

Pyrogen Testing 2.0: Ethical, Evolving and Eco-friendly



25-26 February 2026

Implementing safe, rapid, state-of-the-art and sustainable non-animal approaches worldwide

European Commission, Albert
Borschette Conference Center,
Rue Froissart 36, Brussels, and online



Summary report of the Joint EDQM-EPAA Symposium

The European Directorate for the Quality of Medicines & HealthCare (EDQM) and the European Partnership for Alternative Approaches to Animal Testing (EPAA) have just concluded a highly successful follow-up symposium, ["Pyrogen testing 2.0: Ethical, Evolving and Eco friendly – Implementing safe, rapid, state of the art and sustainable non animal approaches worldwide,"](#) hosted as a hybrid event at the Albert Borschette Conference Centre of the European Commission in Brussels on 25-26 February 2026.

In her welcome address, EDQM Director Dr Petra Doerr underlined that removal of the rabbit pyrogen test (RPT) from the European Pharmacopoeia (Ph. Eur.) as of 1 January 2026 marks a milestone for animal welfare and a decisive step toward fully *in vitro* pyrogenicity control; she also called for continued broad co-operation to harmonise global uptake of alternatives. Afterwards, Susanna Louhimies of the European Commission outlined the legal and policy framework.

She explained that under Directive 2010/63/EU, replacement is a requirement when a recognised non-animal method exists (Article 13), and that the EU is strengthening transparency on remaining RPT uses via the ALURES statistical database and non-technical summary (NTS) dashboard.

These document a sharp decline in RPT use, 63% between 2015 and 2023, with preliminary data for 2024 bringing the overall decrease since 2015 to almost –70%, and pinpoint the specific scientific or regulatory reasons behind any limited continuations.

The opening session showcased how the EDQM and European Medicines Agency (EMA) have worked hand-in-hand to help users implement the phase-out in Europe, demonstrating a co-ordinated approach to regulatory questions and practical hurdles. With the phasing-out effort now largely complete, the RPT is authorised only in exceptional, temporary situations to address specific technical challenges; companies still finalising transitions were encouraged to set short-term completion dates.

Outside Europe, while participants reported a decline in RPT use across regions, progress can be hindered where the monocyte activation test (MAT) is not yet embedded as an official standard in pharmacopoeias. Despite this, many non-European regulators were noted to have a more favourable and supportive stance compared to the previous EDQM–EPAA conference in 2023, signalling a positive shift in global attitudes.

In the MAT session, speakers reaffirmed that the monocyte activation test is not only scientifically superior and more sensitive than the RPT but also animal-free, and

thus offers improved analytical performance for pyrogenicity assessment. The current landscape is less complex than a few years ago, with multiple commercial kits available worldwide and clearer guidance to mitigate former technical barriers. Defining appropriate acceptance criteria was emphasised as critical to successful routine use.

Given the fundamentally different analytical targets and readouts, participants agreed that head-to-head comparability with the RPT is not scientifically meaningful; for new products, a *de novo*, product-adapted MAT development with appropriate validation was highlighted as best practice. Participants issued a clear plea for international harmonisation of MATs to avoid divergent expectations across regions and accelerate global uptake.

The final session focused on recombinant reagents for the bacterial endotoxins test (BET). It was announced that the Ph. Eur. will integrate the recombinant factor C (rFC) test as of Issue 13.1, with an implementation date of January 2027, making it equivalent to LAL methods. Industry expressed the wish to see clear guidance from official texts on the preferred method to address pyrogenicity, particularly where the BET is concerned.

European regulators strongly encouraged the use of recombinant reagents instead of lysate-based methods, both to avoid animal sourcing and to improve standardisation. For recombinant cascade reagents (rCR), participants indicated that the path to equivalence should be shorter than for rFC, but additional data, including evidence within marketing authorisations, are still needed. They also expressed the wish for a future, globally co-ordinated transition from LAL to recombinant reagents, with the clear aim of ensuring worldwide alignment and explicitly avoiding a repeat of the fragmented, non-global situation currently experienced with the RPT.

In closing, Katrin Schütte of the European Commission summarised the conclusions from the two days with notable clarity: the suppression of the RPT chapter in the European Pharmacopoeia is catalysing progress worldwide; the MAT demonstrably outperforms the RPT and has surmounted the technical obstacles that once hindered its roll out; and, above all, the journey to retire the RPT shows that with vision, perseverance and collaboration, animal testing can be phased out. These messages resonated across sessions and stakeholders, reflecting the shared conviction that modern, human-relevant, animal-free pyrogenicity testing is fast becoming the global standard.

