

Alternative testing and skin sensitization: How did we get to where we are now?

[Cefic's Long-range Research Initiative \(LRI\) Programme](#), in co-operation with [Cosmetics Europe](#) and [EPAA](#), is organizing a workshop on Skin Sensitization Alternatives. The workshop will be hosted at the ECHA offices in Helsinki on April 23-24, 2015 and will present an update on the current status in the development and integration of alternative approaches to animal testing in the skin sensitization area.

As toxicology progresses towards a future free of animal testing methods (*in vivo*), the endpoint of skin sensitization is at the front line. Several industry sectors have been called to develop integrated testing strategies (ITS) that are as scientifically robust, flexible in their applicability and sufficient at a regulatory level. Currently, there are at least 5 or 6 non-animal (*in vitro*) dermal testing methods that have been accepted by the [EURL-ECVAM, The European Union Reference Laboratory for alternatives to animal testing](#), and are at the final stage before entering the next [OCED guideline programme](#).

For Cefic it is crucial that the chemical industry stay informed about the prerequisites necessary for ITS to be accepted for registration of chemicals. It is very important that we work together with the regulatory community and other industry sectors so that both sides can be prepared for this revolution in skin sensitization prediction, and we can continue to give active feedback on the challenges it will present. **Therefore, Cefic, through its LRI Programme and as an advocate of the [3Rs principle](#) to protect and improve animal welfare, has established a long-standing relationship with several sectors to move forward with alternative testing methods.**

How it all started

LRI launched this very ambitious effort with a first workshop in February 2010 called "[Applicability of sensitization testing methods for regulatory purposes](#)". In this very first step, LRI partnered with [CESIO](#), [CES](#) and [EFFCI](#), the surfactants, silicones and cosmetic ingredients industry sectors. The workshop gathered various stakeholder groups, including industry, academia and regulatory authorities, with the main focus on the strengths and limitations of both, the LLNA LLNA – the local lymph node assay - and the traditional guinea pig tests, their applicability domain and the current use of the LLNA as the "gold standard" under REACH. The discussions were summarized into a [workshop report](#).

This workshop led into a second one in September 2011 called "[Optimized testing strategies for skin sensitization LLNA and beyond](#)", this time with the active contribution of the EPAA, the **European Partnership for Alternative Approaches to Animal Testing**. The intention was to share practical experience amongst industry sectors, mainly on the use of the LLNA but also on testing strategies for skin sensitization in general. The workshop resulted in a [flash report](#) and a [peer-reviewed publication](#), both available on the [LRI website](#).

As a follow up, LRI and EPAA organized a third workshop in February 2013 called "[Moving forward with non-animal testing strategies](#)", this time with the active participation of the regulatory bodies. This particular workshop, which was - for the first time - hosted by [the European Chemicals Agency \(ECHA\)](#) in Helsinki, paved the way and perhaps set a model for future collaborations between Cefic-LRI, EPAA, ECHA and the national authorities in charge of implementing alternative approaches to animal testing. The complete [flash report](#) is available here.

Where we are today

When it comes to dermal testing of chemicals, chemical companies are faced with multiple challenges, from limitations of the testing methods itself to legal adjustments of the current regulation. **Therefore, it is very important for Cefic to provide its members with an informed decision matrix of the options that are currently available for hazard identification and classification.** In this respect, Cefic-LRI volunteered to organize an informal follow-up in the format of a small-scale discussion to investigate pragmatic solutions and make interim recommendations for *in vitro* alternatives that can deliver the same degree of human health protection currently afforded by the *in vivo* methods and are accepted at a regulatory level.

For this last workshop in a series of four, which will be hosted by ECHA on 23-24 April 2015, LRI and EPAA joined forces with [Cosmetics Europe](#), another very important industry sector. The workshop will feature case studies from several Cefic members and EPAA partners, such as BASF, RIVM, L'Oréal, Givaudan and HENKEL, on hazard and potency assessment, a much-debated topic in OECD's Integrated Approaches to Testing and Assessment (IATA). It will then conclude with break out group discussions on ITS limitations and chemical case studies on hazard and potency to allow optimal interaction between the stakeholders. Here you may view the [detailed programme](#). The workshop is organized back to back with the European Chemicals Agency's Member States Committee to maximize the participation of national representatives.

Attendance is possible by invitation only. A workshop summary report and a peer-reviewed article are expected to be the outcome of this workshop. These will become publicly available on the LRI and ECHA website.

For more information about LRI and its work programme, please contact Dr. Bruno Hubesch, LRI Programme Manager, at bhu@cefic.be.

Click to view all the [LRI research projects on Intelligent Testing](#) and the [LRI Toolbox for alternative testing methods](#).