Contents

Welcome 3
Patron, Trustees, Officers and Staff 4
Summary of grants made in 2022-23 5
Responding to COVID-19 6
INT Awards 2022-23 7
  Research Grants: Project, Emergency and Strategic Grants 7
  Joint research grant programmes with the Schools 12
Early Career Fellowships 14
  Academic Career Development Fellowships 16
  Leverhulme/INT Early Career Fellowships 17
  Humboldt Feodor Lynen Early Career Fellowships 20
  INT/College Junior Research Fellowships 21
  College Teaching Officers’ Research Leave 22
Student Awards 22
Widening Participation & Induction Fund 23
Trust policies and finances 24
  Audited accounts 2022-2023 24
  Resource management Income 25
  2022-23 Expenditure 26
  2022-2023 Investment Strategy 27
  Fund-raising 28
  Brian Shiers Lowe Fellowships 29
Comings and Goings 31
Welcome to the Isaac Newton Trust’s thirty-third Annual Report

The Isaac Newton Trust started the year with probably the largest change in the Trustee body that I have experienced since becoming Director: we said goodbye to three long-standing friends and valued colleagues, Professors Richard Smith, Jeremy Baumberg and Gerard Evan, and welcomed three new Trustees. We have been thrilled to be joined by Professor Ash Amin, whose knowledge and experience is an excellent complement to the specialisms of the other Trustees, and Professors John Pyle and Ben Simons, who between them bring tremendous depth and range across a wide spectrum of science topics to the Trustees’ deliberations.

The Trust has branched out into two new ventures over the past 18 months, creating entirely new programmes that could only really be tested by trying them out. Both seem to have taken off beyond reasonable expectation and it has been a great joy to the Trustees to see how our two new programmes have developed. The Widening Participation & Induction Fund, set up with a new intervention from Trinity, has now completed three rounds of applications from Colleges seeking to increase and diversify their activities with prospective and incoming undergraduate students from disadvantaged backgrounds. The first fruits of these grants are now being realised and we are happy to report a number of excellent outcomes (see p 23).

Our second new programme, for Academic Career Development Fellowships (ACDFs) in the Arts, Humanities and Social Sciences, has proved to be extremely popular with Faculties and Colleges alike. A second cohort of ACDFs has been appointed to start in October 2023 and the INT has agreed to offer a further four awards. This new model for an early-career fellowship combines an independent research project with small-group teaching and experience of University teaching. ACDFs have struck a chord with Colleges and Faculties, who have found a new way to create partnerships to address hard-to-fund teaching needs. It seems also to have proved its efficacy in helping early-career researchers to prepare for academic career, as one of the first appointees secured a lectureship within 12 months of starting her ACDF. Very many congratulations, Cicely!

This is the last Annual Report that the Trust will publish as an exempt charity under the University of Cambridge’s oversight, as we apply to become a charity in our own right in 2023-24. This should create no difficulties in allowing the Trust to continue with our charitable activities, but it has provided the impetus for a thorough review of our governance. The COVID pandemic amply demonstrated that nothing is certain in life and so, guided by our Auditors, Trustees have developed a risk register to identify potential points of weakness. As part of this review, we have taken a new look at our staffing arrangements, to see how we might improve the Trust’s resilience and allow our charitable work to continue whatever challenges the future might bring.

I hope you enjoy reading this report. Please do contact me if you have any questions.

Dr Laurie Friday
Director
Patron
H.R.H. The Prince of Wales*

Trustees 2022-23

Prof. Frank Kelly
Mathematics, CHR
(Trustee, Chair)

Prof. Ash Amin
Geography, CHR

Prof. Sir David Baulcombe
Plant Sciences, T

Prof. Jeremy Baumberg
Physics, JE
(to 30.09.22)

Prof. Dame Ann Dowling
Engineering, SID

Prof. John Pyle
Chemistry, CTH
(from 01.11.22)

Prof. Loraine Gelstorphpe
Criminology, PEM

Prof. Rae Langton
Philosophy, N

Prof. John Marenbon
Philosophy, T

Prof. Ben Simons
Physics, JN
(from 01.08.22)

Prof. Dame Jean Thomas
Biochemistry, CTH

Details of the Trustees’ interests, including other Trusteehips, may be found on the INT’s governance pages:
https://www.newtontrust.cam.ac.uk/about/deed

*We await advice from the Royal Household concerning our Patronage following the Accession of His Majesty, The King

Officers & Staff

Dr Laurie Friday, N (Director)
Mr Donald Hearn, CL (Treasurer)
Dr Nichola Tooke (Trust Administrator)
Ms Janet Sparrow (Research Administrator)
SUMMARY OF NEW GRANTS AWARDED 2022-2023

The Trust committed £2.76m for research and scholarship in the University including:

- **£771k** for Research Grants (including those made jointly with the Schools)
- **£203k** for Strategic Grants
- **£1.25m** for Early Career Fellowships
- **£288k** for extensions relating to COVID-19
- **£242k** for Widening Participation & Induction activities in Colleges

**Research Grants**
- 15 Research Grants to individual researchers
- 65 Grants for research projects jointly with the Schools of the University
- 13 COVID recovery grants to researchers
- 2 Strategic Grants for major projects

**Fellowships**
- 11 Leverhulme Early Career Fellowships
- 1 INT/College Junior Research Fellowship
- 5 Academic Career Development Fellowships in Arts, Humanities & Social Sciences in partnerships with Faculties and Colleges
- 15 Widening Participation & Induction Grants to Colleges
RESPONDING TO COVID-19

The fall-out from COVID disruption, whether through ill health, disrupted child-care support or the locking down of vital facilities, has meant that the need for extensions and remedial grants has continued long after lock-down ended. Demand declined in 2022-23, but we have continued to support researchers and projects whose work was adversely affected by the many challenges associated with the COVID pandemic.

We have offered:

• short extensions, whether paid or cost-neutral, to current grant holders and research fellows, in line with support schemes adopted our principal co-funding charities; and
• emergency funding specifically to support our grant holders, research fellows and other researchers in urgent need of assistance.

Over the past three years, the INT’s contributions to COVID relief have amounted to:

<table>
<thead>
<tr>
<th></th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Grants to individual researchers and groups</td>
<td>£97k</td>
<td>£162k</td>
<td>£128k</td>
</tr>
<tr>
<td>Leverhulme Early Career &amp; JRF extensions</td>
<td>£192k</td>
<td>£111k</td>
<td>£135k</td>
</tr>
<tr>
<td>PhD funding extensions for students on the AHRC DTP</td>
<td>£0k</td>
<td>£11k</td>
<td>£37k</td>
</tr>
<tr>
<td>Postgraduate emergency hardship grants</td>
<td>£0k</td>
<td>£0k</td>
<td>£16k</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>£289k</strong></td>
<td><strong>£384k</strong></td>
<td><strong>£316k</strong></td>
</tr>
</tbody>
</table>

We have therefore provided almost £1m in COVID relief since the beginning of the pandemic. We could not have managed this without the support of fellow funders:

• the **Leverhulme Trust** provided extra funding for its 2021-22 and 2022-23 cohorts of Leverhulme Early Career Fellows (see p 19) to cover the full costs of the first year and then the customary 50% for the remaining years. This in effect provided INT with an extra £25,000 in their budget for the salary of each new Leverhulme Early Career Fellow but the funding was unrestricted, so some of this windfall could be used to support extensions for previous cohorts;
• **Trinity College** provided additional donations amounting to £750k to the INT for 2021-22 plus £500k for 2022-23 in addition to the annual donation, to enable the Trust to maintain its current level of funding for a range of research activities in spite of the additional costs of managing additional expenditure for COVID relief.

We are hugely grateful for these two transformational interventions, which have enabled the Trust to continue to offer its full range of awards in spite of the challenges posed by COVID and also to plan adventurous new funding projects.
INT AWARDS 2022-23

RESEARCH GRANTS: PROJECT, EMERGENCY & STRATEGIC GRANTS

Applications were invited in three categories:

Project Grants
- one call per annum, in Michaelmas Term;
- awards of up to £30k over periods up to three years;
- normally for the support of a specific project under the leadership of a named Principal Investigator (PI);
- offering initial partner funding for new research projects, grants for unconventional, innovative forms of research and scholarship;
- normally awarded for research associates' salary costs but may include small contribution to consumables or equipment;
- particular attention is given to the qualities of the research project, on which we seek advice from external and internal referees, but consideration is also given to the likely benefits of a grant to the Department, PI, and/or early career researchers involved.

Emergency Grants
- three rounds per annum (termly), to respond rapidly and flexibly to cases of need; about one third of the applications for emergency support were due to COVID;
- awards of up to £30k over a period of up to 12 months;
- normally for a named research associate in cases for which short-term immediate intervention is needed;
- bridging or underwriting salary costs up to the start of a new grant;
- providing start-up costs for a pilot ahead of a major grant application;
- meeting a funding deficit in an external competitively-awarded early career fellowship (Fellowship support).

Strategic Grants
- preliminary round (Lent Term); full applications by selected applicants (Easter Term);
- one or more awards of up to a total of £500k for up to 5 years duration;
- for major projects endorsed by a Head of School or Pro-Vice Chancellor as being of strategic importance to the University;
- awards may be to a Department, Faculty, School or a non-School institution;
- this year, the Trustees agreed to consider applications for renewal of ongoing strategic programmes alongside applications for new projects

In 2022-23, Trustees committed £0.62m to new grants across these three categories:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Grants</td>
<td>£0.62m</td>
<td>£1.1m</td>
<td>£0.46m</td>
<td>£1.1m</td>
<td>£2.1m</td>
<td>£3.0m</td>
</tr>
</tbody>
</table>

Project and Emergency Grants
The number of applications for new projects has recovered slightly from the planning blight created by the lockdown in 2020, however, the maximum award (£30k) is generally small compared to the overall cost of a project and necessarily requires applicants to find additional funding from other sources. INT is, however, seeing an increasing number of requests for very short term 'emergency' bringing grants to tide key researchers over to the start of new grants. The success rates for these emergency grants is high, especially where there has evidently been disruption due to COVID. In general, however, there is no obvious recovery in the numbers of applications; the trajectory of the number of applications and successes over the past 23 years is shown in Figure 1.
Figure 1: Project & Emergency Grants: numbers of applications 2000-01 to 2022-23

Strategic Grants
The demand for Strategic Grants of up to £500k however, is strong, with four applications this year for major grants, and one selected.

The distribution of the total value of awards between Strategic Grants (all subjects) and Project/Emergency Research Grants in each of the three main subject areas (Arts, Humanities & Social Sciences; Biological and Medical Sciences; and Physical Sciences & Technology) is shown in Figure 2 (overleaf).

What our grant awardees have said:

…..the Trust acted as a critical bridge before a 5-year Royal Society University Research Fellowship..

…..invaluable to keep continuity, generate preliminary data for grant applications and has yielded useful results and technological advancements that will enable and accelerate current and future projects…

Thank you so much for letting us know so speedily. I am thrilled and will be raising a glass of fizzy stuff this evening!
A full list of the projects and researchers supported in 2022-23 can be found in the following pages.
PROJECT AND EMERGENCY GRANTS AWARDED IN 2022-23

Grants related principally to COVID relief.

Schools of Arts, Humanities and Social Sciences

Criminology (Prof Ben Crewe)
Establishing the Cambridge Study in Delinquent Development Data Archive
50% salary support for a Research Associate for 12 months and 50% cost of data scanning

English (Dr Edward Wilson-Lee)
Unlocking the Universal Library
50% salary support for one Postdoctoral Associate

Pembroke College/English (Dr Mark Wormald)
Casting and Gathering: A Painter and Some Poets
Partial replacement CTO salary to support a research sabbatical for 12 months

Schools of Biological Sciences and Clinical Medicine

Biochemistry (Prof Florian Hollfelder)
Total single-cell transcriptomic analysis of alternative splicing with a user-friendly VASA-Seq analysis pipeline
100% salary support for a Research Associate for 6 months

Pathology (Dr Colin Crump)
Discovering the machinery for fusion of secretory carriers to the plasma membrane.
Salary support for a Research Associate for six months

Pharmacology (Prof Laura Itzhaki)
Dissecting and manipulating biomolecular condensates in cancer
68% salary costs for a Senior Research Associate for 6 months

Pharmacology (Prof Graham Ladds)
Towards a pathway-centric view of receptor signalling in health and disease
100% salary support for a Research Associate for 3 months

Physiology, Development & Neuroscience (Prof Dino Giussani)
Prenatal origins of future pulmonary hypertension
50% salary support for a Research Associate for 12 months

Plant Sciences (Dr Sam Brockington)
Opening Access to the Type Specimens in the Cambridge University Herbarium
66% salary support for a Curatorial Researcher/ Research Associate for 12 months

Psychology (Dr Alex Clarke)
The neural dynamics of how expectation modulates visual object recognition
50% salary support for a Research Associate for 6 months

Wellcome Trust/MRC Cambridge Stem Cell Institute (Dr Maria Duque-Correa)
Recreating the whipworm niche and life cycle in a dish
50% salary support for a Research Assistant for 12 months and consumables, mouse work and research facilities
**Wellcome Trust/MRC Cambridge Stem Cell Institute** (Dr Brian Hendrich)
Control of signal-responsive enhancer organisation by the NuRD complex
47% salary support for a Research Associate for 12 months.

**Wellcome MRC Cambridge Stem Cell Institute** (Dr Maria Alcolea)
Mechanomodulation of mutant clonal competition in oesophageal epithelium; relevance for early tumour formation
50% salary support for a Research Associate for 12 months

**Schools of Physical Sciences & Technology**

**Chemistry** (Prof David Spring)
Conformationally-constrained peptide-drug conjugates as a platform for targeted therapeutics
100% consumables support to access NMR-facilities and MS-facilities

**Chemistry** (Dr Jenny Zhang)
Towards a universal model for extracellular electron transport in cyanobacteria
100% salary support for a Research Associate for 3 months.

**Computer Science & Technology** (Dr Jamie Vicary)
Computational Techniques for Directed Globular Higher Categories
18% salary support for a Research Associate for 3 years

**Materials Science & Metallurgy** (Prof Rachel Evans)
Luminescent Waveguide Encoded Lattices (LWELs) for Indoor Photovoltaics
100% salary support for a Research Associate for 5 months

**Physics** (Prof Richard Phillips)
Probing low-frequency phonons in CH3NH3PbI3 by dark-field Raman spectroscopy
50% of equipment and consumables costs

**Strategic Grants awarded in 2022-23**

**Engineering** (Prof Joan Lasenby)
Non-contact monitoring for neonates in intensive care
Salary support for one fully-funded and one part-funded Research Associate over 3 years to match-fund a Rosetrees Trust 50% award

Two further rounds of funding were approved to follow on from a successful trial last year, to **Asian & Middle Eastern Studies** (Prof B Kushner) for 60% costs of two 12-month Research Associates in Japanese.

A funded 12-month COVID-related extension to a Research Associate salary was approved for **CRASSH** (Prof C Bassett) for Cambridge Digital Humanities (AI in Medicine).
JOINT RESEARCH GRANT PROGRAMMES WITH THE SCHOOLS

Since 2014, the Isaac Newton Trust has committed a substantial proportion of its annual research expenditure to three ‘Joint Schools’ Programmes in which the Trust’s donation is matched by the University, Schools, Departments, and, until recently, a contribution from the Wellcome Trust Institutional Strategic Support Fund (ISSF).

Annual calls are managed by pairs of Schools (Arts & Humanities/ Humanities & Social Sciences, Biological Sciences/ Clinical Medicine, and Physical Sciences/Technology). The selection of applicants for support is carried out by subject panels appointed by the Schools, and as such the funding is targeted in a more strategically informed manner than the Trustees could achieve through their own Research Grants programme.

In the Arts, Humanities and Social Sciences, these grants go some way towards levelling up and maximising the impact of research in these subjects. They do this through creating opportunities to build collaborative networks, engage in public dissemination and make compelling cases for the REF.

In STEM subjects, these Joint grant schemes provide targeted support to early career researchers at the critical point when they are establishing their independence and so enable the most talented individuals to develop their research ideas. Over the years, these grants have enabled the creation of a large number of PDRA positions and represent an enabling investment that has yielded a many-fold return in external funding.

The INT reviews these programmes annually in March in the context of other applications for major grants under the Strategic Grants programme.

Schools of Art & Humanities and Humanities & Social Sciences

(Cambridge Humanities Research Grants)

The CHRG provides awards of up to £20,000 for projects, particularly for early career researchers, especially pilots for applications to external research funding; among the larger grants are many smaller enabling grants. It also provides matching funding of up to £10,000 to support mutual exchange with institutions affiliated to Paris Sciences et Lettres and other partners.

The Trust contributed £70,000 for 2022-23.

<table>
<thead>
<tr>
<th>Awards made from the CHRG fund</th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>46</td>
<td>24</td>
<td>33</td>
<td>42</td>
</tr>
<tr>
<td>Total value of awards from all sources</td>
<td>£248k</td>
<td>£259k</td>
<td>£419k</td>
<td>£373k</td>
</tr>
</tbody>
</table>

A further contribution of **£70k** has been approved for 2023-24

Schools of Biological Sciences and Clinical Medicine

When initially set up, this programme was funded from three sources, each providing £250k p.a. - the Isaac Newton Trust, the Wellcome Trust’s Institutional Strategic Support Fund (ISSF) and the host department of the successful applicant. However, the ISSF ended in 2022 and the two Schools did not seek further INT support for 2022-23.

<table>
<thead>
<tr>
<th>Awards made from the Fund</th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>10</td>
<td>10</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Total value of awards from all sources</td>
<td>£791k</td>
<td>£821k</td>
<td>£1.0m</td>
<td>£1.0m</td>
</tr>
</tbody>
</table>
The two Schools have taken the opportunity to review their needs and have come forwards with a new model for the future, with each School targeting the area in which additional funding would be most enabling for their early career researchers:

- the School of Biological Sciences will offer start-up grants;
- the School of Clinical Medicine wishes to bridge researchers to their next grant.

In both cases, the awards to each researcher would potentially run for two years.

In March 2023, the Trustees agreed to make an award of £125,000 to each School, to be disbursed as described above, to start in 2023, a total expenditure of £250k.

**Schools of Physical Sciences and Technology**

Awards for new lecturers of up to £50k are made by the two Schools’ joint panel for postdoctoral Research Associate support, equipment and ancillary consumables, to develop projects leading to full applications for external funding. The individual awards typically run for up to two years.

In March 2022, a further contribution of £150k was agreed for 2022-23. It was noted however, that there was a large underspend due in part to COVID, and it was agreed that this may be rolled over into 2022-23 in addition to the new grant. However, any funds unspent at the end of the funding period (30 September 2023) should be returned to the INT and future grants would be treated separately, with unspent funds returned to INT.

<table>
<thead>
<tr>
<th>Awards made from the Fund</th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>9</td>
<td>4</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Total value of awards from all sources</td>
<td>£241k</td>
<td>£95k</td>
<td>£233k</td>
<td>£156k</td>
</tr>
</tbody>
</table>

Trustees have approved a further grant of £150k for grants starting in 2023-24.
EARLY CAREER FELLOWSHIPS

The INT’s single largest contribution to research in the collegiate University is achieved through its programme of Early Career Fellowships (ECFs) (see Figure 8).

Co-funding with other charities and with Faculties and Colleges provides a highly effective means of recruiting and retaining the very best postdoctoral researchers, supporting them as they develop their independent research projects and launching them into careers at academic and research institutions around the world. The INT’s ECF programme not only builds the intellectual capital of the University and Colleges, but it attracts external funding that approximately matches the contribution of the Trust: the value of our co-funding of ECFs therefore injects on average funding valued at about £1m into the University annually.

The INT has established a notable record for match-funding, on behalf of the University, Cambridge Fellows selected in the UK-wide Leverhulme Trust’s ECF competition (p 18). However, our activities range more widely into Europe, providing the institutional contribution required for the Humbolt Foundation’s Feodor Lynen ECFs (p. 20), and enabling 6-month extensions for Swiss Science Foundation ECFs.

The INT Academic Career Development Fellowships launched in 2022 have proved to be a great success and we expect this model to become a key element in the INT’s ECF programmes over the next few years (see p. 16).

The Isaac Newton Trust takes an active lead in providing support for our Early Career Fellows through our Fellows’ Association: those who do not already have a College attachment are assisted in finding a way into a Cambridge College community.

We also organise Fellows’ events and were delighted this year to be able to resume our Fellows’ activities after the restrictions of the COVID years. Fellows and Trustees enjoyed a garden party hosted by the Master of Trinity in the College gardens on a perfect sunny day in July 2022.

This was followed in May 2023 by a Fellows’ Day at Eddington hosted at the Postdoc Academy. Thirty Fellows attended to hear 13 brief presentations across a very wide range of topics, from Music in the Ottoman Press, via Black Soldiers of the Caribbean, to Galactic Archaeology in the inner Milky Way. It was an opportunity to meet old friends and to network with the new cohort of Fellows.
Introducing our new Early Career Fellows starting in 2023-24

Dr Amir Reza Asadi  
Pure Mathematics & Mathematical Statistics

Dr Toby Buttress  
Gurdon Institute  
LECF

Dr Harriet Fagerberg  
HPS  
LECF

Dr Gianamar Giovannetti-Singh  
History  
LECF

Dr Alexis MacIntyre  
MRC Cognition & Brain Sciences Unit  
LECF

Dr Vasiliki Mavridou  
Pharmacology  
LECF

Dr Tobias Müller  
CRASSH  
LECF

Dr Nik Petek-Sargeant  
Archaeology  
LECF & Brian Shiers Lowe Fellow

Dr Facundo Romani  
Plant Sciences  
LECF

Dr Lefan Wang  
Engineering  
LECF

Dr Alan Wanke  
Sainsbury Laboratory  
LECF

Dr Fabian Berger  
Chemistry  
Humboldt ECF

Dr Oliver Wilson-Nunn  
Latin-American Studies  
Robinson JRF

Dr Alex Bryan  
Philosophy  
Magdalene & Newnham  
ACDF

Dr Daniele Cassese  
Economics  
Trinity Hall  
ACDF

Dr Ned Crowley  
Sociology  
Gonville & Caius  
ACDF

Dr Jose Tomas Labarca  
POLIS  
St Edmund’s  
ACDF
INT ACADEMIC CAREER DEVELOPMENT FELLOWSHIPS

Last year, the Isaac Newton Trust launched a new model for Early Career Fellowships in the Arts, Humanities and Social Sciences at Cambridge that would enable Early Career Researchers to develop the skills and experience needed for an academic career. The initial driver for this activity was the recognition that a number of Faculties and Departments were struggling to cover their teaching needs while many Colleges were similarly unable to secure teaching cover and directing studies in some of the smaller subjects. It was also evident that the routes available to Early Career Fellows had become increasingly polarised into ‘teaching’ or ‘research’ streams, and that some junior College teaching officers lacked a formal base in a Faculty and equally, that many Faculty-based researchers and teaching assistants lacked College connections.

INT ‘Academic Career Development Fellowships’ (ACDFs) have at their heart a three-way partnership between the Trust, a Faculty or Department in the Arts, Humanities or Social Sciences, and one (or perhaps two) Colleges. The INT pledges 40% of the Fellow’s salary costs to protect their research time; the Faculty funds 30% to cover teaching and provides subject-based mentorship; the partner College provides 30% of the salary to cover supervision and Directing of Studies up to 80 hours per annum and also offers a suitable College affiliation or Fellowship. The Fellow holds co-terminous contracts in the University and the College and is line managed by the Head of Faculty and Senior Tutor as appropriate to the activity being undertaken.

The programme has been greatly aided by the School of Humanities & Social Sciences in identifying Faculties for the support of their teaching, but otherwise the non-INT costs have been met from philanthropy.

A trial of two ACDFs created the opportunity for two Fellows to start in October 2022:

- Dr Cicely Whitely was appointed in the Faculty of Philosophy in partnership with Magdalene and Newnham Colleges jointly;
- Dr Franziska Strack was appointed in POLIS in partnership with Lucy Cavendish College.

Dr Whitely demonstrated the value of the new programme by succeeding in landing a lectureship at the University of St Andrews before the end of her first year in post. Both Colleges and the Faculty wished to continue with the partnership and, with the INT’s support, it was agreed to create another full three-year Fellowship for October 2023.

On the strength of this pilot year, the programme has been opened up to all Colleges and subjects in Arts, Humanities and Social Sciences with up to five new awards for 2022-23. This generated considerable interest; the following partnerships were created and the following appointments made to start in October 2023:

- Dr Ned Crowley in Sociology with Gonville & Caius College;
- Dr Daniele Cassese in Economics with Trinity Hall;
- Dr Jose Tomas Labarca in POLIS with St Edmund’s College;
- Dr Alex Bryan in Philosophy with Magdalene and Newnham Colleges

A further ACDF, in Gender Studies with Downing College, has been deferred.

The total cost of these new awards to INT is expected to be approximately £330k, and the Trustees have agreed to fund four more ACDFs for 2024.
LEVERHULME EARLY CAREER FELLOWSHIPS

The Isaac Newton Trust’s commitment to providing the necessary institutional match-funding for Leverhulme Early Career Fellowships (LECFs) is one of the Trust’s longest-standing and most successful contributions to the academic training of the next generation of researchers. Our support for this programme over the past 17 years represents one of the Trust’s main contributions to building up the intellectual capital of the University.

Each year, the INT co-ordinates an internal competition to identify the very best scholars wishing to conduct postdoctoral research in Cambridge. The selection of candidates for promises of matching funding to satisfy the entry requirements for the national competition is carried out by subject-specific academic panels nominated by the Schools. Successful candidates are provided with a guarantee from the INT of salary support to match the Leverhulme Trust’s contribution for up to three years should they be selected in the Leverhulme Trust’s national competition.

Results of the 2023 competition

The Leverhulme Trust received 755 applications in the national competition and offered 145 awards this year, across the full range of subjects, (apart from Clinical Medicine), of which 12 were made to applicants supported by offers of matching funding from the INT to carry out research in Cambridge. Of these, three declined their offers, having accepted other posts (a tenured Lectureship at the University of Pennsylvania, a JRF at Oxford and a Marie Curie Fellowship).

Two further Fellowships were awarded to candidates who applied direct to the Leverhulme Trust with Departmental support, bringing the total number of LECFs due to start in 2023-24 in Cambridge to 11. The Isaac Newton Trust had budgeted for the possibility of making 12 awards, so agreed to make a partial contribution to the institutional funding of these two candidates in order for them to become part of the association of INT Fellows.

Of the new LECFs, four are in the Arts, Humanities and Social Sciences, two in Physical Sciences & Technology and five in Biological Sciences. This contrast strikingly with previous LECF cohorts (see Figure 3) with a larger number of biologists and fewer in the Arts, Humanities and Social Sciences than usual.

The Leverhulme Trust actively encourages mobility between institutions and is unlikely to fund a candidate who has spent his or her entire academic career at the same University. However, as is often the case, a number of our new LECFs are already members of the University of Cambridge. Of the incoming cohort of new LECFs:

- Eight are recent alumni of Cambridge University or post-docs in Cambridge;
- One new Fellow comes from each of: Hunter College, University of New York; University College, London; and Yale.

Our record of support for Leverhulme Early Career Fellows

The INT started supporting Leverhulme Early Career Fellowships in 2007. It began in a small way, with contributions to four fellowships in the Arts, Humanities and Social Sciences, and has grown steadily as the INT has extended its support to other subjects. Seventeen cohorts have now received our support and the total cost to the INT constitutes a very large proportion of our annual expenditure.

Over the past decade, the number of LECFs awarded for research at Cambridge has grown as the number awarded nationally has increased. Since 2012, Cambridge has typically obtained 10 - 15% of the national awards. Cambridge has an exceptional record for securing LECFs across all subjects, consistently ranking highest among UK institutions for the number of awards secured in STEMM subjects and in the top three for Arts, Humanities and Social Sciences.
The cost to the INT of match-funding a Leverhulme ECF has risen this year for three reasons:

**first,** the additional funding made available during the COVID crisis to support institutional hosts has ceased. Leverhulme had generously covered the full cost of the first year for cohorts starting in 2021-2 and 2022-23, but this has now reverted to the previous pattern of host institutions being required to match-fund all three years;

**secondly,** the cap on the 50% salary contribution to be supplied by each of the two partners has increased from £25k per annum to £26k;

**thirdly,** postdoc salaries have increased even faster than the value of the maximum Leverhulme award, so that, even if LECFs are appointed at the lowest point on the salary scale, they will all exceed the maximum award available at some point in their Fellowship.

Normally, any shortfall in salary between the actual salary requirement and the combined maximum grants must be guaranteed by the host department, but the Isaac Newton Trustees have agreed that no candidate should be disadvantaged if the host department does not have funds to meet this shortfall. The INT has therefore guaranteed to meet the shortfall if the host department demonstrates that it cannot do so.

The smaller number of awards made to Cambridge this year has meant that the INT finances have not yet been put to the test by the combined effect of these three factors, but this may well become a problem in future years. Trustees have been faced with the possibility that alternative means of supporting LECFs would need to be sought.

The Trustees are therefore thrilled to have received a bequest from Mr Brian Shiers Lowe (see a full account on p. 29), which Trustees have ear-marked to support one LECF each year for up to four cohorts.
**Figure 4: Cost (£k) of seventeen Leverhulme Early Career Fellows cohorts:**

INT contributions in blue; Leverhulme Trust’s additional contributions in red

<table>
<thead>
<tr>
<th>Total cost of cohort £k</th>
<th>Year cohort commencing</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2007-08</td>
</tr>
<tr>
<td>200</td>
<td>2008-09</td>
</tr>
<tr>
<td>400</td>
<td>2009-10</td>
</tr>
<tr>
<td>600</td>
<td>2010-11</td>
</tr>
<tr>
<td>800</td>
<td>2011-12</td>
</tr>
<tr>
<td>1,000</td>
<td>2012-13</td>
</tr>
<tr>
<td>1,200</td>
<td>2013-14</td>
</tr>
<tr>
<td>1,400</td>
<td>2014-15</td>
</tr>
<tr>
<td>1,600</td>
<td>2015-16</td>
</tr>
<tr>
<td>1,800</td>
<td>2016-17</td>
</tr>
<tr>
<td>2,000</td>
<td>2017-18</td>
</tr>
<tr>
<td>2,200</td>
<td>2018-19</td>
</tr>
<tr>
<td>2,400</td>
<td>2019-20</td>
</tr>
<tr>
<td>2,600</td>
<td>2020-21</td>
</tr>
<tr>
<td>2,800</td>
<td>2021-22</td>
</tr>
<tr>
<td>3,000</td>
<td>2022-23</td>
</tr>
<tr>
<td>3,200</td>
<td>2023-24</td>
</tr>
</tbody>
</table>

*Our Leverhulme/INT Early Career Fellows resident in 2022-23 were:*

<table>
<thead>
<tr>
<th>Cohort 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hjordis Becker-Lindenthal</td>
</tr>
<tr>
<td>Calbert Graham</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cohort 2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gabrielle Davidson</td>
</tr>
<tr>
<td>Charlotte Kenchington</td>
</tr>
<tr>
<td>Christopher Markou</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cohort 2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farah Ahmed</td>
</tr>
<tr>
<td>Luke Bridgestock</td>
</tr>
<tr>
<td>Bipasha Chakraborty</td>
</tr>
<tr>
<td>Hajni Elias</td>
</tr>
<tr>
<td>Sofia Gotti</td>
</tr>
<tr>
<td>Tim Greenfield</td>
</tr>
<tr>
<td>Martin Kleppmann</td>
</tr>
<tr>
<td>Adrien Lefauve</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cohort 2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Godwin Aleku</td>
</tr>
<tr>
<td>Lauren Davies</td>
</tr>
<tr>
<td>Kelly Fagan Robinson</td>
</tr>
<tr>
<td>Jaakko Heiskanen</td>
</tr>
<tr>
<td>Lorna Dillon</td>
</tr>
<tr>
<td>Monica Nicolaides Ramsey</td>
</tr>
</tbody>
</table>

ISAAC NEWTON TRUST | ANNUAL REPORT 2022-2023 | 19
HUMBOLDT FOUNDATION FEODOR LYNEN EARLY CAREER FELLOWSHIPS

The Humboldt Foundation's highly competitive Feodor Lynen Early Career Fellowships are held in leading Universities globally under the guidance of a Humboldt Fellow. The INT makes a contribution of £1,000 per month for up to 24 months for any candidate who secures a Feodor Lynen Fellowship for research in the University of Cambridge.

Two Humboldt INT Early Career Fellows were in residence in 2022-23:

<table>
<thead>
<tr>
<th>Fellow</th>
<th>Department</th>
<th>start</th>
<th>end</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr Aleksandar Kondinski</td>
<td>Chemical Engineering &amp; Biotechnology</td>
<td>Oct 20</td>
<td>Sep 22</td>
</tr>
<tr>
<td>Dr Hannah Kurz</td>
<td>Chemistry</td>
<td>Oct 22</td>
<td>Sep 24</td>
</tr>
</tbody>
</table>

Dr Fabian Berger takes up a Humboldt Feodor Lynen Early Career Fellow in October 2023, working in the Department of Chemistry with Prof James Keeler.
**INT/COLLEGE JUNIOR RESEARCH FELLOWSHIPS**

Isaac Newton Trust/College Junior Research Fellowships provide £20,000 per year for three years towards stipendiary Junior Research Fellowships in the Arts, Humanities and Social Sciences. Since 2019, the Trust has also offered contributions of £3,000 per annum towards the cost of non-stipendiary JRFs in STEMM subjects.

Each College may have only one stipendiary and one non-stipendiary INT/College JRF at any one time. There is one round annually, in May. Selection of the Fellow is then a matter for the College, which is expected to apply the usual stringent academic criteria.

Eligibility is limited to those Colleges exempt from making a contribution to the University under Statute G, Chapter II. The list is published annually, and in 2022-23 comprised: Clare Hall; Darwin; Downing; Fitzwilliam; Hughes Hall; Lucy Cavendish; Murray Edwards; Robinson; St Edmund’s and Wolfson.

Five stipendiary and three non-stipendiary Newton Trust/College JRFs were in post during 2022-23:

<table>
<thead>
<tr>
<th>College</th>
<th>JRF</th>
<th>Faculty/Department</th>
<th>start</th>
<th>end</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selwyn</td>
<td>Dr Helena Phillips-Robins</td>
<td>MMLL</td>
<td>Oct 18</td>
<td>Sep 22**</td>
</tr>
<tr>
<td>Lucy Cavendish</td>
<td>Dr Rihab Khalid</td>
<td>Architecture</td>
<td>Oct 20</td>
<td>Dec 23***</td>
</tr>
<tr>
<td>Robinson</td>
<td>Dr Matthew Simpson</td>
<td>Philosophy</td>
<td>Oct 20</td>
<td>Sep 23</td>
</tr>
<tr>
<td>Fitzwilliam</td>
<td>Dr Caitlin Harvey</td>
<td>History</td>
<td>Oct 21</td>
<td>Sep 24</td>
</tr>
<tr>
<td>Lucy Cavendish</td>
<td>Dr Colleen Drapek</td>
<td>Plant Sciences*</td>
<td>Oct 21</td>
<td>Sep 24</td>
</tr>
<tr>
<td>Murray Edwards</td>
<td>Dr Moataz Assem</td>
<td>MRC CBSU*</td>
<td>Oct 21</td>
<td>Sep 24</td>
</tr>
<tr>
<td>Clare Hall</td>
<td>Dr Giulia Maltagliati</td>
<td>Classics</td>
<td>Oct 22</td>
<td>Sep 25</td>
</tr>
<tr>
<td>Fitzwilliam</td>
<td>Dr Anke Arentsen</td>
<td>Astronomy*</td>
<td>Oct 22</td>
<td>Sep 25</td>
</tr>
</tbody>
</table>

*non-stipendiary  ** intermitted for one year  *** granted a 3-month COVID extension

Dr Oliver Nunn-Wilson (Latin American Studies) has been appointed to a Stipendiary INT JRF at Robinson College in October 2023.

**Colleges’ competition for JRF funding starting in October 2023**

Again, there was only one College application, for a Stipendiary JRF, from Fitzwilliam College; this was approved at a cost to the INT of £60,000 over three years.

In view of the dwindling number of applications from Colleges, the Trustees reviewed the programme and have agreed that in future the awards may be advertised in a narrower range of topics than ‘Arts, Humanities & Social Sciences’. The original driver for this requirement had been to ensure that Colleges would not use the INT’s JRF awards to fill teaching needs. This had, however, burdened Colleges with a very large number of applications from across the complete spectrum of subjects. Trustees observed that the ACDFs now go some way towards filling College teaching needs and have agreed that Colleges may now advertise a JRF in a specific topic, providing it is clear in the Terms and Conditions that, while INT JRFs may be encouraged to teach up to 4 hours a week in term time, they cannot be required to teach as part of their Fellowship.
COLLEGE TEACHING OFFICERS’ RESEARCH LEAVE

Launched in 2013-14, this programme aimed to encourage high-quality research among College Teaching Officers (CTOs). This was achieved through allowing Colleges to apply for grants to make full-time short-term junior teaching appointments of 9 to 12 months’ duration to release an established CTO to take an extended period of leave for a significant research project.

Trustees reviewed this programme in 2021 against a background of declining applications and decided that the programme had run its course and should close, and other ways should be sought to support research in Colleges.

In future, CTOs wishing to seek research leave support may do so through the vehicle of INT Project Grants. One such application was approved in 2022-23:

Pembroke College: 12 month’s replacement CTO salary to support a research sabbatical for Dr Mark Wormald (to start in October 2023)

STUDENT AWARDS

The Trust has maintained a long-term commitment to providing competitive research scholarships to the best of the UK and EU students, many of whom have been unable to secure funding from public sources such as the Research Councils. The Trust does not itself award these scholarships but directs funding through existing University competitions. The Trust does not provide salary or research costs for students other than through these established major funding programmes.

PHD STUDENTSHIP PROGRAMMES

The Trust has supported two the AHRC Doctoral Training Programmes (DTPs), 2014-19 and 2019-26. The Trust’s support enables six 3-year studentships per annum (at half cost) for students whose College is not a participant in the shared funding arrangements.

A further £73k was allocated to DTP2 in 2022-23 to cover UKRI’s stipend uplift and additional salary inflationary increases.

What our recent Early Career and College Fellows have said:

This Fellowship has given a huge boost to my career and allowed me to have a significant impact on both the academic state of the art and industrial practice.

In the current job market, the possibility to have several years of research time and build a portfolio of publication is a rare opportunity I am grateful to have been given.

I cannot emphasise enough how grateful I am for the Newton Trust funding. Put simply I was able do things that I would never in a million years be able to do… it gave me capacity to open up door after door of collaboration that I did not even know existed.
WIDENING PARTICIPATION & INDUCTION FUND

The new programme set up in 2022 to support Widening Participation and Induction has completed its first full year of operation in 2022-23. This Fund, established with additional funding from Trinity College, is intended to enable the ambitions of Colleges to expand and diversify their activities with prospective and incoming undergraduate students from disadvantaged backgrounds.

Suitable projects might include developing subject interests at younger age ranges, encouraging applications to Cambridge or other leading universities among Year 12 students; or working with offer-holders and incoming students to build up their subject knowledge or study skills in preparation for university study. This year has seen some extremely innovative proposals, including a very successful collaboration with the University Museums.

The total funding available over the duration of the programme is £1.3m, and the intention is that the programme should run for three full annual cycles. A pilot round with a budget of £100k was held in July 2022, and up to £400k will be available in each academic year thereafter. There are two rounds annually.

All Colleges are eligible; they may apply singly or in partnership with other Colleges or institutions within the University. A maximum of £50k is available to any one College in any given year.

A Sub-Committee of the Isaac Newton Trust, comprising experienced admissions professionals from across the collegiate University, oversees the programme, assesses the applications and advises the INT:

- Professor Loraine Gelsthorpe (Isaac Newton Trustee, Chair)
- Dr Glen Rangwala (Tutor for Admissions, Trinity College)
- Dr Marina Frasca-Spada (Chair, Senior Tutors’ Committee) (to June 2023)
- Dr Emily Tomlinson (Co-Chair of the Admissions Forum)
- Mr Tom Levinson (Head of Widening Participation and Regional Collaboration, CAO)
- Director of INT (in attendance)

<table>
<thead>
<tr>
<th>Category</th>
<th>June 2022</th>
<th>February 2023</th>
<th>June 2023</th>
<th>Total to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications received</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>25</td>
</tr>
<tr>
<td>Number of awards</td>
<td>6</td>
<td>9</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>Grants awarded</td>
<td>£101,024</td>
<td>£124,099</td>
<td>£117,917</td>
<td>£343,040</td>
</tr>
</tbody>
</table>

What students on INT-supported WPIF programmes have said:

‘I loved and enjoyed every single day… I cannot say how grateful I am to you and all the scientists that took time out of their work to spend time with us.’

‘I am grateful for this enriching experience and excited about the possibilities that lie ahead.’

‘I just wanted to say thank you from the bottom of my heart, genuinely these outreach programmes are life changing, and completely changed my perspective of university. Your work made a really big impact in my life.’
**TRUST POLICIES AND FINANCES**

In deciding who and what to fund, and to what extent, the Trustees continue to hold to the following general principles:

- promote excellence in research and scholarship;
- respond flexibly to emerging needs;
- help new projects get off the ground, committing to individual projects for no more than 5 years, and reviewing ongoing programmes at intervals;
- prioritise early career researchers, helping to nurture and grow the University’s intellectual capital;
- assist the University to secure funding from outside sources wherever possible.

The Trustees’ overall financial management policy is to ensure that Trinity College’s donations are used to their full potential. Following a series of Strategic Reviews, undertaken since 2015, three key approaches have been established:

- investing unspent income appropriately and spending the resulting income;
- holding sufficient reserves to cover our forward commitments in the event that all sources of income ceased, but otherwise making full use of donated income for the support of research in the University;
- budgeting to bring our reserves and forward commitments into balance.

**Audited accounts 2022-23**

For full details see: [https://www.newtontrust.cam.ac.uk/about/Accounts](https://www.newtontrust.cam.ac.uk/about/Accounts)

<table>
<thead>
<tr>
<th></th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening reserves</td>
<td>£4,387,701</td>
<td>£4,510,748</td>
<td>£3,045,317</td>
<td>£3,543,790</td>
</tr>
<tr>
<td>Income</td>
<td>£3,068,051</td>
<td>£2,621,139</td>
<td>£1,772,028</td>
<td>£1,846,009</td>
</tr>
<tr>
<td><em>Expenditure</em></td>
<td>£2,348,980</td>
<td>£2,478,535</td>
<td>£1,612,750</td>
<td>£2,372,123</td>
</tr>
<tr>
<td>Gain (Loss) on investments</td>
<td>£14,601</td>
<td>-£265,656</td>
<td>£1,306,153</td>
<td>£27,641</td>
</tr>
<tr>
<td>Closing reserves</td>
<td>£5,121,373</td>
<td>£4,387,695</td>
<td>£4,510,748</td>
<td>£3,045,317</td>
</tr>
</tbody>
</table>

*Expenditure includes new commitments during the year taking into account unused funds written back and refunded (see below), plus administration costs.

Four features stand out from our financial headline figures this year:

- our exceptionally high income due to the additional grants made by Trinity College (including £400k for the restricted purpose of Widening Participation & Induction), and a benefaction from Mr Brian Shiers Lowe;
- expenditure has recovered after unusually low expenditure in 2020-21, which was mainly due to COVID reducing the demand for Research Grant funding;
- a small gain on investments following the considerable loss in 2021-22 and the exceptional gains in 2020-21;
- reserves carried over to next year are therefore substantially larger than last year.
Resource management

Since 2015, Trustees have had a policy of maintaining our assets at a level to cover all our forward commitments in the event of our income ceasing, plus a margin that would enable Trustees to respond to new and compelling opportunities. The initial phase of reducing our investments through a programme of large grants has now come to an end and there is a balance between assets and commitments. Trustees now have an additional requirement to hold total assets at above £10m at the end of the financial year for the purposes of investment in CUEF (see below). We have now reached the point at which we are not planning to reduce our investments further; there were no withdrawals from the CUEF in 2022-23.

Figure 5: Assets (Investments + bank) & Commitments carried forward at Year End

<table>
<thead>
<tr>
<th>Year Ended</th>
<th>Total closing assets</th>
<th>Closing commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>15.2</td>
<td>7.1</td>
</tr>
<tr>
<td>2017-18</td>
<td>16.8</td>
<td>5.9</td>
</tr>
<tr>
<td>2018-19</td>
<td>14.5</td>
<td>6.5</td>
</tr>
<tr>
<td>2019-20</td>
<td>10.9</td>
<td>3.8</td>
</tr>
<tr>
<td>2020-21</td>
<td>11.3</td>
<td>2.3</td>
</tr>
<tr>
<td>2021-22</td>
<td>10.1</td>
<td>2.0</td>
</tr>
<tr>
<td>2022-23</td>
<td>10.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Trustees budget for new research commitments in line with predicted income (Figure 6) and review the allocations to different categories of grant expenditure annually in March, when it is clear what the actual income and demand is likely to be for the financial year.

Figure 6: Income & Expenditure (new grants only)

<table>
<thead>
<tr>
<th>Year Ended</th>
<th>Income during year</th>
<th>Expenditure (new grants only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-17</td>
<td>5.0</td>
<td>3.0</td>
</tr>
<tr>
<td>2017-18</td>
<td>5.1</td>
<td>4.0</td>
</tr>
<tr>
<td>2018-19</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2019-20</td>
<td>4.9</td>
<td>2.9</td>
</tr>
<tr>
<td>2020-21</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>2021-22</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td>2022-23</td>
<td>4.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>
The Trinity donation (£1.5m) is the Trust’s main source of income. In 2022-23, the College’s Expenditure Committee again provided an additional grant to help to stabilise the Trust’s finances; this year an additional £500k was provided.

Trinity also provided funds earmarked for Widening Participation & Induction grants, amounting to £400k.

The total income from Trinity for 2023-24 was therefore £2.4m.

Of our other income, the majority normally arises from the investment of past donations, and so comes indirectly from Trinity. Our income from investments increased to £272k this year (£247k in 2021-22; £253k in 2020-21; £336k in 2019-20).

This year, however, we have received major income from donations, mostly in the form of a single benefaction amounting to £369,138, received via Trinity College Alumni Relations & Development Office, from the estate of Brian Shiers Lowe. Other private donations to the Trust through Trinity amounted to £16.5k including Gift Aid, bringing our total private donations to £385,638.

Our bank deposit account yielded £8,727 in interest.

There was a small income (£1,046) from the exploitation of intellectual property generated by INT grants in 2022-23.
Expenditure 2022-23

Expenditure comprises new commitments plus administrative costs, less write-backs and refunds (see below):

Figure 8: Expenditure by major funding category 2022-23

At the end of this year, the Trust carried forward commitments totalling £5.6m (£5.3m in 2021-22; £6.1m in 2020-21; £8.0m in 2019-20).

Expenditure and forward commitments are accounted for net of write-backs and refunds:

• **Write-backs** of unused portions of grants account for a significant reduction in commitments carried forward from year to year. The Trust wrote back £354k in 2022-23, principally from Early Career Fellowships where the holder succeeds in securing another grant or post before the scheduled end date. Trustees decide annually in March whether to recommit some of these write-backs;

• **Refunds** from the residue of completed projects amounted to £183k in 2022-23.

Administration accounted for 5% of our total expenditure:

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>2022-23</th>
<th>2021-22</th>
<th>2020-21</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>staff salaries, pensions, NI</td>
<td>£98,862</td>
<td>£95,302</td>
<td>£91,705</td>
<td>£98,090</td>
</tr>
<tr>
<td>rent, services, miscellaneous</td>
<td>£8,208</td>
<td>£15,146</td>
<td>£13,871</td>
<td>£9,924</td>
</tr>
<tr>
<td>governance, audit, accounts</td>
<td>£11,582</td>
<td>£9,877</td>
<td>£8,851</td>
<td>£10,044</td>
</tr>
<tr>
<td>Total</td>
<td>£118,652</td>
<td>£120,326</td>
<td>£114,427</td>
<td>£118,058</td>
</tr>
</tbody>
</table>
**Investment Strategy**

The Trust’s investment portfolio is placed in the Cambridge University Endowment Fund (CUEF), whose performance is reviewed periodically by the Trust’s Investment Sub-committee. The Trustees’ agreed primary objective is to aim to achieve a total return of at least CPI inflation plus 5% with the additional requirement that the portfolio be invested in a socially responsible manner. We have attended regular meetings with CUEF and are pleased to report that major progress is being made towards a net zero portfolio by 2038.

CUEF issued an updated Information Memorandum this year. Trustees have noted the requirements for an investor in CUEF to hold more than £10m in Cash and Investments in order to be recognised as a ‘professional client’ and therefore be eligible to invest in CUEF. At the end of year 2022-23 our total holdings were approximately £7.1m in investments, plus £3.3m cash in the bank.

Trustees have also been required to sign a Comfort Letter in compliance with Anti Money Laundering (AML) requirements and have declared any PEP relationships (ie with Politically Exposed Persons).
Fund-raising

The Isaac Newton Trust does not itself fund-raise but works with the Trinity’s Alumni Relations and Development Office to facilitate donations to the Trust via the College, which then assumes responsibility for verifying the source of donations and management of donations, including, for the first time this year, collection of Gift Aid on our behalf. As reported last year, we have received a benefaction from the estate of the late Brian Shiers Lowe (Trinity 1931), who died aged 108 in February 2022. This extraordinarily generous gift ‘for the general purposes of the Trust’ amounts to £369,138 and Trustees have decided it will be used to provide named fellowships for early career researchers. The Trust warmly welcomes interest from alumni of Trinity and others who might wish to support the work of the Trust and encourages them to contact the College by visiting the Trinity donations website at https://www.trin.cam.ac.uk/alumni/isaac-newton-trust/.

BRIAN SHIERS LOWE FELLOWSHIPS

Brian Shiers Lowe was born in Alderley Edge, near Manchester, in 1913 and educated at Charterhouse. He was accepted by Cambridge University on his 2nd attempt ‘after achieving an elusive credit in Latin’ and came up to read Law at Trinity in 1931. Brian travelled extensively through Europe, and the Far East as the Second World War loomed and was called up as an Officer in the Royal Naval Volunteer Reserve. After the war, he emigrated to Canada, first as Assistant British Trade Commissioner and then as a solicitor in Vancouver, eventually retiring to Australia with his wife Liz, in 1975.

In 2016, Brian entered the annals of history of the University of Cambridge by being the oldest person to have a degree conferred by the University. He had been eligible for the MA degree from the age of 24, but, like many graduands, did not feel in a rush to have it conferred. Then, nearly 80 years later, he wrote to Trinity:

_I thoroughly enjoyed being at Cambridge. There is no doubt that it influenced my outlook for the better…. I had been thinking of applying to be awarded an MA for some years but never got around to it. However, now that I am 102 I would very much appreciate having an MA to complete my CV._

Brian died aged 108 in February 2022. His magnificent bequest to the Isaac Newton Trust has enabled the Trustees to create named Early Career Fellowships, appointing one new Fellow a year for four years. Archaeologist Nik Petek-Sargeant (right) has been elected as the first Brian Shiers Lowe Fellow and will take up his Fellowship in May 2024.

Brian’s nephew says:

_Brian would have been…particularly “well pleased” to learn how you intend to use the funds. Brian was always keen on furthering his education and encouraged others to do the same. I have no doubt [my siblings and cousins] will share the pride and enthusiasm I have on this matter. We are indeed very fortunate to have had Brian in our lives, and it is good to know his legacy is not only recorded, but that it will serve other very deserving people._

Thank you so much, Brian!
Governance

The Isaac Newton Trust was founded by Trinity College and receives almost all its income from the College. At the beginning, all Trustees were appointed by Trinity Council, and many were also Fellows of the College, indeed, the Master and Vice-Master were Trustees *ex officio*. Since 2015, however, Trinity has gradually reduced its role in the governance of the Trust, preferring to leave the decision-making in the hands of Trustees drawn from the wider collegiate University. INT continues to work closely with Trinity: we provide our Annual Report for the scrutiny of the College Council, and we also now report on our strategic plans to the College’s Expenditure Committee ahead of their annual budgetary discussion, at which the donation to the INT for the coming year is determined.

The INT has, since 2010, claimed exemption under the Charities Act as a connected institution of the University. Over the past few years, the University’s scrutiny has taken the form of a presentation of the Trust’s Accounts and an overview of its policies and future direction to the University Finance Committee’s Business Working Group. As part of this process, discussions have been had about the Trust’s claim to exemption and the University’s legal advice, which has been accepted by the Trustees, is that the INT should now register as a charity in its own right.

In preparation for this change, and with the encouragement and support of our Auditors, Trustees have engaged with Charity Code of Governance as it applies to charities with a turnover of more than £1m per annum. Recognizing the small size of the INT and the fact that almost all of its financial interactions fall within the collegiate University, Trustees have agreed to:

- work within principles published in the guidelines and policies of Trinity College and the University and not to draw up a separate Code of Conduct;
- identify areas in which further action by INT is required or should be considered;
- seek external assistance with HR support as needed and seek legal advice as and when necessary.
- review our progress with respect to the Code annually in July.
- see: [https://www.newtontrust.cam.ac.uk/about/deed/charity-code-governance](https://www.newtontrust.cam.ac.uk/about/deed/charity-code-governance)

During 2022-23, we have:

- reviewed terms of employment for staff members in readiness for any recruitment that should be necessary and to create resilience and flexibility in the staff structure;
- formed a Personnel Standing Sub-Committee to cover appointments, terms and conditions, and any incidents such as complaints, misconduct or whistleblowing;
- published the Trustees’ Register of Interests on the website;
- taken out Employers’ Liability Insurance, with some public liability cover for events;
- completed a Risk Register covering all aspects of the Trust’s activities.

Auditors

Peters, Elsworth & Moore were Auditors to the Trust for the financial year 2022-23. Our audited accounts may be found at [https://www.newtontrust.cam.ac.uk/about/Accounts](https://www.newtontrust.cam.ac.uk/about/Accounts)
**COMINGS AND GOINGS…**

As we noted in the last Annual Report, 2022-23 would be a year of considerable change in the Trustee body. Professors Gerard Evan and Richard Smith left in July 2022, having served as Trustees for nine years, and Professor Jeremy Baumberg came to the end of his Trusteeship in September, ten years after he first joined the Trust.

Although we have missed the wise and collegial company of Richard, Gerard and Jeremy, we are thrilled to have Professors Ash Amin, Ben Simons and John Pyle as our new Trustees in 2022-23. All three have settled into the task, having absorbed - apparently effortlessly - the complexities and historical nuances of the Trust's activities and ethos.

We welcomed Prof Rae Langton back from leave, helping to bring arts/science representation on the Trustee body back into balance. We are especially delighted that Rae can now enjoy at first hand the success of the Academic Career Development Fellowship programme that she first proposed to the Trustees in 2021.

It has been a great pleasure to be able to meet again in person at Trustee meetings, although we have maintained a hybrid approach throughout 2022-23 in order to accommodate Trustees who were unable to come to meetings in person. The year ended with a low-key, but celebratory, dinner at Trinity.

---

**Newton’s Apple Tree reimagined**

We reported last year that the apple tree in Cambridge University Botanic Garden, grown from a scion of the tree at Isaac Newton’s birthplace, had died and been blown over. But this does not signal the end for the tree. It has been given an afterlife by the Botanic Garden’s Artist in Residence, Nabil Ali, who has been exploring the tree’s hidden colour, extracting pigment from the bark and turning it into ink (see front cover), which he has named ‘Newton’s Gold’. The ink will be used in an art installation called *The Tree That Once Was*, consisting of 68 apples, one for each year of the tree’s life.

Nabil Ali extracts bark from the fallen Newton Apple tree (by kind permission of Cambridge University Botanic Garden & Nabil Ali); credit Louise Walsh