VICH and the 3Rs

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What are the 3Rs?

- Replacement
- Reduction
- Refinement

of animals used for regulatory testing

Replacement, Refinement, Reduction

Replacement: testing approaches that avoid or replace the use of live animals (eg, in vitro or in silico tests)

Reduction: approaches that minimise the number of animals used (eg, by maximising the information obtained per animal)

Refinement: approaches that minimise suffering and improve welfare (eg, use of anaesthetics)

Why 3Rs?

- Ethics and public opinion

  Polls consistently demonstrate support for animal testing only where there are no alternatives

- Legislation

  In some regions there is a legal requirement to implement 3Rs approaches

- Science

  Application of 3Rs requires in depth understanding of underlying mechanisms

- Resources

  Limiting animal use (through harmonisation of requirements) can save time and money

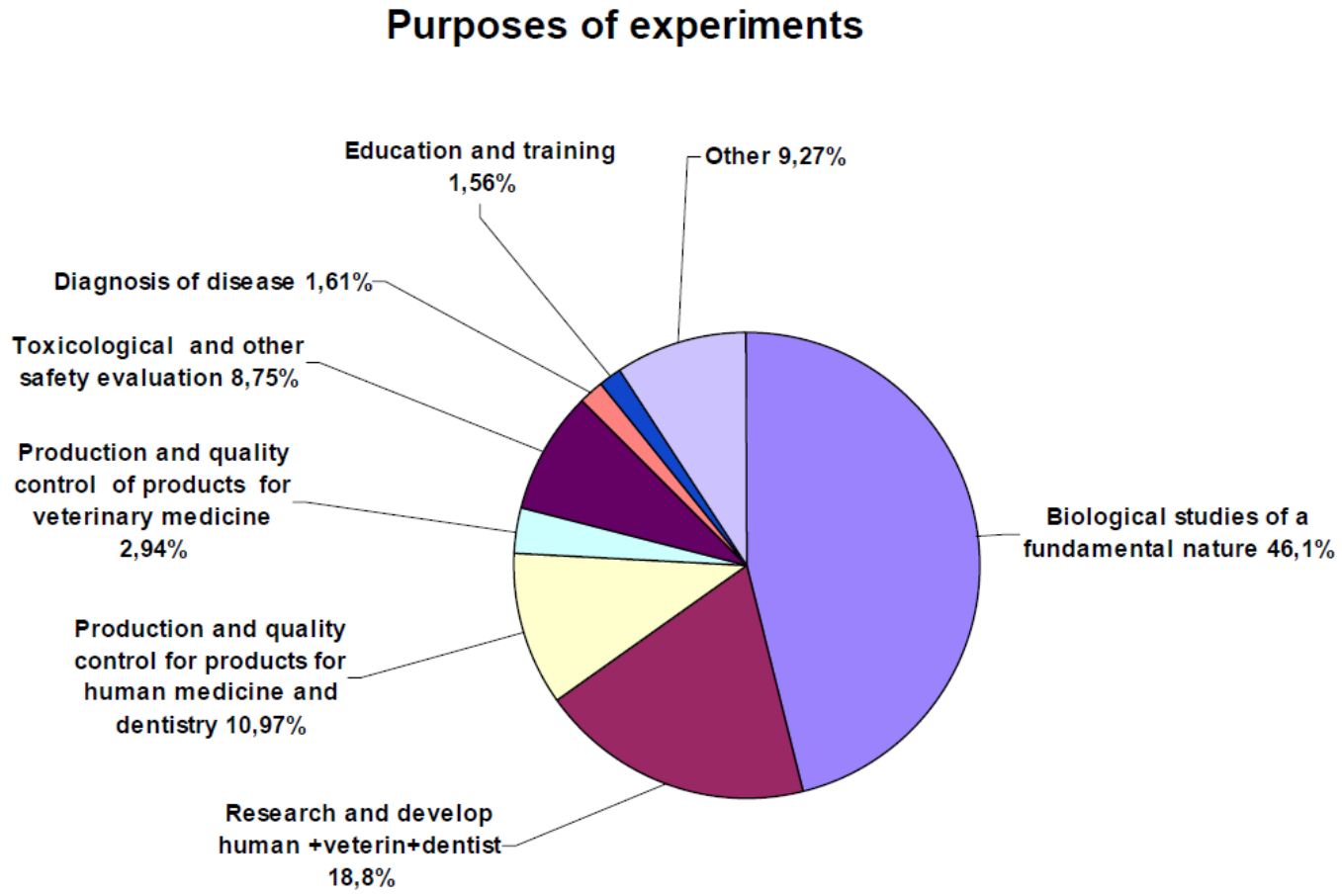
3Rs is a VICH objective

First objective identified in the Organisational Charter of VICH:

- Establish and implement harmonized technical requirements for the registration of veterinary medicinal products in the VICH regions, which meet high quality, safety and efficacy standards and **minimise the use of test animals** and costs of product development.

Some statistics

- Total animals used for scientific and other purposes in EU was 11.5 million (2011)



Statement of principle (2007)

- Confirming support for the 3Rs principle
- Highlighting that harmonisation of requirements across regions undoubtedly leads to a reduction in the number of animals used
- Recognising that while validation of alternative testing protocols falls outside of its remit, its international status and influence provides a unique opportunity to encourage the use of alternative methods
- Highlighting that Expert Working Groups developing guidelines involving animal testing have a specific responsibility to consider animal welfare and the possibilities for replacement, reduction and refinement

=> VICH guidelines are written – and updated – with the 3Rs considerations firmly in mind

Examples

- VICH GL32 – Developmental toxicity testing:
  - A tiered approach: testing only required in second species if no teratogenicity seen in first species
- VICH GL48 – Marker residue depletion studies to establish product withdrawal periods
  - If withdrawal period will clearly be driven by injection site, then two injections can be administered per animal (on different days) in order to obtain injection site data from two time points per animal
- VICH GL47 – Laboratory animal comparative metabolism studies
  - Use of in vitro metabolism tests (primary hepatocytes, liver microsomes, whole cells…) in examining metabolite profile

3Rs concerns can drive changes

- VICH GL23(R) on genotoxicity testing
  - Safety EWG currently reviewing the guideline with a view to removing the need for a default in vivo test

- VICH GL23 on reproduction toxicity
  - Safety EWG investigating the case for allowing an extended one generation reproduction toxicity study as alternative to the standard 2 generation test

3Rs concerns can drive changes

- VICH GL50 & 55 on harmonisation of criteria to waive TABST for inactivated & live vaccines
  - After 10 batches the test can be waived

- Laboratory animal batch safety testing
  - Currently under development by Biologicals Quality Monitoring EWG

Summary

- Minimising animal use is a VICH objective
- VICH Expert Working Groups have a specific responsibility to consider 3Rs in guideline development
- Harmonisation of data requirements is an important way of reducing repetitious testing

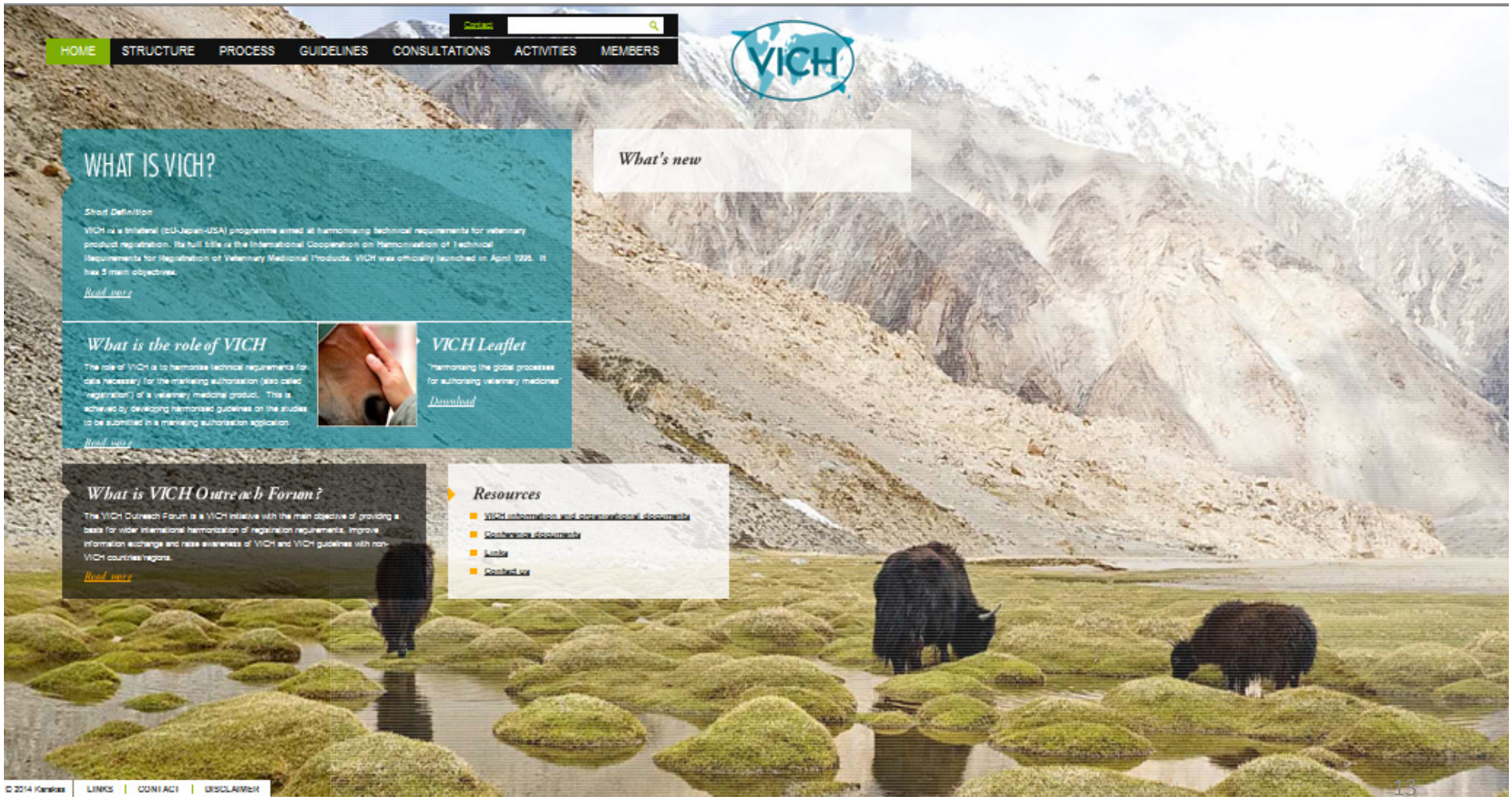
Full VICH Statement of Principle

At its 19th meeting on 23-24 January 2007 in Washington D.C., USA, the VICH Steering Committee reiterated its ambition to minimise animal testing and specifically expressed its support for the 3Rs principle – replacement, refinement and reduction of animals in research.

VICH has always striven to eliminate repetitious and unnecessary testing through harmonisation of regulatory requirements for the registration of veterinary products, a goal that undoubtedly leads to a reduction in the number of animals used for product development and registration.

While the validation of alternative testing protocols falls outside the remit of VICH, the Steering Committee recognises that the international status and influence of VICH provide a unique opportunity to encourage the use of validated alternative methods. To this end, Expert Working Groups developing guidelines involving animal experimentation have a specific responsibility to consider animal welfare, and particularly the possibilities for replacement, refinement and reduction of animal testing

The VICH public website (http://www.vichsec.org)



Thank you