Immunoassay development services which will you choose?







The choice is yours

Are you having technical challenges with your immunoassay development? Maybe you don't have the infrastructure or experience to resolve the issues in a reasonable timeframe.

Choose from a range of training and service options available from Cytiva that can provide you with a solution.

	Beginner course	Development workshop	Customized seminars	Surface plasmon resonance (SPR) analysis (see more on next page)	Contract / custom development	Custom material development (comple
Location	Dassel, Germany	Virtual or at customer premises	At customer premises	Dassel, Germany	Dassel, Germany	Dassel, Germany
Duration	5 days	5 days	Session dependent	Several weeks	6 to 12 months	6 to 12+ months
Content	 Introduction to the theory and practice of lateral flow test development using a model system Explains how to develop lateral-flow tests Opportunity to put theory into practice Access to specialist knowledge and experience 	 Focus on process, equipment and applications Explains how to perform functions and tests Covers upscaling support and technical transfers Gets into the detail of test performance and optimizing results Access to specialist knowledge and experience 	 Highlights development and manufacturing of a rapid test (or parts of it) Feasibility study or troubleshooting an assay / development using customer reagents Flexible content dependant on customer requirements Practical guidance, helpful tips and troubleshooting Access to specialist knowledge and experience 	 Identification, characterization and selection of antibodies and other binders for rapid test development using surface plasmon resonance Accelerates the identification of suitable reagents for the test development process, reduces the efforts for the developing scientist/ engineer Access to specialist knowledge, experience and equipment 	 Covers the development of a lateral-flow test from an idea or prototype End to end process Cytiva can source appropriate reagents Access to specialist knowledge, experience and equipment 	 Investigating customization possibilities that may f an end user applicatio Access to specialist knowledge, experience and equipment



Spotlight on SPR analysis

If you are looking for binders (antibodies, affirmers, aptamers, other affinity proteins) that are suitable for the development of a lateral flow test system from a number of candidate molecules (e.g. hybridoma supernatants), our SPR analysis service could be for you!

- Determination of kinetic properties of all candidate molecules (on-rate, off rate)
- Outcome: Selection of binders that have the potential to be used in a lateral-flow test.
- Only these binders are used in the subsequent steps
- This step can be completed as a stand-alone servce
- Determination of any cross reactivity of the binders with molecules that are closely related to the analyte (cross-reacting molecules are to be provided by the customer).
- Outcome: Exclusion of binders that are cross-reactive and would lead to false results in a test system.
- This is an optional step.

- Customer provides the candidate molecules from which the selection is to be done, and the analyte for which the binders are supposed to be specific.
- The binders should be purified, except for mouse monoclonal antibodies which can be analyzed as cell culture supernatants.
- For competitive tests, the customer also provides the analyte/carrier-protein conjugate.
- After each step, the results will be discussed to determine the next steps.

- For competitive tests only: Inhibition test for the binding of the binder to the protein-bound analyte by the free analyte (binding competition).
- Outcome: Characterization of binding differences between the bound and the free analyte, identification and exclusion of binders which do not work in the competitive test situation, potential prediction of sample liquid optimizations.
- For sandwich tests only: Determination of the binders that can build pairs with the analyte between them.
- This is a checkerboard type of experiment all binders are used as capture and detector molecules and all possible combinations will be tested.
- Outcome: Definition of the best pair of binders for a lateral flow test. If possible, more than one pair is identified.

- Identification of the most suitable Cytiva membrane family for the lateral flow test to be developed
- This requires that the candidate binders selected in step 3 are subjected to a kinetic property investigation in the presence of the different membrane surfactants Cytiva is using in its products. The requires purified binders.
- Outcome: Prediction which membrane family works best for the test development. This reduces the lab efforts for the developing scientist/engineer.
- This is an optional step.



Sessions will be hosted and run by

Klaus Hochleitner

Global Lead Technical Product Specialist Diagnostics at Cytiva

- Cell and molecular biologist
- Has worked on immuno- and molecular diagnostic applications for more than 30 years
- Regular presenter on lateralflow diagnostics and materials used therein at workshops and scientific conferences since 1997
- Holds patents in this field



Sarah Zachmann

Senior Diagnostic Scientist at Cytiva

- Background in microbiology and infection biology
- Many years' experience working with early-stage developers and test development
- Focuses on teaching, training, and supporting diagnostic rapid test developers and manufacturers





Don't just take our word for it...

Hutano Diagnostics completed a 3-day workshop with Cytiva Diagnostic Services to advance their rapid Ebola point-of-care test.

The work that we have been doing here has helped us to reshape our R&D strategy and to become more efficient. [It] has saved us months of development."

Atherton Mutambwera Hutano Diagnostics, Founder, CEO

Watch their videos and find out more about our services here

Ubique Bio was the winner of the Dx Challenge in 2022 and benefited from a 3-day workshop at the Cytiva site in Dassel, Germany. They were looking to find the best way to incorporate synthetic peptides into a test strip and find the most efficient way to multiplex the strip.

Cytiva experts added significant value to our ideas giving us a clearer perspective to our objectives and future directions."

Angelita Lorenzo Ubique Bio, Co-Founder and Chief Science Officer



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CY43627-14Apr24-BR

