



ANNUAL REPORT AND ACCOUNTS FOR THE YEAR ENDED 31 MARCH 2023

CHARITABLE OBJECTIVES

THERE ARE THREE REASONS FOR CONTROLLING DISEASES OF ANIMALS:

- the direct impact of the disease on the health and welfare of the animals;
- the indirect impact on human health, welfare and prosperity due to reduced availability of food; and
- finally the spread of infections causing disease from animals to humans (zoonoses).

There is also the added possibility of infections transferring from humans to animals (reverse zoonoses). The World Health Organisation states that zoonoses comprise a large percentage of all newly identified infectious diseases as well as existing infectious diseases of humans.

OUR CHARITABLE OBJECTIVES ARE:

- to conduct and promote scientific research on diseases of animals, including exotic diseases, and to develop appropriate methods for their control, and on matters concerned with animal health, and ancillary thereto, to publish the results of such research; and
- to prepare, edit, print, publish, issue, acquire and circulate any literary works or matters treating of or bearing on the said research work, establish and maintain collections of material, literature and scientific data relating thereto, disseminate information obtained therefrom, and contribute towards the provision of a library or libraries designed to assist such work.



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Front cover: Chicks hatched in our Houghton Facility. A purpose-built animal facility dedicated to the incubation, hatching and rearing of Specific Pathogen Free (SPF) chickens under clean conditions. This type of facility ensures maintenance of disease free status in birds which are used directly in studies or indirectly to support our avian scientists research activities.

Left: Aerial view of The Pirbright Institute.

FOREWORD BY THE CHAIR OF THE BOARD OF TRUSTEE DIRECTORS

As Chair of the Board of Trustee Directors, it is my pleasure to present the Trustees' Report incorporating the Strategic Report for the year 1 April 2022 to 31 March 2023.



THE PIRBRIGHT INSTITUTE AIMS TO PROVIDE THE UK AND INTERNATIONAL COMMUNITY WITH THE CAPABILITY TO PREDICT, DETECT, UNDERSTAND AND RESPOND TO THE THREAT OF SERIOUS VIRAL DISEASES OF LIVESTOCK, AND THEIR SPREAD FROM ANIMALS TO HUMANS. Pirbright's contribution is a critical one both for the UK and globally. The excellent facilities available at Pirbright and the significant continuing investment made by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UKRI, have further strengthened the Institute, allowing world-class science to thrive on the site. The Pirbright Institute has the scientific and support personnel, coupled with the high containment facilities to deliver world-class science to allow it to achieve its strategic aims.

The Pirbright Institute's scientific strategy is underpinned by a series of national and international strategic partnerships, including those with other UKRI-funded institutes. The Institute is also committed to playing a key role in nurturing the next generation of researchers, technical specialists and innovators, and is committed to offering apprenticeship opportunities to strengthen further its own national capability and to contribute to the broader impact that UK science makes nationally and globally.

In the year of the report, The Pirbright Institute has been very successful in securing its next five years of funding through the Institute Assessment Exercise 2022. This provides the core infrastructure support and funds for its flagship scientific programmes to enable the Institute to deliver its scientific strategy over the next five years and will further enhance its place as a national centre of excellence, producing innovative science with a global impact.

Pirbright is committed to acting in a responsible way by reducing its carbon footprint, becoming more efficient in all that it does and respecting the environment. The combined heat and power project has contributed substantially to enhanced energy efficiency on campus, and the Institute has its own Biodiversity Interest Group – staff members who give up their time to improve the wildlife environment on site.

Culturally, the Institute is committed to equality, diversity and inclusivity (ED&I) in all it does and has reenergised this area through a series of new initiatives and committee structures that embed ED&I in all aspects of the Institute, including working to close the gender pay gap and preparing the submission of its renewal application for an Athena SWAN Bronze Award.

As Trustee Directors, we are committed to improving the governance of the Institute and continuing to ensure that we are fully aligned with the Charity Governance Code. We have

continued to implement the action plan developed following our board effectiveness review, conducted in 2020. This has resulted in improved performance in a number of areas, including risk management and identifying opportunities, enhanced engagement with members of staff of Pirbright, with presentations from various internal stakeholders at each Trustee Board meeting, followed by a question-and-answer session, and further diversification of our Board membership. The Trustee Directors also recognise that they have a responsibility to engage with the employees and students who work at the Institute to ensure we understand their concerns and are fully apprised of matters that directly affect them.

The Trustee Directors also recognise our responsibility to ensure the future success of Pirbright. In order to assist in discharging these responsibilities, the Board has three sub-committees: the Finance and Audit Committee, the Risk and Assurance Committee and the Nominations and Governance Committee. In addition, the Trustee Directors has a Scientific Advisory Board, which comprises world-leading scientists from academia and funding agencies. An annual joint meeting between the Trustee Board and the Science Advisory Board provides the opportunity for strategic discussions about the Science Strategy and external factors impacting on its delivery. The joint meeting in 2022 included a specific focus session on ED&I within the Institute.

The ability of the Institute to identify new opportunities to contribute to the control of animal diseases is aptly demonstrated by the launch of the Centre for Veterinary Vaccine Innovation and Manufacturing (CVIM) on the Pirbright site, which has been supported through funds from the Foreign and Commonwealth Development Office, UKRI Biotechnology and Biological Sciences Research Council (BBSRC) and the Bill & Melinda Gates Foundation. Prior to the new building becoming available, research projects are already underway within Pirbright's current facilities to develop and test novel vaccines, thereby contributing to strengthening the UK's own emergency response capacity and capability and bringing about tangible health and economic benefits by focusing on diseases prevalent in low- and middle-income countries.

On behalf of the Board, I am grateful for the commitment and contribution that the Director and indeed all the staff at The Pirbright Institute have made in the last year to ensure its continued success.

PROFESSOR VINCENT EMERY

Chair of Board of Trustee Directors
The Pirbright Institute

REPORT BY THE DIRECTOR & CEO

In 2022-23, we emerged from the Covid pandemic. Some aspects of life started to return to normal, and on the whole, the Institute has been very successful, with a greater awareness of the contribution we can make to One Health.



FOR EXAMPLE, TAKING RESPONSIBILITY TO BRING TOGETHER A UK CONSORTIUM TO STUDY MONKEYPOX AND DEVELOP IMPROVED MEASURES TO DIAGNOSE AND CONTROL THE DISEASE. Importantly, after rigorous external review, we secured our core funding for the next five years, which was a major achievement. The success of our application was underpinned by our strong track record in delivering our science and operations so effectively over the previous five years.

Despite the internal stability, we have been facing major external challenges along with many others, the energy crisis and the cost-of-living crisis, driven in part by the war in Europe and political uncertainty in the UK. These external challenges have made balancing our own finances difficult, but through everyone's efforts and support from BBSRC, we have managed to keep a balanced budget.

I think we are all aware of the changing climate and the extreme weather we have been experiencing, maybe sooner than we were expecting. I also think many of us are asking how we can contribute to controlling global warming, both in our daily lives and through our work. I am sure many of you have heard the arguments about the impact of livestock, particularly of meat, eggs and milk production, on greenhouse gas (GHG) emissions, which contributes to global warming. These are complex issues without a simple solution – many people around the world, particularly in low- and middle-income countries, are dependent on livestock for food, draft power and capital investment. Understanding how the Institute can support global food security and reduce the impact of livestock on climate change were very important considerations in shaping our new strategy. Indeed, in our recent core funding application we defined the major role we play in improving livestock production by controlling disease to reduce GHG production.

Improving animal health monitoring and disease prevention is cited as one of the top four measures that will have the biggest impact contribution to reducing GHG emissions. The other significant measures identified included reducing emissions from agricultural vehicles, breeding selection for reduced GHG production and changes in rice cultivation practices.

During the year, we have made significant progress in delivering new facilities to ensure Pirbright remains at the forefront of research. The Biggs Building was officially opened in February 2023, providing facilities to improve global food security and poultry welfare, including the development of novel vaccines and furthering basic understanding of disease pathogenesis in poultry. Construction of the Brooksby Building continues to move forward, with completion during 2024, and

will provide a novel capability to perform work on animals infected with high-containment pathogens such as foot-and-mouth disease virus and African swine fever virus, as well as pathogens that can spread from livestock to humans, for example, Rift Valley fever virus.

We are implementing an energy saving programme to reduce power consumption on site. It is estimated the site currently uses the same amount of power as 3,500 houses, so there is always room for improvement. The high disease containment facilities are energy hungry, but opportunities have been identified that can significantly reduce this demand. Thinking more long term, increased use of renewable energy is certainly part of the next phase of our development plans.

The second Nurse review of UK scientific research was published in March 2023. This document will potentially have a significant impact on how UK science is managed. In this latest document the role of research institutes, such as Pirbright, are reviewed. Equally importantly, the role of Public Sector Research Establishments (PSRE) and their links to academia are reviewed. Pirbright, through its responsibilities as a national capability work closely with a number of PSREs. Therefore, the outcomes of the report may impact on Pirbright's future role in the UK research community.

Pirbright is in a strong position. We have a robust pipeline of externally funded research, which secures our financial forward plans, and we are controlling effectively the inherent risks of managing a high hazard site. Our success is built on the hard work of our dedicated and professional science and operations staff. Looking to the future, we are optimistic but not complacent.

PROFESSOR BRYAN CHARLESTON FRS

Director & CEO

The Pirbright Institute

ABOUT PIRBRIGHT

Pirbright is a world-leading centre of excellence in research and surveillance of virus diseases of farm animals and viruses that spread from animals to humans. The Institute receives strategic funding from the BBSRC and works to enhance capability to contain, control and eliminate these economically and medically important diseases through highly innovative fundamental and applied bioscience.

OUR PURPOSE

Pirbright's charitable objective is to conduct and promote scientific research on diseases of animals, including exotic diseases, and to develop appropriate methods for their control.

OUR MISSION

The Institute's mission is to be the world's leading innovative centre for preventing and controlling viral diseases of livestock.

OUR VISION

The vision of Pirbright is to apply scientific research to prevent and control viral diseases, protecting animal and human health and the economy.

The Pirbright Institute Science Strategy can be found on the Institute's website: pirbright.ac.uk

OUR STAFF AND STUDENTS

Pirbright employs around 400 staff, with its research supported by over 50 students from a range of backgrounds, and prides itself on its diversity. The Institute is based on a campus site in Pirbright in Surrey.

OUR VALUES

The staff and students working at the Institute take **PRIDE** in everything we do, which is reflected in our values:

Passion – for the highest-quality standards, delivery and performance.

Reliability – in everything we do: leadership, learning, biosecurity, problem anticipation and containment of unexpected events.

Innovation – is the driving force behind our fundamental and applied science. Our work is positioned at the cutting edge of science to deliver solutions for global good.

Dignity and respect – we respect and trust all in our diverse community.

Excellence – we aim to deliver the best in all aspects of our work, including health, safety, biosafety, scientific research, customer service and protecting the environment.

OUR SCIENCE

Pirbright provides national and international capacity to predict, detect, understand and respond to emerging new viral diseases of livestock and endemic viruses that are circulating in and outside of the UK.

Our diagnostics, surveillance facilities and expertise enable us to act as a national capability, protecting the UK from livestock viral diseases that threaten our borders, allowing us to act decisively and swiftly in the event of an outbreak in order to control it as rapidly as possible. Our fundamental research falls under two science programmes, which study either hosts or viruses and their interactions.

PROGRAMME ONE: UNDERSTANDING AND PREVENTING VIRAL DISEASES

Pirbright's research programme focusing on viruses is led by Dr Toby Tuthill and covers:

- How viruses evolve and their diversity.
- Viral structure and interactions with host proteins.
- Transmission and epidemiology, which encompasses spread of infection between individuals and populations, as well as predicting the scale of outbreaks.
- Designing and evaluating appropriate interventions to control outbreaks.
- The programme aims to understand at a molecular and cellular level the structure and systems used by viruses that allow them to infect, replicate and transmit. This knowledge will then be used to prevent and control viral diseases, especially highly infectious diseases that must be studied under high containment. Priority viruses we are studying include African swine fever virus, avian and swine influenza viruses, bluetongue virus, respiratory syncytial virus, coronaviruses including SARS-CoV-2 and infectious bronchitis virus, foot-and-mouth disease virus, infectious bursal disease virus, Marek's disease virus, porcine reproductive and respiratory syndrome virus, pox viruses and mosquito-borne arboviruses.

PROGRAMME TWO: ENHANCING HOST RESPONSES FOR DISEASE

Pirbright's host programme is led by Professor John Hammond and it focuses on four broad areas of research around livestock hosts and insect vectors:

- Disease pathogenesis
- Recognition and control of virus infections
- Viral persistence
- Viral transmission by insect vectors
- The goal of the research is to develop innovative methods for the control of viral diseases through an enhanced understanding of host biology and host-virus interactions. Tools and disciplines that enable better understanding of the host-virus relationship include immunology, genetics, bioinformatics, entomology and vaccinology.

2022-2023 was the final year of the programmes as outlined above. Renewal of these strategic programmes for a further five years of support (2023-2028) was a key activity for the Institute in 2022. Application to UKRI BBSRC for continued strategic investment was carried out through the Institute Assessment Exercise (IAE) 2022.

DIAGNOSTIC AND SURVEILLANCE EXPERTISE

Pirbright has a long history of protecting the UK from disease and has been home to the World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD) for over 60 years. We also operate the Non-Vesicular Reference Laboratory for a number of high-consequence diseases of growing importance, including African swine fever virus, bluetongue, peste des petits ruminants, rinderpest, African horse sickness, lumpy skin disease, sheep pox and goat pox. These laboratories provide an essential diagnostic and advice service to the UK Government Department for Environment, Food & Rural Affairs (Defra), United Nations Food and Agriculture Organization (FAO), and the World Organisation for Animal Health (WOAH).

These laboratories receive samples from all over the world and are instrumental in providing countries with sophisticated data on strains of viruses causing disease and helping to select vaccines to aid control. During 2022-23, the Pirbright laboratories processed 16,631 samples.

The international reference laboratories are accredited to ISO/IEC 17025, an UKAS-accredited laboratory number 4025. In 2022-23, this accreditation was renewed following a successful assessment by UKAS.

PIRBRIGHT SCIENCE HIGHLIGHTS 2022/23

The scientific progress outlined in this report focuses on our research into viruses affecting livestock and zoonotic viruses, which have implications for animal and human health, as well as food and economic security worldwide. Our advancements in research, vaccine development and diagnostic tests contribute to global preparedness in combating viral outbreaks through prevention and control. For more information, please visit pirbright.co.uk to explore our latest findings.

PIG CORONAVIRUS RESEARCH SHEDS LIGHT ON COVID-19 IN HUMANS

A pig respiratory coronavirus (PRCV) model has been developed to understand how coronaviruses cause disease and understand the immune system's response. Pigs are ideal for modelling human disease as their size and immune systems are similar to humans, and they are naturally infected with PRCV. The research will help to understand what factors cause mild or severe disease and inform the development of control strategies for emerging livestock and human coronaviruses. The study found that viruses that replicated in the lungs caused more severe disease and all virus strains multiplied in the upper respiratory tract and nose, similar to SARS-CoV-2.

TAKING SCIENCE BEYOND THE LABORATORY IN NIGERIA

Researchers from Pirbright and the Royal Veterinary College (RVC) worked with scientists, farmers and policymakers in Nigeria to prevent and control sheepox and goatpox (SGP). These viral diseases spread quickly and can cause multiple necrotic skin lesions, weight loss, and decreased wool and cashmere production, with a mortality rate of up to 40 per cent. Researchers collected data on risk factors associated with the disease, including herd sizes, grazing areas, disease history and coping strategies. The team developed an SGP Cost and Vaccination Calculator, an online tool to help farmers estimate the cost-effectiveness of vaccinating their animals. Results showed vaccination was economically viable at herd and regional level.

NEW INSIGHTS INTO FOOT-AND-MOUTH DISEASE VIRUS AND IMMUNE SYSTEM INTERACTION

Pirbright scientists have made a breakthrough discovery regarding the foot-and-mouth disease virus (FMDV). They have found that the virus interacts with immune cells in lymphoid tissues, which enables it to persist in animals and poses a threat to vulnerable livestock. This research helps bridge the knowledge gap of how the immune system deals with FMDV in large animals, potentially providing insight into how to create vaccines that give long-lasting immunity. The current vaccines only provide short-term protection. Understanding the immune response to FMDV may lead to the development of longer-lasting vaccines that would benefit farmers whose livelihoods depend on their herds.

UK EXPERTS JOIN FORCES WITH PIRBRIGHT TO TACKLE AVIAN FLU

A new research consortium, supported by £1.5m funding from BBSRC and the Department for Environment, Food & Rural Affairs, is to tackle bird flu outbreaks. The consortium, which includes researchers from Pirbright, aims to develop strategies to control the spread of the virus, monitor current flu strains and understand how the disease spreads among bird populations. Researchers will develop models to predict the virus's spread and inform strategies to decrease risk of transmission to humans. Bird flu outbreaks have a significant impact on the UK poultry industry, and it is hoped this collaboration will find solutions to the issue.

CELEBRATING STUDENT SUCCESS

The Institute held its Student Day in person for the first time since 2019, where PhD students shared their projects and progress. The event opened with a welcome from Institute Director, Professor Bryan Charleston, followed by talks from third-year PhD students, and included poster displays by second-year students. First-year students also attended to get a glimpse of the journey ahead. The event was well attended by researchers, PhD, Masters and placement students and concluded with an awards ceremony, celebrating the presentations, posters and contributions of the students.

A NEW APPROACH FOR CREATING VACCINES AGAINST INFECTIOUS BRONCHITIS VIRUS EXPLORED

A potential vaccine for infectious bronchitis virus (IBV) in chickens that could provide 100 per cent protection from disease with just one dose is being developed at Pirbright. Previous research conducted at the Institute identified important targets in the virus genome that could be investigated to create safer vaccines. The research aimed to explore these targets and understand the mechanisms of weakening a virus to create a vaccine, a process known as attenuation. Scientists discovered that attenuation of IBV was caused by changes located in non-structural proteins, and that two specific amino acids were responsible for this change. The study opens opportunities to create innovative vaccines that could be effective against many strains of IBV and potentially reveals ways to create vaccines for other viruses in the coronavirus family.

NEW CONSORTIUM FORMED TO RESEARCH MPOX WITH PIRBRIGHT AS A LEADING PARTNER

The Pirbright Institute is a leading partner in a new mpox consortium made up of 25 researchers and scientists from 12 UK institutions. The group will focus on developing new diagnostic tests, identifying potential therapies, and studying vaccine effectiveness and the virus's spread. The consortium has received £2 million investment from BBSRC and the Medical Research Council. Researchers will work closely with experts at the Animal & Plant Health Agency, UK Health Security Agency and Defence Science and Technology Laboratory to study the mpox outbreak and inform the public health response in the UK and internationally.

PROFESSOR MELANIE WELHAM OFFICIALLY OPENS THE BIGGS AVIAN RESEARCH BUILDING

Professor Melanie Welham, Executive Chair, BBSRC, officially opened the Biggs Avian Research Building, part of a £350m investment from the BBSRC, part of UK Research and Innovation (UKRI) is making on the Pirbright site. The new facility will expand the Institute's research capacity into infectious diseases of poultry, with a focus on improving the health and welfare of birds, as well as protecting global food security. The building features a bespoke LED lighting system designed to give birds a natural dawn-to-dusk cycle to maximise their welfare. The facility is named after Professor Peter Biggs, a pioneer of herpesvirus research.

NEW DISCOVERIES MADE ON HOW CHICKENS COMBAT MAREK'S DISEASE

Differences in the immune response of chickens that are resistant to Marek's disease have been identified, which could pave the way for more effective vaccines against the disease. In a recent study, researchers found that T cells in resistant chickens produce more IL-2 and IL-4 in response to the virus than those that are susceptible to the disease, suggesting these cytokines play an important role in protecting poultry from Marek's disease. The study also revealed that T cells in resistant chickens produce more granzyme B and perforin, proteins associated with killing infected cells, which could explain resistance to the disease.



Professor Melanie Welham, Executive Chair, BBSRC officially opens the Biggs Avian Research Building, accompanied by Professor Bryan Charleston FRS.

NOVEL TECHNIQUES AND RESOURCES CREATED FOR EXPLORING DIFFERENT STRAINS OF INFECTIOUS BURSA DISEASE VIRUS

New lab techniques have been developed to determine the breadth of immune responses produced by vaccines against different variants of infectious bursal disease virus (IBDV). Researchers used the new 'reverse genetics' technique to engineer artificial IBDV strains that mimic IBDV variants from different countries, as it can be challenging to obtain them from different regions. A new study found that the European vaccine against IBDV produced strong responses against UK and European strains but weaker responses against some of the variants from other countries, indicating the need to develop a vaccine that protects against all the variants.

NEW UK CENTRE FOR VETERINARY VACCINE INNOVATION AND MANUFACTURING SET TO IMPROVE GLOBAL ANIMAL HEALTH

BBSRC and the Foreign, Commonwealth & Development Office (FCDO), along with the Bill & Melinda Gates Foundation, have launched a new Centre for Veterinary Vaccine Innovation and Manufacturing (CVIM) at The Pirbright Institute. CVIM will focus on developing animal vaccines to combat emerging and urgent infectious diseases. Livestock disease poses a real threat to global food security, international trade and human health, as some diseases have the potential to become pandemics. The £40m initiative aims to strengthen the UK's emergency response capacity, as well as support low- and middle-income countries by addressing diseases prevalent in those regions. The centre will work towards bridging the gap between research and commercial development of vaccines, as well as addressing niche markets. It will support manufacturing innovation to reduce costs, scale production and accelerate the development of animal and human vaccines. CVIM will also establish the utility of novel vaccine platform technologies for neglected livestock diseases and rapid response to emerging zoonotic diseases.

REPRODIVAC: DEVELOPING NEXT-GENERATION VACCINES TO PREVENT GLOBAL LIVESTOCK REPRODUCTIVE DISEASES OF WORLDWIDE IMPACT

The Pirbright Institute, in collaboration with 15 other partners across seven European countries, has secured funding from the UKRI Horizon Europe Guarantee Scheme to develop innovative vaccines and diagnostics for livestock reproductive diseases. The funding will focus on four of the most economically important infectious diseases affecting pigs, sheep and goats, including porcine reproductive and respiratory syndrome (PRRS). Pirbright will lead on PRRS activity to develop new vaccines and enhance current diagnostic tests. The Institute will use 'structural vaccinology' to develop a broadly protective PRRSV vaccine, which will isolate naturally occurring porcine antibodies capable of broadly neutralising PRRSV.

FINANCIAL REVIEW OF THE YEAR

The financial year under review was the last year of six years of flat funding from BBSRC and, as such, was particularly challenging when combined with high energy costs and inflation rising significantly during the year.

Also, the depreciation charge associated with the substantial capital projects on site over the last few years exceeded capital funding for development in the year, putting the financial performance in the year under further strain. Despite additional support from BBSRC to ease the pressure of excess energy costs, and continued stringent financial control, the impact of these pressures has resulted in a deficit of £3.6m being achieved in the year.

INCOME

Total income amounted to £46.9m (2022: £59.1m), this reduction arising from a lower level of funding for the capital development of the site as the current phase reaches completion. Investment in tangible fixed assets in the year totalled £12.1m (2022: £32.7m). This was funded by grants from the Institute's principal sponsor, BBSRC, Defra and other grant-awarding bodies.

EXPENDITURE

Expenditure undertaken to support continuing activities in the year amounted to £50.6m (2022: £46.5m).

Staff costs are the Institute's most significant expenditure accounting for £17.7m (35 per cent of expenditure) in the year (2022: £17.9m, 39 per cent of expenditure). The reduction in staff costs from 2022 results from high levels of vacancies during the year, with staff recruitment and staff retention continuing to be challenging in the post-Brexit, post-Covid era. As experienced by many other organisations in the UK, both Brexit and Covid have caused staff members to reevaluate where they want to live and what they want to do, with a number also leaving as a result of the opportunities afforded to them by the very competitive labour market in the UK.

Energy costs are also very significant to Pirbright, with the site requiring power equivalent to 3,500 homes to maintain containments of the facilities on site. Costs were maintained to the level seen in the previous financial year as a result of additional funding from BBSRC of £2.5m (2022: nil).

GRANT PROPOSALS

The Institute continues to achieve notable success with scientific grant applications. During the year, Pirbright researchers submitted grant proposals with a sponsor value of £16.5m (2022: £20.8m) and were awarded grants with a value of £9.5m (2022: £7.5m). This excludes the grants associated with the new UK Centre for Veterinary Vaccine Innovation and Manufacturing (CVIM) being set up on the Pirbright site. The awarded value of the grants totalled c.£44.4m in the year.

CASH AND TERM DEPOSITS

Cash and term deposits at 31 March 2023 were £34.8m (2022: £34.5m), a small increase of £0.2m in the year, with cash received in advance to support science balancing the funds used to support the capital development on site. Pirbright deposits its cash with UK-registered financial institutions in accordance with the Institute's investment policy. Investment income from cash deposits in the year was £0.3m (2022: £0.1m), an increase in the year reflecting the rising interest rates.

NET MOVEMENT IN RESERVES

Pirbright has three categories of reserves: restricted reserves, which represent monies previously provided by BBSRC to support development activity and business cases together with the assets developed with previously awarded funds; designated reserves, which represent monies previously agreed by the Trustee Directors for specific projects; and general reserves. During the year, total reserves decreased from £345.2m to £341.6m, a decrease of £3.6m (2022: £14.6m).

The Pirbright Institute recorded a net increase in general reserves of £0.4m (2022: £0.1m), a net decrease in designated reserves of £0.5m (2022: £0.1m) and a net decrease in restricted reserves of £3.5m (2022: £14.8m).

The decrease in restricted reserves was specifically in the Fixed Asset Fund as development of the Pirbright site continues under the Master Plan, with depreciation now being incurred on buildings coming online exceeding new funding as the second phase of the Plan nears completion. The Fixed Asset Fund reserves fell by £4.4m (2022: £13.0m). During the year, science commenced in the Biggs Avian Research Building. This facility will increase the Institute's capacity to undertake research into infectious diseases of poultry, in both endemic and exotic diseases. Construction of the Brooksby Building continued. The Brooksby Building will be a self-contained, stand-alone, large animal experimental facility designated to accommodate 'in vivo' studies involving 'high containment' pathogens of livestock, such as foot-and-mouth disease virus (FMDV), as well as pathogens that can spread from livestock to humans.

RESERVES POLICY

Unrestricted funds

It is the policy of the Trustee Directors to ensure the General Fund in the unrestricted reserves is maintained above £7.5m. This will enable the Institute to manage fluctuations in income and unforeseen cost pressures, as well as provide cover for the redundancy liabilities taken over from BBSRC when the staff of the Institute were transferred to the Institute in January 2017 under a transfer of undertakings (protection of employment) exercise.

At 31 March 2023 unrestricted general reserves were £7.8m (2022: £7.4m).

Designated funds

Designated funds have been set aside by the Trustee Directors for specific purposes to support the purchase of science equipment, to provide additional scientific staff, to support the training and learning programme, which shares Pirbright's expertise, and to provide funding for various small-capital projects.

Restricted funds

The Institute has been undertaking a significant building programme within the Pirbright site for which funding has been received from BBSRC UKRI. The funding of this programme is via grants, which are held within the restricted funds; the total fund value is £325.8m (2022: £330.2m). This funding is solely and specifically granted for the purpose of the building programme, hence the inclusion within the restricted fund. This represents the value of the buildings that have already been constructed.

Pirbright also has a number of smaller restricted funds, which are held to support the capital development programme, support the running costs associated with the Brooksby Building prior to practical completion and the revaluation of the investment property.

Full details of all reserves and movements in the year can be found at Note 15 to the Financial Statements.

FUNDRAISING ACTIVITIES

Section 162a of the Charities Act 2011 requires charities to make a statement regarding fundraising activities. Although the Institute does not undertake direct fundraising from the general public, with the legislation defining fundraising as "soliciting or otherwise procuring money or other property for charitable purposes", we have to disclose the value of such income in the year. We have received no such income during the current or previous financial year and have consequently received no complaints in respect of our fundraising activities.

PIRBRIGHT'S PERFORMANCE 2022/23

PIRBRIGHT'S PRINCIPAL OBJECTIVES

- To continue a world-leading research programme publishing groundbreaking scientific research, winning research funding and recruiting and retaining the brightest and the best staff and students.
- To develop further the Pirbright long-term vision of scientific research, with impact in enhancing our collaborations with agencies to improve disease control in low- and middle-income countries.
- To continue to implement the fully funded development programme to provide additional animal research facilities for the study of high consequence pathogens. These facilities will further enhance Pirbright as a unique National and International capability.
- To develop strong strategic collaborations with other global centres of excellence to support the Institute Strategic Programme grants.
- To diversify our funding through greater collaboration with international partners via various new funding opportunities.
- To maintain high containment infrastructure, to manage the safety, security, environment and quality risks from our work with high consequence pathogens, and to provide training and expertise to external partners in these areas.



PIRBRIGHT'S KEY PERFORMANCE INDICATORS (KPIs)

- Publications in relevant scientific journals, with a benchmark of one paper per postdoctoral scientist a year.
- Success rates for research grant proposals over the next five years: 35 per cent in terms of successful applications and 30 per cent in terms of value of the awards.
- Recruitment and the retention of high-quality staff and students: to achieve less than 15 per cent annual staff turnover within five years.
- Annual research income of at least £11 million externally won funding each year over the next five years.
- Compliance with all statutory requirements as a major hazard site, close cooperation with regulators and conformity to applicable standards such as ISO/IEC17025.

OUR PERFORMANCE AGAINST OUR KPIs

- We published 137 papers in a range of high-impact journals achieving an average of 1.0 publication per postdoctoral scientist in the year.
- We achieved 57 per cent successful grant applications and 56 per cent in terms of value of the awards against significant UK and international competition.
- At the end of March 2023, the rolling annual average voluntary staff turnover figure was 22.6 per cent, significantly higher than the 15 per cent target. However, this is in line with national voluntary staff turnover rates, which are raised due to high levels of employment and individuals reassessing their lifestyle following the COVID-19 pandemic.
- The annual grant income for 2022-23 was £15.2m, exceeding the £11m target by 38 per cent.
- Pirbright is subject to a HSE Major Hazard Intervention Plan comprising a minimum of three scheduled HSE inspections each year to monitor compliance with its licence under the Specified Animals Pathogen Order 2008 (SAPO) and with regulations under the Health & Safety at Work etc Act 1974.

No improvement notices were issued by HSE (or any other regulatory authority) against Pirbright in the year. One enforcement letter was issued by HSE against Pirbright in relation to the planned intervention inspection on electrical power systems (a letter sets out actions and deadlines but is a lower level of enforcement than a notice, and does not appear on the public record, but non-compliance would lead to a notice and is disclosable by FOI requests to HSE). We are in the process of complying with the actions stipulated in the letter.

- Pirbright Reference Laboratories & Disinfectant Testing are accredited to ISO/IEC 17025, and thus subject to an annual surveillance audit by UKAS. Accreditation has been successfully maintained for 2023-24, with just two minor improvement actions. No other enforcement action was taken against the Institute during the year by any other regulatory or audit body on any aspect of biorisk, animal scientific procedures regulation, health and safety, security, environment, quality or wider compliance.

DELIVERING THE BBSRC INSTITUTE STRATEGY

The BBSRC Institute Strategy, published in July 2021, sets out BBSRC's approach to supporting and working in partnership with the institutes it strategically funds.

The strategy outlines three themes, which underpin the principles of its strategic investment:

- Capability
- Connectivity
- Culture

To support this Pirbright has established a range of additional activities structured around these three themes to help deliver the strategy.

CAPABILITY

Following the BBSRC data intensive bioscience review, it has been widely recognised that big data is now both pervasive and essential to deepen our understanding of biological systems. To enhance our capability in the area of big data, three staff have been recruited, two at group leader equivalent (Head of Computational Biology and Head of Genomics) and one at senior postdoc equivalent (Bioinformatician). The role of these staff is to curate both existing and new datasets produced by our scientists, international reference laboratories and collaborators. Data cleansing, file format and structure management alongside combining different enabling transformative technologies are critical first steps to analysing datasets. This process allows us to build in silico biological systems and develop hypotheses as part of the iterative cycle of experimentation and modelling to describe complex biological systems. Furthermore, these expert staff are working closely with our strategic partners at the University of Surrey, specifically the newly established Institute for People-Centred Artificial Intelligence, to enhance our analytical capabilities and maximise the value of our data.

CONNECTIVITY

Establishing collaborative links with the Babraham Institute has been a key priority for Pirbright. It was recognised that there was increased scope to deepen the connections and the complementary expertise of researchers at both institutes. Collaborative studies in immunology during the SARS-CoV-2 pandemic highlighted benefits in joint research and activities between the two organisations, and a strategically important opportunity to improve further our understanding of complex biological processes was identified. This has been based on Babraham's expertise and knowledge of human and murine immunology, where there are well-developed and plentiful tools and resources, in contrast to livestock species. Knowledge from these better-characterised systems can be applied to models of interest and relevance to Pirbright science, in particular supporting our work to advance our analyses of immune

responses in pigs and other livestock species and in the cell biology of the host: virus interactions to improve both animal health and human health.

Seven projects, with a combination of 17 different principal and co-investigators across both institutes, were supported with pump-priming funds. Supported projects had high strategic relevance to both institutes and were required to demonstrate a clear route to further funding to sustain the collaboration(s).

CULTURE

The Institute's reinvigorated Equality, Diversity and Inclusion (EDI) Committee prioritised a number of activities to support continual improvement of a positive research institute culture. This includes supporting a range of networks, for example, the recently established Early Careers Forum (ECF). The ECF brings together early-career scientists and operational staff to network and discuss topics such as professional development and careers advice, and to share knowledge and experience. The forum facilitates enhanced communication and enables early-career staff to speak with 'one voice' when actively engaging with internal and external parties to discuss and improve early-career challenges.

This year, we have also worked with our EDI partner, ENEI (Employers Network for Equality & Inclusion), to roll out enhanced EDI training to all of our managers and supervisors. This training aimed to support our leaders to create working environments and cultures where every individual in all teams can feel safe, a sense of belonging and empowerment to achieve their full potential.

In addition, to recognise and value the contributions of all staff and students at Pirbright, a two-day celebration event took place at the end of March. The event provided an opportunity for staff and students to showcase their achievements and to highlight the diverse range of skills, experience and capabilities across Pirbright. The event was a real celebration of the Institute's success. It was also a fantastic opportunity for connection across the Pirbright community and provided a chance to further promote a positive work environment where everyone's role and contribution is acknowledged and appreciated.

STAKEHOLDER ENGAGEMENT – SECTION 172 STATEMENT

The Trustee Directors consider that the decisions they have made during the financial year have satisfied the requirements of S172(1) of the Companies Act 2006 and they have acted in good faith to promote the success of the Institute, and in doing so, have taken into account the stakeholders and matters outlined in S172(1).

The Board of Trustee Directors has the ultimate responsibility for the Institute and delivery of its charitable objectives.

Key decisions made by the Trustee Directors during the year included:

- Agreement of the scientific strategy that was fundamental to the Institute's submission for the next round of core funding from BBSRC. This strategy was formulated in consultation with the Institute's major funder, BBSRC, and was developed to align with the BBSRC Institute Strategy, more details of which can be

found on page 13. The Trustee Directors also provided input into all documentation submitted for this award and attended the interviews at which the strategy and the operational approach was questioned by an expert panel on behalf of BBSRC.

- Approval of the development of the UK Centre for Veterinary Vaccine Innovation and Manufacturing on the Pirbright site after consultation with the three funders of this project, BBSRC, the Bill & Melinda Gates Foundation and the Foreign, Commonwealth & Development Office.

THE TABLE BELOW SETS OUT PIRBRIGHT'S SIGNIFICANT STAKEHOLDERS.

	HOW WE ENGAGE
Employees	Employee engagement forms a central part of the Institute's strategy. We employ a variety of ways to communicate with our staff and students in a dialogue so we can also gain feedback. Communication channels include a monthly e-newsletter, intranet, forums, staff briefings, surveys, digital screens, internal seminars, blogs and workshops. Further information about our employees can be found on page 22.
Students	Pirbright has a vibrant student community, and we are committed to supporting, nurturing and offering additional learning and training opportunities to them. Find out more on page 23.
Funders	We engage with funders at all stages of the funding process and have regular dialogue and face-to-face meetings with our key investors. Please see page 25 for more information.
Research organisations & partners	Pirbright undertakes numerous collaborations with universities, research institutes and disease-control agencies around the world. More details are given on page 16.
Pharma	Partnerships with pharmaceutical companies are essential for the development of vaccines, diagnostics and medicines. Find out more on page 16.
Farmers	We engage with the farming community through specialist farming press, through farming organisations and bodies and media outlets, including BBC World Service and BBC Radio 4 Farming Today, as well as at agricultural events.
Regulators & government	As a major hazard site, Pirbright works closely with the Health & Safety Executive (HSE), counter-terrorism security authorities, the Home Office and other regulators. As a national capability for the prevention and control of exotic viral diseases of livestock, Pirbright works closely with Defra, BBSRC UKRI and others. As the World Reference Laboratory for certain pathogens and a regional Reference Laboratory for others, Pirbright works closely with the UN Food & Agriculture Organization (FAO) and World Organisation for Animal Health (WOAH). As an ISO/IEC 17025-accredited testing laboratory, Pirbright works with the UK Accreditation Service (UKAS). See page 18 for more details.
Public	We engage with the public through our outreach and public engagement programmes. Please see page 15 for more information.
Local community	Our neighbours are extremely important to us and we engage by supporting the local community in a number of ways, including sponsoring local events, volunteering in local conservation initiatives such as Fox Corner Conservation and engaging with the parish, borough and county councils over development on our campus. Our scientists also visit local schools and colleges – more information can be found on page 15.
Suppliers	One of the ways we engage with our suppliers is through Supplier Days held several times a year at Pirbright. However, due to the effects of the pandemic, this was not possible in 2022-23 but digital engagement continued throughout the year. The first in-person Supplier Day has been planned for summer 2023.

ENGAGING WITH THE PUBLIC

Researchers and operations staff at Pirbright are dedicated to public engagement, actively interacting with various audiences such as schools, students, farmers and the general public. In the 2022-23 period, the communications team participated in eight face-to-face public-engagement activities, inspiring young scientists at career events and engaging with the public at local fairs and the Royal Society Summer Science Exhibition.

ROYAL SOCIETY SUMMER SCIENCE EXHIBITION

The Pirbright Institute attended the prestigious Royal Society Summer Science Exhibition in July 2022. The Institute was one of only 16 exhibitors selected to attend. The five-day exhibition was open during the week for visiting school groups, and then doors were opened to the general public over the weekend. VIP guests and Fellows of the Royal Society were invited to explore the exhibits at mid-week evening black-tie Soirées.

We showcased our newest interactive exhibit Disease Detectives, which demonstrates the role of scientists in identifying and preventing emerging diseases. The exhibit highlights the spread of diseases, particularly those like Covid-19, and the factors contributing to their emergence. Users simulate playing a crucial role in detecting outbreaks, understanding their origins, predicting their spread and developing strategies to stop them, much like our researchers do every day. By collecting data and solving scientific clues, Disease Detectives are at the forefront of combating deadly diseases worldwide.

The Royal Society recorded 5,600 members of the public, in addition to 700 students, visiting across the five-day exhibition. Over 50 Pirbright staff and students volunteered to help make this event a success, sharing the work of the Institute and inspiring future generations of scientists.



Pirbright researchers demonstrating our 'Bug Busters' and 'Disease Detectives' interactive exhibits at The Royal Society Summer Science Exhibition 2022.



Escaping Dr Zoo's Travelling Science Lab!

SUPPORTING OLD AND NEW VOLUNTEERS

The success of Pirbright's engagement programme relies on the contribution of its dedicated volunteers. Training is crucial for supporting both staff and students, as well as attracting potential volunteers.

This past year, the Institute has had approximately 50 science, technology, engineering and mathematics (STEM) ambassadors. We actively encourage participation in the STEM Learning network, connecting schools with STEM ambassadors who volunteer their expertise for talks and events. Additionally, we provide specialised training for PhD and placement students to enhance their understanding of engagement and equip them with the necessary communication skills to interact effectively with the public.

INSPIRING FUTURE SCIENTISTS

Throughout this challenging year, Pirbright volunteers have continued to attend virtual careers events through online talks and mentoring, videos, blogs and virtual fairs, helping us to inspire more students from a wider range of backgrounds to consider scientific careers than was previously possible via face-to-face interactions. Towards the end of 2022, volunteers from our staff attended 11 external events, including fairs, lectures and workshops.



Inspiring the next generation of scientists and engineers using our virtual reality experiences.

COLLABORATIONS AND NETWORKS

Pirbright works with many different external collaborators from academia, industry and non-profit organisations. In the 2022-23 financial year, we entered into 32 new collaboration agreements with 41 organisations based in ten countries.

Of the 41 organisations, 23 were academic, 6 commercial and 12 public. These collaboration agreements reflect new research projects with external partners, including universities in the UK and abroad, multinational pharmaceutical companies and research institutes with an interest in animal health or zoonoses. Our research collaborations include projects related to rapid responses to avian flu and monkeypox, development of potential vaccines candidates in partnership with industry, and evaluating a solid-dose vaccine delivery system to enhance vaccine stability among others.

We have ongoing collaborations with existing commercial partners in a variety of projects. We are evaluating the potential of a Pirbright patented technology to improve the yield of viral vaccines in avian cells alongside partners in Vietnam, Egypt and South Africa. We are developing avian vaccines that could protect poultry against multiple diseases, including Marek's disease, Newcastle disease and infectious bursal disease. We are collaborating with pharmaceutical manufacturers to develop vaccines to protect against African swine fever, a devastating disease of pigs that is spreading globally. We collaborated with a European company to develop and test a now-patented antiviral treatment, effective against African swine fever, that may be essential in controlling an outbreak of the disease. Also, we are collaborating with a UK philanthropic organisation to develop and distribute point-of-care diagnostic and other assays to low- and middle-income countries, among others.

We also entered into 25 new confidentiality agreements, including 16 with commercial partners, allowing us to have open conversations to discuss potential partnerships, and 91 agreements related to the transfer of material to and from Pirbright and organisations in 25 different countries.

Pirbright is building a new relationship with the Vaccine and Infectious Disease Organization (VIDO), part of the University of Saskatchewan, Canada. VIDO is Canada's centre for pandemic research and performs research on a range of human veterinary diseases; it is building a Vaccine Development Centre, which will be capable of manufacturing vaccines up to containment level 3. We are collaborating with VIDO to develop an online training course on the principles and practice of working CL3 biosafety laboratories. This new partnership was supported with funds from a BBSRC International Partnering Fund, which included sharing expertise to develop training, hosting VIDO visitors at Pirbright, and a visit by several Pirbright employees to VIDO to exchange knowledge and share best practice. We will follow up on this promising initial networking by establishing new collaborative research projects and other joint activities, such as regular best practice seminars and joint conferences.

Utilising the BBSRC International Partnering Fund, Pirbright has reestablished links with the high containment laboratory in Backweston, Republic of Ireland. This involved visits to

Pirbright by the Biosafety Officer and Head of Virology Division to engage with our biosafety, engineering, facilities management, science and Reference Laboratory teams. Return visits by Pirbright's training team to perform a training gap analysis will lead to further training and exchanges of best practice between our organisations.

We are involved in several different networks, often taking a leading role in establishing international communities to exchange knowledge, collaborate and share best practice.

We, alongside nine other leading UK research institutions, are involved in the G2P-UK National Virology Consortium, a UKRI-funded national research project aimed at studying new mutations in SARS-CoV-2. This research will lead to knowledge about the transmissibility of the virus and the effectiveness of vaccines and treatments. The consortium will also work with COG-UK (Covid-19 Genomics UK Consortium) and the UK Health Security Agency.

Several of Pirbright's employees are members of the International Veterinary Vaccinology Network (IVVN), Professor Simon Graham is a network co-director and Professor Bryan Charleston is a member of the network management board. The IVVN aims to establish a network of UK and low- and middle-income countries-based researchers to form collaborations to address challenges in developing vaccines for livestock and zoonotic diseases. The Network, supported by the UKRI's MRC (Medical Research Council) and BBSRC (Biotechnology and Biological Sciences Research Council), and GCRF (Global Challenges Research Fund) funds laboratory exchange projects to facilitate the transfer of technologies and expertise between laboratories. Pirbright employees are currently involved in four such exchange projects with laboratories in Brazil, Uganda, Cameroon and the UK.

We are a member of the Biosafety Level 4 Zoonotic Laboratory Network (BSL4ZNet), a network of animal and public health organisations from five countries (UK, Canada, Australia, Germany and the USA) formed to respond to current and emerging high-consequence bio-threats. The Network, involving 15 organisations, holds regular conferences to share best practice, consider preparedness planning for future pandemics, and discuss training needs for staff in high-containment facilities, among other topics.

Pirbright is a founding member of the UK-China Centre of Excellence for Research on Avian Diseases, alongside four Chinese academic organisations. Professor Venugopal Nair OBE leads Pirbright's involvement in this network. The Centre aims to support research into major avian diseases affecting both countries by providing support for collaborative research projects, and enabling joint applications for funding, people exchange, knowledge exchange and commercialisation efforts.



RISK MANAGEMENT AT PIRBRIGHT AS A MAJOR HAZARD SITE

Risk management is critical to the safe reliable operation of Pirbright as a major hazard site.

Risk management is critical to the safe reliable operation of Pirbright as a major hazard site. It requires specialist expertise, ownership of risk by all staff, students and stakeholders, and development of Pirbright as a high-reliability organisation and a beacon of excellence.

Risk management at Pirbright has three broad objectives:

- To facilitate science excellence and capability, both in research and in diagnostic surveillance.
- To reinforce financial sustainability and high reliability.
- To ensure the work of the Institute cannot jeopardise the UK livestock population and agricultural economy, the health and safety of people, or the environment.

Risk management at Pirbright includes a risk & opportunities register, key and safety performance indicators (KPIs and SPIs), and operational planning linked to both risks and opportunities and to strategic objectives. The risk register is regularly updated and reviewed for action by Senior Leadership Board (SLB) and Trustee Directors. The risk register includes operational risks (biorisk, health and safety, security, cyber, environment, quality), continuity risks and strategic risks (reputational, enterprise, financial, political). There is an internal audit programme for critical risks and areas. Pirbright actively maintains open cooperative relationships with stakeholders, regulators and accreditation bodies. A portfolio of insurance protects Pirbright and stakeholders. Policies include property damage and business interruption; employers, public, product and management liabilities; and professional indemnity.

BIORISK

Many of the animal viruses studied at Pirbright are high-consequence pathogens, ie, are not endemic to the UK and so could cause a disease outbreak if released. Authority to work with such pathogens is via a SAPO (Specified Animals Pathogens Order) Licence issued and enforced by the Health & Safety Executive (HSE).

Pirbright's SAPO Licence is at containment level 4 (highest level) and the Institute is classified as a major hazard site. Each year there is an HSE intervention plan, and in 2022-23, this comprised three visits by specialist inspectors scrutinising electrical power systems across site, containment and control in the Reference Laboratories, and an annual performance review in conjunction with senior managers. There were also security inspections by specialist counter-terrorism police officers and audits by insurers. Biorisk management at Pirbright comprises containment engineering and operational controls. Engineering infrastructure includes sealed facilities, negative pressure cascades, high-efficiency air filtration, effluent treatment plants,

incinerators, autoclaves, fumigation chambers and automation and control systems. Operational arrangements include risk assessments, operating procedures, training and competency, waste management, transport procedures, emergency plans and exercises, audits and inspections, planned preventative maintenance (PPM), validation and testing. Pirbright has all these measures in place, and each element is examined by HSE every few years as part of its intervention plans. All high-containment facilities at Pirbright are less than 15 years old.

QUALITY AND ORGANISATION

Diagnostic surveillance and disinfectant testing at Pirbright are in UKAS-accredited testing laboratories (no. 4025) to ISO/IEC 17025-quality standard, which is integral to its role as a UK national capability and its global role as a WOA Reference Laboratory and FAO/WOAH World Reference Laboratory for specific viruses. Pirbright's management system ensures conformity with 17025 and increasingly underpins wider risk management across the Institute. The annual 17025 surveillance audit of the Reference Laboratories in April 2023 by the UK Accreditation Service gave an extremely positive outcome, with just two minor actions.

In addition to its risk management system and assurance arrangements and regulatory oversight, Pirbright actively works to improve its risk control and resilience. In 2022-23, this included BBSRC-funded capital projects for development of an integrated alarm management system to address control room human factors, replacement of obsolete controllers in air handling systems, and a new laboratory information management system (LIMS) to support diagnostic services. In 2022-23, there were also internal projects to develop a functional safety management system, to develop a human factors programme, to improve control of musculoskeletal risks, to enhance technical and organisational cyber security, to develop a competency framework, and to apply Failure Modes, Effects & Criticality Analysis in assetisation and PPM. Pirbright strives to adopt best practice, which includes coordinating the cross-sector UK Biorisk Strategic Leadership Group, active roles in the BSL4ZNet international consortium of high-containment facilities and the EuFMD consortium of European FMDV facilities, and publication of peer-reviewed papers and symposia presentations on biorisk.

RISK MANAGEMENT

Key risks are summarised in the table below.

	CONTEXT	CONTROL / MITIGATION
BIOSAFETY (UNINTENTIONAL RELEASE OF, OR EXPOSURE TO, HIGH CONSEQUENCE PATHOGEN)	Pirbright is classified by the Health & Safety Executive (HSE) as a major hazard site, because release of the high-consequence viral pathogens of livestock animals that the Institute works with (such as foot-and-mouth disease virus) could cause a serious disease outbreak, leading to destruction of many animals, extensive national disruption and severe economic loss. Some of the pathogens are also zoonotic, which means they can infect humans and cause serious illness.	Physical, engineering, operational and management measures for biological containment in compliance with relevant UK legislation (Specified Animal Pathogens Order 2008, Control of Substances Hazardous to Health Regulations 2002, Genetically Modified Organisms (Contained Use) Regulations 2014 and associated standards (including FAO/ EuFMD minimum standards for labs working with foot-and-mouth disease virus), Approved Codes of Practice and guidance, in alignment with ISO 9001, ISO 14001, ISO 35001 and ISO 45001. Also, an annual HSE Major Hazard Intervention Plan, and staff cohort of competent biorisk advisers.
BIOSECURITY (DELIBERATE RELEASE OF, OR EXPOSURE TO, HIGH CONSEQUENCE PATHOGEN)		Physical, operational and management measures for security in conformity with requirements of the UK National Counter Terrorism Security Office, with oversight by regional counter terrorism security advisers, 24/7/365 guard force, background screening of new starts, and multiple layers of physical security.
QUALITY	As well as being a leading research institute, Pirbright provides diagnostic and surveillance Reference Laboratories for a range of pathogens for the UN Food and Agriculture Organization (FAO) and the World Organisation for Animal Health (WOAH) and is funded by BBSRC UKRI and Defra as a UK national capability to provide diagnostic capacity to support the detection and control of national disease outbreaks. Pirbright's scientific output quality is therefore critical, and FAO, WOAH and the UK Government require the Reference Laboratories to be accredited to the ISO/IEC 17025 international quality standard.	Accreditation of the Reference Laboratories to ISO/IEC 17025 by the UK Accreditation Service (Pirbright is UKAS Accredited Testing Laboratory No 4025), development and implementation of a quality management system across the Institute, an internal audit programme, and alignment to ISO 9001 and other relevant ISO management standards in key operational areas in support of the Reference Laboratories.
ANIMAL WELFARE	Research with animals is an integral part of the research programmes at Pirbright and is carried out to extremely high UK standards of ethics and animal welfare, which are the most stringent in the world, addressing this critical reputational risk.	Physical, operational and management measures for animal welfare in compliance with UK legislation (Animal Scientific Procedures Act 1986) and associated Approved Codes of Practice and guidance, oversight by UK Home Office, application of 3Rs (Replace, Refine, Reduce) and ARRIVE guidance (Animal Research: Reporting <i>In Vivo</i> Experiments).

Continued overleaf

	CONTEXT	CONTROL / MITIGATION
CYBER SECURITY	<p>Pirbright has to address the cyber, continuity, people and financial threats that organisations in all sectors must deal with. Potential consequences of these are amplified for Pirbright because of the possible effects on its biological and quality risks.</p>	<p>Comprehensive portfolio of cyber-security countermeasures and management systems in conformity with requirements of UK National Cyber Security Centre 10-Steps and HSE OG86 (cyber security requirements for critical controls), with also segregation of critical resources from networks and drills, training and exercises.</p>
CONTINUITY	<p>Cyber-attack could impact containment systems and inhibit science output, unless robust tested countermeasures are in place and kept current.</p> <ul style="list-style-type: none"> National power outages could impact containment systems and inhibit science output, unless maintained tested backups and plans to manage such situations are in place and subject to regular review and exercises. 	<p>Plans for incident and crisis management, business continuity plans in alignment with ISO 22301, backups and contingencies for critical services and supplies, contingency plans for Reference Laboratories for disease outbreaks, and all plans regularly tested.</p>
PEOPLE	<ul style="list-style-type: none"> Recruitment and retention issues could lead to shortage of the essential specialist skills for safe and reliable operation of facilities and to adverse impacts on science capability, unless effective strategies are developed and implemented to mitigate such issues. Insufficient funds for maintenance could lead to reduced reliability of containment systems or of science equipment, unless there is rigorous financial control and successful winning of competitive funding. 	<p>Allowances for responsibilities and for recruitment and retention, training and development, career pathways with merit awards and a personal promotion scheme, annual performance and personal development reviews, generous pension provision and life cover, and employee benefits platform and assistance programme.</p>
FINANCIAL		<p>Rigorous systems for financial planning, control and monitoring, ongoing risk management, processes and support to facilitate preparation, submission and management of competitive funding grants and capital funding bids, commercial business development programme, Pirbright Innovations Ltd as a vehicle for commercial work, comprehensive portfolio of insurance, anti-fraud and anti-bribery policies, annual audit, and reportage to BBSRC as core funder, landlord and strategic partner.</p>
ECONOMIC	<p>Adverse effects on the UK and world economy from global and other events are a substantial threat to the funding landscape and to the operational cost base, particularly from high levels of inflation.</p>	<p>Inflation is factored into business planning, including planned increases in income from competitive funding sources and appropriate commercial activities, and savings from improved procurement and BBSRC-funded 'spend-to-save' capital works.</p>

A SUSTAINABLE FUTURE

The Institute is committed to environmental sustainability, biodiversity and reducing its carbon footprint.

Pirbright is proud to have its own Biodiversity Interest Group – staff members who give up their time to improve the wildlife environment on site. The group meet on a regular basis and complete conservation activities from the creation of biodiversity habitats to monitoring reptile populations.

The cutting-edge research undertaken at The Pirbright Institute is made possible by a range of highly specialised facilities, both in high- and low-containment environments. However, these facilities require a significant amount of energy to operate and maintain our biosecurity. The recent escalation in energy costs has only heightened the need to do more in this area. Therefore, energy conservation and reduction are very important to us.

The Institute is currently undertaking a number of energy-saving projects that will make a positive contribution. These projects are focused on reducing energy consumption, reducing our carbon emissions and making the site more efficient. The most significant of these projects is the installation of a Combined Heat and Power Plant (CHP), which became operational in summer 2022 and now provides around 75 per cent of Pirbright's power needs. Also, an accommodation review has been undertaken to consolidate operations on site and shut a number of older, less energy-efficient buildings; these closures will occur in 2023.

The Pirbright Energy Policy and Action Plan has recently been developed with help from an external energy management consultancy. An energy manager has recently been employed to deliver the plan. In addition to implementing heat recovery from the CHP, the plan includes energy setback on the most energy-hungry building – the Plowright Building – housing high containment, lighting upgrades, chiller water system optimisation and feasibility studies into energy production from solar arrays.

Pirbright's finances are also aligned to the green agenda and now operate with Barclays' Green Deposit Scheme. This allows deposits by the Institute to be earmarked against the banks' green bonds, which in turn are matched against a range of climate-related projects, including energy efficiency, renewable energy, green transport, sustainable food, agriculture and forestry, waste management and greenhouse gas emission reduction. In March 2023, the GBP market value of Green Bonds held by Barclays totalled over £2.8 billion, with a total CO₂ impact of almost 4.9 million tonnes. At 31 March 2023, the Institute had £5.1m deposited in this scheme.

The Institute continues to base its environmental objectives around the UKRI Environmental Sustainability Strategy, which drives towards a zero-carbon future by 2040. This ensures new building proposals will carefully consider the carbon impacts of facilities throughout their whole life, from the building materials used to the energy consumption and energy sources employed once operational.

The Institute's environment and energy team promote the continual improvement of energy and environment performance on the Pirbright site, monitor and review the energy and environment policy, report on and action results of inspections and audits and provide a forum for personnel to raise queries related to energy and environmental sustainability.

The following figures reflect the Institute's best estimates of its environmental impact during the 2022-23 financial year. The amount of energy consumed by the Institute is directly related to the level of science activity on the site. As grant income is also a measure of science activity, the Institute

GREENHOUSE GAS EMISSIONS	2022-23	2021-22
EMISSIONS TONNES CO₂e		
Scope 1: Gas	5,931,270	4,606,500
Scope 2: Electricity	1,167,820	2,663,940
Scope 3: Official business travel	3,600	3,860
Total emissions	7,102,690	7,274,300
Emissions per £ of grant received	0.21	0.21
ENERGY CONSUMPTION kWh		
Scope 1: Gas	31,492,412	22,238,808
Scope 2: Electricity	6,098,984	12,546,226
Scope 3: Official business travel	11,725	11,175
Total energy consumed	37,603,121	34,796,209
Consumption per £ of grant received	1.11	1.02
FINANCIAL INDICATORS		
Total energy cost £'000	3,679	2,033
Energy cost per £ of grant received	10.89	5.94p
Cost of official business travel	6	8
Cost of official business travel per £ of grant received	0.0002p	0.0002p

As mentioned above, the Institute started running its own CHP in the summer of 2022. This generates electrical power for the site from gas. This is the reason for the significant increase in gas consumption in the year, mirrored by a significant reduction in electricity consumption. Despite this resulting in an increase in the amount of energy consumed, the overall greenhouse gas emissions fell due to gas being a more environmentally friendly energy source. The other significant energy projects undertaken in the year include the upgrade of lighting, saving c.65k kWh in the year and chilled water optimisations saving c.300k kWh during 2022-23.

As with all organisations in the UK, the Institute's energy costs increased in line with the rapid increase in wholesale energy prices following the invasion of Ukraine by Russia.

OUR PEOPLE

Our scientists are also supported by highly skilled on-site specialists in health, safety, biosecurity, engineering and research services, as well as our corporate functions such as IT, finance, HR and security.

EMPLOYEE ENGAGEMENT

In 2022, we launched our revised Pirbright Institute Research Culture Statement which demonstrates our passion for the work we do and provides a clear set of expectations to guide our thinking and planning. This statement also ensures our approach continually and consistently supports and directs the work we undertake that enables the Institute to operate as a top-performing organisation.

We are committed to a culture that is open and inclusive, where difference is celebrated and the contributions of all are encouraged, valued and respected. We have also committed to embed equality into every aspect of our work. This commitment is reflected in our desire to create and enable an environment where everyone feels welcome and can be themselves within the workplace. We are committed to fostering equality, diversity and inclusion (EDI) as a way of working and this has become the golden thread through all our processes and decision making.

Providing opportunities for individual recognition and reward is central to our Pirbright research culture. In addition to our employee reward package, in 2021 we introduced two new reward schemes. The first was Personal Promotion – this scheme recognises the work and commitment by individuals delivering over and beyond their current role scope and responsibilities by rewarding this with a personal grade promotion. The second is to recognise the additional dedication and commitment of individuals not yet ready for promotion and allows a within-band salary increase. In 2022, 28 members of staff achieved success through these reward schemes. Successful employees were celebrated in person and via the intranet.

In addition to individual recognition, we also acknowledge and recognise exemplary team effort. Teams are nominated by and voted for by their peers. The winners of these awards are celebrated at our Christmas event.

As indicated above, EDI is reflected across all activities and decision making. EDI is the golden thread that binds the Institute together. Reporting to the SLB, and empowered to make operational decisions, our EDI Committee, with representation from across the Institute, meet regularly to manage and/or escalate as appropriate any topics or issues identified. As an example, this committee was instrumental in finding a suitable location for and development of our multifunction room. They are now exploring how additional equality charters can support our wider EDI ambitions. The Committee sought out and has been granted funding to employ a dedicated EDI manager, reporting to the Chair, to drive our action plan and further embed EDI into all that we do. This post will initially be on a fixed-term basis, supported by the Institute Development Grant (IDG).

Representatives from the EDI Committee work closely with HR and Health and Safety and Bio Safety (HSBS) in delivering a comprehensive well-being programme. Consisting of information and awareness, these sessions are conducted online and in person via courses, workshops and webinars covering a wide range of physical, cultural and mental health related topics.

Additionally, supported by the EDI Committee, we have three staff network groups: the Rainbow network, Neurodiversity network and Carers network. These networks are developing, with a small and growing number of participants. The Institute provides meeting space and small incidental financial support. The groups meet regularly to share information, highlight key external support mechanisms with signposting and provide mutual support.

HOW WE COMMUNICATE

Accurate and timely communication is key to us keeping our workforce informed and updated. There are several avenues available to facilitate both direct information sharing and two-way dialogues.

In addition to the various groups and committees, there are formal regular information-sharing forums, such as a quarterly director-led staff briefing, monthly management forum meetings, newsletters and ad hoc focus groups, etc. SLB conduct biweekly 'site walks', meet a member of SLB for coffee, and SLB drop-ins. HR and Finance also conduct regular drop-in sessions. Personal-related blogs are encouraged, and general information is posted on the intranet and site-wide screens. To provide a platform for knowledge sharing, talks led by our scientists and/or external visitors are scheduled on a monthly basis for a site-wide audience.

The Institute conducts biannual staff engagement surveys that are followed up with focus groups to further develop the feedback and enable employees to co-develop action plans with a view to continuous improvement.

We have increased and enhanced our breakout areas across site with soft furnishing to encourage informal catch-ups and more relaxed one-to-one meetings.

Additionally, employees have various options available to raise a concern confidentially, via our active-bystander and whistleblowing processes, or directly with senior leaders or HR.

TRAINING AND DEVELOPMENT

Employees are encouraged to discuss with their line manager the training opportunities available and courses that would enhance career aspirations.

Our dedicated L&D manager has developed a comprehensive training programme that is available to all employees with an online booking process. Additionally, training options are advertised in the HR newsletter, on the intranet and in all staff emails. Our training programme includes role-specific courses and opportunities for personal qualifications. These range from personal licences for animal husbandry to driving a forklift truck. We also deliver career development opportunities such as project management or how to recognise unconscious bias, within teams or through recruitment. Additionally, L&D have delivered management training on leading, promoting and supporting EDI, managing teams and an emerging leaders programme for our upcoming leaders of tomorrow.

RETENTION AND RECRUITMENT

As a world-renowned research institute, we attract top talent from around the globe, with staff and students in 2022 representing 64 different nationalities, contributing to the enrichment of our overall cultural diversity. To further enable this diversity, the Institute supports overseas candidates with visa costs and the global talent mobility scheme.

In 2022, anonymisation was introduced through our recruitment platforms for the first CV sift, further driving diversity and inclusion and reducing any potential impact from unconscious bias.

Through 2022, our attrition was on average 22 per cent. This is much higher than we have historically experienced (10-15 per cent) and largely due to the effects of the much publicised global 'Great Resignation'. The UK talent market was particularly volatile, and candidate driven. Recruitment processes were shortened as organisations competed for the best talent, and candidates were actively engaged with multiple opportunities enabling them to move quickly as roles were offered. Some skill sets, such as data analysis, electrical engineering and quality proved to be 'hard-to-fill roles', taking an average of 25 weeks. Additionally, offered candidates were often counter-offered, which resulted in candidates withdrawing with little notice. We recruited 149 vacancies through 2022, (this was a reduction from 178 in 2021), with 197 separate campaigns. Thirty-five per cent of these vacancies were filled through our internal redeployment process as a result of grant funding ending for specific projects or for those employees looking for development opportunity and progression.

SUMMARY OF THE GENDER GAP

The gender pay gap is defined as the difference between the mean or median earnings of male and female employees, expressed relative to male earnings. The mean pay gap is the difference between the average hourly earnings of men and women. The median pay gap is the difference between the midpoints of hourly earnings of men and women.

The Institute's mean hourly pay gap has reduced slightly, from 10.6 per cent in 2021 to 10.3 per cent in 2022, a decrease of 0.3 per cent. However, the median hourly gap has increased slightly from 5.8 per cent in 2021 to 6.6 per cent in 2022.

The full report can be found on our website.

The Institute is pleased to have maintained a relatively equal gender balance in terms of employee numbers for the last five years. We offer a range of flexible working arrangements and family-friendly policies, which enables us to attract and retain equal numbers of women and men. We are also able to report that both men and women have benefited from our enhanced flexible and family-friendly policies, including shared parental leave.

The reduced mean (average) pay gap demonstrates the continuing effort across the Institute to ensure equity in all roles. We have reported that women receive higher pay than men in our lower quartile. However, there are 20 per cent more women in this quartile, and this represents a small increase from 57.6 per cent in 2021 to 59.8 per cent in 2022.

However, there does appear to be a discrepancy at the upper quartile. This is reflected by the higher percentage of men (62 per cent) within this quartile. This also reflects a slight reduction in women in this quartile from 39.8 per cent in 2021 to 38.5 per cent in 2022.

While we are confident that men and women are paid equally for carrying out equivalent roles across the Institute, we recognise the need to redress the gender balance particularly at the lower quartile with a mean gender pay gap in favour of females of -5.2 per cent (an increase from -3.3 per cent in 2021).

OUR STAFF AND STUDENT PROFILE

There continues to be an almost equal balance of male and female employees across the Institute, with approximately 49 per cent male versus 51 per cent female, although this does differ between directorates and capability, specifically our Estate Management Services experiencing a gender balance challenge. Staff total headcount at the year-end was 349 with an additional 55 students.

GENDER BREAKDOWN BY DIRECTORATE (EXCLUDING STUDENTS):

Directorate	Female	Male
Science	56%	44%
Capability	32%	68%
Corporate	47%	53%
Risk and Assurance	50%	50%

INNOVATIONS AT PIRBRIGHT

Commercial activity is an important element of the Institute's strategy to diversify funding streams and ensure a sustainable organisation for the future. Pirbright has established a commercial arm, Pirbright Innovations, to capture and manage operations that attract income on business activities and services.

Pirbright established a team in 2020 to support the development and delivery of training courses to external customers. This team was originally named SPiE (Sharing Pirbright's Expertise). However, in early 2023, it was rebranded to Pirbright Training. The aim of the team remains to share Pirbright's expertise, especially in three key areas: control of viral diseases of livestock, high containment engineering and biosafety practices. The team can develop training in different formats, including face-to-face, online instructor-led and self-directed eLearning, and all content is developed in a format to make learning as engaging as possible, including through the use of text, quizzes, highly effective graphic design, and interactive videos.

Pirbright currently has nine disease control and two engineering eLearning courses available for purchase. The University of Surrey has purchased all of the disease control courses for inclusion in its final year veterinary student curriculum. The Animal and Plant Health Agency (APHA) has purchased access to four courses for inclusion in its training programme on exotic diseases to APHA veterinarians; in addition, APHA has offered the module on avian influenza to UK veterinarians to support the avian influenza outbreak during 2022-23. The two engineering courses, which are also available as a face-to-face training course at Pirbright, have been delivered to several companies, including the maintenance company of the high-containment laboratory in Backweston, Republic of Ireland.

In a joint effort between the knowledge exchange and commercialisation team and Pirbright Training, we developed and launched a new eLearning course aimed at providing

academic researchers with knowledge of the vaccine development process after a candidate vaccine leaves the academic laboratory. Understanding the requirements of industrial partners to develop, evaluate and obtain regulatory approvals for a new vaccine will help researchers to plan their early work in such a way that it supports downstream development work, without the need to repeat any steps. The content includes text, graphics and video from internal and external experts. It has been launched internally only, but we will consider making it available externally, especially via some of our networks, like the international veterinary vaccinology network.

Pirbright restarted the provision of on-site training on laboratory diagnostic techniques for various viral diseases of livestock. In 2022-23, we delivered courses on diagnosing foot-and-mouth disease and lumpy skin disease at Pirbright, and several of our reference laboratory staff visited the Philippines as part of a World Organisation for Animal Health (WOAH) Twinning project. These face-to-face courses were cancelled during the COVID-19 pandemic, though Pirbright did move to online delivery during that time.

Pirbright has been working closely with the Vaccine and Infectious Diseases Organization (VIDO) of the University of Saskatchewan, Canada, to develop an introductory eLearning course on the principles and practices of CL3 laboratories. This training explains the principles behind biosafety and shows examples of how these principles are addressed by Pirbright and VIDO. It will be used by both Pirbright and VIDO as part of their ongoing training for high-containment facility users.



The BBSRC National Virology Centre: The Plowright Building and The BBSRC National Vaccinology Centre: The Jenner Building © Edward Brydon

INVESTING IN OUR FUTURE

Continual enhancement of the facilities on the Pirbright site is imperative to maintain and support the world-class science and research undertaken. BBSRC continues to provide considerable capital funding to the Institute through the award of capital grants, with much of the investment recently requested being for projects that support and enhance Big Data Science.

THE AWARDS RECEIVED DURING THE YEAR INCLUDED:

PROJECT: FULL SPECTRUM SPECTRAL FLOW CYTOMETER AND CONVENTIONAL FLOW CYTOMETER FOR THE SAPO CL4 LABORATORIES (BBSRC NATIONAL VIROLOGY CENTRE: THE PLOWRIGHT BUILDING)

SCIENTIST: DR KATY MOFFAT

VALUE: £573,322

FUNDER: BBSRC – INVESTMENT GATEWAY PANEL (CAPITAL FUNDING)

The flow cytometry core facility is a major resource for many scientists in the Plowright Building, providing access to two high-end flow cytometry analysers and a fluorescence-activated cell-sorting service. The flow cytometry facility supports the ISPGs: “Understanding and Preventing Viral Diseases” and “Enhanced Host Responses for Disease Control”, competitively funded UKRI projects, studentships and competitively funded external projects.

Both the current cytometers are over 12 years old and have exceeded their ten-year life expectancy. The purchase of new instruments has allowed continuity of the science programmes, reducing the risk of critical sample loss if an instrument became irreparable due to age-related failure. Secondly, during *in vivo* experiments we have seen an increase in the requirement for access to flow cytometers that exceeded previous capacity. Therefore, the new flow cytometers have provided capacity to support current and future projects, reduce pressure on existing flow cytometers and provide redundancy.

Finally, our research, using conventional flow cytometers, had been limited by the availability of fluorophore-antibody combinations. The addition of a spectral flow cytometer to the facility increases significantly our ability to detect more fluorophore combinations allowing for a greater in-depth characterisation of immune responses. This project was completed in the financial year.

PROJECT: CONTAINERISED DATA CENTRE (CDC) TO CONSOLIDATE AND INCREASE IT CAPACITY AND FACILITATE DATA DRIVEN BIOSCIENCE

PROJECT MANAGER: IT INFRASTRUCTURE TEAM

VALUE: £1,056,068

FUNDER: BBSRC – INVESTMENT GATEWAY PANEL (CAPITAL FUNDING)

Operating such a complex site as Pirbright creates significant and diverse demands on IT systems that must be extremely resilient. Over the last three years, we have invested in and implemented several major new systems and IT infrastructures that have dramatically increased the capability of our scientists and support staff to deliver science across a high-hazard site. All these upgrades have been necessary to support the demands of our BBSRC strategic science while remaining within regulatory compliance and in response to Pirbright embracing data-driven approaches to fundamental bioscience.

This largely proactive approach to the planned development of science and infrastructure on site has greatly increased the demand for space within our data centres that house our critical IT infrastructure. Our two data centres were close to capacity, making expansion and replacement with any parallel running risky or impossible, therefore compromising resilience.

Therefore, it had become of critical importance to provide greater IT network resilience across site, consolidate our infrastructure and provide space to expand storage both for our building automation and control systems (BACS), which manage our buildings, and provide increased analytical capability. After considering several options, the most beneficial solution based on cost, immediate capacity, future capability, project complexity and potential site development in the future was to purchase a new Containerised Data Centre.

This project was started in the financial year and will be completed in the summer of 2023.

PROJECT: INCREASING AND ENHANCING SEQUENCING CAPACITY TO BETTER SUPPORT DATA RICH AND DATA INTENSIVE BIOLOGY

SCIENTIST: DR GRAHAM FREIMANIS

VALUE: £492,474

FUNDER: BBSRC – INVESTMENT GATEWAY PANEL (CAPITAL FUNDING)

This investment aims to strengthen the unique high-throughput sequencing

capabilities in SAPO4 containment within the BBSRC National Virology Centre: The Plowright Building. The procurement of a high-throughput sequencer – a NextSeq-2000 (Illumina) – and a low volume robotic liquid handler – a Mosquito HV (SPTlabtech) – will both complement existing equipment, but also add scalability, flexibility and standardisation to both library

preparation and sequencing capabilities. This will benefit currently funded BBSRC UKRI Institute Strategic Programme Grants (ISPGs), providing enhanced support for read intensive protocols, including bulk RNA-Seq, single-cell transcriptomics and spatial technologies.

This project was completed in the financial year.

GOVERNANCE AND MANAGEMENT

The Pirbright Institute is an independent company, limited by guarantee and a registered charity. It is governed by a Board of non-executive Trustee Directors who provide strategic input to the Senior Leadership Board at Pirbright. Science at the Institute is reviewed by an independent group of leading researchers who comprise the Science Advisory Board and whose role is to provide advice and guidance on science strategy and direction.

ORGANISATION AND GOVERNANCE

The Annual Report provides information for legal purposes on the charity, its business activities and its main achievements. The financial statements have been prepared in accordance with the Charities Act 2011, the Companies Act 2006, the Memorandum and Articles of Association and Accounting and Reporting by Charities: Statement of the Recommended Practice applicable to charities preparing their accounts in accordance with Financial Reporting Standards applicable to the UK and Republic of Ireland (FRS102), effective 1 January 2015.

THE BOARD OF TRUSTEE DIRECTORS

The Trustee Directors of the Board of Trustee Directors serving during the year and since the year end were:

- Professor Vince Emery - Chair
- Ian Bateman (resigned 18 November 2022)
- Ian Black (resigned 7 June 2023)
- Rona Chester
- Jon Coles
- Emma Griffin
- Alison Hardy
- Dr Paul Logan
- Dr Linda Magee OBE (appointed 30 January 2023)
- Professor Deenan Pillay (appointed 16 November 2022)
- Jane Tirard
- Professor Mike Turner (appointed 17 November 2022)

Trustee Directors are appointed by the existing Trustee Directors for three years, when they are eligible for reappointment for a second term. In exceptional circumstances, Trustee Directors can be appointed for a further three years beyond that giving a maximum of nine years.

Prior to the recruitment of a new Trustee Director, a skills audit of all Trustee Directors is undertaken to determine the skills required of the incoming Trustee Director. The Trustee Directors then appoint a recruitment agency specialising in non-executive and Trustee Board Member appointments to undertake the recruitment on their behalf. This process is managed by the Nominations and Governance Committee, with interviews undertaken by members of this committee and the Chair of the Board of Trustee Directors.

TRUSTEE DIRECTORS PURPOSE

The purpose of the Trustee Board is to ensure that the Institute carries out its purpose for the public benefit in accordance with its memorandum, articles of association and governing law, and to ensure that they comply with their duties under Section 4 of the Charities Act 2011 to have due regard to the public benefit guidance by the Charity Commission.

The Trustees Directors are satisfied they have complied with their duty in section 4 of the Charities Act 2011 to have due regard to public benefit guidance published by the Charities Commission. Based on this guidance, and as described in the Trustee Directors' Report, the Trustee Directors believe the activities of The Pirbright Institute to be charitable in nature.

The main focus of the Trustee Directors is on leadership, strategy, performance and assurance, with a focus on maintaining Pirbright's reputation, staff and infrastructure while protecting the Institute's sustainability.

Furthermore, the Trustee Directors must act in the Institute's best interests; they must ensure that the Institute's resources are managed responsibly; they must act with reasonable care and skill; they must ensure that the Institute complies with all statutory accounting and reporting requirements; and they must meet the oversight requirements expected of a major hazard site.

The Trustee Board has established three committees to support it in its work: the Finance and Audit Committee, the Risk and Assurance Committee and the Nomination and Governance Committee.

The Trustee Directors have also established a Scientific Advisory Board, comprised of independent leading scientists, to provide advice, guidance and recommendations regarding the scientific strategy and direction of the Institute. In addition, the Science Advisory Board provides assurance to the Trustee Directors on the quality of science and research, the relevance and importance of the scientific strategy, and advise on the Institute's positioning within the international scientific landscape.

TRAINING OF TRUSTEES

The Institute continually reviews its practices for induction and ongoing Trustee Director training. All Trustee Directors joining Pirbright undergo an extensive training, which covers:

- Building an understanding of the nature of the Institute, its purposes, and the stakeholders in which it operates. In particular, this will cover the importance of leadership in a major hazard environment.
- Developing understanding of the role, including legal duties and ethical expectations.
- Building a link and relationship with the Institute and its employees, beyond that of the SLB.
- Developing an understanding of the Institute's main relationships and future opportunities.

Trustee Directors are encouraged to attend appropriate external training events where these will facilitate the undertaking of their role and understanding of their responsibilities.

The Trustee Directors have recently undertaken a review of how effective the Board is which was facilitated by Campbell Tickell, an organisation with a specialism in Board governance. A plan of actions arising from this review is currently being implemented, including a self-appraisal of adherence to the Charity Governance Code for England & Wales (as updated in 2020).

CONFLICTS OF INTERESTS

Trustee Directors and any co-opted members are required to declare any conflicts or potential conflicts of interests at Trustee Board and committee meetings, and these are recorded in the minutes. Depending on the conflict, the Chair may require a Trustee Director or co-opted member to either leave the meeting, or not take part in a discussion or decision on a particular Issue. During the year, no Trustee Director declared a conflict of interest.

TRUSTEES' INDEMNITY INSURANCE

The Institute maintains liability insurance for the Trustee Directors, with an annual aggregate cover limit of £10m for all claims against them in that capacity. The Trustee Directors have also been granted a qualifying third-party provision under section 233 of the Companies Act 2006. Neither the Institute's indemnity nor insurance provides cover in the event that a Trustee Director is proved to have acted fraudulently or dishonestly. The premium and related costs in respect of this policy were £36,940 (2022: £37,676).

COMPLAINTS

The Trustee Directors and the staff of the Institute are committed to providing a high-quality, responsive and transparent service to all the people and organisations with which we interact. However, the Trustee Directors are aware that sometimes Pirbright will not reach the high standards they have set themselves, so they have established a complaints procedure for external parties to raise a complaint against the Institute.

During the year no complaints were received (2022: None). Full details of the complaints procedure can be found on the Institute's website.

RELATED PARTIES

The Institute's subsidiary undertaking, Pirbright Innovations Limited, having been dormant for a number of years, was reactivated during the year. The subsidiary is being used as a special-purpose vehicle with regard to the project to construct the UK Centre for Veterinary Vaccine Innovation and Manufacturing on the Pirbright site. The Trustee Directors consider that the activities of the subsidiary are not material to the financial position of the Pirbright Institute Group and have therefore elected not to produce consolidated financial statements.

Genomia Management Limited was formed on 16 April 2004 and is also a company limited by guarantee. The company was established by way of grants from the Department of Innovation, Universities and Skills and the European Regional Development Fund. The company manages the Genomia Fund, the objective of which is to assist in the development of research output from the members into commercially realisable opportunities. The Institute has equal membership in this company with The Roslin Foundation, Moredun Research Institute, Rowett Institute of Nutrition and Health and Scotland's Rural College (SRUC).

GOVERNANCE STRUCTURE

THE INSTITUTE HAS FIVE MEMBERS

Chair of the
Trustee Board

Chair of the
Science Advisory Board

BBSRC
UKRI

National
Farmers' Union

Royal College of
Veterinary Surgeons

BOARD OF TRUSTEE DIRECTORS

Professor
Vince Emery
(Chair)

Rona Chester
(Deputy Chair)

Jon Coles

Emma Griffin

Alison Hardy

Dr Paul Logan

Dr Linda Magee

Professor
Deenan Pillay

Jane Tirard

Professor
Mike Turner

SENIOR LEADERSHIP BOARD

Professor Bryan Charleston –
Director and CEO

Professor John Hammond –
Director of Research

Helen Watts –
Director of Finance and
Company Secretary

Dr Andrew White –
Director of Risk and
Assurance

SCIENCE ADVISORY BOARD

Professor Geoffrey Smith – Chair

Professor Jeffery Almond

Professor Martin Beer

Professor Persephone Borrow

Professor Mary Cameron

Professor Gary Entrican

Professor Paul Kellam

Professor Deenan Pillay

Professor Eleanor Riley

Professor David Rowlands

Professor Helen Sang

Dr Samuel Thevasagayam

FINANCE AND AUDIT COMMITTEE

Rona Chester – Chair

Jon Coles

Jane Tirard

NOMINATIONS AND GOVERNANCE COMMITTEE

Alison Hardy – Interim Chair

Jon Coles

Linda Magee

RISK AND ASSURANCE COMMITTEE

Paul Logan – Chair

Emma Griffin

Mike Turner

BOARD OF TRUSTEE DIRECTORS



CHAIR OF THE BOARD OF TRUSTEE DIRECTORS

PROFESSOR VINCE EMERY

Professor Emery is President of the University of Hertfordshire's branch campus hosted by Global Academic Foundation in Egypt and is also Emeritus Professor of Translational Virology at the University of Surrey and a Visiting Professor at the University of Hertfordshire, UK. His research in virology, spanning some 35 years, aims to provide an interdisciplinary approach to understanding viral infections in immunocompromised hosts.



DEPUTY CHAIR OF THE BOARD OF TRUSTEE DIRECTORS

RONA CHESTER

Rona is a fellow of the Institute of Chartered Accountants with over 30 years' experience in leading financial teams in both the public and private sector. More recently, Rona was the Chief Operating Officer at Sport England, the lottery distributor, where additional responsibilities included grants management, commercial and IT, as well as contributing to the development of the organisation's strategy.



JON COLES

Jon was a senior partner at Brunswick Group LLP, a leading international communications consultancy, where he advised the Boards of Directors of global groups on strategic communications and corporate reputation. His particular focus was on clients in the pharmaceutical, biotechnology and agriculture industries.



EMMA GRIFFIN

Emma has over 25 years' professional experience across a multitude of sectors in cyber security, technology and regulatory compliance. She participates on several advisory boards to influence and drive cyber security development and solution innovation and regularly participates in industry and regulatory forums as an adviser and speaker. Emma is actively involved in promoting diversity and inclusion and seeks to encourage careers in science and technology to minority groups.



ALISON HARDY

Alison is a solicitor and partner with City law firm Ashurst LLP, where she leads the real estate dispute resolution practice. Alison is experienced in all aspects of commercial real estate. She is actively involved in diversity and inclusion and is the partner sponsor of Ashurst's social mobility and inclusion network, which is working to remove barriers to entry into and progression within the legal profession.



DR PAUL LOGAN

Prior to his retirement in 2020, Paul was a senior civil servant in the Health and Safety Executive (HSE), which he had joined as a regulatory scientist. During his time in HSE, he chaired a number of industry/government committees. He was Director of the division in HSE with responsibility for regulation of major hazards industries, including chemical manufacturing, oil refineries, explosives manufacture and storage, and high-containment laboratories.



DR LINDA MAGGE OBE

Linda is a life sciences sector specialist in the UK Government's Department for Business and Trade. She supports the UK sector team and international network to identify opportunities for the UK economy and businesses in life sciences and healthcare. Linda was previously Chief Operations Officer of NIHR Manchester Academic Health Science Centre (MAHSC) and Commercial Director of Greater Manchester Academic Health Science Network (GMAHSN). She also co-founded Manchester Biotech and set up Bionow while working for the Northwest Development Agency. Linda established the National Biomanufacturing Centre at Speke. She was awarded an OBE in 2009 for services to biotechnology.



PROFESSOR DEENAN PILLAY

Deenan is Emeritus Professor of Virology at University College London. He has been a clinical virologist for the last 30 years, working within the Public Health Laboratory Service, Health Protection Agency, NHS and academia. His main interest has been the use of antiviral therapy, and emergence of drug resistance, particularly regarding HIV. From 2013-2019, he was Director/CEO of the Wellcome Trust-funded Africa Health Research Institute. He is currently Non-Executive Director of an NHS Trust, and until recently, chaired Independent SAGE, a scientific group focused on public engagement and discussion on Covid-19.



JANE TIRARD

Jane has over 30 years of experience of all aspects of strategic financial planning, financial management, financial accounting, systems and processes. As a result of her roles, she has a working knowledge of government departments, funding councils, academia and the pharmaceutical industry. Her last position was as the Director of Finance and Corporate Services at the Diamond Light Source, the UK's national synchrotron science facility.



PROFESSOR MIKE TURNER

Mike is a WHO consultant for neglected tropical diseases, Honorary Professor at the University of Glasgow and former Director of Science at Wellcome. He led portfolios for funding responses to emerging viral diseases, with a focus on Africa, India and SE Asia. Previously, he was a Professor of Parasitology at the University of Glasgow, researching trypanosome parasites, malaria genomics and schistosomes.

SENIOR LEADERSHIP BOARD

The Board of Trustee Directors consider that the Senior Leadership Board (SLB) is accountable for Institute strategy, risk mitigation and governance of day-to-day operational delivery. The SLB comprises the Institute Director and the Directorate heads; namely Director of Risk and Assurance, Director of Research and Director of Finance and Company Secretary. The remuneration and benefits of the SLB is based on the agreed and recognised salary banding for the Institute and is reviewed annually.



PROFESSOR BRYAN CHARLESTON FRS – DIRECTOR AND CEO

Professor Charleston joined The Pirbright Institute (formally known as the Institute for Animal Health) in 1994 and focused on studies of the immune response to viral infections in cattle. His research group's efforts are focused on understanding the immune response to foot-and-mouth disease virus in cattle to develop novel vaccines.



PROFESSOR JOHN HAMMOND – DIRECTOR OF RESEARCH

John contributes to all aspects of Institute senior management and focuses in particular on the science-operations interface and research culture at the Institute. He is also Head of Programme: Enhanced host responses for disease control and leads the Immunogenetics Group at the Institute.



HELEN WATTS – DIRECTOR OF FINANCE AND COMPANY SECRETARY FCA

As the Institute's Director of Finance and Company Secretary, Helen's remit includes all aspects of the Institute's finances as well as managing the IT and procurement functions. She is also a member of the Development Programme Board, as well as being a member of a number of working groups overseeing many aspects of the Institute's operations.



DR ANDREW WHITE – DIRECTOR OF RISK & ASSURANCE

Andrew leads on all aspects of risk management including biosafety, health and safety, quality assurance, environment, crisis management and business continuity, biosecurity, and wider enterprise risks such as financial, informational, operational, reputational and strategic. Andy is a biochemist by training and holds a PhD in protein structure and chemistry.

SCIENCE ADVISORY BOARD

The Institute's Science Advisory Board (SAB) provides valuable strategic oversight, input and advice on the Institute's science strategy and scientific directions.



PROFESSOR GEOFFREY L SMITH – CHAIR

Professor Geoffrey L. Smith is Professor of Pathology at the University of Cambridge. His research studies the interactions of poxviruses with the host cell and immune system. Together with Michael Mackett, he developed vaccinia virus (the smallpox vaccine) as an expression vector and established the principal of using genetically engineered viruses as live vaccines.



PROFESSOR JEFFREY ALMOND is an Oxford Martin Visiting Fellow with the Oxford Martin Programme on Vaccines and was former Vice-President and Head of Discovery Research and External R&D at Sanofi Pasteur and Visiting Fellow at the William School of Pathology, University of Oxford.



PROFESSOR DR MARTIN BEER is head of the Institute of Diagnostic Virology at the FLI, working with transboundary animal diseases, zoonosis and emerging diseases like avian influenza virus, Schmallenberg virus and pestiviruses.



PROFESSOR PERSEPHONE BORROW is a viral immunologist whose research interests centre on understanding virus-immune system interactions and their roles in determining the balance between virus clearance versus viral persistence and associated pathogenesis.



PROFESSOR MARY CAMERON is a Professor of Medical Entomology in the Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine (LSHTM). Mary has over 30 years' experience in delivering international-level field and laboratory research focusing on the surveillance and control of a wide range of vector-borne diseases, particularly leishmaniasis.



PROFESSOR GARY ENTRICAN is an immunologist who has specialised in the development of vaccines and diagnostic tests for the control of infectious diseases of ruminant livestock. He has developed many immunological tools and technologies, including kits for in vitro differentiation of ruminant dendritic cells and cytokine ELISAs.



PROFESSOR PAUL KELLAM is a Professor of Virus Genomics at Imperial College London and Vice President of infectious diseases & vaccines at Kymab Ltd, UK. His research has identified how HIV develops resistance to antiviral drugs and has identified the first influenza disease severity gene in people hospitalised with influenza virus. His laboratory contributed to the international Ebola virus genome analysis.



PROFESSOR DEENAN PILLAY is Emeritus Professor of Virology at University College London and a clinical virologist with a focus on antiviral therapy, drug resistance and HIV. He is a Non-Executive Director of an NHS Trust and was the former Chair of Independent SAGE, which discusses Covid-19 with the public.



PROFESSOR ELEANOR M RILEY'S

research focuses on mechanisms of immunity to malaria in humans and in animal models, how the immune response can contribute to disease, how immunity affects the distribution and transmission of the parasite and how malaria infection affects resistance to other infections. In addition, Eleanor has a longstanding interest in the biology of natural killer (NK) cells and their role in resistance to infection.



PROFESSOR DAVID ROWLANDS is an emeritus Professor of Molecular Virology at the University of Leeds. He worked at the Animal Virus Research Institute (now The Pirbright Institute), before transferring to industry, holding positions at Wellcome Biotech and the Wellcome Foundation and finally moved into academia at the University of Leeds. He has a lifetime of experience studying both human and animal viruses.



PROFESSOR HELEN SANG'S main research focus at The Roslin Institute has been the development of technologies for genetic modification of the chicken, which are applied in basic biomedical research, biotechnology and investigating the potential for developing disease resistance in production chickens.



DR SAMUEL THEVASAGAYAM leads the Livestock initiative within the Agriculture Development Program at the Bill & Melinda Gates Foundation where he oversees the implementation of foundation's strategy in animal health, animal production and livestock systems. Sam joined the Gates Foundation in 2012.

FINANCE AND AUDIT COMMITTEE

The committee provides assurance and advice to the Board in relation to the Institute's finances and other assets; business planning and corporate reporting; the Institute's strategic risks; and the statutory external audit and the programme of internal audits covering the corporate functions.

RONA CHESTER – CHAIR

JON COLES

JANE TIRARD

NOMINATIONS AND GOVERNANCE COMMITTEE

This committee provides assurance to the Board in relation to all governance matters, with the aim of obtaining the highest possible standard of governance and compliance. The Institute has adopted the Charity Governance Code with this committee responsible for its implementation.

ALISON HARDY – INTERIM CHAIR

JON COLES

LINDA MAGEE

RISK AND ASSURANCE COMMITTEE

This committee provides assurance to the Board on the arrangements to meet legal duties and to manage risk within the Institute, working in consort with the Risk and Assurance Strategy and Plan, to oversee all risk management systems, controls and processes that may have an impact on the Institute's ability to meet its objective.

PAUL LOGAN – CHAIR

EMMA GRIFFIN

MIKE TURNER

STATEMENT OF TRUSTEE DIRECTORS' RESPONSIBILITIES

The Trustees Directors, who are also Directors of the charitable company for the purposes of company law, are responsible for preparing the Trustees' Report, incorporating the Strategic Report in accordance with applicable law and regulations.

COMPANY LAW REQUIRES THE BOARD OF TRUSTEE DIRECTORS TO PREPARE FINANCIAL STATEMENTS FOR EACH FINANCIAL YEAR.

Under that law the Board of Trustee Directors has elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable laws), including FRS102 (the Financial Reporting Standard applicable in the UK and Republic of Ireland). Under company law the Board of Trustee Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the charitable company and the incoming resources and application of resources, including the income and expenditure, of the charitable company for that period.

In preparing these financial statements, the Board of Trustee Directors is required to:

- select suitable accounting policies and then apply them consistently,
- observe the methods and principles in the Charities SORP (FRS102),
- make judgments and accounting estimates that are reasonable and prudent,
- state whether applicable UK Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements, and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charitable company will continue in business.

The Board of Trustee Directors is responsible for keeping adequate accounting records that are sufficient to show and explain the charitable company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006. It is also responsible for safeguarding the assets of the charitable company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Trustee Directors are satisfied that they have complied with their duty in section 4 of the Charities Act 2011 to have due regard to public benefit guidance published by the Charity Commission and, based on this guidance, the Trustees believe the activities of the Institute to be charitable in nature.

The Trustee Directors recognise that they must act in a way they consider, on good faith, would be most likely to promote the success of the Institute for the benefit of its members as a whole, and in doing so have regard, among other matters to:

- the likely consequences of any decision in the long term,
- the interests of the Institute's employees and students,
- the need to foster the Institute's relationships with key stakeholders,
- the impact of the institute's operations on the community and the environment,
- the desirability of the Institute to maintain a reputation for high standards of business conduct, and
- the ability to act fairly as between members of the Institute.

The Trustee Directors recognise that they have a responsibility to engage with the employees and students who work at the Institute. To fulfil this responsibility staff are invited to each meeting of the Board of Trustee Directors to give a presentation and answer questions on their area of expertise, Trustee Directors regularly undertake walk rounds of the new facilities on site, they attend official opening of new buildings and the Institute's celebration day; all of these give the Trustee Directors the opportunity to meet staff and students and engage with them to better understand the Institute, the work it undertakes and any concerns that staff and students may have.

The Board of Trustee Directors confirms that:

- so far as each Trustee Director is aware, there is no relevant audit information of which the charitable company's auditor is unaware, and
- the Trustee Directors have taken all steps that they ought to have taken to make themselves aware of any relevant audit information and to establish that the auditor is aware of that information.

The Report of the Trustee Directors incorporating the Directors' Report and the Strategic Report was approved and signed on behalf of the Trustee Board.

PROFESSOR VINCE EMERY

Chair of the Board of Trustee Directors
Date: 20 July 2023



INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF THE PIRBRIGHT INSTITUTE

OPINION ON THE FINANCIAL STATEMENTS

In our opinion, the financial statements:

- give a true and fair view of the state of the Charitable Company's affairs as at 31 March 2023 and of its incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements of The Pirbright Institute ("the Charitable Company") for the year ended 31 March 2023 which comprise the statement of financial activities, the balance sheet, the cash flow statement, the principal accounting policies and notes to the financial statements. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland* (United Kingdom Generally Accepted Accounting Practice).

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remain independent of the Charitable Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

CONCLUSIONS RELATED TO GOING CONCERN

In auditing the financial statements, we have concluded that the Trustees' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the Charitable Company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the Trustees with respect to going concern are described in the relevant sections of this report.

OTHER INFORMATION

The Trustees are responsible for the other information. The other information comprises the information included in the Annual Report and Accounts, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

OTHER COMPANIES ACT 2006 REPORTING

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Trustees' Report, which includes the Directors' Report and the Strategic report prepared for the purposes of Company Law, for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic report and the Directors' Report, which are included in the Trustees' Report, have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Charitable Company and its environment obtained in the course of the audit, we have not identified material misstatement in the Strategic report or the Trustees' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of Directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

RESPONSIBILITIES OF TRUSTEES

As explained more fully in the Trustees' responsibilities statement, the Trustees (who are also the directors of the charitable company for the purposes of company law) are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from

material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustees are responsible for assessing the Charitable Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either intend to liquidate the Charitable Company or to cease operations, or have no realistic alternative but to do so.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

We have been appointed as auditor under the Companies Act 2006 and report in accordance with the Act and relevant regulations made or having effect thereunder.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Extent to which the audit was capable of detecting irregularities, including fraud.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

Based on our understanding of the Charitable Company and the sector in

which it operates, we identified that the principal risks of non-compliance with laws and regulations related to its registration with the Charity Commission for England and Wales and the Animals (Scientific Procedures) Act 1986 (ASPA) – under licence from the Home Office. We considered the extent to which non-compliance might have a material effect on the Financial Statements or the charity's continued operation. We also considered those laws and regulations that have a direct impact on the financial statements such as relevant companies acts and charities acts in the UK.

We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls) and determined that the principal risks were related to posting inappropriate journal entries to manipulate financial results and management bias in accounting estimates.

The audit procedures to address the risks identified included:

- Challenging assumptions made by management in their significant accounting estimates in particular in relation to the assumptions related to the estimated useful economic life of tangible fixed assets and assessment of the risks and rewards of ownership of the leasehold land and buildings owned by third parties;
- Testing journals including those which potentially impact remuneration and other performance targets and evaluating whether there was evidence of bias by management or Those Charged with Governance that represented a risk of material misstatement due to fraud;
- Reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with the Home Office, HMRC and the Charities Commission for England and Wales.

Our audit procedures were designed to respond to risks of material misstatement in the financial statements, recognising that the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery, misrepresentations or through collusion. There are inherent limitations in the audit procedures performed and the further removed non-compliance with laws and regulations is from the events and transactions reflected in the financial statements, the less likely we are to become aware of it.

A further description of our responsibilities for the audit of the financial statements is located at the Financial Reporting Council's ("FRC's") website at: <https://www.frc.org.uk/auditorsresponsibilities>. This description forms part of our auditor's report.

USE OF OUR REPORT

This report is made solely to the Charitable Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Charitable Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Charitable Company and the Charitable Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Fiona Condron

FIONA CONDRON

(Senior Statutory Auditor)
For and on behalf of BDO LLP,
statutory auditor, Gatwick, UK
Date: 15 August 2023

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

STATEMENT OF FINANCIAL ACTIVITIES

For the year ended 31 March 2023

	Note	Unrestricted Funds £'000	Restricted Funds £'000	2023 Total Funds £'000	2022 Total Funds £'000
Income from					
Core Strategic Grant	1	-	18,619	18,619	15,513
Charitable Activities					
- Grants	2	15,168	9,845	25,013	41,185
- Other Charitable Income	2	1,942	-	1,942	1,453
- Investment Income	3	1,288	-	1,288	959
Total Income		18,398	28,464	46,862	59,110
Expenditure on					
Cost of Raising Funds					
- Rental Income & Tenant Services	4	363	348	711	625
- Investment Management Costs	4	22	-	22	19
Charitable Expenditure					
- Grants for Scientific Research	4	34,620	12,619	47,239	43,501
- Science Rental Income & Tenant Services	4	1,093	1,065	2,158	1,923
- Other Charitable Activities	4	417	55	472	450
Total Expenditure		36,515	14,087	50,602	46,518
Net Gains on Investments	10	-	150	150	2,000
Net (expenditure)/Income before transfers		(18,117)	14,527	(3,590)	14,592
Transfers between Funds	15	18,003	(18,003)	-	-
Net Movement in Funds		(114)	(3,476)	(3,590)	14,592
Balance Brought Forward		9,790	335,448	345,238	330,646
Balance Carried Forward		9,676	331,972	341,648	345,238

All income and expenditure derives from continuing activities.
The accompanying notes on pages 42 to 52 form an integral part of these financial statements.

BALANCE SHEET

At 31 March 2023

Company number 00559784

	Note	£'000	2023 £'000	£'000	2022 £'000
Fixed Assets					
Tangible Fixed Assets	9	319,767		318,228	
Investment Property	10	2,150		2,000	
Investments	10	10		-	
			321,927		320,228
Current assets					
Stocks	11	187		359	
Debtors	12	4,936		10,703	
Term deposits over three months		15,121		5,016	
Cash at Bank & In hand		19,637		29,495	
		39,881		45,573	
Creditors: Amounts falling due within one year	13	(20,160)		(20,563)	
Net Current Assets			19,721		25,010
Total Assets less Current Liabilities			341,648		345,238
Net Assets			341,648		345,238
Financed by					
Unrestricted Reserves	15		9,676		9,790
Restricted Reserves					
- Fixed Asset Fund	15		325,844		330,243
- Investment Revaluation Reserve	15		2,150		2,000
- Other Restricted Reserves	15		3,978		3,205
Total Funds			341,648		345,238

Approved by the Board of Trustee Directors on 20th July 2023



Professor Vince Emery
Trustee Director



Rona Chester
Trustee Director

The accompanying notes on pages 42 to 52 form an integral part of these financial statements.

STATEMENT OF CASH FLOWS

For the year ended 31 March 2023

	Note	2023 £'000	2022 £'000
Net Cash provided by Operating Activities			
Net Movement in Funds		(3,590)	14,592
Interest & Rent Receivable		(1,288)	(959)
Deprecation		10,525	9,684
(Increase) in valuation of Investment Property		(150)	(2,000)
Decrease/(Increase) in Stocks		172	(95)
Decrease in Debtors		5,767	2,694
(Decrease)/Increase in Creditors		(11)	1,255
Total Net cash provided by Operating Activities		11,425	25,171
Cashflows from Investing Activities:			
Investment in Subsidiary		(10)	-
Interest & Rents Received		1,288	959
(Increase)/Decrease in Cash Deposits > 3 months		(10,105)	18,178
Purchase of Property, Plant & Equipment		(12,456)	(34,050)
Net Cash Use in Investing Activities		(21,283)	(14,913)
Change in Cash & Cash Equivalents in the year		(9,858)	10,258
Cash & Cash Equivalents at the Beginning of the Year		29,495	19,237
Cash & Cash Equivalents at the End of the Year		19,637	29,495
Cash & Cash Equivalents as above		19,637	29,495
Cash placed on Term Deposits > 3 months		15,121	5,016
Cash at Bank & In Hand		34,758	34,511
		As at 1 April 2023 £'000	As at 31 March 2023 £'000
Net Cash at bank			
Cash at Bank		29,495	19,637
Total		29,495	19,637

The accompanying notes on pages 42 to 52 form an integral part of these financial state-

PRINCIPLE ACCOUNTING POLICIES

The financial statements have been prepared on the historical cost basis, except for the revaluation of certain properties and financial instruments that are measured at revalued amounts at the end of each reporting period, as explained in the accounting policies below. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

The following accounting policies have been applied consistently in dealing with items which are considered material in relation to the Institute's financial statements.

BASIS OF ACCOUNTING

The financial statements have been prepared in accordance with Accounting and Reporting by Charities:

- Statement of Recommended Practice applicable to charities preparing their accounts in accordance with the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) (effective 1 January 2019) - (Charities SORP (FRS 102), the Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102) and the Companies Act 2006.
- The Institute meets the definition of a public benefit entity under FRS102. Assets and liabilities are initially recognised at historical cost or transaction value unless otherwise stated in the relevant accounting policy note(s).

GOING CONCERN

The Trustee Directors have reviewed whether it is appropriate for the financial statements to be prepared on a going concern basis. The Institute has in principle received its five-year strategic grant funding from BBSRC UKRI, £17.6m per annum. This award originally runs from 1 April 2023 to 31 March 2028.

This source of funding, the consistent performance of attracting income from other funding bodies and the development of a business plan that is built on an income stream that is very likely to be achievable, provides a high degree of confidence of future financial security. Having considered the risks in respect of future funding, financial forecasts for the period to November 2024 and the level of reserves, the

Trustee Directors have concluded that it remains appropriate to prepare the financial statements on a going concern basis and there are no material uncertainties which the Trustee Directors have identified.

GROUP FINANCIAL STATEMENTS

The Trustee Directors have considered whether the requirement to prepare consolidated financial statements by virtue of section 405(2) of the Companies Act 2006 is appropriate for the financial year, as its previous dormant subsidiary undertaking, Pirbright Innovations Limited, was reactivated during the year. The Trustee Directors consider that the results of its' subsidiary are not material for the purposes of providing a true and fair view of The Pirbright Institute group. Accordingly, these financial statements present information about the Institute as an individual entity and not its group.

INCOME

Income comprises unencumbered grants received from research councils, grant income from collaborative, commissioned, and competitively awarded research projects, income from miscellaneous charitable activities, commercial and residential rents from the letting of Institute controlled property, and interest earned on the temporary investment of surplus funds.

Income is recognised when the Institute becomes legally entitled to the income and the amount can be quantified with reasonable accuracy.

For the grants related to collaborative, commissioned and competitively awarded research projects, income is recognised as the associated expenditure is incurred.

Some of the research grants are undertaken in collaboration with other research institutes. Where these

arrangements have been entered into with Pirbright being the lead institute, the collaboration agreement entered into is solely between the funding body and the Institute. However, in the judgement of the Trustee Directors, such arrangements are entered into so the Pirbright acts as an agent to the other organisations named in the funding application. As a result, funds paid to collaborators are netted off the income received. If this judgement were not applied, both income and expenditure would be £1.6m (2022: £1.6m) higher than that stated in these financial statements.

All core BBSRC UKRI grants are recognised as revenue in the year they are received. Grant income including research grants received in advance of conditions being met is deferred until those conditions are fully satisfied. Rental and interest income is recognised based on the period to which it relates.

Capital grants are recognised in the statement of financial activities when entitlement passes, and once the criteria of certainty and measurement are met.

EXPENDITURE

Costs of charitable activities comprises costs incurred directly or in support of scientific research whether carried out in the Institute's own facilities or in other laboratories. Raising funds represents the costs associated with trading and raising income including the Institute's rental activities and tenant services and investments.

All costs are allocated between the expenditure categories of the Statement of Financial Activities (SOFA) on a basis designed to reflect the use of the resource. Costs relating to a particular activity are allocated directly. Support costs, representing the staffing and associated costs of finance, personnel

and general administration in supporting the operations of the Institute, are apportioned on an appropriate basis (see note 5 to the financial statements – Analysis of support costs for further details).

RESTRICTED FUNDS

Income received by way of grants, sponsorship, donation, or legacy which is directed by the funder as to be applied for specific purposes is accounted for within restricted income.

Awards applied within the terms dictated by the awarding authority on the acquisition or improvement of tangible fixed assets are also accounted for within restricted income and funds. The balance of the restricted fixed asset fund is reduced by the depreciation charges over the expected useful life of the asset. This treatment has been applied to reflect the assets being on land owned by a third party, therefore at the end of the lease they will revert to that third party (see further explanation below regarding the ownership of land and buildings). In addition, as detailed in note 19, there is a contingent liability to account to BBSRC UKRI for the net proceeds of disposal of fixed assets acquired with grant assistance and for recurrent grant more than the financing requirements.

DESIGNATED FUNDS

Unrestricted designated funds comprise sums set aside by the Trustee Directors for specific purposes including the acquisition of scientific equipment, support of the staff cost to provide new group leader posts and provide new scientists for containment level 3 laboratories on site, funding for sharing Pirbright's expertise through development of training programmes related to disease control, biosafety and containment engineering, and support for the work required to occupy the new facility on site, the Brooksby Building.

UNRESTRICTED FUNDS

Income received which is not directed by the provider to be applied for specific purposes to an extent which exceeds the constraints of the Institute's constitution is accounted for within unrestricted general funds.

FIXED ASSETS

Fixed assets with a cost of £10,000 or more are capitalised and depreciated to their estimated residual values set out below. Assets with a cost of less than £10,000 are expensed in the year of purchase.

- Land – 99 years being the length of the lease from BBSRC UKRI
- Buildings – on a component basis, between 15 and 50 years
- Plant and machinery – 5 years on a straight-line basis
- Fixtures, fittings, tools and equipment – 5 years on a straight-line basis
- No depreciation is provided on assets in the course of construction
- Depreciation is charged from the date on which the asset becomes operational

The Institute includes in its financial statements leasehold land and buildings owned by third parties, that it occupies and enjoys through peppercorn leases, at their full value. The North site lease was renewed in December 2020 for 25 years and the South site lease for a term of 99 years. The Trustee Directors consider that in substance the risks and rewards of ownership of the assets have passed to the Institute, and as such, follow a policy of recognising the assets on the balance sheet to reflect the continuing occupancy of these assets for the foreseeable future. The only circumstance under which the Institute could be asked to vacate the site is due to a failure to deliver the required programme, which in the Trustee Directors view is highly unlikely.

Individual freehold and leasehold properties at the Pirbright site were revalued to fair value upon transition to FRS 102 (1 April 2014) with the surplus on book value being transferred to the revaluation reserve. The fair value at the transition date was recognised as the deemed cost of the assets.

INVESTMENT PROPERTY

Investment property is included in the balance sheet at fair market value in accordance with FRS102 and, as such, no depreciation is charged in the year. Gains or losses arising from the revaluation are credited or charged respectively to the SOFA under net gains/(losses) on investments.

LEASED ASSETS

Rentals payable under operating leases are charged to the SOFA on a straight-line basis over the lease term.

Assets acquired under finance leases are capitalised as tangible fixed assets and depreciated over their useful lives. Finance charges and interest are taken to the SOFA in proportion to the remaining balance of capital repayments or net obligations outstanding.

Lease obligations on investment properties are treated as finance leases. The lease obligation is quantified at the point of the lease inception or the property becoming an investment property, whichever occurs later, based on the present value of the minimum lease payments, and is included in creditors.

Any adjustments to the rent payable under such leases due to periodic rent reviews is considered to be contingent rent. Contingent rent is treated as expenditure as it becomes payable.

STOCK

Laboratory consumables are valued at the lower of cost and net realisable value.

TERM DEPOSITS OVER THREE MONTHS

Cash and term deposits over three months comprise cash deposits held at the Institute's banks with a maturity of 3 months or more on the date of investment.

DEBTORS

Trade and other debtors are recognised at the settlement amount due after any trade discount offered. Prepayments are valued at the amount prepaid.

CREDITORS AND PROVISIONS

Creditors and provisions are recognised where the Institute has a present obligation resulting from a past event that will probably result in the transfer of funds to a third party and the amount due to settle the obligation can be measured or estimated reliably.

Creditors and provisions are normally recognised at their settlement amount.

FINANCIAL INSTRUMENTS

The Institute only has financial assets and financial liabilities of a kind that qualify as basic financial instruments. Basic financial instruments are initially recognised at transaction value and subsequently measured at their settlement value.

FOREIGN CURRENCY TRANSLATION

Monetary assets and liabilities denominated in foreign currencies are translated into sterling at the rates of exchange ruling at the balance sheet date. Transactions in foreign currencies are recorded at the rate ruling at the date of the transaction.

STAFF AND PENSION COSTS

Staff engaged at the Institute prior to April 2015 were previously employed by BBSRC UKRI and deployed back to the Institute.

Following the Transfer of Undertakings (Protection of Employment) exercise as of 1 January 2017, all BBSRC UKRI employees are now employed by Pirbright. The Institute therefore retains responsibility for paying employment costs in relation to all such employees, including basic pay and allowances, contractual payments, tax, national insurance, and pension contributions. Employees engaged prior to April 2015 remain members of the Research Councils' Pension Scheme (RCPS), a defined benefit scheme for multiple employers. The BBSRC Employment Code remains applicable and frozen at the date of TUPE transfer.

The Institute does not have any liability for pensions other than for monthly employer contributions, the rate of which is determined by the Government Actuary's Department on a periodic basis. The cost of providing pension and related benefits is charged to the SOFA. Some payments are to a defined benefit scheme as explained above and in Note 8 but there are no separately identifiable assets and the actuarial cost to the Institute is not known. Consequently, it is not possible to supply the information referred to in Financial Reporting Standard 102, Section 28 and the Institute has accounted for the scheme as though it were a defined contribution scheme.

TAXATION

The Pirbright Institute is a registered charity within the meaning of the UK Taxes Acts and is, therefore, eligible to claim exemptions to income tax and capital gains tax.

JUDGEMENTS IN APPLYING ACCOUNTING POLICIES AND KEY SOURCES OF ESTIMATION UNCERTAINTY

Preparation of the financial statements requires the Trustee directors and senior management to make significant judgements and estimates. The items in the financial statements where these judgements and estimates have been made include:

- Depreciation, which has been charged in line with the accounting policy above.
- The amount of depreciation charged and net book value of the assets is included in Note 9.
- The Institute includes in its financial statements leasehold land and buildings owned by third parties because the Trustee Directors consider that in substance the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet to reflect the continuing occupancy of these assets for the foreseeable future. These assets are held at their deemed cost, being their fair value at the transition date of FRS 102. The judgements applied and the revaluation adjustments and net book value of the assets is included in Note 9.

NOTES TO THE TRUSTEE DIRECTORS' REPORT AND FINANCIAL STATEMENTS

For the year ended 31 March 2023

1. INCOME FROM CORE STRATEGIC GRANTS

2023
£'000

2022
£'000

BBSRC UKRI - Core Strategic Grant
Resource Contribution Grants

16,163
2,456

15,513
-

18,619

15,513

All income from core strategic grants in the current and prior year was restricted.

2. INCOME FROM CHARITABLE ACTIVITIES

2023
£'000

2022
£'000

Grant Income

BBSRC UKRI - Research Grants
BBSRC UKRI - Other Grants
Other Research Grants

3,340
9,011
12,662

3,522
25,375
12,288

25,013

41,185

Other Charitable Activities

1,942

1,453

26,955

42,638

Income from charitable activities included restricted income from grants of £14,845k (2022:£24,904k)

All other income from charitable activities in the current and prior year was unrestricted.

The analysis by region of funder is set out below:

2023
£'000

2022
£'000

United Kingdom
Europe
North America
Others

21,638
339
4,304
674

37,909
569
2,944
1,216

26,955

42,638

2. INCOME FROM CHARITABLE ACTIVITIES (continued)

	Unrestricted £'000	Restricted £'000	2023 Total £'000	
Current Year				
Analysis of Grants & Contracts Income				
BBSRC UKRI				
Competitive Project Grants - Research Grants	3,340	-	3,340	
Other Grants	-	9,011	9,011	
Total BBSRC UKRI	3,340	9,011	12,351	
Other				
DEFRA "Umbrella" Commissioned Projects	2,818	-	2,818	
DEFRA Surveillance	2,752	-	2,752	
Other Government Departments	214	-	214	
European Union	339	-	339	
Industry & Levy Boards	1,561	-	1,561	
Trusts, Foundations & Charities	674	-	674	
Other Research Income	3,470	834	4,304	
Total Other	11,828	834	12,662	
Total Income Grants & Contracts	15,168	9,845	25,013	
	Unrestricted £'000	Restricted £'000	2022 Total £'000	
Prior Year				
Analysis of Grants & Contracts Income				
BBSRC UKRI				
Competitive Project Grants - Research Grants	3,522	-	3,522	
Other Grants	471	24,904	25,375	
Total BBSRC UKRI	3,993	24,904	28,897	
Other				
DEFRA "Umbrella" Commissioned Projects	2,395	-	2,395	
DEFRA Surveillance	3,043	-	3,043	
Other Government Departments	665	-	665	
European Union	569	-	569	
Industry & Levy Boards	1,572	-	1,572	
Trusts, Foundations & Charities	906	-	906	
Other Research Income	3,138	-	3,138	
Total Other	12,288	-	12,288	
Total Income Grants & Contracts	16,281	24,904	41,185	
Other Income	Unrestricted £'000	Restricted £'000	2023 Total £'000	2022 Total £'000
Royalties	429	-	429	373
Diagnostic Testing	345	-	345	317
Supply of Reagents	325	-	325	247
Patent Reimbursement	254	-	254	66
Commercial Contract Research	141	-	141	1
Restaurant Revenue	88	-	88	80
Training & Lecture Fees	65	-	65	-
Other	295	-	295	369
Total Other Income	1,942	-	1,942	1,453

All other income in 2022 was unrestricted

3. INVESTMENT INCOME

2023
£'000

2022
£'000

Rental Income & Tenant Services	968	930
Bank Interest	320	29
	1,288	959

All Investment Income in the current and prior year was unrestricted.

4. ANALYSIS OF EXPENDITURE

Other
Direct Costs

Allocated
Support Costs

2023
Total
£'000

Staff Costs
£'000

£'000

Current Year

Unrestricted Funds

Cost of Raising Funds

- Rental Income & Tenant Services	-	-	363	363
- Investment Management Costs	-	12	10	22

Charitable Expenditure

- Grants for Scientific Research	12,848	8,283	13,489	34,620
- Science Rental Income & Tenant Services	-	-	1,093	1,093
- Other Charitable Activities	-	174	243	417

Total Unrestricted Expenditure **12,848** **8,469** **15,198** **36,515**

Restricted Funds

Cost of Raising Funds

- Rental Income & Tenant Services	-	-	348	348
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Charitable Expenditure

- Grants for Scientific Research	-	-	12,619	12,619
- Science Rental Income & Tenant Services	-	-	1,065	1,065
- Other Charitable Activities	-	-	55	55

Total Restricted Expenditure **-** **-** **14,087** **14,087**

Total Expenditure **12,848** **8,469** **29,285** **50,602**

Included in allocated support costs are staff costs of £5,404k.

4. ANALYSIS OF EXPENDITURE (continued)

	Staff Costs	Other Direct Costs	Allocated Support Costs	2022 Total
	£'000	£'000	£'000	£'000
Prior Year				
Unrestricted Funds				
Cost of Raising Funds				
- Rental Income & Tenant Services	-	-	309	309
- Investment Management Costs	-	10	9	19
Charitable Expenditure				
- Grants for Scientific Research	13,131	7,521	12,045	32,697
- Science Rental Income & Tenant Services	-	-	988	988
- Other Charitable Activities	-	188	212	400
Total Unrestricted Expenditure	13,131	7,719	13,563	34,413
Restricted Funds				
Cost of Raising Funds				
- Rental Income & Tenant Services	-	-	316	316
Charitable Expenditure				
- Grants for Scientific Research	-	-	10,804	10,804
- Science Rental Income & Tenant Services	-	-	935	935
- Other Charitable Activities	-	-	50	50
Total Restricted Expenditure	-	-	12,105	12,105
Total Expenditure	13,131	7,719	25,668	46,518

Included in allocated support costs are staff costs of £4,978k.

5. ANALYSIS OF SUPPORT COSTS

	Rental Income & Tenant Services	Investment Management Costs	Grants for Scientific Research	Science Rental Income & Tenant Services	Other Charitable Activities	Total 2023	Basis of Allocation
	£'000	£'000	£'000	£'000	£'000	£'000	
Current year							
Unrestricted Funds							
Premises	196	-	8,451	981	74	9,702	% of floor area
Finance	27	10	596	46	54	733	time spent
Management	48	-	1,163	20	36	1,267	time spent
Human Resources	70	-	511	-	21	602	time spent
Information Technology	10	-	2,088	23	34	2,155	time spent
Procurement	7	-	553	21	21	602	time spent
Governance	5	-	127	2	3	137	time spent
	363	10	13,489	1,093	243	15,198	
Restricted Funds							
Depreciation	329	-	9,264	877	55	10,525	
Repairs & maintenance	19	-	3,355	188	-	3,562	
	348	-	12,619	1,065	55	14,087	
Total Support Costs	711	10	26,108	2,158	298	29,285	
	Rental Income & Tenant Services	Investment Management Costs	Grants for Scientific Research	Science Rental Income & Tenant Services	Other Charitable Activities	Total 2022	Basis of Allocation
	£'000	£'000	£'000	£'000	£'000	£'000	
Prior Year							
Unrestricted Funds							
Premises	178	-	7,650	888	67	8,783	% of floor area
Finance	25	9	567	44	50	695	time spent
Management	32	-	773	13	23	841	time spent
Human Resources	54	-	398	-	16	468	time spent
Information Technology	10	-	2,097	23	35	2,165	time spent
Procurement	6	-	473	18	18	515	time spent
Governance	4	-	87	2	3	96	time spent
	309	9	12,045	988	212	13,563	
Restricted Funds							
Depreciation	303	-	8,526	807	50	9,686	
Repairs & maintenance	13	-	2,278	128	-	2,419	
	316	-	10,804	935	50	12,105	
Total Support Costs	625	9	22,849	1,923	262	25,668	

6. NET (EXPENDITURE)/INCOME

	2023 £'000	2022 £'000
Net income is stated after charging:		
Auditors' remuneration		
- Audit Services	124	56
- Non-Audit Services (Taxation Advice)	29	21
Depreciation	10,525	9,684
Loss on Foreign Exchange	64	27
Translations	39	22
Hire of Plant & Machinery		
Rental of Land & Buildings	58	55

7. REMUNERATION OF THE TRUSTEE DIRECTORS

None (2022:None) of the Trustee Directors received any remuneration from the Pirbright Institute or its' subsidiary, Pirbright Innovations Limited, during the year. Eight Trustee Directors (2022:Eleven Trustee Directors) had travel and subsistence expenses of £2,654 (2022:£1,744) reimbursed in the year.

8. STAFF NUMBERS AND COSTS

The average number of people employed by the Institute during the year, analysed by category, was as follows:

	Number of Employees	
	2023	2022
Office, Management and Estate Support	119	121
Scientific	238	240
Total	357	361

The aggregate payroll costs of these people were as follows :

	2023 £'000		2022 £'000	
Wages & Salaries	13,754		13,967	
Social Security Costs	1,485		1,432	
Pension Costs	2,412		2,549	
Total	17,651		17,948	

	2023 £'000		2022 £'000	
Termination Payments				
- Redundancy	86		148	
Total	86		148	

At 31 March none (2022:£60k) of these payments were outstanding.

Some employees of the Institute are members of the Research Councils' Pension Schemes (RCPS), which are funded principally through employer and employee contributions. The pension schemes are defined benefit schemes and provide retirement and related benefits on final emoluments, redundancy, capability and ill health. The scheme is administered by the Research Councils' Joint Superannuation Services and the schemes' finances are administered by BBSRC UKRI.

It is an unfunded scheme, there are no separately identifiable assets and the actuarial cost to the Institute is not known. Consequently, it is not possible to supply the information referred to in Financial Reporting Standard 102, Section 28 and the Institute has accounted for the scheme as though it were a defined contribution scheme. The Institute pays employers' contributions at a percentage of scheme members' pensionable pay and emoluments as assessed by the Government Actuary's Department (GAD) on a periodical basis. The rate for the year was 26.0%, which was established following GAD's most recent assessment.

The pension cost represents contributions payable by the Institute to the scheme and amount to £908,295 (2022: £890,200).

Since April 2015, all new staff are members of The Pirbright Company Pension, a defined contribution scheme administered by Aviva on behalf of the Institute.

The Institute contributes 10% of scheme members' pensionable pay and emoluments. The pension cost represent contributions payable by the Institute to the scheme and amount to £1,741,530 (2022:£1,658,814).

Staff engaged at the Institute prior to April 2015 were previously employed by BBSRC UKRI and deployed back to the Institute.

Following the Transfer of Undertakings (Protection of Employment) (TUPE) exercise as of 1 January 2017, all BBSRC employees are now employed by the Institute.

The Institute therefore retains responsibility for paying employment costs in relation to all employees, including basic pay and allowances, contractual payments, tax, national insurance and pension contributions. Employees engaged prior to April 2015 remain members of the RCPS). The BBSRC Employment Code remains applicable and frozen at the date of TUPE transfer. The Institute does not have any liability for pensions other than for monthly employer contributions, the rate of which is determined by the GAD on a periodic basis.

The key management of the Institute comprise the Senior Leadership Board and the Trustee Directors.

The total employee benefits (including wages and salaries, employer's national insurance and pension costs) of the key management personnel of the Institute were £549,734 (2022:£613,449).

	Number of Employees	
	2023	2022
£60,000 - £69,999	16	13
£70,000 - £79,999	4	6
£80,000 - £89,999	4	3
£90,000 - £99,999	2	4
£100,000 - £109,999	1	-
£110,000 - £119,999	-	1
£140,000 - £149,999	1	1

The number of staff earning over £60,000 for whom retirement benefits are accruing under defined benefit schemes amounted to 12 (2022:14) and the amounts paid in the year were £284k (2022:£257k).

9. TANGIBLE FIXED ASSETS

	Land & Buildings £'000	Plant & Machinery £'000	Fixtures & Fittings £'000	Assets Under £'000	Total £'000
Cost/Revaluation					
At 1 April 2022	249,181	21,011	1,283	130,106	401,581
Additions	-	3,492	-	8,572	12,064
Transfers	-	8,122	-	(8,122)	-
At 31 March 2023	249,181	32,625	1,283	130,556	413,645
Depreciation					
At 1 April 2022	63,776	18,294	1,283	-	83,353
Charge for year					
- Historic	8,108	1,467	-	-	9,575
- Revaluation	950	-	-	-	950
At 31 March 2023	72,834	19,761	1,283	-	93,878
Net Book Value					
At 31 March 2023	176,347	12,864	-	130,556	319,767
At 31 March 2022	185,405	2,717	-	130,106	318,228

Land and buildings include land with a book value of £13,005k (2022:£13,603k).

The Institute includes in its financial statements leasehold land and buildings owned by third parties, that it occupies and enjoys through peppercorn leases, at their full value. The North Side lease was renewed in December 2020 for 25years and the South Side lease for a term of 99 years. The Trustee Directors consider that in substance the risks and rewards of ownership of the assets have passed to the Institute, and as such follow a policy of recognising the assets on the balance sheet to reflect the continuing occupancy of these assets for the foreseeable future. The only circumstance under which the Institute could be asked to vacate the site is due to a failure to deliver the required scientific programme, which, in the Trustee Directors view, is highly unlikely.

The Institute used the option in FRS102 to use fair value at the date of transition to FRS102,(1 April2014), as deemed cost on transition. GVA Grimley Limited, Chartered Surveyors, and an independent valuer, provided these values through a professional valuation.

The Institute derives a rental income from some of the buildings. This is included in these financial statements, with the leases associated with those buildings classified as investment properties , as per note 10 of these statements.

10. INVESTMENTS & INVESTMENT PROPERTIES

Investment in Subsidiary Undertaking

Pirbright Innovations Limited was dormant in the prior year. During the year the Institute increased its investment in Pirbright Innovations Limited to £10,000 (2022: Nil). The Pirbright Institute owns the entire share capital of Pirbright Innovations Limited.

During the year the subsidiary has been reactivated and currently is being used a special purpose vehicle company for the project of constructing the UK Centre for Veterinary Vaccine Innovation and Manufacturing on the Pirbright Site. The Trustee Directors consider that the activities of the of the subsidiary are not material to the financial position of the Pirbright Institute Group and have therefore elected not to produce consolidated financial statements.

	2023 £'000	2022 £'000
The assets and liabilities of the subsidiary were:		
Current Assets		
- Debtors - VAT	23	-
- Debtors - Amounts owed by the Pirbright Institute	108	-
- Cash at Bank	35	-
- Creditors - Trade	(95)	-
- Creditors - Accruals	(61)	-
- Creditors - Amounts owed to the Pirbright Institute	(8)	(8)
Total Assets less Current Liabilities	2	(8)
Share Capital	2	-
Reserves	0	(8)
Total Funds	2	(8)

Investment in Associated Undertaking

Genomia Management Limited was formed on 16 April 2004 and is a company limited by guarantee. The company was established by way of grants from the Department of Innovation - Universities and Skills and the European Regional Development Fund. The company manages the Genomia Fund, the objective of which is to assist in the development of research output from the members into commercially realisable opportunities.

The Institute has equal membership in this company with Roslin Foundation, Moredun Research Institute, Rowett Institute of Nutrition and Health and Nutrition and Health and Scotland's Rural College. The company's turnover for the year ended 31 March 2023 was £Nil (2022:£28,580) and its net assets as at 31 March 2023 were £105,158 (2022: £141,122).

10. INVESTMENTS & INVESTMENT PROPERTIES (Continued)

Investment in Properties	2023 £'000	2022 £'000
The value of Investment Properties were:		
At 1 April 2022	2,000	-
Change in valuation in the year	150	2,000
At 31 March 2023	2,150	2,000

Part of the site in Pirbright is sub let to a third party. In line with FRS102 this lease is therefore recognised as an investment property in these financial statements. The investment property was valued at 31 March 2023 by RICS Registered Valuers from Powis Hughes Ltd. The valuers are not employees or or offices of the Institute.

The valuation has been carried out in accordance with the RICS Valuation - Global Standards 2022 (which incorporate the International Valuation Standards) and FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland on the basis of Fair Value using an Income Approach.

11. STOCKS

	2023 £'000	2022 £'000
Laboratory Consumables	187	359

The Institute's stock consists of laboratory supplies for research purposes.

12. DEBTORS : AMOUNTS FALLING DUE WITHIN ONE YEAR

	2023 £'000	2022 £'000
Trade Debtors	901	1,848
Prepayments	1,660	1,663
Accrued Income	1,654	6,996
Other Debtors	721	196
	4,936	10,703

13. CREDITORS : AMOUNTS FALLING DUE WITHIN ONE YEAR

	2023 £'000	2022 £'000
Trade Creditors	2,487	3,547
Taxation & Social Security	46	156
Other Creditors	12	-
Accruals	5,078	5,276
Deferred Grant Income	12,180	11,094
Short-term Compensated Absences	357	490
	20,160	20,563

14. RECONCILIATION OF MOVEMENT IN ACCRUED & DEFERRED GRANT INCOME

	2023 £'000	2022 £'000
Accrued Income	1,654	6,996
Deferred Grant Income	(12,180)	(11,094)
	(10,526)	(4,098)
Net Deferred Grant income at the beginning of the year	(4,098)	(6,964)
Research Grant income received during the year	(21,664)	(13,415)
Research Grant income released to the SOFA during the year	15,168	16,281
Net Deferred Grant income at the end of the year	(10,594)	(4,098)

15. FUNDS

Unrestricted Designated Funds

Unrestricted designated funds comprise sums set aside for specific purposes including the acquisition and improvement of tangible fixed assets, the training of scientific staff and setting up of the Pirbright training programme to sell the Institute's expertise to third party organisations.

This includes £1,173k for occupation costs relating to capital projects (2022: £1,173k), £100k to maintain scientific equipment capacity and capability (2022: £100k), £435k for group leaders and scientists (2022: £319k) and £185k for the Pirbright training programme (2022: £783k).

Restricted Funds

Restricted funds comprise grants received from funders specifically to be applied in the acquisition or improvement of tangible fixed assets or otherwise applied for such purpose as specified by the grants provided.

	Balance 1 April 2022 £'000	Net Income/ £'000	Transfer between Funds £'000	Balance 31 March 2023 £'000
Current Year				
Unrestricted Funds				
General	7,415	(17,635)	18,003	7,783
Designated	2,375	(482)	-	1,893
Restricted Funds				
Fixed Asset Fund	314,945	(3,861)	1,063	312,147
Fixed Asset Revaluation Fund	15,298	-	(1,601)	13,697
Total	330,243	(3,861)	(538)	325,844
Other Restricted Funds				
Fixed Asset Project Support Costs	539	(346)	538	731
DP2 Phase Occupation Costs	1,025	129	0	1,154
BBSRC UKRI Core Grant Funding	-	16,162	(16,162)	-
Brooksby Support Costs	1,573	(159)	-	1,414
BBSRC Supplementary Energy Grant	-	2,456	(1,841)	615
Investment Property Revaluation	2,000	150	-	2,150
Other	68	(4)	-	64
Total	345,238	(3,590)	-	341,648

	Balance 1 April 2021 £'000	Net Income/ £'000	Transfer between Funds £'000	Balance 31 March 2022 £'000
Prior Year				
Unrestricted Funds				
General	7,504	(15,352)	15,263	7,415
Designated	2,493	(368)	250	2,375
Restricted Funds				
Fixed Asset Fund	317,191	13,394	(342)	330,243
Other Restricted Funds				
Fixed Asset Project Support Costs	593	(396)	342	539
DP2 Phase Occupation Costs	1,224	(199)	-	1,025
BBSRC UKRI Core Grant Funding	-	15,513	(15,513)	-
Brooksby Support Costs	1,573	-	-	1,573
Investment Property Revaluation	-	2,000	-	2,000
Other	68	-	-	68
Total	330,646	14,592	-	345,238

15. FUNDS (continued)

Fixed Asset Fund	2023 £'000	2022 £'000
Balance brought forward at 1 April 2022	330,243	317,191
Grants Received	9,845	24,904
Depreciation	(10,525)	(9,684)
Revenue Spend	(3,181)	(1,826)
Transfers	(538)	(342)
Balance carried forward at 31 March 2023	325,844	330,243

The Fixed Asset Fund represents funding received from BBSRC UKRI, for the past and future acquisition of tangible fixed assets. These assets are built on land that is not owned by The Pirbright Institute. The capital fund has been set up to assist in identifying those funds that are not free funds and it represents the net book value of tangible fixed assets held by the Institute and amounts received for capital but not yet spent.

The unexpended balance of unrestricted designated funds and restricted funds is invested temporary and appears in the balance sheet under current assets.

Other Restricted Funds

Fixed Asset Project Support Cost grants have been received from BBSRC UKRI to provide funding towards support costs and overrun costs relating to the development programme capital projects.

The Capital Rebuild Grant, Additional Construction Support has on approval from BBSRC UKRI has been transferred to development phase 2 occupation fund. As part of the ongoing development, project funds from these reserves have been transferred to the Fixed Asset Fund.

The BBSRC UKRI core grant funding is received from BBSRC UKRI to ensure that the Institute's facilities are maintained at the necessary cutting-edge high containment level that is essential to provide a national capability.

	Unrestricted General Funds £'000	Restricted Funds BBSRC Core Funding £'000	BBSRC Energy Support £'000
Transfer between Funds			
Transfer of funds to General Reserves	18,003	16,162	1,841

The transfer of funds during the year are as follows:

In accordance with the original grant offer letter, core funding from BBSRC UKRI, is required to be shown as restricted income. The Institute subsequently received confirmation that the income could be applied for general purposes and therefore the transfer of income to unrestricted reserves has been made.

Similarly, in accordance with the grant offer letter from BBSRC UKRI, the energy support grant can only be used for excess energy costs and therefore has been treated as restricted income. Of the total award of £2,456k, £1,841k was utilised during the financial year with the outstanding award of £615k being carried forward in Restricted Reserves to be utilised to cover excess energy costs incurred by the Institute during 2023/24.

16. ANALYSIS OF NET ASSETS BETWEEN FUNDS

	Investments £'000	Fixed Assets £'000	Net Current Assets £'000	Total £'000
Current Year				
Unrestricted Funds	-	-	9,676	9,676
Restricted Funds				
Fixed Asset Capital Fund	-	306,070	6,077	312,147
Fixed Asset Revaluation Fund	-	13,697	-	13,697
Investment Property Revaluation Fund	2,150	-	-	2,150
Other Restricted Funds	10	-	3,968	3,978
	2,160	319,767	19,721	341,648
Prior Year				
Unrestricted Funds	-	-	9,790	9,790
Restricted Funds				
Fixed Asset Capital Fund	-	302,945	12,015	314,960
Fixed Asset Revaluation Fund	-	15,283	-	15,283
Investment Property Revaluation Fund	2,000	-	-	2,000
Other Restricted Funds	-	-	3,205	3,205
	2,000	318,228	25,010	345,238

17. FINANCIAL INSTRUMENTS

	2023	2022
	£'000	£'000
Financial assets measured at amortised cost	1,622	2,044
Financial liabilities measured at amortised cost	(2,545)	(3,703)
	(923)	(1,659)

Financial assets measured at amortised cost comprise trade debtor, amounts owed by related parties and other debtors.

Financial liabilities measured at amortised cost comprise trade creditors, taxation and social security creditors and other creditors.

18. COMMITMENTS

Capital commitments at the end of the financial year for which no provision has been made:

	2023	2022
	£'000	£'000
Authorised but not contracted for	9,331	6,113
Operating lease commitments		
Land & Buildings		
- Within one year	58	52
- In two to five years	234	218
- In over five years	248	250
Plant & Machinery		
- Within one year	8	8
- In two to five years	-	8

19. CONTINGENT LIABILITIES

There is a contingent liability to account to BBSRC UKRI for the net proceeds of disposal of fixed assets acquired with grant assistance and for recurrent and capital grants in excess of the financing requirements. No such liabilities existed at either 31 March 2023 or 31 March 2022.

20. RELATED PARTY TRANSACTIONS

Biotechnology and Biological Sciences Research Council part of UK Research and Innovation (BBSRC UKRI).

BBSRC UKRI provides substantial funding to the Institute. The Institute is affiliated with BBSRC UKRI along with seven other institutes. Details of grants received from BBSRC UKRI are detailed in Notes 1 and 2. During the year, BBSRC UKRI charged the Institute £0 (2022: £0) for other costs and Engineering and Physical Sciences Research Council UKRI charged the Institute £42,234k (2022: £42,134k) for other costs.

Pirbright Innovations Limited

Pirbright Innovations Limited, a wholly owned subsidiary, acts a special purpose vehicle for the Institute with regard to the project of constructing the UK Centre for Veterinary Vaccine Innovation and Manufacturing on the Pirbright Site. During the year, Pirbright Innovations Limited charged the Institute £291,884 (2022: £0) for this project. Details of the assets and liabilities of Pirbright Innovations Limited are detailed in Note 10.

REFERENCE AND ADMINISTRATIVE DETAILS

Trustee Directors:

Professor Vince Emery: Chair

Rona Chester: Deputy Chair

Jon Coles

Emma Griffin

Alison Hardy

Dr Paul Logan

Dr Linda Magee OBE

Professor Deenan Pillay

Jane Tirard

Professor Mike Turner

Director of the Institute:

Professor Bryan Charleston MRCVS

Company Secretary:

Helen Watts FCA

Registered office of The Pirbright Institute and Pirbright Innovations Limited:

Ash Road, Pirbright, Woking, Surrey GU24 0NF

Auditor:

BDO LLP, 2 City Place, Beehive Ring Road, Gatwick, West Sussex RH6 0PA

Bankers:

Barclays Bank PLC, Wytham Court, 11 West Way, Oxford OX2 0JB

Lloyds Bank PLC, 5 High Street, Swindon SN1 3EN

Solicitors:

Charles Russell LLP, 1 London Square, Cross Lanes, Guildford GU1 1UN

Penningtons Manches LLP, 9400 Garsington Road, Oxford Business Park, Oxford OX4 2HN



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