

NHS Blood and Transplant

Trust Fund

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ANNUAL REPORT AND ACCOUNTS
for the Financial Year Ended 31 March 2013

OFFICE AND REGISTERED ADDRESS:

NHS Blood and Transplant
Oak House
Reeds Crescent
WATFORD
Herts. WD24 4QN
Telephone: 01923 366800

REGISTERED CHARITY NO: 1061771

BANKERS:

Lloyds Bank Edgware
Station Road
Edgware
Middlesex
HA8 7JL

INDEPENDENT EXAMINER:

Deloitte LLP
1 City Square
Leeds
LS1 2AL

This Report is a Public Document, copies of which may be obtained from:
Rob Bradburn Finance Director at the registered address.



1. FOREWORD

The Corporate Trustee, NHS Blood and Transplant presents the charitable funds' Annual Report together with the Financial Statements for the year ended 31 March 2013.

The charity's Annual Report and Accounts for the year ended 31 March 2013 have been prepared by the Corporate Trustee in accordance with the Charities Act 2011.

The purpose of the Report is to provide details of the funds held on charitable trust by the Trustee. The report describes and explains the matters involved in the management of those funds, informs the reader as to how the funds have been used during the year and should be read in conjunction with the annual accounts on pages 20 to 29.

2. REFERENCE AND ADMINISTRATIVE DETAILS

NHS Blood and Transplant is a statutory body that was established under Statutory Instrument 2005 No. 2529 and No. 2531 on 1 October 2005. The authority was formed from the merger of the National Blood Authority and UK Transplant and, by virtue of the powers vested in it through the NHS and Community Care Act 1990, is able to hold funds on trust, as a Corporate Trustee. Charitable Funds held by the National Blood Authority were transferred to NHS Blood and Transplant under a Deed of Variation executed under seal by the Charity Commission. There were no charitable funds held by UK Transplant.

The charitable funds are registered under an umbrella registration with the Charity Commission in accordance with the Charities Act 2011. The registered Charity Number is 1061771. The Charitable Trust name is:

NHS BLOOD AND TRANSPLANT TRUST FUND

The charity is constituted of three individual funds (2011/2012:3) as at 31 March 2013, and the notes to the accounts distinguish the types of fund held. For accounting purposes the umbrella registration has permitted the production of a single report and set of accounts. This does not obviate the requirement to manage each fund as a separate trust for the purpose of maintaining books for accounts and for investment management.

The Corporate Trustee is NHS Blood and Transplant, and the Board acts as an agent of the Corporate Trustee. On 31st May 2013 the term for Mr Bill Fullagar as Chairman of the Board of NHS Blood and Transplant came to an end, and the role of Chairman to the Board passed to Mr John Patullo on 1st June 2013. Members of the Board of NHS Blood and Transplant who served during the year are shown overleaf:

NHS BLOOD AND TRANSPLANT

AUTHORITY BOARD

2012- 2013

CHAIRMAN

Mr Bill Fullagar

(period 1 April to 31st May 2013)

John Patullo

(commenced 1st June 2013)

NON-EXECUTIVE DIRECTORS

Mr Andrew Blakeman

Ms Della Burnside

(period 1 April to 31 July)

Dr Christine Costello

Professor John Forsythe

Mr Roy Griffins

Mr George Jenkins

Mr Jeremy Munroe

(commenced 11 February 2013)

Mr Shaun Williams

EXECUTIVE DIRECTORS

Ms Lynda Hamlyn – Chief Executive

Mr Rob Bradburn – Finance Director

Ms Sally Johnson – Director of Organ Donation and Transplant

Mr Alan McDermott – Director of Blood Donation

(period 1 April 2012 to 15 August 2012)

Mr Clive Ronaldson – Director of Patient Services

Dr Lorna Williamson – Medical and Research Director

Dr Huw Williams – Director of Diagnostic & Therapeutic Services

(commenced 11 February 2013)

TRUST FUND COMMITTEE

The NHS Blood and Transplant Board devolved responsibility for the on-going management of funds to the Trust Fund Committee, which administers funds on behalf of the Corporate Trustee. The names of those who served as agents during the year ending 31 March 2013 for the Corporate Trustee as permitted under the Scheme of Delegation approved by the Board in October 2005 were as follows:

Mr Andrew Blakeman:	Chair of the Trust Fund Committee
Professor John Forsythe:	Non-Executive Director
Mr Roy Griffins:	Non-Executive Director
Mr Rob Bradburn:	Finance Director NHS Blood and Transplant
Dr Lorna Williamson:	Medical and Research Director NHS Blood and Transplant

Acting for the Corporate Trustee, the Trust Fund Committee is responsible for the overall management of the charitable fund. The Committee is required to:

- control, manage and monitor the use of the fund's resources;
- manage and monitor the receipt of all income;
- ensure that 'best practice' is followed in the conduct of all its affairs, fulfilling all of its legal responsibilities;
- ensure that the approved investment policy endorsed by the Board as Corporate Trustee is adhered to and that performance is reviewed on a regular basis; and
- keep the Board of the Corporate Trustee fully informed on the activity, performance and risks of the charity.

The Corporate Trustee is responsible for preparing the Trustees' Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice). The law applicable to charities in England & Wales/Scotland/Northern Ireland requires the trustees to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the charity and of the incoming resources and application of resources of the charity for that period. In preparing these financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- observe the methods and principles in the Charities SORP;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable accounting standards have been followed; and

- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in business.

The Corporate Trustee is responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of the charity and enable them to ensure that the financial statements comply with the Charities Act 2011, the Charity (Accounts and Reports) Regulations 2008 and the provisions of the trust deed. They are also responsible for safeguarding the assets of the charity and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Corporate Trustee is also responsible for the maintenance and integrity of the charity and financial information included on the NHSBT website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Although NHSBT is able to hold non-charitable funds on trust, to do so would be to incur additional trustee and related administrative responsibilities. NHSBT held no non-charitable funds on trust during the year.

3. STRUCTURE, GOVERNANCE AND MANAGEMENT

The Department of Health appoints Non-Executive members of the Board. Executive members of the Board are recruited by the Board of NHS Blood and Transplant. Members of the Board and the Trust Fund Committee are not individual trustees under Charity Law but act as agents on behalf of the Corporate Trustee.

The Committee agrees an annual workplan and held three meetings during the financial year 2012/13, chaired by Andrew Blakeman. Attendance at meetings is shown below:

Meeting Dates	23.05.2012	28.11.2012	28.02.2013
Andrew Blakeman	✓	✓	✓
John Forsythe	✓	✓	X
Roy Griffins	✓	✓	✓
Rob Bradburn	✓	✓	✓
Lorna Williamson	✓	✓	✓

All members of the Trust Fund Committee are provided with a copy of Committee terms of reference, procedure and guidance notes, copies of the annual report and accounts, and information about trusteeship. Updated guidance and news from the Charity Commission is also circulated to Committee members. At the end of the financial year the Committee provides the NHSBT Board with an annual report on the work undertaken during the year.

The Charity holds a single unrestricted general fund and two restricted funds, the Howard Ostin Bequest and the British Bone Marrow Donor Appeal, (BBMDA). The total value of charitable funds held on trust at the end of the year, with investment assets valued at market value, was £1.599 million (£1.580 million 2011/12).

The Corporate Trustee fulfils its legal duty by ensuring that funds are spent in accordance with the objects of each fund, and by designating funds the Trustee ensures that the wishes of donors are respected.

The Trust Fund Committee considers all applications for funding. All research applications over £50k total value must have successfully gone through the 'peer review' process of the NHSBT National Research and Development Committee (a Board committee), prior to being submitted as an application for funding to the Trust Fund Committee. Applications for smaller amounts, which are generally start-up or spin-off projects, require approval by the Research and Development Management Team, chaired by the Medical and Research Director, prior to the submission to the Trust Fund Committee.

All spending during the year was authorised by the Trust Fund Committee under delegated authority from the Board. Decisions to spend funds took into account the purpose of the spending and the funds available to meet that expenditure.

The Nature and Purpose of NHSBT

NHS Blood and Transplant (NHSBT) is a Special Health Authority in England and Wales, with responsibilities across the United Kingdom for organ donation and transplantation. Its core purpose is to "save and improve lives" through the provision of a safe and reliable supply of blood components, solid organs, stem cells, tissues and related services to the NHS, and to the other UK Health Services where directed.

NHSBT comprises the following group of strategic operating units, each with their own distinct supply chains, supported by common group services.

Blood Components covers the supply of red cells, platelets, plasma and related specialist products to NHS hospitals in England and North Wales. The cost of these products is recovered in the prices that are agreed annually through the National Commissioning Group for Blood. Around 7,000 units of blood are collected every day via a network of fixed sites and mobile blood collection teams. The blood is processed in five processing centres (two of which are also testing facilities) and distributed via a network of fifteen issue centres to over 200 hospitals. NHSBT is also the operator of the International Blood Group Reference Laboratory.

Organ Donation and Transplantation (ODT). Three people die every day in the UK due to the lack of an organ for transplant. NHSBT is the UK "Organ Donation Organisation" that is working with all of the UK Health Services and hospitals throughout the UK in order to continue to increase numbers on the Organ Donation Register, and to further increase the numbers of deceased organs donated by 50% (from a 2007/08 baseline). The cost of these activities is directly funded by the UK health services.

Diagnostic Services. These are highly specialised services that are provided via a national network of laboratories in support of blood transfusion and transplantation of organs, stem cells and tissues.

Tissues. NHSBT retrieves tissues (such as skin and bone) from deceased donors and processes these at its facility in Speke prior to storage and issue to NHS hospitals.



Stem Cell Services. NHSBT is the largest UK provider of haemopoietic stem cells for the treatment of blood cancers and operates the British Bone Marrow Registry and the NHS Cord Blood Bank. It additionally provides translational services to NHS, academic and commercial organisations seeking to take current and next generation stem cell therapies to the clinic.

Specialist Therapeutic Services (STS) is a service for collecting stem cells, related immunotherapy products and serum for production of autologous tears and for providing various apheresis based therapies such as phototherapy and plasma exchange.

NHSBT's annual report and accounts is also a public document, a copy of which can be requested from Rob Bradburn, Finance Director at the registered address below:-

NHS Blood and Transplant

Reeds Crescent

Watford

Hertfordshire

WD24 4QN

4. RISK MANAGEMENT

The most significant risk to which the Charity is exposed are losses from a fall in the value of investments. These risks have been carefully considered and there are procedures in place to review the investment policy to ensure that spending and financial commitments remain in line with income. Income and expenditure is monitored against an approved annual plan on a regular basis as part of the risk management process to avoid unforeseen calls on reserves. In addition, the Charity benefits from the systems of internal control and risk management processes that operate throughout NHS Blood and Transplant.

5. FUND OBJECTIVES AND ACTIVITIES

The General Fund (£892k) is an **unrestricted** income fund and the property therein may be used at the discretion of the Trustee for charitable purposes, wholly or mainly for the services provided by NHS Blood and Transplant. Part of the unrestricted fund may be earmarked for a particular project and may be designated as a separate fund for administration purposes only. No funds have been separately designated by the Trustee.

The General Fund receives donations that can be used for any charitable purpose relating to the NHS. This flexibility has been used to fund recognition awards for those staff members with over 20 years' service with NHS Blood and Transplant (including service with the National Blood Authority), and staff winter celebrations. Staff recognition awards for those staff working in the Birmingham area are funded from the Howard Ostin Fund.



The Howard Ostin Bequest (£380k) is a **restricted** fund and has the following objective:

'The object of the charity is to further such charitable purposes of NHS Blood and Transplant as the trustee thinks fit. In furthering such purposes, the trustee shall first consider and have regard to the needs in the area of Birmingham and the surrounding district'.

A steering group representing Birmingham has been established to propose expenditure bids to the Trust Fund Committee.

The British Bone Marrow Donation Appeal (BBMDA) (£327k) is a **restricted** fund. The objective of this fund is to improve the infrastructure for searching and accessing the Registry by clinicians, registry managers and patients.

6. PUBLIC BENEFIT

The aim of the Charity is to save and improve patients' lives. Thus the Charity will support non-commercial research in areas where the Corporate Trustee has considerable expertise with a view to improving blood, tissue and organ safety. In planning the activities of the Charity and agreeing a budget for the year the Trustees have given careful consideration to the Charity Commission's guidance on public benefit. The Charity has achieved its aims with a focus on funding research projects that meet the specific objectives of each of the funds and providing funding for long service awards to staff with over 20 years of service.

7. REVIEW OF ACTIVITIES UNDERTAKEN FOR THE PUBLIC BENEFIT AND FUTURE OF THE CHARITIES OBJECTIVES

During the year the Committee has approved expenditure on the following research and development projects amounting to £262,000 which help to improve and save patients' lives:-

- **The Therapeutic potential of human cardiac mesenchymal progenitors**

Heart disease is a major cause of death in the world. Despite the most advanced current treatments, such as drugs and clinical procedures to supply blood to the heart when damaged, the number of patients with heart failure is increasing at a devastating rate. Stem cell therapy is being developed to diminish any more damage being done to the heart tissue. We are developing treatments that involve stem cells isolated from the patients heart which will improve the blood supply to the damaged tissue. In the laboratory some of these patient derived heart cells can support the formation of new blood vessels, but others cannot. We are trying to understand what is the difference between them, to be able to select the right cells and the group of patients who will benefit most from this treatment. The next step in the development of this new treatment is to confirm whether the cells behave like they do in the laboratory but in an animal model that mimics heart disease. The cells should be transplanted into the animals and blood supply to the heart and heart function measured. This step is a prerequisite to demonstrate that our new treatment could be effective in patients.

Funding of £28,285 was approved for this project.



- **Characterisation of induced pluripotent stem cells (iPS)**

Scientists within NHSBT are working on the application of stem cells, including induced pluripotent stem cells (iPS), for use in clinical applications such as wound repair, diagnostics and transfusions. This work provides additional support to validate the induced Pluripotent Stem (iPS) cell lines generated, including work to confirm the generation of 'true' iPS cells and karyotypic analysis for chromosomal abnormalities.

Funding of £44,380 was approved for this project.

- **Identification of biomarkers that reflect the quality of donor organs and predict outcome after transplantation**

The aim of this project is to identify novel and better bio-markers in the peripheral blood of deceased organ donors that differentially reflect the quality of donor organs prior to transplantation when compared with living donors and using 'gold standard' parameters and outcome after transplantation.

Funding of £49,979 was agreed.

- **Cultured Red Cells Project**

Recent advances in stem cell technology have made it possible to generate red cells in the laboratory and opened the possibility that cultured red cells could be used to supplement the supply of red cell concentrates currently obtained from donors. Furthermore, cultured red cells may have advantages over donated red cells for certain groups of patients. Research at the RIKEN Institute in Japan has shown that immortalized cell lines can be made which can be cultured to make red cells.

Funding of £2,500 was granted enable one of our experienced scientists to make a short visit to the RIKEN Institute in order to learn how they make the cell lines.

- **The study of erythropoiesis in health and disease using novel 3D culture system**

This project proposes to use biomimicry to reproduce the bone marrow niche in synthetic scaffolds, and will support the completion of the necessary optimising steps prior to moving to scale-up to a prototype perfused hollow fibre bioreactor provided by Imperial College. This has exciting potential to increase yield and reduce the costs of generating red blood cells for eventual use in transfusion.

Funding of £45,000 over a period of three years was granted to support a PhD student undertaking this work.

- **Therapeutic potential of angiogenic factors to improve bone marrow transplantation**

Bone marrow transplantation using blood stem cells is used for the treatment of a wide variety of diseases. A significant number of the cells used in these transplants are from tissue matched donor samples. These can either be directly obtained from blood or bone marrow of a donor or from cord blood (obtained from the umbilical cord following a baby's birth). Cord blood is often the only treatment for groups of people for whom we do not find a suitable donor easily i.e. patients from ethnic minority groups.



The first step in bone marrow transplantation is to destroy the patient's own diseased blood cells. The next step is to administer donor cells which then gradually re-establish the patient's blood system. It can take many weeks for this process to occur and during this time the patient is highly susceptible to infection and bleeding disorders. Therefore, the speed at which the stem cells restore the blood system is crucial to the patient. Sometimes stem cell transplants fail completely or the process is too slow. This is especially the case for cord blood transplants and can have a detrimental impact upon the patient.

We know that for the donor stem cells to recover the blood system they must first reach the bone marrow and a certain amount of the patient's blood vessels in the bone marrow must be repaired before the donor cells can begin to restore the blood system. This study aims to improve the speed and frequency in which stem cells can successfully restore the blood system by priming the repair of the blood vessels in the patient's own bone marrow.

Funding of £47,210 was approved to undertake further validation work to progress towards patient treatment

- **Generation of a GMP-compatible cell line expressing a broadly neutralising antibody against the hepatitis C virus**

Hepatitis C virus (HCV) is a human blood-borne pathogen that causes both acute and chronic hepatitis. Present estimates indicate that between 123-170 million of the world's population are infected with the virus. The majority of infections progress to chronicity ultimately leading to liver failure and a high risk of hepatocellular carcinoma, both necessitating liver transplantation.

Interferon and ribavirin is the current reference treatment for chronic HCV infection but only shows a limited response rate. The recently approved triple therapy combining interferon and ribavirin with a viral protease inhibitor is highly effective, but only against one genotype of the virus. A large number of patients thus still progress to end-stage liver disease or develop hepatocellular carcinoma. For these patients liver transplantation is the only long-term treatment option.

The most important problem of these patients is reinfection of the graft with HCV. The optimal strategy would be to prevent graft infection by administering neutralising antibodies to the patients immediately before graft implantation. In combination with highly effective antiviral therapy this approach has proven highly effective for patients infected with hepatitis B virus requiring liver transplantation. In the last decade, substantial efforts have been undertaken to generate a potent antibody for neutralising all HCV genotypes which has resulted in the successful development of such an antibody.

In collaboration with NHSBT and the Department of Medicine in Cambridge, the development of this antibody has been initiated for clinical applications. First, production of this antibody under Good Manufacturing Practice (GMP) is required to allow for clinical studies in humans, and this will take 6-9 months.

Funding of £10,500 was approved for this purpose.

- **A pilot study of fibrinolytic activation in patients with haematological malignancies**

The aim of this study is to gain a greater understanding of fibrinolytic activity in patients with haematological malignancies. Patients who have evidence of fibrinolysis may have more bleeding due to breakdown of the clot formed. This may explain why some patients have many days of bleeding and others do not despite similar platelet counts. If differences in bleeding rates are due to differences in the levels of fibrinolytic activity then antifibrinolytics (e.g. tranexamic acid) may significantly reduce fibrinolysis and therefore reduce bleeding. If patients have fewer bleeding symptoms it may lead to a reduction in platelet component usage.



Funding of £33,950 was approved as a contribution towards consumables for the analysis of frozen samples collected as part of a previous prospective observational study in which all clinical data and laboratory samples were collected.

Outstanding commitments for approved and existing projects amount to £602k and further details are disclosed at note 13 to the accounts.

In addition, the Committee has also recognised the importance of the contribution of the staff of NHS Blood and Transplant and has supported staff long service and recognition awards.

8. SOURCES OF INCOME

The main sources of income in the year are from legacies (£181k), donations from individuals or grateful relatives and friends (£8k), and investment income (£29k) earned in interest and dividends through prudent management of funds not immediately required. In addition, the charity benefited from the sale of the freehold of a property in the Birmingham area which was part of the late Howard Ostin's estate. This property was leased to Birmingham City Council for a period of 50 years commencing on 25 June 1965. The council exercised its legal entitlement under the Leasehold Reform Act 1967 to acquire the freehold of this property, or alternatively to extend the lease at a peppercorn rental. The Trustees considered that it was in the best interests of the Charity to sell the property and the net proceeds from the sale were credited to the Howard Ostin Fund.

9. LEGACIES

During the year the Charity has benefited from two legacies, with £150k being credited to the General Fund and £31k to the Howard Ostin Fund.

10. INVESTMENTS

Investment management services were provided by Baring Asset Management Ltd, who are authorised and regulated by the Financial Services Authority, registration No.941405. Their registered address is 155 Bishopsgate London, EC2M 3XY United Kingdom. Monies are invested in a common investment target return fund. The objective of the fund is to aim for a total return of CPI + 5% per annum gross of the management fees with an income target of CPI + 1% per annum over a rolling 3 year period.

Performance on investments is continually monitored and reported to the Trustees on a quarterly basis, and the investment in the processing and/or manufacturing of tobacco products is not permitted.

11. RESERVES POLICY

The Trustee may spend up to £150k per annum from each of the General Fund and the Howard Ostin Bequest, a combined total of £300k, which will gradually erode the value of these funds. This policy is revisited annually in the light of current expenditure requirements and investment returns. It is likely that the British Bone Marrow Donor Appeal fund will be substantially spent over a 2-3 year period in furtherance of the objective of this fund.

12. FUTURE COMMITMENTS, ACTIVITIES AND PLANS

In considering the spending of funds in the future the Trust Fund Committee will work very closely with the Corporate Trustee as a Public Body. Spending on research, staff development and staff welfare will remain the main focus in expenditure plans, and continue to provide public benefit in improving and saving of patient lives. Applications to support research in furtherance of the Charity's objectives are encouraged.

Commitments at the balance sheet date 31st March 2013 amount to the sum of £261k (General Fund); £104k (Howard Ostin Fund); £237k (BBMDA Fund).

13. ASSOCIATED CHARITIES AND OTHER BODIES

Each of the funds must be seen as being associated with the other fund. The Authority as a public body, and principal beneficiary of the funds held on trust, has a considerable influence on how the funds are used.

14. THANK YOU

On behalf of the staff and patients who have benefited from improved services due to donations and legacies, the Corporate Trustee would like to thank patients, relatives and other members of the public who have made charitable donations.

15. ANNUAL ACCOUNTS

The Regulations, the Charity Statement of Recommended Practice (SORP) and the Accounting and Reporting Standards have specified three components to the final accounts:

- i. Statement of Financial Activities (SOFA)
- ii. Balance Sheet
- iii. Notes to the Accounts

A Cashflow Statement is not required for these Accounts as the reporting thresholds have not been crossed.

16. FINANCIAL REVIEW

Movement in Funds

The net assets of the Charitable Funds as at 31 March 2013 were £1.599 million (31st March 2012 £1.580 million). Overall net assets increased by £19k represented by a realised gain on the valuation of investments of £62k and expenditure in excess of income of £43k.



Movement in each of the three funds of the Charity are summarised below:

Fund Name	Fund Balance B/F	Incoming Resources	Outgoing Resources	Realised Gain on Investment Assets	Fund Balance C/F
General Fund	£795k	£174k	(£112k)	£35k	£892k
Howard Ostin	£421k	£37k	(£96k)	£18k	£380k
BBMDA	£364k	£7k	(£57k)	£13k	£327k

The Charity does not employ any staff. Trustees do not charge for their time and the Trust Fund incurs no expenses relating to the work of the Trustees. The day to day administration of funds is undertaken by the NHSBT finance department and no recharge is made for this work as costs are not material.

Incoming Resources

The Charity continues to rely on donations, legacies and investment income as the main sources of income. The Trustee has decided not to actively fund raise, as it does not wish the Service to be perceived to be funded by voluntary donations. Donors already give their valuable gift of blood, tissues and organs and it would be difficult to segregate donors from the general population. This means that future donations are likely to remain at relatively low levels.

Expenditure

Expenditure during the year is mainly in support of grants for research. Total expenditure on all research grants payable in the current year amounted to £231k in support of the following projects;

- Investigation into whether testing for anti-graft antibodies can reduce allograft loss and widen access to transplantation. The objective of this project which is funded by the Howard Ostin Fund is to define the temporal relationship between donor specific antibody formation and graft damage and how this leads to graft loss. This is a multi centre collaborative investigation involving the analysis of kidney, heart, lung, and liver transplants funded from the Howard Ostin Bequest. Expenditure in year amounts to £13.7k.
- The study of erythropoiesis in health and disease using novel 3D culture system. This project has the potential to increase yield and reduce the costs of generating red blood cells for eventual use in transfusion. Expenditure in year amounts to £15.0k.
- Identifying novel graft target antigens of graft versus myeloma effect. The human immune system recognises and combats infective agents and foreign proteins through two types of white cells, B lymphocytes and T lymphocytes. B lymphocytes produce antibodies that target specific proteins and are able to neutralise viruses that come into the human body. These can now be made into a therapy to target tumours and viruses. However, they only have a temporary effect. In contrast, T lymphocytes are long-lasting memory cells that expand and kill infected cells when they encounter the infection. Research has shown that patients with myeloma have T lymphocytes that recognise proteins from a family of protein called Cancer testis antigens (CTAg). Studies have shown that myeloma patients with a higher number of T lymphocytes recognising CTAg lived longer than those with less CTAg specific T lymphocytes.

As myeloma patients are treated with autologous stem cell transplant this study will investigate whether the autologous stem cell graft infused into these patients contain lymphocytes that target CTag, and if so, whether the number of such cells correlates with better results for patients. Expenditure in year amounts to £9.6k.

- T cell receptor (TCR) transduction of Cord Blood T cells for anti-viral immunotherapy. The aim of this study is to explore the possibility of using unrelated donor cord blood for immunotherapy focusing on trying to engineer T cells to recognise cells infected with the EB virus (EBV). T cells recognise viruses and proteins through a T cell receptor. This study plans to introduce a gene that leads to the formation of a TCR on the surface of the T cells that recognises only EBV derived proteins. Expenditure in year amounts to £9.9k.
- The isolation of human monoclonal antibodies with specificity for novel therapeutically-relevant leucocyte determinants. Antibodies are emerging as powerful therapeutic agents in the management of a range of diseases and clinical conditions such as cancer, auto-immune disease and transplant rejection. Expenditure in year amounts to £59.4k.
- Development of a high resolution human leukocyte antigen (HLA) typing technology using a next generation DNS sequencer (454 Roche). Expenditure in year amounts to £34.0k.
- A pilot feasibility study to evaluate the effects of early administration of cryoprecipitate in major trauma. The main objective of this study is to examine whether early administration of cryoprecipitate, in addition to standard transfusion therapy, is feasible, efficacious and safe in adult trauma patients with hemorrhagic shock and active bleeding. Expenditure in year amounts to £34.8k.
- An epidemiological cross-sectional national study of transfusion management and haemostatic changes in major obstetric haemorrhage. Major obstetric haemorrhage (MOH) which results in massive transfusion remains the leading cause of maternal morbidity and mortality and currently there is a lack of prospective information on the haemostatic abnormalities which develop in MOH. Expenditure in year amounts to £19.6k.
- Expansion and engraftment of haemopoietic stem/progenitor cells. The aim is to improve patient outcomes by maximising the generation of specific haemopoietic cell subsets from induced pluripotent stem cells, thereby understanding basic mechanisms for later clinical application and to improve umbilical cord blood (UCB) haemopoietic stem cell engraftment in order to reduce graft failure and graft delays. Expenditure in year amounts to £22.5k.
- The Therapeutic potential of human cardiac mesenchymal progenitors. Heart disease is a major cause of death in the world. Despite the most advanced current treatments, such as drugs and clinical procedures to supply blood to the heart when damaged, the number of patients with heart failure is increasing at a devastating rate. Stem cell therapy is being developed to diminish any more damaged being done to the heart tissue. Expenditure in year amounts to £13.0k.

In addition, the Trust Fund continues to support long service awards to staff with over 20 years service, including service with the National Blood Authority and UK Transplant. Where staff are working in the Birmingham area these costs are recharged to the Howard Ostin Fund. The granting of long service awards is considered to be supportive of the outcomes that the Charity is seeking to achieve in the advancement of health and saving lives, by retaining a motivated and stable workforce, through the recognition of long and loyal service. Expenditure on such awards amounts to £16.4k. The Trust Fund also provided funding of £7.8k in support of NHSBT staff winter celebrations at Christmas and provided a further £3.7k in support of recognition of events for outstanding team performance during the year.

Governance costs comprise External Accountant's fees of £2k (£4.5k related to audit fees in 2011/12), plus investment management fees deducted direct from capital investment funds held with Baring Asset Management. The reduction in accountant fees relates to the move to an independent examination approved by the Trust Fund Committee. Investment management fees are charged at 0.05% of the portfolio value. These are deducted directly from capital funds and are estimated to be £5k based on the average fund balance over the year.

Investments

The investments at the year-end comprise £992k, with the sum of £984k invested by Barings Assets Management in a target return common investment fund valued at open market value as at 31 March 2013. In addition £8k is invested in National Grid shares.

Net Current Assets

The accounts show £203k held as cash at bank plus £478k cash held on deposit in a high interest bearing account.

Short term creditors of £80k relates to accrued expenditure in respect of research grants; NHS Blood and Transplant (£20k), Queen Mary University of London (10k), University of Cambridge (£13k), University of Birmingham (£12k), University of Bristol (£15k) and the University of Bristol (£10k).

Debtors of £6k relating to accrued income from investment assets.

Income Funds

The unrestricted general-purpose fund (£892k) can be spent at the discretion of the Trustee. In respect of the restricted funds relating to the Howard Ostin Bequest (£380k) and the British Bone Marrow Donor Appeal (£327k) all expenditure is within the specific objectives of these funds as provided at paragraph 5.

17. INDEPENDENT EXAMINATION

An independent examination for the Trust Fund accounts in 2012-2013 has been completed by Deloitte LLP. The examiner is required to report on whether the financial statements are prepared accordance with the accounting records and the Charities Act 2011.

SIGNED FOR AND ON BEHALF OF THE CORPORATE TRUSTEE

Mr John Pattullo



Chairman of the Board

14 January 2014

INDEPENDENT EXAMINER'S REPORT TO THE TRUSTEES OF THE NHS BLOOD AND TRANSPLANT TRUST FUND.

I report on the accounts of the NHS Blood and Transplant Trust Fund ("the Charity") for the year ended 31 March 2013 comprising the income and expenditure account, the balance sheet and the related notes 1 to 14.

This report is made solely to the charity's trustee, as a body, in accordance with section 145 of the Charities Act 2011 and regulations made under section 154 of that Act. My work has been undertaken so that I might state to the charity's trustee those matters I am required to state to them in an independent examiner's report and for no other purpose. To the fullest extent permitted by law, I do not accept or assume responsibility to anyone other than the Charity and the Charity's trustee as a body, for my work, for this report, or for the opinions I have formed.

Respective responsibilities of trustee and examiner

The Charity's trustee is responsible for the preparation of the accounts. The Charity's trustee considers that an audit is not required for this year under section 144(1) of the Charities Act 2011 and that an independent examination is needed. The charity is preparing accrued accounts and I am qualified to undertake the examination by being a qualified member of ICAEW.

It is my responsibility to

- examine the accounts under section 145 of the 2011 Act;
- follow the procedures laid down in the General Directions given by the Charity Commission under section 145(5) of the 2011 Act; and
- state whether particular matters have come to my attention.

Basis of independent examiner's report

My examination was carried out in accordance with the General Directions given by the Charity Commission. An examination includes a review of the accounting records kept by the Charity and a comparison of the accounts presented with those records. It also includes consideration of any unusual items or disclosures in the accounts, and seeking explanations from you as trustee concerning any such matters. The procedures undertaken do not provide all evidence that would be required in an audit, and consequently no opinion is given as to whether the accounts present a "true and fair view" and the report is limited to those matters set out in the statement below.

Independent examiner's statement

In connection with my examination, no matter has come to my attention:

- (1) which gives me reasonable cause to believe that in any material respect the requirements:
- to keep accounting records in accordance with section 130 of the 2011 Act; and
 - to prepare accounts which accord with the accounting records and to comply with the accounting requirements of the 2011 Act .

have not been met, or

- (2) to which, in my opinion, attention should be drawn in order to enable a proper understanding of the accounts to be reached.

Paul Thomson

for and on behalf of Deloitte LLP

Reporting Accountants

Leeds

23 January 2014

	2013	2012	2011	2010
Forward at 31 March 2013	1,550	1,550	707	582
Fund balances brought forward	1,550	1,550	707	582
Net movement in funds	(313)	18	(78)	87
Gain/(loss) on revaluation and disposal of investment assets	(105)	82	31	25
Net investment/(outgoing) resources	(509)	(57)	(109)	82
Total resources expended	282	282	182	112
Governance Costs	15	8	2	3
Other income	274	339	180	102
Reserves expended	58	58	44	174
Total investing resources	58	58	44	174

Statement of Financial Activities for the year ended 31 March 2013

	Note	Unrestricted Funds £000	Restricted Funds £000	2012-13 Total Funds £000	2011-12 Total Funds £000
Incoming resources					
Donations		8	-	8	12
Investment income	7.3	16	13	29	45
Legacy Income		150	31	181	25
Total incoming resources		174	44	218	82
Resources expended					
Charitable Activities					
Grants payable	3	109	150	259	274
Governance Costs	4	3	3	6	16
Total resources expended	5	112	153	265	290
Net incoming/(outgoing) resources		62	(109)	(47)	(208)
Net incoming/(outgoing) resources		62	(109)	(47)	(208)
Gains/(losses) on revaluation and disposal of investment assets		35	31	66	(105)
Net movement in funds	6	97	(78)	19	(313)
Fund balances brought forward at 31 March 2012		795	785	1,580	1,893
Fund balances carried forward at 31 March 2013		892	707	1,599	1,580

The notes at pages 22 to 29 form part of this account.

All activities were derived from continuing operations. All recognised gains and losses have been included in the above statement.

Balance Sheet as at 31 March 2013

	Notes	Unrestricted Funds £000	Restricted Funds £000	Total at 31 March 2013 £000	Total at 31 March 2012 £000
Fixed Assets					
Investments	7	526	466	992	930
Total Fixed Assets		526	466	992	930
Current Assets					
Debtors	8	3	3	6	8
Cash on deposit	9	318	160	478	527
Cash at bank and in hand		91	112	203	246
Total Current Assets		412	275	687	781
Creditors: Amounts falling due:	10				
within one year		(46)	(34)	(80)	(131)
Net Current Assets		366	241	607	650
Total Assets less Current Liabilities		892	707	1,599	1,580
Total Net Assets		892	707	1,599	1,580
Funds of the Charity					
Income Funds:					
Restricted	11.2	-	707	707	785
Unrestricted	11.3	892	-	892	795
Total Funds		892	707	1,599	1,580

The notes at pages 22 to 29 form part of this account.

SIGNED FOR AND ON BEHALF OF THE CORPORATE TRUSTEE

Mr John Pattullo

Chairman of the Board

14 January 2014

Mr Rob Bradburn

Finance Director

14 January 2014

Notes on the accounts

1. Accounting Policies

(a) Basis of preparation

The financial statements have been prepared under the historic cost convention, with the exception of investments, which are included at market value. The financial statements have been prepared in accordance with Accounting and Reporting by Charities: Statement of Recommended Practice (SORP 2005) issued in March 2005 and applicable UK Accounting Standards and the Charities Act 2011.

(b) Funds structure

Restricted funds are funds which are to be used in accordance with specific restrictions imposed by the donor. Where the restriction requires the gift to be invested to produce income but the Trustees have the power to spend the capital, it is classed as expendable endowment. No endowment are held in the current or previous year.

Unrestricted income funds comprise those funds which the Trustee is free to use for any purpose in furtherance of the charitable objects. Unrestricted funds include designated funds where the donor has made known their non-binding wishes or where the Trustees, at their discretion, have created a fund for a specific purpose. The major funds held in each of these categories are disclosed.

(c) Incoming resources

All incoming resources are recognised once the charity has entitlement to the resources, it is certain that the resources will be received and the monetary value of incoming resources can be measured with sufficient reliability.

(d) Incoming resources from legacies

Legacies are accounted for as incoming resources either upon receipt or where the receipt of the legacy is virtually certain; this will be once confirmation has been received from the representatives of the estate(s) that payment of the legacy will be made or property transferred and once all conditions attached to the legacy have been fulfilled.

(e) Resources expended

Expenditure is recognised when a liability is incurred. Grant commitments are recognised when a constructive obligation arises that results in payment being unavoidable.

Grants payable are payments made (including to NHS bodies and NHS Blood and Transplant) in the furtherance of the objectives of the funds. They are accounted for on an accruals basis where the conditions of their payment have been met or where a third party has reasonable expectation that they will receive the grant.

- (f) **Irrecoverable VAT**
Irrecoverable VAT is charged against the category of resources expended for which it was incurred.
- (g) **Governance Costs**
Investment management fees are charged directly to each fund. Independent examination fees. Any costs of administration are apportioned across each fund on the basis of resource time.
- (h) **Charitable Activities**
Costs of charitable activities comprise all costs incurred in the pursuit of the charitable objects of the charity.
- (i) **Fixed asset investments**
Investments are stated at market value as at the balance sheet date. The statement of financial activities includes the net gains and losses arising on revaluation and disposals throughout the year. Investment funds are included in the balance sheet at the closing bid price at 31st March 2013.
- (j) **Realised gains and losses**
All gains and losses are taken to the Statement of Financial Activities as they arise. Realised gains and losses on investments are calculated as the difference between sales proceeds and opening market value (purchase date if later). Unrealised gains and losses are calculated as the difference between the market value at the year-end and opening market value (or purchase date if later).
- (k) **Change in the Basis of Accounting**
There has been no change in the basis of accounting during the year.
- (l) **Cash Flow Statement**

A cash flow statement has not been produced as this is not required under the requirements of FRS 1.

2. Statement of Trustees' Responsibilities

The Corporate Trustee is responsible for:

- (a) Keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the funds held on Trust and to enable them to ensure that the accounts comply with requirements in the Charities Act 2011 and SORP 2005;
- (b) Establishing and monitoring a system of internal control; and
- (c) Establishing arrangements for the prevention and detection of fraud and corruption.

CHARITABLE FUNDS TRUST ACCOUNT - NHS BLOOD AND TRANSPLANT 2012 - 2013

3 Grants Payable	Unrestricted	Restricted	Total	Total
	Funds	Funds	2013	2012

3.1 Grants Payable:

	£000	£000	£000	£000
Staff Long Service Awards	16	1	17	24
Recognition Events	3	-	3	
Winter Celebrations	8	-	8	13
ODT Payments	-	-	-	3
Research & Development	82	149	231	234
	<u>109</u>	<u>150</u>	<u>259</u>	<u>274</u>

3.2 Expenditure on Grants to Other Bodies

	Aggregate amount paid
	£000
Barts Health NHS Trust	35
NHS Blood and Transplant	13
Imperial College	14
Queen Mary University of London	10
University of Birmingham	79
University of Bristol	15
University of Cambridge	33
University of Oxford	32
Total	<u>231</u>

3.3 Expenditure on Grants to Individuals

	Aggregate amount paid
	£000
Staff Long Service Awards	17
Staff Winter Celebrations	8
Recognition Events	3
Total	<u>28</u>

4 Governance Costs

	Unrestricted	Restricted	Total	Total
	Funds	Funds	2013	2012
	£000	£000	£000	£000
Governance Costs	3	3	6	16
Total	<u>3</u>	<u>3</u>	<u>6</u>	<u>16</u>

Governance costs include independent examination fees £2.0k (£4.5k relating to audit fees in 2011/12). Investment management fees are taken from capital funds and are estimated at £4k (£11.5K 2011/12) based on the average value of investment funds over the year. No recharge is made for administration costs.

5	Analysis of Total Resources Expended	Costs of Activities for Charitable objectives	Governance costs	Total 2013 £000	Total 2012 £000
		£000	£000		
		259	6	265	290
		<u>259</u>	<u>6</u>	<u>265</u>	<u>290</u>

6	Changes in Resources Available for Charity Use	Unrestricted Funds £000	Restricted Funds £000	Total 2013 Funds £000	Total 2012 Funds £000
	Net movement in funds for the year	97	(78)	19	(313)
		<u>97</u>	<u>(78)</u>	<u>19</u>	<u>(313)</u>

7	Analysis of Fixed Asset Investments	Total 2013 £000	Total 2012 £000
7.1			

Market value at 31 March 2012	930	1,454
Disposals	-	(1,358)
Additions	-	950
Net realised/unrealised gains/ (losses) on revaluation	62	(105)
Investment Fees & Charges	-	(11)
Market value at 31 March 2013	<u>992</u>	<u>930</u>
Historic cost at 31 March 2013	<u>957</u>	<u>957</u>

		Total	Total
7.2	Market value at 31 March 2013	2013	2012
		£000	£000
	Common Investment Fund	984	923
	National Grid Shares	<u>8</u>	<u>7</u>
		992	930

		Total	Total
7.3	Analysis of Investment Income	2013	2012
		£000	£000
	Total Investment Income		
	Common Investment Fund	29	7
	UK Fixed Interest	-	8
	UK Equities	-	27
	Overseas Equities	-	2
	Property Equities	-	1
		<u>29</u>	<u>45</u>

		Total	Total
8	Analysis of Debtors	2013	2012
		£000	£000
	Amounts falling due within one year:		
		6	8
		<u>6</u>	<u>8</u>

		Total	Total
9	Cash on Deposit	2013	2012
		£000	£000
	Opening Balance 1 April 2012	527	327
	Deposits	150	1,439
	Withdrawals	(200)	(1,240)
	Interest Received	1	1
	Closing Balance 31 March 2013	<u>478</u>	<u>527</u>

		Total	Total
10	Analysis of Creditors	2013	2012
		£000	£000
	10.1 Amounts due to associated undertakings	80	131
	Total creditors falling due within one year	<u>80</u>	<u>131</u>

10.2 There are no creditors due falling after one year.

11 Analysis of Funds

11.1 Endowment Funds

The Charity does not hold any endowment funds.

11.2 Restricted Funds

	Balance as at 31 March 2012	Incoming Resources	Resources Expended	Transfers	Gains and Losses	Balance as at 31 March 2013
	£000	£000	£000	£000	£000	£000
Total	785	44	(153)	-	31	707

The Charity holds **two** restricted funds. Details of the movements in each fund are shown at Section 16 of the Annual Report.

The Howard Ostin Bequest: the main objective of which is to further such charitable purposes as the trustees think fit, having first considered and having regard to the needs in the area of Birmingham and the surrounding district.

The British Bone Marrow Donor Appeal: the main objective of which is to improve the infrastructure for searching and accessing the Registry by clinicians, registry managers and patients.

11.3 Unrestricted Funds

	Balance as at 31 March 2012	Incoming Resources	Resources Expended	Transfers	Gains and Losses	Balance as at 31 March 2013
	£000	£000	£000	£000	£000	£000
Total	795	174	(112)	-	35	892

The General Fund is an unrestricted fund which may be used at the discretion of the Trustee for charitable purposes, wholly or mainly to support the goals of NHS Blood and Transplant in saving and improving lives.

12 Related Party Transactions The management of Charitable trust funds is delegated to the Trust Fund Committee which is a sub-committee to the Board of the Corporate Trustee, NHS Blood and Transplant.

The charitable trust has made revenue payments to NHS Blood and Transplant in furtherance of its charitable goals. The members of the Trust Fund Committee (whose names are listed below) also served as members of NHS Blood and Transplant Board during the year.

Mr Andrew Blakeman
 Professor John Forsythe
 Mr Roy Griffins
 Mr Rob Bradburn
 Dr Lorna Williamson

Dr Lorna Williamson is the Medical and Research Director of NHSBT and research projects which have been funded by the Trust Fund Committee are also within Dr Williamson's area of responsibility.

Details of all the charitable trust account related party transactions are below:

- Payment to NHS Blood and Transplant in respect of Independent examination fees, £2,000 (£4,500 relates to audit fees in 2011/12). This is included in creditors within the balance sheet.

- Payment to NHS Blood and Transplant relating to the therapeutic potential of human cardiac mesenchymal progenitors, £13,033 (£nil 2011/12). £8k is included within creditors within the balance sheet.

- Payment to NHS Blood and Transplant in respect of staff winter celebrations, £7,856 (£13,653 2011/12), included within creditors in the balance sheet.

The NHSBT Trust Fund also funds the cost of long service awards made to employees of the Corporate Trustee. In 2012/13 this amounted to £16,426 (£21,193 2011/12). The Trust also funds for recognition events which amounted to £3,768.

13 Committed Expenditure Grants Committed as at 31 March 2013 are as follows:

	Amounts due in < 1year (£'000)	Amounts due in > 1year (£'000)	Total Commitment as at 31 March 2013 (£'000)	Total Commitments as at 31 March 2012 (£'000)
Research	468	134	602	577
Small Grants	-	-	-	-
Total	468	134	602	577

Research Grants committed as at 31 March 2013 consist of:-

1. The isolation of human monoclonal antibodies specifically for novel therapeutically relevant leukocyte determinants (£104,040).
2. Development of a high resolution HLA typing technology using a next generation DNS sequencer (454 Roche) (£214,053).
3. A pilot feasibility study to evaluate the effects of early administration of cryoprecipitate in major trauma (£15,154).
4. An epidemiological cross-sectional national study of transfusion management and haemostatic changes in major obstetric haemorrhage (£5,311).
5. Expansion and engraftment of Haemopoietic Stem/Progenitor cells (£22,500).
6. National survey of neonatal exchange transfusion (£7,000).
7. Therapeutic potential of human cardiac mesenchymal progenitors (£15,252).
8. Towards red blood cells using induced pluripotent stem cells (£44,380).
9. Identification of biomarkers that reflect the quality of donor organs and predict outcome after transplantation (£ 49,979).
10. Application for a travel grant for cultured red cells project (£2,500).
11. Study of Erythropoiesis in health and disease using a novel 3D in vitro culture system (£ 30,000).
12. Therapeutic potential of angiogenic factors to improve bone marrow transplantation (£ 47,210).
13. Generation of a GMP- compatible cell line expressing a broadly neutralising antibody against Hepatitis C virus (£ 10,500).
14. ATHENA II: A pilot study of fibrinolytic activation in patients with haematological malignancies (£ 33,950).

14 Grants Returned

The following amounts have been returned to the relevant fund in respect of grant underspends:-

1. £232 to the General Fund relating to small grants

1. The role of the liver in the regulation of the immune system: a study of the role of the liver in the regulation of the immune system. (12/11/09)
2. Development of a novel assay for the detection of hepatitis B virus (HBV) in the blood. (12/11/09)
3. A pilot study to evaluate the effect of early administration of prophylactic antibiotics in the treatment of acute pancreatitis. (12/11/09)
4. An epidemiological cross-sectional study of hepatitis B virus (HBV) and hepatitis C virus (HCV) carriage in the United Kingdom. (12/11/09)
5. Expansion and engineering of hematopoietic stem/progenitor cells. (12/11/09)
6. National survey of neonatal sepsis in the United Kingdom. (12/11/09)
7. The genetic control of human skin keratinocytes. (12/11/09)
8. Towards the development of a novel method for the detection of hepatitis B virus (HBV) in the blood. (12/11/09)
9. The effect of treatment on the quality of life of patients with acute pancreatitis. (12/11/09)
10. Application for a patent grant for a novel method for the detection of hepatitis B virus (HBV) in the blood. (12/11/09)
11. Study of the effect of treatment on the quality of life of patients with acute pancreatitis. (12/11/09)
12. The genetic control of human skin keratinocytes. (12/11/09)
13. Detection of a novel antibody against hepatitis C virus (HCV) in the blood. (12/11/09)
14. A pilot study of the effect of treatment on the quality of life of patients with acute pancreatitis. (12/11/09)

NHS Blood and Transplant

NHS Blood and Transplant (NHSBT) saves and improves lives by providing a safe and reliable supply of blood components, organs, stem cells, tissues and related services to the NHS, and other UK health services.

For more information

Visit nhsbt.nhs.uk

Email enquiries@nhsbt.nhs.uk

Call 0300 123 23 23