

# **ISAAC NEWTON TRUST**

## **ANNUAL REPORT**

TO THE COUNCIL OF

TRINITY COLLEGE

COVERING THE PERIOD

**11 MARCH 1999 – 27 APRIL 2000**

VOLUME X

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## TRUSTEES AND OFFICERS

H.R.H. the Prince of Wales (*Chairman*)

Sir Robin Ibbs

*(until November 1999; Deputy Chairman until November 1999)*

Professor Sir Michael Berridge

*(until February 2000; Deputy Chairman November 1999 – February 2000)*

Dr C T Morley (*Acting Deputy Chairman from February 2000*)

Professor Sir Alec Broers (*until November 1999*)

Baroness O'Neill

Dr J R F Fairbrother

Professor A K Sen

Mrs A Lonsdale

Professor Sir Tony Wrigley (*from November 1999*)

Professor N O Weiss (*from November 1999*)

Professor E J Hinch (*from January 2000*)

Dr M S Neuberger (*from January 2000*)

### Director

Dr A Seal (*until February 2000*)

Dr J M Rallison (*Acting Director from February 2000*)

### Treasurer

Dr S G Fleet (*until February 2000*)

Dr J R G Bradfield (*Acting Treasurer from March 2000*)

## **INTRODUCTION**

This report to the Council covers the period 11 March 1999 up to, and including, the Trustees' meeting on 27 April 2000. It lists for that period new research grants approved by the Trustees, developments in the main schemes of the Trust, and grants from the Special Donations made by the College. The audited Trust accounts for the year ended 31.1.2000 are given as Appendix 1.

A full account of the Trust's activities in earlier years may be found in Annual Reports volumes I to IX. A consolidated summary of all grants made by the Trust since 1988 is given in this report as Appendix 2.

Several changes occurred during the year. The Trustees express their thanks for dedicated and distinguished periods of service to Sir Robin Ibbs and Sir Michael Berridge as Deputy Chairmen of Trustees; to Sir Alec Broers as Trustee; to Dr Anil Seal as Director; to Dr Stephen Fleet as Treasurer; and to Mrs Tina Bone as Administrator of the Trust.

## **AIMS AND OBJECTIVES OF THE TRUST**

To promote education, learning and research in the University of Cambridge.

## **FINANCIAL SUMMARY**

### General Fund

Trinity College has agreed to make rolling donations to the Trust for five years of £2 million per annum. These donations are credited to the Trust's General Fund. Grants from the General Fund are made to specific research projects and also to recurrent Trust schemes. A summary of the grants made from the General Fund from 1988 until 27 April 2000 is shown in Table 1 and a breakdown of these grants by Department in the Yellow Table in Appendix 2.

The projections of future expenditure in Table 1 are speculative both as to amount and to timing. They include all the grants that the Trustees have approved, though experience suggests that some 20% of these grants will not, in the event, be taken up, either because circumstances change or else because the matching conditions have not been met.

### Special Funds

In addition to its donations mentioned above, the College has given the Trust various Special Donations, earmarked for particular purposes. These are credited to Special Funds and are considered individually in the sections below (pages 10-12 and 20-21). The aggregate balance in the Special Funds is given as the final line in Table 1.

**GENERAL FUND** (£000's)  
**STATEMENT OF INCOME AND EXPENDITURE AS AT 27 APRIL 2000**

Year ended	Actual											Projected (at 5% return)				
	31.1.90	31.1.91	31.1.92	31.1.93	31.1.94	31.1.95	31.1.96	31.1.97	31.1.98	31.1.99	31.1.00	31.1.01	31.1.02	31.1.03	31.1.04	31.1.05
Balance at start of year		5604	7173	7758	8796	10982	8946	10659	11784	12740	13133	14059	13210	13059	13330	14193
<b>INCOME</b>																
Trinity College	5000	1000	1000	1000	1000	1000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Other Donors*	10	0	2	15	21	19	28	41	81	113	44	301	237	237	237	170
Newton Bursaries Endowment Fund*	0	0	0	0	0	0	0	0	0	0	0	161	167	177	187	197
Dividends and interest	606	873	834	876	663	575	660	712	623	640	626	703	660	653	667	710
<b>TOTAL INCOME</b>	<b>5616</b>	<b>1873</b>	<b>1836</b>	<b>1891</b>	<b>1684</b>	<b>1594</b>	<b>2688</b>	<b>2753</b>	<b>2704</b>	<b>2753</b>	<b>2670</b>	<b>3165</b>	<b>3065</b>	<b>3067</b>	<b>3091</b>	<b>3077</b>
<b>EXPENDITURE</b>																
Total Trust expenditure on Bursaries*	0	73	141	175	216	257	310	357	334	396	754	850	850	850	850	850
CTO Scheme	0	0	0	0	47	76	98	125	130	128	80	100	100	100	100	100
Domestic Research Studentships	0	0	0	0	0	0	0	0	0	75	75	75	75	75	0	0
UK Research Students Scheme	0	0	0	0	0	9	50	56	46	47	104	195	195	130	65	0
Time-Limited Fellowships Scheme	0	0	0	0	0	0	0	0	0	0	0	0	52	100	100	100
European Research Studentships Scheme (CET)	0	0	0	0	0	0	0	0	0	0	0	58	200	200	200	200
Community-related grants scheme	0	0	0	0	0	0	0	0	0	0	0	25	25	25	25	25
Other grants (mainly research)	19	276	1077	1224	1530	1385	1368	1358	1700	2356	1492	2581	1608	1206	778	592
Administration	10	12	21	46	46	46	70	57	66	66	70	130	110	110	110	110
<b>TOTAL EXPENDITURE</b>	<b>29</b>	<b>361</b>	<b>1239</b>	<b>1445</b>	<b>1839</b>	<b>1773</b>	<b>1896</b>	<b>1953</b>	<b>2276</b>	<b>3068</b>	<b>2575</b>	<b>4014</b>	<b>3215</b>	<b>2796</b>	<b>2228</b>	<b>1977</b>
Gain/Loss on investments	17	57	-12	592	2341	-1857	921	325	528	708	831	0	0	0	0	0
Balance at end of year	5604	7173	7758	8796	10982	8946	10659	11784	12740	13133	14059	13210	13059	13330	14193	15293

\*For details see Isaac Newton Trust Bursary Scheme, Bursaries Table (page 11), which also shows *net* cost of Bursaries to General Fund.

Includes £1m endowment grant to the Isaac Newton Institute for Mathematical Sciences

Aggregate balance at end of year in Special Funds+	1615	4897	6512	6585
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+These totals are included for completeness. The Special Funds are kept separate from the General Fund (and are not included in the totals above).  
For detail of the Special Funds see the Bursaries Endowment Fund, and the Green Tables, Donations A, B and C.

## RESEARCH GRANTS APPROVED 1999-2000

### POLICY

The policy of the Trust in relation to Research Grants is summarised in its Guidelines to Applicants. The key features of those Guidelines during 1999/2000 were as follows:

- *The Trustees realise that the funds at their disposal could soon be wholly absorbed in a few big projects. They believe they can best assist the University by focusing their help selectively on projects of various sizes which otherwise might not get started or be significantly delayed, particularly those where a grant from the Trustees can open up opportunities for additional funds from outside Cambridge. The Trust is able to move quite quickly and so help in enabling opportunities to be seized which otherwise might permanently be lost. In all cases the Trustees need to be satisfied that projects are of a high standard. They aim to assist with the funds at their disposal a wide range of projects, covering many departments and faculties across the humanities and sciences.*
- *Since one of the purposes of the Trust is to attract resources from outside, grants from the Trust are normally conditional upon raising from sources outside Cambridge at least **twice** the amount of the grant.*
- *When applications are made to Research Councils in a routine way, the Trust will expect applicants to apply to the Councils for the full amount of the funds that they require for their projects. If a particular application is not wholly successful the Trustees would not normally entertain an application for a top-up grant from the Newton Trust; nor would they normally allow the partial grant from the Research Council to be used as matching funds. However, in exceptional circumstances, e.g. for a new initiative or project they regarded as particularly important, the Trustees might be prepared to modify these guidelines.*
- *The Trustees are persuaded that their most effective contribution is to help attract talented persons to Cambridge and to provide improved facilities for teaching and research rather than to add to the stock of bricks and mortar. Thus, the aim of their Additional Appointments Scheme (by which grants are made of up to £12,000 per annum for not more than five years, subject to **matching** amounts being raised from outside sources) is to provide research and teaching posts of limited tenure for younger academics.*
- *By agreement with the University Development Office, the Trustees do not themselves seek funds from outside (the only exception being the scheme of Newton Bursaries for undergraduates). It is therefore the responsibility of recipients of grants to raise the additional monies which are a condition of their grants from the Trust.*
- *The Trustees do not give priority to grants for equipment. However, they have made modest provision for equipment grants and will consider, exceptionally at any meeting, but normally once a year (in November), requests for equipment grants, giving priority to requests for equipment for teaching or equipment which has multiple use. Such grants will normally be for no more than **one-third** of the total cost.*

## GRANTS AWARDED

The following grants (totalling £2.2 million) were approved by the Trustees during the report period. They are listed alphabetically by Department. The amounts of individual grants may be found in Appendix 2 (Yellow Table or Green Table). If the matching requirement associated with each grant is achieved, the total matching sum associated with these grants will be £3.3 million. In some instances this matching sum would no doubt have come to Cambridge anyway; in others it has been elicited by the Newton Trust grant.

*African Studies Centre:* A grant to the African Visiting Research Fellowship Scheme, equivalent to two appointments over five years, under the Additional Appointments Scheme.

*Anatomy:* Further contribution towards Dr Chivers' project entitled 'Ecology and Behaviour of rain-forest animals'.

*Anatomy:* Under the Additional Appointments Scheme, a grant for two years towards the stipend and associated costs of a postdoctoral researcher to work with Dr Paul Schofield on a project entitled 'Investigation of the mechanism of radiation-induced genomic instability: epigenetic effects'.

*Applied Mathematics and Theoretical Physics:* A grant, over a period of five years, from the balance of the Special Donation from Trinity College towards Major University Projects towards re-equipping the Fluid Dynamics Laboratory on its new site, helping to secure a JIF bid from HEFCE.

*Applied Mathematics and Theoretical Physics, Institute of Theoretical Geophysics:* Additional Appointment, over a period of three years, for Miss Lynn Bloomfield from the Australia National University to investigate heated flows in porous rocks.

*Astronomy:* Contribution towards living expenses of a Visiting Scientist from China – Dr Zhanwen Han.

*Babraham Institute:* Maintenance and running costs of an Argon Laser for a project headed by Dr Roy Jones entitled 'Dynamics of lipid and protein diffusion in cell plasma membranes'.

*Babraham Institute:* A grant for the purchase of a Biacore 3000 machine for use on a project entitled 'Mode of action of lipid-derived second messengers: proteomic analysis of PI3K targets' to be conducted by Dr Philip Hawkins and Dr Len Stephens.

*Biological Anthropology:* A grant over five years under the Additional Appointments Scheme toward the stipend of Dr Alan Dangour for work on a project entitled 'Human growth, health and nutrition in developing countries'.

*BP Institute for Multiphase Flow:* To underpin the initial developments of the Institute and provide a basis for high quality research, grants under the Additional Appointments Scheme towards the stipends of four postdoctoral BP Institute Newton Fellows over five years for work with the BP Professor and the newly appointed lecturers.

*Centre of South Asian Studies:* A grant to enable the transfer to video of 40 hours of cinefilm taken by Britons in India in the 1920s, 1930s and 1940s. The project to be carried out by Dr Kevin Greenbank.

*Divinity:* Help under the Additional Appointments Scheme to enable the Faculty to employ Dr Christoph Bultmann from April 2000 to March 2001 to work on the book of Jeremiah, the balance of his funds being provided by a Feodor Lynen Research Fellowship from the Alexander von Humboldt Foundation in Germany.

*Engineering:* A grant for three years under the Additional Appointments Scheme for Dr B Racine's work with Dr John Robertson in plasma technology developing high density plasma sources for microelectronics applications.

*Engineering:* A grant for three years under the Additional Appointments Scheme towards the stipend of a postdoctoral researcher (Dr Martin Chhowalla) to work with Professor Amaratunga on a project entitled 'Carbon Nanotubes for Vacuum Power Switches and Supercapacitors'.

*Engineering:* A grant for two years under the Additional Appointments Scheme towards the stipend of a Research Associate (Dr J A Williams) to work on a project entitled "Surface Engineering of Rolling and Sliding Contacts".

*Engineering, Cambridge Centre for Micromechanics:* A grant under the Additional Appointments Scheme to support Dr Anne-Marie Harte for a further three years (five years in all) to do teaching and significant research in the mechanical properties of metallic foams.

*Engineering/Institute of Biotechnology:* Grants over three years towards a joint project by the Department of Engineering and the Institute of Biotechnology to develop new types of biosensory devices (Polycrystalline Silicon (Poly-Si) Thin Film Transistor (TFT) circuits) which would provide complex electronic functions so far traditionally reserved for single crystal silicon microchips. The Trust's support was towards two Additional Appointments, associated costs and equipment.

*Genetics/Biochemistry:* A grant from the Trust (significant in helping Cambridge win a grant from the BBSRC of £3.5 million) towards a project in the field of Functional Genomics. The Trust's grant was over three years towards the stipend of three senior researchers and a part-time co-ordinator of the project. The Trustees also agreed, exceptionally, to provide a further grant in the form of underwriting, also over three years, towards additional stipends and essential equipment.

*Genetics:* A contribution towards a project entitled 'A genomics approach to neuromuscular function in *Drosophila* (fruit fly)', to be led by Dr Cahir O'Kane.

*History and Philosophy of Science:* A grant from the Trust to match bids for funding to the Research Support Libraries Programme for a collaborative retrospective and conservation programme, to enhance access to collections on the history and science of technology (1801-1914) in the Whipple Library.

*History and Philosophy of Science:* A grant to support the work of Dr F Willmoth on the third and final volume of the Flamsteed Letters.

*History of Art:* A grant for five years under the Additional Appointments Scheme to help establish a postdoctoral Fellowship in Netherlandish Art (upgrading the present Speelman Fellowship in Dutch and Flemish Art at Wolfson College). A matching grant had already been made by the Speelman family towards this Fellowship.

*Medicine:* Help for a project, to be led by Dr Kevin O'Shaughnessy, University Lecturer and Honorary Consultant Physician in the Department of Medicine, on 'The use of DNA Microarrays in hypertension gene discovery'.

*Medicine, Rheumatology Research Unit:* A contribution towards a project to be led jointly by Dr Brian Hazleman, Director of the Rheumatology Research Unit at Addenbrookes, and Dr Graham Riley, Head of the Soft Tissue Injury and Repair Group in the Rheumatology Department, on 'A molecular approach to the analysis and diagnosis of tendon pathology'.



*Melville Laboratory:* Help with a project on ‘Environmentally sustainable manufacturing using supercritical CO<sub>2</sub>’ which aimed to develop the versatility of supercritical carbon dioxide as a cheap, environmentally-friendly and non-flammable solvent for polymerisation and polymer processing. The grant from the Trust over three years made contributions towards a postdoctoral research associate, consumables and, exceptionally, travel costs.

*Mongolian and Inner Asia Studies Unit:* A grant under the Additional Appointment Scheme over five years towards the stipend of a Senior Assistant in Research to support a HEFCE initiative in minority subjects.

*Oriental Studies:* Collaboration with the Taiwan Ministry of Education for a contribution towards the stipend of a Lecturer in Modern Chinese to deliver a newly designed and expanded programme of Chinese Language teaching.

*Physics:* A grant for three years under the Additional Appointments Scheme towards the stipend of Dr Y Y Lim for work with Dr Munawar Chaudhri on nano-indentation studies of solid surfaces and coatings.

*Physics:* A grant over three years under the Additional Appointments Scheme towards the stipend of Dr P Fouquet to work with Dr John Ellis on the development and exploitation of a spin-echo-atom-scatterer that would improve the resolution of quasielastic scattering measurements of surface diffusion by two to three orders of magnitude.

*Plant Sciences:* A grant to purchase a benchtop ultracentrifuge for a project entitled ‘Targeting chloroplast-encoded proteins into the thylakoid membrane’ (Dr Ruth Mould).

*Plant Sciences:* A grant towards the purchase of two high-speed centrifuges for use in teaching and research by Dr Alison Smith and Dr John Carr within the Department of Plant Sciences.

*Psychiatry, Developmental Psychiatry Section:* Contribution towards a project led by Dr Simon Baron-Cohen to develop diagnostic tests for adults with Asperger Syndrome (a variant of autism).

*University Library:* A three-year grant to enable the University Library’s card catalogue of post-1850 overseas maps to be converted into machine-readable form, accessible to on-line scholars around the world. More than twice the amount of the grant had already been received from the Research Support Libraries Programme.

*Veterinary Medicine:* Help, exceptionally, to enable the Department to employ an Intern in Large Animal Medicine and Reproduction (a post equivalent to a House Doctor in human medicine).

*Wellcome/CRC Institute:* A project on the mechanisms by which genes control various cell functions. By studying the biochemical mechanisms by which the genes controlling cell growth become inappropriately switched on or off in cancer, Dr Kouzarides and his team expect this research to lead to new approaches in the treatment of cancer. The contribution from the Trust over five years is towards the costs of a postdoctoral research post, exceptionally towards the stipend of Dr Kouzarides, and towards running expenses and equipment.

*Zoology:* A one-third contribution towards the purchase by Professor Tim Clutton-Brock of a ‘field site’ in the Kalahari for a long-term project investigating the evolutionary causes and ecological consequences of co-operative breeding in mammals (meerkats).

*Zoology, Molecular Ecology Group:* Help under the Additional Appointments Scheme to bring an outstanding young Canadian geneticist (Dr Ruth Waldick) to Cambridge for three years to work on ‘The genetic analysis of reproductive skew and co-operation in social mammals’.

## RECURRENT TRUST SCHEMES

### NEWTON TRUST BURSARIES FOR UK UNDERGRADUATES

#### Aims and objectives

The scheme of Newton Trust Bursaries for UK Undergraduates was set up in response to the freezing, and progressive phasing out of student grants and the introduction of student loans and later of tuition fees. The main purpose of the scheme is to help attract the best candidates to Cambridge and to widen the field from which they are drawn, through support for students from disadvantaged backgrounds and from families with modest financial resources.

#### Policy

During 1999/2000 the Trust received a further Special Donation from Trinity College of £1 million toward the endowment of the Bursary scheme; and a second similar donation of £1 million subject to matching. In addition the Trust was promised (by a private donor) a matching donation of £1 million over 7 years toward the recurrent cost of the scheme provided a scheme of community related undergraduate projects was set up, and provided also that a long-term evaluation of the bursary scheme was arranged.

In the light of these donations, the Trustees agreed to expand the bursary scheme substantially. From October 1999, the number of Newton Bursaries offered annually was increased from 350 to 500, and the maximum value of the bursaries was increased from £750 to £900 per annum.

The cost of these awards will be borne in part by Colleges: in particular the six better endowed Colleges were invited to contribute 50 per cent of the costs of the awards to their students; the nine 'middle' Colleges 25 per cent of such costs; and the thirteen least well endowed Colleges 6.7 per cent of such costs. It was further agreed that during 1999/2000 these College contributions would be voluntary; thereafter they would become a requirement.

The finances of the expanded Bursary scheme are shown in Table 2 (which includes the Newton Bursaries Endowment Fund, established to receive the Trinity College Special Donations earmarked for endowment of Bursaries).

The Trustees have also agreed to establish arrangements to meet the conditions of the private donor. These are expected to operate for the first time in the summer of 2000.

A press statement about the expanded scheme was issued on the occasion of the Teachers' Conference in Cambridge in March 2000. It offers, for the first time, the **guarantee** of a bursary to students from the poorest backgrounds.

**ISAAC NEWTON TRUST BURSARY SCHEME** (£000's)

**(a) Receipts and Expenditure account (actual and estimated)**

Year ended 31.1	Actual										Projected (at 5% return)				
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Newton Bursaries Endowment Fund	0	0	0	0	0	0	0	0	0	0	161	167	177	187	197
Private donor (1)	0	0	0	0	0	0	0	0	0	0	67	200	200	200	133
Clifford Chance	0	2	8	10	10	14	1	37	18	18	0	0	0	0	0
Hinduja Foundation	0	0	7	8	9	11	15	14	30	0	15	15	15	15	15
Mitsubishi Corporation	0	0	0	3	0	2	0	3	0	0	0	0	0	0	0
Armourers and Braziers Gauntlet Trust	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2
Malaysian Commonwealth Bursaries	0	0	0	0	0	0	0	0	40	0	20	20	20	20	20
Eagle Star (BAT Industries)	0	0	0	0	0	0	25	25	25	25	0	0	0	0	0
Voluntary contribution from Colleges (2)	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0
General Fund (net cost)	73	139	160	195	238	282	315	254	282	710	388	446	436	426	483
<b>TOTAL TRUST EXPENDITURE ON BURSARIES (actual)</b>	<b>73</b>	<b>141</b>	<b>175</b>	<b>216</b>	<b>257</b>	<b>310</b>	<b>357</b>	<b>334</b>	<b>396</b>	<b>754</b>	<b>850</b>	<b>850</b>	<b>850</b>	<b>850</b>	<b>850</b>
College contributions (3)	0	0	0	0	0	0	0	0	0	0	170	170	170	170	170
Trinity and Caius (own schemes - estimated)	20	35	45	50	60	90	90	90	100	140	160	160	160	160	160
<b>TOTAL EXPENDITURE ON BURSARIES (Estimated)</b>	<b>93</b>	<b>176</b>	<b>220</b>	<b>266</b>	<b>317</b>	<b>400</b>	<b>447</b>	<b>424</b>	<b>496</b>	<b>894</b>	<b>1180</b>	<b>1180</b>	<b>1180</b>	<b>1180</b>	<b>1180</b>

**(b) Newton Bursaries Endowment Fund**

Balance at start of year										2078	3211	3344	3544	3744	3944
Donations Trinity College									2000	1000	200	200	200	200	133
Private donor (1)										67	-67	0	0	0	0
Dividends and interest									45	115	161	167	177	187	197
Gain/Loss on investments									33	-49	0	0	0	0	0
Transfer to Receipts and Expenditure account (5%)										0	-161	-167	-177	-187	-197
Balance at end of year									2078	3211	3344	3544	3744	3944	4077

(1) 67 from Private donor credited to Newton Bursaries Endowment Fund 1999/2000; but was intended to be spent, so transferred to Receipts and Expenditure account 2000/2001.

(2) These voluntary contributions made in 2000-2001 relate to bursaries paid in 1999-2000.

(3) These totals are the formula amounts that Colleges have agreed to contribute to their own students as part of the Scheme. They do not include other Hardship Grants provided by Colleges to their students.

## Awards made 1999-2000

Every eligible student who applied was awarded a bursary (up to the maximum of £900). The total cost (including renewals) was about £750,000, excluding Trinity and Caius. Trinity and Gonville & Caius Colleges each operate their own separately funded schemes. An estimate of the total cost of bursaries (with Trinity and Gonville & Caius included) is also shown in Table 2.

The number of Newton Bursaries awarded to individual Colleges in 1999-2000 is given below:

COLLEGE	<i>Number of awards</i>	COLLEGE	<i>Number of awards</i>
Christ's	38	New Hall	42
Churchill	27	Newnham	78
Clare	37	Pembroke	64
Corpus Christi	31	Peterhouse	24
Downing	34	Queens'	52
Emmanuel	29	Robinson	45
Fitzwilliam	59	Selwyn	29
Girton	82	Sidney Sussex	44
Hughes Hall	3	St Catharine's	59
Jesus	54	St Edmund's	16
King's	51	St John's	83
Lucy Cavendish	26	Trinity Hall	20
Magdalene	42	Wolfson	7
		<b>Total</b>	<b>1076</b>

## COLLEGE TEACHING OFFICER (CTO) SCHEME

### Aims and objectives

The aims of this scheme (established in 1992) are to increase CTO involvement in Faculty teaching and the amount of University teaching available, allow Faculties to choose such extra teachers from CTO ranks as they wish, make it possible for the Tuition Funds of poorer Colleges to afford the consequent reduction in the amount of CTO teaching, and to achieve these aims through a scheme that is simple to operate. Tenure in these posts is limited to a maximum of ten years.

### Summary of awards 1999-2000

**Thirty-two** awards have been made under the first and second phases of this scheme as follows:

- Classics (2)
- Economics (1)
- English (7)
- History (6)
- History and Archaeology and Anthropology (1)
- Law (4)
- Mathematics (3)
- Modern and Medieval Languages (5)
- Physics and Chemistry (1)
- Social and Political Sciences (1)
- Social and Political Sciences and History and Philosophy of Science (1)

**Twenty-eight** of these awards are currently filled and **four** are vacant.

A list of present holders of awards is given in Table 3 below.

The cost of the scheme for the academic year 1999-2000 was £107,000, of which £20,000 was paid to the University (this payment is being phased out for the second round of appointments) and £87,000 to Colleges.

#### *Recent changes:*

- Mrs E Freeman (Law). The tenure of this appointment ended in September 1999, so the post is now vacant.
- Dr M J Perry (Mathematics). The tenure of this appointment ended in September 1999, so the post is now vacant.
- Dr C M Clark (History). This post now becomes vacant as Dr Clark has been appointed to a University Lectureship from 1 October 2000.
- Dr F Green (English). Dr Green has been appointed to a University Assistant Lectureship from 1 January 2000, so the post is now vacant.
- Dr N Tadmor (History). Dr Tadmor has been appointed to a temporary University Lectureship for three years from 1 January 2000 so is intermitting her CTO Lectureship between 1999-2002.

TABLE 3 : Present holders of CTO appointments

Name	Faculty	College	Start of Tenure	End of Tenure	Final Lecture payment
Abulafia, Dr A B S	<i>History 1 of 6</i>	Lucy Cavendish	1/10/92	30/9/97	1997
		<b>Second Tenure:</b>	<b>1/10/97</b>	<b>30/9/2000</b>	
Baert, Dr P J N	<i>Social &amp; Political Sciences 1 of 1</i>	New Hall & King's	1/10/98	30/9/2003	2000
Bayly, Dr S * - Appointed to a University Lectureship from 1 October 2000	<i>History and Archaeology &amp; Anthropology 1 of 2</i>	Christ's	1/10/95	30/9/2000	2000
Brookes, Dr	<i>Mathematics 1 of 3</i>	Corpus Christi	1/10/98	30/9/2003	2000
de Bolla, Dr Peter	<i>English 7 of 7</i>	King's	1/10/98	30/9/2003	1998
Fernihough, Dr A	<i>English 1 of 7</i>	Girton	1/10/93	30/9/2000	2000
Ford, Dr J D	<i>Law 1 of 4</i>	Gonville & Caius	1/10/96	30/9/2001	2001
Gonda, Dr	<i>English 3 of 7</i>	St Catharine's	1/10/98	30/9/2003	2000
Guild, Dr E	<i>Modern &amp; Medieval Languages 3 of 5</i>	Robinson	1/10/96	30/9/2001	2001
Hoyle, Dr	<i>Mathematics 2 of 3</i>	King's	1/10/98	30/9/2003	2000
Khalifa, Dr J	<i>Modern &amp; Medieval Languages 5 of 5</i>	Trinity	1/10/98	30/9/2003	1998
Kitson, Mr M	<i>Economics &amp; Politics 1 of 1</i>	St Catharine's & Newnham	1/10/96	30/9/2001	1998
Morgan, Dr B	<i>Modern &amp; Medieval Languages 2 of 5</i>	Emmanuel	1/10/97	30/9/2002	1997
Philips, Dr C	<i>English 4 of 7</i>	Downing	1/10/99	30/9/2004	2000
Preston, Dr C E	<i>English 2 of 7</i>	Sidney Sussex	1/10/98	30/9/2003	1998
Reid, Dr A J	<i>History 2 of 6</i>	Girton	1/10/93	30/9/98	1998
		<b>Second tenure:</b> <i>on leave 1999-2000</i>	<b>1/10/99</b>	<b>30/9/2002</b>	
Reynolds, Dr A	<i>Modern &amp; Medieval Languages 1 of 5</i>	Selwyn	1/10/96	30/9/2000	1997
Riley, Dr J	<i>Physics and Chemistry 1 of 1</i>	Girton	1/10/96	30/9/2001	1998
Scott, Dr J	<i>History 5 of 6</i>	Downing	1/10/93	30/9/98	1998
		<b>Second tenure:</b>	<b>1/10/98</b>	<b>30/9/2001</b>	
Seville, Miss C	<i>Law 2 of 4</i>	Newnham	1/10/95	30/9/2000	2000
Sutherland, Dr G R	<i>History 4 of 6</i>	Newnham	1/10/96	30/9/2001	2001
Swales, Dr E	<i>Modern &amp; Medieval Languages 4 of 5</i>	King's	1/10/95	30/9/2000	2000
Tadmor, Dr N <i>Appointed to a temporary lectureship for three years from 1/1/2000</i>	<i>History 6 of 6</i>	New Hall	1/10/98	30/9/2006	1998
			<i>Intermitting 1999-2002</i>		

Tee, Mrs L	<i>Law 3 of 4</i>	Lucy Cavendish	1/10/98	30/9/2003	2001
Thom, Dr D*	<i>Social &amp; Political Sciences and History &amp; Philosophy of Science 2 of 2</i>	Robinson	1/10/95	30/9/2000	2000
Thompson, Dr D J	<i>Classics 1 of 2</i>	Girton	1/10/92	30/9/98	1998
		<b>Second tenure:</b>	1/10/98	30/9/2001	
Whitmarsh, Dr T J G	<i>Classics 2 of 2</i>	St John's	1/10/99	30/9/2004	
Wilson, Dr P B	<i>English 6 of 7</i>	New Hall	1/10/94	30/9/2000	2000
VACANT POST	<i>Law 4 of 4</i>		1/10/99		
VACANT POST	<i>Mathematics 3 of 3</i>		1/10/99		
VACANT POST	<i>History 3 of 6</i>		1/10/2000		2002
VACANT POST	<i>English 5 of 7</i>		1/1/2000	30/9/2004	

\* Two slots made available to persons belonging to more than one Faculty.

## NEWTON AWARDS FOR UK RESEARCH STUDENTS

### Aims and objectives

The scheme aims to encourage a greater number of United Kingdom students with outstanding academic records and research potential to study for the degree of PhD at Cambridge. The awards supplement the maintenance allowances available under the usual British studentships.

### Policy

There are two types of award:

- **Shared-Cost Newton Awards for UK Research Students** of a value of £1,500 per annum, each of up to three years' tenure, subject to satisfactory academic progress by the student. The awards are funded on a fifty:fifty basis by the Newton Trust and by industrial and commercial sponsors outside Cambridge.
- **General Newton Awards for UK Research Students**, each of a value of £750, also of up to three years' tenure, subject to satisfactory academic progress, the whole amount to be provided by the Newton Trust. These awards are offered to students in Departments and Faculties where the prospects of sponsorship are remote, but where the academic arguments for encouraging research are strong.

Some earmarked awards are offered to individual Departments and Faculties; other non-earmarked awards are allocated to Departments and Faculties by Councils of Schools at their discretion.

The Trustees have agreed to review this scheme during 2001.

### New awards 1999-2000

**70 Shared-Cost Awards** and **16 General Awards** were offered in 1999-2000 as follows:

#### *Earmarked Shared-Cost Awards*

Biochemistry	3	Archaeology and Anthropology	2
Chemical Engineering	3	Classics	1
Chemistry	8	Divinity	2
Computer Laboratory	2	Economics	2
Earth Sciences	1	English	1
Engineering	4	History	1
Geography	2	History and Philosophy of Science	1
Materials Science and Metallurgy	2	Land Economy	1
Physics	2	Social and Political Sciences	1
Unilever Centre for Molecular Science	2		
Informatics			
Zoology	1	<b>Total</b>	<b>42</b>

#### *Earmarked General Awards*

Archaeology and Anthropology	2	History and Philosophy of Science	1
Education	1	Law	1
English	2	Modern and Medieval Languages	2
History	1	Philosophy	1
		<b>Total</b>	<b>11</b>



*Additional non-earmarked Awards*

	Shared-Cost Awards	General Awards
School of the Physical Sciences	10	
School of the Biological Sciences	8	
School of Technology	4	
School of Arts and Humanities	4	2
School of Humanities and Social Sciences	2	3
<b>Total</b>	<b>28</b>	<b>5</b>

By the end of February 2000, 50 Shared-Cost awards, and all 16 of the General Awards (plus two extra 'exceptional' General Awards to Modern and Medieval Languages) had been taken up, representing a 79% take-up of the awards.

## TIME-LIMITED TEACHING FELLOWSHIPS SCHEME

### Aims and objectives

The aims and objectives of this new scheme are to strengthen the undergraduate supervision system at the less well-endowed Colleges, thereby helping to produce a more even playing field between well-endowed and less well-endowed Colleges; and to help to integrate some of the holders of Newton Additional Appointments and similarly placed postdoctoral researchers into College life.

### Policy

The Trustees agreed to make up to 25 posts available for young postdoctoral researchers to be elected to teaching Fellowships at the less well-endowed Colleges. Each appointment may be held for up to 5 years. The duties of each person appointed include giving 4 hours per week of undergraduate supervision. In return the Trust pays the College £4,000 per annum toward the overheads involved.

### Appointments made

In the event some 13 posts have been taken up. The Trustees have given provisional approval to the appointment of the persons in Table 4 below.

**TABLE 4 : Persons approved for the Time-Limited Teaching Fellowships Scheme**

College	Bidding for	Subject
Downing	<i>Not bidding</i>	
Fitzwilliam	Soosung Hwang Paul Warde	Economics History
Hughes Hall	Clive Smallman Carole Sargent	Management Studies Pathology
Lucy Cavendish	Carlotte Dargie	Management Studies
Magdalene	}	
New Hall	<i>}not bidding</i>	
Pembroke	}	
Queens'	James Campbell	Architecture
Robinson	Stephen Padley	English
St Catharine's	<i>Not bidding</i>	
St Edmund's	Caroline Blyth Nicola McCarthy Ann Kaminski D J Titterington	English Clinical Medicine Biochemistry Physics
Selwyn	Daniel A Beauregard	Biochemistry
Wolfson	Paul Cornish	International Studies

## **GRANTS MADE TO OTHER BODIES**

### **DOMESTIC RESEARCH BURSARIES**

#### **Aims and objectives**

To award research scholarships to the best 'home' (i.e. UK and EU) students who, because of cuts in public funding, failed to gain support from public sources such as the Research Councils and the AHRB.

#### **Policy**

The Newton Trust agreed in 1997 to contribute £75,000 per annum for five years to a University-wide scheme, thus adding to other sources of funds available. The awards are made by the General Board's Committee on Awards.

The Trustees intend to review their contribution to this scheme in 2001.

#### **Grants awarded**

In 1999 some 39 new awards were made by the General Board's Committee.

### **NEWTON EUROPEAN RESEARCH BURSARIES**

#### **Aims and objectives**

The aims and objectives of this new scheme are to encourage able students from the European Union to do research at Cambridge and to help them take up their places. (EU students are eligible for support from public sources for their fees, both University and College, but not for maintenance.)

#### **Policy**

The Trustees agreed to make a donation to the Cambridge European Trust totalling £600,000 to be spread over five years to provide a pilot scheme of Newton European (Research) Studentships of annual value up to £2,000 tenable for up to three years, to be awarded to PhD students from the EU by the Cambridge European Trust on the basis of departmental recommendations.

The Trustees further agreed to review the scheme in 2001 and to consider providing a further donation of £400,000 for the same purpose.

#### **Grants awarded**

The Cambridge European Trust made some 33 awards (totalling £58,000) under this scheme to research students in 1999/2000.

## SPECIAL DONATIONS FROM TRINITY COLLEGE

Since 1996 the Trust has received several Special Donations from Trinity College for earmarked purposes. The earmarked donations to the Bursary Scheme (1998 and 1999) are included in the Bursary Scheme report (pages 10-12). Spending from the other Special Donations is discussed below.

*A financial summary of these other Special Donations is given in Appendix II (Green table, Donations A, B and C).*

### A. Special Donation of £1.615m (1996) towards major University building projects (Donation A)

The Trustees have made grants under this initiative, including accrued interest, as follows:

• A new building for the Faculty of Divinity	£300,000
• Remodelling and Refurbishment, Raised Faculty Building	£515,000
• Mathematics Faculty relocation to Clarkson Road	£500,000
• New accommodation for the Institute of Criminology	£300,000
• Department of Engineering for additional accommodation in Trumpington Street ( <i>and see Donation B2 below</i> )	£300,000
<b>TOTAL</b>	<b>£1,915,000</b>

The first three grants have been paid; the fourth is in abeyance; and the fifth has yet to be claimed, though the work is under way.

### B. Special Donation of £1.5m (1997) towards major University projects, buildings or other purposes (Donation B)

The Trustees agreed in 1998 to the deployment of this Special Donation as follows:

- That £1 million should be deployed in conjunction with the University's Strategic Planning Reserve Fund on the recommendation of the Vice-Chancellor and subject to the condition that payments by the Trust in any year are at least matched by an equal contribution to the Fund in that year from the University or from other donors (**Donation B1**). The money could thereby be used not only for buildings but for recruitment of senior personnel, laboratory refurbishment etc.
- That the remaining £0.5 million, together with interest earned on the total allocation, should be deployed for urgent capital purposes in the University, to be notified by the Vice-Chancellor to the Trustees (**Donation B2**).

The following grants have been approved:

#### Donation B1:

• Relocation of the Department of Biochemistry, Part I Teaching Laboratory	£200,000
• Department of Genetics, additional Research Accommodation	£150,000
• Department of Plant Sciences: phased programme of refurbishment of the Department's teaching and research accommodation	£150,000
<b>TOTAL</b>	<b>£500,000</b>

The grants to Biochemistry and Plant Sciences have been paid.

Some £0.5m of Donation B1 is presently unallocated.

**Donation B2:**

• Centre for Atmospheric Chemistry, refurbishment	£150,000
• Department of Engineering, for additional accommodation in Trumpington Street	£200,000
• Computer Laboratory as ‘enabling money’ towards the cost of building a new Computer Laboratory at West Cambridge	£200,000
• Department of Applied Mathematics and Theoretical Physics, refurbishment of laboratory, to meet part of the condition of a successful JIF bid	£250,000
<b>TOTAL</b>	<b>£800,000</b>

No grants from Donation B2 have so far been paid.

**C. Special Donation of £1.5m (1997) to provide Hardship Funds for Students at less well endowed Colleges (Donation C)**

The Trustees agreed in July 1999 to distribute this Special Donation of £1.5 million, together with the accrued interest, as capital endowment payments in five annual instalments of **£400,000** to the thirteen least well-endowed Colleges, sharing the money out on the basis of a formula that takes account of College wealth and undergraduate student numbers. It is a condition that Colleges obtain matching money either to match the donations by way of endowment on a 50:50 basis, or to match the annual income from the endowment with donations by way of income obtained from benefactors on a year-by-year basis.

Donations were agreed as follows:

<i>College</i>	<i>Annual Capital Donation (x5) £</i>
Downing	30,000
Fitzwilliam	50,000
Hughes Hall	25,000
Lucy Cavendish	20,000
Magdalene	30,000
New Hall	25,000
Pembroke	25,000
Queens’	35,000
Robinson	50,000
St Catharine’s	30,000
St Edmund’s	20,000
Selwyn	20,000
Wolfson	35,000

Every donation in 1999-2000 has been paid, except that to Lucy Cavendish where the matching requirement has still to be met.

## **APPENDIX 1**

**Isaac Newton Trust**

**Accounts**

**for the year ended 31 January 2000**

## APPENDIX 2

### Consolidated list of grants

The following Tables list all the grants that the Trustees have approved. As shown in the Tables, not every grant approved has been taken up, either because circumstances have changed, or else because the Trust's matching requirement has not been met.

The following abbreviations are used:

AA=Additional Appointment  
EG=Equipment Grant  
C=Confirmed [shaded=part confirmed]  
U=Underwriting  
CU=Underwriting taken up  
L=Lapsed  
W/D=Withdrawn  
X=Not Confirmed  
MI=Major Initiative.

Sums in square brackets are not included in totals (because the grant has either been withdrawn, or included elsewhere).

The correspondence of Minute numbers to meeting dates is as follows:

Year	Minutes	Year	Minutes
1988	1 – 26	1994	389 – 447
1989	27 – 94	1995	448 – 496
1990	95 – 185	1996	497 – 535
1991	186 – 264	1997	536 – 578
1992	265 – 322	1998	579 – 621
1993	323 - 388	1999	622 - 695
		2000	696 -

The column headed 'Matching Required' indicates the total matching sum (normally from sources outside Cambridge, but occasionally from within) required to release the Newton Trust grant. For Confirmed grants (labelled 'C') this matching requirement has been met.

An index to the Tables is given at the end.