

Registered Charity Number: 1024533

THE LIVER GROUP
ANNUAL REPORT AND ACCOUNTS
FOR THE YEAR ENDED 31 DECEMBER 2006

THE LIVER GROUP

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THE LIVER GROUP
ASSOCIATION INFORMATION
FOR THE YEAR ENDING 31 DECEMBER 2006

Patron: The Rt Hon Lord Bingham of Cornhill,
Senior Law Lord

Trustees: David Clifford
Jeff Faulkner
Kay Glendinning MBE
Prof Humphrey Hodgson FRCP, F Med Sci
Prof David Kerr CBE
Prof Sir Roger Penrose OM FRS
Clare Selden PhD

Principal office: The Liver Group
Centre for Hepatology
Department of Medicine
Hampstead Campus
Royal Free and University College Medical School
Rowland Hill Street
Hampstead
London NW3 2PF

Charity registration number: 1024533

Bankers: HSBC
Oxford Circus Branch
196 Oxford Street
London W1A 1EZ

Auditors: Simpson Wreford & Co
Wellesley House
Duke of Wellington Avenue
Royal Arsenal
London SE18 6SS

TRUSTEES REPORT
IN RESPECT OF THE ACCOUNTS
FOR THE YEAR ENDING 31 DECEMBER 2006

The Trustees submit their annual report and the audited financial statements for the year ended 31 December 2006. The Trustees have adopted the provisions of the Statement of Recommended Practice (SORP) "Accounting and Reporting by Charities" issued in 2005 in preparing the annual report and financial statements of the Charity.

The organisation is a Charity constituted under a Trust Deed dated 28 May 1993.

Objectives and activities

The principal activity of the Charity is the project being conducted to develop an artificial liver. The artificial liver project is being carried out with the funds raised for the continuing "Liver for Life" Appeal.

The Board of Management comprises seven Trustees, six elected, one co-opted. The members are able to draw on relevant board experience in board deliberations. The Board is collectively responsible for the competent management of the organisation in accordance with its objectives which are set out in the Trust Deed. The Board meets twice a year to monitor the organisation strategy and activities.

The Charity does not have any employees and the day to day activities of the Charity are carried out by University College London under the supervision of two Trustees. If the need arose to appoint a new trustee the remaining trustees would identify and appoint an appropriate person. The current Trustees are responsible for the induction of any new trustee which involves making them awareness of the Trustees responsibilities, the governing documents, administrative procedures, the history and philosophical approach of the charity.

Achievements and performance

§ Charitable activities are limited to fundraising for the research endeavour. This is achieved by written applications to known grant giving organisations, small and large companies via the CEOs or other appropriate individual or wealthy individual donors. The Charity also has a web-page with an opportunity to donate via CAF. £64,012 (2005-£148,500) was raised in this financial year from donations; other income was generated from interest earned on cash deposits.

§ Indicators of achievements are simply the total funds raised in a particular year. These rarely exceed our expenditure for the year.

§ The Charity is one of many sourcing the same research funding; given the difficult position most UK universities find themselves in, the pot is increasingly smaller. Until government resources fill the gap between the costs and current funding of medical research the Charity's efforts will become more difficult each year.

Financial review

The organisation is funded mainly by donations. They are a mixture of individual, corporate and charitable trust donations.

The majority of funds are spent on paying the salaries of researchers, as well as the required consumables and equipment for the research to continue. As evidenced by the publications, the Charity's current aim to develop a bioartificial liver machine (BAL) has moved forward from the very small scale to medium scale. The following period will see a scale up to human scale for this machine.

TRUSTEES REPORT
IN RESPECT OF THE ACCOUNTS
FOR THE YEAR ENDING 31 DECEMBER 2006
(Continued)

Except for such funds as the Trustees consider prudent to maintain for the purpose of management and administration of the Charity for the foreseeable future, all unrestricted funds are designated for the purposes of the "Liver for Life" project and the general charitable objects of the Charity.

As at 31 December 2006 the general unrestricted fund had a deficit of £404,902 (2005 – deficit £241,288). The unrestricted designated fund had a surplus of £1,200,000 (2005 – surplus £1,200,000) and the restricted fund has a surplus of £88,561 (2005 - £101,500).

Risk management

The Trustees confirm that there are ongoing processes for identifying, evaluating and managing significant risk faced by the organisation.

Plans for future periods

The near future will see the attempted scale of the BAL such that it can be trialled on a human scale, before being used in safety and efficacy trials.

Statement of trustees' responsibilities

Charity law requires the trustees to prepare financial statements for each financial year which show a true and fair view of the state of affairs of the charity and its financial activities for that period. In preparing those financial statements, the trustees are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether applicable accounting standards and statements of recommended practice have been followed, subject to any departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the charity will continue in operational existence.

The trustees are responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charity and to enable them to ensure that the financial statements comply with the Charities Act 1993. 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.

Auditors

A resolution to re-appoint Simpson Wreford & Co as auditors will be proposed at the next AGM.

The report was approved by the Trustees on 27th July 2007 and signed on their behalf by

Humphrey Hodgson
Trustee:

THE LIVER GROUP
CHAIRMAN'S REPORT
IN RESPECT OF THE ACCOUNTS
FOR THE YEAR ENDING 31 DECEMBER 2006

We follow two paths to develop the bio-artificial liver – but unlike parallel lines the two will converge! There is this ‘software’ of the system, the cellular component, and the ‘hardware’- the bio-reactor that will house those cells and will be connected in due course to the patient with liver failure. Both sides have seen significant progress in the last year.

The software – alginate encapsulated cells – is based, as those who follow our work will know, on proliferating cell lines, which are excellent for providing the required number of cells to treat a patient (200 billion, approximately 33% of the normal number in the liver), but which lack some enzymes for full function. One particular and vital part of the liver’s repertoire, missing in the cells we use, is the ability to dispose of the toxic compound ammonia that is generated in the body; we have analysed the nature of the missing enzymes (which like much in science was more complex than first appeared) and now successfully corrected the defect in the cells by gene transfer.

On the hardware side our bio-reactor, developed in concert with collaborators in France, has now reached prototype form, with a machine in which cells are suspended as a ‘floating bed’. The cells are suspended with plasma passing past them and thus have the best chance both to receive nutrients and to process the diseased plasma that passes. We have enlisted other collaborators, for example from the Institute of Orthopaedics in University College, taking advantage of their bioengineering expertise. We have been able to demonstrate excellent function of our cell lines in the fluidised bed reactor, even in the hostile milieu of plasma from patients with liver failure.

We are now adapting the hardware so that cells in it can be readily frozen and thawed - necessary as the apparatus must be available ‘when required’ in a transportable form. To enable the bio-artificial liver to be developed as a clinical entity, we have with the help of UCL Biomedica (part of University College) put the appropriate markers down to protect the intellectual property that has been developed.

This year has been one of significant scientific progress, with important contributions to the scientific literature, but more importantly solid moves towards creating clinical reality. We look forward to a productive and exciting next year. As always we are immensely grateful to our supporters, without whom this work would not be possible.

Humphrey Hodgson *FRCP, F Med Sci*
Chairman

INDEPENDENT AUDITORS' REPORT
TO THE TRUSTEES OF THE LIVER GROUP
FOR THE YEAR ENDED 31 DECEMBER 2006

We have audited the financial statements on pages 7 to 13. These financial statements have been prepared under the historical cost convention and the accounting policies set out therein.

This report is made solely to the Trustees, as a body. Our audit work has been undertaken so that we might state to the Trustees those matters we are required to state to them in an auditors report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Trustees as a body, for our audit work, for this report or for the opinions we have formed.

Respective responsibilities of the Trustees and Auditors

The Trustees responsibilities for preparing the Annual Report and the financial statements in accordance with applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice) are set out in the Statement of Trustees Responsibilities.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK & Ireland).

We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Charities Act 1993. We also report to you if, in our opinion, the Trustees' Report is not consistent with the financial statements, if the company has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law regarding Trustees' remuneration and transactions with the company is not disclosed.

We read the Trustees' Report and consider the implications for our report if we become aware of any apparent misstatement within it.

We are not required to consider whether the statement in the Trustees' Report concerning the major risks to which the charity is exposed covers all existing risks and controls or to form an opinion on the effectiveness of the charity's risk management and control procedures.

Basis of opinion

We conducted our audit in accordance with International Standards on Auditing (UK & Ireland) 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 judgments made by the Trustees in the preparation of the financial statements, and of whether the accounting policies are appropriate to the charity'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 misstatements, 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.

REPORT OF THE INDEPENDENT AUDITORS
TO THE TRUSTEES OF THE LIVER GROUP
FOR THE YEAR ENDED 31 DECEMBER 2006
(Continued)

Opinion

In our opinion the financial statements give a true and fair view of the state of the Charity's affairs as at 31 December 2006 and of its incoming resources and application of resources in the year then ended and have been properly prepared in accordance with the Charities Act 1993.

SIMPSON WREFORD & CO
Registered Auditors and Chartered Accountants

Wellesley House
Duke of Wellington Avenue
Royal Arsenal
London SE18 6SS

Dated: 27th July 2007

THE LIVER GROUP
STATEMENT OF FINANCIAL ACTIVITIES
FOR THE YEAR ENDED 31 DECEMBER 2006

	Notes	Unrestricted Funds £	Restricted Funds £	Total 2006 £	Total 2005 £
Incoming resources	2				
<i>Incoming resources from generating funds</i>					
Voluntary income		11,000	53,012	64,012	148,500
Investment income		43,693	-	43,693	53,261
Incoming resources for the year		<u>54,693</u>	<u>53,012</u>	<u>107,705</u>	<u>201,761</u>
Resources expended	3				
Charitable activities		216,053	65,951	282,004	258,417
Governance costs		2,254	-	2,254	3,023
Other resources expended		-	-	-	200
		<u>218,307</u>	<u>65,951</u>	<u>284,258</u>	<u>261,640</u>
Net outgoing resources for the year		(163,614)	(12,939)	(176,553)	(59,879)
Fund balances at 1 January 2006 (restated)		<u>958,712</u>	<u>101,500</u>	<u>1,060,212</u>	<u>1,120,091</u>
Fund balances at 31 December 2006		<u>795,098</u>	<u>88,561</u>	<u>883,659</u>	<u>1,060,212</u>

THE LIVER GROUP
BALANCE SHEET AT 31 DECEMBER 2006

	Notes	2006 £	Restated 2005 £
Current assets			
Debtors	4	-	5,094
Cash at bank and in hand		<u>943,458</u>	<u>1,107,876</u>
		943,458	1,112,970
Creditors:			
Amounts falling due within one year	5	<u>(59,799)</u>	<u>(52,758)</u>
Net current assets		<u><u>883,659</u></u>	<u><u>1,060,212</u></u>
Financed by			
Unrestricted funds			
General		(404,902)	(241,288)
Designated	6	1,200,000	1,200,000
Restricted funds	7	<u>88,561</u>	<u>101,500</u>
Total funds		<u><u>883,659</u></u>	<u><u>1,060,212</u></u>

These accounts were approved by the Trustees on 27th July 2007 and signed on their behalf by:-

Clare Selden
Trustee:

‘Liver for Life’ Appeal – Five Year Projections (2007-2011)

Research salaries and studentships	2,211,000
Consumables	1,089,000
Equipment budget	550,000
Research presentations	25,000
Administration of charity	25,000
	<u>£3,900,000</u>

These projections do not form part of the audited accounts of the charity.

THE LIVER GROUP
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR TO 31 DECEMBER 2006

1. Accounting Policies

Basis of accounting

The accounts have been prepared under the historical cost convention and in accordance with applicable UK Accounting Standards, the Charities Act 1993 and the Statement of Recommended Practice "Accounting for and reporting by Charities" (SORP 2005).

Voluntary income

Donations represent voluntary amounts received during the period and arise within the United Kingdom. Covenant and Gift-Aid income is included gross of attributable tax recoverable.

Investment income

Interest receivable is credited to income in the period in which it is earned and is included gross of attributable tax recoverable.

Charitable activities

Charitable activities are the research expenditure incurred on behalf of the Charity which is recharged to The Liver Group by University College London (UCL) and is charged to the statement of financial activities (SOFA) on an accruals basis. This expenditure includes amounts paid for capital equipment and laboratory infrastructure which are regarded as expenditure in these accounts.

Governance costs

Governance costs include those costs associated with meeting the constitutional and statutory requirements of the charity and include the costs related to the statutory audit of the charity.

Allocation of overhead and support costs

All overhead and support costs relate to governance costs and have been allocated as such (note 3).

Liabilities

Liabilities are recognised in the accounts where there is an obligation to transfer economic benefit.

Tangible fixed assets

Expenditure on capital equipment and laboratory infrastructure has been treated as an expense and not an asset of the Charity. The Charity owns the capital equipment and laboratory infrastructure but since the assets are of such a specialist nature the Trustees do not believe they are readily realisable and should, as a consequence, not be recognised in the Charities' balance sheet as an asset.

Fund accounting

Total funds comprise the accumulated surplus or deficit on the statement of financial activities. Unrestricted funds are available for use at the discretion of the Trustees in furtherance of the general objectives of the Charity. Restricted funds are subject to specific restricted conditions imposed by donors. The purpose and use of the designated funds are set out in the notes to the accounts.

THE LIVER GROUP
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR TO 31 DECEMBER 2006

Taxation

The Charity is not liable to income tax on income derived from its charitable activities as it falls within the various exemptions available to registered charities.

The Charity is not registered for value added tax (VAT) and is therefore unable to reclaim the input tax it suffers on its purchases. Expenditure in the accounts is therefore shown inclusive of VAT where appropriate.

2. Incoming resources

	2006
	£
Voluntary income	
The Childwick Trust	10,000
The Dunhill Medical Trust	36,500
Willie and Mabel Morris Charitable Trust	1,000
Tom and Sheila Springer Charity	<u>16,512</u>
	<u>64,012</u>
Investment income	
Bank interest	<u>43,693</u>

3. Resources expended

	2006	2005
	£	£
Charitable activities		
Staff costs (employed on fixed term UCL contracts)	201,391	182,079
Research consumables and laboratory	<u>80,613</u>	<u>76,338</u>
	<u>282,004</u>	<u>258,417</u>
Governance costs		
Auditors' remuneration (including VAT):		
Audit	1,432	774
Accounting	822	1,430
Bank charges	-	819
	<u>2,254</u>	<u>3,023</u>
Other resources expended		
Fundraising costs	<u>-</u>	<u>200</u>

The average weekly number of employees of UCL working for The Liver Group during the year was 5 (2005:5). At the year end there were 5 employees of UCL working on The Liver Group research. In addition there were 3 PhD students paid a stipend under a 3 year studentship scheme. There were no employees with remuneration above £60,000 for the year end 31 December 2006.

Trustees' expenses reimbursed during the year amounted to £Nil (2005: Nil).

THE LIVER GROUP
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR TO 31 DECEMBER 2006

4. Debtors

	2006 £	2005 £
Interest receivable	<u>-</u>	<u>5,094</u>

5. Creditors

	2006 £	2005 £
Accruals	2,350	2,200
Amounts due to UCL	<u>57,449</u>	<u>50,558</u>
	<u>59,799</u>	<u>52,758</u>

6. Designated funds

Designated funds of £1,200,000 have been set aside by the Trustees for the purpose of the “Liver for Life” project.

7. Restricted funds

	Balance at 1 January 2005 £	Income Resources £	Resources expended £	Balance at 31 December £
2006				
Dunhill Medical Trust Fellowship	-	36,500	(36,500)	-
Billingsgate Christian Mission Charitable Trust Studentship	1,500	-	-	1,500
Garfield Weston Foundation	100,000	-	(12,939)	87,061
Tom & Sheila Springer Charity	-	16,512	(16,512)	-
	<u>101,500</u>	<u>53,012</u>	<u>(65,951)</u>	<u>88,561</u>

8. Restatement of accounts

The 2005 accounts have been restated due to the unrestricted fund being overstated by £17,152 and the restricted fund being understated by £17,152.

THE LIVER GROUP
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR TO 31 DECEMBER 2006

We are grateful to the following for donations to the "Liver for Life" Appeal:

Associated British Ports	Violet M Richards Charity
BAE Systems	Wilkinson Hardware Stores Ltd
Bank of England	Anonymous
Barclays Bank (Knightsbridge Limited)	Anonymous
Billingsgate Christian Mission Charitable Trust (The Fishmongers' Company)	The Telegraph Plc
Boots Plc	Pfizer Ltd
Bowring Plc	Schroders Plc
British Aerospace	Brian Wright Esq
BTR Plc	C E Heath Plc
Charles Littlewood Charitable Trust	Morgan Crucible Company Plc
Citybank	Honeywell Plc
Clydesdale Bank/Yorkshire Bank	Thomson Corporation
Commercial Union	Life Technologies
Communis Plc	Lloyds Bank Plc
Cookson Group Plc	Price Waterhouse Plc
Council of Forte Trust Fund	IBJ
Courage Plc	Seagrams Distillers Plc
Coutts and Co	In Memoriam
D M Wilton	Jardine Insurance Services Ltd
Dako Limited	KPMG Peat Marwick
Economist Plc	Laing, London
EJH Stephenson (Deceased) Charitable Trust	Royal London Insurance Ltd
Friends Provident	Tomkins Plc
Glaxo Plc	Morgan Grenfell
Guardian Royal Exchange Plc	Robert Fleming Holdings Ltd
HJ Heinz Co Ltd Charitable Trust	New Brunswick Plc
Hon C A Pearson's Charity Trust	Sunlife Assurance Plc
Mars UK Corporate Services Ltd	Smiths Industries
Menzies Group	Vauxhall Plc
Rio Tinto Plc	Pharmaceutical Brand Consultancy Int
Societe Generale United Kingdom Charitable Trust	The Really Useful Group Ltd
The Bergqvist Charitable Trust	Richard Wilkinson Esq
The Bowerman Memorial Trust	Rudolf Wolff & Co Ltd
The Clothworkers' Foundation	Securicor Plc
The Dunhill Medical Trust	Special Trustees for Hammersmith & Acton Hospitals
The Fritton Trust	Racial Charitable Trust
The Garfield Weston Foundation	TI Group
The Haberdashers Company	Land Securities Plc
The Hamamelis Trust	Conoco Philips
The Harnett Charitable Trust	Cooper Charitable Trust
The John Ellerman Foundation	The Mary Webb Trust
The Mercers Company	The Oakdale Trust
The Paul Balint Charitable Trust	Thriplow Charitable Trust
The Sobell Foundation	The Penny in the Pound Fund Charitable Trust
The Stella Symons Charitable Trust	N Smith Charitable Settlement
The Thomas Sivewright Catto Charitable Settlement	The Gerald Palmer Trust
The Wolfson Foundation	Saddlers' Company
William & Mabel Morris Charitable Trust	M E Rickman Trust
The Childwick Trust	The Bryan Guinness Charitable Trust
Tom & Sheila Springer Charity	

THE LIVER GROUP
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR TO 31 DECEMBER 2006

Publications arising from the Liver Group during 2006

Malik R, Saich R, Rahman T, Hodgson H.

During thioacetamide-induced acute liver failure, the proliferative response of hepatocytes to thyroid hormone is maintained, indicating a potential therapeutic approach to toxin-induced liver disease. *Dig Dis Sci.* 2006 Dec;51(12):2235-41. Epub 2006 Nov 2.

Habib MM, Hodgson HJ, Davidson BR.

The role of glycine in hepatic ischemia-reperfusion injury. *Curr Pharm Des.* 2006;12(23):2953-67. Review.

Mavri-Damelin D, Eaton S, Damelin LH, Rees M, Hodgson HJ, Selden C.

Ornithine transcarbamylase and arginase I deficiency are responsible for diminished urea cycle function in the human hepatoblastoma cell line HepG2. *Int J Biochem Cell Biol.* 2007;39(3):555-64. Epub 2006 Oct 21.

Habib MM, Selden C, Hodgson H, Davidson BR.

Ischemic preconditioning impairs liver regeneration in extended reduced-size livers. *Ann Surg.* 2006 Aug;244(2):328-9; author reply 329-30. No abstract available.

Mavri-Damelin D, Eaton S, Damelin LH, Rees M, Hodgson HJ, Selden C.

Ornithine transcarbamylase and arginase I deficiency are responsible for diminished urea cycle function in the human hepatoblastoma cell line HepG2. *Int J Biochem Cell Biol.* 2007;39(3):555-64. Epub 2006

Habib MM, Selden C, Hodgson H, Davidson BR.

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Malik R, Saich R, Rahman T, Hodgson H.

During thioacetamide-induced acute liver failure, the proliferative response of hepatocytes to thyroid hormone is maintained, indicating a potential therapeutic approach to toxin-induced liver disease. *Dig Dis Sci.* 2006 Dec;51(12):2235-41.

Habib MM, Hodgson HJ, Davidson BR

The role of glycine in hepatic ischemia-reperfusion injury. *Curr Pharm Des.* 2006;12(23):2953-67

Coward, SM, Legallais, C, Thomas, M, Tofteng, F, Larsen, F, Hodgson, HJF, Selden, C.

Alginate-encapsulated HepG2 cells in a pilot-scale fluidised bed bioreactor maintain performance in human liver failure plasma making them suitable for use in a bioartificial liver. *J Hepatol* 44(2) S53 (2006)

Mavri-Damelin D, Eaton, S Coward, S Damelin, M Rees, M Selden, C Hodgson, HJF.

Restoring urea cycle function in HepG2 cells by multiple gene transfer; a cell source for a bio-artificial liver device *J Hepatol* 44(2) S144(2006)