



INVITRO-CONNECT update on in vitro testing developments

Accurate in vitro tests for acute eye irritation/corrosion

Last century, tests like Draize spawned the 3R movement to reduce-refine-replace animal experiments. Since then, in vivo eye irritation/corrosion testing continues to be part of many regulations, e.g. REACH (OECD TG 405). The first important replacement step was to validate methods that identify severe eye irritants in vitro. In 2009, as a result, in vitro tests were adopted in OECD test guidelines.

INVITRO-CONNECT safety assessment minimizes the need for in vivo experiments

In 2010, Scott et al. had proposed Bottom-Up and Top-Down approaches to reduce and replace in vivo eye irritation studies (Scott et al., 2010). The most recent update of OECD Test Guideline 437 (Bovine Corneal Opacity and Permeability Test Method) and 438 (Isolated Chicken Eye Test Method) marks the next step towards animal-free assessment of eye-damaging potentials. Now, the urgently needed bottom-up part can be put into practice thanks to the provisions foreseen in the Supplement of the OECD TG 405 (Acute Eye Irritation/Corrosion).



Two strategies – one test – our value proposition

By simply expanding the data interpretation from the BCOP and ICE, both strategies can be simultaneously pursued with just one test. Consideration of existing information is of lesser importance. Keep in mind, though, that the majority of chemicals generally do not trigger any classification for eye irritation/corrosion: A negative result in the BCOP and ICE is sufficient evidence to not classify, allowing more substances to be assessed in vitro.

INVITRO-CONNECT routinely offers both BCOP and ICE. Based on our wealth of in-house experience, we will propose the test most suited to your specific needs. In vitro testing saves costs with accurate guideline-compliant findings for you and your clients.

Outlook – new in vitro methods in the regulatory pipeline

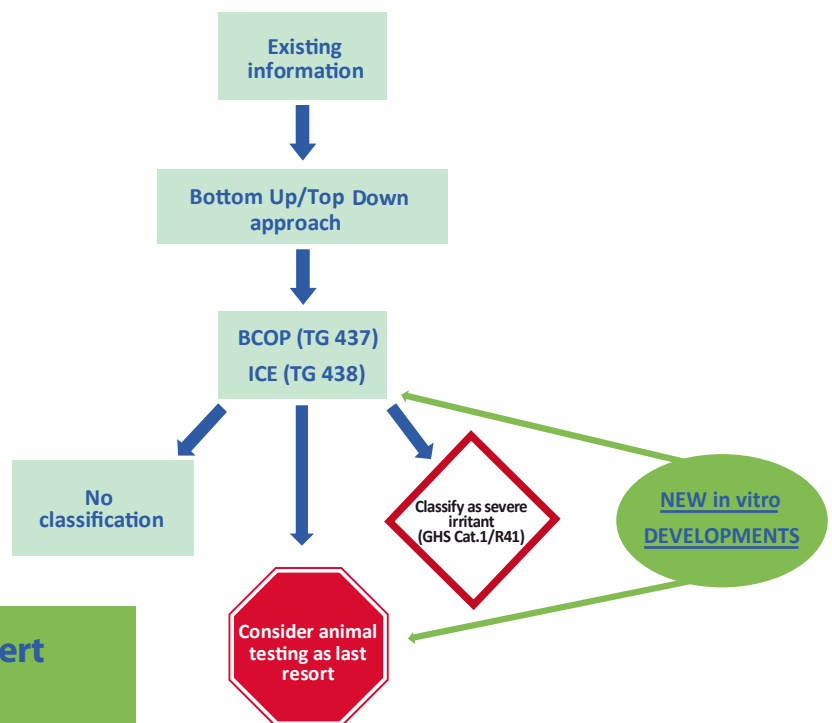
Given that both BCOP and ICE produce a substantial number of false-positive results, INVITRO-CONNECT is working to actively identify other in vitro methods that can be used for the bottom-up approach. Several methods, e.g. human-based cornea-like cell models or the Short Time Exposure (STE) test using a rabbit corneal cell line, have undergone validation studies. The next steps towards regulatory acceptance are currently being taken. Upon validation, we foresee adding these methods to our portfolio. Properties permitting, we anticipate using them as equivalents to BCOP and ICE or strategically in conjunction with other in vitro tests.

Bottom-Up meets Top-Down by 2018

You can be sure, INVITRO-CONNECT is close on the heels of the latest developments in in vitro methods. For example, by exploring the “depth of injury” concept that promises to replace the need for animal testing for eye irritation/corrosion altogether!

We are confident that, in time for the REACH registration deadline in 2018 or earlier, we can offer our clients in vitro strategies for acute eye irritation/corrosion tests for all substances.

Until then, we want to work together with you to design accurate guideline-compliant assays to meet all your safety assessment needs.



Questions? Please contact our in vitro expert
Dr. Sebastian Hoffmann.

INVITRO-CONNECT GmbH is your partner for:

- Testing and assays at over 60 accredited test laboratories
- Project management and study monitoring
- In vitro analyses and tests
- In-vitro concepts for efficient product development
- Complete Outsourcing Service including Regulatory Service for

REACH • Pharma • Biocides • Cosmetics • Medical Devices

Contact information

INVITRO-CONNECT GmbH
Pascal Piller, Managing director

Kalabinth 37
CH-9042 Speicher
Switzerland

Phone/CH: +41 33 533 23 30

Phone/D: +49 307 469 999 8

Fax/D: +49 321 213 813 37

E-Mail: contact@invitro-connect.com

www.invitro-connect.com

