

## Lush Prize 2012 Research Papers

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## **Science Prize Executive Summary**

### **Complexity of the area under review**

The Lush Science Prize is designed to reward 'outstanding contributions' to 21st Century Toxicology Research. Brief literature searches revealed that 21<sup>st</sup> century toxicology is a concept or vision which requires the participation of many different scientific disciplines working to solve a variety of complex problems. Scientific journals revealed that there are thousands of scientists, in hundreds of institutions, reporting on potentially promising research results which touch on this area each year.

### **The need for a focus or filter**

The complexity of the subject matter means that, in order for this research paper to have a rational set of criteria to identify potential winners, it needs to focus in on a specific area of research. Because of Lush Prize's wider goal, to encourage a breakthrough event around a 'proof of concept toxicity pathway study', the focus chosen for this report was on researchers 'identifying key pathways whose perturbations result in toxicity'.

### **Applying the filter to conference abstracts**

In the period under review (2011-12), two major international conferences on alternatives to animal testing have taken place: the 8th World Congress on Alternatives and Animal Use in the Life Sciences (WC8 at Montreal); and the European Society for Alternatives to Animal Testing (EUSAAT 14 at Linz). For the purposes of this report a review of the 381 abstracts submitted to these conferences was chosen as the only practical way of getting to a short list of a manageable size in a highly complex area. 51 'apparently pathway based' studies were identified of which 19 were reporting new pathway insights.

### **Three research teams for the Prize short list**

This report recommends that the top three scoring teams from this list should be added to the open public nominations for the Science Prize.. They were:

- B Zimmer (Doerenkamp-Zbinden Chair of In Vitro Toxicology and Biomedicine), University of Konstanz, Germany and the international team involved in Human Neural Crest Cell toxicity pathway research.
- M Lindstedt and the team at Lund University, Sweden working on biomarker analysis for skin sensitivities.
- M Whelan and the team at the Systems Toxicology Unit at the EU's Joint Research Centre Institute for Health and Consumer Protection at Ispra in Italy for work on toxicity pathways in hepatotoxicology and developmental toxicology.

It also recommends that the toxicologists on the judging panel should be invited to each nominate one further team for the 2012 Science Prize if they choose.

## Lobbying Prize Executive Summary

The Lush Lobbying Prize aims to reward individuals and organisations involved in policy interventions promoting the use of alternatives to animal testing. The prize for lobbying “recognises that scientific innovation needs to go hand-in-hand with policy change to ensure that end-users of new testing approaches – industry and regulators – are receptive and responsive to the new methods.”

### Key areas of activity

The first part of this paper summarises the current regulations and campaigning in Europe and the USA relating to the testing of animals for toxicity testing. It then looks at issues, obstacles and NGO (non-governmental organisation) action in five key areas:

- The European ban on cosmetics testing (3.1)
- REACH (3.4)
- China's animal testing policy, (4.1)
- The US Safe Cosmetics Act. (4.3)
- India and Brazil (4.5 and 4.6)

### Lobbying and politicians

At section 5 the paper looks at lobbying generally, asking what makes effective lobbying?. At section 6 the paper looks at evidence of the activities of individual politicians in the UK and European Parliaments.

### Conclusions and recommendations

Part of the remit for this report was to identify effective lobbying groups which may not have been directly nominated for the Prize. This paper proposes that the following three organisations should be considered for the short list for the Lobbying Prize in 2012.

1. European Coalition to End Animal Experiments
2. Federation of Indian Animal Protection Organisations
3. Physicians Committee for Responsible Medicine

Our research shows them to be effective lobbyists who have made, and continue to make, a difference towards ending animal testing.

Two of the NGOs (European Coalition to End Animal Experiments and Federation of Indian Animal Protection Organisations) are coalitions. This report has highlighted the effectiveness of working as a coalition in order to provide a more effective lobbying strategy and offering a consensus of opinion to policy makers (5.1).

The third NGO, Physicians Committee for Responsible Medicine, is not only conducting vital lobbying work in its home country of the USA, but through its position as Secretariat of the International Council on Animal Protection in OECD Programmes it also co-ordinates this coalition’s work “to incorporate alternative methods that can replace, reduce, and refine animal use in OECD guidelines and programs.”

## Training Prize Executive Summary

The Lush Training Prize aims to reward individuals and organisations involved in training researchers in non-animal methods. The training prize recognises that many involved in chemicals testing are not aware of the range of non-animal methods available or trained in using them. Establishing training programmes around the world makes a huge difference to the field. The prize wishes therefore to reward individuals, teams or organisations who have excelled in this field.

### Difficulties in defining 'training'

In conducting research for this report it became quickly apparent that training, in the context of non-animal alternatives, could be interpreted as including many things, from publishing databases to teaching school children. It also became clear that this area is much neglected in comparison with research, with very few organisations working specifically on alternatives training. For the 2012 Lush Prize the criteria for this category have been left fairly loose, so as to more usefully inform the research process, rather than focussing in on any one narrow area at this stage.

### Areas included in the research

Much of the training uncovered appears to be quite ad hoc, such as one-off training days, or booklets on alternatives. A summary of a few such smaller initiatives is included. The research looks at organisations/initiatives in the following categories: training organisations and programmes, databases, toolboxes, search guides and other web based resources, short training courses, alternatives teaching centres, industry collaborations, commercial organisations providing training in *in vitro* methods, societies, and funders of animal alternatives. In conducting this research it became apparent that hands-on training overlaps to an extent with web-based information sharing.

### Outstanding projects

This paper has applied a 'replacements only' filter to the projects looked at, in line with the replacements focus of the Lush Prize. This means that the alternatives centres, some of which are doing great work on replacements, were not included, as they also promote reduction and refinement. The following three organisations stood out in the loose definition of training we have chosen to use. The rationale for selecting them varies – from the extent of their work in training to their relevance to the specific area of chemical testing – key to all however is their global reach:

- Institute of In Vitro Sciences
- InterNICHE
- The International QSAR Foundation

## Conclusion

The research indicates that training in non-animal methods is a much neglected area in

general. Despite this a small number of organisations doing outstanding work in this area were identified.

The issue of animal experiments and testing is often painted as a moral one, with perceived human need pitched against animal welfare/rights. The fact that animals appear to be used in experiments out of a combination of habit, laziness, poor communication, lack of co-ordination, bureaucracy and an unwillingness to change is not something that often features in public debates about animal testing and experimentation; these issues are perhaps not considered as interesting as the deeper philosophical discussions over animal use. Yet it is arguably in this area where more of an immediate difference can come in pushing for change as these are changes that can be implemented today without the need for either ethical arguments being won, laws being changed or scientific breakthroughs being achieved. A much more comprehensive, systematic approach to encouraging the use of existing non-animal methods is required both in toxicology and beyond – from classrooms through universities to the commercial testing laboratories themselves. It would seem that in this area, with quite simply better communication, many animals' lives could be saved.

## Young Researchers Prize Executive Summary

The Lush Prize aims to encourage young scientists to develop a career in toxicology without harming animals by offering £10,000 bursaries to allow them to advance in this area. In 2012 it is seeking nominations from keen young scientists with a desire to fund the next stage of a career focussed on an animal-test free future.

### Methodology

After a review of the current regulations relating to animal testing, interviews were conducted with five representatives from the following organisations.

4. Fund for the Replacement of Animals in Medical Experiments (FRAME):
5. New England Anti Vivisection Society
6. Center for Alternatives to Animal Testing
7. National Centre for the Replacement, Refinement and Reduction of Animals in Research UK (NC3RS)
8. People for the Ethical Treatment of Animals (PETA)

### Opportunities and Obstacles

In one sense there are more opportunities for young researchers than ever before. This is partly because legislation such as the EU's directives has spurred research and released funds for developing alternatives. There is also an increasing belief that non-animal methods are scientifically superior to traditional testing involving animals.

However, there are still many obstacles including: prejudices, lack of funding compared to mainstream opportunities, obstacles to validation and lack of support for innovation.

### Conclusions and Recommendations

What came out of the interviews clearly is that young researchers wishing to go into a career without ever using animals need to be determined, resourceful and tenacious. Many of the current awards and programmes are for 3Rs research rather than research specifically for replacement.

At the moment, the award is set at £10,000 for five students. On the positive side this

- allows the judges to spread the award among five people and so benefit a greater number of individuals. Funding five people also allows for a range of different types of projects (by the young researchers) to be funded. This means that the funding can be spread out to include some 'safe' options and some more radical, innovative ideas, which often find funding difficult to get.
- On the negative side, when compared to other examples of young researcher awards, it is a small amount compared to many looking to support early stage high-level research.

£25,000 for two researchers may then be better – but may still not be sufficient for completion of research or programme. Alternatively, a higher award of £50,000 may attract MORE worthy nominations, and create more competition, because it is a more realistic sum of money when it comes to research.

## Public Awareness Prize - Executive Summary

The Lush Public Awareness Prize seeks to reward excellence and innovation by organisations working to remind the public that animal testing is on-going, in order to rally support for lobbying activities and other interventions and to ensure that this issue remains high on the political agenda. The criteria for selecting potential winners of the Lush Prize - Public Awareness category are:

- Raising public awareness of animal testing (ideally within consumer products rather than pharmaceuticals)
- Projects which ran in 2011 or 2012
- Excellence and innovation by organisations working in this field.

### Key Findings

Key findings are that interests in animal protection have evolved through three types of organisation:

9. local humane societies and societies for the prevention of cruelty to animals (SPCAs),
10. national organisations with a range of objectives and differing degrees of reformist and abolitionist goals, and
11. grass-roots activist organisations encouraged by the leading animal rights and animal welfare groups.

There is a wide array of groups working on the issue of animal testing, and most of these specifically on consumer products. They seem to be more prominent in Australia, North America, the United Kingdom and Europe, but are gaining momentum in other parts of the world including Asia and Africa.

More of these groups are using innovative ways such as blogs, social networking sites such as Facebook and Twitter, and even developing mobile phone applications to promote their campaigns. It can be concluded that the modern animal rights movement is a formidable tool in driving legislative and consumer change, in favour of bringing an end to animal testing and pushing the boundaries of ethical consumption.

### Table of groups active in this sector

The core of this report is a table of groups active in the area of public awareness-raising and campaigning against animal testing. It covers groups from Australia to Switzerland and runs across 6 pages. It does not include local societies and is of necessity limited in a complex area but can form a starting point for future reviews of activity.

### Conclusions and recommendations

Groups which met the eligibility criteria and which are recommended for consideration for the short-list for this year's Prize are:

- Animal Friends Croatia [Croatia]
- EDEV/3dayz [Netherlands]
- VITA Animal Rights Centre [Russia]
- British Union for the Abolition of Vivisection [UK]
- The People for the Ethical Treatment of Animals [UK]
- Coalition for Consumer Information on Cosmetics [USA]
- Humane Society International [USA headquarters]