

# The impact of training and development on staff working in animal research

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## Abstract

This study looked at the impact training and development has on the motivation of animal research staff. A questionnaire was distributed to animal research individuals by way of emails, forums and mailing lists. There was a total of 256 participants across the Republic of Ireland, the United Kingdom and the United States of America. Results show a dedicated profession who are committed to animal care and welfare and who recognise that education and training promotes an improved culture of care and better science.

**Key words:** animal research, education, training, culture of care, biomedical research.

## Introduction

This article is based on a study to evaluate the effects of training and development on staff in three different countries that took place in 2018; these countries were the United Kingdom (UK), Republic of Ireland (Ireland) and the United States of America (USA).

There have been many changes and advancements in the laboratory animal research industry over the last 50 years. Developing from the breeding and housing of mice in small rooms to highly controlled environments, detailed regulation on cage space, environmental parameters and how we work in partnership with the animals. The facilities of today are high specification with highly skilled and specialised personnel and researchers, which are regulated by detailed legislation.

## Legislation

Legislation is a vital part of the biomedical research industry and has developed and improved over the years as has the industry. Animal research is constantly moving forward with new practices and techniques that continue to improve science, both human and animal, health and life. The most progressive changes in the legislation came in 2013.

In November 1986, The European Council adopted Directive 86/609/EEC in order to eliminate disparities between laws, regulations and administrative provisions of the member states regarding the protection of animals used for experimental and other scientific purpose.<sup>1</sup> Since then the European Council have been upgrading the law to aid a uniformed approach to legislation and in January 2013 each member state of the European Union enacted the new directive 2010/63/EU law into their current laws.<sup>2</sup> For example the UK national law is the Animals (Scientific Procedures) Act 1986 which was updated to include the changes mandated by the EU Directive from 1st January 2013.<sup>3</sup> The Directive was transposed into Irish law in December 2012 by SI No 543 of 2012.<sup>4</sup>

As part of this Directive, training and competency is one of the areas which has come to the fore and its importance highlighted, It details the need for training records for all staff and researchers working in an animal facility and the need for this training record to be up-to-date and available for inspection. As part of the new legislation there are several people that need to be named in order to comply with the Directive. These are called competent persons, meaning under the Directive someone who is adequately educated and trained before they are permitted to perform any procedures on animals, design procedures or projects, take care of animals or cull (kill) them.

## The study

In 2018, we evaluated the effects of training and development on staff in three different countries; namely the United Kingdom, Republic of Ireland and the United States of America.

The results show a highly trained and educated work force. A total of 256 participated in a questionnaire with distribution of participants being as follows: Ireland n = 30, UK n = 73 and USA n = 155. All participants in the questionnaire replied that they did the job for the love and care of the animals and to be the advocate for the animals as well as being able to

advance science and the health and care of both humans and animals. The following outlines the results of this study.

Training and development

Within all industries but especially within the animal research industry, there are many levels/grades of staff, all of which have a detailed job description. As staff are promoted to higher grades, the individual takes on more responsibility and there is need for further knowledge and expertise. It is important at each of the different grades that the right staff are in place with the necessary expertise so that they can fulfil the role of that grade and be able to advise and work closely with researchers. Therefore education, training and development are key factors in our industry.

Following analysis of the results, qualifications of the participants were as follows:

IAT Membership	IAT Fellowship	Degree	Masters	PhD	R.AnTech
56	16	134	47	12	19

The following graph (Table 1) is the complete breakdown participants qualifications from all three countries.

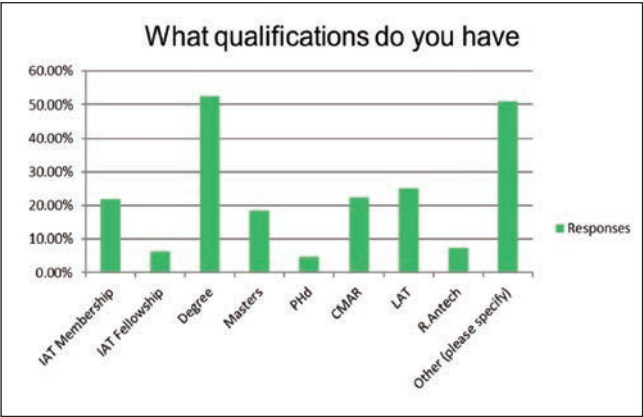


Table 1. Qualifications held by survey participants.

The tables above show the breakdown of participants' education. There was a high response in the other qualifications section. Table 2 shows the other qualifications which were named in the questionnaire by participants. 52.3% of participants have a minimum of a degree in addition to animal/veterinary technician qualifications.

It is clear from the results of the questionnaire that the staff who took part in the questionnaire were highly trained and educated. That they were interested in progressing both their careers and education but are also interested in progressing science. Training and

development provide staff that are highly trained and have the knowledge and skill to run specialised equipment like Magnetic Resonance Imaging (MRI), Computer Assisted Tomography (CT Scan) and to provide skilled procedures where necessary. It is a legal requirement to have well trained and skilled staff in order to know when an animal is unwell and what is the line of reporting.

IAT	Institute of Animal Technology
LAT	Laboratory Animal Technician
CMAR	Certified Manager in Animal Research
RAnTech	Registered Animal Technician
RLATG	Registered Laboratory Animal Technologist
CVT	Certified Veterinary Technician
HNC	Higher National Certificate
DVM	Doctor of Veterinary Medicine
ILAM	Institute of Laboratory Animal Management
LVT	Licensed Veterinary Technician
CPIA	Certificated Professional in IACUC Administration
LAM	Laboratory Animal Medicine
RVT	Registered Veterinary Technician
AALAS	American Association for Laboratory Animals
IACUC	Institutional Animal Care and Use Committee

Table 2. List of qualifications relevant to Biomedical Research Industry.

It clearly appears from this study, that training and development has an impact on staff motivation. When participants were asked what would motivate them to take part in training, Table 3 shows that the majority of participants do so for personal interest, advancement and that it was also required by the facility and was a legal requirement.



Table 3. Motivation for training.

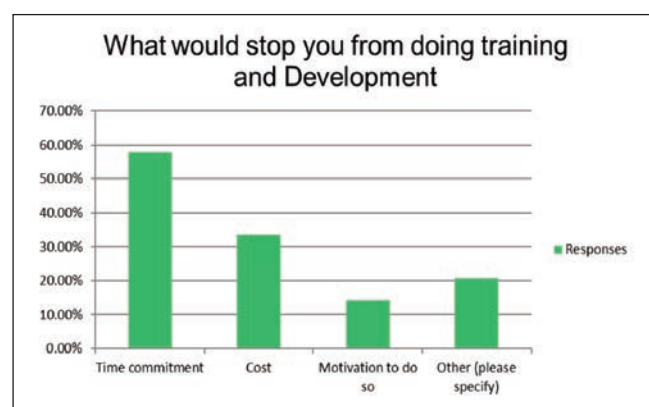
When asked what incentive attracted participants to do training and development, they indicated the following had been important when deciding to complete training:

- If there was clear pathway for promotion or an increase in salary. (See Table 4).

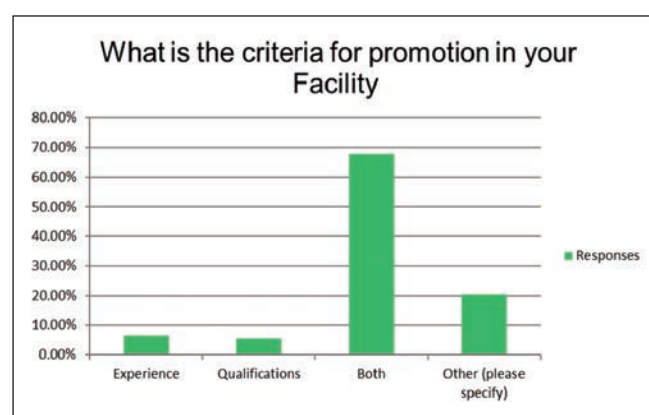


**Table 4.** Incentives to complete training.

Participants were also asked what would stop them from starting or continuing training. Most participants said it was the time commitment and the cost involved in doing further training. Table 5 shows a breakdown of responses over the three countries.



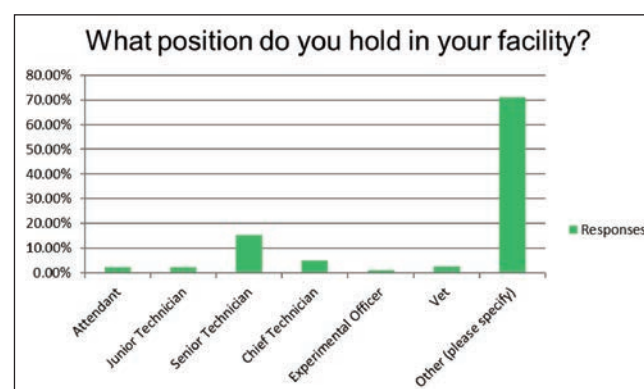
**Table 5.** Disincentives for training.



**Table 6.** Facility promotion criteria.

When participants were asked what the criteria for promotion was, it was interesting to see, even with a limited chance of advancement, that when there is a promotion opportunity, it was overwhelmingly apparent as to the importance of both experience and qualifications. This is reflected in the Table 6 as almost 70% of participants said that they would need both experience and qualifications to be promoted in their facilities.

Table 7 shows the range of positions participants held within their facilities when asked; 70% of responses indicated they held positions other than the ones named in the questionnaire.



**Table 7.** Range of positions held within facilities.

**Table 8** lists different positions and membership of professional bodies held other than those listed in the questionnaire.

IAT	Institute of Animal Technology
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CMAR	Certified Manager in Animal Research
RAnTech	Registered Animal Technician
RLATG	Registered Laboratory Animal Technologist
CVT	Certified Veterinary Technician
HNC	Higher National Certificate
DVM	Doctor of Veterinary Medicine
ILAM	Institute for Laboratory Animal Management
LVT	Licensed Veterinary Technician
CPIA	Certified Professional in IACUC Administration (CPIA)
LAM	Laboratory Animal Medicine
RVT	Registered Veterinary Technician
ILASA	Irish Laboratory Animal Science Association
AALAS	American Association for Laboratory Animal Science

**Table 8.** Professional body membership.

Culture of care

Creating a culture of care in a laboratory animal environment is of the utmost importance. What is meant by a culture of care? A culture of care sets the stage for attitudes and behaviours that enhance animal welfare beyond the legal requirements. This is created by good hiring and training practices, good communications between staff, researchers and management. Good management and leadership are very important, as they help to lead staff and researchers to create this culture and to maintain and continually improve it. To aid making sure that staff and researchers are trained correctly and are competent, the legislation in both Ireland and the UK states that a training officer must be in place in facilities to facilitate training and making sure that facility users, both staff and researchers, are trained, this training is recorded and that people are competent to perform any technique permitted under their licence.

Supervision of training

In 2013 when new legislation was introduced in Europe, one of the new Named Persons in the legislation was a Training Officer. Out of the 256 participants who responded to the questionnaire this role has been taken on board by many facilities in all three countries; 73% of participants said yes to having a Training Officer. (Table 9).



Table 9. Provision of Training Officers.

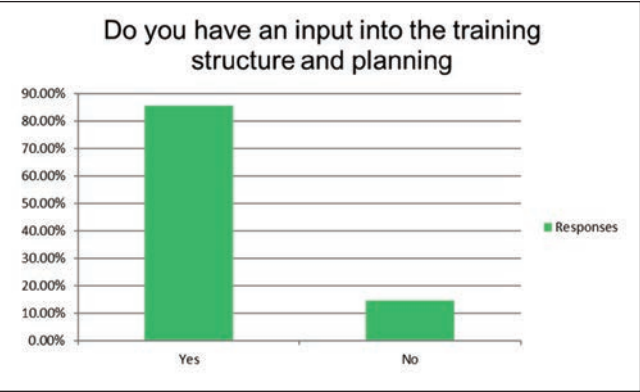


Table 10. Percentage of Responders involved in training structure and planning.

When participants were asked ‘Do you have an input into the training structure and planning?’, over 80% of them said they did have an input into the structure as indicated in Table 10. A high proportion of the participants were management level and therefore would have input into the planning and structure of same. The results may have differed if the question had been focussed on all levels of staff in facilities. It is possible that there is a higher percentage of participants who do not have an input into the planning and structure.

Following on from the question ‘Do you have an input into the training structure and planning?’, Participants were asked if the facilities where they worked had a training budget. Over 60% of responses said yes. See Table 11.

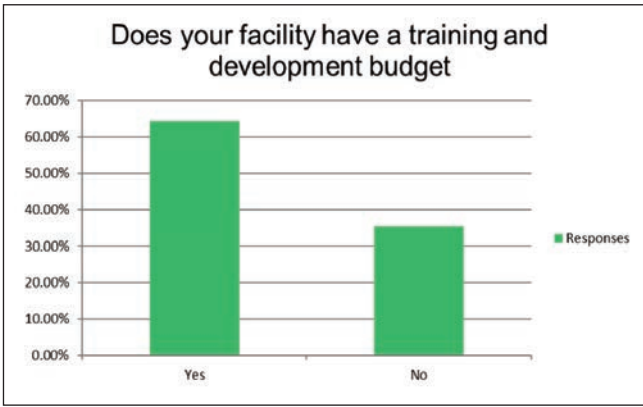


Table 11. Availability of training budgets.

When asked ‘what motivates you to do this job?’

Below are the most frequent words/or phrases cited in the answers for this question. What stands out from the answers is that care and welfare of the animals is at the forefront of motivation for participants and they all consider that they have a duty of care to all the animals they look after. They want to make sure that people are trained correctly to do the job they have been employed to do. Recognising that there is continued advancement in the sciences affecting both humans and animals alike and that continued advancement is required in the care and welfare of animals and training of the staff caring for them is essential.

Motivational words used by responders:  
help training, welfare job, people, improve work, humans, care, love animals, animals, love, research, best animal welfare, good, ensure, well, staff, science.

Conclusion

This study looked at the impact training and development has on the motivation of animal research



staff. A questionnaire was distributed to animal research individuals by way of emails, forums and mailing lists. There was a total of 256 participants across three countries. Animal research staff are very special individuals who put the care and welfare of the animals in their care to the fore. They wish to help advance science in aid of both humans and animals. All animal care staff are advocates for the animals in their care. Creating a culture of care in a laboratory animal environment is of the utmost importance. This is created by careful hiring of staff, training practices and good communication between staff, researchers and management. Good management and leadership are also important

It is clear from the results of the questionnaire that the staff who responded are highly trained and educated. They are interested in progressing both their careers and their education, but also progressing science. Training and development for all staff in animal research is a very important part of any facility. This provides staff that are highly trained with the knowledge and skill to care for specialised animals such as those which have been genetically altered and run specialised equipment like MRI, CAT scans, and other skilled procedures as well as complying with legal requirements.

Legislation plays a very important part in the day to day running of all facilities and dictates a minimum training programme for both the researchers and staff working in any facility. It also dictates that there should be a Training Officer in each facility and the results of the questionnaire indicates most facilities have one in place. It also states that not only should staff and researchers be trained but also have a level of competence which is recorded by way of a training record which can be asked for by the inspectors when inspecting a facility.

Training and development have an impact on staff motivation, the majority who took part in this study were motivated to do further training and development when it available to them. It is clear there are factors that do impact on the motivation and why some individuals do not take part in training and development, including no clear pathway for promotion or understanding that pathway, one which is mapped out for individuals to be able to follow and know that if they do a piece of training and development that it will lead to the next stage of their career. The cost of training both in money and time is also a large factor deterring participants in this study from undergoing additional education or training. One of the other important factors encouraging further training and development, is an increase of salary.

What this study has shown is the majority of those who took part are at a high level already in the career map

and further studies, and a further study may wish to tailor the questionnaire to look closer at the views of more junior members of staff in facilities.

## References

- <sup>1</sup> Council Directive 86/609/EEC of 24 November 1986 on the approximation of laws, regulations and administrative provisions of the Member States regarding the protection of animals used for experimental and other scientific purposes. Published: 1986-11-24, Corporate author(s): Council of the European Union, Subject: administrative control, animal experimentation, animal welfare, protection of animals, CELEX : 31986L0609, OJ: JOL\_1986\_358\_R\_0001\_01
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- <sup>4</sup> S.I. No. 543/2012 – European Union (Protection of Animals used for Scientific Purposes) Regulations 2012. <http://www.irishstatutebook.ie/eli/2012/si/543/made/en/print>