



Technician Commitment

Evaluating Impact through Self-Assessment & Future Action Planning

Organisation: The Francis Crick Institute

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The Francis Crick Institute: A brief profile.

The Francis Crick Institute is a biomedical discovery institute dedicated to understanding the fundamental biology underlying health and disease. Its work is helping to understand why disease develops and to translate discoveries into new ways to prevent, diagnose and treat illnesses such as cancer, heart disease, stroke, infections, and neurodegenerative diseases.

An independent organisation, its founding partners are the Medical Research Council (MRC), Cancer Research UK, Wellcome, UCL (University College London), Imperial College London and King's College London.

The Crick was formed in 2015, and in 2016 it moved into a brand new state-of-the-art building in central London which brings together 1500 scientists and support staff working collaboratively across disciplines, making it the biggest biomedical research facility under a single roof in Europe.

The Francis Crick Institute will be world-class with a strong national role. Its distinctive vision for excellence includes commitments to collaboration; to developing emerging talent and exporting it the rest of the UK; to public engagement; and to helping turn discoveries into treatments as quickly as possible to improve lives and strengthen the economy.

The Crick has a multinational outlook and is proud to be a diverse, open and international institute, with staff from over 70 countries.

The Francis Crick Institute is a registered charity. Overall responsibility for setting the strategic direction of the institute lies with its Board. An Executive Management Team led by Sir Paul Nurse is responsible for leading the organisation and implementing its scientific vision and research strategy.

Defining technicians at the Crick:

For the purpose of the Technician Commitment, we define technicians as all scientific staff providing support to Crick research in both research and support laboratories.

The Crick uses the term 'technician' in job titles for only a very small number of staff. In Crick research laboratories the technical staff are generally those core funded staff who are neither postdoctoral fellows nor students (PhD, Masters, Summer or Sandwich). They are employed as Laboratory Research Scientists (LRS) and are line-managed by a Principal Investigator in a single research group of up to 14 scientists. Their roles are varied, from acting as technical experts, running their own research projects, training students and postdocs, to the day to day management of the laboratory.

The research laboratories activities are supported by Science Technology Platforms (STPs) and core facilities. There are 17 STPs that provide specialist technical expertise and instrumentation in a range of technologies from cell culture to mass spectrometry, scientific computing and a large animal facility. Other facilities include the glasswash and media teams along with the fly laboratory. Staff within these facilities are mostly employed as LRS or LRS equivalents in a function-based hierarchy, such as in the Biological Resource facility (BRF- animal facility).

Other groups of staff who are included as technicians include the core IT&S group and equipment maintenance and engineering workshop staff.

Technicians at the Crick:

There are a total of 571 technical staff at the Crick.

180 are employed across 95 Research laboratories, each with up to four technicians (LRS) per lab.

306 are employed within 17 science technology platforms each with between 3 and 18 LRS except the BRF, where 143 staff are employed on animal technician grades, equivalent to the LRS grades. BRF staff are in a function-based hierarchical team structure.

27 are employed within the Glasswash, Media and Fly facilities, each with team supervisors.

49 are employed in the IT core team in a number of sub-teams including systems administration, helpdesk support, core systems, operational applications.

9 people are employed as electrical and mechanical engineers in our Scientific Equipment Care and Engineering facilities.

Initiatives/programmes/activities that were already in place for the technical community within the Crick prior to becoming a signatory of the Technician Commitment:

The LRS staff had instigated and been supported to establish a formal Employee Network, the LRS Network, with the aim of providing social and profession networking opportunities, sharing scientific expertise and knowledge while representing the LRS community in discussions with management and, through its representatives, to the Crick Staff Consultative forum.

On the creation of the Crick all technical staff from the different legacy sites were aligned to a Crick grading system. This allowed for clarity around promotions between grades. The technical staff are the only staff group that has a formal promotion process in place.

The Crick has been developing a comprehensive catalogue of training opportunities and the majority of these have always been available to all staff, including LRS. This includes a wide range of personal and professional development workshops and courses including management, leadership and scientific skills.

The technicians working in the animal facility have a clear career progression path. Junior staff are recruited as Laboratory Research Officers who complete a Level 2 (L2) traineeship as workplace learning. Once L2 is completed, they receive promotion in recognition of their achievement and become members of the Institute of Animal Technology registering as RAnTech, a level equivalent to RSciTech. They are then encouraged to complete a L3 qualification. They complete annual CPD returns supported by ongoing training programmes.

Crick Initiatives to address the Technician Commitment themes since becoming a signatory:

To address issues around career development and training a sub committee was formed with members of the LRS Network meeting bi-monthly with John Diffley, Associate Research Director (ARD) for junior researcher and LRS training, John Macey, Director of HR, Louise Gillic, Head of People Development and David Hudson, Science Training Lead and Technician Commitment Institutional lead. Several early meetings were used as 'brainstorming' sessions during which the training sub-committee identified and prioritised areas of need or concern and categorised them under the technician commitment themes as below.

Visibility:

It was noted that there was a lack of visible recognition of the contribution of technical staff to the success of the Crick. This has been addressed to ensure that technicians are represented more fully in the Annual Report, webpage, and intranet pages. The next Annual Report describes our signing of the Technician Commitment as part of our aim of creating future science leaders and highlights the importance of technicians in the Science Technology platforms (STPs) with articles on the Cryo EM and fermentation facilities and on the importance of facility staff to animal welfare. The new Crick external internet was launched in August 2018 and this includes a feature on STP staff titled 'The people making research happen'. The internet careers section also includes a category of 'Scientific

Staff' that includes technicians and features case studies of technical staff from different science areas.

Unlike PhD students and Postdoctoral scientists, the technicians did not have an easily accessible 'one stop hub' for staff group relevant information on the Crick intranet. We have taken advantage of the creation of a new version of Cricknet to work with our Communications team to create pages directed at technicians. These bring together information and links to vital building information, careers pages, training opportunities, research essentials and HR policies along with LRS Network pages.

The LRS staff felt that they did not have a 'voice' on senior management committees equivalent to representation provided for students and postdocs. The Associate Research Director for training, John Diffley and the Director of Scientific Platforms, Steve Gamblin, have assumed joint responsibility for representing the technical staff at Faculty and senior management committee meetings. Recent faculty meetings with Group Leaders and STP Leads, have included discussion about the importance of supporting technical and career development for LRS, as acknowledging technical contributions in publications in accordance with the Crick Publication Policy.

It was clarified that the Crick publications policy recommends authorships and contribution to manuscript preparation where technical support assistants have contributed substantially to generating or analysing the data, where STP staff contribute an indispensable role in the study, or where essential and ongoing technical training was provided during the study. As a minimum requirement, if an STP contribution does not warrant authorship there should be an acknowledgement of the STPs involvement in generating the data. These acknowledgements contribute during facility reviews as a reflection of the facility and staff's impact on Crick Science.

The LRS Network holds monthly meetings as an opportunity for networking and exchange of information and where senior management are invited to discuss key issues such as laboratory operations, LRS careers and the staff consultative committee. On alternate months LRS staff from STPs are invited to give talks about what their facilities do. This gives a opportunity for LRS staff to find out what it is like to work in other facilities to give them an insight into alternative career options at the Crick and elsewhere. This also gives an opportunity for these facility to staff to give talks to a wide audience that they might not otherwise have the opportunity to do.

Members of the LRS Network worked with Crick IT&S to create an 'LRS' mailing list to capture all the technical staff to ensure that everyone received the same notifications as others and invitations to training events and other scientific events. This mailing list is now maintained by David Hudson to ensure that new technical staff are added to the list and that they receive invitations to science inductions.

We held a celebration party for the end for the first year of our lab technician apprentices training. The apprentices gave presentations to around 50 Crick technicians, group leaders and postdocs about their first year experience. This gave the trainee technicians wider visibility while acknowledging the time and effort staff had spent with them.

As the Crick has become established we have encouraged the formation of various forums and science clubs where formats range from drop-in sessions to seminars. These involve a number of staff involved in technical aspects of science, such as image analysis, artificial intelligence, Genome editing and optogenetics and create a opportunity for technical staff to give talks and seminars and raise their profile within the Crick science community.

Recognition:

We are actively promoting and supporting professional registration at the Crick. In November 2017 we hosted a launch event attended by representatives from the Science Council as well as exhibition stands from the Royal Societies of Biology and Chemistry, the Institute of Science and Technology, the Institute of Biomolecular Sciences and the BSC (for IT staff). This event was well received and there was significant interest in professional registration. The Crick has committed to pay for the fees and first year of registration for technical staff. There was initially a delay in organising Science Council support for this due to staff issues but, in June 2018, we held a workshop with a Science Council application support mentor to talk through the registration process. We followed this with one-to-one support sessions. Eight staff submitted applications in mid-August, four for RSci and four for CSci. Seven face-to-face registrations were held in early September and all were successful. Success in achieving registration was announced by Paul Nurse at a Town Hall meeting for all staff and will be celebrated at an LRS Network meeting in late Autumn and covered as a news story on the Crick Internet.

Career Development:

All new Crick staff attend mandatory building, H&S and HR inductions as well as a Crick welcome event with senior leaders. Students and postdocs are additionally given detailed science inductions with information about how the science community at the Crick works. This had not been offered to technical staff so we have created a new quarterly technician induction that involves a session explaining the career structure for technical staff and giving details of the LRS staff network, the technician commitment and professional registration. They join with new postdocs to hear about the STPs, research integrity and other scientific resources. This information helps staff to settle into the Crick science community and means that all science staff now receive the same induction package.

Although there was a wide range of training opportunities available to staff it became clear that there was a perception that some of this was reserved for students or postdocs. Some of this was due to limited capacity but we have now amended the wording on training advertisements to make them as accessible as possible and have increased the number of sessions to allow for more attendance. We now send a weekly email to all science staff, including technicians, highlighting upcoming training opportunities.

The LRS Network organised a career development survey that was sent to all LRS and BRF staff that aimed to form a picture of the LRS staff and to capture development needs. The results showed that 91% had been given time to train, 85% found that the training on offer was relevant to them and 80% of staff had attended non-mandatory training. We believe that this high level of satisfaction reflects success in the changes we have implemented in response to feedback from the staff. The survey also highlighted areas for improvement, such as making the Performance Development Review (PDR) process a more meaningful tool to career development.

There was a list of courses that survey respondents requested and many of these were already being run. We have focussed more on making sure that staff are notified of what training is on offer and encourage new starters to use the training pages on Cricknet.

The Crick had hosted a number of 'Careers Beyond Academia' workshops, targeted predominantly at postdocs. The external careers consultant was asked to expand the remit so that the workshop was also appropriate for technical staff with significant laboratory

experience. A 'managing your career' workshop was targeted at LRS staff, with direct invitations to a list of priority candidates. This aimed to encourage staff to think more broadly about their career aspirations and become more mobile by developing the confidence to apply for other roles within the Crick. To support this, 1-to-1 CV advisory sessions with a career consultant were arranged and attended by a number of LRSs. At the same time, a CV advice train-the-trainer session for members of the HR team was held to offer in-house CV support to scientists looking for their next role, particularly outside academia. Advice has been offered to all staff and is now readily available on request.

The Crick has extensive programmes of outreach and public engagement. This includes public activities such as 'meet the scientist' and Crick open days. As part of this, public engagement training is offered to anyone who wants to participate and this has included 11 LRS and technical staff. This number will increase as technicians are trained to take part in the exhibition described in the future plans section.

In response to requests for shorter training sessions more suited to those technical staff who could not take whole days away from the lab, we introduced 'bite sized' sessions that run for 90 minutes. Subjects have included communication skills, personal effectiveness, building positive relationships and customer service.

In addition to the LRS career path through senior and principal LRS grades the new organisational structure at the Crick has also created laboratory management positions as Quadrant Managers and Science Support Managers. There are a total of 15 positions that were filled largely from LRS staff moving from research laboratories and, as any managers leave, the roles are advertised internally as career opportunities for existing staff.

Sustainability:

We have utilised the Apprentice levy to fund six L3 laboratory Technician Apprentices. Two of these are current long-term members of staff and four were new appointments. The two current members of staff work in a Crick facility and after the first year they and their manager have reporting positive benefits with increased confidence and understanding of technical aspects of the work and of the impact of their work on Crick Science. After one year both are on track for Merit awards. The four new appointments were from the local Camden area, 2 straight from sitting GCSEs at school. They are undertaking a rotation programme spending time working in different facilities or STPs, with on the job training. They also spend some time visiting research laboratories to gain a first hand view of Crick research and learn from Lab staff about their science. All six apprentices attend the City and Islington college one day a week to study fundamentals of science.

The apprentices are employed on a two year contract to cover their training with the intention that they are in a good place to apply for permanent roles as they arise. This has already come to fruition, with one apprentice applying for a permanent role within a facility and being offered the role. They will still complete their two year apprenticeship.

The Apprentice levy is also being used for Leadership and Management training of several existing members of staff who are registered for a L5 diploma. Several of these are technical staff in supervisory roles within facilities and the BRF. We expect a second cohort to begin over the next year.

Not all incoming Group Leaders will come from an environment where research laboratories have permanent technical support. To inform new Group Leaders of the benefits of having an LRS in their team the Crick Group Leader Handbook, provided on

appointment, explains what their role is and how to appoint an LRS in the lab. As there will be continuous recruitment of new scientists to the Crick this creates an opportunity for LRS staff to move into new research areas and provides some opportunities for those whose laboratories may be closing in the future.

One of the training opportunities that involves exchange of technical skills between technicians is called 'Skill Share', short sessions that are run by Crick staff for other staff. Topics have included technical subjects such as use of different instruments for Western blotting and imaging to publishing tips and the use of electronic notebooks. They offer opportunities for technical staff to run a training session and contributes to technical training of colleagues.

Crick Technician Commitment action plan 2018-2020:

We aim to build on what we feel is significant progress over the first year by continuing to work with the LRS network and to expand interactions to include technicians outside the research areas, to ensure that their needs are also addressed.

1. Visibility

Exhibition - Making it Happen Mar 2019-Feb 2020

From early 2019, the Crick public exhibition space will be occupied for a year by an exhibition called 'Making it Happen', a title based on the Gatsby motto 'Technician's make it happen'. The exhibition will be open to the public four days per week. Created in collaboration with technicians from all areas of Crick Science, including engineering, core facilities, STPs and research groups, this exhibition is designed to give visibility to those working behind the scenes of Crick research. The exhibition team are in discussion with the Gatsby Foundation as one of the exhibition partners to develop ways to reach local schools to promote technical careers and to guide exhibition visitors to online Gatsby career tools. An exit survey will be used to monitor initial impact.

Athena Swan including technician related data and actions

An application for an Athena Swan institute award will be submitted in April 2019. The analysis of staff data and results from staff surveys, will identify gender related issues around Crick culture, career progression and work-life balance. These issues disproportionately affect technicians in many areas, where there are more females than males (67% LRS, 65% SLRS, 53% PLRS). The Athena Swan action plan will be developed by a self-assessment team that includes technician representatives. The success of the Athena Swan action plan will be monitored by regular staff surveys and the creation, post award, of an Athena Swan Steering group.

Technician Commitment London leads and technical staff committee networks

We will work with TC leads from Imperial College, University College London, King's College London and the MRC to form a network group across the London-based institutes to explore ways to collaborate and share resources and ideas.

Members of the LRS network committee will work to create a partners-network with other technician staff committees across King's College, Imperial College, University College London and the Institute of Cancer Research. The organisation of networking events will be supported by management.

2. Recognition

We will promote Professional Registration through celebrations of the success of early applications at a technician event and on the Crick intranet. Already registered technical staff will act as mentors to guide new applicants through the process. We will also run workshops on the process to make applications as straightforward as possible.

Over the next 6 months we will reach out to staff in technical areas not so far covered by the commitment work, namely Information Technology and Engineering. We will explore the scope and appetite for professional registration in these areas and also possibilities of employing apprentices in these areas.

A new library system will be implemented in 2019 that will allow publication authorships and acknowledgements to be assigned to different crick staff groups. This will allow the contributions of technical staff to be monitored and reported.

3. Career Development

Cross training of super users from labs in Science Technology Platforms (STPs)

To increase access to some of the STPs there will be emphasis on training permanent LRS staff from research groups. This is already in place in some STPs and has the benefits of creating a local technical expert within a research lab to maintain specialist technical knowledge. This upskilling will contribute towards technical staff development.

Secondment programme for technicians

There are plans being discussed to allow technicians to move between labs and STPs for technical training. This may be to create a local specialist as above but may also allow training in a new technique to allow staff to become more able to change roles and move between labs. This may be important where a group leader is leaving the Crick and staff are at risk and an increase in redeployment of at risk staff would reflect success in this.

IAT accreditation

The BRF animal facility will be applying for IAT accreditation to award L2/L3 qualifications through workplace learning.

Alumni

Technicians will be included in the new Crick Alumni 'CrickConnect' from early 2019. This will follow Crick staff's 'next destinations' and will create a network for career mentoring.

4. Sustainability

Apprentices

Following the success to date of our first cohort of laboratory technician apprentices we will promote the opportunity for recruiters to employ staff with minimal laboratory experience who can register for a two year apprenticeship. We will also explore further the possibility of employing apprentices in IT and Engineering.

5. Self-assessment

Prior to the next self-assessment in 2020 we will ask the LRS network to undertake a technician staff survey to determine how successful our initiatives have been and what impact professional registration has had on staff attitudes.

Please evidence how the ‘technician voice’ was present in the development and formation of the institutional action plan:

Since before the Crick became signatories of the Technician Commitment, the LRS Network committee has been involved in detailed discussions with senior management around training and career needs and continue to meet regularly to discuss the progress of actions. Outcomes from this joint working party have been the basis of prioritisation of the future actions.

The LRS staff survey was instigated, run and analysed by the network and they presented the results to technical staff at a network meeting and also to management. Results from this survey have informed our plans for developing our training catalogue.

The plans to create a cross London technician network is an initiative from a member of the Network committee.

Please confirm that your Technician Commitment status and action plan is published on your organisation’s website and provide the relevant URL here:

The Crick’s signatory status is promoted on the Website and the action plan is published on: <https://www.crick.ac.uk/careers-and-study/scientific-staff/technician-commitment-action-plan-2018-2020>

Signed David Ford (Technician Commitment Nominated Institutional Lead)

Date: 4th October 2018

Signed Paul Nurse (Technician Commitment Signatory - Leader of Institution)

Date: 4 Oct 2018