# **British Neurological Research Trust Limited**

(A company limited by guarantee)

# Council of Management's report and financial statements

31 December 1997 Registered number 2195707 Registered charity number 298098



# Council of Management's report and financial statements

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# Council of Management report

for the year ended 31 December 1997

The Council of Management of the British Neurological Research Trust has pleasure in presenting its annual report.

#### Aims of the Trust

The Trust was established in 1987 on the initiative of Mr Norman H Lee, to support the research needed to find a method of repairing damage to the brain and spinal cord in patients suffering from the crippling effects of spinal cord injury (paraplegia and tetraplegia), birth injuries, stroke, head injuries, multiple sclerosis and degenerative conditions such as Parkinson's and Alzheimer's diseases. For this purpose, the Trust entered into an agreement with the Medical Research Council ("MRC") to set up the Norman and Sadie Lee Research Centre ("the Centre") at the National Institute for Medical Research ("NIMR") in Mill Hill, London.

The unique programme of research being undertaken at the Centre is designed to follow up the discovery by its Scientific Director, Dr Geoffrey Raisman, that, contrary to earlier belief, the damaged nerve tissues of the brain are capable of forming new connections and that transplanted cells can be integrated into the brain tissue. This discovery and recent developments in tissue culture and the availability of purified cells present a new opportunity for progress and new hope for those suffering from spinal injury. The research work is concentrating on how to reintroduce cultured cells in such a way as to activate the genes which were originally used to build the spinal cord of the newborn child and thereby enable the adult to repair itself by the reinstatement of natural healing processes.

#### Organisation

The Centre is administered by the Scientific Director of the Centre acting in conjunction with the senior scientists of the Centre, under the overall scientific direction of the Director of the NIMR and monitored under its peer review system. The Centre has a core of MRC supported scientific and technical staff into which are integrated the Fellows and Assistants financed by the British Neurological Research Trust ("BNRT"), the International Spinal Research Trust ("ISRT") and other charitable bodies.

The progress of the research is monitored by the peer review process of the MRC and is published in competitive, peer-reviewed international scientific journals.

Arising from the discussions at the 1997 Annual Meeting of the Council of Management, the Chairman appointed a Working Group to open discussions with the MRC to establish the practicalities of protecting the increased intellectual property resulting from the current success and clinical promise of this work, and for exploiting it for the future furtherance of the aims of BNRT.

# Council of Management report

for the year ended 31 December 1997 (continued)

#### Progress of research

Up to now there has been no way of repairing injuries to the human brain and spinal cord. This means that conditions such as spinal cord damage, stroke, birth injuries and degenerative diseases cannot be cured. The aim of the Centre's research is to work out how to restore nervous connections which have been severed.

Dr Raisman's was the first group in the world to show that parts of the central nervous system which have lost their connections can be efficiently reconnected by immediately adjacent nerve cells and, subsequently, also by tissue grafted directly into the deprived area. The problem for the patient is that these are very short-range effects (operating over no more than small fractions of a millimetre) and that distant nerve fibres are not able to grow to the places where they are needed.

It is known that grafts of peripheral nerve can act as conduits or bridges for re-growing nerve fibres. These grafts, however, are too complex and difficult for controlled application and suffer from the limitation that while they can induce fibres to re-grow, they do not direct them to the correct places. To develop a controllable system in which this limitation can be overcome, the Centre is now screening a number of individual cell types which have the same growth-promoting effects on cut nerve fibres as do whole peripheral nerve grafts.

An important component of the Centre's programme is its recent development of a technique for 'micro-transplantation' of extremely small numbers of purified cells in a controlled way into undamaged host tissue areas. This can be carried out without open surgery, merely by injection through a glass micro-pipette of such fine diameter as to be invisible to the naked eye. Such micro-injections can be used to lay tracts of living cells which can guide re-growing nerve fibres to their destinations.

It has been shown that cut nerve fibres remain viable for long periods after injury, suggesting that even chronic conditions may respond to treatment.

The team has recently found that cells which can be obtained from the olfactory system are capable of inducing the reparative growth of cut spinal nerve fibres. The restoration of nervous connections in the damaged spinal cord is effective at restoring fine control of hand movements which has been lost as a result of the original injury. This is the first documented example of repair of structure and function in the adult spinal cord.

The team consider that this procedure will be in principle applicable to the repair of human spinal cord injuries, and also brain injuries such as stroke, as well as possibly alleviating or delaying the onset of the effects of degenerative diseases. It is therefore important to discover in how many situations this type of repair can be effective. At the same time the laboratory is devising practical methods for atraumatic delivery of the active reparative material. A further aspect to the research is the attempt to find out how the olfactory cells carry out this remarkable function, both with a view to improving it by modifications such as adding further growth factors, and also to finding alternative sources of active material for repair.

#### International links and collaboration

The Centre maintains international links which provide scientific recruits, financial support, access to expertise and new ideas and vital materials such as cells, monoclonal antibodies or genes.

# Council of Management report

for the year ended 31 December 1997 (continued)

#### International links and collaboration (continued)

It is likely that the first applications of repair procedures to human patients will require highly specialised technical knowledge. It is the Trust's intention that scientists, once having trained at the Centre, will return to their own countries to maintain linked research programmes and thus, when the time comes, the expertise for future human applications will be available at a number of international centres.

Dr David Weinstein of the Albert Einstein University in New York is providing genetically modified Schwann cells from transgenic animals he has prepared.

Professor Harry Charlton of the Department of Human Anatomy, Oxford, is collaborating on the construction of vectors for introduction of genes into living tissue.

Professor Ian Whishaw of Lethbridge, Alberta, is providing assistance in functional assessment of recovery from spinal injury.

The American Support Group established in California in late 1994 ("the American Friends of BNRT") intends to provide on-going support for the research work at the Centre and from time to time assist in the acquisition of essential equipment.

## Funding and expenditure

The project requires ten scientists and their support staff. At current costs of £100,000 per annum for each research fellowship, this requires an overall annual income from all sources of about £1,000,000. The MRC provides the accommodation for the Centre at the NIMR and meets the cost of four scientists, five technicians and a secretary. At 31 December 1997 there was £761,436 of unrestricted funds available for the project with BNRT and £383,293 with ISRT. A ROPA (Realising Our Potential Award) of £97,000 for three years commenced on 1 September 1995 to cover the cost of a scientist (Dr A Soekarno).

# Council of Management report

for the year ended 31 December 1997 (continued)

#### Fund raising and future estimated financial commitments 1998-2000

Fund raising activity produced £182,998 (including interest and tax recoverable) in the year ended 31 December 1997. The Trust has the following estimated financial commitments over the next three years.

Dr Y Li (Research Associate): Microtransplantation into the spinal cord Since April 1996 BNRT has been using the remainder of the funds provided by the Smith's Charity to sponsor Dr Li for a three year period. Dr Li works on the microtransplantation of Schwann cells into the damaged spinal cord. The remainder of the contract for Dr Li to April 1999 will involve estimated expenditure of £50,889. Any shortfall beyond the funds provided by the Smith's Charity will be made up from the BNRT general funds.

Dr A Soekarno (Research Associate): From May 1998 the ROPA Grant will cease, and Dr Soekarno will transfer to BNRT funding - a commitment of £41,557 to May 1999. Dr Soekarno is using tissue culture models to understand Central Nervous System regeneration and the influence of various types of glia.

Dr Patrick Decherchi (Research Associate) is developing new electrophysiological approaches to investigate the restoration of functional connections in spinal cord repair. The remainder of his sponsorship amounts to £64,411.

Mr H Oluoch (Research Assistant): From January 1997 the finance for Mr Oluoch is being provided by Smith's Charity. The remainder of his extended contract to April 1999 amounts to a commitment of £20,910.

Ms T Johnson (Research Assistant to Dr Li): The remainder of her sponsorship to March 1999 amounts to £37,026.

Mr M Webber (Research Assistant) is using genetic approaches to find out how to restore to adult nerve fibres the same regenerative ability as they had during infancy. The remainder of his sponsorship to May 2000 amounts to £70.951.

Mr D Dhasmana (Graduate Student): Remainder of sponsorship for graduate student (MD/PhD Programme) to December 1998 is £23,027. Mr Dhasmana is using cultured Schwann cells to fabricate living prosthetic devices capable of stimulating regeneration of cut adult nerve fibres and conveying them to their destinations.

Equipment During 1997 the following items of essential equipment were purchased: Kontron Digital Camera (£20,190), Fujix Pictograph Colour Printer (£11,727), 2 x Toshiba Libretto Computers (£2,938), NEC Monitor (£1,764), Robocycler Thermocycler (£5,632) - a total of £42,251.

Other equipment (£1,500) was purchased using unrestricted funds.

During 1998 a newly-developed high-definition real-time-3D fitting (Edge) will be purchased for an existing microscope. This will cost £20,000-plus and will greatly accelerate the examination of samples.

The research has now reached a stage requiring clinical collaborations with a number of specialist institutions for which BNRT will require to provide initial funding of £1,000,000.

# Council of Management report

for the year ended 31 December 1997 (continued)

#### Summary of estimated commitments by BNRT

	£
Research Associate (Dr Y Li: Microtransplantation into the spinal cord)	50,889
Research Associate (Dr A Soekarno)	41,557
Research Associate (Dr P Decherchi)	64,411
Research Associate (Mr H Oluoch)	20,910
Research Assistant (Ms T Johnson)	37,026
Research Assistant (Mr M Webber)	70,951
PhD Student (Mr D Dhasmana)	23,027
Sub total	308,771
New clinical collaborations:	
Estimated BNRT initial funding commitment	1,000,000
Total	1,308,771

Donations should be sent to The British Neurological Research Trust, c/o The Division of Neurobiology, NIMR, The Ridgeway, Mill Hill, London, NW7 1AA.

#### Members of the Council of Management

The members who served during the year were as follows:

Sir Antony Acland, GCMG GCVO

Sir Roger Gilbert Bannister, CBE DM FRCP

The Rt Hon Sir Frank Cooper, PC GCB CMG

Dr Hans Ludwig Frankel, OBE MB FRCP

Sir James Learmonth Gowans, CBE MD DSc DPhil FRCP FRS

Sir Francis Roger Hurn

Sir Trevor Holdsworth CVO (Chairman)

The Rt Hon Earl George Patrick John Rushworth Jellicoe, PC KBE DSO MC FRS

Norman H Lee, CBE (Chairman Emeritus)

Lord Roger Carol Michael Nathan

Dr Geoffrey Raisman, DM DPhil (Oxon)

Mr David Dimitri Sullivan FCA ATII

# Administrative Adviser:

George Finlayson CMG CVO

As the Trust is a company limited by guarantee, there is no share capital in which the members can hold beneficial interests. On winding up each person who is a member at that date is liable to contribute a sum not exceeding £1 towards the assets of the company. As at 31 December 1997 the company had twelve members.

# Council of Management report

for the year ended 31 December 1997 (continued)

#### **Dividends**

The company is limited by guarantee and, in accordance with the Articles of Association, the payment of a dividend is not appropriate.

## Accounting policies

The charitable company's accounting policies have been applied on a basis consistent with the prior year.

#### Auditors

In accordance with Section 386 of the Companies Act 1985, a resolution to dispense with the obligation to appoint auditors annually has been passed and therefore KPMG are automatically reappointed as auditors of the company.

By order of the Council of Management

Mincing Lane Corporate Services Limited Secretary

Clink Street London SE1 9DG

Pickfords Wharf

1998

# Statement of Council of Management's responsibilities

Law applicable to incorporated charities in England and Wales requires the Council of Management to prepare financial statements for each financial year which give a true and fair view of the charity's financial activities during the year and of its financial position at the end of the year. In preparing financial statements giving a true and fair view, the Council of Management should follow best practice and:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operation.

The Council of Management is responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charity and which enable it to ascertain the financial position of the charity and which enable it to ensure that the financial statements comply with applicable law. It is 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.



PO Box 695 8 Salisbury Square London EC4Y 8BB

# Report of the auditors to the members of British Neurological Research Trust Limited

We have audited the financial statements on pages 9 to 15 which have been prepared under the historical cost convention and the accounting policies set out on page 11.

Respective responsibilities of the Council of Management and auditors

As described on page 7, the Council of Management is responsible for the preparation of financial statements. It is our responsibility to form an independent opinion, based on our audit, on those statements and to report our opinion to you.

Basis of opinion

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Council of Management in the preparation of the financial statements and of whether the accounting policies are appropriate to the company's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the financial statements.

Opinion

In our opinion the financial statements give a true and fair view of the charitable company's state of affairs as at 31 December 1997 and of its net incoming resources and application of resources, including its income and expenditure, in the year then ended and have been properly prepared in accordance with the Companies Act 1985.

**KPMG** 

Chartered Accountants Registered Auditors 29 July 1998

# Statement of financial activities

for the year ended 31 December 1997

		Unrestricted	Restricted	1997	1996
	Note	funds	funds	Total	Total
T		£	£	£	£
Income and expenditure					
Incoming resources	2	27,021	100.000	107.021	200.252
Donations	2 3	26,831	100,000	126,831	299,262
Interest receivable	3	56,048	-	56,048	50,735
Income tax recoverable		119	-	119	6,009
Other income	4	-	-	-	3,857
			<del></del>		
Total incoming resources		82,998	100,000	182,998	359,863
Resources used					
Direct charitable expenditure	5	6,767	139,446	146,213	86,535
Depreciation		23,175	67,399	90,574	23,808
Fundraising and publicity costs		17,256	•	17,256	20,566
Management and administration	6	11,351	-	11,351	17,184
Total resources used		58,549	206,845	265,394	148,093
		<del></del>			
Net (outgoing)/incoming resources for					
the year and net movement in funds	7	24,449	(106,845)	(82,396)	211,770
Fund balances brought forward		736,987	458,992	1,195,979	984,209
Fund balances carried					
forward		761,436	352,147	1,113,583	1,195,979
		<del></del>			

There is no difference between the historical cost profit and the reported profit.

All 1997 financial activity arose from continuing operations.

The notes on pages 11 to 15 form part of these financial statements.

# **Balance** sheet

at 31 December 1997

		Notes	1997 £	1996 £
Fixed assets				
Tangible fixed assets		9	168,523	215,346
Current assets				
Debtors		10	126,485	115,428
Cash at bank and in hand			902,297	885,840
			1,028,782	1,001,268
Creditors: amounts falling due within one year				•
Trade creditors			(239)	-
Accruals and deferred income			(83,483)	(20,635)
			(83,722)	(20,635)
Net current assets			945,060	980,633
Net assets		11	1,113,583	1,195,979
Restricted funds	- Barnwood House Trust	14	262,702	290,931
ACSUICICA IAITAS	- Charity of Henry Smith	14	89,445	168,061
Unrestricted funds	Charly of Holly Simin	2.7	761,436	736,987
			1,113,583	1,195,979

These financial statements were approved by the Council of Management on signed on its behalf by:

16 July 1998 and were

Sir Trevor Holdsworth CVO

Member of the Council of Management

#### **Notes**

(forming part of the financial statements)

#### 1 Accounting policies

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

#### Basis of preparation

The financial statements have been prepared in accordance with applicable accounting standards and under the historical cost accounting rules. Income and expenditure are accounted for on an accruals basis.

#### Accounting format

The format of the accounts complies with the requirements of revised Statement of Recommended Practice No.2, Accounting by Charities. This sets out recommendations of the way in which a charity should report annually on the resources entrusted to it and the activities it undertakes.

#### Investments

Investments are stated at the lower of cost and net realisable value.

#### Purpose of funds

Restricted funds consist of donations made for specific research projects.

Unrestricted funds consist of donations for general use by the charity.

#### **Taxation**

As a registered charity, the company is not liable to taxation on its income or on surpluses on disposals of investments. Recovery is therefore made of tax credits.

#### Fixed assets and depreciation

Depreciation is provided to write off the cost of tangible fixed assets on a straight line basis over the expected useful lives of the assets as follows:

Scientific equipment

3 years

#### 2 Donations

	Unrestricted funds £	Restricted funds	1997 Total £	1996 Total £
Donations	26,831	100,000	126,831	299,262

#### Donations were made by:

Barnwood House Trust
The John and Celia Bonham Christie Charitable Trust
The Bridon Charitable Trust
The Buckland Charitable Trust
The CCC Trust
The Coulthurst Trust
The Gilbert Edgar Trust
The Grand Charity
Mrs N Jennings
The Heinz and Anna Krock Foundation
GM Morrison Charitable Trust
PF Charitable Trust
Mrs B Suswin
The Trusthouse Charitable Trust

#### 3 Interest receivable - unrestricted funds

HGH Wills 1965 Charitable Trust

The Mary Webb Trust

	1997 £	1996 £
Bank interest Treasury Stock (6.75%)	56,048	34,481 16,254
	56,048	50,735

#### 4 Other income

1	1997 £	1996 £
Profit on repayment of Treasury Stock	-	3,857
	<del></del>	

#### 5 Direct charitable expenditure

Direct charitable expenditure comprises reimbursements and consumable expenses directly relating to the objects of the charity.

# 6 Management and administration

Neither the Council of Management nor the auditors received any remuneration (1996:£nil). The Trust has no employees. Staff are employed by the Medical Research Council, who invoiced the charity for those researchers whose costs the charity has agreed to cover.

### 7 Net (outgoing)/incoming resources for the year

	1997 £	1996 £
Net (outgoing)/incoming resources for the year is stated after charging		
Depreciation	90,574	23,808
Medical Research Council	136,321	61,558
University College London	3,125	•

#### 8 Taxation

The Trust is entitled to exemption from taxation under S.505(1) ICTA 1988 on income from its charitable activities.

# 9 Tangible fixed assets

				Scientific equipment £
	Cost			r
	At beginning of year			239,154
	Additions			43,751
	At end of year			282,905
	Depreciation			<del></del>
	At beginning of year			23,808
	Charge for year			90,574
	At end of year			114,382
	Net book value			<del></del>
	At 31 December 1997			168,523
	At 31 December 1996			215,346
10	Debtors			
			1997	1996 £
				£
	Prepayments, accrued income, and other debtors		126,485	115,428
11	Analysis of net assets between funds			
		Tangible	Net current	1997
		fixed assets	assets	Total
		£	£	£
	Restricted funds	130,923	221,224	352,147
	Unrestricted funds	37,600	723,836	761,436
		168,523	945,060	1,113,583
				<u></u>

#### 12 Guarantee of future commitments

The Trust has contractually guaranteed to finance the expenditure of current sponsorships, some of which run until 2000. The amount committed in respect of 1998, as at 31 December 1997, is £187,921 (1996:£125,507) and in respect of the remaining terms of the contracts (including 1998) is £308,771.

#### 13 Statement of cash flows

The Trust has taken advantage of the exemption available to small companies not to prepare a statement of cash flows.

#### 14 Restricted funds

The income funds of the charity include restricted funds comprising the following unexpended balances of donations to be applied for specific purposes:

		Mo	vement in funds	
	Balance at 31 December 1996 £	Incoming resources	Expenditure £	Balance at 31 December 1997 £
Barnwood House Trust Charity of Henry	290,931	100,000	(128,229)	262,702
Smith	168,061	-	(78,616)	89,445
	<del></del>	<del></del>		
	458,992	100,000	(206,845)	352,147
	······································			

The Barnwood House Trust Fund will be used over the next year to finance research into the reconstruction of damaged nerve fibre pathways. In addition, £89,618 of the fund will be expensed over the next two years as the scientific equipment is depreciated.

The Charity of Henry Smith Fund will be used over the next year to finance research into microtransplantation into the spinal cord. In addition, £41,305 of the fund will be expensed over the next two years as the scientific equipment is depreciated.