

# 70 years of Animal Technician Education



STEPHEN W. BARNETT

c/o Editor, ATW, Institute of Animal Technology, 5 South Parade, Summertown, Oxford OX2 7JL

Correspondence: [atweditor@iat.org.uk](mailto:atweditor@iat.org.uk)

## Introduction

This year marks the 70th anniversary of the Institute of Animal Technology (IAT) and we look forward to being able to celebrate the fact later in the year. Anniversaries also provide the opportunity to look back to record what has been achieved over the life of the organisation. This article attempts to look at the major stages in the development of the Institute with particular reference to education.

The topics covered will mainly be concerned with qualifications and courses but will also cover the role of the Journal, Congress and Branches in the dissemination of knowledge. As the IAT would have achieved nothing without those members willing to give their time and talent to run it, a few major players in the organisation will be mentioned.

## A brief history

What we now know as the Institute of Animal Technology (IAT) started life as the Association of Animal Technicians (ATA) in 1950. In 1948 the Medical Research Council Laboratory Animal Bureau (LAB) organised a Congress of Senior Animal Attendants, it was a success so it was repeated the following year. At this second meeting a proposal was made that the possibility of forming an Association of Animal Technicians should be investigated.<sup>1</sup> A small committee including D.J. Short and A.E. Mundy was given the task to develop the idea. At the Congress in 1950 the committee presented its report and draft rules, which

- to establish a scientific organisation for animal technicians.
- the publication of a quarterly journal
- the formation of local branches
- to establish training facilities, examinations and to issue diplomas
- ultimately to apply for Institute status

**Table 1.** ATA Objectives 1950.

were accepted by the meeting and thus the Association of Animal Technicians was established.

The original objectives of the Association are listed in Table 1.

At this point it is worth considering what the situation was for laboratory animal staff before the ATA started its work. In an account of conditions in laboratory animal houses at the time, Len Bagnall describes a situation where most animal houses were manned by porters and animal attendants, with no education courses and variable on the job training.<sup>2</sup> Often young people were assigned to look after animals for six months before transferring for training as laboratory technicians.

Len was referring to the situation in general, his own situation, as far as training was concerned, was better because of his enlightened supervisor, Marjorie Sandiford. She was to become a long-term council member and secretary of the ATA and IAT.

All people employed in animal houses were to benefit from the new organisation, particularly those in the poorest situations described by Len.

The new Association was welcomed not just by those working in the animal house (the term animal facility was not commonly used at this time) but by the scientists that used the animals. In his forward to the first edition of the ATA Journal, Sir Alan Parks FRS wrote, 'In the past the animal house, perhaps located in some odd corner or basement, has too often been the neglected relative of the laboratory and the staff have received little encouragement except to better themselves by promotion to the laboratory.'<sup>3</sup> By contrast it is now being recognised that the animal house was becoming a key point, not less important and perhaps even more important than the laboratory itself and that a happy, efficient and progressive staff of animal technicians is essential for the success and effectiveness of any research which involves animals'. 'In these circumstances the Animal Technicians

Association comes into being at a critical moment. The Association must ensure that the modern view of the status of the animal house and its staff is extended and consolidated, and, what is more it must ensure that the enhanced prestige of animal technicians is justified by their professional standards.'

This support is echoed by other eminent scientists of the time, including Sir Solly Zuckermann FRS and Sir Percival Hately FRS, who the early journal editors persuaded to write forewords to the first few volumes.

The new ATA council had a heavy workload to achieve the objectives it set itself and it started to achieve them in a remarkably short time. These will be considered later in the article. The last objective, to gain Institute status had to wait until 1965 to be completed. The term 'Institute' is a protected term in the UK, that means it can only be used if the organisation is approved by a government body, in 1965 that was the Board of Trade. Only professional bodies of the highest status are accepted as Institutes. It took several years and a lot of work for the ATA to prove they deserved the title but by doing so the status of the organisation and its members was immediately raised.

## **Syllabus and qualifications**

In less than a year of establishing the ATA the Council had established a Board of Studies, chaired by D. Short, who developed a syllabus for three levels of animal technicians and had also organised a pilot course and an examination system.<sup>4</sup> A remarkable achievement particularly when it is realised they were starting from a completely blank canvas. Although syllabuses have been updated many times and the form of them have changed current syllabuses are still heavily influenced by that first one.

The history of the Institute education system is well documented by Ken Applebee in a paper published in 2013.<sup>6</sup> His paper traces the development of the syllabus over the years and explains the reasons for the change to the completely new system started in 2007. Up to 2007 all examinations at Certificate, Membership and Fellowship levels were conducted by the IAT Board of Education. The system had served the Institute and its members well since the ATA was first formed, however as we approached the new millennium it was felt that both within and outside the Institute that it was no longer suitable. The council instituted a root and branch review of its education system. The result of the review was the recommendation that the Institute should seek to develop a new system that would be recognised by the government Qualification and Curriculum Authority (QCA now Ofqual). A group under the chairmanship of Bob Kemp and with the expert guidance of Brian Lowe worked on the submission with the result that the Institute was approved as QCA Awarding Organisation. This means

that although the assessment of candidates is no longer carried out by the Institute itself, ensuring the quality of those assessments and of the people responsible for setting and marking the assessment is. So, while the Institute no longer directly sets and marks examinations it still remains responsible for ensuring standards are maintained.

## *Apprenticeships*

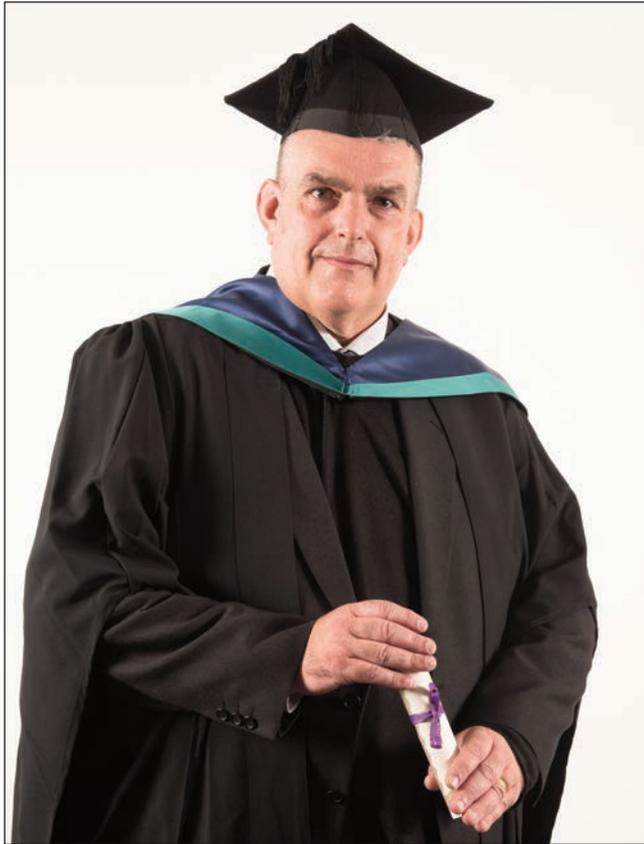
In his 2013 paper Ken Applebee mentions starting negotiations with the Medical Research Council to develop Animal Technology Apprenticeships.<sup>6</sup> Apprenticeships involve young people of 16 years of age or older studying Animal Technology and related subjects, full time, in a school or college environment with the added element of working alongside experienced technologists.

These apprenticeships are now in place and the first apprentices are about to take their End Point Assessments. Developing these apprenticeships has been a time consuming and complex task mainly carried out by Mark Gardiner of the MRC and Brian Lowe. It is hoped they will be of benefit to the industry and to the Institute. As this is a government scheme it also attracts fees for the Institute that can be ploughed into further educational activities.

## *Higher education*

The changes mentioned so far have concentrated on the further education stages of IAT qualifications (levels 2 and 3 as they are now called), changes have also been made in the higher education programme. By 2013, when Ken wrote his paper, both level 4 (equivalent to first year degree) and level 5 (equivalent to second year degree) were established, the courses were organised by the Institute and were moderated by the Middlesex University. At that time discussions were being held between the Institute and the University of Middlesex to develop a level 6 qualification that would result in a BSc degree in Laboratory Animal Science and Technology. Unfortunately changes in University regulations prevented the University from completing the level 6 discussions and also meant they had to withdraw from moderating levels 4 and 5 putting at risk the Institute's higher education programme. This potential disaster was averted because as an Ofqual approved awarding organisation, the Institute itself could award qualifications up to level 6, the Institute applied for the necessary authorisation and took over validating the higher education programme. Although a level 6 qualification, recognised by Ofqual, is accepted to be equivalent to a university degree only Universities and the Archbishop of Canterbury are authorised to award degrees in the UK so the qualification cannot be called a BSc. In all other respects it is treated in the same way, for instance it can be used as a qualification to enrol on a relevant Masters degree course. The Institute has recognised level 6 in Animal Technology

as the educational requirement to apply for its Fellowship. In 2018 the IAT released its own academic gown and hood (Figure 1).



**Figure 1.** Patrick Mason wearing FIAT academic dress at the 2017 graduation ceremony.

As they are now the Awarding Organisation IAT can no longer organise the HE courses; they cannot validate their own courses. The College of Laboratory Animal Science and Technology (CLAST) was formed as a completely separate company to take over running the Higher Education courses. CLAST is now responsible for all HE courses in Animal Technology.

The full higher education programme is now operating and several graduation ceremonies have been held (Figure 2).

### *Course provision*

The way Animal Technology courses are provided has also changed in the last fifteen years. It appears from early Journals that the ATA organised short courses from time to time and set up examination days a few times a year. Later responsibility for teaching was taken up by technical colleges and colleges of Further Education, who relied on experienced Animal Technologists to teach the animal technology section of the syllabus. By the late 1970s and early 80s most parts of the country were close to centres offering Animal Technology courses. Some larger employers organised their own training courses. One College offered Animal Technology by distance learning but apart from this students were released by their employers to attend college for one day a week for 36 weeks per year.<sup>7</sup> The Certificate course took one year, the Membership and Fellowship each took two years. Releasing staff for this amount of time caused problems for employers and this together with the changes outlined by Ken Applebee resulted in less students on College courses and therefore a reduction in



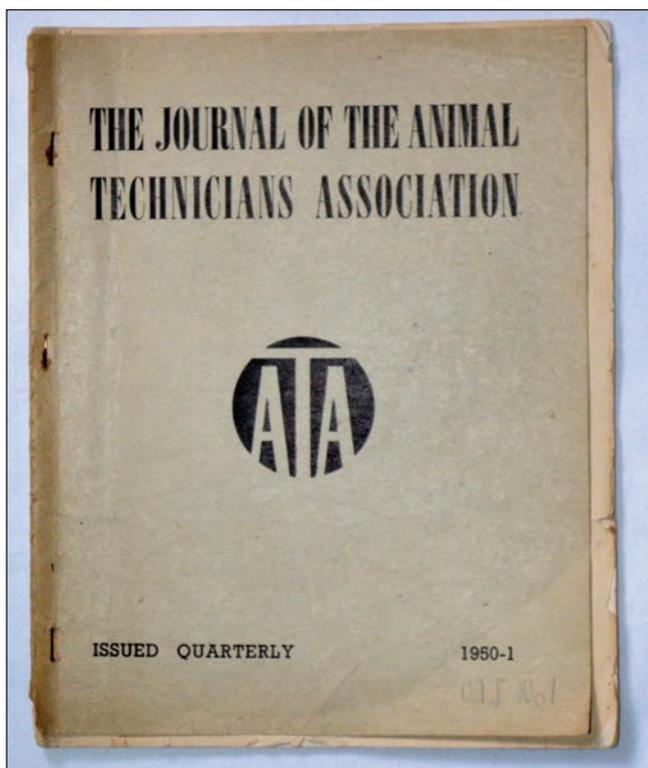
**Figure 2.** HE Graduation 2014.

Colleges offering Animal Technology courses.<sup>6</sup> College courses have been replaced by independent providers offering courses on employers' premises or by distance learning.<sup>6</sup>

Higher education courses are provided in a different manner. Each of the levels consist of four units, one unit is completed in each semester. Most units require students to attend for a four day block at the beginning of the unit and two, one day seminars later in the semester. The rest of the time is taken up with guided learning using internet support.

## The IAT Journal

The importance of the ATA and IAT Journals as educational resources cannot be over emphasised. Updating knowledge, communicating best practice and reporting experimental findings is essential for all professions. The first edition was published within three months of the ATA being formed (Figure 5). It was made up of 17 type written pages and was reproduced on a Gestetner duplicator and the pages collated by hand. To produce their first edition in so short a time, especially by such a labour-intensive method was another great achievement of the early Council.



**Figure 3.** The first edition of the ATA Journal 1950.

The first edition was a mixture of news items and reports from Council and branches, the sort of thing we now see in the Bulletin. It also included scientific and technical papers that are seen in the IAT Journal *Animal Technology and Welfare*. By the third edition the Association was able to afford professional printing

and the number of advertisements increased. Over the years the design of the Journal has changed both in its name and its design. Recent volumes have benefitted from being able to use colour illustrations, a great improvement on the black and white version of the earliest editions.

In 1964 the Council decided to introduce a new magazine, the Bulletin, to provide a closer link with members, allowing a means by which they could contribute news and opinions.<sup>7</sup> Council reports and other official announcements now use the Bulletin and the Journal concentrates on scientific and technical papers.

A journal is only as good as the papers that technical staff submit for publication and it is pleasing to note that the standard of papers is very high. The Tech-2-Tech section provides a good opportunity for technicians to share their ideas and with the support of the editor it is hoped more will take advantage of that.

It will be obvious by now that the Institute has taken the decision to produce the Journal electronically and to make it fully open access to comply with Plan S.

So far there have been 70 volumes of the Journal and 55 volumes of the Bulletin.

## Congress and branch meetings

Earlier it was mentioned that most further education courses are now run in the workplace or by distance learning. There are good reasons for this practice but there is a major disadvantage which is that technicians no longer have the regular opportunity to meet, talk to and learn from colleagues employed in other establishments while at College. This networking is an important, if somewhat unrecognised education resource. Fortunately, Congress and Branch meetings exist to provide a point of contact.

A Congress is not the same as a conference, although it has some of the same elements. Congress, as Mundy points out, is a gathering.<sup>5</sup> It brings together people who have similar interests so they can discuss problems, successes, ideas as well as make contacts with possible collaborators. Learning by talking to colleagues may be considered 'soft education' but it is of great importance. The opportunity to listen to presentations given by experts in their field is an invaluable part of continuing education. Add to that, trade exhibits demonstrating the latest equipment and services available to the bio-medical industry and the availability of participation in workshops as provided by the annual IAT Congress enriches technologists' and technicians' continuing professional education.

The original Congresses predate the establishment of the ATA. The first was held in London in 1948 and two were held in 1949, one in Edinburgh and one in

Reading. These were organised by the MRC Laboratory Animal Bureau who continued to organise Congresses until 1965 when the newly named Institute of Animal Technology took over responsibility for them. It has organised them every year since. The IAT Congress is the largest laboratory animal meeting in the UK. All of the organisation and arrangements are made by Animal Technologists, formed into a Congress Committee, who voluntarily spend time inviting speakers, arranging a trade fair, the social events, hotel accommodation and dealing with registrations. The venues are booked several years in advance. Once the Congress ends, work starts on the next one.

## Branches

Much of what has been said about the importance of Congress is equally true of IAT branches. London technicians formed the first ATA branch in 1950 and it is still going strong. At the 21st Anniversary in 1971 there were 21 Branches.<sup>5</sup> The current number has dropped to 13 but that is probably explained by a reduction in the number of research establishments. A perusal of branch reports in the Bulletin show how vibrant they are, arranging symposia and lectures as well as more social events.

## People

The IAT like the ATA before it, is dependent on individual Animal Technologists volunteering to stand for Council and then to take on the jobs that need doing. All do important jobs but a few stand out for various reasons. Some of the founders of the ATA I have already mentioned D.J. Short, who was the first Chair of Council, a position he held for 20 years. He also chaired the first Board of Education and therefore was responsible for the early development of the education system. A.E. Mundy served for ten years as the first



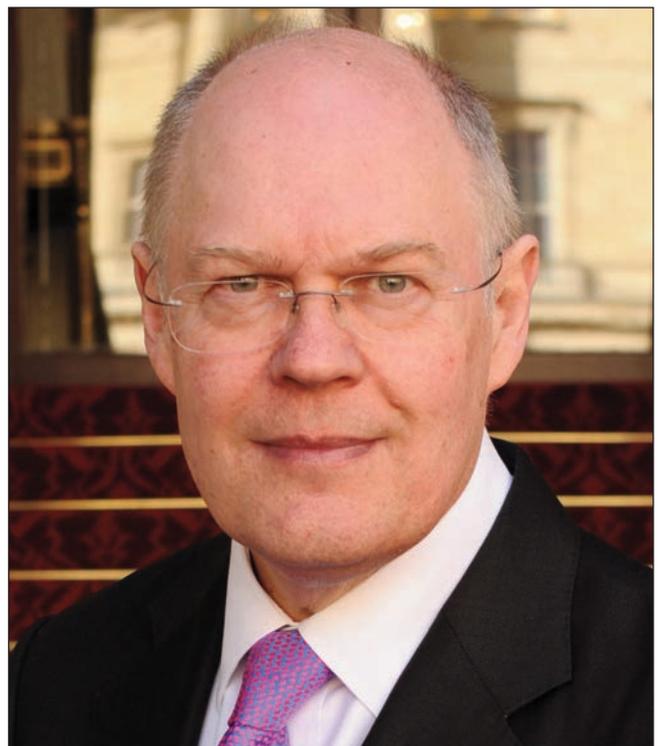
**Figure 5.** Dorothy Woodnott with Keith Millican IAT Chair of Council 1980-1994.

secretary. One other person deserves to be mentioned and that is Dorothy Woodnott, (Figures 4 and 5) she was a member of the first council and took a number of key roles over the 30 years she remained a member, including editor of the Journal, Chair of the Board of Education and, for nine years as Chair of Council. When she retired, she moved to Canada but she returned often and sometimes those visits coincided with Congress. The last time she visited was in the 60th anniversary year. She was the last link with the founders of the Institute as sadly she died in 2018.

In his article on IAT Education published in 2013, Ken Applebee rightly mentioned the role of Bob Kemp and Brian Lowe in developing the current educational



**Figure 4.** Dorothy Woodnott with Professor Sir Richard Gardner (IAT President 1986-2006) at the IAT 60th.



**Figure 6.** Ken Applebee.

system. He modestly left out one person who has been pivotal in the educational development over the last 20 years, that is Ken Applebee<sup>6</sup> himself. It is thanks to Ken and Brian that we have both the further and higher education systems that we have today.

<sup>7</sup> **Porter, R.I.** (1986). An alternative way to learn. *JAIT* Vol 37 Nos 3.

## Conclusions

This article has sought to map the development of the education in the IAT and the effect that has had on the status of animal technical staff.

Until the ATA was formed in 1950 there was no formal education and little informal education and training for those looking after laboratory animals. Now:

- An individual technician can progress from a level 2 qualification to a qualification equivalent to a University degree, all within the IAT education system.
- There is an IAT Journal that is read around the world and has been adopted as the official journal not only of the IAT but of European Animal technicians as well.
- There is a Congress every year that is the biggest in the UK.
- There are 13 Branches organising talks, symposia, visits and social events throughout the year.

The most important function an Institute has is its educational one. It not only has to establish a workable system but must constantly ensure the system remains relevant and works in the interest of its members, the industry and continues to improve animal welfare and the validity of scientific research results.

It is clear from the above that the Institute of Animal Technology has achieved this in its first 70 years. Long may it continue.

## Acknowledgements

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