

ISAAC NEWTON TRUST

ANNUAL REPORT

TO THE COUNCIL OF

TRINITY COLLEGE

COVERING THE PERIOD

12 MARCH 2004 – 14 MARCH 2005

VOLUME XV

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PATRON

H.R.H. the Prince of Wales

TRUSTEES

Professor Sir Tony Wrigley (*Chairman*)
Baroness O'Neill (*until September 2004*)
Dr C T Morley
Mrs A Lonsdale
Professor N O Weiss
Professor E J Hinch
Professor M S Neuberger
Professor A F Richard
Professor Sir Martin Rees
Professor Q R D Skinner (*from October 2004*)

OFFICERS

Dr J M Rallison (Director)

Dr J R F Fairbrother (Treasurer)

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INTRODUCTION

This report to the Council covers the period from 12 March 2004 up to, and including, the Trustees' meeting on 14 March 2005. It lists for the period new research grants approved by the Trustees and developments in the main schemes of the Trust. The audited Trust accounts for the year ended 31 January 2005 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 XIV. A summary of grants made over the last 10 years (July 1994 to March 2005) is given in this report as Appendix 2. Grants made before July 1994 appear in volume XIV.

The Trustees express their thanks to Baroness O'Neill PBA, who completed her period of service as a Trustee on 30 September 2004. Professor Q R D Skinner, was appointed as a Trustee from October 2004.

The Trust maintains a website (www.newtontrust.cam.ac.uk) that gives up-to-date details of the Trust schemes. Those web pages that are concerned with the Bursary scheme (see page 13) are accessible to prospective applicants for undergraduate places from outside Cambridge. The remaining pages, including guidelines to applicants for grants, are accessible only from @cam addresses.

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 donations to the Trust for the next 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 up to 14 March 2005 is shown in Table 1 and in graphical form in Figure 1. A breakdown of grants by Department made in the last ten years (1994-2005) is shown in the Yellow Table in Appendix 2. A comprehensive list of earlier grants is shown in the Trust's Annual Report Volume XIV.

There was a further recovery in the value of the Trust's investments during 2004-05 as a result of improved market conditions.

The Trust's expenditure has exceeded its income (conventionally defined) in each of the past three years.

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.

Two projections of future expenditure are shown in Fig.1. Solid lines show the commitment projections of Table 1. Dotted lines show an extrapolation of present expenditure (averaged over the past 4 years including 4% inflation) to make allowance for possible future decisions of Trustees.

Administration Costs

Expenditure on Administration is much the same as in previous years and represents less than 3% of the Trust's turnover. A breakdown of Administration costs in 2004-05 is shown below.

Stipend of Director (including pension and National Insurance)	£28,502
Stipend of Treasurer (including pension and National Insurance)	£7,223
Other stipends (including pension and National Insurance)	£36,141
Office expenses (excluding rent yet to be paid)	£2,988
Barings management fee for investments	£15,863
Audit fee	£1,762
Miscellaneous expenses	£2,474

GENERAL FUND (£000's)
STATEMENT OF INCOME AND EXPENDITURE AS AT 14 MARCH 2005
Including decisions made at the March 2005 meeting

Year ended 31.1	Actual																Projected (at 4% return)				
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Balance at start of year		5604	7173	7758	8796	10982	8946	10659	11784	12740	13133	14059	15191	13367	10328	11260	11822	10535	10265	10577	11392
INCOME																					
Trinity College	5000	1000	1000	1000	1000	1000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Other Donors*	10	0	2	15	21	19	28	41	81	113	44	317	280	327	312	262	132	103	81	84	84
Newton Bursaries Endowment Fund*	0	0	0	0	0	0	0	0	0	0	0	161	223	164	139	170	191	194	194	194	194
Dividends, interest and IPR	606	873	834	876	663	575	660	712	623	640	626	616	549	490	393	428	473	421	411	423	456
Special Donations A, B and C**															95						
TOTAL INCOME	5616	1873	1836	1891	1684	1594	2688	2753	2704	2753	2670	3094	3052	2981	2939	2860	2796	2718	2685	2701	2733
EXPENDITURE																					
Total Trust expenditure on Bursaries*	0	73	141	175	216	257	310	357	334	396	754	633	859	991	966	1053	1200	1100	1100	1100	1100
CTO Schemes	0	0	0	0	47	76	98	125	130	128	80	149	148	148	146	139	160	160	160	160	160
Domestic Research Studentships	0	0	0	0	0	0	0	0	0	75	75	75	75	0	75	85	140	140	140	140	140
UK Research Students Scheme	0	0	0	0	0	9	50	56	46	47	104	117	107	118	125	140	150	100	50	0	0
Time-Limited Fellowships Scheme	0	0	0	0	0	0	0	0	0	0	0	0	32	56	68	77	120	120	120	120	120
European Research Studentships Scheme (CET)	0	0	0	0	0	0	0	0	0	0	0	58	122	162	180	158	200	200	172	86	62
Community-related grants scheme	0	0	0	0	0	0	0	0	0	0	0	18	23	23	23	22	25	25	25	25	25
Other grants (mainly research)	19	276	1077	1224	1530	1385	1368	1358	1700	2356	1492	1144	1556	2148	1885	1758	1978	1033	497	144	24
Administration	10	12	21	46	46	46	70	57	66	66	70	97	96	94	97	94	110	110	110	110	110
TOTAL EXPENDITURE	29	361	1239	1445	1839	1773	1896	1953	2276	3068	2575	2291	3018	3740	3565	3526	4083	2988	2374	1885	1741
Gain/Loss on investments	17	57	-12	592	2341	-1857	921	325	528	708	831	329	-1858	-2280	1558	1228	0	0	0	0	0
Balance at end of year	5604	7173	7758	8796	10982	8946	10659	11784	12740	13133	14059	15191	13367	10328	11260	11822	10535	10265	10577	11392	12385

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

**Net closing balances in Special Donations A, B and C. Remaining liabilities transferred to expenditure totals.

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

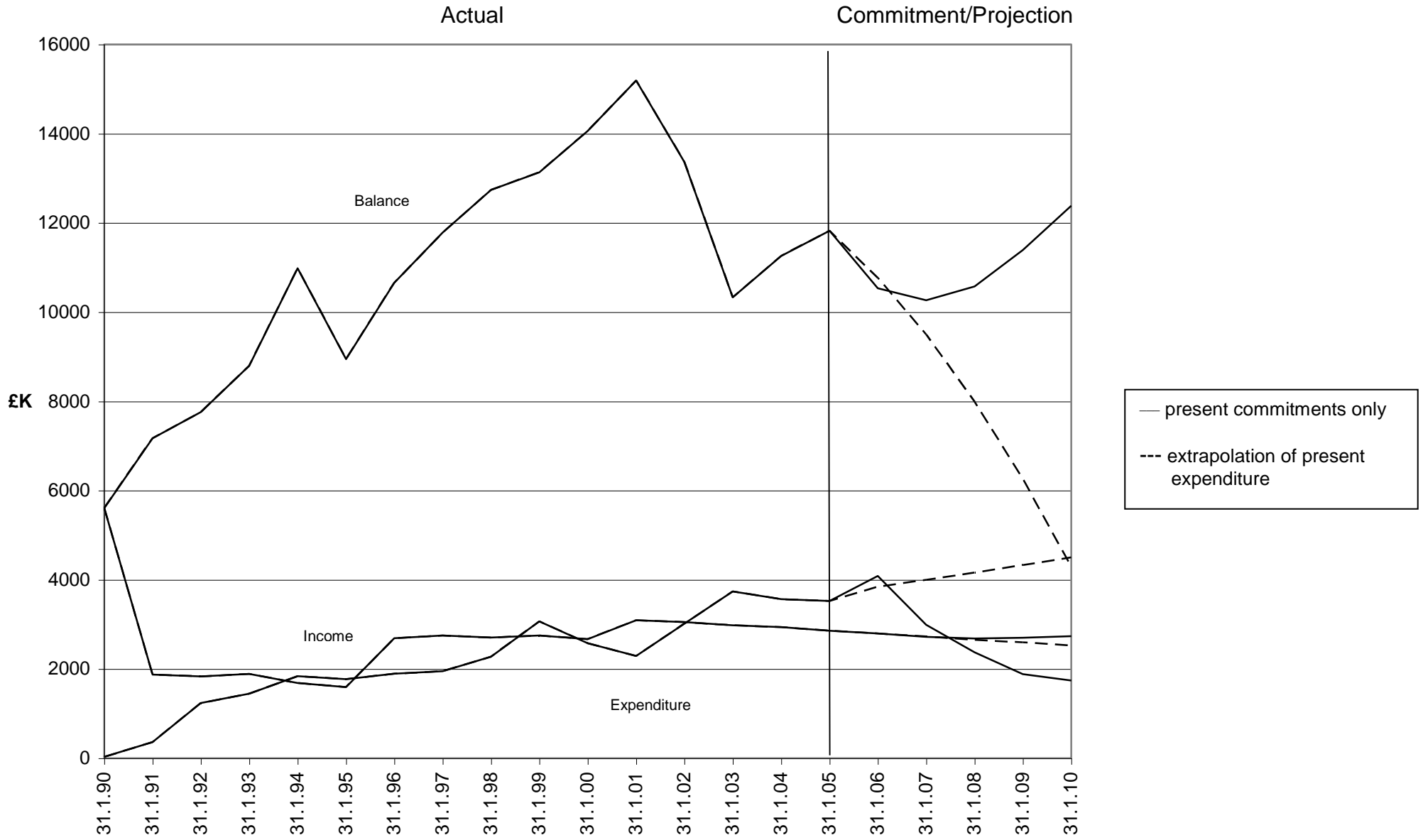
Aggregate balance at end of year in Special Funds+	1615	4897	6512	6585	7043	6202	4222	4260	4778							
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+These totals are included for completeness.

For detail of the Special Funds see the Bursaries Endowment Fund, and, before 2004, Grants A, B and C.

GENERAL FUND AS AT 14 MARCH 2005

Including decisions made at the March meeting



RESEARCH AND TEACHING GRANTS APPROVED 2004-2005

POLICY

The policy of the Trust in relation to Research and Teaching Grants is summarised in its Guidelines to Applicants. The key features of those Guidelines during 2004/2005 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. The Trustees have agreed to vary or even set aside this condition for projects that they consider of particular importance where the prospects of obtaining such external funding are remote.*
- *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. If a particular application is not wholly successful, the Trustees may be willing to consider an application for a top-up grant from the Newton Trust for a new initiative or project they regard as particularly important; and may allow the partial grant from the Research Council to be regarded as matching funds; but they do not guarantee to do so.*
- *The Trustees are persuaded that their most effective contribution is to help attract talented persons to Cambridge and to maintain the University's reputation as a centre of excellence in research. Thus the aim of the Additional Appointments Scheme (by which grants are made of up to £16,000 per annum for no more than 5 years, subject to matching amounts being raised from outside sources) is to provide limited-tenure research posts, perhaps involving a small amount of teaching, for younger academics.*
- *The Trust does not normally contribute towards the costs of pre-doctoral students because PhD studentships are available from Research Councils, from the Cambridge Commonwealth, European, Overseas, and Gates Trusts, and from the Domestic Research Studentships competition organised by the Board of Graduate Studies.*
- *The Trustees do not in their own right 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 and in particular do not normally support requests for replacement of standard items. However, they have made modest provision for equipment grants and will give priority to requests for new equipment for teaching or new equipment which has multiple use. Such grants will normally be for no more than one-third of the total cost. The Trustees do not normally entertain requests for “bricks and mortar” projects.*

More detailed Guidelines, intended to assist prospective applicants, can be found on the Trust’s website at www.newtontrust.cam.ac.uk.

APPLICATIONS

In 2004-05 the Trust received a total of 54 new applications for support; much the same as the record level in 2003-04. The total cost of supporting these applications in full would have been £2.8m. In the event, 39 applications were supported at a total cost of £1.3m (many grants being made at a lower level than had been requested), and 15 applications were rejected.

GRANTS AWARDED

The following grants (totalling £1.3million) 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). If the matching requirement associated with each grant is achieved, the total matching sum associated with these grants will be £1.2 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.

Anatomy: A grant in the form of underwriting towards the salary of Dr Liz Muir for one year to work as a senior researcher with Dr Roger Keynes on a project to investigate nerve regeneration entitled, ‘Development of a novel strategy for repair of spinal cord injury’, together with a grant for consumables.

Anatomy: A grant over two years towards the cost of consumables for use by Dr Clare Baker under the supervision of Professor William Harris on a project looking into human birth defects entitled, ‘The role of *Pax3* in the Trigeminal Ganglion’.

Anatomy: A grant for one year towards the salary of Dr Chris Wilkinson to work as a postdoctoral researcher with Professor William Harris on a project entitled, ‘The role of the centrosome in vertebrate development’.

Applied Mathematics and Theoretical Physics: A grant over three years towards the salary of a postdoctoral researcher to work with Dr Gordon Ogilvie and Professor Michael Proctor on a project entitled, ‘Instabilities, turbulence and angular momentum transport in astrophysical discs’, together with a grant towards the cost of computer equipment.

Biochemistry: A grant towards the purchase of a fluorimetric detection mode upgrade for a microtitreplate reader with UV/VIS to support the work of Dr Florian Hollfelder in advancing the study of enzyme catalysis.

Biochemistry: A grant for four months towards the salary of Dr Susana Vélchez as a post-doctoral researcher to work with Professor David Ellar on a project entitled, 'Application of Phage Display Technology to Create Novel Biopesticides' as bridging funding pending the outcome of an application to the Leverhulme Trust.

Biochemistry: A grant towards the purchase of a confocal microscope with ancillaries for use by Dr Richard Farndale and others for live-cell imaging in physiology and pathology.

Biotechnology: A grant for one year towards the salary of Dr Simon Scofield to work as a Research Associate with Dr James Murray on a project entitled, 'New roles for master regulators of plant stem cells'.

Centre for Research in the Arts, Social Sciences and Humanities (CRASSH): A grant over three years towards the salary of an Editorial Research Assistant to work with Dr Richard Serjeantson on a project to prepare Volume III of *The Complete Works of Francis Bacon (1561-1626)* to be published by Oxford University Press in 2009.

Chemistry: A grant for one year towards the salary of Dr Elena Bichoutskaia to work as a post-doctoral researcher under the supervision of Dr Nicholas Pyper on a project entitled, 'Fundamental quantum mechanical modelling of encapsulated nanocrystalline materials'.

Chemistry: A grant for one year towards the salary of Dr Stephen McLaughlin to work as a Research Associate on a project entitled, 'Understanding how the cell assembles complex structures: the role of molecular chaperones' under the supervision of Dr Sophie Jackson.

Chemistry: A grant over three years towards the salary of Dr Sergei Simdyankin to work as a Research Associate with Professor Stephen Elliot on a project entitled, 'Understanding photosensitivity in amorphous materials by means of computer simulation'.

Divinity (Centre for Advanced Religious and Theological Studies): A grant towards the salary of Dr Thomas Freeman as a Visiting Fellow to work with Professor Eamon Duffy on the preparation for publication of a corpus of manuscripts of the *Letters of the Marian Martyrs* held at Emmanuel College, together with a grant towards editorial costs.

Earth Sciences: A grant over two years towards the salary of Dr Stuart Hayward to work as a Research Fellow under the direction of Professor J F Scott on a project entitled, 'Quantum paraelectric solid solutions'.

Engineering: A grant over three years towards the salary of Mr Mohammed Hussein to work as a Research Associate with Dr Hugh Hunt on a project entitled, 'Control of vibration from railways'.

Engineering: A grant for three years towards the salary and travel costs of Dr Yongjiang Shi to work as a Senior Research Associate under the supervision of Professor M J Gregory on a project entitled, 'Making it in China - An investigation into the development of Chinese industrial capability and the implications for global manufacturing industries'. The project is to be undertaken in collaboration with Chinese universities.

Fitzwilliam Museum: A grant towards the cost of specialist analytical services and equipment for use on a project to investigate, examine and analyse the Ancient Egyptian collections of the Fitzwilliam Museum. The project is to be undertaken by Ms Julie Dawson, Senior Assistant Keeper (Conservation), under the direction of Mr Duncan Robinson.

Genetics: A grant for one year towards the salary of a post-doctoral scientist to work with Dr David Summers on a project entitled, 'Direct expression of foreign genes in bacteria', which seeks to develop novel technology for use in genome sequence analysis.

Geography: A grant for one year towards the salary of a post-doctoral researcher to work with Dr W Adams, Dr T Bayliss-Smith, Dr B Vira and Dr E Watson on a project entitled, 'Changing paradigms in natural resource management', which will investigate the comparative experience of environment and development debates in Africa, South Asia and Melanesia.

Haematology: A grant for one year towards the salary of Dr Ty Adams to work as a post-doctoral researcher under the direction of Dr James Huntington on a project entitled, 'Molecular recognition determining the pro- and anti-coagulant activities of thrombin'.

History of Art: A grant over two years towards the salary of Dr Linda Goddard as a Research Fellow to work on a project entitled, 'Using the Pen to Promote the Brush: Artists' Writings in *fin de siècle* France' which investigates in particular the writings of Paul Gauguin.

Isaac Newton Institute for Mathematical Sciences: A grant over two years towards the Institute's infrastructure costs. (Applicant: Professor Sir John Kingman)

Oriental Studies: A grant in the form of underwriting towards the costs of a meeting of contributors to a supplementary volume to *The Cambridge History of China, Volume I: The Ch'in and Han Empires*. (Applicant: Dr Michael Loewe)

Pathology: A grant for one year towards the salary of a Research Assistant to work for one year on a project entitled, 'Recognition of cellular distress by Natural Killer cells' under the supervision of Professor John Trowsdale.

Philosophy: A grant over ten months towards the salary of Dr Greg Scherkoske to work with Professor Simon Blackburn as a post-doctoral researcher on a project entitled, 'Public Trust and Professional Judgement'.

Physiology: A grant over two years towards the costs of consumables for use by Dr Alison Forhead on a project entitled, 'Developmental control of thyroid hormone bioavailability *in utero*' under the direction of Professor Roger Thomas.

Psychiatry: A grant for one year towards the salary of Dr George Ploubidis as a post-doctoral Research Associate to work under the direction of Professor Felicia Huppert on a project entitled, 'Human flourishing: a life-course approach', together with a grant towards IT and software.

Scott Polar Research Institute: A grant over two years towards the salary of Mr Robert Headland to work under the direction of Professor Julian Dowdeswell as an Archivist, with the purpose of providing continuity of scholarly advice and access to internationally-significant archival collections at the Institute.

Social Anthropology: A grant for six months towards the salary of Dr Monica Konrad to work as a Senior Research Associate under the supervision of Professor Dame Marilyn Strathern on a project entitled, 'An anthropological proposal for research in international ethics', which seeks to stress the relevance of contemporary social anthropology for the field of international ethics.

Social Anthropology: A grant for one year as a contribution to the salary of Mr Matei Candea to work as a temporary unestablished Teaching Associate in the Department of Social Anthropology in the academic year 2005-06. (Applicant: Professor Caroline Humphrey)

University Library: A grant over three years towards the salaries of one Senior Research Associate and four Research Associates to work under the direction of the Librarian, Mr Peter Fox, on a project to publish the complete scholarly edition of the correspondence of Charles Darwin.

Veterinary Medicine: A grant towards the salary of Professor Jonathan Heeney for six months to work with Professor Ian McConnell on a project entitled, 'The basis of immunity: the critical early events in lymph'.

Veterinary Medicine: A grant towards the costs of consumables for use by Dr Jordane Biarc under the direction of Dr Clare Bryant on a project entitled, 'The role of pathogen associated molecular pattern receptors in *streptococcus pneumoniae* infection'.

Wellcome Trust/CRUK Gurdon Institute: A grant over six months towards the salary of Dr Attila Toth to work as a post-doctoral researcher with Professor Azim Surani on a project entitled, 'Screening for genes involved in murine meiosis'.

Wellcome Trust/CRUK Gurdon Institute: A grant over six months towards the salary of Dr Stephen Sullivan to work as a post-doctoral researcher on a project entitled, 'To identify factors necessary for activation of the stem cell marker gene *Oct-4*' under the supervision of Professor Azim Surani.

Zoology: A grant towards the purchase of specialised laboratory equipment for use by Dr Walter Federle on a project entitled, 'Integrative study of insect surface attachment: adhesive mechanisms, dynamic performance and biomechanics of insect-plant interactions' under the supervision of Professor Malcolm Burrows.

Zoology: A grant towards the salary of Dr Sarah Bevan to work with Dr David Parker as a Research Associate on a project to examine the mechanisms underlying long-term spinal cord plasticity entitled, 'Long-term neural network plasticity: molecular mechanisms in a spinal cord locomotor network'.

Zoology: A grant over three years towards the salary of a post-doctoral researcher to work on a project entitled, 'Molecular physiology of the *C. elegans* Ip₃ receptor' under the supervision of Dr Howard Baylis.

Zoology: A grant for one year towards the salary of Dr L C Rookmaaker to work as an Archivist on a project to conserve, restore and make available for scholars the Hugh Strickland archive of ornithological and other papers bequeathed to the Museum of Zoology in 1900. (Applicant: Professor Michael Akam)

RECURRENT TRUST SCHEMES

THE CAMBRIDGE BURSARY SCHEME

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, 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

The Trust has received three Special Donations from Trinity College towards the endowment of the Bursary scheme. In addition the scheme has been supported on a recurrent basis by several sponsors and by a donation of £1 million phased over seven years from Atlantic Philanthropies.

In the light of these donations, the Trustees agreed in 1999 to expand the bursary scheme substantially. A guarantee was offered that any student in receipt of full LEA fee remission (i.e. with a parental income of less than about £20,000) would receive a full bursary of £1,000, with a sliding scale for students who qualify on the basis of their parental income for a lower level of fee remission.

The cost of these awards is borne in part by Colleges, broadly in line with their endowment income per capita. Levels of contribution are shown in Table 3. St John's College has progressively taken over the cost of awards for its own students; in 2004-05 only fifth and higher year students at St John's were eligible to apply to the Trust.

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.

A long-term evaluation of the bursary scheme, funded over ten years by Atlantic Philanthropies, is being carried out by the University's School of Education.

The scheme of bursaries is advertised on the Trust's web-site, in the University prospectus and in advertising sent to schools. This material includes a guarantee that any student who qualifies for full fee remission will also be awarded a full bursary.

The Trustees have agreed to maintain the present bursary scheme substantially unchanged up to 2006. Projections of costs after that date are speculative (see below).

CAMBRIDGE BURSARY SCHEME (£000's)**(a) Receipts and Expenditure account (actual and estimated)**

Year ended 31.1	1991	1992	1993	1994	1995	1996	1997	Actual								Projected (at 4% return)				
								1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Newton Bursaries Endowment Fund	0	0	0	0	0	0	0	0	0	0	161	223	164	139	170	191	194	194	194	194
Atlantic Philanthropies ¹	0	0	0	0	0	0	0	0	0	0	200	200	200	200	133	67	0	0	0	0
Evaluation (paid by Atlantic Philanthropies)												43	21	40	20	25	25	0	0	0
Clifford Chance	0	2	8	10	10	14	1	37	18	18	25	0	69	35	35	35	35	35	35	35
Hinduja Foundation	0	0	7	8	9	11	15	14	30	0	15	15	15	15	30	0	15	15	15	15
Mitsubishi Corporation	0	0	0	3	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Armourers and Braziers Gauntlet Trust	0	0	0	0	0	1	1	1	1	1	1	2	2	2	4	2	2	2	2	2
Malaysian Commonwealth Bursaries	0	0	0	0	0	0	0	0	40	0	20	20	20	20	40	0	20	20	20	20
Thermo Electron Corporation																3	6	9	12	12
Eagle Star (BAT Industries)	0	0	0	0	0	0	25	25	25	25	0	0	0	0	0	0	0	0	0	0
Voluntary contribution from Colleges (for 00-01) ²	0	0	0	0	0	0	0	0	0	0	55	0	0	0	0	0	0	0	0	0
General Fund (net cost)	73	139	160	195	238	282	315	254	282	710	156	356	500	515	621	877	803	825	822	822
TOTAL TRUST EXPENDITURE ON BURSARIES (actual)	73	141	175	216	257	310	357	334	396	754	633	859	991	966	1053	1200	1100	1100	1100	1100
College contributions ^{3,4}	0	0	0	0	0	0	0	0	0	0	180	220	250	239	258	270	190	110	35	0
Trinity, Caius and St John's (own schemes - estimated) ⁴	20	35	45	50	60	90	90	90	100	140	140	200	240	260	275	275	195	115	35	0
University/College contribution ⁵																1485	3165	4845	5550	
TOTAL EXPENDITURE ON BURSARIES (Estimated)⁴	93	176	220	266	317	400	447	424	496	894	953	1279	1481	1465	1586	1745	1170	690	215	50
TOTAL EXPENDITURE ON BURSARIES (Estimated)⁵																1800	3800	5800	6600	6600

(b) Newton Bursaries Endowment Fund

Balance at start of year										2078	3211	4461	4097	3486	4260	4778	4845	4845	4845	4845	
Donations	Trinity College									2000	1000	1205	200	200	200	133	67	0	0	0	0
	Atlantic Philanthropies ¹									67	-67	0	0	0	0	0	0	0	0	0	
	Cambridge Society											5									
Dividends and interest										45	115	153	147	142	139	171	191	194	194	194	194
Gain/Loss on investments										33	-49	115	-488	-789	567	384	0	0	0	0	0
Transfer to Receipts and Expenditure account (4%)										0	-161	-223	-164	-139	-170	-191	-194	-194	-194	-194	
Balance at end of year										2078	3211	4461	4097	3486	4260	4778	4845	4845	4845	4845	4845

¹67 from Atlantic Philanthropies credited to Newton Bursaries Endowment Fund 1999/2000; but was intended to be spent, so transferred to Receipts and Expenditure account 2000/2001.²These voluntary contributions made in 2000-2001 relate to bursaries paid in 1999-2000.³These 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.⁴Old scheme⁵New scheme

Bursaries after 2006

Under the Higher Education Act passed in 2004, Universities are permitted to charge so-called top-up fees on condition that they have a bursary scheme in place which guarantees minimum bursaries to UK students from the poorest families. These arrangements are to be policed by a regulator, the Office for Fair Access (OFFA). Cambridge has decided to charge the maximum top-up fee permitted, and the University has asked the Trust to administer an expanded bursary scheme in fulfilment of the OFFA requirement. This will involve a substantial increase in bursary amounts, well in excess of the minimum required, and also a widening of the categories of student who will receive bursaries. The cost of the bursary scheme will increase substantially after 2006 as successive cohorts of students fall under the new fee arrangements, increasing to a steady state of about £7 million per annum by 2011. This cost will be met in part by a contribution from the University from the top-up fee, and in part, roughly at present levels, by the Newton Trust and the Colleges.

It is intended that fundraising for bursaries should be a major part of the University's 800th Anniversary Campaign. Several Colleges are already using student support as a major plank in their fundraising, some with notable success. With the agreement of all parties involved, an arrangement has been worked out whereby Colleges that are particularly successful in their fundraising for bursaries can meet a higher-than-normal share of the cost and they will then be reimbursed by the Trust. It is hoped that this procedure will incentivize College fundraising efforts.

The Newton Trust has taken a leading role in establishing these new arrangements and has accepted the invitation of the University Council and Colleges to continue to run the bursary scheme in this new and expanded form for at least three years after 2006.

Grants for Community-Related Projects

The Trust has continued to operate a scheme offering contributions to community-related undergraduate projects with preference being given to bursary-holders and those undertaking projects within the UK. Some 135 awards were made under this scheme in 2004-05 at a total cost of £24,210. Most of the grants to individuals were for sums less than £500, but within the total the Trust approved a grant of £2,000 to Student Community Action towards equipment and office costs.

Results of the 2004-05 Bursary allocation

All eligible applicants were awarded a bursary on a sliding scale up to £1,000 thereby meeting the Trust's guarantee. The number of awards made is given below (2003-04, 2002-03, 2001-02 and 2000-01 figures in parenthesis):

- a total of 1675 (1734) (1629) (1551) (1290) bursaries were awarded at a total cost of about £1,294,000 (£1,247,000) (£1,202,000) (£1,107,000) (£867,000);
- the cost to the Trust net of College contributions is about £1,052,000;

- of the total 1704 applications for bursaries (new and renewals), 47 were deemed ineligible to receive support;
- 359 of these awards remain to be settled upon receipt by the Trust of students' LEA assessments.

First year students (only) taking the Graduate Course in Medicine were invited to apply for a bursary. Eight of the 20 students applied; 6 bursaries were awarded.

The total number of bursaries awarded is more than twice as great as it was five years ago. About 20% of eligible UK students now receive bursaries.

Numbers and costs of awards by College are shown in Table 3.

For first-year students, the Higher Education Act has changed the definition of parental income so as to include step-parents. There was a 6% fall in numbers of applications from first-year students. The average value of each bursary awarded has increased from £720 to £770, in part because a larger sponsorship income offset (£1,000 rather than £200) was applied.

Collaborators

Atlantic Philanthropies, who hitherto preferred to remain anonymous, now publicly acknowledge the support that they offer to the bursaries scheme and advertise their grants on their own website and their name appears on the Trust's published accounts.

Armourers and Brasiers: Four Armourers and Brasiers awards were made.

Cambridge Society: The fifth Cambridge Society bursary has been awarded.

Clifford Chance: Clifford Chance continue to make a contribution to the bursary scheme at a level of £35,000 per annum.

Thermo Electron agreed to sponsor two bursaries of £6,000 over four years (£1,500 per year) to Natural Sciences students. Two Thermo Electron bursaries have been awarded.

For the remaining schemes (*Dharam Hinduja Newton Bursaries*, *Malaysian Commonwealth Studies*) the bursary recipients have been identified and the students notified. The usual contributions from the sponsors, £15,000 and £20,000 respectively, have been paid.

TABLE 3

Bursaries for UK Undergraduates 2004-05

<i>College</i>	<i>No of u/g students (2003-04)</i>	<i>No of awards</i>	<i>Total cost of awards £k</i>	<i>% of cost paid by College</i>
Christ's College	447	56	44	25
Churchill College	482	63	44	25
Clare College	462	71	51	25
Corpus Christi College	257	47	37	50
Darwin College	5	2	2	6.25
Downing College	440	62	50	6.25
Emmanuel College	522	57	43	50
Fitzwilliam College	511	71	58	6.25
Girton College	539	87	65	12.5
Homerton College	550	158	132	6.25
Hughes Hall	72	12	10	6.25
Jesus College	542	67	55	25
King's College	413	103	79	50
Lucy Cavendish College	115	27	26	6.25
Magdalene College	360	48	34	6.25
New Hall	393	95	68	6.25
Newnham College	422	87	67	25
Pembroke College	441	82	63	12.5
Peterhouse	276	42	36	50
Queens' College	544	66	47	6.25
Robinson College	417	63	48	6.25
St Catharine's College	467	87	66	6.25
St Edmund's College	126	25	19	6.25
St John's College*	599	6	3	50
Selwyn College	396	70	55	12.5
Sidney Sussex College	355	61	39	25
Trinity Hall	381	40	34	25
Wolfson College	129	20	19	6.25
Total	10,663	1,675	1,294	

Total cost of awards	£1,294,000
College contributions	£242,000
Net cost to the Trust	£1,052,000

Total number of New awards (across all years)	596	Cost	£438,000
Total number of Renewals (across all years)	1,079	Cost	£856,000

RESEARCH STUDENT FUNDING

The Trust supports Research Students at Cambridge in three ways: through the scheme of Awards for UK Research Students in the Arts, Humanities and Social Sciences described below; through the Board of Graduate Studies Scheme of Domestic Research Studentships (available to both UK and EU students) described on page 24; and through the scheme of Newton European Research Studentships (for EU students) operated by the Cambridge European Trust and described on page 25.

NEWTON AWARDS FOR UK RESEARCH STUDENTS IN THE ARTS, HUMANITIES AND SOCIAL SCIENCES

A new and experimental scheme of awards restricted to the Arts, Humanities and Social Sciences operated for the first time in 2002. Awards of £1,500 per year were offered for new PhD students from the UK holding either a 3-year Research Council maintenance grant or a similar 1-year Research Council grant with the intention of proceeding thereafter to the PhD degree in Cambridge. The scheme operated for the second time in 2003. A review by the Trust in 2004 decided that the scheme should be discontinued (details are contained in Annual Report Volume XIV pp.20-21).

No new awards were made under the scheme in 2004-05, but **29** awards are ongoing from those who started in 2002 and **33** awards are ongoing from those who started in 2003. The total cost of these awards in 2004-05 was **£90,500**.

COLLEGE TEACHING OFFICER (CTO) SCHEME

Aims and objectives

The aims of these schemes 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 was initially limited to a maximum of ten years. In a recent review of the scheme the maximum tenure was reduced to 8 years so as to offer greater opportunity to CTOs appointed by Colleges for short periods to compete for a post.

The original scheme established in 1992 operates across faculties, though in practice most posts are in the Humanities. The broadly parallel scheme operated by the Faculty of Law with (half) sponsorship from Norton Rose is now closed, the five-year tranche of funding having come to an end.

Summary of awards 2004-2005

Thirty-three awards have been made as follows:

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

Thirty-three posts are currently filled. Two post-holders are currently on leave: Dr Bodenhorn and Dr Bennett. Dr Sarah Brown has been appointed for one calendar year from 1 January 2005 as a temporary replacement for Dr Bennett.

A list of present holders of awards is given in Table 4 below.

Costs

The cost of the CTO scheme for the academic year 2004-2005 was **£118,995**. The cost of the Norton Rose scheme in 2004-2005 was **£20,151**. The Norton Rose scheme is now closed.

Recent changes

Several new appointments, reappointments and resignations arose during the year:

Faculty of English

Dr Yota Batsaki (St John's) has been appointed of for five years from 1 October 2004.

Dr Jan-Melissa Schramm (Trinity Hall) has been appointed for 4.5 years from 1 January 2005 until 30 September 2009.

Faculty of Modern and Medieval Languages

Dr Erica Segre (Trinity) has been appointed for five years from 1 October 2004.

Dr Sarah Cooper (Trinity Hall) resigned her lectureship with effect from 30 September 2004. The resultant vacancy has been assigned to the Faculty of English by the School of Arts and Humanities.

Department of Physics

Dr Julia Riley (Girton) has been reappointed for a further and final two years from 1 October 2004.

Department of Social Anthropology

Dr Barbara Bodenhorn (Pembroke and Girton) is on leave for the two years 2004-2005 and 2005-2006. Her tenure has therefore been extended by two years to 30 September 2008. No temporary stand-in appointment has been requested by the Department.

Norton Rose Scheme (Faculty of Law)

Mr Ben Parker (St John's) resigned his Norton Rose lectureship from 31 December 2003 and was appointed to a University Lectureship from 1 January 2004.

Dr Eleanor Spaventa (New Hall) resigned her Norton Rose lectureship from 30 August 2004.

TABLE 4 : Present holders of CTO appointments

Name	Title	Initials	Faculty	No	College	Start tenure	End tenure
Aldred	Dr	Jonathan	Land Economy	1 of 1	Emmanuel	1.10.2002	30.9.2007
Batsaki	Dr	Yota	English	2 of 7	St John's	1.10.2004	30.9.2009
Bennett	Dr	Kate	English	6 of 7	Pembroke	1.10.2002 1.10.2003	30.9.2003 30.9.2007
Best	Dr	Victoria	Mod/Med Languages	2 of 5	St John's	1.10.2001	30.9.2006
Bodenhorn	Dr	Barbara	Social Anthropology	1 of 1	Pembroke/Girton	1.10.2001	30.9.2008
Brookes	Dr	C J B	Mathematics	1 of 3	Corpus Christi	1.10.1998 1.10.2003	30.9.2003 30.9.2006
Brown	Dr	Sarah	English	6 of 7	Lucy Cavendish	1.1.2005	31.12.2005
Connell	Dr	Philip	English	4 of 7	Selwyn	1.10.2001 1.10.2003	30.9.2002 30.9.2007
Davis	Dr	Jennifer S	Law	3 of 3	Wolfson	1.10.2000 1.10.2001 1.10.2004	30.9.2001 30.9.2004 30.9.2007
Demoulini	Dr	Sophia	Mathematics	3 of 3	Downing	1.1.2001	30.12.2005
Dörrzapf	Dr	Matthias	Mathematics	2 of 3	St John's	24.4.2001	31.3.2006
Fleet	Dr	Kate	Oriental Studies (Turkish)	Super	Newnham	1.1.2001	30.9.2006
Gatti	Dr	Rupert	Economics	1 of 1	Trinity	1.10.2001	30.9.2006
Guthrie	Dr	J	Mod/Med Languages	1 of 5	New Hall	1.10.2000	30.9.2005
Henry	Dr	Anne	English	1 of 7	Trinity	1.10.2002	30.9.2007
Horrox	Dr	Rosemary	History	3 of 6	Fitzwilliam	1.10.2002	30.9.2007
Izzet	Dr	Vedia	Classics	2 of 2	Christ's	1.10.2001	30.9.2006
James	Dr	I	Mod/Med Languages	4 of 5	Downing	1.10.2000	30.9.2005
Khalifa	Dr	J	Mod/Med Languages	5 of 5	Trinity	1.10.1998 1.10.2003	30.9.2003 30.9.2006
Lewis	Dr	Paul	SPS and Economics	1 of 1	Selwyn	1.10.2002	30.9.2007
Mandelbrote	Mr	Scott	History	2 of 6	Peterhouse	1.10.2002	30.9.2007
Miles	Ms	Jo	Law	1 of 3	Trinity	1.10.2000 1.10.2003 1.10.2004	30.9.2003 30.9.2004 30.9.2005
O'Hanlon	Dr	R	History	1 of 6	Clare	1.10.2000	30.9.2005
Phillips	Dr	Cathy	English	3 of 7	Downing	1.10.1999	30.9.2005
Riley	Dr	Julia	Physics and Chemistry	1 of 1	Girton	1.10.1996 1.10.2001 1.10.2004	30.9.2001 30.9.2004 30.9.2006
Schramm	Dr	Jan- Melissa	English	7 of 7	Trinity Hall	1.1.2005	30.9.2009
Segre	Dr	Erica	Mod/Med Languages	3 of 5	Trinity	1.10.2004	30.9.2009
Seville	Dr	Catherine	Law	2 of 3	Newnham	1.10.1995 1.10.2000 1.10.2003	30.9.2000 30.9.2003 30.9.2005
Smith	Dr	David	History	4 of 6	Selwyn	1.10.2001	30.9.2007
Thom	Dr	D	SPS and HPS	2 of 2	Robinson	1.10.1995 1.10.2000 1.10.2003	30.9.2000 30.9.2003 30.9.2005
Thompson	Dr	D J	Classics	1 of 2	Girton	1.10.1992 1.10.1998 1.10.2001	30.9.1998 30.9.2001 30.9.2005
Toye	Dr	Richard	History	6 of 6	Homerton	1.1.2004	31.12.2008
Warde	Dr	Paul	History	5 of 6	Pembroke	1.1.2004	31.12.2008
Zeeman	Dr	N	English	5 of 7	King's	1.10.2000	30.9.2005

TIME-LIMITED TEACHING FELLOWSHIPS SCHEME

Aims and objectives

The aims and objectives of this 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 in 1999 to make up to 25 grants available to enable young postdoctoral researchers to be elected to teaching Fellowships at the less well-endowed Colleges shown below. 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 towards the overheads involved. In 2004 the Trustees agreed to increase the number of posts available under the scheme from 25 to 30 from 2005 onwards at an additional cost to the Trust of £20,000 per annum.

The following Colleges are eligible to participate in this scheme

Downing	Pembroke
Fitzwilliam	Queens'
Girton	Robinson
Homerton	Selwyn
Hughes Hall	St Catharine's
Lucy Cavendish	St Edmund's
Magdalene	Wolfson
New Hall	

Appointments made

Eleven posts were taken up in the first round of appointments in 2000. The Trust has advertised further rounds of appointments annually since, and in the Easter Term 2004, vacancies were offered to eligible Colleges in competition. As a result, **8** new appointments were made and **3** appointments were extended up to the maximum 5-year tenure. Dr Caroline Blyth (St Edmund's) resigned her Fellowship from 31 August 2004 on taking up a University Lectureship in English.

Current post-holders are shown in Table 5.

TABLE 5: Time-Limited Teaching Fellowship appointments as at 14 March 2005

Lastname	Firstname	College	Department	From	End of post-doc
Alcantara	Jose	Fitzwilliam College	Experimental Psychology	1 October 2003	30 September 2005
Ball	Stephen	New Hall	Chemistry	1 October 2001	30 September 2005
Beauregard	Daniel	Selwyn College	Biochemistry	1 October 2000	6 August 2005
Browne	Jude	Downing College	Social and Political Sciences	1 October 2002	30 September 2007
Challinor	Anthony	Queens' College	Physics	1 October 2001	30 September 2006
Gill	Kaveri	Queens' College	Centre for South Asian Studies	1 October 2004	30 September 2006
Grainge	Keith	Selwyn College	Physics	1 October 2004	30 September 2006
Greatorex	Jane	Lucy Cavendish	Medicine	1 October 2003	30 September 2006
Guse	Eran	Fitzwilliam College	Economics	1 October 2004	30 September 2007
Harbottle	Michael	Robinson College	Engineering	1 October 2004	30 April 2006
Hayward	Stuart	Girton College	Earth Sciences	1 October 2002	31 May 2005
Kaminski	Ann	St Edmund's College	Biochemistry	1 October 2000	31 October 2005
Lynch	Stephen	St Edmund's College	Physics	1 October 2003	31 January 2006
Manning	Russell	St Edmund's College	Divinity	1 October 2003	31 January 2007
Niven	Jeremy	Selwyn College	Zoology	1 October 2003	31 March 2006
Page	Joanna	Robinson College	Modern and Medieval Languages	1 October 2003	30 September 2006
Speed	Catherine	Hughes Hall	Rheumatology	1 October 2001	31 May 2005
Spring	David	Queens' College	Chemistry	1 October 2001	30 September 2006
Stace	Tom	Queens' College	Applied Mathematics and	1 October 2004	30 September 2005
Tomalin	Marcus	Downing College	English	1 October 2004	30 September 2009
Treece	Graham	Queens' College	Engineering	1 October 2003	30 September 2006
Wardle	Fiona	St Catharine's College	Developmental Biology	1 October 2002	30 September 2005
Warner	Christopher	Robinson College	DAMTP	1 October 2001	30 September 2006
Williams	Guy	Downing College	Maths for Natural Sciences	1 October 2004	28 February 2007

GRANTS MADE TO OTHER BODIES

DOMESTIC RESEARCH STUDENTSHIPS

Aims and objectives

To award research scholarships to the best 'Home' (i.e. UK and EU) students who fail 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, adding to other sources of funds to increase the number of awards available. The awards are made by the Board of Graduate Studies on the advice of Academic Division's Committee on Awards. The majority of awards are made to students in the Arts and Humanities. During 2003-03 the Trustees agreed to extend the period of support for a further five years at £85,000 per annum; and in 2004 agreed a further increase to **£90,000** per annum.

In addition, the Trust agreed in 2002 to provide underwriting of **£250,000** over a five-year period to enable firm offers of support to be made earlier by the Committee on Awards to strong candidates who might otherwise be tempted to go to other Universities but who were likely in the event to receive funding from public sources.

Grants awarded

In 2004 some **21** new awards were made. The Secretary of the Board of Graduate Studies reported that the availability of the Trust's underwriting had been useful in enabling early offers of awards to be made to students who might otherwise have moved elsewhere but who had, in the course of events, subsequently been awarded a studentship by AHRB. It has not yet proved necessary to call upon the Trust's underwriting.

NEWTON EUROPEAN RESEARCH BURSARIES

Aims and objectives

The aims and objectives of this 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, but not at present for maintenance.)

Policy

The Trustees agreed in 1999 to make a donation to the Cambridge European Trust totalling £600,000 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. A further £400,000 was awarded during 2002-03, and in 2004-05 the Trustees agreed to make a further and final grant of £400,000 over two years for the same purpose.

Grants awarded

The Cambridge European Trust made 81 awards under this scheme during 2004-05 at a total cost to the Newton Trust of **£162,000**.

APPENDIX 1

Isaac Newton Trust

Accounts

for the year ended 31 January 2005

Isaac Newton Trust

Accounts

for the year ended 31 January 2005

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APPENDIX 2

Consolidated list of grants 1994-2005

The following Tables list all the grants that the Trustees have approved in the ten year period from 5 July 1994 to 14 March 2005 inclusive. A list showing the period before 1994 can be found in the annual Report of the Trust 2003-04, along with the Trust's final report on the Special Donations made by the College in 1996 and 1997. The remaining assets and liabilities from the Special Donations were transferred to the General Fund in 2004. 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	1997	536 – 578
1989	27 – 94	1998	579 – 621
1990	95 – 185	1999	622 – 695
1991	186 – 264	2000	696 – 766
1992	265 – 322	2001	1.00 – 1.59
1993	323 – 388	2002	2.00 – 2.49
1994	389 – 447	2003	3.00 – 3.53
1995	448 – 496	2004	4.00 –
1996	497 – 535		

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. Some items in the index refer to grants made before 1994.

