



**THE LIVER GROUP**  
**ANNUAL REPORT AND ACCOUNTS**  
**FOR THE YEAR ENDED 31 DECEMBER 2005**

**Charity Registration Number 1024533**

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**AND ALSO AT MANCHESTER**

**THE LIVER GROUP**  
**TRUSTEES REPORT**  
**IN RESPECT OF THE ACCOUNTS**  
**FOR THE YEAR ENDING 31 DECEMBER 2005**

**Legal and administrative information**

<b>Patron:</b>	The Rt Hon Lord Bingham of Cornhill, Senior Law Lord
<b>Trustees:</b>	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
<b>Principal office:</b>	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
<b>Charity registration number:</b>	1024533
<b>Bankers:</b>	HSBC Oxford Circus Branch 196 Oxford Street London W1A 1EZ
<b>Auditors:</b>	Beever and Struthers Chartered Accountants Alperton House Bridgewater Road Wembley Middlesex HA0 1EH

**TRUSTEES REPORT  
IN RESPECT OF THE ACCOUNTS  
FOR THE YEAR ENDING 31 DECEMBER 2005**

The Trustees submit their annual report and the audited financial statements for the year ended 31 December 2005. 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.

**Structure, Governance and Management**

The organisation is a Charity constituted under a Trust Deed dated 28 May 1993. Charity law 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 surplus or deficit of the charity for that period. In preparing those financial statements, the trustees have:

- selected suitable accounting policies and then applied them consistently;
- made judgements and estimates that are reasonable and prudent;
- stated whether applicable accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepared the financial statements on the going concern basis.

In accordance with charity legislation the Trustees have overall responsibility for ensuring that the charity has appropriate system of controls, financial and otherwise. They are also responsible for keeping proper accounting records which disclose with reasonable accuracy at any time the financial position of the charity. 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.

**Risk management**

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

**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.

Procedures are in place to train trustees when required.

**TRUSTEES REPORT  
IN RESPECT OF THE ACCOUNTS  
FOR THE YEAR ENDING 31 DECEMBER 2005**

**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. £148,000 was raised in this financial year from donations; other income was generated from interest earned on cash deposits.
- Indicators of achievement 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 trusts 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 (0.25ml) to medium scale (70-200ml) this year. The following period should see a scale up to human scale for this machine.

**Reserves policy**

Except for such funds as the trustees consider prudent to maintain for the purposes 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.

**Plans for Future Periods**

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

**Auditors**

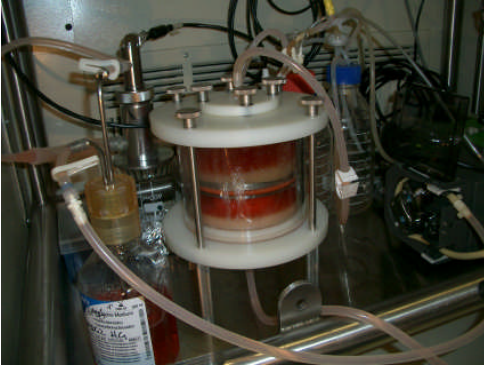
A resolution to appoint a new auditor will be proposed at the next AGM following the resignation of Beever and Struthers.

This report was approved by the Trustees on \_\_\_\_\_ 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 2005



We have had a year of steady progress toward our aim to improve the treatment of liver disease through understanding and harnessing the natural biology of liver cells.

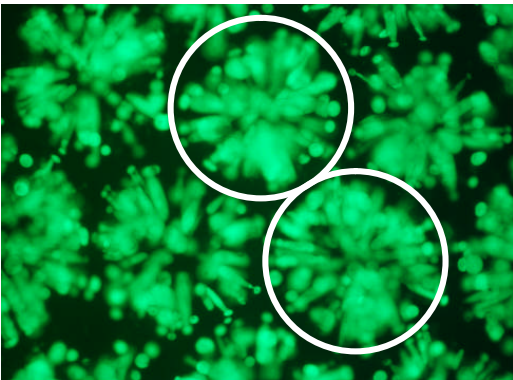
Our supporters know that the major aim is to create an artificial liver – a system outside the body which would serve to replace the function of a diseased and failing liver, buying time to allow natural healing to occur. For the last few years we have concentrated on the essential component of that artificial liver cell – a compact collection of living cells, the hepatocytes, the factory cells of the liver, growing in a tiny spherical capsule.

This system, which we have developed, provides important advances over previous approaches to providing the living cell component of an artificial liver.



The capsules are convenient, and can be grown in one laboratory and readily moved to where they would be needed at the bedside. They can be frozen and thawed with recovery of the function of the cells, and in many ways the function of each cell is as good in this artificial environment as in the body. We have shown in the laboratory that these cells will provide useful function when used in a chamber perfused with liver-failure blood, mimicking the role they will have to play in a bio-artificial liver at the bedside. Analysing the requirements of these cells in these artificial capsules, understanding the changes in their metabolism as they adapt to growth in this artificial milieu, and perfecting the

environment so that the milieu in which they grow is as natural as possible, is an area of steady progress in the unit. We have invested in new equipment and can now culture billions and billions of these cells in sterile bioreactors.



We have also developed ways of making “designer” cells to complement our current system, which specifically perform one particular function. This has proved useful in allowing us to mimic the full repertoire of liver function in the bioreactor.

As always we are immensely grateful to our supporters. The funds provided from the Liver Group are all devoted to our aim of improving the treatment of liver disease. At a time when the core funding in Universities and government agencies is under increasing strain, it is our supporters who make scientific progress possible.

Living cells in alginate capsules

Humphrey Hodgson *FRCP, F Med Sci.*  
Chairman

**REPORT OF THE INDEPENDENT AUDITORS  
TO THE TRUSTEES OF  
THE LIVER GROUP**

We have audited the financial statements which comprise the statement of financial activities, the balance sheet and the related notes. These financial statements have been prepared under the historical cost convention and the accounting policies set out therein. We have been appointed as Auditors under Section 43 of the Charities Act 1993 and report in accordance with Regulations made under Section 44 of that Act.

**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 the Trustees Responsibilities.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland). This report is made solely to the Trustees, as a body, in accordance with Section 43 of the Charities Act 1993. 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.

We report to you our opinion as to whether the financial statements give a true and fair view, of the state of affairs as at the year-end, and of the incoming resources and application of resources of the charity in that year, and comply with Regulation 3 of the Charities (Accounts and Reports) Regulations 2000. We also report to you if, in our opinion, the accounting records have not been kept in respect of the charity in accordance with Section 41 of the 1993 Charities Act, if the statement of accounts do not accord with the records of the charity, if any information contained in the statement of accounts is inconsistent in any material respect with any report of the charity Trustees prepared under Section 45 of the Charities Act 1993, and if any information or explanations to which we are entitled have not been given to us. We will also report to you if the accounts do not comply with the Trust Deed of the Charity.

We will communicate to the Charity Commissioners any matter of which we come aware which relates to the activities or affairs of the charity which is likely to be of material significance to the Charity Commissioners.

We read information contained in the Annual Report, and consider whether it is consistent with the audited financial statements. This information comprises only the Trustees Report. We consider the implications for our report if we become aware of any apparent misstatements or material inconsistencies with the financial statements. Our responsibilities do not extend to any other information.

**Basis of Opinion**

We conducted our audit in accordance with International Standards on Auditing (UK and 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 significant estimates and judgements 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 misstatement, whether caused by fraud or other irregularities or error. In forming our opinion we also evaluated the overall adequacy of the presentation of the information in the financial statements.

**Opinion**

In our opinion the financial statements give a true and fair view of the state of affairs of the Charity as at 31 December 2005 and of the incoming resources and the application of resources of the charity for that year, have been properly prepared in accordance with the Charities Act 1993 and comply with Regulation 3 of the Charities (Accounts and Report) Regulations 2000.

Alperton House  
Bridgewater Road  
Wembley  
Middlesex HA0 1EH

**Beever and Struthers**  
Chartered Accountants  
Registered Auditors  
An auditor under S43(2)(a) of the Charities Act 1993

Date

**THE LIVER GROUP**

**STATEMENT OF FINANCIAL ACTIVITIES**

**FOR THE YEAR ENDED 31 DECEMBER 2005**

	Notes	Unrestricted funds £	Restricted funds £	<b>Total 2005 £</b>	Total 2004 £
<b>Incoming resources/turnover</b>					
Voluntary income:					
Donations		12,000	136,500	<b>148,500</b>	52,530
Investment income:					
Bank interest receivable		53,261	-	<b>53,261</b>	53,428
<b>Incoming resources for year</b>		<u>65,261</u>	<u>136,500</u>	<u><b>201,761</b></u>	<u>105,958</u>
<b>Resources expended</b>					
1					
Charitable expenditure:					
Research expenditure – UCL		213,536	44,881	<b>258,417</b>	270,075
Workshop – Imperial College		-	-	-	3,052
Fundraising		200	-	<b>200</b>	-
Governance:					
Auditing and accounting		2,204	-	<b>2,204</b>	2,088
Bank charges		819	-	<b>819</b>	-
<b>Outgoing resources for year</b>		<u>216,759</u>	<u>44,881</u>	<u><b>261,640</b></u>	<u>275,215</u>
<b>Net incoming (outgoing) resources for the year</b>		(151,498)	91,619	<b>(59,879)</b>	(169,257)
<b>Fund balances at 1 January 2005</b>		1,093,058	27,033	<b>1,120,091</b>	1,289,348
<b>Fund balances at 31 December 2005</b>		<u>941,560</u>	<u>118,652</u>	<u><b>1,060,212</b></u>	<u>1,120,091</u>

**THE LIVER GROUP  
BALANCE SHEET  
AS AT 31 DECEMBER 2005**

	Notes	2005 £	2004 £
<b>Current assets</b>			
Interest receivable		5,094	4,848
Other debtors		-	331
Cash at bank			
- Current account		500	(51,147)
- On short-term deposit		1,107,376	1,251,309
		<b>1,112,970</b>	<b>1,205,341</b>
<b>Less: Creditors</b>			
Amounts falling due within one year			
Amount due to UCL		50,558	83,250
Other		2,200	2,000
		<b>52,758</b>	<b>85,250</b>
<b>Net current assets</b>		<b>1,060,212</b>	<b>1,120,091</b>
<b>Financed by</b>			
Unrestricted funds			
- General		(258,440)	(106,942)
- Designated	2	1,200,000	1,200,000
Restricted funds	3	118,652	27,033
<b>Total funds</b>		<b>1,060,212</b>	<b>1,120,091</b>

The charity has estimated its future funding requirements to be approximately £3.5m over the next five years to support its charitable objectives, an analysis of which is given below. Of this total amount approximately £3m relates to staff contracts and running costs, with £770k being already committed at the year-end (as described in Note 4 to the financial statements). Whilst the charity has sufficient funding to meet its present commitments, it requires an additional £2.5m of funding to cover its expected future costs which it plans to raise through future fundraising activity and charitable donations.

These Accounts were approved by the Trustees on  
Clare Selden  
Trustee:

and signed on their behalf by:-

**'Liver for Life' Appeal – Five Year Projections (2006-2009)**

Research salaries and studentships	2,010,000
Consumables	990,000
Equipment budget	500,000
Research presentations	25,000
Administration of charity	25,000
	<b>£3,550,000</b>
	=====

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 2005**

**PRINCIPAL ACCOUNTING POLICIES**

**Basis of accounting**

The accounts have been prepared under the historical cost convention and in accordance with applicable Accounting Standards and the Statement of Recommended Practice for Charities 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.

**Expenditure**

Research expenditure, incurred on behalf of the charity and recharged to The Liver Group by University College London (UCL), is charged to the statement of financial activities (SOFA) on an accruals basis. The accounts include expenditure from the charity's funds on capital equipment and laboratory infrastructure, treated as resources expended in these accounts.

**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 funds 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.

**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.

**THE LIVER GROUP**

**NOTES TO THE FINANCIAL STATEMENTS**

**FOR THE YEAR ENDED 31 DECEMBER 2005**

<b>1. Resources expended</b>		<b>2005</b>	2004
	Resources expended include:		
	Staff costs (employed on fixed term UCL contracts)	<b>£182,079</b>	£184,780
	Research consumables and laboratory	<b>£76,338</b>	£88,347
	Auditors' remuneration (including VAT)		
	- audit	<b>£774</b>	£663
	- accounting	<b>£1,430</b>	£1,224
		<u>          </u>	<u>          </u>

The average weekly number of employees of UCL working for the Liver Group during the year was 4 (2004: 5). At the year-end there were 4 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

Trustees' expenses reimbursed during the year amounted to £ Nil (2004: £21).

**2. Designated funds**

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

**3. Restricted funds**

	Balance b/f at 1 January 2005	Incoming resources	Resources expended	Balance c/f at 31 December 2005
Dunhill Medical Trust				
Fellowship	25,533	36,500	(44,881)	<b>17,152</b>
Billingsgate Christian Mission				
Charitable Trust Studentship	1,500	-	-	<b>1,500</b>
Garfield Weston Foundation	-	100,000	-	100,000
	<u>£27,033</u>	<u>£136,500</u>	<u>£(44,881)</u>	<u><b>£118,652</b></u>
	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>

**4. Financial commitments**

At 31 December 2005, the charity, through UCL, was committed to staff contracts and running costs amounting to £770,000 (2004: £800,000) for varying periods to end of September 2008.

**5. Research assets**

As explained in the accounting policies (expenditure) the Charities' 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.

## THE LIVER GROUP

### NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2005

#### “Liver for Life Appeal” – List of donors to date

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	The Telegraph Plc
Fishmongers' Company	Pfizer Ltd
Boots Plc	Schroders Plc
Bowring Plc	Brian Wright Esq.
British Aerospace	C E Heath Plc
BTR Plc	Morgan Crucible Company Plc
Charles Littlewood Charitable Trust	Honeywell Plc
Citybank	Thomson Corporation
Clydesdale Bank/Yorkshire Bank	Life Technologies
Commercial Union	Lloyds Bank Plc
Communis plc	Price Waterhouse Plc
Cookson Group Plc	IBJ
Council of Forte Trust Fund	Seagrams Distillers Plc
Courage Plc	In Memoriam
Coutts and Co	Jardine Insurance Services Ltd
D M Wilton	KPMG Peat Marwick
Dako Limited	Laing, London
Economist Plc	Royal London Insurance Ltd
EJH Stephenson (Deceased) Charitable Trust	Tomkins Plc
Friends Provident	Morgan Grenfell
Glaxo Plc	Robert Fleming Holdings Ltd
Guardian Royal Exchange Plc	New Brunswick Plc
HJ Heinz Co. Ltd Charitable Trust	Sunlife Assurance Plc
Hon C A Pearson's Charity Trust	Smiths Industries
Mars UK Corporate ServicesLtd	Vauxhall Plc
Menzies Group	Pharmaceutical Brand Consultancy Int.
Rio Tinto plc	The Really Useful Group Ltd
Societe Generale United kingdom Charitable Trust	Richard Wilkinson Esq
The Bergqvist Charitable Trust	Rudolf Wolff & Co. Ltd
The Bowerman Memorial Trust	Securicor Plc
The Clothworkers' Foundation	Special Trustees for Hammersmith and Acton
The Dunhill Medical Trust	Hospitals
The Fitton Trust	Racal Charitable Trust
The Garfield Weston Foundation	TI Group
The Haberdashers Company	Land Securities Plc
The Hamamelis Trust	Conoco Philips
The Hartnett 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	ME Rickman Trust
	The Bryan Guinness Charitable Trust

## THE LIVER GROUP

### NOTES TO THE FINANCIAL STATEMENTS

#### FOR THE YEAR ENDED 31 DECEMBER 2005

#### Publications arising from the Liver Group during 2005

1. Collins P, Jones C, Choudhury S, Damelin L, Hodgson H. Increased expression of uncoupling protein 2 in HepG2 cells attenuates oxidative damage and apoptosis. *Liver Int.* Aug;**25**(4):880-7 (2005)
2. Malik R, Habib M, Tootle R, Hodgson H. Exogenous thyroid hormone induces liver enlargement, whilst maintaining regenerative potential--a study relevant to donor preconditioning. *Am J Transplant.* Aug;**5**(8):1801-7 (2005)
3. Saich R, Collins P, Ala A, Standish R, Hodgson H. Benign recurrent intrahepatic cholestasis with secondary renal impairment treated with extracorporeal albumin dialysis. *Eur J Gastroenterol Hepatol.* May;**17**(5):585-8 (2005)
4. Coward SM, Selden C, Mantalaris A, Hodgson HJ. Proliferation rates of HepG2 cells encapsulated in alginate are increased in a microgravity environment compared with static cultures. *Artif Organs.* Feb;**29**(2):152-8 (2005)
5. Rahman TM, Diakanov I, Selden C, Hodgson H. Co-transplantation of encapsulated HepG2 and rat Sertoli cells improves outcome in a thioacetamide induced rat model of acute hepatic failure. *Transpl Int.* Aug;**18**(8):1001-9 (2005)
6. Damelin LH, Kirwan M, Coward S, Collins P, Cox IJ, Selden C, Hodgson HJF. Fat-loaded, insulin-resistant HepG2 cells are resistant to cytokine and pro-oxidant induced damage but become damage-susceptible after down regulation of AMP-activated kinase. *Hepatology* **42**(4 suppl. 1) 628A (2005)
7. Laurson J, Selden C, Hodgson HJ. Hepatocyte progenitors in man and in rodents--multiple pathways, multiple candidates. *Int J Exp Pathol.* Feb;**86**(1):1-18 (2005)
8. Hodgson H. c-met—there when it's needed? *Journal of Hepatology:* 43(3), 544-546 (2005)

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