

Registered number: 03526954

BIOCHROM LIMITED

**ANNUAL REPORT AND FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**



BIOCHROM LIMITED

COMPANY INFORMATION

DIRECTORS

Mr J Eyles
Mr J Green
Mr F Stifter

COMPANY SECRETARY

Mr L Follen

REGISTERED NUMBER

03526954

REGISTERED OFFICE

Unit 7
3970 Cambridge Research Park
Beach Drive
Waterbeach
CB25 9PE

INDEPENDENT AUDITOR

Grant Thornton UK LLP
Statutory Auditor, Chartered Accountants
101 Cambridge Science Park
Milton Road
Cambridge
CB4 0FY

BIOCHROM LIMITED

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BIOCHROM LIMITED

**STRATEGIC REPORT
FOR THE YEAR ENDED 31 DECEMBER 2019**

INTRODUCTION

The directors present their Strategic Report and financial statements for the year ended 31 December 2019.

BUSINESS REVIEW

During the year the Company's loss after tax for the financial year was £517,731 compared to a profit of £153,451 in the prior year.

Sales by the Company declined by £1,720,206 or 12.5% versus 2018. Whilst the Company's Amino Acid Analyser sales grew by almost 1% or £51,621 year over year the Company's Spectrophotometer sales declined 17.4% or £866,888 compared to the prior year. This decline is mostly attributed to product obsolescence and delays in launching new instruments.

The Company saw a £327,484 or 49% decrease in the volume of the Company's Microplate Instrumentation product range. A significant driver of this reduction was the lower demand from one of the Company's OEM partners.

The Harvard Apparatus physiological product range declined by 23% or £519,831. The Warner Instruments product range, manufactured by a fellow group undertaking, is now sold in Europe through the Company's subsidiary, Multi Channel Systems MCS GmbH.

The Company's gross profit declined from £4,703,029 in 2018 to £3,785,768 in 2019 with the gross margin percentage decreasing from 34% to 32% with the main driver being the weaker Pound versus the US Dollar, which declined by 4.5% since most of the Company's purchases are denominated in US Dollars.

Operating expenses (comprising distribution costs and administrative expenses) decreased by £224,635 to £4,364,798 (36% of sales). This reduction was mostly as a result of a reduction in management fees levied by the ultimate parent company.

At 31 December 2019, the directors assessed the Company's investments in subsidiary undertakings and goodwill for impairment. After due consideration of the cash generating units business performance in the year, the directors determined that goodwill in respect of the trade and assets acquired from Scie-Plas Limited in prior years suffered a permanent diminution of value after sales further declined from £211,611 to £144,081 and therefore goodwill has been impaired by £333,896. No further impairment charges were deemed necessary.

Overall the Company recorded a loss before tax for the year ended 31 December 2019 of £519,791 (4.3% of sales) compared to a profit before tax of £115,917 (0.8% of sales) in 2018.

During the year stocks reduced by £403,644 to £3,009,480 due to careful management of materials.

BIOCHROM LIMITED

STRATEGIC REPORT (CONTINUED) FOR THE YEAR ENDED 31 DECEMBER 2019

PRINCIPAL RISKS AND UNCERTAINTIES

The directors continue to evaluate the financial performance of its operations by regularly monitoring certain operating metrics of the Company and, when appropriate, effects changes to leverage its infrastructure and its distribution channels. Key performance indicators which monitor sales growth trends, expenses, operating profitability, resource efficiency and working capital are regularly reviewed.

The future prospects of the Company may be affected by the following risk factors:

The Company's profitability may be impacted by increased prices by its suppliers and the Company's ability to pass on these costs may be constrained by current market conditions and its competitive position in the marketplace.

Market conditions for the Company's Harvard Apparatus, Spectrophotometer and AAA products may be impacted by levels of academic and private research funding. A decline in funding may result in a reduction of sales of these products.

The current credit and financial market conditions may exacerbate certain risks affecting the Company's business. The failure of any banking institution in which the Company deposits its funds or the failure of such banking institution to provide services in the current economic environment could have an adverse effect on its operational result, financial condition or access to borrowings.

Currency exchange rate fluctuations may have a negative impact on its reported earnings.

The impact of the withdrawal of the United Kingdom from the European Union may have a negative impact on the reported earnings of the Company. Previously it enjoyed the free movement of people, services and goods within the European Union. It is uncertain how trade with the Company's European customers and suppliers will be impacted in the future.

The Company's competitors and potential competitors may develop products and technologies that are more effective or commercially attractive than its products. The Company's products compete in markets that are subject to technological change, and therefore one or more of our products could be made obsolete by new technologies.

If the Company is unable to protect its intellectual property effectively, third parties may use the Company's technology which would impair its ability to compete in its markets.

The ongoing global SARS-CoV-2 or COVID-19 pandemic may have a continued impact on the future earnings of the Company. Whilst most of our customers are not directly impacted by the repeated lockdowns necessitated by the pandemic some customers may be temporarily closed, research programmes may be delayed due to the unavailability of staff.

We may see additional demand for the Company's products due to the need for higher diagnostic testing capacity and research into treatments and vaccines. The Company's ability to supply product may be impacted due to the unavailability of its own staff or the ability of its suppliers to supply products due to the availability of resources.

BIOCHROM LIMITED

**STRATEGIC REPORT (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2019**

GOING CONCERN

The Company's business activities together with the factors likely to affect its future development, its financial position and principal risks and uncertainties are set out above.

As at 31 December 2019 the Company had net current assets of £2,135,600, however made a loss after tax of £517,731. The directors have considered the current market conditions, including the impact of the Sars-CoV-2 pandemic, trading post year end and the liquid resources available to the Company and obtained a letter of financial support from the Company's ultimate parent undertaking, Harvard Biosciences, Inc.

The letter of financial support from the ultimate parent undertaking indicates that the Company will be provided with the necessary financial support for the foreseeable future, being at least 12 months from the date of approval of the financial statements.

On the basis of their assessment of the Company's financial position and of the enquiries made of the directors of the ultimate parent undertaking, the Company's directors have a reasonable expectation that the Company will be able to continue in operational existence and meet its liabilities as they fall due for the foreseeable future.

Accordingly, they continue to adopt the going concern basis in preparing these financial statements.

RESEARCH AND DEVELOPMENT

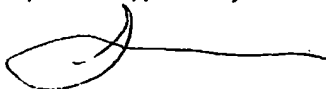
It is the Company's policy to carry out research and development to develop products in the fields of spectrophotometry and amino acid analysis. The Company's objective is the rapid creation of products utilising its strengths in electronics, software, optical and mechanical design, and production skills. Expenditure on research and development is set out in note 6.

FUTURE DEVELOPMENTS

The directors continue to evaluate the financial performance of its operations by regularly monitoring certain operating metrics of the Company and, when appropriate, effects changes to leverage its infrastructure and its distribution channels. Key performance indicators which monitor sales growth trends, expenses, operating profitability, resource efficiency and working capital are regularly reviewed.

In August 2020, the Company relocated its office and warehouse space from two separate sites into a single facility.

This report was approved by the board of directors and signed on its behalf by:



Mr J Eyles
Director

Date: 31/3/21

BIOCHROM LIMITED

DIRECTORS' REPORT FOR THE YEAR ENDED 31 DECEMBER 2019

The directors present their report and the financial statements for the year ended 31 December 2019.

Some disclosures that would normally be made in the Directors' Report are included in the Strategic Report. These include; a review of principal risks and uncertainties facing the business, an indication of likely developments in the business and an indication of the activities of the Company in the field of Research and Development.

DIRECTORS' RESPONSIBILITIES STATEMENT

The directors are responsible for preparing the Strategic Report, the Directors' Report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have elected to prepare the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland'). Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period.

In preparing these financial statements, the directors are required to:

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

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and to enable them to ensure that the financial statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

PRINCIPAL ACTIVITY

During the year the Company developed, manufactured and marketed scientific instruments, medical and laboratory equipment and associated chemicals.

RESULTS AND DIVIDENDS

The loss for the year, after taxation, amounted to £517,731 (2018 - profit of £153,451).

Dividends declared and paid during the year amounted to £861,113 (2018 - £1,963,463). Subsequent to the year end no dividends have been declared and paid (2018 - £861,113).

DIRECTORS

The directors who served during the year and to the date of this report, except as stated otherwise, were:

Mr J Duchemin (resigned 30 September 2019)
Mr J Eyles
Mr J Green (appointed 30 September 2019)
Ms K Unninayar (resigned 30 September 2019)
Mr F Stifter (appointed 2 September 2020)

BIOCHROM LIMITED

**DIRECTORS' REPORT (CONTINUED)
FOR THE YEAR ENDED 31 DECEMBER 2019**

DIRECTORS' INDEMNITIES

The Company has granted an indemnity to one or more of its directors against liability in respect of proceedings brought by third parties, subject to the conditions set out in section 234 of the Companies Act 2006. Such qualifying third party indemnity provision remains in force as at the date of approving the Directors' Report.

DISCLOSURE OF INFORMATION TO AUDITOR

The directors at the time when this Directors' Report is approved has confirmed that:

- so far as the directors is aware, there is no relevant audit information of which the Company's auditor is unaware; and
- the directors has taken all the steps that ought to have been taken as a directors in order to be aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

POST BALANCE SHEET EVENTS

Subsequent to the year end the global Sars-CoV-2 pandemic emerged which has impacted the Company due to the temporary closure of some the Company's customers, particularly within the academic sector. The directors have assessed the potential impact of this uncertain situation on the Company with the information available and do not consider that it will lead to any subsequent impairment of the carrying amount of reported assets.

There have been no other significant events affecting the Company since year end.

This report was approved by the board of directors and signed on its behalf by:



Mr J Eyles
Director

Date: 31/3/21

BIOCHROM LIMITED

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF BIOCHROM LIMITED

OPINION

We have audited the financial statements of Biochrom Limited (the 'Company') for the year ended 31 December 2019, which comprise of the Statement of Comprehensive Income, the Balance Sheet, the Statement of Changes in Equity and notes to the financial statements, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland' (United Kingdom Generally Accepted Accounting Practice).

In our opinion the financial statements:

- give a true and fair view of the state of the Company's affairs as at 31 December 2019 and of its loss for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

BASIS FOR OPINION

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the 'Auditor's responsibilities for the audit of the financial statements' section of our report. We are independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the United Kingdom, including the Financial Reporting Council's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

THE IMPACT OF MACRO-ECONOMIC UNCERTAINTIES ON OUR AUDIT

Our audit of the financial statements requires us to obtain an understanding of all relevant uncertainties, including those arising as a consequence of the effects of macro-economic uncertainties such as Covid-19 and Brexit. All audits assess and challenge the reasonableness of estimates made by the directors and the related disclosures and the appropriateness of the going concern basis of preparation of the financial statements. All of these depend on assessments of the future economic environment and the Company's future prospects and performance.

Covid-19 and Brexit are amongst the most significant economic events currently faced by the UK, and at the date of this report their effects are subject to unprecedented levels of uncertainty, with the full range of possible outcomes and their impacts unknown. We applied a standardised firm-wide approach in response to these uncertainties when assessing the Company's future prospects and performance. However, no audit should be expected to predict the unknowable factors or all possible future implications for a Company associated with these particular events.

BIOCHROM LIMITED

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF BIOCHROM LIMITED (CONTINUED)

CONCLUSIONS RELATING TO GOING CONCERN

We have nothing to report in respect of the following matters in relation to which the ISAs (UK) require us to report to you where:

- the directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate; or
- the directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

In our evaluation of the directors' conclusions, we considered the risks associated with the Company's business model, including effects arising from macro-economic uncertainties such as Covid-19 and Brexit, and analysed how those risks might affect the Company's financial resources or ability to continue operations over the period of at least twelve months from the date when the financial statements are authorised for issue. In accordance with the above, we have nothing to report in these respects.

However, as we cannot predict all future events or conditions and as subsequent events may result in outcomes that are inconsistent with judgements that were reasonable at the time they were made, the absence of reference to a material uncertainty in this Auditor's Report is not a guarantee that the Company will continue in operation.

OTHER INFORMATION

The directors are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our Auditor's Report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

OPINIONS ON OTHER MATTERS PRESCRIBED BY THE COMPANIES ACT 2006

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

BIOCHROM LIMITED

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF BIOCHROM LIMITED (CONTINUED)

MATTER ON WHICH WE ARE REQUIRED TO REPORT UNDER THE COMPANIES ACT 2006

In the light of the knowledge and understanding of the Company and its environment obtained in the course of the audit, we have not identified material misstatements in the Strategic Report or the Directors' Report.

MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept, or returns adequate for our audit have not been received from branches not visited by us; or
- the financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

RESPONSIBILITIES OF DIRECTORS FOR THE FINANCIAL STATEMENTS

As explained more fully in the Directors' Responsibilities Statement on page 4, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our Auditor's Report.

BIOCHROM LIMITED

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF BIOCHROM LIMITED (CONTINUED)

USE OF OUR REPORT

This report is made solely to the Company's members in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an Auditor's 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 Company and the Company's members for our audit work, for this report, or for the opinions we have formed.

Grant Thornton UK LLP

Adam Smith BA (Hons) BFP FCA (Senior Statutory Auditor)

for and on behalf of

Grant Thornton UK LLP

Statutory Auditor, Chartered Accountants

Cambridge

Date: *31 March 2021*

BIOCHROM LIMITED

**STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 DECEMBER 2019**

	Notes	2019 £	2018 £
Turnover	4	12,063,602	13,783,808
Cost of sales		<u>(8,277,834)</u>	<u>(9,080,779)</u>
GROSS PROFIT		3,785,768	4,703,029
Distribution costs		<u>(2,321,092)</u>	<u>(2,556,456)</u>
Administrative expenses		<u>(2,043,706)</u>	<u>(2,032,977)</u>
Other operating income	5	<u>65,806</u>	<u>-</u>
OPERATING (LOSS)/PROFIT	6	(513,224)	113,596
Interest receivable and similar income	10	5,433	17,321
Other finance costs	11	<u>(12,000)</u>	<u>(15,000)</u>
(LOSS)/PROFIT BEFORE TAX		(519,791)	115,917
Taxation	12	<u>2,060</u>	<u>37,534</u>
(LOSS)/PROFIT FOR THE FINANCIAL YEAR		(517,731)	153,451
OTHER COMPREHENSIVE (EXPENSE) FOR THE YEAR			
Actuarial gains/(losses) on defined benefit pension scheme	28	103,000	(359,000)
Movement of deferred tax relating to defined benefit pension scheme	23	<u>(118,150)</u>	<u>61,030</u>
OTHER COMPREHENSIVE (EXPENSE) FOR THE YEAR		(15,150)	(297,970)
TOTAL COMPREHENSIVE (EXPENSE) FOR THE YEAR		(532,881)	(144,519)

There were no recognised gains and losses for 2019 or 2018 other than those included in the statement of comprehensive income, above.

The notes on pages 14 to 47 form part of these financial statements.

BIOCHROM LIMITED
REGISTERED NUMBER: 03526954

BALANCE SHEET
AS AT 31 DECEMBER 2019

	Notes	2019 £	2018 £
FIXED ASSETS			
Intangible assets	14	567,098	1,051,160
Tangible assets	15	250,835	372,419
Investments	16	11,784,554	11,784,554
		<u>12,602,487</u>	<u>13,208,133</u>
CURRENT ASSETS			
Stocks	17	3,009,480	3,413,124
Debtors: amounts falling due within one year	18	2,995,475	2,987,611
Cash at bank and in hand	19	263,274	875,588
		<u>6,268,229</u>	<u>7,276,323</u>
Creditors: amounts falling due within one year	20	<u>(4,132,629)</u>	<u>(3,648,325)</u>
NET CURRENT ASSETS		2,135,600	3,627,998
TOTAL ASSETS LESS CURRENT LIABILITIES		14,738,087	16,836,131
Creditors: amounts falling due after more than one year	21	-	(51,928)
Provision for liabilities	24	(51,653)	(61,344)
Pension liability	28	-	(695,000)
NET ASSETS		14,686,434	16,027,859
CAPITAL AND RESERVES			
Called up share capital	25	100	100
Share premium account	26	1,559,476	1,559,476
Capital redemption reserve	26	4,711,382	4,711,382
Profit and loss account	26	8,415,476	9,756,901
		<u>14,686,434</u>	<u>16,027,859</u>

The financial statements were approved and authorised for issue by the board of directors and were signed on its behalf by:

Mr J Eyles
 Director

Date: 31/3/21

The notes on pages 14 to 47 form part of these financial statements.

BIOCHROM LIMITED

**STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 2019**

	Called up share capital	Share premium account	Capital redemption reserve	Profit and loss account	Total equity
	£	£	£	£	£
At 1 January 2019	100	1,559,476	4,711,382	9,756,901	16,027,859
COMPREHENSIVE EXPENSE FOR THE YEAR					
Loss for the year	-	-	-	(517,731)	(517,731)
Other comprehensive expense	-	-	-	(15,150)	(15,150)
TOTAL COMPREHENSIVE EXPENSE FOR THE YEAR	-	-	-	(532,881)	(532,881)
CONTRIBUTIONS BY AND DISTRIBUTIONS TO MEMBERS					
Dividends paid (see note 13)	-	-	-	(861,113)	(861,113)
Credit to equity for share based payments (see note 27)	-	-	-	52,569	52,569
TRANSACTIONS WITH MEMBERS	-	-	-	(808,544)	(808,544)
AT 31 DECEMBER 2019	100	1,559,476	4,711,382	8,415,476	14,686,434

The notes on pages 14 to 47 form part of these financial statements.

BIOCHROM LIMITED

**STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED 31 DECEMBER 2018**

	Called up share capital	Share premium account	Capital redemption reserve	Profit and loss account	Total equity
	£	£	£	£	£
At 1 January 2018	100	1,559,476	4,711,382	11,789,962	18,060,920
COMPREHENSIVE EXPENSE FOR THE YEAR					
Profit for the year	-	-	-	153,451	153,451
Other comprehensive expense	-	-	-	(297,970)	(297,970)
TOTAL COMPREHENSIVE EXPENSE FOR THE YEAR	-	-	-	(144,519)	(144,519)
CONTRIBUTIONS BY AND DISTRIBUTIONS TO MEMBERS					
Dividends paid (see note 13)	-	-	-	(1,963,463)	(1,963,463)
Credit to equity for share based payments (see note 27)	-	-	-	74,921	74,921
TRANSACTIONS WITH MEMBERS	-	-	-	(1,888,542)	(1,888,542)
AT 31 DECEMBER 2018	100	1,559,476	4,711,382	9,756,901	16,027,859

The notes on pages 14 to 47 form part of these financial statements.

BIOCHROM LIMITED

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

1. GENERAL INFORMATION

Biochrom Limited is a private limited company limited by shares and is incorporated and domiciled in England and Wales. The registered company number is 03526954. The Company's registered office is disclosed on the company information page. The principal activity of the Company is disclosed in the Directors' Report.

The parent entity of the smallest and largest group of which the results of this Company is consolidated is headed by Harvard Bioscience, Inc., a company incorporated in USA. Copies of the consolidated financial statements are available to the public from Harvard Bioscience, Inc., 84 October Hill Road, Holliston MA, 01746 1371, USA.

2. ACCOUNTING POLICIES

2.1 BASIS OF PREPARATION OF FINANCIAL STATEMENTS

The financial statements have been prepared under the historical cost convention unless otherwise specified within these accounting policies and in accordance with Financial Reporting Standard 102, "The Financial Reporting Standard applicable in the UK and Republic of Ireland" and the Companies Act 2006, including adoption of the amendments arising from the Triennial Review 2017 which was effective for the period beginning on 1 January 2019. No restatements were required to the financial statements following the adoption of the amendments arising from the Triennial Review 2017.

The preparation of financial statements in compliance with FRS 102 requires the use of certain critical accounting estimates. It also requires management to exercise judgement in applying the Company's accounting policies (see note 3).

The following principal accounting policies have been applied:

2.2 FINANCIAL REPORTING STANDARD 102 - REDUCED DISCLOSURE EXEMPTIONS

The Company has taken advantage of the following disclosure exemptions in preparing these financial statements, as permitted by the FRS 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland":

- the requirements of Section 7 Statement of Cash Flows;
- the requirements of Section 3 Financial Statement Presentation paragraph 3.17(d);
- the requirements of Section 11 Financial Instruments paragraphs 11.42, 11.44 to 11.45, 11.47, 11.48(a)(iii), 11.48(a)(iv), 11.48(b) and 11.48(c);
- the requirements of Section 12 Other Financial Instruments paragraphs 12.26 to 12.27, 12.29(a), 12.29(b) and 12.29A; and
- the requirements of Section 33 Related Party Disclosures paragraph 33.7.

This information is included in the consolidated financial statements of Harvard Bioscience, Inc. as at 31 December 2019 and these financial statements may be obtained from 84 October Hill Road, Holliston MA, 01746 1371, USA.

2.3 EXEMPTION FROM PREPARING CONSOLIDATED FINANCIAL STATEMENTS

The Company is a parent company that is also a subsidiary included in the consolidated financial statements of its ultimate parent undertaking established under the law of a non-EEA state and is therefore exempt from the requirement to prepare consolidated financial statements under section 401 of the Companies Act 2006.

BIOCHROM LIMITED

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

2. ACCOUNTING POLICIES (CONTINUED)

2.4 GOING CONCERN

The Company's business activities together with the factors likely to affect its future development, its financial position and principal risks and uncertainties are set out in the Strategic Report.

As at 31 December 2019 the Company had net current assets of £2,135,600, however made a loss after tax of £517,731. The directors have considered the current market conditions, including the impact of the SARS-CoV-2 pandemic, trading post year end and the liquid resources available to the Company and obtained a letter of financial support from the Company's ultimate parent undertaking, Harvard Biosciences, Inc.

On the basis of their assessment of the Company's financial position and of the enquiries made of the directors of the ultimate parent undertaking, the Company's directors have a reasonable expectation that the Company will be able to continue in operational existence and meet its liabilities as they fall due for the foreseeable future.

Accordingly, they continue to adopt the going concern basis in preparing these financial statements.

2.5 REVENUE

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be reliably measured. Revenue is measured as the fair value of the consideration received or receivable, excluding discounts, rebates, value added tax and other sales taxes. The following criteria must also be met before revenue is recognised:

Sale of goods

Revenue from the sale of goods is recognised when all of the following conditions are satisfied:

- the Company has transferred the significant risks and rewards of ownership to the buyer;
- the Company retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the Company will receive the consideration due under the transaction; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Rendering of services

Revenue from a contract to provide services is recognised in the period in which the services are provided in accordance with the stage of completion of the contract when all of the following conditions are satisfied:

- the amount of revenue can be measured reliably;
- it is probable that the Company will receive the consideration due under the contract;
- the stage of completion of the contract at the end of the reporting period can be measured reliably; and
- the costs incurred and the costs to complete the contract can be measured reliably.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

2. ACCOUNTING POLICIES (CONTINUED)

2.6 INTANGIBLE ASSETS

GOODWILL

Goodwill that arose on the formation of the business is amortised on a straight line basis over a period of 15 years. In the opinion of the directors this is the period over which the Company will derive direct economic benefit from this goodwill.

2.7 TANGIBLE FIXED ASSETS

Tangible fixed assets under the cost model are stated at historical cost less accumulated depreciation and any accumulated impairment losses. Historical cost includes expenditure that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Depreciation is charged so as to allocate the cost of assets less their residual value over their estimated useful lives, using the straight-line method.

Depreciation is provided on the following basis:

Long leasehold improvements	- 7 years
Plant, machinery & tooling	- 4-7 years
Motor vehicles	- 4 years
Computer equipment	- 3 years
Assets under construction	- No depreciation is charged until assets are brought in to use

The assets' residual values, useful lives and depreciation methods are reviewed, and adjusted prospectively if appropriate, or if there is an indication of a significant change since the last reporting date.

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised in profit or loss.

2.8 INVESTMENTS

Investments in subsidiaries are measured at cost less accumulated impairment.

The carrying value of investments in subsidiary undertakings are reviewed for recoverability, taking into consideration both the net assets of the investment and future profitability. An impairment is recognised where the carrying value is greater than the recoverable amount, being the net assets of the investment plus discounted future operating cash flows generated by it.

2.9 STOCKS

Stocks are stated at the lower of cost and net realisable value, being the estimated selling price less costs to complete and sell. Cost is based on the cost of purchase on a first in, first out basis. Work in progress and finished goods include labour and attributable overheads.

At each balance sheet date, stocks are assessed for impairment. If stock is impaired, the carrying amount is reduced to its selling price less costs to complete and sell. The impairment loss is recognised immediately in profit or loss in the Statement of Comprehensive Income.

BIOCHROM LIMITED

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2019

2. ACCOUNTING POLICIES (CONTINUED)

2.10 DEBTORS

Short term debtors are measured at transaction price, less any impairment.

2.11 CASH AND CASH EQUIVALENTS

Cash is represented by cash in hand and deposits with financial institutions repayable without penalty on notice of not more than 24 hours. Cash equivalents are highly liquid investments that mature in no more than three months from the date of acquisition and that are readily convertible to known amounts of cash with insignificant risk of change in value.

2.12 FINANCIAL INSTRUMENTS

The Company only enters into basic financial instrument transactions that result in the recognition of financial assets and liabilities like trade and other debtors and creditors and investments in non-puttable ordinary shares.

Debt instruments (other than those wholly repayable or receivable within one year), including loans and other accounts receivable and payable, are initially measured at present value of the future cash flows and subsequently at amortised cost using the effective interest method. Debt instruments that are payable or receivable within one year, typically trade debtors and creditors, are measured, initially and subsequently, at the undiscounted amount of the cash or other consideration expected to be paid or received. However, if the arrangements of a short-term instrument constitute a financing transaction, like the payment of a trade debt deferred beyond normal business terms or in case of an out-right short-term loan that is not at market rate, the financial asset or liability is measured, initially at the present value of future cash flows discounted at a market rate of interest for a similar debt instrument and subsequently at amortised cost, unless it qualifies as a loan from a director in the case of a small company, or a public benefit entity concessionary loan.

Financial assets that are measured at cost and amortised cost are assessed at the end of each reporting period for objective evidence of impairment. If objective evidence of impairment is found, an impairment loss is recognised in the Statement of Comprehensive Income.

For financial assets measured at amortised cost, the impairment loss is measured as the difference between an asset's carrying amount and the present value of estimated cash flows discounted at the asset's original effective interest rate. If a financial asset has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate determined under the contract.

For financial assets measured at cost less impairment, the impairment loss is measured as the difference between an asset's carrying amount and best estimate of the recoverable amount, which is an approximation of the amount that the Company would receive for the asset if it were to be sold at the balance sheet date.

Financial assets and liabilities are offset and the net amount reported in the Balance Sheet when there is an enforceable right to set off the recognised amounts and there is an intention to settle on a net basis or to realise the asset and settle the liability simultaneously.

2.13 CREDITORS

Short term creditors are measured at the transaction price.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

2. ACCOUNTING POLICIES (CONTINUED)

2.14 FOREIGN CURRENCY TRANSLATION

Functional and presentation currency

The Company's functional and presentational currency is GBP.

Transactions and balances

Foreign currency transactions are translated into the functional currency using the spot exchange rates at the dates of the transactions.

At each period end foreign currency monetary items are translated using the closing rate. Non-monetary items measured at historical cost are translated using the exchange rate at the date of the transaction and non-monetary items measured at fair value are measured using the exchange rate when fair value was determined.

Foreign exchange gains and losses resulting from the settlement of transactions and from the translation at period-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss except when deferred in Other Comprehensive Income as qualifying cash flow hedges.

2.15 DIVIDENDS

Equity dividends are recognised when they become legally payable. Interim equity dividends are recognised when paid. Final equity dividends are recognised when approved by the shareholders at an Annual General Meeting.

2.16 OPERATING LEASES

Rentals paid under operating leases are charged to profit or loss on a straight line basis over the lease term.

Benefits received and receivable as an incentive to sign an operating lease are recognised on a straight line basis over the lease term.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

2. ACCOUNTING POLICIES (CONTINUED)

2.17 PENSIONS

DEFINED CONTRIBUTION PENSION PLAN

The Company operates a defined contribution plan for its employees. A defined contribution plan is a pension plan under which the Company pays fixed contributions into a separate entity. Once the contributions have been paid the Company has no further payment obligations.

DEFINED BENEFIT PENSION PLAN

The Company operates two defined benefit pension plans for certain employees. A defined benefit pension plan provides pension benefit that the employee will receive on retirement, usually dependent upon several factors including but not limited to age, length of service and remuneration. A defined benefit pension plan is a scheme that is not a defined contribution plan.

Where the defined benefit pension plan is in a net deficit position, a liability is recognised on the Balance Sheet representing the present value of the defined benefit obligation at the end of the balance sheet date less the fair value of plan assets at the balance sheet date (if any) out of which the obligations are to be settled. Where the defined benefit pension plan is in net surplus, no asset is recognised due to the uncertainty over timing of future crystallisation of the asset.

The defined benefit obligation is calculated using the projected unit credit method. Annually the Company engages independent actuaries to calculate the obligation. The present value is determined by discounting the estimated future payments using market yields on high quality corporate bonds that are denominated in sterling and that have terms approximating to the estimated period of the future payments ('discount rate').

The fair value of plan assets is measured in accordance with the FRS 102 fair value hierarchy and in accordance with the Company's policy for similarly held assets. This includes the use of appropriate valuation techniques.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to Other Comprehensive Income. These amounts together with the return on plan assets, less amounts included in net interest, are disclosed as 'Actuarial gains/(losses) on defined benefit pension scheme'.

The cost of the defined benefit plan, recognised in the Statement of Comprehensive Income as employee costs, except where included in the cost of an asset, comprises:

- a) the increase in net pension benefit liability arising from employee service during the year; and
- b) the cost of plan introductions, benefit changes, curtailments and settlements.

The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets. This cost is recognised in the Statement of Comprehensive Income as 'Other finance costs'.

2.18 INTEREST INCOME

Interest income is recognised in the Statement of Comprehensive Income using the effective interest method.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

2. ACCOUNTING POLICIES (CONTINUED)

2.19 PROVISION FOR LIABILITIES

Provisions are made where an event has taken place that gives the Company a legal or constructive obligation that probably requires settlement by a transfer of economic benefit, and a reliable estimate can be made of the amount of the obligation.

Provisions are charged as an expense to the Statement of Comprehensive Income in the year that the Company becomes aware of the obligation, and are measured at the Company's best estimate at the Balance Sheet date of the expenditure required to settle the obligation, taking into account relevant risks and uncertainties.

When payments are eventually made, they are charged to the provision carried in the Balance Sheet.

2.20 CURRENT AND DEFERRED TAXATION

The tax expense for the year comprises current and deferred tax. Tax is recognised in profit or loss except that a charge attributable to an item of income and expense recognised as other comprehensive income or to an item recognised directly in equity is also recognised in other comprehensive income or directly in equity respectively.

The current income tax charge is calculated on the basis of tax rates and laws that have been enacted or substantively enacted by the balance sheet date in the countries where the Company operates and generates income.

Deferred tax balances are recognised in respect of all timing differences that have originated but not reversed by the Balance Sheet date, except that:

- The recognition of deferred tax assets is limited to the extent that it is probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits; and
- Any deferred tax balances are reversed if and when all conditions for retaining associated tax allowances have been met.

Deferred tax balances are not recognised in respect of permanent differences except in respect of business combinations, when deferred tax is recognised on the differences between the fair values of assets acquired and the future tax deductions available for them and the differences between the fair values of liabilities acquired and the amount that will be assessed for tax. Deferred tax is determined using tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

**3. JUDGEMENTS IN APPLYING ACCOUNTING POLICIES AND KEY SOURCES OF ESTIMATION
UNCERTAINTY**

Preparation of the financial statements requires management to make significant judgements and estimates. The items in the financial statements where these significant judgements and estimates have been made include:

Investment and goodwill valuation - The carrying value of investments in subsidiary undertakings and goodwill are reviewed for recoverability, taking into consideration both the net assets of the investment and future profitability of the cash generating unit. An impairment is recognised where the carrying value is lower than the recoverable amount.

Stock carrying value - Stock is held at the lower of cost and net realisable value. Management review stock holdings and make a provision for slow moving and obsolete stock where the recoverable amount on a stock item has fallen below the cost.

Recoverability of trade debtors - A provision for bad debts is made where it is identified that a trade debtor may not be recoverable by the Company. The bad debt provision is made on a specific basis against customer balances where they are not considered recoverable.

Warranty provision - The provision for product warranty represents the estimated costs to be incurred for work under warranty on products sold. The provision is determined with reference to the call rate for the products still under warranty cover and the average unit cost of the work performed. Products sold have a warranty lasting either one or two years and the provision will be utilised over this period.

Post-employment benefits - The Company operates two defined benefit pension schemes. For all defined benefit pension schemes, pension valuations have been performed using specialist advice obtained from independent qualified actuaries. In performing these valuations, significant actuarial assumptions and judgements have been made to determine the defined benefit obligation, in particular with regard to discount rate, inflation and mortality. Where the defined benefit pension plan is in net surplus, judgment has been applied in the decision not to recognise an asset. Management's assessment is that there is currently no certainty that the Company will be able to recover the net surplus either through reduced contributions in the future or through refunds from the plan. All key assumptions have been included in note 28.

No other significant judgements or estimates have been made by management in preparing the financial statements other than those noted in the accounting policies above.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

4. TURNOVER

An analysis of turnover by class of business is as follows:

	2019 £	2018 £
Instrument sales	6,413,715	6,486,902
Other sale of goods	4,865,427	6,540,861
Service and repairs	784,460	756,045
	<u>12,063,602</u>	<u>13,783,808</u>

Analysis of turnover by country of destination:

	2019 £	2018 £
United Kingdom	3,177,209	3,319,932
Rest of Europe	4,732,481	4,793,374
Rest of the World	4,153,912	5,670,502
	<u>12,063,602</u>	<u>13,783,808</u>

5. OTHER OPERATING INCOME

	2019 £	2018 £
R&D expenditure credit income	65,806	-
	<u>65,806</u>	<u>-</u>

6. OPERATING (LOSS)/PROFIT

The operating (loss)/profit is stated after charging/(crediting):

	2019 £	2018 £
Research & development charged as an expense	884,636	1,071,658
Depreciation of tangible fixed assets	92,180	147,077
Loss on disposal of tangible fixed assets	40,600	87,475
Amortisation of goodwill	150,166	150,165
Impairment of goodwill	333,896	-
Net foreign exchange (gains)	(75,517)	(194,124)
Defined contribution pension cost (see note 28)	188,589	181,186
Operating lease rentals	269,124	286,748
	<u>269,124</u>	<u>286,748</u>

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

7. AUDITOR'S REMUNERATION

	2019 £	2018 £
Fees payable to the Company's auditor for the audit of the Company's annual financial statements	<u>67,500</u>	<u>62,000</u>

8. EMPLOYEES

Staff costs, including directors' remuneration, were as follows:

	2019 £	2018 £
Wages and salaries	1,927,917	1,810,257
Social security costs	187,932	206,074
Cost of defined contribution pension scheme	188,589	181,186
Cost of defined benefit pension scheme	-	18,000
Share based payment charge (see note 27)	52,569	74,921
	<u>2,357,007</u>	<u>2,290,438</u>

The average monthly number of employees, including the executive directors, during the year was as follows:

	2019 No	2018 No
Manufacturing, production and development	17	17
Distribution	17	17
Administration	9	9
	<u>43</u>	<u>43</u>

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

9. DIRECTORS' REMUNERATION

	2019 £	2018 £
Directors' emoluments	120,947	102,577
Company contributions to defined contribution pension schemes	15,781	8,527
	<u>136,728</u>	<u>111,104</u>

During the year retirement benefits were accruing to 1 director (2018 - 1) in respect of defined contribution pension schemes. None of the directors were accruing retirement benefits under defined benefit pension schemes in either the current or prior years. During the year none (2018 - NIL) of the directors were granted share options and 1 (2018 - 1) director exercised share options. In addition, 2 of the directors are remunerated by the ultimate parent undertaking, for their services to the Group, without recharge.

10. INTEREST RECEIVABLE AND SIMILAR INCOME

	2019 £	2018 £
Interest receivable on amounts due from group undertakings	5,433	17,321
	<u>5,433</u>	<u>17,321</u>

11. OTHER FINANCE COSTS

	2019 £	2018 £
Net interest on defined benefit pension liability	12,000	15,000
	<u>12,000</u>	<u>15,000</u>

BIOCHROM LIMITED

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019

12. TAXATION

	2019 £	2018 £
CURRENT TAX		
UK Corporation tax credit on (loss)/profit for the year	-	(126,274)
Adjustments in respect of previous years	(2,060)	-
TOTAL CURRENT TAX	<u>(2,060)</u>	<u>(126,274)</u>
DEFERRED TAX (see note 23)		
Origination and reversal of timing differences	-	88,740
TOTAL DEFERRED TAX	<u>-</u>	<u>88,740</u>
TAX CREDIT ON (LOSS)/PROFIT	<u>(2,060)</u>	<u>(37,534)</u>

FACTORS AFFECTING TAX CREDIT FOR THE YEAR

The tax assessed for the year is higher than (2018 - lower than) the standard rate of corporation tax in the UK of 19.00% (2018 - 19.00%). The differences are explained below:

	2019 £	2018 £
(Loss)/profit before tax	<u>(519,791)</u>	<u>115,917</u>
(Loss)/profit multiplied by standard rate of corporation tax in the UK of 19.00% (2018 - 19.00%)	<u>(98,760)</u>	<u>22,024</u>
EFFECTS OF:		
Permanent differences	122,833	50,158
Additional deduction for qualifying R&D expenditure	-	(163,502)
Surrender of tax losses for R&D tax credit refund	-	39,188
Adjustments to tax charge in respect of prior years - current tax	(2,060)	-
Adjust closing deferred tax to average rate of 19.00% (2018 - 19.00%)	-	4,942
Adjust opening deferred tax to average rate of 19.00% (2018 - 19.00%)	(4,942)	(13,126)
(Utilisation)/carry forward of tax losses for which no deferred tax recognised	(19,131)	22,782
TOTAL TAX CREDIT FOR THE YEAR	<u>(2,060)</u>	<u>(37,534)</u>

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

12. TAXATION (CONTINUED)

FACTORS THAT MAY AFFECT FUTURE TAX CHARGES

The calculation of deferred tax has been made using a corporation tax rate of 17% (2018 - 19%) in accordance with the rates enacted at the statement of financial position date. In the UK Budget Statement on 3 March 2021, the Chancellor announced the intention for corporation tax to rise to a headline rate of 25% from 1 April 2023. Once the tax legislation changes have been enacted, this is unlikely to have a material impact on the Company's deferred tax position. A full analysis of the expected changes has not yet been undertaken as the tax legislation has yet to be fully enacted.

13. DIVIDENDS

	2019 £	2018 £
Interim dividends paid on equity shares	<u>861,113</u>	<u>1,963,463</u>

14. INTANGIBLE ASSETS

	Goodwill £
COST	
At 1 January 2019 and 31 December 2019	<u>6,779,057</u>
AMORTISATION	
At 1 January 2019	5,727,897
Amortisation charge for the year	150,166
Impairment charge for the year	333,896
At 31 December 2019	<u>6,211,959</u>
NET BOOK VALUE	
At 31 December 2019	<u>567,098</u>
At 31 December 2018	<u>1,051,160</u>

At 31 December 2019, the directors assessed the Company's investments in subsidiary undertakings and goodwill for impairment. After due consideration of the cash generating units business performance in the year, the directors determined that goodwill in respect of the trade and assets acquired from Scie-Plas Limited in prior years suffered a permanent diminution of value after sales further declined from £211,611 in the year ended 31 December 2018 to £144,081 in the year ended 31 December 2019 and therefore goodwill has been impaired by £333,896. No further impairment charges were deemed necessary.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

15. TANGIBLE FIXED ASSETS

	Long leasehold improve- ments £	Plant, machinery & tooling £	Motor vehicles £	Computer equipment £	Total £
COST					
At 1 January 2019	307,613	538,982	27,880	527,089	1,401,564
Additions	2,077	27,767	-	4,649	34,493
Disposals	(11,723)	(32,002)	(17,000)	(150)	(60,875)
At 31 December 2019	<u>297,967</u>	<u>534,747</u>	<u>10,880</u>	<u>531,588</u>	<u>1,375,182</u>
DEPRECIATION					
At 1 January 2019	141,360	338,279	22,417	527,089	1,029,145
Charge/(credit) for the year	47,343	51,651	2,500	(9,314)	92,180
Transfers intra group	-	23,147	-	-	23,147
Disposals	-	(3,087)	(17,000)	(38)	(20,125)
At 31 December 2019	<u>188,703</u>	<u>409,990</u>	<u>7,917</u>	<u>517,737</u>	<u>1,124,347</u>
NET BOOK VALUE					
At 31 December 2019	<u>109,264</u>	<u>124,757</u>	<u>2,963</u>	<u>13,851</u>	<u>250,835</u>
At 31 December 2018	<u>166,253</u>	<u>200,703</u>	<u>5,463</u>	-	<u>372,419</u>

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

16. FIXED ASSET INVESTMENTS

	Investments in subsidiary companies £
COST	
At 1 January 2019 and 31 December 2019	<u>12,358,418</u>
IMPAIRMENT	
At 1 January 2019 and 31 December 2019	<u>573,864</u>
NET BOOK VALUE	
At 31 December 2018 and 31 December 2019	<u><u>11,784,554</u></u>

SUBSIDIARY UNDERTAKINGS

The following were subsidiary undertakings of the Company as at 31 December 2019:

Name	Registered office	Class of shares	Holding
Scie-Plas Limited	Dormant	Ordinary	100%
Asys Hitech GmbH	Dormant	Ordinary	100%
Walden Precision Apparatus Limited	Dormant	Ordinary	100%
CMA Microdialysis AB	Manufacturer of laboratory equipment	Ordinary	100%
Multi Channel Systems GmbH	Developer, manufacturer and marketer of scientific instrumentation	Ordinary	100%

Scie-Plas Limited and Walden Precision Apparatus Limited are both incorporated in England and Wales. The registered office of the companies is Unit 7, 3970 Beach Drive, Waterbeach, Cambridge, England, CB25 9PE.

Asys Hitech GmbH is incorporated in Austria. The registered office is Nordstrasse 4, Eugendorf, Austria.

CMA Microdialysis AB is incorporated in Sweden. The registered office is Torshamnsgatan 30A, 164 40 Kista, Sweden.

Multi Channel Systems GmbH is incorporated in Germany. The registered office is Aspenhaustraße 21, 72770 Reutlingen, Germany.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

16. FIXED ASSET INVESTMENTS (CONTINUED)

SUBSIDIARY UNDERTAKINGS (CONTINUED)

The aggregate of the share capital and reserves as at 31 December 2019 and the profit or loss for the year ended on that date for the subsidiary undertakings were as follows:

Name	Aggregate of share capital and reserves £	Profit/(loss) £
Scie-Plas Limited	1,132,597	-
Asys Hitech GmbH	149,555	(2,455)
Walden Precision Apparatus Limited	989,073	-
CMA Microdialysis AB	909,878	77,866
Multi Channel Systems GmbH	1,491,761	540,829

17. STOCKS

	2019 £	2018 £
Raw materials and consumables	2,646,970	2,843,369
Finished goods and goods for resale	362,510	569,755
	<u>3,009,480</u>	<u>3,413,124</u>

Stock recognised in cost of sales during the year as an expense was £6,893,252 (2018 - £7,387,781).

An impairment reversal of £94,134 (2018 - impairment charge of £630,792) was recognised in cost of sales during the year due to slow-moving and obsolete stock.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

18. DEBTORS

	2019 £	2018 £
Trade debtors	1,337,378	1,316,749
Amounts owed by group undertakings	1,289,401	828,289
Other debtors	222,515	376,197
Corporation tax receivable	69,625	206,396
Prepayments and accrued income	76,556	141,830
Deferred tax asset (note 23)	-	118,150
	<u>2,995,475</u>	<u>2,987,611</u>

Trade debtors are stated net of a provision against potential irrecoverable amounts at 31 December 2019 totalling £1,731 (2018 - £4,544).

Amounts owed by group undertakings are receivable on demand, unsecured and interest free.

19. CASH AND CASH EQUIVALENTS

	2019 £	2018 £
Cash at bank and in hand	<u>263,274</u>	<u>875,588</u>

20. CREDITORS: AMOUNTS FALLING DUE WITHIN ONE YEAR

	2019 £	2018 £
Payments received on account	19,827	45,658
Trade creditors	213,330	287,563
Amounts owed to group undertakings	3,287,193	2,628,101
Other taxation and social security	68,476	74,438
Other creditors	88,464	90,982
Accruals and deferred income	455,339	521,583
	<u>4,132,629</u>	<u>3,648,325</u>

Amounts owed to group undertakings are receivable on demand, unsecured and interest free.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

21. CREDITORS: AMOUNTS FALLING DUE AFTER MORE THAN ONE YEAR

	2019	2018
	£	£
Accruals	-	51,928
	<u> </u>	<u> </u>

Amounts included above relate to a lease incentive on an operating lease that is due to reverse by December 2020.

22. FINANCIAL INSTRUMENTS

	2019	2018
	£	£
FINANCIAL ASSETS		
Financial assets measured at fair value through profit or loss	263,274	875,588
Financial assets that are debt instruments measured at amortised cost	<u>2,849,294</u>	<u>2,521,235</u>
	<u>3,112,568</u>	<u>3,396,823</u>
FINANCIAL LIABILITIES		
Financial liabilities measured at amortised cost	<u>(4,064,153)</u>	<u>(3,625,815)</u>

Financial assets measured at fair value through profit or loss comprise cash and cash equivalents.

Financial assets measured at amortised cost comprise trade debtors, amounts owed by group undertakings and other debtors.

Financial liabilities measured at amortised cost comprise payments received on account, trade creditors, amounts owed to group undertakings, other creditors and accruals and deferred income.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

23. DEFERRED TAXATION

	2019 £	2018 £
At beginning of year	118,150	145,860
Charged to profit or loss	-	(88,740)
(Charged)/credited to Other Comprehensive Income	(118,150)	61,030
AT END OF YEAR	<u>-</u>	<u>118,150</u>

The deferred tax asset is made up as follows:

	2019 £	2018 £
Defined benefit pension scheme deficit	<u>-</u>	<u>118,150</u>

As at 31 December 2019 the Company has tax losses net of other taxable timing differences of £1,158,157 (2018 - £1,258,849) that are available indefinitely for offset against future taxable profits. A deferred tax asset of £196,887 (2018 - £214,004) has not been recognised in respect of these losses at 31 December 2019 as it is not sufficiently certain that the Company will generate taxable profits in the foreseeable future.

24. PROVISIONS

	Warranty Provision £
At 1 January 2019	61,344
Credited to profit or loss	(635)
Utilised in year	(9,056)
AT 31 DECEMBER 2019	<u><u>51,653</u></u>

The provision for product warranty represents the estimated costs to be incurred for work under warranty on products sold. The provision is determined with reference to the call rate for the products still under warranty cover and the average unit cost of the work performed. Products sold have a warranty lasting either one or two years and the provision will be utilised over this period.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

25. SHARE CAPITAL

	2019	2018
	£	£
ALLOTTED, CALLED UP AND FULLY PAID		
100 (2018 - 100) Ordinary shares of £1 each	100	100

26. RESERVES

Share premium account

This includes any premiums received on the issue of share capital. Any transaction costs associated with the issuing of shares are deducted from share premium.

Capital redemption reserve

This represents the waiver of an intercompany payable owed to a fellow subsidiary of Harvard Bioscience, Inc. which was subsequently hived up into the Company during 2014.

Profit and loss account

This reserve includes all current and prior period retained profits and losses, as well as gains or losses on the defined benefit pension schemes, less dividends paid.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

27. SHARE BASED PAYMENTS

In order to stimulate the realisation of long term group objectives, Harvard Bioscience, Inc., the Company's ultimate parent company, provides its employees with share option plans.

Harvard Bioscience, Inc. 1996 Share Option and Grant Plan

In 1996, Harvard Bioscience, Inc. adopted the 1996 Stock Option and Grant Plan (the "1996 Stock Plan") pursuant to which the Group's board of directors could grant stock options to employees, directors and consultants. The 1996 Stock Plan authorised grants of options to purchase 4,072,480 shares of authorised but unissued common stock. In 2000, the 1996 Stock Plan was replaced by the 2000 Stock Option and Incentive Plan.

Harvard Bioscience, Inc. 2000 Share Option and Incentive Plan

The Second Amended and Restated 2000 Stock Option and Incentive Plan (the "2000 Plan" and, together with the 1996 Stock Plan, the "Stock Plans") was amended by the Harvard Bioscience, Inc. board of directors on 10 April 2008. Such amendment to the 2000 Plan, which included an increase in the number of shares available thereunder by 2,500,000, was approved by the stockholders at the Group's 2008 Annual Meeting.

Options awarded under this plan are conditional and can be exercised over the vesting period provided the employee is still employed by the Group. The vesting period is generally 4 years. The options are equity instruments of, and granted by, Harvard Bioscience, Inc. and are generally valid for a period of 10 years starting on the issue date.

Share options totalling 16,082 were granted to employees of the Company during the year (2018 - NIL) and no share options were exercised by employees of the Company during the year (2018 - 58,818). The options outstanding at 31 December 2019 had a weighted average exercise price of \$4.6667 (2018 - \$4.1691), and a weighted average remaining contractual life of 4.65 years (2018 - 5.03 years).

The number and weighted average exercise prices of share options in are as follows:

	Weighted average exercise price (US\$) 2019	Number 2019	Weighted average exercise price (US\$) 2018	Number 2018
Outstanding at the beginning of the year	4.1691	126,687	4.0280	208,408
Granted during the year	3.7850	16,082	N/A	-
Forfeited during the year	3.8672	(22,045)	4.6200	(18,951)
Exercised during the year	N/A	-	4.0386	(58,818)
Expired during the year	N/A	-	3.5400	(3,952)
OUTSTANDING AT THE END OF THE YEAR	4.6667	120,724	4.1691	126,687

At the year end, 107,332 share options (2018 - 111,187) were exercisable by employees of the Company.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

27. SHARE BASED PAYMENTS (CONTINUED)

	2019		
INPUTS INTO BLACK-SCHOLES OPTION PRICING MODEL			
Fair value at measurement date (US\$)	3.75 - 3.79		
Exercise price (US\$)	3.75 - 3.79		
Weighted average share price (US\$)	3.7850		
Expected average life (years)	4.73		
Risk-free interest rate	2.31% - 2.44%		
Expected dividend growth rate	0%		
Expected volatility	46%		
	2019	2018	
	£	£	
SHARE OPTION CHARGE			
Equity-settled schemes	<u>52,569</u>	<u>74,921</u>	

The fair value of the equity-settled options is measured at the grant date using the Black-Scholes option pricing model taking into account the terms and conditions upon which the instruments were granted. The services received are recognised over the expected vesting period. Until the liability is settled it is remeasured at each reporting date with changes in fair value recognised in the Statement of Comprehensive Income.

28. PENSION SCHEMES

Defined contribution pension scheme

The Company operates a defined contribution pension scheme. Contributions payable for the year are charged to the Statement of Comprehensive Income and amounted to £188,589 (2018 - £181,186). Contributions of £16,995 (2018 - £15,475) were outstanding at the end of the financial year and included in other creditors.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

BIOCHROM PENSION SCHEME

Defined benefit pension scheme

The Company operates a defined benefit pension scheme in the UK called the Biochrom Pension Scheme. This is a separate trustee administered fund holding the pension scheme assets to meet long term pension liabilities. Contributions are charged to the Statement of Comprehensive Income so as to spread the cost of pensions over employees' working lives with the Company. The contributions payable to this funded scheme are determined by a qualified independent actuary using the projected unit method. The assumptions which have the most significant effect on these calculations and on the results of the valuation are those relating to the rate of return on investment and the rates of increase in salaries and pensions. It was assumed that the expected long term rate of return applicable for the year ended 31 December 2019 was 3.87% (2018 - 3.89%). A full actuarial valuation was carried out at 31 December 2017 and updated to 31 December 2019 for FRS 102 purposes by a qualified actuary, JLT Benefit Solutions Limited, independent of the scheme's sponsoring employer.

The market value of assets at 31 December 2019 was £13,927,000 (2017 - £12,352,000). The assets are held separately from those of the Company being invested with investment managers in a managed fund. The assets are the result of the transfer of funds from the Pharmacia UK Pension fund in the year ended 31 December 1999.

The Company going forward is making recovery plan contributions at the rate of £48,667 per month (2018 - £45,068). Company contributions of 24.4% of pensionable earnings, and employees' contributions at the rate of 7% of pensionable earnings, ceased to be payable when accrual of pension benefits ceased with effect from 2 January 2014.

Fair value of assets, present values of defined benefit obligation and defined benefit liability in the scheme are as follows:

	2019	2018
	£	£
Fair value of plan assets	13,927,000	12,352,000
Present value of plan liabilities	(13,152,000)	(12,950,000)
Unrecognised surplus	(775,000)	-
NET PENSION SCHEME LIABILITY	-	(598,000)

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

BIOCHROM PENSION SCHEME (Continued)

Reconciliation of fair value of plan assets:

	2019 £	2018 £
At the beginning of the year	12,352,000	12,989,000
Interest income	338,000	313,000
Contributions paid by the Company	542,000	464,000
Benefits paid and expenses	(350,000)	(390,000)
Actuarial gains/(losses)	1,774,000	(1,024,000)
Assets distributed on settlements	(729,000)	-
AT THE END OF THE YEAR	13,927,000	12,352,000

The actual return on the plan assets over the year ended 31 December 2019 was a gain of £2,112,000 (2018 - loss of £711,000).

Composition of plan assets is as follows:

	2019 £	2018 £
UK Equities	5,205,000	4,270,000
Overseas Equities	2,730,000	2,288,000
Corporate & Government Bonds	762,000	667,000
Index Linked Gilts	1,245,000	1,154,000
Property	406,000	356,000
Cash	1,057,000	435,000
Liability Driven Investment		
FABS - Matching Core Real Short Series 1	1,252,000	1,639,000
FABT - Matching Core Real Long Series 1	1,270,000	1,543,000
TOTAL PLAN ASSETS	13,927,000	12,352,000

None of the fair value of the assets shown above include any direct investments in the Company's own financial instruments or any property occupied by, or other assets used by, the employer.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

BIOCHROM PENSION SCHEME (Continued)

Reconciliation of present value of plan liabilities:

	2019 £	2018 £
At the beginning of the year	12,950,000	13,530,000
Interest expense	348,000	320,000
Benefits paid and expenses	(350,000)	(390,000)
Actuarial losses/(gains)	886,000	(510,000)
Liabilities extinguished on settlements	(682,000)	-
AT THE END OF THE YEAR	13,152,000	12,950,000

The amounts recognised in profit or loss are as follows:

	2019 £	2018 £
Net interest cost	(10,000)	(7,000)
Losses on settlements	(47,000)	-
TOTAL	(57,000)	(7,000)

The amounts recognised in Other Comprehensive Income are as follows:

	2019 £	2018 £
Return on plan assets (excluding amounts included in net interest cost) - gain/(loss)	1,774,000	(1,024,000)
Experience gains and losses arising on the plan liabilities - (loss)	(19,000)	(448,000)
Effects of changes in the demographic and financial assumptions underlying the present value of the plan liabilities - (loss)/gain	(867,000)	958,000
Effects of changes in the amount of surplus that is not recoverable (excluding amounts included in net interest cost) - (loss)	(775,000)	-
TOTAL	113,000	(514,000)

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

BIOCHROM PENSION SCHEME (Continued)

The value of the scheme's liabilities has been determined by a qualified actuary based on the results of the triennial valuation of the qualified actuary updated for FRS 102 purposes to 31 December 2019 and 31 December 2018.

	2019 % per annum	2018 % per annum
Discount rate	2.0	2.8
Inflation (RPI)	2.8	3.3
Inflation (CPI)	2.0	2.3
Salary growth	n/a	n/a
Allowance for revaluation of deferred pensions of RPI or 5% p.a. if less	2.0	2.3
Allowance for revaluation of deferred pensions of CPI or 2.5% p.a. if less	2.0	2.3
Allowance for pension in payment increases of RPI or 5% p.a. if less	2.7	3.1
Allowance for pension in payment increases of CPI or 3% p.a. if less	1.8	2.0
Allowance for commutation of pension for cash at retirement	100% of post a day	100% of post a day
Mortality table	S2PXA CMI 2018	S2PXA CMI 2017

The assumptions used by the actuary are the best estimates chosen by management from a range of possible actuarial assumptions which, due to the time scale covered, may not necessarily be borne out in practice.

The mortality assumptions adopted at 31 December 2019 and 31 December 2018 imply the following life expectancies:

	Life expectancy at age 65 Years 2019	Life expectancy at age 65 Years 2018
Male retiring in 2019 / 2018	21.8	21.9
Female retiring in 2019 / 2018	23.6	23.8
Male retiring in 2039 / 2038	23.1	23.3
Female retiring in 2039 / 2038	25.2	25.4

The best estimate of contributions to be paid by the employer to the scheme for the year commencing 1 January 2020 is £584,000.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEME

Defined benefit pension scheme

The Company operates a defined benefit pension arrangement called the Harvard Apparatus Limited Retirement Benefits Scheme (the "Scheme"). The Scheme provides benefits based on salary and length of service on retirement, leaving service or death. The Scheme was closed to future accrual on 31 July 2013, on this date all active members of the Scheme became deferred pensioners.

The Company expects to contribute £117,000 to the Scheme over the year to 31 December 2020. The following disclosures exclude any allowance for other pension schemes operated by the Company.

The Scheme is subject to the Statutory Funding Objective under the Pensions Act 2004. A valuation of the Scheme is carried out at least once every three years to determine whether the Statutory Funding Objective is met. As part of the process the Company must agree with the Trustees of the Scheme the contributions to be paid to address any shortfall against the Statutory Funding Objective.

The Scheme's liabilities as at 31 December 2019 have been calculated by updating the calculations carried out for the initial results of the formal actuarial valuation as at 31 December 2017. The data and benefits used in that valuation were summarised in Barnett Waddingham LLP's valuation report dated 13 June 2018.

The Scheme's liabilities as at 31 December 2017 were calculated by updating the calculations carried out for the initial results of the formal actuarial valuation as at 31 December 2014. The data and benefits used in that valuation were summarised in Barnett Waddingham LLP's valuation report dated 7 March 2016.

Fair value of assets, present values of defined benefit obligation and defined benefit liability in the scheme are as follows:

	2019 £	2018 £
Fair value of plan assets	2,171,000	1,690,000
Present value of plan liabilities	(2,117,000)	(1,787,000)
Unrecognised surplus	(54,000)	-
NET PENSION SCHEME LIABILITY	-	(97,000)

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEME (Continued)

Reconciliation of fair value of plan assets:

	2019 £	2018 £
At the beginning of the year	1,690,000	1,877,000
Interest income	52,000	47,000
Contributions paid by the Company	109,000	91,000
Benefits paid and expenses	-	(197,000)
Actuarial gains/(losses)	320,000	(128,000)
AT THE END OF THE YEAR	2,171,000	1,690,000

The actual return on the plan assets over the year ended 31 December 2019 was a gain of £372,000 (2018 - loss of £81,000),

Composition of plan assets is as follows:

	2019 £	2018 £
LGIM Liability Driven Investment Fund	234,000	239,000
LGIM Diversified Growth Fund	981,000	759,000
LGIM Global Equity Fund	859,000	640,000
Cash	97,000	52,000
TOTAL PLAN ASSETS	2,171,000	1,690,000

None of the fair value of the assets shown above include any direct investments in the Company's own financial instruments or any property occupied by, or other assets used by the employer.

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2019**

28. PENSION SCHEMES (Continued)

HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEME (Continued)

Reconciliation of present value of plan liabilities:

	2019 £	2018 £
At the beginning of the year	1,787,000	2,194,000
Current service cost	-	18,000
Interest expense	54,000	55,000
Benefits paid and expenses	-	(197,000)
Actuarial losses/(gains)	276,000	(283,000)
AT THE END OF THE YEAR	2,117,000	1,787,000

The amounts recognised in profit or loss are as follows:

	2019 £	2018 £
Current service cost	-	(18,000)
Net interest cost	(2,000)	(8,000)
TOTAL	(2,000)	(26,000)

The amounts recognised in Other Comprehensive Income as follows:

	2019 £	2018 £
Return on plan assets (excluding amounts included in net interest cost) - gain/(loss)	320,000	(128,000)
Experience gains and losses arising on the plan liabilities - gain	-	84,000
Effects of changes in the demographic and financial assumptions underlying the present value of the plan liabilities - (loss)/gain	(276,000)	199,000
Effects of changes in the amount of surplus that is not recoverable (excluding amounts included in net interest cost) - (loss)	(54,000)	-
TOTAL	(10,000)	155,000

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
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28. PENSION SCHEMES (Continued)

HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEME (Continued)

The value of the scheme's liabilities has been determined by a qualified actuary based on the results of the triennial valuation of the qualified actuary updated for FRS 102 purposes to 31 December 2019 and 31 December 2018.

	2019	2018
	% per	% per
	annum	annum
Discount rate	2.15	3.0
Inflation assumption (RPI)	3.2	3.6
Inflation assumption (CPI)	2.2	2.6
Allowance for commutation of pension for cash at retirement	100% of	100% of
	post a day	post a day
Mortality table	S2PXA CMI	S2PXA CMI
	2018	2017

The assumptions used by the actuary are the best estimates chosen by management from a range of possible actuarial assumptions which, due to the time scale covered, may not necessarily be borne out in practice.

The mortality assumptions adopted at 31 December 2019 and 31 December 2018 imply the following life expectancies:

	Life	Life
	expectancy	expectancy
	at age 65	at age 65
	Years	Years
	2019	2018
Male retiring in 2019 / 2018	21.5	21.9
Female retiring in 2019 / 2018	23.4	23.8
Male retiring in 2039 / 2038	22.8	23.3
Female retiring in 2039 / 2038	24.9	25.4

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
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28. PENSION SCHEMES (Continued)

COMBINED BIOCHROM AND HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEMES

The combined effect of the two defined benefit pension schemes operated by the Company disclosed above is as follows:

	2019 £	2018 £
Fair value of plan assets	16,098,000	14,042,000
Present value of plan liabilities	(15,269,000)	(14,737,000)
Unrecognised surplus	(829,000)	-
NET PENSION SCHEME LIABILITY	-	(695,000)

Reconciliation of fair value of plan assets:

	2019 £	2018 £
At the beginning of the year	14,042,000	14,866,000
Interest income	390,000	360,000
Contributions paid by the Company	651,000	555,000
Benefits paid and expenses	(350,000)	(587,000)
Actuarial gains/(losses)	2,094,000	(1,152,000)
Assets distributed on settlements	(729,000)	-
AT THE END OF THE YEAR	16,098,000	14,042,000

Plan assets split by scheme:

	2019 £	2018 £
Biochrom Pension Scheme	13,927,000	12,352,000
Harvard Apparatus Limited Retirement Benefit Scheme	2,171,000	1,690,000
TOTAL PLAN ASSETS	16,098,000	14,042,000

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
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28. PENSION SCHEMES (Continued)

**COMBINED BIOCHROM AND HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEMES
(Continued)**

Reconciliation of present value of plan liabilities:

	2019 £	2018 £
At the beginning of the year	14,737,000	15,724,000
Current service cost	-	18,000
Interest expense	402,000	375,000
Benefits paid and expenses	(350,000)	(587,000)
Actuarial losses/(gains)	1,162,000	(793,000)
Liabilities extinguished on settlements	(682,000)	-
AT THE END OF THE YEAR	15,269,000	14,737,000

Plan liabilities split by scheme:

	2019 £	2018 £
Biochrom Pension Scheme	13,152,000	12,950,000
Harvard Apparatus Limited Retirement Benefit Scheme	2,117,000	1,787,000
TOTAL PLAN LIABILITIES	15,269,000	14,737,000

The amounts recognised in profit or loss are as follows:

	2019 £	2018 £
Current service cost	-	(18,000)
Net interest cost	(12,000)	(15,000)
Losses on settlements	(47,000)	-
TOTAL	(59,000)	(33,000)

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
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28. PENSION SCHEMES (Continued)

**COMBINED BIOCHROM AND HARVARD APPARATUS LIMITED RETIREMENT BENEFIT SCHEMES
(Continued)**

The amounts recognised in Other Comprehensive Income are as follows:

	2019 £	2018 £
Return on plan assets (excluding amounts included in net interest cost) - gain/(loss)	2,094,000	(1,152,000)
Experience gains and losses arising on the plan liabilities - (loss)	(19,000)	(364,000)
Effects of changes in the demographic and financial assumptions underlying the present value of the plan liabilities - (loss)/gain	(1,143,000)	1,157,000
Effects of changes in the amount of surplus that is not recoverable (excluding amounts included in net interest cost) - (loss)	(829,000)	-
TOTAL	<u>103,000</u>	<u>(359,000)</u>

The combined cumulative amount of actuarial gains and losses recognised in Other Comprehensive Income is £4,432,000 (2018 - £4,329,000).

29. COMMITMENTS UNDER OPERATING LEASES

At 31 December 2019 the Company had future minimum lease payments under non-cancellable operating leases as follows:

	2019 £	2018 £
LAND AND BUILDINGS		
Not later than 1 year	240,900	240,900
Later than 1 year and not later than 5 years	14,292	255,192
	<u>255,192</u>	<u>496,092</u>
	2019 £	2018 £
OTHER OPERATING LEASES		
Not later than 1 year	25,316	30,547
Later than 1 year and not later than 5 years	6,541	29,182
	<u>31,857</u>	<u>59,729</u>

BIOCHROM LIMITED

**NOTES TO THE FINANCIAL STATEMENTS
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30. RELATED PARTY TRANSACTIONS

As the Company is a wholly owned subsidiary, the company has taken advantage of the exemption contained in FRS102 paragraph 33.1A and has therefore not disclosed transactions or balances with entities forming part of the group (or with investors of the group qualifying as related parties).

A fixed and floating charge over assets of the Company has been provided as security against financing held by the Harvard Bioscience, Inc. group.

31. POST BALANCE SHEET EVENTS

Subsequent to the year end the global Sars-CoV-2 pandemic emerged which has impacted the Company due to the temporary closure of some the Company's customers, particularly within the academic sector. The directors have assessed the potential impact of this uncertain situation on the Company with the information available and do not consider that it will lead to any subsequent impairment of the carrying amount of reported assets.

32. CONTROLLING PARTY

The immediate and ultimate parent company is Harvard Bioscience, Inc., a company incorporated in USA.

Harvard Bioscience, Inc., the ultimate controlling party, is the head of the smallest and largest group of companies for which consolidated accounts incorporating the results of Biochrom Limited are publically available. Copies of the consolidated financial statements of Harvard Bioscience, Inc. are available to the public from Harvard Bioscience, Inc., 84 October Hill Road, Holliston MA, 01746-1371, USA.