

MERCK

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COLLABORATE

M Lab™
Collaboration
Centers



The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

M Lab™ Collaboration Center

The M Lab™ Collaboration Centers offer vibrant collaboration spaces in which our customers can explore ideas, learn innovative techniques, and work side by side with our scientists and engineers to solve critical process development challenges. These non-GMP labs, designed specifically for customers, offer the flexibility to troubleshoot and test in our facility without impacting your production line. Located in key biopharma hubs around the world, our experts are ready to collaborate with your experts to solve your toughest problems - together.

Why Visit an M Lab™ Collaboration Center?

At the M Lab™ Collaboration Centers, no challenge is too great. Our technical expertise spans all aspects of the process train. Areas of support we offer include, but are not limited to:

- Overcome barriers to single-use implementation
- Receive guidance for process development and scale up
- Troubleshoot existing processes (i.e. ultrafiltration, downstream purification, filter integrity testing, solubility and compressibility issues in formulation, etc.)
- Gain technical knowledge required prior to new product adoption
- Acquire new skills and expertise in bioprocessing and formulation development
- Discover best practices and techniques for adopting next generation bioprocessing
- Develop and test new procedures prior to implementation
- Attend biopharmaceutical and formulation courses held at your nearest M Lab™ Collaboration Center or host our trainers at your facility.

Bring your challenges to us and together we will collaborate to find a solution.



Pilot Lab & Process Development Lab

The pilot lab is equipped with movable unit operations designed to be flexible to simulate your unique manufacturing environment. The process development lab features all the bench scale equipment you are used to using to most closely replicate your specific process conditions. Featuring process steps from upstream to downstream through to final fill/finish, these labs support all areas of process development, optimization, and implementation.

Interactive Digital Tools & Curiosity Hub

The M Lab™ Collaboration Center concept was created to delight and inform customers from all areas of pharma and biopharma production. To enhance your experience, our central Curiosity Hub includes a host of digital interactive tools offering a fun way to explore informative content. Here you can find information on innovative techniques, current application data, product information and new approaches to learning.



Elevate Your Expertise with Hands-On Training

Pharmaceutical manufacturers are in a race to stay ahead of industry trends and are under increased pressure to drive down costs and accelerate speed to market. Choosing a knowledgeable training partner is your first step to elevating your technical expertise. Our instructors have trained more than 10,000 industry professionals and are real world scientists and engineers whose primary objective is to provide you the skills you need to solve your toughest challenges, today and in the future.



Course Offerings

Most courses are conducted at our M Lab™ Collaboration Centers, however, many courses can also be held at your location. For more information or to register for a course, please visit [MerckMillipore.com/training](https://www.merckmillipore.com/training).

Biopharmaceutical Courses

Upstream

- Continuous and Intensified Processing in Upstream Cell Culture

Downstream

Normal Flow Filtration

- Introduction to Normal Flow Filtration Principles and Operation
- Operator Certification for Automatic Filter Integrity Testing
- Good Design Practices for Filter Sterilization
- Understanding Regulation of Aseptic Processing and Filtration Applications
- Virus Filtration Process Development and Validation: Best Practices

Tangential Flow Filtration

- Introduction to Tangential Flow Filtration Principles and Operation
- Operator Certification for Tangential Flow Filtration Module Maintenance
- Optimization and Scale-up of Tangential Flow Filtration Applications
- Understanding Tangential Flow Filtration Validation
- Optimization, Implementation, and Scale-Up of Single-Pass Tangential Flow Filtration
- Optimization, Implementation, and Scale-Up of High-Concentration Tangential Flow Filtration
- Optimization and Implementation of Open Ultrafiltration and Microfiltration Processes

Chromatography

- Purification of mAbs and Related Proteins: Chromatographic Methods, Strategies, and Optimization
- Purification of Biomolecules: Method Development and Scale-Up of Ion Exchange Chromatography
- Operator Certification for Pilot and Process Chromatography Column Packing

Classical Pharmaceutical Courses

Formulation and Tableting

- Power Up Your Formulation

Our Global Network

With sites around the world, we can quickly accommodate your evolving needs at a time and a place that works for you.

Access the support of our global network of more than 200 scientists, engineers and technicians including process development scientists, biomanufacturing engineers and systems process engineers.



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Join our network of problem solvers as we help the pharmaceutical industry accelerate access to life-enhancing therapeutics worldwide.

Visit an M Lab™ Collaboration Center today.

MerckMillipore.com/MLabs #MLabCollaboration
MerckMillipore.com/Training



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