharmaceutical, biomedical, or clinical-chemical sector. You already have experience working with LC-MS and wish to deepen your understanding of both HPLC and MS aspects of method development. In addition, you want to further develop your skills in sample preparation for qualitative and quantitative LC-MS analyses.

Capacity: 2–3 (currently 5–6 places are filled; ideally, we would like to have 6–8 participants in total).

Last spots available, sign up now!

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Module 4:

Ligand binding assays

Are you a student or laboratory technician who already has experience with ligand binding assays (LBA)? Or are you currently working with other analytical techniques and considering a transition to LBA? Then you probably know that LBA uses biological interactions to quantify proteins. But do you want to truly understand and apply this technique within the context of drug research? Then this course has been developed specifically for you.

In this course:

- You will explore the role of LBA in drug research, understanding its applications and how it contributes to the development of new therapies.
- You will gain insight into the theoretical foundation of LBA, enabling you to design experiments based on knowledge rather than trial-and-error.
- You will become familiar with LBA applications in PK, PD, and ADA within regulated bioanalysis and learn how these assays contribute to reliable and reproducible results.
- You will learn about the requirements and guidelines for LBA, so you understand how to design and validate assays for use in a regulated environment.
- Throughout the course, theory is combined with practical case studies. You will learn how to develop and validate LBA methods in accordance with current guidelines, ensuring that your results are both reliable and applicable in the context of regulated bioanalysis.

When: April 9 to June 18 (every Thursday, excluding holidays and vacation periods). This is our intended start date, though its feasibility is still being assessed based on input from the field.

Duration: 3 ECTS × 28 hours = 84 hours, of which approximately 60 hours at Hanze University and 25 hours of self-study.

Target group: Professionals with a Bachelor's or Master's degree, or an MBO degree with some work experience in LBA. You are an (assistant) analyst, laboratory technician, or project leader within, for example, the pharmaceutical, biomedical, or clinical-chemical sector. You already have experience with LBA and wish to deepen your expertise in method development, validation, and troubleshooting, and learn how to apply this knowledge in your own projects.

Capacity: 2–4 (currently about 3–4 places are filled; ideally, we would like to have 6–8 participants in total).

Interested? Contact Sven Stielstra (sven@lifecooperative.nl)