# alab®

# Artificial Intelligence at the service of the validation specialist



### The expert system computeraided medical biology validation





www.valab.com

VALAB company is certified ISO 9001

## Valab<sup>®</sup> makes your lab more efficient

The **Valab®** expert system is a computer-aided medical biology validation tool with no equivalent on the market. It gives you unparalleled quality of work with maximum safety and efficiency.

#### Validation specialists: Save precious time



#### Helping you to make your lab more efficient and improve your patient follow-up.

Valab<sup>®</sup> helps validation specialists save precious time on automatically validated patients' reports by focusing on the reports which require special attention, thereby freeing up more time for their role as consultants.

In the Laboratory Information System (LIS), any results that Valab<sup>®</sup>'s automatic verification has found to be incoherent or outside the limits set by the lab's clinical specialists are indicated directly in the patients' reports.





#### You can rely on Valab<sup>®</sup>.

The Valab<sup>®</sup> expert system's powerful inference engine contains 25 000 rules to provide combinatorial and relevant medical verification of all of your patients' reports.

Valab<sup>®</sup> is deterministic, reproducible, accountable and qualifiable. For the same input data with the same settings, it will always give the same autoverification results. Valab<sup>®</sup> is a tried and tested software solution you can count on and is a recognised reference in the field of computer-aided medical biology validation.

As opposed to less sophisticated verification systems, Valab<sup>®</sup> will even catch values situated within the reference interval if they appear to be incoherent with regard to the overall context of the report.

# The power of the Valab® expert system

#### A deterministic and open expert system

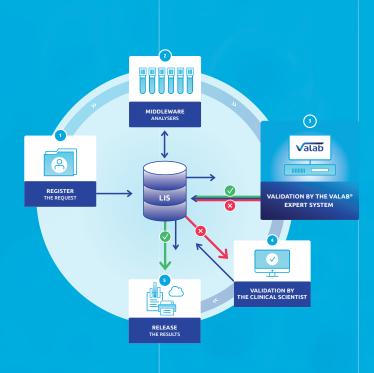
Developed as a result of research in **artificial intelligence** applied to medical biology, Valab<sup>®</sup> uses an inference engine which executes automated verification rules.

Valab<sup>®</sup> is an expert system that is deterministic, reproducible, accountable and qualifiable, this sets it apart from self-learning systems of the "Deep Learning" and "Machine Learning" type. For the same input data with the same parameter settings, Valab<sup>®</sup> will always give the same autoverification results.

To enhance Valab<sup>®</sup>'s autoverification power, users can create new rules, modify the preconfigured rule models, and create their own custom test rule models.

#### A cognitive approach

The "intelligent" model at the origin of Valab<sup>®</sup> applies all of the processes we use to interpret a result according to a strategy that is close to human reasoning. The acceptability of a result depends on a truly combinatorial approach and not on a classification in a pathological model. The result does not depend on the application of an exclusive rule but, on the contrary, it depends on all of the applicable rules.



#### How Valab® fits into your lab

Valab<sup>®</sup> is integrated into the information system of your medical laboratory or of your health data hosting provider.

Your LIS sends to Valab<sup>®</sup> the patients' reports to be verified, Valab<sup>®</sup> sends back the automatically verified results synchronously in less than a second.



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#### The best possible Support

The Valab<sup>®</sup> medical biology validation software exists since 1991. Used by more than **350 multi-site structures**, it automatically verifies over **700 000 patients' reports** every day.

Our technical, medical biology and ISO 15189 experts have all the skills required to support you. They will give you the best possible help according to your needs and your development.



Valab<sup>®</sup> verifies each report in less than a second.

Patients' reports validated automatically with the help of Valab<sup>®</sup> and found to be coherent and within the defined limits can be released directly by the LIS.

Valab® works 24 hours a day, 7 days a week.

This is especially important for the delivery of urgent or partial patients' reports.

## Unified validation



All of the validation specialists benefit from Valab<sup>®</sup>'s automatically verified results in the LIS.

Using Valab<sup>®</sup> in your medical laboratory lets you unite your entire team of validation specialists around the same software tool using the same parameter settings.

This greatly helps to unify the validation of patients' reports in your lab.

#### Your ally for accreditation



Using Valab® is a natural part of your **ISO 15189** accreditation project.

### It guarantees you a validation process that is safe, constant and reproducible.

Under the responsibility of the validation specialist and in conformity with the requirements of the Standard, Valab® ensures the systematic review of all of the results before they are released.



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