InterNICHE Humane Education Award: Assessing the international impact

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Abstract
The InterNICHE Humane Education Award is an annual grant program established to support ethical and effective education and training within biological science, medicine and veterinary medicine. Supported by Dutch organisation Proefdiervrij, the Award has offered an annual 20,000 Euro (US$ 27,000) since 2002. The Award was initially focused on one region or country, such as India, and has been global since 2005. Applicants may be teachers, students, campaigners or other individuals committed to best practice education and training. Proposals are assessed primarily according to their potential to replace harmful animal use, based on number of animals and/or severity of procedures; potential pedagogic effectiveness; and innovation, resourcefulness, and overall ethical design. Funds are split between the successful applicants, who number on average 8 per year. Examples of projects that have been funded include the development and implementation of freeware, videos, models and mannekins; purchase and use of existing alternatives, including an advanced surgery training device; establishment of a student-based self-experimentation program to replace animals in physiology practical classes; and establishment of a client donation program to secure ethically sourced animal cadavers for replacement of animals used for anatomy and surgery training. Specific projects will be described in the presentation, and the impact of supporting multi-local humane education initiatives assessed.

Keywords: humane education award, grant, InterNICHE, education, replacement

Introduction

The InterNICHE Humane Education Award is an annual grant program established to support ethical and effective education and training within biological science, medicine and veterinary medicine. It is an annual grant program, launched in 2002 and financially supported by Dutch organisation Proefdiervrij. Proposals are invited for initiatives that replace animal experiments and the dissection of purposely killed animals. Applicants may be teachers, students, campaigners or any other individuals committed to best practice education and training. The Award offers 20,000 Euro each year, to be split between successful applicants.

Geographical focus and assessment process

In its first 2 years the geographical focus of the Award was allocated according to an InterNICHE assessment of needs and opportunities for different regions. In 2002 the focus was Romania and former Yugoslavia in Eastern Europe, and in 2003 it was India. Since then, the Award has been fully global. Every third year the Award funds are allocated to projects for consolidating and building upon successes from previous years.

All applications are assessed by an experienced InterNICHE team. This includes the relevant InterNICHE National Contact, who can provide expertise from the country. The applications are judged according to criteria such as potential to replace harmful animal use, based on number of animals and/or severity of procedures; potential pedagogical effectiveness; accordance with the InterNICHE Policy (Jukes and Chiuia, 2003; Jukes and Martinsen, 2006); and the availability or otherwise of existing alternative tools. Subsequent to an initial assessment and discussion with the applicant, permission may be given for projects to be adapted in order to meet InterNICHE conditions.

Projects funded

An average of 8 projects are funded annually, comprising an InterNICHE investment of Euro 120,000 in over 40 humane education initiatives between 2002 and 2007 (InterNICHE, 2007). Projects that have been funded through the Award include:

- *Development of new software and training mannekins*
  Examples include: Production of multi-language freeware physiology and pharmacology CDs in Romania and India, with subsequent distribution direct to thousands of teachers worldwide; production and distribution of an Arabic freeware camel anatomy CD in Egypt; production of web-based invertebrate anatomy software in the Basque country / Spain; and development of new anatomy models and clinical skills training mannekins for veterinary medical education in Bosnia.
- *Projects involving ethically sourced animal cadavers*
  Examples include: Support for body donation programs for securing ethically sourced animal cadavers to replace the use of purposely killed animals in veterinary anatomy and surgery training, including a program at a US university; cadaver surgery training and donation of an advanced surgery simulator for a Russian veterinary institute; and research into preservation of ethically sourced soft tissue in tropical climates for veterinary surgery practice in Brazil.
- *Other projects*
  Donations of advanced apparatus to establish student self-experimentation practical classes for the replacement of animal experiments in physiology have been made in Croatia and Romania, including in veterinary medicine. Reconditioned computers have been sent from England to establish 3 physiology and pharmacology multimedia laboratories in Romania. Donations of models, mannekins and software have also been made to departments of anatomy, physiology and pharmacology at universities in Armenia, Belarus, Serbia and India.
- *Future grants*
  Future grants may be made for the establishment of clinical learning opportunities to replace the use of animal experiments in clinical skills, surgery and other practical classes; for the establishment of non-invasive field studies to replace harmful animal use in zoology classes; for the translation of freeware into major world languages such as Russian, Spanish, Portuguese and Indonesian; and alternatives demonstrations and training events related to Award projects and resources, such as surgical simulation at medical conferences and surgery training centres.

Impact and discussion

The Award has supported multi-local humane education initiatives, implementing alternative tools and approaches in a range of disciplines and countries. It has created connections with teachers and others in several countries where InterNICHE has had little or no contact, and in some cases this has brought significant new investment in the education process in economically disadvantaged regions. It has created further opportunities for the development of best practice and ethical education, locally and through example.

Feedback from projects has usually been very positive, with the impact of alternatives in the pedagogical, ethical and economic fields clearly demonstrated. For example, the student self-experimentation apparatus granted through the Award for use in Croatia not only replaced the use of animals but also allowed new lessons to be created in physiology practical classes that were not possible before due to the limitations presented by animal experiments. In this way, the development and implementation of alternatives can also reflect a more considered and sensitive approach to the learning process.

The grant funding of projects has enabled the practical implementation and testing 'in the field' of the InterNICHE Policy. For example, the assessment process asks how the aims of submitted projects relate to the InterNICHE aim of achieving full replacement of harmful animal use. It also rejects the use of animal experiments and inappropriate sources of cadavers for the production of alternatives. The Award has helped put the Policy into practice, and created mutually beneficial collaboration between successful applicants and InterNICHE, so helping to build the humane education network internationally.

Software producers have often agreed to make their work open source, thereby facilitating widespread duplication and translation, for example into Russian, increasing the opportunities for successful implementation. The physiology freeware has replaced the annual use of nearly 1000 animals in the department where it was produced. Thousands of copies have also been distributed by InterNICHE National Contacts worldwide, often direct to teachers. The pharmacology freeware has replaced over 3000 animals in just 4 university departments in India; and because a total of 4000 copies were distributed across the country, further widespread replacement is therefore likely to have been achieved. Implementation of the freeware in Russia has also brought about replacement of several thousand animals in signed agreements with university departments, and many other projects have each achieved the replacement of hundreds of animals.

Alternatives produced through the Award may also be made available through the InterNICHE Alternatives Loan Systems, which are international libraries of items made available for free loan to teachers, students and others.

Conclusion

The InterNICHE Humane Education Award is an on-going, vibrant grant program that continues successfully to achieve replacement in multiple locations worldwide each year through exciting collaborative projects. It creates new examples of humane education and the innovative use of alternatives in the life sciences, with an impact that extends beyond each individual project.

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