THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION. If you are in any doubt about the contents of this document or as to the action you should take, you are recommended immediately to seek your own personal financial advice from your stockbroker, bank manager, solicitor, accountant or other independent financial adviser authorised pursuant to the Financial Services Act 1986, who specialises in advising on the acquisition of shares and other securities.

A copy of this document, which comprises a prospectus and has been drawn up in accordance with the Public Offers of Securities Regulations 1995 (as amended) (the "POS Regulations"), has been delivered to the Registrar of Companies in England and Wales for registration in accordance with regulation 4(2) of the POS Regulations. Copies of this document will be available free of charge to the public during normal business hours on any day (Saturdays, Sundays and public holidays excepted) at the offices of Collins Stewart, 9th Floor, 88 Wood Street, London EC2V 7QR for a period of one month from Admission, which is expected to take place on 28 June 2001.

The directors of the Company, whose names appear on page 7 of this document, accept responsibility for the information contained in this document including individual and collective responsibility for compliance with the AIM Rules. To the best of the knowledge and belief of the Directors (who have taken all reasonable care to ensure that such is the case) the information contained in this document is in accordance with the facts and there is no other material information the omission of which is likely to affect the import of such information.

Application has been made for the Ordinary Shares issued and to be issued pursuant to the Placing to be admitted to trading on the Alternative Investment Market of the London Stock Exchange ("AIM"). AIM is a market designed primarily for emerging or smaller companies to which a higher investment risk than that associated with established companies tends to be attached. AIM securities are not Officially Listed. A prospective investor should be aware of the potential risks in investing in such companies and should make the decision to invest only after careful consideration and consultation with his or her own independent financial adviser. Further, the London Stock Exchange has not itself examined or approved the contents of this document. It is expected that dealings in the Ordinary Shares will commence on AIM on 28 June 2001.

Your attention is drawn to the section entitled "Risk Factors" on pages 32 to 35 of this document.

GW Pharmaceuticals plc

(Incorporated and registered in England and Wales under the Companies Act 1985 with registered number 4160917)

Placing of 13,736,264 ordinary shares of 0.1p each at 182p per share

Admission to trading on the Alternative Investment Market of the whole of the issued ordinary share capital

Nominated Adviser and Broker
Collins Stewart Limited

All the Ordinary Shares now being placed will rank, on Admission, *pari passu* in all respects with the existing issued Ordinary Shares of the Company including the right to receive all dividends or other distributions hereafter declared, paid or made.

Collins Stewart, which is a member of and regulated by The Securities and Futures Authority Limited, is acting exclusively for GW Pharmaceuticals plc and no-one else in connection with the Placing and the proposed Admission. Collins Stewart will not regard any other person as its customer or be responsible to any other person for providing the protections afforded to customers of Collins Stewart nor for providing advice in relation to the transactions and arrangements detailed in this document. Collins Stewart is not making any representation or warranty, express or implied, as to the contents of this document.

This document does not constitute an offer to buy or to subscribe for, or the solicitation of an offer to buy or subscribe for, Ordinary Shares in any jurisdiction in which such offer or solicitation is unlawful. In particular the Ordinary Shares offered by this document have not been, and will not be, registered under the United States Securities Act of 1933 as amended (the "Securities Act") or qualified for sale under the laws of any state of the United States or under the applicable laws of any of Canada, Australia or Japan and, subject to certain exceptions, may not be offered or sold in the United States or to, or for the account or benefit of, US persons (as such term is defined in Regulation S under the Securities Act) or to any national, resident or citizen of Canada, Australia or Japan. Neither this document nor any copy of it may be sent to or taken into the United States, Canada, Australia or Japan, nor may it be distributed to any US person (within the meaning of Regulation S under the Securities Act).

CONTENTS

DEFINITIONS

The following definitions apply throughout this document unless the context requires otherwise:

"Act"	the Companies Act 1985
"Admission"	the admission of the Ordinary Shares, issued and to be issued pursuant to the Placing, to trading on AIM becoming effective in accordance with the AIM Rules
"All Employee Scheme"	the GW Pharmaceuticals All Employee Share Scheme, adopted by GW Pharma on 16 August 2000
"AIM"	the Alternative Investment Market of the London Stock Exchange
"AIM Rules"	the rules published by the London Stock Exchange governing admission to and the operation of AIM
"Approved Scheme"	the GW Pharmaceuticals Approved Share Option Scheme 2001, adopted by the Company on 31 May 2001
"Board"	the Board of Directors of the Company
"Collins Stewart"	Collins Stewart Limited, the Company's nominated adviser and broker (as defined in the AIM Rules)
"Combined Code"	the principles of good governance and code of best practice prepared by the Committee on Corporate Governance, chaired by Sir Ronald Hampel and published in June 1998
"Company"	GW Pharmaceuticals plc, the ultimate holding company of the Group
"CREST"	the relevant system (as defined in the CREST Regulations) in respect of which CRESTCo Limited is the Operator (as defined in the CREST Regulations) in accordance with which securities may be held and transferred in uncertificated form
"CRESTCo"	CRESTCo Limited
"CREST Regulations"	The Uncertificated Securities Regulations 1995 (SI 1995 No. 3272)
"Directors"	the directors of the Company, whose names are set out on page 7 of this document
"Executive Scheme"	the GW Pharmaceuticals Unapproved Share Option Scheme 2001, adopted by the Company on 31 May 2001
"FDA"	Food and Drug Administration, a United States government organisation
"First House of Lords Report"	the report entitled "Cannabis: The Scientific and Medical Evidence", issued in November 1998 by the House of Lords (Select Committee on Science and Technology)
"GW" or "the Group"	the Company and, where applicable, its subsidiaries
"G-Pharm"	G-Pharm Limited, a wholly owned subsidiary of GW Pharma
"GW Pharma"	GW Pharma Limited, a wholly owned subsidiary of the Company and the main operating company of the Group
"GW Pharma Approved Scheme"	the GW Pharmaceuticals Approved Company Share Option Scheme, adopted by GW Pharma on 16 August 2000
"GW Pharma Executive Scheme"	the GW Pharmaceuticals Executive Share Option Scheme, adopted by GW Pharma on 16 August 2000
"London Stock Exchange"	London Stock Exchange plc
"MCA"	Medicines Control Agency

"Misuse of Drugs Act"	Misuse of Drugs Act 1971
"Official List"	the Official List of the UK Listing Authority
"Ordinary Shares"	ordinary shares of 0.1p each in the capital of the Company
"Participant ID"	the identification code or membership number used in CREST to identify a particular CREST member or other CREST participant
"Placing"	the placing by Collins Stewart of the Placing Shares at the Placing Price pursuant to the Placing Agreement
"Placing Agreement"	the conditional agreement dated 21 June 2001 between the Company, the Directors and Collins Stewart relating to the Placing, as described in paragraph 8 of Part VIII of this document
"Placing Price"	182p per Ordinary Share
"Placing Shares"	the 13,736,264 new Ordinary Shares to be issued in the Placing
"POS Regulations"	the Public Offers of Securities Regulations 1995 (as amended)
"2000 SCRIP Report"	the SCRIP report, entitled "Advances in Pain Management", published in February 2000
"SCRIP Yearbook 2001"	the SCRIP yearbook 2001, published in January 2001
"1999 SCRIP Report"	the SCRIP report, entitled "Innovations in Arthritis treatment: A market revolution", published in May 1999
"Second House of Lords Report"	the report entitled "Therapeutic Uses of Cannabis", issued in March 2001 by the House of Lords (Select Committee on Science and Technology)
"Shareholders"	holders of the Ordinary Shares
"UK" or "United Kingdom"	United Kingdom of Great Britain and Northern Ireland
"US" or "United States"	United States of America, its territories and possessions, any state of the United States and the District of Columbia

GLOSSARY OF TERMS

The following terms apply throughout this document unless the context requires otherwise:

Anti-emetic	A drug used to prevent nausea and vomiting.
Anti-spasmodic	A drug which relieves involuntary muscle spasm.
Arachnoiditis	Inflammation of the arachnoid mater (membrane) surrounding the brain and spinal cord which results in severe, incapacitating pain and neurological disability.
Cannabinoid	Molecules found only in the cannabis plant.
Chemovars	Plants within a given botanical species defined by their unusual chemical composition.
Endogenous	Occurring without an obvious external cause to the body and believed to result from an internal cause (ie endogenous cannabinoids are produced internally within the body).
Indication	A condition for which a specific medication is recommended for use.
Mutagenicity	The capability of a substance to cause damage to genetic material.
Neuropathic	Used to describe symptoms caused by "neuropathy" ie damage to the peripheral or central nervous system which may result through injury or surgery, disease (eg diabetes, cancer) or dysfunction of the nervous system itself.
Opioid	Drug derived from opium or a chemically related derivative. Also known as "opiates".
Pharmacokinetic	The study of how substances are absorbed into, distributed, broken down and excreted by the body.
Phase I, II and III trials	Clinical trials carried out in humans to establish the safety and efficacy of a drug. Phase I clinical trials are carried out in very limited numbers of healthy volunteers to establish how the human body handles the test medicine and what, if any, toxic effects are experienced. Phase II trials are the first trials of a medicine in patients (as opposed to healthy volunteers) and are intended to give an idea of efficacy, which dose is optimal and some preliminary information on safety. Phase III trials are the major efficacy and safety trials and involve much larger numbers of patients.
Self-titration	Adjusting the dosage of a drug oneself in order to achieve a given effect.
Sub-lingual	Meaning "under the tongue" (ie a sub-lingual spray is applied by spraying under the tongue).

PLACING STATISTICS

Placing Price	182p
Number of Ordinary Shares in issue prior to the Placing	82,290,835
Number of Placing Shares being issued	13,736,264
Number of Ordinary Shares in issue following the Placing	96,027,099
Estimated expenses of the Placing	£1.5 million
Estimated net proceeds of the Placing receivable by the Company	£23.5 million
Percentage of the enlarged ordinary issued share capital available in the Placing	14.3 per cent.
Market capitalisation at the Placing Price	£174.8 million

EXPECTED PLACING AND ADMISSION TIMETABLE

Trading to commence in the enlarged issued ordinary share capital on AIM	28 June 2001
CREST accounts credited	28 June 2001
Where applicable, definitive share certificates despatched	by 1 July 2001

DIRECTORS AND ADVISERS

Directors	Dr Geoffrey William Guy *(Executive Chairman)* Justin David Gover *(Managing Director)* Dr Brian Anthony Whittle *(Scientific Director)* Jonathan Michael Eastfield Laughton *(Finance Director)* David Champion Mace *(Non-Executive Director)* Peter Mountford *(Non-Executive Director)* all of: Porton Down Science Park, Salisbury, Wiltshire SP4 0JQ
Company Secretary and Registered Office	Jonathan Michael Eastfield Laughton, ACA Porton Down Science Park Salisbury Wiltshire SP4 0JQ
Nominated Adviser and Broker	Collins Stewart Limited 9th Floor 88 Wood Street London EC2V 7QR
Reporting Accountants and Auditors	Arthur Andersen Abbots House Abbey Street Reading Berkshire RG1 3BD

Solicitors to the Company	Rowe & Maw 20 Black Friars Lane London EC4V 6HD	**Solicitors to the Nominated Adviser and Broker**	Hammond Suddards Edge 7 Devonshire Square Cutlers Gardens London EC2M 4YH
Principal Bankers	HSBC Bank plc PO Box 68 130 New Street Birmingham B2 4JU	**Registrars**	Capita IRG plc Bourne House 34 Beckenham Road Beckenham Kent BR3 4TU
Public Relations Advisers	Square Mile Communications Ltd 6 Middle Street London EC1A 7PH	**Reporting Experts**	Bridgehead Technologies Ltd Pera Innovation Park Nottingham Road Melton Mowbray Leicestershire LE13 0PB

KEY INFORMATION

The following information is derived from, and should be read in conjunction with, the full text of this document.

Introduction

GW is a pharmaceutical group developing a portfolio of prescription medicines derived from cannabis to meet patient needs in a wide range of therapeutic conditions. GW maintains control over all aspects of the product development process – botanical research, cultivation, extraction, formulation into drug delivery technologies, clinical trials and regulatory affairs.

The Group has a broad product portfolio and the Directors have identified certain key markets for its products including Multiple Sclerosis, Cancer Pain and Rheumatoid Arthritis.

The Group's product for Multiple Sclerosis has recently entered into pivotal Phase III clinical trials and other products are in Phase II clinical trials. GW's products are to be administered by means of pharmaceutical delivery technologies including a sub-lingual (under the tongue) spray, sub-lingual tablets and an inhaler.

Key strengths

The Directors believe that GW has a strong competitive position worldwide in relation to cannabis-based medicines and that there are considerable barriers to entry to deter potential competitors. The Directors believe that, in particular, GW has the following key strengths:

- a broad product portfolio under development;
- its product for Multiple Sclerosis has already entered into final Phase III trials programme, and its products for several other markets are in Phase II clinical trials;
- the long history of medicinal use of cannabis allows for rapid development timelines of GW's medicines;
- there is a recognised need for prescribed cannabis-based medicines;
- a management team with a proven track record and relevant experience;
- its programme has the support of the UK Government and governments in North America and Europe; and
- it is currently, so far as the Directors are aware, the sole producer of pharmaceutical grade cannabis plant materials under licence in the world.

The Directors believe that these key strengths will enable the Company to capitalise upon the substantial market opportunity for GW's medicines.

Cannabis-based medicines

The beneficial therapeutic effects reported by patients who use cannabis appear to result from the interaction of certain cannabinoid molecules in the plant. These cannabinoids provide GW with a rich source of new medicines. Given the long history of medicinal use of cannabis, the Directors believe that the development of its cannabis-based medicines holds a greater certainty of success than many other biopharmaceutical or biotechnology programmes.

GW is developing a broad product portfolio of cannabis-based medicines. These are derived from standardised whole extracts of proprietary cannabis plant varieties which have been bred to provide a pre-determined content of selected cannabinoids. Extracts from plant varieties are then incorporated into a range of drug delivery technologies including a sub-lingual spray, sub-lingual tablets and an inhaler. These products undergo a full pharmaceutical development programme, including pre-clinical and clinical testing, with a view to obtaining approvals from regulatory authorities around the world.

Market strategy and opportunity

GW's strategy is to produce cannabis-based medicines for the worldwide market. Whilst GW will continue to regard its activities in the UK and Europe as its primary focus, it intends to develop further its activities in the United States. In addition, the Group will seek to roll out its products across the rest of the world.

The Directors have selected a number of medical conditions as its initial target markets. These are as follows:

- Nerve damage pain and dysfunction, principally Multiple Sclerosis; and
- Cancer Pain.

Results from GW's early clinical trials in the initial target markets have provided the Company with the confidence to accelerate the product timetables for the medium and longer term opportunities in the pipeline.

Further potential markets for the Group's products include Rheumatoid Arthritis, Stroke/Head Injury, Migraine, Inflammatory Bowel Disease (IBD), Schizophrenia, Epilepsy and Movement Disorders (such as Parkinson's disease). All of these markets have been selected on the basis of evidence supporting the potential effectiveness of cannabis-based medicines.

The Directors believe that the market opportunity for GW's medicines is substantial.

Official support

GW's programme has the support of the UK Government and has been welcomed by other governments and organisations around the world. The UK Government has stated repeatedly that it will permit prescription of cannabis-based medicines, subject to regulatory approval from the Medicines Control Agency (MCA).

Current Trading and Prospects

The Group has started its Phase III trials programme relating to Multiple Sclerosis, and the Directors believe that the prospects for revenue generation in this market are good. There are approximately 2.5 million people worldwide suffering from Multiple Sclerosis. The Directors believe that GW's product could take a significant share of this market.

In addition, the Directors expect to commence Phase III trials in Cancer Pain during the second half of 2001 and to expand Phase II trials for other target markets. The Directors believe the size of Cancer Pain and other target markets to be substantial and to offer significant opportunities for the Group.

The Directors expect that products for Multiple Sclerosis and Cancer Pain will be submitted for regulatory approval to the MCA in 2003 and, subject to such regulatory approval being granted, being made available for sale in early 2004.

Reasons for the Placing and use of proceeds

The Placing will raise approximately £23.5 million, net of expenses, for the Company. These proceeds will be used to:

- fund the expansion of its late stage clinical trials;
- expand the cultivation and production facilities in anticipation of the initial commercial launch of its products; and
- accelerate the Group's international research activities in Europe and North America.

The Directors believe that the increased financial resources and enhanced profile of the Company within the market place will greatly assist GW in its product commercialisation strategy.

Admission to AIM will also provide opportunities for the Company's employees to participate in the future success of the Company and should help attract and retain high calibre staff.

PART I

Information on the Group

Introduction

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- there is a recognised need for prescribed cannabis-based medicines;
- a management team with a proven track record and relevant experience;
- its programme has the support of the UK Government and governments in North America and Europe; and
- it is currently, so far as the Directors are aware, the sole producer of pharmaceutical grade cannabis plant materials under licence in the world.

The Directors believe that these key strengths will enable the Company to capitalise upon the substantial market opportunity for GW's medicines.

History and development

The Group was founded in early 1998 by Dr Geoffrey Guy. Shortly thereafter, Dr Guy was joined by Dr Brian Whittle, thereby reuniting the team that previously co-founded the company which became Phytopharm plc, the plant medicines company, which floated on the Official List of the London Stock Exchange in April 1996. GW was first granted licences by the Home Office in June 1998 to cultivate, produce, possess and supply cannabis for medical research purposes. Since its inception, GW has worked closely with officials from the Home Office.

GW commenced the cultivation of cannabis plant varieties in August 1998. In November 1998 the First House of Lords Report was issued, recommending that clinical trials of cannabis medicines be carried out as a matter of urgency and warmly welcoming GW's research programme. In March 1999 in the United States, the National Academy of Sciences, Institute of Medicine published a White House commissioned report recommending that further research be conducted into the therapeutic properties of cannabis and cannabinoids. In September 1999, GW commenced its first Phase I human clinical trials in the UK. In March 2000, GW received authorisation from the MCA to commence Phase II clinical trials in patients. In March 2001, the Second House of Lords Report confirmed the UK Government's intention to permit the prescription of cannabis-based medicines subject to the approval of the MCA. In May 2001, GW entered into its pivotal Phase III clinical trials programme for its Multiple Sclerosis product.

UK Government policy

Cannabis is currently designated under Section 7 of the Misuse of Drugs Act 1971 which provides that the drug can only be produced, possessed and supplied for research purposes under licence from the Home Office.

The UK Government has stated repeatedly that it will permit, subject to regulatory approval from the MCA, cannabis-based medicines to be re-scheduled under these regulations so as to enable their general prescription.

In February 2001 Charles Clarke MP, Minister of State at the Home Office, submitted oral and written evidence on UK Government policy to the House of Lords Science & Technology Select Committee. He stated the Government's policy to be as follows:

> "If the clinical trials into cannabis are successful and they do lead to a medical preparation which is approved by the Medicines Control Agency, the Government is absolutely clear that we are willing to amend the Misuse of Drugs Regulations to allow the prescribing of such medicine."

The amendments referred to above would not relax existing controls on illicit use of herbal cannabis material, rather they would permit only the prescription of specific cannabis-based medicines approved by the regulatory authorities.

Further information relating to the legislative position surrounding the possible prescription of GW's future products is set out on pages 21 and 22 of this document.

Cannabis-based medicines

The beneficial therapeutic effects reported by patients who use cannabis appear to result from the interaction of certain cannabinoid molecules in the plant. These cannabinoids provide GW with a rich source of new medicines. As far as the Directors are aware, GW is currently the sole producer of pharmaceutical grade cannabis plant materials under licence in the world, ie plants specifically grown to form the basis of prescription medicines which meet the strict standards required by pharmaceutical regulatory authorities.

GW is developing a broad product portfolio of cannabis-based medicines. These are derived from standardised whole extracts of proprietary cannabis plant varieties that have been bred to provide a pre-determined content of selected cannabinoids. Extracts from these plant varieties are then incorporated into a range of drug delivery technologies, including a sub-lingual spray, sub-lingual tablets and an inhalation device. These products undergo a full pharmaceutical development programme, including pre-clinical and clinical testing, with a view to obtaining approvals from regulatory authorities around the world.

Given that cannabis has a long history of medicinal use, relative to many pharmaceuticals, cannabis-based medicines benefit from short development timelines. The Directors believe that this significantly reduces the cost of development and, subject to MCA approval, should mean that revenues from product sales will be relatively quick to materialise. The Directors believe that the development of GW's cannabis-based medicines holds a greater certainty of success than many other biopharmaceutical or biotechnology programmes.

Cannabinoids

Cannabinoids are molecules unique to the cannabis plant. There are over 60 such cannabinoids in the plant and GW's programme focuses on a selected number of these, including Δ^9–Tetrahydrocannabinol (THC), Δ^9–THC Propyl Analogue (THC–V), Cannabidiol (CBD), Cannabidiol Propyl Analogue (CBD–V), Cannabinol (CBN), Cannabichromene (CBC), Cannabichromene Propyl Analogue (CBC–V) and Cannabigerol (CBG).

THC is the cannabinoid that has to date received most attention from the scientific and lay community. However, THC and other cannabinoids have been shown to have analgesic, anti-spasmodic, anti-convulsant, anti-tremor, anti-psychotic, anti-inflammatory, anti-emetic and appetite-stimulant properties. Research is ongoing into the neuroprotective and immunomodulatory effects of cannabinoids. To date, GW has primarily focused on the two principal cannabinoids THC and CBD.

The different beneficial therapeutic effects of cannabis result from interaction of the different cannabinoids and not simply from one specific cannabinoid. Consequently, GW's portfolio of pharmaceutical products consists of cannabinoids in different ratios.

Standardised whole plant extracts

GW's medicines are derived from whole extracts of selected cannabis plant varieties. The Directors believe this approach has a number of advantages:

- hundreds of years of cannabis use provide compelling evidence of safety. The First House of Lords Report stated that there have been no reported deaths "as a direct result and immediate consequence of recreational or medical use". The therapeutic index for cannabis (the ratio between an effective and a lethal dose) is estimated to be 40,000 to 1 (source: Journal of American Medical Association). By contrast, the equivalent ratio for Aspirin is approximately 23 to 1 and for Morphine is 50 to 1 (source: Merck Index);
- medical literature contains significant amounts of evidence pertaining to the potential therapeutic benefit of cannabis;
- the development of a number of medicines from a single plant species means that much of the early pharmaceutical development work carried out by GW can be applied to a range of product opportunities, thereby avoiding the need to repeat significant amounts of work for each additional product in the portfolio;
- human clinical trials can commence at a relatively early stage in the development process – the first Phase II trials of GW's medicines commenced only 20 months after its first crop was planted. Just over one year later, GW proceeded into its first Phase III trials programme; and
- faster development timescales mean the overall costs of development are significantly reduced.

Cannabinoid mechanism of action

Recent discoveries have demonstrated the mechanisms through which cannabis has medical effects in the human body. The discovery of two cannabinoid receptors in humans demonstrates how cannabis and its constituents may exert some of their pharmacological effects and the discovery of endogenous cannabinoids has further improved the scientific understanding of the therapeutic potential of cannabis.

Medical effects of cannabis not related to psychoactive effects

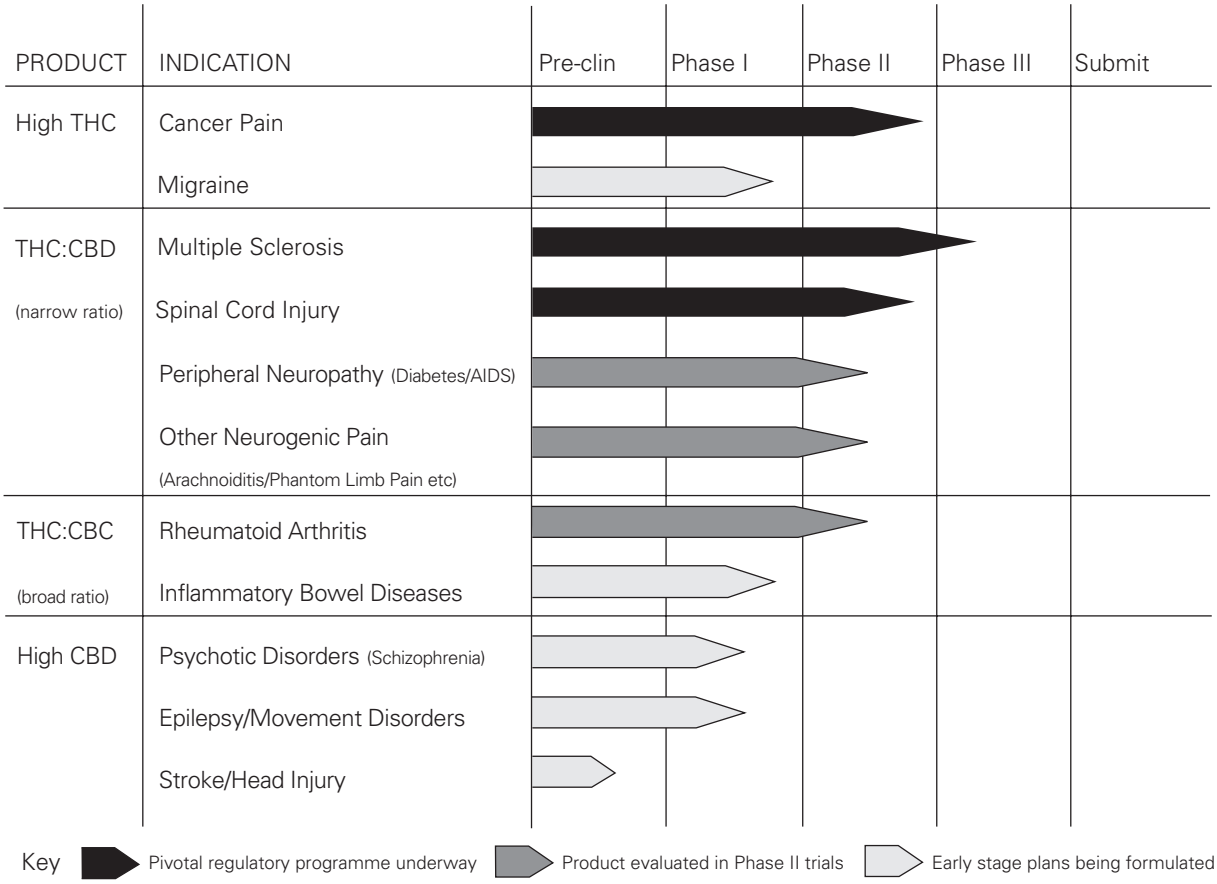
Evidence from GW's clinical trials shows that patients can obtain the medical benefits of cannabis before any feeling of a "high". Patients emphasise that they seek to obtain the medical benefits without intoxication. This is similar to the experience of patients who use self-administered morphine for pain control. They control the dose to relieve their pain while trying to minimise any side effects.

Pre-clinical studies

Pre-clinical studies are carried out in order to satisfy regulatory authorities as to the safety of test medicines for use by humans. GW has to date examined the safety of the two cannabinoids which form the basis of its first products – THC and CBD. The MCA has stated that GW has provided satisfactory pre-clinical safety information on THC and that no further pre-clinical studies on this molecule are required. GW has to date conducted limited pre-clinical safety studies on CBD. To date these studies have demonstrated no relevant safety concerns. However, a longer term carcinogenicity study is required as part of the MCA's standard requirements for products which are likely to be taken by patients for extended periods of time. GW has been advised that such a carcinogenicity study will be required and this is currently being planned. The MCA has advised that a CBD-containing product may in fact be approved prior to completion of the carcinogenicity study so long as there were to be strict label guidance on usage of the product.

Product portfolio

GW has a broad product portfolio under development, addressing several key markets. Certain products are already in late stage clinical trials and are progressing towards regulatory submission. The product portfolio is classified so as to group products by their cannabinoid content. GW seeks to expand its product portfolio through the development of new cannabinoid products as well as new drug delivery systems. A table, as extracted from the Expert's Report in Part V, setting out GW's product portfolio under development in terms of indication and stage of development in the UK is set out below.



The Group is developing distinct products which address many of the conditions for which cannabis is commonly understood to be beneficial. A number of patients already use cannabis for many of the above conditions and many more are aware of the benefits of cannabis but are unwilling to smoke or break the law. Consequently the Directors believe GW is in the favourable position of having an existing base market for its products before such products have been fully developed.

Having performed the necessary primary research for the first set of products to enter Phase II clinical trials, it should not be necessary to repeat the early pre-clinical and clinical work for each new target market for which each product can be developed. Therefore, additional medical conditions may require only limited further research and development before proceeding to regulatory submission.

Although the development of plant-based medicines is not new, most medicines currently developed by pharmaceutical companies are generally new chemical entities ("NCEs"). Plant-based products include Digoxin (originating from the foxglove) used in the treatment of heart disease and Taxol (a compound found in Pacific Yew) which is used in the treatment of breast cancer. The experience of GW's management in liaising with the regulatory authorities in respect of plant-based medicines, previously gained at Phytopharm plc as well as in the last few years with GW, has been a key factor in the rapid progress of GW's research programme to date.

Drug delivery technologies

GW is using three drug delivery technologies in the development of its products, specifically:

Sub-lingual spray

This spray technology is being utilised for the Group's lead product which is now in Phase III trials and is being supplied by a leading spray technology provider. The spray pump is already approved by the MCA in the UK and similar agencies elsewhere for use with specific medicines.

Sub-lingual tablet

These tablets, which are intended to dissolve under the tongue rather than be swallowed by patients, have been developed in-house by the GW team. They have been used in one of the Group's Phase II trials.

Inhaler

GW is developing an innovative inhalation device for the delivery of its medicines. The Directors expect that this device will enable patients to benefit from the rapid relief associated with inhaled delivery but without exposure to the carcinogens produced when cannabis is smoked. GW has entered into a partnership with a major UK electronics company to support this project. Intellectual proprietary rights relating to this technology will be owned exclusively by the Group.

First trials using this device are expected to be underway by the end of this year. This device has potential for use in the administration of non-cannabis products and GW will also be exploring its wider commercial applications during the course of its development. The development of this device is being partly funded by a grant of approximately £150,000 awarded under the UK Government's SMART award scheme.

Anti-diversionary technology

GW is developing specialist security technology which can be applied to all of its drug delivery systems. The aim of this anti-diversionary technology is to prevent any potential abuse of cannabis-based medicines. In addition, this technology is being designed to enable the recording and remote monitoring of patient usage. The technology should recognise and prevent any abnormal use that differs from expected prescribed usage. Such data would itself have intrinsic value and would also allow for efficient monitoring in clinical trials. The first set of prototypes for the technology as applied to the sub-lingual spray pump has been developed and two patent applications have been filed.

This technology has potential applications for the delivery of other drugs, in particular controlled drugs such as opiates and benzodiazapenes. GW will in due course be evaluating options for the licensing of this technology to other pharmaceutical companies.

Patient reports from clinical trials

GW has to date received approval from the MCA to commence clinical trials in patients for relief of pain of neurological origin and defects of neurological function in Multiple Sclerosis, Spinal Cord Injury, Peripheral Nerve Injury, Neuro-Invasive Cancer and Dystonias as well as for relief of pain and inflammation in Rheumatoid Arthritis.

Clinicians co-ordinating GW's initial clinical trials have reported that the experiences of patients participating in such trials have generally been positive. Approximately 70 patients suffering from either Multiple Sclerosis, Spinal Cord Injury, Rheumatoid Arthritis or Arachnoiditis have entered the trials so far. One of the criteria for selecting such patients was the clinicians' belief that available standard medications for such conditions have been of limited benefit. To date, the clinicians have reported that a substantial proportion of patients have experienced significant alleviation of at least one key symptom and in some cases patients have reported that the improvement in their condition has been sufficient to transform their lives.

Among the positive effects recorded by the clinicians are relief of neuropathic pain, spasms, spasticity, bladder-related symptoms, partial relief of tremor, improvements in quality and length of sleep and improvements in mood and measures of overall well-being.

Invariably, in common with other clinical trials of new medicines, certain adverse effects have also been reported, including unwanted psychoactive effects. The clinicians have reported that a significant proportion of these effects have been transient, of only mild or moderate intensity, and generally well tolerated by the patients. Evidence suggests that the psychoactive adverse effects are more likely to

occur early in the treatment periods and usually diminish as a suitable dose is arrived at by self-titration (self-adjustment). The trials have indicated that the medical benefits of cannabis-based medicines are generally obtained by patients at doses below those at which these psychoactive effects have been experienced. In GW's trials, most patients have been able to self-titrate to a dose which achieves useful symptom relief without the handicap of unwanted psychoactive effects which would interfere with ordinary daily activities.

In addition to the evidence from GW's clinical trials, GW has received communications from over 3,000 patients, many of whom describe the benefits they receive from using herbal cannabis. Approximately 2,000 of these 3,000 patients have completed a detailed questionnaire and, together with reports from the trials, this information provides useful insight into the most responsive medical conditions. The Directors anticipate that recruitment for trials, often a cause of much delay, will not be a limiting factor for GW.

GW has recently entered into Phase III clinical trials for its Multiple Sclerosis product which will initially involve approximately 200 patients.

Market strategy and opportunity

GW's strategy is to produce cannabis-based medicines for the worldwide market. Whilst GW will continue to regard its activities in the UK and Europe as its primary focus, it intends to further develop its activities in the United States. In addition, the Group will seek to roll out its products across the rest of the world.

The Directors have selected a number of medical conditions as its initial target markets. These are as follows:

- Nerve Damage Pain and Dysfunction, principally Multiple Sclerosis; and
- Cancer Pain.

Results from GW's early clinical trials in the initial target markets have provided the Group with the confidence to accelerate the product timetables for the medium and longer term opportunities in the pipeline.

Further potential markets for the Group's products include Rheumatoid Arthritis, Stroke/Head Injury, Migraine, Inflammatory Bowel Disease (IBD), Schizophrenia, Epilepsy and Movement Disorders (such as Parkinson's disease). All of these markets have been selected on the basis of evidence supporting the potential effectiveness of cannabis-based medicines.

The Directors believe that the market opportunity for GW's medicines is substantial.

Nerve damage pain and dysfunction

The worldwide pain market in 1999 was over $11 billion and is forecast to grow to over $15 billion in 2002 (source: 2000 SCRIP Report). With no optimum treatment, neuropathic pain is extremely difficult to manage resulting in a huge unmet need. It is estimated that 3 million people in the US are affected by neuropathic pain and that most effective oral compounds produce relief in only 50-60 per cent. of research participants (source: SCRIP Report 2000). It is also estimated that at least 1 per cent. of the world's population suffers from neuropathic pain (source: SCRIP Report 2000). Overall, complete pain relief from a monotherapy is only achieved in 10-20 per cent. of chronic pain patients (source: 2000 SCRIP Report and the SCRIP Yearbook 2001).

Whilst existing medicines are often ineffective in relieving nerve related pain and dysfunction, there is substantial patient evidence, as well as animal studies that support the fact that cannabis provides effective treatment (source: First House of Lords Report). It is estimated that about 10,000 people in the United Kingdom are using cannabis to relieve pain, muscle spasms and to regulate bladder control (source: Alliance for Cannabis Therapeutics). Patients have stated that cannabis is the only medicine which provides effective relief without inducing unwelcome side effects. Some patients also report that cannabis enables them to reduce or stop altogether use of concomitant medication as well as providing the ability to precisely control the dose they take by titration (dose adjustment). After reviewing a series of trials in 1997, the US Society for Neuroscience concluded that "substances similar to or derived from marijuana – could benefit the more than 97 million Americans who experience some form of pain each year".

The Directors believe that there is a substantial potential market for a product addressing nerve damage pain and dysfunction. This market includes medical conditions such as Multiple Sclerosis, Spinal Cord Injury, Peripheral Neuropathy and Phantom Limb Pain. Of these, Multiple Sclerosis is expected to be the largest market and this market is analysed in more detail below.

Multiple Sclerosis

Multiple Sclerosis affects more than 2.5 million people worldwide (source: World of Multiple Sclerosis Website), including an estimated 480,000 people in Europe alone (source: Laetoli Man's Pages). It is the most common neurological disease among young adults (source: World of Multiple Sclerosis Website). Multiple Sclerosis affects twice as many women as men and typically develops between the ages of 20 to 40 years old (source: World of Multiple Sclerosis Website). The risk of developing Multiple Sclerosis among the general population is approximately 1 in 1000 (source: The Ares-Serono Group). Multiple Sclerosis sufferers have virtually a normal life expectancy (source: MS One to One Website).

There is considerable evidence of the benefits of cannabis for Multiple Sclerosis patients, not least the experience of those in GW's clinical trials. These trials are demonstrating benefit in all the principal symptoms of Multiple Sclerosis – urinary bladder control, pain, spasm, spasticity and quality of sleep. In addition, GW has received communications from over 1000 Multiple Sclerosis sufferers alone, many of whom describe the benefits they receive from using cannabis. It is estimated that as many as 3-4 per cent. of Multiple Sclerosis patients in the UK are illegally using cannabis for medicinal purposes.

The First House of Lords Report endorsed cannabis' ability to mitigate symptoms of Multiple Sclerosis. In addition to human clinical and anecdotal evidence, a recent study in an animal model of Multiple Sclerosis scientifically demonstrated for the first time the link between cannabis and the suppression of Multiple Sclerosis symptoms.

There is a very clear need for new treatments for Multiple Sclerosis sufferers. In giving evidence to the House of Lords Science and Technology Select Committee, the UK Multiple Sclerosis Society commented as follows on the options currently available:

> "There are very limited treatment options which people with Multiple Sclerosis can use for symptom management. This is especially true of pain control, where few treatments are effective . . . Available treatments for spasticity are Baclofen, Dantrolene, Diazapam and recently Tizanidine. These afford partial relief and can have unpleasant side effects. Nevertheless the Multiple Sclerosis Society Symptom Survey showed that 37 per cent. of people with Multiple Sclerosis in a Multiple Sclerosis Society survey were receiving Baclofen. Incontinence is one of the most common symptoms of Multiple Sclerosis (66 per cent. of people with Multiple Sclerosis have bladder and bowel problems) and incontinence was rated as the second most common symptom causing distress for those living with Multiple Sclerosis. Drug treatment with Oxybutinin and Desmospressin is available, but in the Multiple Sclerosis Society Symptom Survey, only 15 per cent. had been treated with Oxybutinin."

The Multiple Sclerosis Society also reported that in relation to severe tremor, which is extremely disabling, Baclofen and Diazepam may be used with limited effectiveness.

The Directors believe that there are significant opportunities in the Multiple Sclerosis symptom-relieving market as there is relatively little competitive activity in this market and there are enormous current clinical needs. Further, the Directors believe that, should results from the Company's Phase III clinical trials support the efficacy achieved in its earlier trials, GW's product could take a significant share of this market.

Cancer pain

There are approximately 26 million people throughout the world suffering from Cancer at any one time. It has been reported that approximately 40 per cent. of cancer sufferers have unmet Cancer Pain needs whilst approximately 55 per cent. of cancer patients with unmet pain needs are suffering from neurogenic pain.

Nerve damage pain in cancer patients is caused by injury to the nervous system sometimes as a result of a tumour compressing either nerves or the spinal cord, or cancer actually infiltrating into the nerves or spinal cord. It may also result from damage to the nervous system caused by cancer treatment (chemotherapy, radiation or surgery). Tumours that lie close to neural structures are believed to cause the most severe pain experienced by cancer patients.

The US National Academy of Sciences, Institute of Medicine reported that some of the most encouraging clinical data on the effects of cannabis and cannabinoids on chronic pain are from studies of cancer pain. Of additional interest to the cancer market is the fact that cannabis has also been shown to provide benefit to cancer patients suffering nausea and vomiting from chemotherapy as well as stimulating appetite. Hence, the Directors believe that cannabis has the potential to provide considerable advantages over current medications to cancer patients.

Although opioid treatment, notably morphine, may be considered the strongest pharmacological method for controlling cancer pain, opioids are often ineffective in treating nerve damage cancer pain. In addition, orally delivered high-dose opioids, such as those used by cancer patients, can cause undesirable side effects and are unsuitable for patients suffering from nausea and vomiting as well as those with swallowing difficulties. The opiate-sparing effects of cannabis have been widely reported and it is estimated that cannabis can significantly reduce opiate requirements.

Alternatives to oral morphine are constantly being developed to provide improved treatment and have significant market potential. For example, a fentanyl transdermal patch is forecast to have annual sales of $800 million in 2002 (source: 2000 SCRIP Report).

The Directors believe that a cannabis-based medicine would be superior to oral morphine as well as newer opioid alternatives used to treat cancer pain of nerve damage origin.

Rheumatoid Arthritis

It is estimated that there are 16.5 million Rheumatoid Arthritis patients worldwide (source: 2000 SCRIP Report) of which approximately 2.5 million are in Europe (source: SCRIP Yearbook 2001). The worldwide market for pain treatments for rheumatoid arthritis and osteoarthritis was estimated to be worth approximately $4 billion in 1999 and is expected to be worth $13 billion in 2005 (source: 2000 SCRIP Report).

The Directors believe that there is significant unmet need for this condition. Physicians have commonly prescribed analgesics and nonsteroidal anti-inflammatory drugs (NSAIDs) to relieve the symptoms of pain and inflammation associated with arthritis. However, NSAIDs cause serious gastro-intestinal toxicity and the dramatic growth in the market reflects the impact of the recent introduction of Cox-2 inhibitors, Celebrex and Vioxx, and follow-up compounds. Total combined peak sales of these two products is estimated to reach $6.25 billion (source: 1999 SCRIP Report). Although the interpretation of trial results has been varied to some extent, it has emerged that Cox-2 inhibitors do not prevent gastro-intestinal adverse effects, but reduce the risk to a modest extent.

In addition to the market for symptom relievers referred to above, new disease-modifying antirheumatic drugs ("DMARDs") are also being introduced. These include two "anti-TNF" drugs, Enbrel and Remicade, which have been launched on the market and which reduce inflammatory activity. In general, medical evidence suggests that both symptom relievers and DMARDs can produce serious adverse effects.

There is considerable anecdotal evidence from arthritis patients, including those on GW's patient database, that cannabis provides effective relief of symptoms of both osteoarthritis and rheumatoid arthritis. In addition to cannabis' well documented pain-reducing properties, animal and laboratory studies indicate that it holds anti-inflammatory qualities. For example, a 1988 study by an English research team found the cannabinoid CBD (cannabidiol) ameliorated inflammation in mice. They concluded that "Our results would suggest that cultivation of cannabis plants rich in CBD and other phenolic substances would be useful – for medicinal purposes in the treatment of certain inflammatory disorders," (source: Formukong).

Recent evidence has also shown that the cannabinoid CBD has significant DMARD activity. Researchers at the Kennedy Institute of Rheumatology in London have shown that CBD has disease-modifying activity and can block progression of arthritis in a mouse model. Histological examination of joints showed that CBD protected them against severe disruption.

There are clear needs for safe, well tolerated drugs which act rapidly to stop disease progression and for drugs which stop joint pain and tenderness and increase mobility. The Directors believe that cannabis-based medicines have the potential to satisfy these needs. In the first instance, GW is targeting symptom relief in this market. Longer term, it will be examining the effectiveness of its medicines in halting disease progression.

Additional markets

Further potential markets for the Group's products include Stroke/Head Injury, Migraine, Inflammatory Bowel Disease (IBD), Schizophrenia, Epilepsy, Movement Disorders (Parkinson's disease, Huntington's disease, Dystonia). All of these markets have been selected on the basis of evidence supporting the potential effectiveness of cannabis-based medicines.

North America

With GW's European research and development programme already well advanced, its North American activities are now starting to increase. Importantly for GW, the FDA has released specific draft guidelines for the development of botanical drugs which are proving to be of significant value in determining the Group's regulatory strategy in the US.

The US is the world's largest pharmaceutical market (source: USADATA). However, development of products in the US is subject to significant additional financial and scientific challenges.

The Directors believe that, the only clinical studies that have to date been conducted in the US are small-scale smoking and oral studies using research grade cannabis supplied by the National Institute of Drug Abuse (NIDA), a US Government agency. The Directors consequently believe that GW is in a strong position to establish a US research programme similar to that now being conducted in the UK.

US federal government agencies

Following introductions from the Home Office on behalf of GW, GW has held meetings with the Food and Drug Administration (FDA), the Drug Enforcement Agency (DEA) and the Office for National Drug Control Policy (ONDCP). In addition, GW has met with NIDA and senior State officials in California and Maine.

Although the licensing process in the US is often protracted, GW has recently received its first US import licence from the DEA. In August 2000, ONDCP commented publicly on medicinal cannabis as follows: "To have medicine determined by science and not by popular will is exactly what we support.''

Development partnership

GW has entered into a development collaboration with a US company with considerable expertise in the development of plant-based medicines. This company has itself already obtained Investigational New Drug (IND) authorisation (permission to proceed into Phase II clinical trials) for three botanical products. This partnership is providing GW with important input into the specific requirements associated with GW's US development programme.

Clinical trials in Canada

GW has received permission from Health Canada, the Canadian regulatory authority, to commence its first Phase II clinical trial in Canada. Health Canada is the first overseas regulatory authority to evaluate GW's data and grant such permission. This represents an important development in terms of the international roll-out of GW's product portfolio.

The permission received from Health Canada relates to a specific clinical trial which will study the effects of cannabis-based medicines on Chronic Refractory Spasticity and Neurogenic Pain in patients with Chronic Pain, Multiple Sclerosis and Spinal Cord Injury.

Cultivation and production

The key consideration when developing plant-based medicines is control of starting materials so as to meet the standards of quality required by the regulatory authorities. All of the cannabis plant materials used by GW in its pharmaceutical development process are cloned plants grown under computer-controlled conditions in the UK. This affords the Group complete control over the breeding, cultivation, harvesting and processing of plant material to ensure the product meets regulatory specifications.

The Group is preparing to establish in-house production capability in order to be able to manufacture its first marketed products. Its strategy is to develop and refine production methods in-house so as to cater for the final stages of product development and sales in its initial target markets. Longer term, GW expects to contract-out large scale production.

Hortapharm BV licence

GW has entered into an exclusive worldwide collaboration with the Dutch medicinal cannabis breeding specialists Hortapharm BV. Further details of the agreement with Hortapharm are set out in paragraph 11 of Part VIII. Hortapharm has been researching the cannabis plant for a decade. Its staff include individuals who have published several works on cannabis botany. Hortapharm has also developed techniques for breeding varieties of cannabis of a pre-determined cannabinoid composition. By obtaining access to all of Hortapharm's relevant know-how and relevant plant varieties (present and future), the Directors believe that GW's cultivation programme has been accelerated by several years.

Cultivation facility

GW has set up a high security cannabis cultivation facility at a secret location in the UK under strict UK Home Office supervision. This approximately 30,000 square foot facility caters for all projected cannabis requirements for research purposes and produces approximately 40,000 cannabis plants a year. Based upon evidence from GW's clinical trials, the Directors estimate that this facility produces sufficient raw material to fulfil the annual requirements of approximately 3,000 patients. Plans are now being drawn up to significantly expand the cultivation programme to cater for the much greater quantities expected to be required when products reach the market.

The existing facility is guarded by electric fences, 24 hour security guards, security cameras and sophisticated alarms. All aspects of the growing climate within the facility – photoperiod, temperature, humidity and air changes – are controlled by computer. The measures taken to control the growing environment have the following consequences in respect of the quality of the plants:

- there is no contamination from birds and vermin; bioburden is therefore low;
- the compost in which the plants are grown is rigorously defined and tested;
- adventitious plant diseases and insect pests are detected early and are eradicated by organic or biological procedures. No pesticides are used;
- removal of male flowers ensures that resin production from female flowers is maximised; and
- it is possible to grow plants throughout the year and to induce flowering and resin production by manipulation of the photoperiod.

Plant consistency

Cultivation of GW's special chemovars of cannabis began in August 1998. Following the initial crop grown from seed, chemovars have been selected and all subsequent growing has been from cloned plants. Growing from cloned plants ensures that the ratio of plant constituents is fixed within narrow limits.

Laboratory analysis of selected chemovar lines demonstrates that the cannabinoid ratios are very consistent. The mean THC content of the principal THC chemovar (THC as a percentage of total cannabinoids) is 94.5 per cent. with a coefficient of variation of just 1.5 per cent. The principal CBD chemovar has a mean CBD content of 90 per cent. and coefficient of variation of under 2 per cent. Such high levels of consistency are unusual in plants and are likely to be a key advantage when applications are made to the medical regulatory authorities.

Product commercialisation

GW's strategic options for the sale and marketing of its products fall into two categories – third party licences and in-house/distributor sales.

Licensing

It is standard practice for young research and development companies to enter into licensing agreements with major pharmaceutical companies for the sale and marketing of their products. Such agreements are usually structured so as to provide the development company with a signature fee, payments on the achievement of development and regulatory milestones, a royalty on sales and margin on product supply.

Licensing agreements are typically entered into on a product-by-product and country-by-country basis. It is therefore possible to follow many different licensing strategies with respect to different countries and different products. The terms of a licence agreement can differ markedly depending on the stage of product development at which the product is licensed. Generally, the earlier in the process that licensing takes place, the greater the risk for the licensee and hence the less favourable the terms for the development company.

The Directors expect that GW's products will allow it to command favourable licensing terms. They believe that availability of new cannabis-based medicines will generate a great deal of publicity and there will be significant immediate patient demand.

In-house/distributor sales

Although GW is not likely to develop an in-house sales force, it is possible that GW would appoint a distributor in certain markets. A significant advantage of pursuing this approach and not licensing products during the development phase is that GW maintains control over the whole of its product rights.

Commercialisation strategy to date

Although GW has held preliminary discussions with some major pharmaceutical companies, GW has not to date actively sought licensees for its products. By avoiding the need to enter into licensing agreements at an early stage of product development, GW has been able to retain the full value of the Group's product rights at this time. As a result, the Directors expect that they will be able to agree favourable licensing arrangements in the future.

Intellectual property rights

An integral part of the research and development programme is to establish proprietary intellectual property rights to protect techniques and technologies involved in the development programme. Examples of the areas in which the Group is and will be seeking protection in the future are as follows:

- plant variety rights
- methods of extraction patents
- drug delivery device patents
- patents on compositions of matter for the delivery of cannabis
- methods of use patents
- design copyright on devices
- trade marks

The Group's aim is to develop a matrix of interlocking intellectual property rights which is difficult for competitors to penetrate. The Group has considerable know-how which is backed by a growing number of patent applications and it is in this intellectual property where much of the value of the Group lies. The maintenance, strengthening and expansion of its portfolio of intellectual property is a priority for the Group.

It is anticipated that the complex botanical nature of the Group's products will also provide an important line of defence from competitors. The Directors believe that a third party will have difficulty in showing "essential similarity" of its products to GW's plant derived medicines and, therefore, that GW's products may be less likely to face generic competition. As well as being difficult to genericise, the Directors anticipate that the majority of the patent term will be available to protect the final products when they come to the market.

A summary of the proprietary intellectual property rights which GW has acquired/applied for to date is set out in paragraph 17 of Part VIII.

Official support

GW's programme has received support from the UK Government and governments in North America and Europe. The UK Government has stated repeatedly that it will permit prescription of cannabis-based medicines, subject to regulatory approval from the MCA.

Within the past three years, there have been two major official investigations into the science surrounding the medical benefits of cannabis – by the House of Lords Science & Technology Select Committee in the United Kingdom and the National Academy of Sciences, Institute of Medicine in the United States. Both of these investigations concluded that there is strong evidence that cannabis has significant medical value and recommended that clinical trials on appropriate formulations derived from cannabis be performed as soon as possible.

The Home Office has worked closely with both the Company and the MCA on establishing control procedures so as to facilitate the progress of GW's research programme. GW also works with the Home Office and the police to ensure the strictest security surrounds any work involving the Company's cannabis material.

Legislative position

The prescribing of GW's medicines will require an amendment to the Misuse of Drugs Regulations.

In written evidence to the House of Lords Science & Technology Select Committee, the Home Office outlined the process as follows:

> "Following the issuing of a marketing authorisation (product licence) by the MCA the Government would set in hand the necessary changes to the misuse of drugs legislation. The Advisory Council on the Misuse of Drugs would have to be consulted before any changes could be made, in accordance with sections 7 and 31 of the 1971 Act. The changes could be made swiftly, by way of secondary legislation subject to negative resolution and would not be constrained by our obligations under the UN Convention."

Commenting in his oral evidence to the House of Lords Science & Technology Select Committee, Charles Clarke MP, Minister of State at the Home Office, described the process of consulting the Advisory Council on the Misuse of Drugs as follows: "I think that would be relatively rapid and the actual legislative change is a straightforward and, I think, quick process."

In outlining the process once approval is obtained from the MCA, Mr Clarke affirmed that the Home Office "will act very expeditiously to ensure that any approved treatment can be brought into general circulation".

The changes referred to above relate to two statutory instruments:

- the removal of cannabis from Part 1 of the Schedule to the Misuse of Drugs (Designation) Order 1986 (which specifies the controlled drugs which are designated as drugs to which Section 7(4) of the Misuse of Drugs Act applies); and
- the transfer of cannabis from Schedule 1 to Schedule 2 (or 3) of the Misuse of Drugs Regulations 1985.

It is important to stress that these changes would not relax the existing controls on illicit use of herbal cannabis material, rather they would permit only the prescription of specific cannabis-based medicines approved by the regulatory authorities.

Cannabis-based medicines separate from "legalisation debate"

GW is focused solely on developing medicines to the satisfaction of the medical regulatory authorities. GW is not involved in the debate to legalise the use of smoked herbal cannabis for medical or recreational use.

Home Office licences

GW operates under licences granted under Section 7 of the Misuse of Drugs Act 1971. These licences allow the Company to cultivate, possess and supply cannabis for the purpose of medical research. Licences under the Misuse of Drugs Act are issued on an annual basis. The Home Office has renewed GW's licences each year and has stated to the Company that they expect future renewals to be processed in the same way.

Directors, senior management and employees

Executive Directors

Dr Geoffrey Guy (aged 46) – Executive Chairman

Dr Guy has over nineteen years experience in pharmaceutical development covering new chemical entities, biotechnology products, plant-based medicines, controlled drugs and drug delivery systems. Dr Guy has been the physician in charge of over 200 clinical studies including first dose in man, pharmacokinetics, pharmacodynamics, dose-ranging, controlled clinical trials and large scale multi-centred studies and clinical surveys.

Dr Guy founded Ethical Holdings plc, in 1985 and led that company as Chairman and Chief Executive to its Nasdaq flotation in 1993 before leaving in 1997. He received 3i's "Venturer of the Year" award in the science and technology category. In 1990, Dr Guy co-founded the plant-medicines company that became Phytopharm plc, of which he was Chairman until 1997. Dr Guy served as Director of Clinical Development at Napp Laboratories from 1983 to 1985 and as International Clinical Research Co-ordinator at Laboratories Pierre Fabre from 1981 to 1983.

Dr Guy gained a BSc in pharmacology from the University of London in 1976, an MB BS at St Bartholomew's Hospital in 1979, an MRCS Eng. and LRCP London in 1979, an LMSSA Society of Apothecaries in 1979 and a Diploma of Pharmaceutical Medicine from the Royal Colleges of Physicians in 1984. Dr Guy is a member of the editorial board of the Journal of Cannabis Therapeutics.

Justin Gover (aged 30) – Managing Director

Mr Gover has been Managing Director of GW since January 1999. In this time, he has successfully guided the Group through this period of rapid growth and managed the Group's equity financing activities. He was previously Head of Corporate Affairs at Ethical Holdings plc, the Nasdaq-quoted drug delivery company. In this role, he was responsible for the company's strategic corporate activities, including mergers and acquisitions, strategic investments, equity financing and investor relations. Transactions included acquisitions and disposals in North and South America, public listings of group companies in London and the US, and strategic investment in Asia. He previously worked as a consultant with BDO Management Consultants in Hong Kong and also in China establishing a pharmaceutical joint venture. Mr Gover holds an MBA from INSEAD in Fontainebleau, France. He received a BSc (Hons) from Bristol University in 1992.

Dr Brian Whittle (aged 68) – Scientific Director

Dr Whittle has over forty years experience in the pharmaceutical industry and is a specialist in the development of plant-based medicines. He was co-founder and Chief Executive of a company which later became Phytopharm plc from 1990 to 1994 and Chief Scientific Officer from 1994 to 1998. He was previously Managing Director of Research Consultants (International) Limited, a subsidiary of Ethical Holdings plc. From 1981 to 1989, he founded and managed Brian Whittle Associates Limited, a pharmaceutical development consultancy. From 1979 to 1981 Dr Whittle was Director of Regulatory

Affairs and Health Registration for Wyeth Europa Limited and from 1969 to 1979 was Head of Pharmacology at Reckitt and Colman plc. From 1960 to 1969 he was Head of the Central Nervous Systems Unit at ICI Pharmaceuticals Limited. Prior to that Dr Whittle was a lecturer in Pharmacology at Sunderland University and a pharmacist at the Royal Marsden Hospital, London.

Dr Whittle is a Fellow of the Royal Pharmaceutical Society, The Linnean Society and of the British Institute of Regulatory Affairs. He was awarded a B Pharm degree from the University of Nottingham in 1954, a PhC Diploma by the Pharmaceutical Society in 1954, an MSc by the University of London in 1957 and a PhD also by the University of London in 1964.

Jonathan Laughton (aged 29) – Finance Director

Mr Laughton has been Finance Director of GW since May 1999 and was appointed Company Secretary in July 1999. He joined the Company from KPMG in Guernsey where he audited the Guernsey-based subsidiaries of clients including NM Rothschild and Sons, ING Barings, the Woolwich and Rabobank. Prior to this, Mr Laughton worked in the Owner Managed Business Unit of KPMG in Birmingham, auditing a broad range of companies. Mr Laughton qualified as a member of the Institute of Chartered Accountants in England and Wales in 1998 and is also a member of the Institute's Faculty of Information Technology. Mr Laughton holds an MA in Human Sciences from St. John's College, Oxford University.

Non-Executive Directors

David Mace (aged 46) – Non-Executive Director

Mr Mace has a track record of growing and developing successful businesses internationally over the last 22 years. In December 1987, Mr Mace led a Management buy-out of Sea Life Centre (Holdings) Limited, from Norsk Hydro, through to subsequent merger and flotation in 1992 as Vardon plc, the leisure group. From 1992 to 1996, Mr Mace was a main board director of Vardon plc and was Chief Executive and subsequently Executive Chairman of Vardon Attractions Limited. Mr Mace has served as a non-executive director of private and venture capital backed companies in France and the UK and has also acted as management consultant to businesses in Europe, the Far East and New Zealand.

Peter Mountford (aged 43) – Non-Executive Director

Mr Mountford is a director of a number of private and public companies, including a non-executive director of Comprehensive Business Services plc, Honeycombe Leisure plc and Internet Direct PLC. He is the co-founder of Bradmount Investments Limited which was formed in 1995 as a private investment company, and through which he has completed many successful investments and acquisitions since that date. He qualified as a Chartered Accountant in 1982, and in 1986 was one of the founding directors of Arthur Andersen Corporate Finance. Between 1989 and 1991 he was seconded to the Takeover Panel where he advised on many high profile takeovers and public company transactions. Through Bradmount Investments Limited he has developed a substantial portfolio of investments in a variety of companies, ranging from aggregates businesses to pub companies. He is also a member of the Securities Institute.

Senior management

Dr Philip Robson (aged 54) – Medical Director

Prior to joining the Group, Dr Robson was for the previous ten years, a Consultant Psychiatrist in Oxford and Senior Clinical Lecturer in the Oxford University Department of Psychiatry. In addition to his duties as Medical Director of the Company, Dr Robson retains the position of Senior Research Fellow in the Oxford University Department of Psychiatry. Dr Robson is an expert in the therapeutic potential of cannabis and cannabinoids. In 1996 he was commissioned by the Department of Health to carry out a critical review of the relevant scientific literature and in 1998 was called on to submit both written and verbal evidence to the House of Lords Science & Technology Committee investigation into cannabis. Prior to taking up his psychiatry posts at Oxford, Dr Robson worked for eight years within the pharmaceutical industry, initially as a clinical pharmacologist and then as Director of Clinical Research at Wyeth Laboratories.

Dr Peter Gibson (aged 48) – Technical Director

Dr Gibson has 18 years experience in pharmaceutical development, working with new chemical entities and generic products, in both contract research and established pharmaceutical companies. Prior to

joining GW, Dr Gibson was Director of Scientific Services for Elan Transdermal Technologies (UK) Limited (previously Ethical Pharmaceuticals Ltd) and was responsible for a wide range of technical and scientific activities for the company, including formulation development, analytical services, bioanalysis and information technology services. Dr Gibson was co-founder of Bioanalytical Research Ltd in 1985, a contract research company specialising in bioanalysis for the pharmaceutical industry, which was sold in 1990 to Ethical Pharmaceuticals Ltd.

Stefan Antosik (aged 54) – Production Director

Mr Antosik has 28 years management experience in the pharmaceutical industry. Previous positions include Deputy Managing Director of Syntex Ireland and Managing Director of Angus Fine Chemicals. In these roles, he was responsible for all site functions including manufacturing, engineering, quality and project management. Prior to joining GW, Mr Antosik was Production Director with Scotia Pharmaceuticals Limited and was responsible for the successful regulatory manufacturing submission in both the USA and Europe for Scotia's most important oncology drug. Also at Scotia, he managed the drug substance technology transfer, plant build, commissioning and process scale-up. The plant passed a pre-approval inspection by the FDA last year.

Colin Stott (aged 35) – Director of Research & Development Operations

Mr Stott has fourteen years experience in the pharmaceutical industry covering a wide range of new chemical entities, biotechnology products, and plant-based medicines, with 11 years experience of clinical development and project management. Prior to joining GW, Mr Stott was Clinical Programme Manager & International Project Leader at Napp Pharmaceuticals Limited, leading an international joint development programme of a plant-based medicine. Prior to this, he was Clinical Projects Manager at the plant medicines company Phytopharm plc between 1996 and 1999, managing clinical and pre-clinical development programmes. Mr Stott also has experience gained at Astra Zeneca, Schering-Plough Limited, Genzyme (UK) Limited and Alpha Therapeutics Limited (now Grupo Grifols).

David Potter (aged 47) – Director of Botanical Research and Cultivation

Mr Potter has twenty-three years research and development experience as a horticulturalist and agronomist. After brief contracts with the Ministry of Agriculture, he joined a multinational petrochemicals company in 1976 testing novel pesticides and plant growth regulants in glasshouse and field grown crops. Mr Potter was a Senior Assistant Scientist before becoming Head of Security and Estate Services in 1993. Prior to joining GW in 1998 as its first employee, Mr Potter worked as an independent consultant in the registration of novel pesticides. Mr Potter is a Member of the Institute of Occupational Safety and Health and also a Justice of the Peace.

Alice Mead (aged 51) – Special Counsel, Medical Affairs (North America)

Ms Mead is an attorney specialising in health care law. For eleven years prior to joining GW, she served as Legal Counsel to the California Medical Association, the largest state medical association in the United States. During that time, she developed special expertise in the legal and regulatory issues surrounding medicinal cannabis. Most recently, on behalf of the California Attorney General's Task Force on Medical Marijuana, Ms Mead drafted extensive legislation that has gained the support of a broad range of both governmental and private interest groups across California. She has also prepared detailed guidelines on the subject for the medical profession, which have been widely adopted throughout that State and the US generally. Prior to joining the California Medical Association, Ms Mead served as a litigator for Morrison & Foerster and was previously a law professor at Arizona State University College of Law.

Scientific advisers

Scientific advisers to the Group include:

James Callaway, PhD

Senior Researcher, Department of Pharmaceutical Chemistry at the University of Kuopio, Finland. Director of Finola Inc., a hemp seed, food and consulting company, and co-originator of "Finola", the early-blooming dwarf variety of hemp which is licensed internationally for the production of food oil and protein.

Robert Clarke

An expert in the botany of the cannabis plant and author of three books on this subject, "Marijuana Botany", "Hashish!" and "Hemp Diseases and Pests: Management and Biological Control".

Mira V. Doig, PhD, BSc, F Chrom Soc

Technical Director of ABS Laboratories Limited, a company which provides bioanalytical and analytical services to GW. Former Principal Scientist/Deputy Head of Department at Drug Metabolism Department of GlaxoWellcome.

Ian Flockhart, PhD, BSc, Cchem, FRSC

Director of Applied Analysis Limited, a company which provides analytical and formulation services to GW. Former Manager of Drug Metabolism at Reckitt & Colman which included bioanalysis and pharmacokinetic services.

David Hadorn, MD

Former health policy adviser to the New Zealand Ministry of Health and the British Columbia Ministry of Health. Former adviser to the California Attorney General's Task Force on Medical Marijuana.

John McPartland, DO, MSc, ABFP

Head of Graduate Programme, Faculty of Health & Environmental Science, UNITEC, New Zealand. Clinical Assistant Professor of Family Medicine, University of Vermont. Adjunct Assistant Professor of Biomechanics, Michigan State University. Author or co-author of over 20 articles concerning cannabis and cannabinoids.

Neil Montgomery, MSc, FRSA, FRAI

Doctoral researcher at Edinburgh University's Department of Social Anthropology. An expert in behavioural and cultural aspects of cannabis use.

Richard Musty, PhD

Professor of Psychology at the University of Vermont. Founder member, Treasurer and Executive Committee Member of the International Cannabinoid Research Society. Author of over 30 articles on cannabis and cannabinoids.

William Notcutt, MB, ChB, FRCA

Consultant in Anaesthesia and Pain Management, James Paget Hospital, Great Yarmouth. Honorary Senior Lecturer, School of Health Policy and Practice, University of East Anglia.

Ethan Russo, MD

Clinical Assistant Professor in the Department of Internal Medicine at the University of Washington, and Adjunct Associate Professor in the Department of Pharmaceutical Sciences of the University of Montana. Editor of the Journal of Cannabis Therapeutics.

Employees

The average number of employees of the Group, analysed by activity, during the two years and nine months ended 31 March 2001 was as follows:

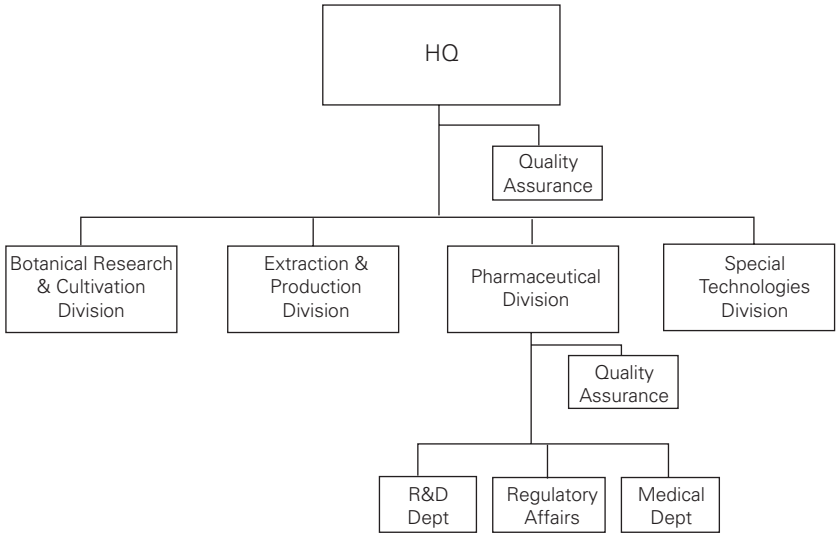
	Fifteen months ended 30 September 1999	*Year ended 30 September 2000*	*Six months ended 31 March 2001*
Research and development	5	13	30
Management, administration and finance	5	6	9
Total	10	19	39

The Directors believe that GW's ability to attract, motivate and retain highly qualified employees will be enhanced following the flotation.

Operational structure

The Group currently has offices in Wiltshire and Cambridgeshire as well as dedicated hospital units in Oxford and Guernsey. The location of the Group's botanical research and cultivation operations and also the Group's analytical and formulation laboratories cannot be disclosed for security reasons.

The operating structure below illustrates how the various key activities of the Group are divided into four core operating divisions, each with a defined management structure. Each of these core operating divisions focuses on a key component of GW's overall product development programme, namely botanical research and cultivation, extraction and production, pharmaceutical drug development and drug delivery technologies.



Competition

The pharmaceutical industry is highly competitive with significant developments expected to continue at a rapid pace. However, the Directors believe that GW has a strong competitive position worldwide in relation to cannabis-based medicines and that there are considerable barriers to entry to deter potential competitors.

GW's competition can be characterised as coming from three main sources:

- Marketed products and also products in development which do not derive from cannabis but which are aimed at the medical conditions being targeted by GW.
- Marketed synthetic cannabinoid medicines and other synthetic cannabinoid and single cannabinoid medicines under development. So far as the Directors are aware, there are currently two marketed synthetic drugs related to one cannabinoid, THC, namely Marinol® and Cesamet® and a small number of other synthetic and single cannabinoid products in development.
- Future competitive programmes to develop plant derived prescription cannabis-based medicines. The Directors are not aware of the existence of any such programmes at the present time.

An important feature of GW's programme is to avoid the problems associated with synthetic cannabinoid products. The beneficial therapeutic effects reported by patients who use cannabis appear to result from interaction of the different cannabinoids in cannabis and not simply from one specific cannabinoid. Hence GW is developing drugs derived from cannabis rather than a single cannabinoid.

The Directors have confidence that GW will be very well placed to compete for a number of reasons:

- GW has now entered Phase III clinical trials and has thus established a significant lead time over potential competition.
- There continue to be significant legal constraints on a programme involving cannabis, in particular the need for government licences governing all aspects of research.

- GW has exclusive worldwide access to the medicinal cannabis plant varieties bred by Hortapharm BV. The Director's believe a new entrant in the field would be required to conduct many years of plant breeding research to establish a cultivation programme similar to GW.
- GW is establishing intellectual proprietary rights to protect a number of different aspects of its development programme.
- GW's management team comprises individuals with a rare combination of experience essential for developing cannabis-based medicines. These individuals are specialists in developing plant-based medicines, drug delivery technologies and controlled drugs.

PART II

The Placing and Admission and related matters

The Placing

The Company is issuing 13,736,264 new Ordinary Shares pursuant to the Placing at the Placing Price, which will raise approximately £23.5 million (net of expenses) and will represent approximately 14.3 per cent. of the enlarged issued share capital following the Placing. The new Ordinary Shares have been placed by Collins Stewart with institutional and other investors.

The Placing is conditional upon Admission becoming effective and the Placing Agreement becoming unconditional in all respects. Details of the Placing Agreement are contained in paragraph 8 of Part VIII of this document.

There are no existing shareholders who are selling shares pursuant to the Placing. Following the Placing, it is expected that the interests of the Directors will, in aggregate, amount to 45.8 per cent. of the enlarged issued share capital.

Lock-in arrangements

The Directors have undertaken not to dispose of any of their Ordinary Shares (or any interest therein) for a period of one year from the date of Admission. They have further undertaken, that for a further six months from the date falling one year from the date of Admission, not to dispose of more than 50 per cent. of their Ordinary Shares.

In addition, shareholders who will hold in aggregate 10.9 per cent. or the issued share capital of the Company immediately following the Placing have entered into lock-in agreements.

Further details of the lock-in arrangements are set out in paragraphs 8 and 9 of Part VIII of this document.

Corporate governance

The Company intends to comply, as soon as practicable and so far as possible given the Group's size and the constitution of the Board, with the Combined Code.

The audit committee has been appointed and consists of Peter Mountford and David Mace although the Finance Director will normally attend as an invitee. It will meet twice a year and be responsible for ensuring that the financial performance of the Group is properly reported on and monitored. It will also meet the auditors and review their reports relating to accounts and internal control systems.

Similarly, the Remuneration Committee has been appointed and consists of Peter Mountford and David Mace although the Chairman and/or the Managing Director will normally attend as an invitee. It will make recommendations to the Directors of the Company on matters relating to the remuneration and terms of employment of the existing and proposed Executive Directors of the Company and on proposals for the granting of share options pursuant to any share option scheme in operation from time to time.

CREST

CREST is a paperless settlement procedure enabling securities to be evidenced otherwise than by a certificate and transferred otherwise than by a written instrument. The Articles of Association of the Company permit the holding of Ordinary Shares under the CREST system. All the Ordinary Shares will be in registered form and no temporary documents of title will be issued. The Company has applied for the Ordinary Shares to be admitted to CREST and it is expected that the Ordinary Shares will be so admitted and accordingly enabled for settlement in CREST on the date of Admission. It is expected that Admission will become effective and dealings in Ordinary Shares will commence on 28 June 2001. Accordingly, settlement of transactions in the Ordinary Shares following Admission may take place within the CREST system if any shareholder so wishes.

US Securities legislation

The Ordinary Shares have not been and will not be registered under the US Securities Act of 1933, as amended and, subject to certain exceptions, may not be offered or sold within the United States.

Employee Share Schemes

The Company has adopted two employee share option schemes, the Approved Scheme and the Executive Scheme, for the grant of options over Ordinary Shares.

GW Pharma adopted similar schemes (the GW Pharma Approved Scheme and the GW Pharma Executive Scheme) for the grant of options over its shares prior to its acquisition by the Company. Options over GW Pharma shares have now been replaced with equivalent rights over Ordinary Shares, and GW Pharma will not grant any further options under those schemes.

GW Pharma also adopted the All Employee Scheme, which is an all-employee share ownership plan approved under schedule 8 to the Finance Act 2000, for the grant of rights over its shares. Shares awarded to participants under this scheme were replaced by Ordinary Shares as a result of the acquisition of GW Pharma by the Company. It is intended that the scheme be amended so that future awards can be made over Ordinary Shares.

Additionally, certain options have been granted to consultants of the Group and to the Non-Executive Directors under arrangements outside these schemes.

The total number of Ordinary Shares under option under all of these schemes, and the arrangements for consultants and Non-Executive Directors referred to above, is 7,550,150, which represents approximately 9.2 per cent. of the current issued ordinary share capital and approximately 7.9 per cent. of the issued ordinary share capital immediately following the Placing.

Details of these schemes and arrangements, together with summaries of awards made under all the schemes are contained in paragraph 7 of Part VIII.

Further information

Your attention is drawn to the additional information set out in Parts III to VIII of this document.

PART III

Financial information, Current Trading and Prospects, Reasons for the Placing and use of proceeds

Trading Record

The trading record of the GW Pharma Group (as defined on page 64 of this document) for the period ended 30 September 1999, and year ended 30 September 2000 and the six months ended 31 March 2001, which has been extracted without adjustment from the Accountants' Report set out in Part VII of this document and which should be read in conjunction with the full text of this document, is summarised as follows:

	Period from 19 June 1998 to 30 September 1999	*12 months ended 30 September 2000*	*Six months ended 31 March 2001*
	£	*£*	*£*
Turnover	13,748	—	—
Operating loss	(1,046,219)	(2,376,164)	(2,309,039)
Loss before taxation	(1,385,247)	(2,308,322)	(2,199,431)
Taxation	(3,900)	92,116	145,748
Retained loss for the period	(1,389,147)	(2,216,206)	(2,053,683)

Dividend Policy

The Company has not paid dividends in the past and anticipates that, following the completion of the Placing, earnings, if any, will not be distributed for the foreseeable future to shareholders as dividends but will be retained for the development of its business. The declaration and payment by the Company of any future dividends, and the amount thereof, will depend upon the success of the Company's operations, financial condition, cash requirements, future prospects, profits available for distribution and other factors deemed by the Directors to be relevant at the time.

Current Trading and Prospects

The Group has started its Phase III trials programme relating to Multiple Sclerosis, and the Directors believe that the prospects for revenue generation in this market are good. There are approximately 2.5 million people worldwide suffering from Multiple Sclerosis. The Directors believe that GW's product could take a significant share of this market.

In addition, the Directors expect to commence Phase III trials in Cancer Pain during the second half of 2001 and to expand Phase II trials for other target markets. The Directors believe the size of Cancer Pain and other target markets to be substantial and to offer significant opportunities for the Group.

The Directors expect that products for Multiple Sclerosis and Cancer Pain will be submitted for regulatory approval to the MCA in 2003 and, subject to such regulatory approval being granted, being made available for sale in early 2004.

Reasons for the Placing and use of proceeds

The Placing will raise approximately £23.5 million, net of expenses, for the Company. These proceeds will be used to:

- fund the expansion of its late stage clinical trials;
- expand the cultivation and production facilities in anticipation of the initial commercial launch of its products; and
- accelerate the Group's research activities in Europe and North America.

The Directors believe that the increased financial resources and enhanced profile of the Company within the market place will greatly assist GW in its product commercialisation strategy.

Admission to AIM will also provide opportunities for the Company's employees to participate in the future success of the Company and should help attract and retain high calibre staff.

Taxation

Information regarding United Kingdom taxation with regard to the Placing is set out in paragraph 16 of Part VIII of this document. If you are in any doubt as to your tax position, you should contact your professional adviser immediately.

PART IV

Risk factors

Investors should consider carefully whether investment in the Ordinary Shares is suitable for them in the light of the information in this document and their personal circumstances. Before making any final decision, prospective investors in any doubt should consult with an investment adviser authorised under the Financial Services Act 1986. If any of the following risks were to materialise, the Group's business, financial condition, results or future operations could be materially adversely effected. In such case, the market price of the Ordinary Shares could decline and an investor may lose all or part of his investment. Additional risks and uncertainties not presently known to the Directors, or which the Directors currently deem immaterial, may also have an adverse effect upon the Company.

Stage of Development of the Group's Product Portfolio

The Group has not yet marketed any of its potential products, and there can be no assurance that any of the Group's product candidates will be successfully marketed. There can be no assurance that any of the Group's products will successfully complete clinical trials or that they will meet the regulatory and production requirements necessary for commercial distribution. Adverse or inconclusive results from testing or trials of these candidates may substantially delay, or halt entirely, any further development of the products. There can be no assurance that the planned regulatory submission and launch dates for all or some of the Group's products will be met.

Regulatory Approval

In all countries, the Group will be required to obtain and maintain regulatory approval ("marketing authorisation") for its products from the relevant regulator to enable such products to be marketed in that country. The time taken to obtain regulatory approval varies between countries. The grant of a marketing authorisation for a medicinal product requires the evaluation of data relating to quality, safety and efficacy. The manufacture of medicinal products is also subject to regulatory approval. There can be no assurance that any of the Group's products will successfully obtain the necessary regulatory approvals to manufacture and market the Group's products.

Different regulatory authorities in different countries may impose their own requirements (by, for example, restricting the product's indicated uses) and may refuse to grant, or may require additional data before granting an authorisation, even though the same product may have been approved by another country. If an authorisation is obtained, the product and its manufacture are subject to continual review and there can be no assurance that such approval will not be withdrawn or restricted. Changes in applicable legislation or regulatory policies, or discovery of problems with the product, production process, site or manufacturer may result in the imposition of restrictions on the product's sale or manufacture, including withdrawal of the product from the market, or may otherwise have an adverse effect on the Group's business.

Licences

Licences to cultivate, possess and supply cannabis for medical research are granted by the Home Office for periods of one year only. If the Home Office did not renew a licence on expiry, the Group may not be in a position to carry on its research and development programme in the UK. In addition, once regulatory approval is obtained, the Group will be required to obtain commercial licences to cultivate, produce and supply cannabis. The Group has already received written confirmation from the Home Office of the simple procedures required in order to obtain such licences and has received verbal assurances that the issue of such licences should be a straightforward process. However, if the Home Office were not prepared to issue such licences, the Group would be unable to distribute its products on a commercial basis in the UK.

In order to carry out research in countries other than the UK, similar licences to those outlined above will be required to be issued by the relevant authority in each country. In addition, the Group will be required to obtain licences to export from the UK and to import into the recipient country. Although the Group expects

to obtain such licences as required, this may result in delays. To date, the Group has obtained necessary import and export licences for transportation of cannabis material to North America and certain European countries.

Government Policy and Legislative Process

The current government in the United Kingdom has stated that it will permit, subject to regulatory approval from the MCA, cannabis-based medicines to be re-scheduled under the Misuse of Drugs Regulations. There can be no guarantee that government policy may not change in the future.

The Home Office has stated that if the MCA approves a cannabis-based medicine, the Government would start the process to amend the relevant legislation to allow the medicine to be prescribed. The Home Office has stated that the changes could be made swiftly by way of statutory instrument. While the Home Office has stated that the process should be swift and straightforward, there is no certainty that such statutory instrument will be approved without any delay or objections, if at all.

These risk factors associated with legislation to permit commercialisation of the Group's products apply to all countries in addition to the UK.

Competition/Competing Products

Products are available generally that could compete with the Group's products under development in the pharmaceutical market. New products launched by existing organisations or new entrants to the markets in which the Group will operate may adversely affect the Group's business. Many of the companies that have products which will compete with the Group's products under development are significantly larger than the Company and have greater financial resources.

In certain circumstances drugs produced by competitors may be essentially similar to one or more of the Group's products. Essential similarity may occur where two products have the same composition in terms of active ingredient and their pharmaceutical form is the same. There can be no assurance that competitors will not be able to reproduce the Group's products to achieve essential similarity and therefore take advantage of an accelerated approval route which could lead to the Group's products facing generic competition.

Cultivation and Manufacturing

The Group currently has only one cultivation facility. Loss of this facility through fire or other causes could have an adverse effect on the Group's product development and business.

In addition, the Group's proposed products must be manufactured in commercial quantities, in compliance with regulatory requirements and at an acceptable cost. The Group does not yet own and operate cultivation and manufacturing facilities sufficient to make commercial quantities of its products under development. The Directors anticipate that additional expenditure, management resources and time will be required to develop adequate cultivation and manufacturing capabilities. There can be no assurance that the Group will be able to develop and manage commercial cultivation and manufacturing capabilities. There can be no assurance that the cultivation and manufacturing facilities will be approved as meeting required standards for production of the products planned to be produced in the facility or that having received such approval or approvals it will maintain such approval or approvals.

Reliance on Intellectual Property Rights

Due to the nature of the Group's business in the research, development, manufacture and marketing of certain drugs, the Group is dependent on patents, licences and other intellectual property rights. The Group cannot be certain that the intellectual property to which these relate do not or will not infringe upon third party rights which may result in the Group's inability to continue exploiting the intellectual property pursuant to these. The Group cannot be certain that such rights, if challenged, would be found to be invalid. The Group intends to enforce and defend its intellectual property rigorously against all unauthorised infringers of which it becomes aware. Further, the Group's ability to compete effectively with other companies depends, among other things, on the development of the production technologies for its various products. However, there can be no assurance that competitors have not developed or will not develop substantially equivalent information or techniques. Substantial costs may be incurred if the Group challenges the proprietary rights of others or is required to defend its right to operate, develop products and undertake sales in territories where it believes it is free to do so and the outcome of any such challenge or defence would be uncertain.

Third Party Intellectual Property Rights

Due to the nature of the Group's business in the research and development of certain medicines within the pharmaceutical industry, the Group is active in areas in which numerous other third parties also participate. Such third party activities inevitably lead to the generation of third party intellectual property rights such as patents, know-how and other intellectual property. The Group can provide no guarantee that its activities or products will not actually or allegedly infringe third party intellectual property rights and it is the Directors' opinion that any comprehensive evaluation of such a risk is impractical. The Group may in some circumstances be able to design around, or take licenses of, third party rights. It may however need to defend itself against any alleged infringement of third party intellectual property, especially where this may conflict directly with its own activities or where a license is not available on reasonable terms. There is no guarantee that such a defence would be successful. Additionally, such defence could involve substantial cost for the Group. In the event of an unsuccessful defence against third party intellectual property rights, the Group may be forced either to cease commercialisation or development of relevant activities or products or alternatively seek an arrangement whereby non-infringing use of the third party intellectual property becomes available. In either circumstance, these could have substantial cost implications for the Group and the products it is developing.

Compulsory Licences

Compulsory licences are available in respect of certain intellectual property rights if certain circumstances arise. With regard to UK plant variety rights, compulsory licences are available two years after the grant of a plant variety right if the relevant circumstances are deemed to exist. It must be shown by the applicant for a compulsory licence that the relevant plant variety is not available to the public at a reasonable price, is not widely distributed or maintained in quality. Additionally, the applicant must be financially and otherwise in a position to exploit the right and intend to exploit the right. Although no assurances can be given, the Company believes that its commercial strategy is such that the circumstances required for the granting of a compulsory licence will not arise and that if they did, the chances of an appropriate variety becoming available or being developed by a competitor is small given the arrangements it has with Hortapharm B.V.

Pharmaceutical Pricing Environment

The commercialisation of the Group's products depends, in part, on the extent to which reimbursement for the costs of such products will be available from government health administration authorities, private health coverage insurers and other health funding organisations. There is increasing pressure by certain governments to contain health care costs by limiting both coverage and level of reimbursement for therapeutic products and by refusing, in some cases, to provide any coverage for uses of approved products for disease conditions for which the relevant regulatory agency has not granted marketing approval. There can be no certainty that adequate health administration or third party coverage will be available to the Group or any future partners and licensees of the Group to obtain price levels for the products sufficient to realise an appropriate return on investment.

Marketing Risk

Even if the Group's products are successfully developed and approved by the appropriate regulatory agencies, they may not enjoy commercial acceptance or success, which would adversely affect the Group's business.

If the Group decides to establish an indirect sales channel through licensees as a route to market, the successful introduction and commercial acceptance of the Group's products will depend upon the manufacturing, promotional and marketing commitment of the licensees. The identification of appropriate licensees will also have an impact on this process.

Requirements for Additional Funds

The Group's future capital requirements to complete the commercialisation of its product candidates may be substantial, and additional funds will be required. The level and timing of expenditure will depend on a number of factors, many of which are outside the control of the Group. If additional funds should be raised by issuing equity securities, dilution of existing shareholdings may result. In addition, there can be no assurance that the Group will be able to raise additional funds when needed, or that such funds will be available on terms favourable to the Group.

Retention of Key Employees

The Group is heavily reliant upon the skills of its management and scientific team and the loss of any of these key members of staff could reduce the Group's ability to achieve its planned development objectives. The Group has endeavoured to ensure that the principal members of its management and scientific team are incentivised, but the retention of such staff cannot be guaranteed.

Product Liability and Insurance

GW's business exposes it to potential product liability risks which are inherent in research and preclinical study, clinical trials, manufacturing, marketing and the use of human therapeutic products. In addition, it is necessary for GW to secure certain levels of insurance as a condition to the conduct of clinical trials. There can be no assurance that, in the event of a claim, the level of insurance carried by the Group now or in the future will be adequate or that a liability or other claim would not materially and adversely affect the business.

History of Operating Losses and Accumulated Deficit

The Group's principal trading subsidiary, GW Pharma Limited, has experienced operating losses in each year since its inception and, as at 31 March 2001, had a combined accumulated deficit of approximately £5.66 million. GW Pharma expects to incur further substantial operating losses over the next few years as its research and development activities continue and increase and as it develops and increases its cultivation and manufacturing capabilities. The revenue and profit goals of the Group depend on a number of factors outside the Group's control and there can be no assurance that the Group will ever achieve significant revenues or profitability.

European Competition Legislation

The Directors do not believe that any of the agreements pursuant to which the Group has obtained or granted licences of patents, patent applications, technology or know-how are restrictive of competition under Article 81(1) of the EC Treaty and/or the Chapter I provisions of the Competition Act 1998. However the Group will continue to monitor the position and to determine on an agreement by agreement basis whether one or both of the aforementioned provisions become applicable to the existing agreements or agreements entered into in the future and, if Article 81(1) or the Chapter I provisions apply but there is no applicable block exemption or statutory exclusion it will then consider whether to apply for an individual exemption. If the Group (where relevant) did not apply for, or was unsuccessful in obtaining, an exemption where necessary from the European Commission and/or the Office of Fair Trading, provisions of an agreement which were restrictive of competition under Article 81(1) of the EC Treaty and/or the Chapter I provisions of the Competition Act 1998, in particular those relating to the exclusivity of rights granted to or by the Group, would probably be unenforceable. In addition, the Group could be fined by the European Commission or the Office of Fair Trading and a third party who suffered loss as a result of the operation of the agreement could sue the Group for damages.

Share Price Volatility and Liquidity

The share price of publicly traded, emerging companies can be highly volatile and illiquid. The price at which the Ordinary Shares are quoted and the price which investors may realise for their Ordinary Shares will be influenced by a large number of factors, some specific to the Group and its operations and some which may affect the quoted pharmaceutical sector or quoted companies generally. These factors could include the performance of GW's research and development programmes, large purchases or sales of the Ordinary Shares, currency fluctuations, legislative changes in the healthcare environment and general economic conditions.

Prior to Admission, there has been no public market for the Ordinary Shares and there is no guarantee that an active trading market will develop or be sustained after Admission.

Fluctuation of Operating Results

The operating results of the Group may fluctuate significantly as a result of a variety of factors, many of which are outside GW's control. Period-to-period comparisons of the Group's operating results may not be meaningful and investors should not rely on them as indications of the Group's future performance. GW's operating results may fall below the expectations of securities analysts and investors. In that event, the trading price of the Ordinary Shares would almost certainly fall.

PART V

Expert's report

The Directors
GW Pharmaceuticals plc
Porton Down Science Park
Salisbury
Wiltshire SP4 0JQ

The Directors
Collins Stewart Limited
9th Floor
88 Wood Street
London EC2V 7QR

BRIDGEHEAD Technologies

Pera Innovation Park
Nottingham Road
Melton Mowbray
Leicestershire LE13 0PB

21 June 2001

Dear Sirs

Bridgehead Technologies Ltd is a privately owned company established in 1995. It is a leading consultancy specialising in the assessment of healthcare companies, projects, products and markets and assisting in their development. Over the past 5 years Bridgehead Technologies Ltd has prepared public and private placing documents for development stage biotechnology, pharmaceutical and life sciences companies. In addition many due diligence assignments have been successfully completed on behalf of international investors.

Bridgehead Technologies Ltd employs specialists with knowledge of science, technology, product development, markets and business issues in medicine and life sciences.

Bridgehead Technologies Ltd has been instructed by GW Pharmaceuticals plc ("the Company") to assess and review certain aspects of its business namely:

- the merits of GW's products;
- GW's business plan, including the critical path and timescale to commercial exploitation and any projections of the market potential for the company's products by indication and geographical area;
- GW's regulatory strategy;
- therapies used and;
- the risk factors which might affect GW's business plan.

In preparing this report Bridgehead Technologies Ltd's consultants have conducted interviews with some of the key Company staff and officers; i.e. the Executive Chairman, Scientific Director, Managing Director, Director of R&D Operations, Medical Director, Finance Director, Director of Botanical Research and Cultivation and Regulatory Affairs Manager; made an extensive review of the documentation provided by the Company such as the business plan, project plans, flow charts and market projections; and assessed its activities with reference to the proprietary knowledge base possessed by Bridgehead Technologies Ltd. In addition, the documentation supplied by the Company has been supplemented by Bridgehead Technologies Ltd's own interviews with external independent experts.

This report has been prepared with care and due diligence, based upon information provided to Bridgehead Technologies Ltd at the time of preparation. Bridgehead Technologies Ltd has no reason to doubt the veracity of such information but Bridgehead Technologies Ltd has only verified it to the extent indicated above. Changes in circumstances may render such information invalid at any point hereafter.

The scope of this report does not address the legal aspects of the Company's operations or its intellectual property in detail although it does cover the Company's IP strategy.

1. Background to the Company

GW is a pharmaceutical group ("the Group") developing a portfolio of medicines derived from cannabis plants grown under controlled conditions, to meet patients' needs in a wide variety of therapeutic indications. The Group's products are based on whole plant extracts, cannabis-based medicinal extracts (CBMEs), which contain a mixture of selected target chemicals principally cannabinoids – cyclic hydrocarbons found only in cannabis. These cannabinoids can then be delivered to patients via a series of devices such as sprays, tablets and inhalers. Bridgehead understands that the reported beneficial therapeutic effects of these extracts may depend on the interaction of certain cannabinoids and other components of the original plant. Thus the effect of the plant extract is likely to prove more beneficial in many target medical conditions than a single isolated cannabinoid compound extracted from the plant or produced synthetically. Such plant extracts have the added advantage that they can call on the historical safety and efficacy data available for cannabis, whilst offering a safer more appropriate medicinal formulation and application method, compared with smoking cannabis. Relative to many pharmaceuticals GW's cannabis-based medicines will benefit from short development times due to anecdotal evidence of the long history of safe and effective use of cannabis. This also holds out a greater potential of success than many other biopharmaceutical or biotechnology programmes.

In Bridgehead's view GW has the capability to maintain control over all aspects of the development process from botanical research, plant cultivation, extraction, formulation into drug delivery technologies, clinical trials and regulatory affairs. This capability comes in large part from the management and team, which GW has brought together. In particular, the Group is well able, through its control of starting materials, to meet the standards of quality laid down by the regulatory authorities.

Bridgehead understands that the Group has raised approximately £12 million from private investment since its inception. The Company is now looking to maintain the rapid advances in its clinical trials programme by carrying out the first set of pivotal Phase III trials for its lead products in Europe and to start clinical trials in the US. GW will also continue to build its technology platform of botanical research, pharmaceutical development and drug delivery systems.

1.1 *Organisation, management and key staff*

Bridgehead believes that GW has put together strong management and production teams. The Group's co-founders previously set up a plant medicines company, now listed on the London Stock Exchange, and the Company's Executive Chairman also previously founded a drug delivery company, taking this company public on NASDAQ in the US.

The Group's co-founders are supported by a highly motivated and experienced management team. In addition, the Group has appointed a number of scientific advisors including many of the world's leading experts in the area of cannabinoid science. GW is also ensuring that key people in the cannabinoid research area are brought on board, strengthening the Group's reputation in this area. This is a relatively small field with a large number of the key researchers already involved with the Group or acting as advisers.

1.2 *Research, development and licensing agreements*

Bridgehead understands that GW has entered into a number of commercial agreements, the principal being an exclusive worldwide collaboration with the Dutch medicinal cannabis breeding specialists Hortapharm BV. Bridgehead understands that Hortapharm has been researching the cannabis plant for a decade, with its staff comprising individuals who have published several works on cannabis botany. Hortapharm has also developed techniques for breeding varieties of cannabis of a pre-determined cannabinoid composition. By obtaining access to all of Hortapharm's relevant know-how and plant varieties (present and future), Bridgehead believes that GW's cultivation programme has been accelerated by several years. Bridgehead understands that under the terms of the agreement, Hortapharm retains rights to use its IP for purposes other than human and veterinary medicine or nutraceuticals, e.g. for cultivation of hemp for textile or oil purposes. GW's rights are also non-exclusive for China (PRP), but there is provision excluding the right to export from China.

GW also has an agreement with a US botanical drug development company under which this company is working on the development of a CBME product in the US. The Group has entered into two sponsorship agreements with the University of Oxford as well as agreements with a number of other companies with whom it is collaborating to develop new technologies relevant to its research activities.

1.3 *Clinical development strategy*

Anecdotal evidence suggests that medicinal cannabis may be useful in a range of medical conditions. Initial clinical studies undertaken by GW have established the tolerability of different ratios of THC to CBD, have enabled the development of a suitable dosing regimen for patient studies and have facilitated the optimisation of administration.

Initial patient studies, using an "N of one" design in which patients act as their own controls with evaluations on treatment compared with periods on placebo, have suggested beneficial effects of GW products and have further helped to refine the dosing regimen. Based upon the findings from Phase II studies and discussions with the UK regulatory authority, the initial indications for Phase III studies will be multiple sclerosis and cancer pain. Subsequent indications will include neurogenic pain and neuropathy associated with spinal injury, diabetes, phantom limb pain and other neuropathic disorders. Later, indications will be expanded to include inflammatory disorders such as rheumatoid arthritis and inflammatory bowel disease and, later in development, to include brain injury.

Two year carcinogenicity studies will be undertaken on CBD in parallel with the clinical programme. Subject to the satisfactory outcome of the clinical programme this should permit unrestricted licences in multiple sclerosis and cancer pain for narrow ratio THC:CBD in the second half of 2004. Marketing approval in cancer pain and in multiple sclerosis for a high THC product will most likely be obtainable earlier. In addition, marketing approval in multiple sclerosis with a six month limit to duration of therapy for a THC:CBD product should also be obtainable earlier.

GW plans to undertake the management of the clinical studies within the UK with its own resources and is recruiting suitable teams of clinical research scientists to undertake this work. This has the advantage of enabling GW to keep tight control of the programme and may be cost-efficient compared with the use of clinical research organisations. It is a substantial programme however and is likely to require additional resources particularly for data management and analysis. Studies outside the UK will be managed through contract research organisations, as GW has neither the resources nor the personnel in other European countries.

GW's plans also include full preclinical and clinical programmes in the US.

1.4 *Manufacturing status and plans*

The key consideration when developing plant-based medicines is control of starting materials, to meet the standards of quality laid down by the regulatory authorities. All the cannabis plant material used by GW in its pharmaceutical development process is in the form of cloned plants, derived from the association with Hortapharm, which are grown under computer-controlled conditions in the UK. The Group therefore has complete control over the breeding of plants with the optimal cannabinoid content and composition; selection of cannabis clones providing a consistent composition of cannabinoids; cultivation of these clones; harvesting of the mature plants; and processing of the resultant highly specified plant material. This ensures that the end product meets the high specifications for a pharmaceutical product which are laid down by the regulatory bodies. Such high levels of consistency are unusual in plants, particularly cannabis and are likely to be a key advantage when applications are made to the medical regulatory authorities.

Bridgehead understands that GW is preparing to establish in-house production capability in order to be able to manufacture its first marketed products. The strategy is to develop and refine production methods in-house to cater for the final stages of product development and sales in its initial target markets. Longer term, GW expects to contract-out large scale production.

With GW's cannabis, the variability inherent in plants grown from seed or collected from the wild is reduced by growing the plant in a controlled environment from clones of selected strains of *Cannabis sativa*. Candidate chemovars (cannabis clones defined by their specific chemical make up) are selected on the basis of morphological and agronomic considerations. There is some quantitative variation in yield but the genotype, the genetic composition of the plant, is fixed. This gives a degree of control over the composition of the starting material, which is unusual in the regulatory assessment of botanicals as new medicines.

Selected cannabis clones are propagated via the use of cuttings and grown at GW's specialist cultivation facility which allows for control of the photoperiod necessary to induce flowering and optimisation of yield. It also ensures virtual elimination of adventitious pests and results in a plant material that is of consistently high quality. The cannabis plants are harvested manually. This is a relatively non-labour-intensive process and can be achieved very rapidly. The plant material undergoes a series of processing steps and is then extracted, using an approach that is well understood and is widely employed in the extraction of natural products and components of food materials. The method is at the forefront of extraction technology and is considered a very mild processing technique – well suited to the retention of labile actives.

Bridgehead considers that GW is continuing to make considerable advances in extraction efficiency which is undoubtedly the bottleneck of the process. This will have knock on effects on facility and patient requirement projections. However, figures currently being employed for these purposes are realistic and do not depend on any further process improvements.

Quality assurance depends on the ability to measure quantitatively the active component, and validation of the quantitative tests employed. GW uses validated chromatographic methods for identification and assay of the principal active components of the CBME. Using these, and other methods of instrumental analysis, it is possible to produce a specification for the extract from which the finished dosage form is made. Compliance with Release and Check Specifications provides assurance that the drug substance and the finished product have batch-to-batch reproducibility. It is also possible to provide evidence from stability tests which can be used to determine a shelf life for the product.

Bridgehead considers that projections for future crop requirements in line with market needs are sensible and manufacturing requirements and plans are being handled appropriately.

1.5 *Regulatory status and plans*

Within the past three years, there have been two major official investigations into the science surrounding the medical benefits of cannabis – by the House of Lords in the United Kingdom and the National Academy of Sciences, Institute of Medicine in the United States. Both of these investigations concluded that there is strong evidence that cannabis has significant medical value and recommended that clinical trials on appropriate formulations derived from cannabis be performed as soon as possible.

Bridgehead understands that the Home Office has worked closely with both GW and the Medicines Control Agency (MCA), the UK's regulatory authority, on establishing necessary control procedures to facilitate the progress of GW's research programme. GW also works with the police to ensure the strictest security surrounds any work conducted involving the Group's cannabis material.

In addition, the UK Government has stated repeatedly that it will permit, subject to regulatory approval from the MCA, cannabis-based medicines to be re-scheduled under the Misuse of Drugs Regulations so as to enable their general prescription. In February 2001, Charles Clarke MP, Minister of State at the Home Office submitted oral and written evidence on UK Government policy to the House of Lords Science & Technology Select Committee. He stated the Government's policy to be as follows:

"If the clinical trials into cannabis are successful and they do lead to a medical preparation which is approved by the Medicines Control Agency, the Government is absolutely clear that we are willing to amend the Misuse of Drugs Regulations to allow the prescribing of such medicine."

Bridgehead understands that such amendments could be made swiftly, by way of secondary legislation subject to negative resolution. Importantly, these changes would not relax the existing controls on illicit use of herbal cannabis material, rather they would permit only the prescription of specific cannabis-based medicines approved by the regulatory authorities. GW's medicines would not therefore face any additional competition as a result of this change. Any potential competitor would still be required to conduct years of research to develop an alternative cannabis-based medicine to the satisfaction of the UK regulatory authorities and then to have that product placed in an appropriate Schedule by the Home Office.

Bridgehead understands that throughout the development and initiation of the clinical programme GW has liased closely with the MCA and has obtained significant guidance on the specific requirements for pre-clinical and clinical safety data needed for marketing authorisation. Specifically the discussions have clarified:

- acceptance by the MCA of the development of a plant extract based product rather than highly purified or synthetic cannabinoid molecules;
- acceptance by the MCA and Committee on Safety of Medicines (CSM) that there is adequate information on the toxicology of tetrahydrocannabinol (THC), the major cannabinoid present in GW's high THC product, and that therefore no further toxicology studies will be required;
- there is less data on the preclinical safety of cannabidiol (CBD), a further naturally occurring cannabinoid in the plant. Therefore an additional chronic toxicity (carcinogenicity) study will be required prior to Marketing Authorisation for long-term use. The requirement, however, is significantly less than for new chemical entities (NCEs). Prior to completion of a satisfactory carcinogenicity study, a marketing authorisation for a CBD-containing product could be obtained but this would be restricted to six months, or possibly to a total dose of no greater than six months treatment at maximum dose;
- in discussion with the MCA it has been agreed that the optimal regulatory route for European licences will be an initial submission to the MCA followed by application for licence in the other European states, through the mutual recognition procedure; and
- through ongoing discussion and amendment to the clinical trials exemption certificates, GW has gained authorisation to proceed with long term extensions to their Phase II studies, including long-term extensions to those studies with formulations that include CBD.

Bridgehead understands that based on these discussions GW plans that the sequence of regulatory applications will be as follows:

- chronic use of high THC in cancer pain and possibly multiple sclerosis;
- acute use of a THC/CBD mixture in a 1:1 ratio for a number of indications with initial focus on multiple sclerosis and cancer pain; and
- chronic use of THC/CBD in the 1:1 ratio for a number of indications with the initial focus again being on multiple sclerosis and cancer pain.

In Bridgehead's opinion, for wider registration within Europe it cannot be assumed that the views expressed by the MCA and the limited requirements for additional data will be shared by other Member States or that all Member States will adopt a similar view to the UK authorities regarding changes to the law on the use of cannabis. Some countries such as Germany, Italy, Holland and Belgium are likely to take a more relaxed view than perhaps others. GW is aware of this situation and plans to have separate discussions with the regulatory authority of each Member State. It may be reasonable to assume that many European countries will approve the use of products with little or no additional data to that required by the MCA. However, a number of Member States may require additional preclinical or clinical studies.

Bridgehead understands that pre-IND (investigational new drug) filing discussions have been held with the FDA regarding their requirements in terms of clinical and pre-clinical data for a new drug application. During 2000, the FDA issued draft guidelines on the requirements for development of plant-based medicines. These are encouraging to GW as they recognise the differences between plant-based medicines and synthetic pharmaceuticals. As a result a number of requirements are simplified, delayed or omitted with the overall effect of simplifying the requirements for licensing of plant-based medicines in the US. However, additional work is likely to be required within the US particularly in the form of additional carcinogenicity and other preclinical toxicology studies. These requirements will be clarified through further pre-IND meetings with the FDA.

Following introductions from the Home Office to various US Government agencies, GW has held meetings and continues to have ongoing positive discussions with the Drug Enforcement Agency (DEA), the Office for National Drug Control Policy (ONDCP) and the National Institute of Drug Abuse (NIDA). ONDCP has commented publicly on medicinal cannabis as follows: "To have medicine determined by science and not by popular will is exactly what we support.''

In May 2001, GW received its first DEA licence to import product into the US. Bridgehead considers that this is an important step for the Group demonstrating progress in the US and confirming the potential for developing products for the US market.

In the UK, GW operates under licences granted under Section 7 of the Misuse of Drugs Act 1971 (the Act). These licences allow the Group to cultivate, possess and supply cannabis for the purpose of medical research. Licences under the Act are issued on an annual basis. The Home Office automatically renewed GW's licences after the expiration of the first, second and third year and has stated to GW that future renewals should be processed in the same way.

1.6 *Intellectual property strategy and its commercial implication*

In Bridgehead's opinion, much of the value of GW lies in its Intellectual Property and it is important that this be maintained, strengthened and added to as much as possible. GW has considerable know-how backed by patent applications. Such know-how, including the know-how and plant variety rights exclusively licensed to GW from Hortapharm, is not readily available elsewhere.

GW has made initial filings of five patent cases, and has more in preparation. The Group is the exclusive licensee of one other patent case and of some plant variety rights. The five cases in GW's name have been filed within the last 12 months; the licensed case is close to grant in the US.

The cannabinoid field has been the subject of some patenting by third parties. In Bridgehead's opinion, it is unlikely, but not impossible, that either GW or third parties will be able to gain 'master' patents because there is considerable prior art. GW's policy of forming a web or matrix of intellectual property rights protecting their developments is therefore correct. Bridgehead understands that GW has instructed its patent attorneys to carry out searches and put in place watches for third party patents and patent applications and, where necessary consults its patent attorneys on whether such patents and patent applications are relevant to its business.

In Bridgehead's opinion the very considerable difficulty for a third party of showing "essential similarity" of their products to GW's botanical products means that GW is unlikely to meet direct generic competition. The Group may, however, meet indirect competition from third party products which are not the same as theirs, but which can provide slightly different, equivalent or even better results ("near copies"). A third party wanting to develop such "near copies" will, unlike conventional generic copyists, have to go through the full regulatory process. The value of the GW intellectual property will therefore rest largely on

- the complex botanical nature of the Group's products;
- the Group's patents/applications; and
- whether superior results can be achieved with GW's products compared with those of its competitors.

Bridgehead understands that GW believes that it can get to the market quickly because of the prior art experience with cannabis. However, the possibility of this quick approval will also apply to any third party seeking to register a 'near copy'. Given that there does not appear to be any such third party seeking to compete directly with GW at this time, GW's lead time provides the Group with an extremely strong competitive position.

1.7 *Marketing and sales strategy*

Bridgehead understands that GW's strategy is to produce cannabis-based medicines for the worldwide market. In Bridgehead's view the UK represents a relatively more certain market than that usual for a new drug entry. The different regulatory and political climates within other countries means that the risk will be increased in these countries, affecting the market potential for GW's products.

The marketing of pharmaceutical products internationally is generally a massive undertaking, requiring the input of tens or even hundreds of millions of dollars in promotional funds, together with the active participation of field forces numbering several thousand. There are some exceptions to this rule, where products address very evident unmet needs in focussed markets which are under the control of a small number of well-informed specialist physicians. Of the main markets for the GW products, arthritis falls in the first, very expensive category, while multiple sclerosis and cancer pain could be considered to fall within the more niche, second group.

Bridgehead considers that at present and for the foreseeable future GW, as a small group which has to date concentrated entirely on the development of pharmaceutical products, has neither the infrastructure nor the financial resources nor the in-house expertise to support commercialisation of these products in either of these market types, with the possible exception of selected national markets for niche product uses. In recognition of this, the Group has put forward a strategy involving partnerships with larger players, covering either just the marketing of the products or in some scenarios also some of the expensive late stage development work. In the great majority of cases these will be industry-standard licensing deals, involving initial lump-sum payments for access to rights, some benefits from product supply and subsequent royalties on sales. The only exception to this rule could be isolated niche opportunities of the type mentioned above, where the Group might seek in certain countries to retain greater control over and involvement in its product, and potentially greater revenue shares, by appointing a distributor, with more limited duties and rights. In all cases this implies a reliance on a third party to achieve the Group's objectives.

As a general principle Bridgehead considers that this is an appropriate strategy. The reliance on third parties that is involved, while being associated with a degree of risk, is both unavoidable and common within the industry.

The Group's approach to implementation of this strategy is to delay the establishment of partnership agreements until as late as possible – in some cases even until the products are virtually on the market – in order to build as much value as possible into the products before agreeing financial terms. In Bridgehead's opinion, this is a higher risk approach than seeking earlier agreements, and relatively unusual in the industry, since there is in all pharmaceutical development programmes an in-built possibility that the product may not match expectations at a late stage, when it would be lost without ever having earned cash for the Group. Given the breadth of the GW portfolio, however, which leaves several alternative earning opportunities if one fails, and the degree of existing data to support the concepts, Bridgehead considers the additional exposure resulting from taking this approach is only moderate, and is compensated by the prospect of higher earnings than would otherwise be achieved.

Within this overall strategy a number of different approaches are possible – seeking just one global partner, or many local ones, for example. Given the nature of the products and their markets, the scenarios considered by GW give a reasonable picture of some of the key options facing the Group.

Bridgehead considers that the broad commercialisation proposals of the Group are appropriate strategically, although with slightly greater than industry average risk due to the late licensing approach, and achievable contractually. They do imply heavy dependence on third parties, but that is the norm for a company in this situation, and with potentially attractive products such as GW's, it should be possible to find high grade partners.

2. Technology Overview

2.1 *Cannabis-based medicines*

The plant *Cannabis sativa,* also known as hemp, contains more than 60 chemically related 21-carbon cyclic hydrocarbons known as cannabinoids plus smaller amounts of terpenes and flavenoids. D9-tetrahydrocannabinol (THC), is the most abundant of the cannabinoids and is generally considered to account for the psychoactive properties of cannabis. Other cannabinoids are thought to have therapeutic properties and/or to modify the effects of THC. Examples include cannabidiol (CBD) and cannabinol.

GW is developing whole plant extracts of proprietary cannabis plant varieties, with initial focus on production of extracts from plant varieties that have been bred to provide a pre-determined content of THC and CBD. GW incorporates extracts from these plant varieties into a range of drug delivery technologies including a sub-lingual spray, sub-lingual tablets and an inhaler, which is based on vaporisation technology. All products undergo a full pharmaceutical development programme, including pre-clinical and clinical trials, with a view to obtaining approvals from regulatory authorities around the world.

Bridgehead believes that GW is the sole worldwide, licensed producer of *pharmaceutical* grade cannabis plant materials, i.e. materials designed to comply with pharmaceutical regulatory requirements. A Dutch producer also claims to produce *medical* grade cannabis with varying ratios of CBD to THC, but does not have a government licence. This gives GW a significant time advantage over other competitors wishing to take a similar approach to the production of cannabis extract.

2.1.1 Mechanism of action of the cannabinoids

Bridgehead understands that the beneficial therapeutic effects reported by patients who use cannabis result from the effects and interaction of cannabinoids on a system of cannabinoid receptors within the body. The underlying mechanisms of action are not well understood, but cannabinoids are believed to exert their effects by binding to certain cells within the body, and modifying their physiological state.

2.1.2 The cannabinoid receptors

The cannabinoids affect the body through two different receptors (CB1 and CB2). These are structures located on nerve cells or other tissues that are only activated by certain types of molecules, such as cannabinoids. They are also activated by the chemical anandamide, produced in the body, which has a similar but weaker effect than THC. The CB1 receptor is discretely distributed in the brain and central nervous system. Communication between brain cells, or neurons, is accomplished by movement of chemicals across a small gap called the synapse. Chemicals, called neurotransmitters are released from one neuron – the presynaptic nerve terminal, then cross the synapse and are accepted by the next neuron at a specialized site – the postsynaptic receptor. Cannabinoids are believed to bind to receptors (presynaptic or postsynaptic) on certain neurons, and mostly have an inhibitory action.

High CB1 receptor densities are found in areas of the brain controlling movement, coding sensory information/cognition and storing memory. Cannabinoid binding to these receptors may explain their inhibitory effect on such activities. The low density of cannabinoid receptors in the brain area controlling respiration could account for the lack of reports of cannabis producing profound respiratory depression in humans.

In contrast, the CB2 receptor is found primarily in the spleen and cells of the immune system. In general CB1 and CB2 receptor affinities for several cannabinoids are similar with the exception of cannabinol, which appears to be more selective for the CB2 receptor. The role of CB2 cannabinoid receptors in the immune system has not been established, but they may have a modulatory role possibly shown by the immunosuppressive and anti-inflammatory effects of cannabinoids.

2.1.3 Potential mechanisms of action of GW products

GW believes that cannabis with high concentrations of the major cannabinoid, THC, will be useful for relief of neurogenic pain (including cancer pain). GW believes that THC works in several ways: as a neuromodulator (a chemical that activates or inhibits the transmission of nerve impulses); as an analgesic; and also as an anti-inflammatory. In addition GW believes that cannabis with high concentrations of the further cannabinoid, CBD, will be useful for the treatment of spasticity – an abnormal increase in muscle tone, in multiple sclerosis, spinal cord injury, phantom limb pain and peripheral neuropathy. GW further believes that CBD modulates the activity of the immune system and through pre-conditioning CB1 and CB2 receptors. It is also a weak analgesic, an anti-inflammatory (possibly via Cox 2 inhibition) and a TNF inhibitor. In Bridgehead's opinion these are credible possible mechanisms of action for THC and CBD, reflecting the current state of research.

GW believes that beneficial interactions occur when THC-CBD mixtures are used. Further, GW believes that THC-only preparations (such as the synthetic Marinol) have not become major products as they do not benefit from these interactions, have limited therapeutic efficacy and are poorly tolerated by patients. This may be due to the fact that these products are oral capsules which give variable absorption rates and means that patients are unable to titrate and control their dosage. Such synthetic cannabinoids could therefore potentially benefit from the more effective drug delivery technologies such as those which GW is developing. The limited therapeutic efficacy may also result from the complex mechanism of action, for relief of symptoms using cannabis. This complex reaction appears to involve a variety of chemical and receptor interactions. By contrast, synthetic THC effects appear to involve only limited receptor interactions.

In Bridgehead's view, the superiority of GW's extract approach over the synthetic production of cannabinoids is a critical issue for competitiveness. Bridgehead considers that beneficial interactions may occur with the THC:CBD mixture and that an answer to this question should be provided in the ongoing clinical trials of this product. Such clinical trials will also demonstrate the effects of non swallowed oral dosage forms, such as GW's sublingual spray.

2.2 *Drug delivery technologies*

Bridgehead understands that GW has three delivery systems developed or under development:

- sub-lingual spray technology that is being used for the Group's lead products, the first of which is now in Phase III trials;

- sub-lingual tablets, which have been used in the Group's Phase I trials and in one Phase II trial. These tablets have been developed in-house by the GW team; and

- inhaler technology (based on vaporisation). This is partly funded by a £150,000 grant awarded under the UK Government's SMART award scheme which is subject to rigorous scientific and financial assessment. GW's device will enable patients to benefit from the rapid relief associated with inhaled delivery but without exposure to the carcinogens produced when cannabis is smoked. Since obtaining the SMART award, GW has entered into a partnership with a major UK electronics company to support this project. Intellectual property rights relating to this technology will be owned exclusively by GW. First trials using this device are expected to be underway during the second half of 2001. The device has potential for use in the administration of non-cannabis products and GW will also be exploring its wider commercial applications during the course of its development.

GW has collaborated with design engineers in the development of specialist security technology which can be applied to all its drug delivery systems. The aim of this anti-diversionary technology is to prevent any potential abuse of cannabis-based medicines. In addition, this technology is intended to allow for the recording and remote monitoring of patient usage. The device will therefore recognise and prevent any abnormal use, which differs from expected prescribed usage. Such data would be extremely valuable to GW and would also allow for efficient control in clinical trials. GW's design team has developed the first set of prototypes for the technology as applied to the sub-lingual spray pump and a patent application has been filed.

Bridgehead believes that this technology has the advantage of potentially allowing the rescheduling of GW's CBME in its various formulations to lower than Schedule 2, under the Misuse of Drugs Regulations. The technology also has applications for the delivery of other drugs, in particular controlled drugs such as opiates. The Group is therefore evaluating options for the licensing of this technology to other pharmaceutical companies.

2.3 *Competitive Environment*

In Bridgehead's opinion GW has no direct competitors for the production of legitimate *pharmaceutical* grade cannabis. The therapeutic properties of cannabinoids are attracting considerable interest in the scientific community and pharmaceutical companies are starting to evaluate synthetic cannabinoid-like drug candidates. However, there are significant barriers for potential competitors wishing to set up a cannabis/cannabinoid development and production programme. In addition to the regulatory and bureaucratic hurdles that would need to be overcome, GW has built up a lead position in production of cannabinoid extracts from plants, which would require any new competitor to catch up with several years of work. GW is also the world's only source of cannabis suitable for use in full-scale pharmaceutical development. GW is further protecting its market through the establishment of intellectual property rights covering botanical research, pharmaceutical development and drug delivery systems (see Section 1.6 Intellectual property strategy and its implications).

Other companies are known to be developing medicinal cannabinoids. These include:

- Pharmos Corp, which is developing Dexanabinol, an optic isomer of THC reported not to have the same psychotropic side effects. This is in Phase III clinical trials for the treatment of traumatic brain injury. Pharmos is also developing Dexanabinol for stroke and it is reported to significantly suppress functional and pathological brain defects in experimental autoimmune encephalomyelitis, the most widely-used animal model of multiple sclerosis; and
- Atlantic Technology Ventures Inc. is developing CT-3 (1',1'-Dimethylheptyl-delta-8-tetrahydrocannabinol-11-oic acid) which has FDA approval for clinical testing. A Phase I trial using oral and parenteral formulations is underway in France. Studies employing several animal models suggest that CT-3 is an effective, orally active anti-inflammatory and analgesic with no psychoactive effects.
- Oxford Natural Products which is developing a THC hemisuccinate suppository, licensed from the University of Mississippi, for nausea.

In addition to the clinical programmes outlined above there are also several research programmes such as those at University of California, San Diego and University of California, San Francisco, who were awarded a $3 million grant by the State in early 2001 to test cannabis for a variety of medicinal purposes. The project calls for proposals for studying cannabis in HIV-infected, AIDS, cancer and multiple sclerosis patients and Bridgehead understands that GW is working with the universities in these programmes. GW also funds certain projects in the area of cannabis research at the University of Aberdeen, where scientists have developed a technique that makes cannabis soluble so that it can be used in injections or sprays. The American Cancer Society has awarded a 3-year, $361,000 grant to researchers at the Albany College of Pharmacy to develop a cannabis skin patch to control chemotherapy-related nausea and vomiting. Marinol and other oral drugs are approved for this indication, but vomiting can preclude their effectiveness. Other groups are developing research molecules, which currently are very far from market and may not actually be intended to be developed as pharmaceuticals.

3. Development pipeline

3.1 *GW's Approach*

The active ingredient of GW's products comprise whole extracts of plants. Two specially bred plant species are used because of their specific cannabinoid composition. Products will contain the extract of either of these species or a blend to obtain the desired cannabinoid ratio. These are then formulated for incorporation into drug delivery systems.

GW's products are classified by their principal cannabinoids, specifically the ratio of these cannabinoids. The basis of the current development portfolio is the content and ratio of THC and CBD. A number of GW's products are being developed for more than one disease indication. Each indication will require separate clinical trials programmes and a regulatory dossier in order to gain product approval for use in the target medical condition. GW's product portfolio is being enhanced through the development of new drug delivery systems and new cannabinoid products are being considered for evaluation. Bridgehead understands that GW intends to seek indications in a phased manner with the timing of applications being dependant on regulatory and scientific advice, availability and results of appropriate pre-clinical safety data, and Phase II and III studies.

Products addressing several target markets are already in Phase II clinical trials. Similar trials for additional target markets will commence in the near future. The Group's first Phase III trial in multiple sclerosis has just commenced, with the Phase III trial in cancer pain due to start in the second half of 2001. GW is able to develop the pipeline at such a rapid pace because much of the early work already carried out by its team need not be repeated for each additional target market.

3.2 *GW's Product Portfolio*

3.2.1 High THC

This CBME has a high content of THC (95% of cannabinoid content +/– 1.5%) and is being developed for treatment of pain including cancer pain and migraine. Bridgehead believes that there is strong evidence that cannabinoid receptor agonists induce selective pain processing through the activation of CB1 receptors, both in the spinal cord and brain. There is some evidence that CB1 receptors may suppress hyperalgesia (increased pain sensitivity) and allodynia (pain from stimuli which are not normally painful). Cannabinoids also exhibit synergism with opioids, possibly by stimulating the release of kappa-opioids.

3.2.2 THC:CBD (narrow ratio)

This CBME has a 1:1 ratio of THC to CBD achieved by mixing in the correct proportion the extracts from high THC producing plants and high CBD producing plants. The product is intended for use in multiple sclerosis, spinal cord injury, peripheral neuropathy (diabetes and AIDS) and other neurogenic pain, and also possibly in the relief of cancer pain.

3.2.3 THC:CBD (broad ratio)

This CBME consists of higher proportions of CBD than THC and is intended for use in rheumatoid arthritis and inflammatory bowel disease. This product formulation hopes to exploit the properties of CBD such as its effect on the immune system, its anti-inflammatory effect and its reduced psychoactive effect compared with THC.

3.2.4 High CBD (>95% CBD)

This CBME is mainly CBD again hoping to exploit the different attributes of CBD compared with THC and is intended for use in psychotic disorders such as schizophrenia, epilepsy and movement disorders and stroke/head injury.

3.3 *Status of GW's Current Product Portfolio.*

The figure below illustrates the Group's current approach in terms of products to be marketed (defined by the levels and ratio of THC to CBD) and the indications for which such products will be marketed. The Group reserves the option to change the focus of its effort depending on the clinical performance of products for various indications. Bridgehead considers that a parallel development programme such as this, allowing faster development times, will have a requirement for bridging studies.

The figure also illustrates the position to which the Group is moving, by taking advantage of the potential to gain approval on some products earlier than others, in line with MCA recommendations. It should be noted that cancer pain and multiple sclerosis can be treated with both the high THC product and the THC:CBD narrow ratio product.

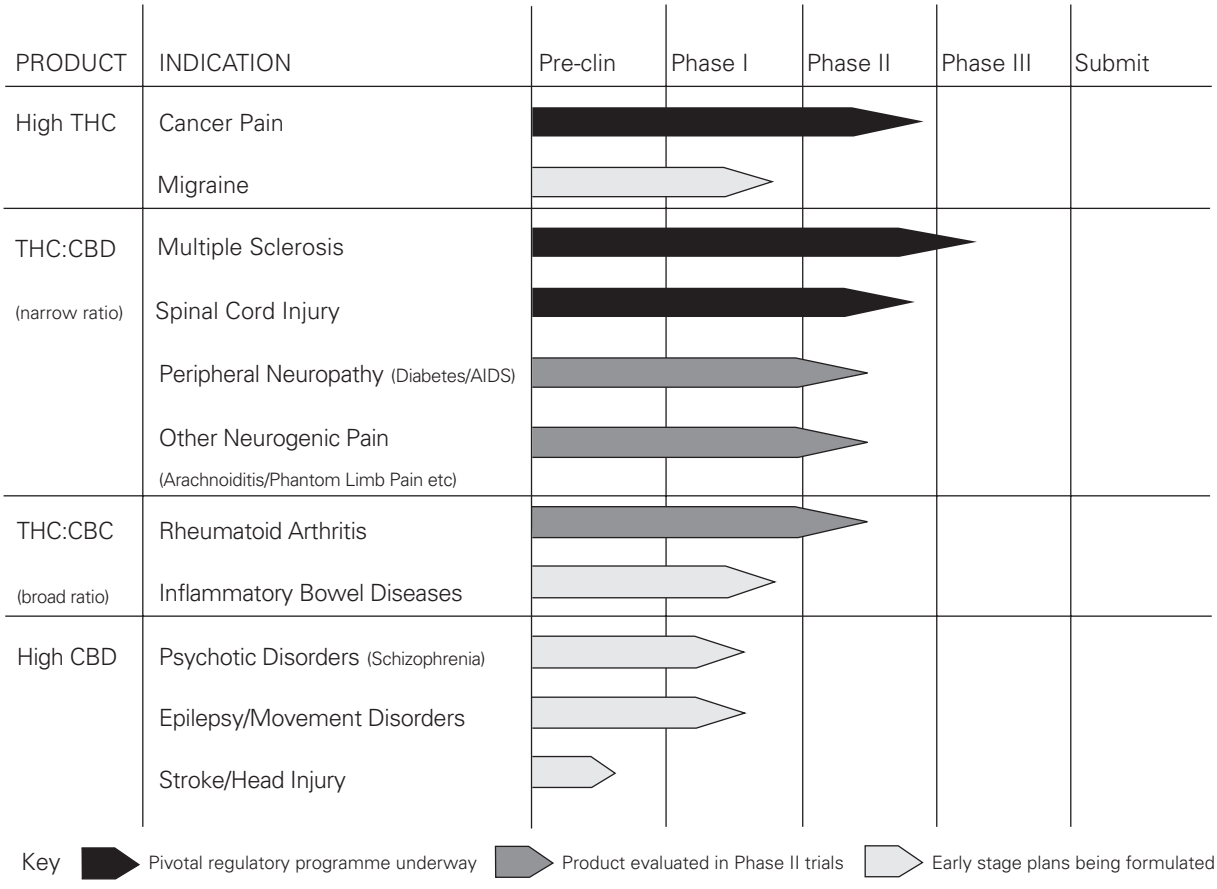


Table 1 Market potential for GW products

Indication	*UK patient population*	*Worldwide patient population*	*Unmet needs*	*Competitive situation*
High THC Cancer pain	30-50% solid tumour patients; 70-90% with advanced disease. 255,000 new cases in 1996.	26 million patients worldwide. Pain experienced by 30-60% with active disease and 66% with advanced cancer.	Current treatments are effective but are often not prescribed effectively. Therefore around 30% of patients still suffer intractable pain.	Highly competitive. Several major companies are involved. There are several competing technologies and many products in development for this indication.
Migraine	5.9 million	9.1% of the US population - approximately 23 million.	Lower level of unmet need since the introduction of triptans, e.g. sumatriptan (5-HT agonists) based on the interaction with the body's serotonin mechanisms.	Search for new agents with the efficacy of sumatriptan with more acceptable side effect profile. Major companies involved in development of 5-HT agonists and other agonists and antagonists.
THC:CBD (narrow ratio) Multiple sclerosis	85,000	Prevalence in US 350,000 and Europe 450,000. Pain occurs in > 50% of sufferers.	Complete symptom relief, prevention of relapse and treatment of the underlying condition are all underserved.	The market for treatment of the underlying disease is becoming more competitive e.g. Interferons. The market for symptom relief is less competitive.
Spinal cord injury	50,000	15-40 cases per million population. 250,000 people in the US. > 50% of patients have severe pain.	High unmet need. Existing drugs ineffective in treating nerve related pain.	Major companies involved in drugs for pain relief. Anecdotal evidence that cannabis provides effective relief from pain allowing reduction of other pain medication.
Peripheral neuropathy	280,000-560,000 (diabetic peripheral neuropathy).	US - 1.5 million to 2.8 million. 4 million diabetics suffering from peripheral neuropathies.	High unmet need. No established treatment for pain arising from nerve damage. Available treatment for nerve dysfunction e.g. spasticity have limited effectiveness and have poor side effect profile.	High potential for new drug development for neuropathic pain. Major companies involved in development of drugs for pain management.
Other neurogenic pain – phantom limb pain	1.2 to 2.4m (all neuropathic pain inc. diabetic).		High unmet need. No established treatment for pain arising from nerve damage. Available treatment for nerve dysfunction e.g. spasticity have limited effectiveness and have poor side effect profile.	High potential for new drug development for neuropathic pain. Major companies involved in development of drugs for pain management.
THC: CBD (broad ratio) Rheumatoid arthritis	600,000	5.7 million worldwide.	Treatment of underlying condition is linked to symptom relief, e.g. DMARDs.	Large competitive market – increasingly competitive in both the DMARD area and in symptom relief.
Inflammatory bowel disease	100,000-200,000	Prevalence varies from 0.08% (in Japan) to 0.15% (in USA). In France, Germany, Italy, Spain, UK, USA and Japan there are 1.5 million patients.	Not seen as a priority by physicians as not life threatening. High unmet need as current therapies have undesirable side effects, some of which are very serious. No treatment can keep the condition fully under control and patient compliance is poor (55-70%).	Competitive market with involvement from major pharmaceutical companies.
High CBD Psychotic disorders (schizophrenia)	600,000 (schizophrenia).	3.6 million in US, France, Germany, Spain, UK and Japan.	Schizophrenia is currently poorly managed. Adverse side effects, and poor patient management lead to non-compliance. The focus is on improving efficacy whilst reducing adverse side effects and cost of medication.	Highly competitive. High level of investment by major pharmaceutical companies in this area demonstrates the competitiveness and the potential rewards expected.
Epilepsy	300,000	Worldwide, the prevalence of epilepsy is 40 million.	Lack of awareness within primary care physicians limits effective management. Major unmet need in refractory epilepsy.	New drugs expected to form an important part of the market in the next 10 years. Involvement of major pharmaceutical players.
Stroke/head injury	445,000 (stroke).	Estimated 700,000 stroke patients in the US.	400,000 deaths worldwide per year. Increasing interest in neuroprotective activity of compounds post stroke, preventing further neurological damage.	Growing market with incidence increasing with ageing population and significant mortality. Involvement of major pharmaceutical companies and focus of large research programmes.

4. Major Indications for GW's Portfolio of Products

4.1 *Cancer pain*

4.1.1 Technical Rationale

Bridgehead believes it is generally accepted that cancer pain is under treated with at least half of patients receiving inadequate relief from their pain. Some of the most encouraging clinical data on the effects of cannabis and cannabinoids on chronic pain are from studies of cancer pain. Whilst existing medicines are mostly ineffective in relieving nerve related pain and dysfunction, there is a wealth of patient evidence, as well as animal studies, supporting the fact that cannabis provides effective treatment. Of additional interest to the cancer market is the fact that cannabis has also been shown to provide benefit to cancer patients suffering nausea and vomiting from chemotherapy as well as stimulating appetite. Hence, cannabis has the potential to provide considerable advantages over current medications to cancer patients. GW is initially targeting its high THC product into this market but feels that its THC:CBD product may be more appropriate in the longer term.

4.1.2 Commercial potential

The worldwide incidence of cancer is approximately 6 million patients per year and rising due to ageing populations. The worldwide prevalence for active disease was about 26 million patients in 2000.

Current treatments

The World Health Organisation (WHO) has published guidelines on the management of pain in cancer and the approach has been shown to provide adequate analgesia in 90 per cent. of cancer patients, and over 75 per cent. of terminally ill cancer patients. The approach advocates the use of opioid analgesics, non-steroidal anti-inflammatory drugs (NSAIDs) and adjuvant medications. WHO believes opioid analgesics to be extremely effective in a significant majority of patients with cancer pain. About 1-10 per cent. of patients are opioid-insensitive (25 per cent. of terminally ill cancer patients). The most common cause of opioid insensitivity is neuropathic pain associated with cancer, which would require higher doses and lead to a greater risk of side effects. Careful use, titrated against pain is safe, although liberal use of opioids may lead to the syndrome of neurotoxicity with delirium, hallucinosis, myoclonus, seizures, hyperalgesia, tolerance and constipation. Rare side effects in properly titrated patients include respiratory depression and drug dependence. It is likely that fear of these side effects prevents many cancer patients from receiving adequate analgesia. Use of adjuvant drugs such as anti-depressants, anti-epileptics, corticosteroids, bisphosphonates and strontium 89 in cancer pain is supported by anecdotal experience.

Bridgehead understands that despite the validation of the approach advocated by WHO, studies indicate that pain is experienced by 30-60 per cent. of cancer patients with active disease, and more than two-thirds of patients with advanced cancer. Some of the barriers to proper pain management have been identified as inadequate assessment of pain, patient reluctance to report pain and inadequate staff knowledge about pain management.

Competitive situation

Bridgehead Technologies Ltd believes that there are several factors driving growth and competition in the cancer pain market, i.e.

1. The worldwide incidence of cancer pain is increasing due to increasingly ageing populations in the major markets (US, Canada, EU, Japan).

2. Patient expectations about pain-free illnesses are also rising, due in part to improving awareness about the safety and efficacy of opioids in the treatment of cancer pain.

3. Technology drivers of market development include drug delivery advances and an increasing range of receptor targets for which drugs are in development.

4. In addition, the application of various technologies (transgenic animal models, high throughput screening, combinatorial chemistry, functional imaging) will accelerate the process of analgesic drug discovery.

However, since pain is inadequately controlled because current therapies are not being used optimally the overall drivers for expansion of the market could be reduced if improvements in application of current therapy were to take place. This is based on the finding that 90 per cent. of cancer patients should have adequately controlled pain using current drugs.

In addition several major companies are involved in developments in this highly competitive market, with a number of competing technologies and many products in development for this indication. In particular Bridgehead believes that the following competitor technologies may have an adverse impact on the market share for GW products in cancer pain:

- innovative formulations and delivery of existing opioid analgesics;
- opioid agonists (drugs which combine with receptors to initiate a response) that do not give rise to central side effects. They could for example be combined with opioid antagonists (drugs which bind to a receptor and are inhibitory) or act peripherally; and
- ion channel modulators (drugs which change the rate of transmission of impulses along the nerve fibre).

Potential market value

Bridgehead considers that the potential market value for this product will be determined by the price which GW will be able to command for its product and the likely rates of penetration. Both of these will be determined by the product's efficacy and side effect profile compared with current treatments for cancer pain. In terms of price, existing treatments for cancer pain range from inexpensive generic opioids to expensive surgical procedures (e.g., debulking of tumours, spinal surgery). The realistic price GW will be able to charge is illustrated in the following scenarios:

- *Scenario 1.* High THC product enables dose reduction of opioids and is used only as an adjuvant to opioid therapy in patients, resulting in a low price (under £1000 annual treatment cost per patient);
- *Scenario 2.* High THC product enables patients to avoid more costly invasive surgical procedures, resulting in a high price (>£2000 annual treatment cost per patient); and
- *Scenario 3.* High THC product treats effectively the cancer pain of patients whose pain is resistant to other forms of treatment, resulting in a high price.

In terms of market penetration, Bridgehead understands that:

- the percentage of patients with unmet needs in cancer pain is approximately 40 per cent.;
- the percentage of patients with unmet needs in neurogenic and neuropathic pain *per se* is over 60 per cent.; and
- most cancer patients with unmet pain needs are suffering from neurogenic pain (55 per cent.).

Since GW's high THC product is believed to work more effectively in treating neurogenic and neuropathic pain and if clinical trials confirm this efficacy, then Bridgehead believes that the target market for GW's product could possibly be as high as 30 per cent. of the neurogenic pain market. Given that the total number of cancer cases is in the order of 1.9 million in the UK, 12 million in Europe and 9 million in the US, this represents a very high potential market value.

In Bridgehead's view, the high THC product has a good chance of launching and performing well in the UK, due to the support GW's activities have received from various regulatory authorities, the pre-existing safety record for cannabis and the fast track development status for cancer drugs.

4.1.3 Development plans

Phase 1 studies for CBME have been undertaken establishing the tolerability of the dosing regimen in healthy subjects and refining the formulation and method of delivery for larger scale clinical studies. Phase II studies with GW products have not been undertaken although there is a wealth of anecdotal reports related to the apparent benefit of cannabis-containing products in the treatment of neurogenic and neuropathic cancer pain.

A Phase III study in patients with cancer pain using the 1:1 THC:CBD and high THC products is scheduled to commence in the second half of 2001. The Group aims to ensure that the high THC product is in a position to gain approval for use in cancer pain as early as possible. Bridgehead considers that the 12 months allowed for completion of this trials programme is achievable. Key risks to these timings relate to the selection of trial centres and patient recruitment. Additionally the Group needs to include sufficient patient numbers in the study to ensure that it does not result in an equivocal outcome.

4.1.4 Project merits

Bridgehead considers that the expected advantages of the high THC product in the treatment of cancer pain are:

- The product addresses significant unmet need in the cancer pain market.
- High THC extracts have a novel mechanism of action compared with current treatments for cancer pain.
- The product has potential beneficial effects on appetite stimulation and nausea and vomiting, as well as on pain.
- There is a favourable side effect profile compared with current drug treatments for cancer pain.
- The product is aimed at a relatively large market.

4.1.5 Risk factors

- The benefits of CBME containing high THC are unproven in this indication.
- Cognitive impairment may limit usage.
- There is significant competitor activity in the cancer pain market with many large pharmaceutical companies active in this therapeutic area and there are significant numbers of competing technologies to address cancer pain.

4.2 *Multiple Sclerosis*

4.2.1 Technical Rationale

Multiple sclerosis results from inflammation and scarring of tissue in the brain and central nervous system, which breaks down myelin, the sheath around the nerve fibres. This process, known as demyelination, can reduce a nerve's ability to transmit information, slowing down or blocking the nerve signals, which in turn leads to sensory and/ or motor dysfunction. Demyelination is followed by sclerosis, or a hardening of the nervous system tissue, usually at multiple sites. During acute attacks of this chronic relapsing and remitting disease, sufferers can experience problems with urinary bladder control, pain, muscle spasm, spasticity and poor sleep. CBD has been demonstrated to have a muscle relaxant and neuroprotective antioxidant activity. Informed opinion supports the view that CBD is likely to be therapeutically active in multiple sclerosis. There is also support for the view that the distribution of cannabinoid receptors in the brain suggests that they may play a role in movement control. There is a further hypothesis that cannabinoids might modify the autoimmune cause of the disease (where the body's immune system attacks its own cells). If so, it is possible that cannabis may both relieve symptoms of MS and retard its progression.

There is anecdotal evidence for the effectiveness of cannabis in relief of the symptoms of multiple sclerosis, as well as results from clinical trials on a relatively small number of patients. Collectively, these studies indicate that cannabis may substantially control the symptoms of MS and may also play a role in moderating the progression of the disease. The UK Multiple Sclerosis Society has reported estimates that 3-4 per cent. of sufferers find relief from symptoms through illegal use of cannabis and GW's trials to date have demonstrated benefit in all the principal symptoms.

4.2.2 Commercial potential

Patient numbers and trends

Multiple Sclerosis affects approximately 2.5m people worldwide, with 350,000 in the USA; 100,000 sufferers in the UK and 500,000 in European countries overall. The incidence appears to be increasing. Approximately half the sufferers have the primary progressive form of the disease and half have the relapsing-remitting form and over 50 per cent. of people with MS experience pain at some time.

Current treatment

Current treatments to provide symptomatic relief during acute attacks include: anti-spasmodic treatments for spasticity, e.g. baclofen, dantrolene, diazepam, tizanidine; oxybutinin and desmopressin for urinary symptoms; baclofen and diazepam for tremor; conventional analgesics, hypnotics and anti-depressants for sleep symptoms.

Unmet needs

Concerning current treatments, the UK Multiple Sclerosis Society has commented: "There are very limited treatment options which people with multiple sclerosis can use for symptom management. This is especially true of pain control, where few treatments are effective".

Competitive situation

Bridgehead believes that competition in the market to treat the underlying disease (i.e. prevent relapse and disease progression) is intensely active. The therapeutic efficacy of beta Inteferon and glatiramer acetate preparations are well established for the prevention of relapse and disease progression. However, these agents offer only partial therapies, do not work in many patients and have little impact on the symptoms of multiple sclerosis. It seems likely that, in the future, combinations of therapies including symptomatic treatments will be more widely used in order to control the biological activity of this disease better and improve the quality of life for sufferers. The level of competitive activity in the development of drugs for multiple sclerosis is illustrated by there being 69 drugs in development; 56 companies involved in the area and 43 mechanisms of action proposed for drugs in development.

In marked contrast, Bridgehead believes there is little competitive activity in the markets for multiple sclerosis symptom relief, the sole exception being the neuropathic pain market. Whereas neuropathic cancer pain is often peripheral; multiple sclerosis patients predomominantly suffer from central neuropathic pain. Drugs used to treat central neuropathic pain include: amitriptyline where efficacy in some non-multiple sclerosis indications has been established, but efficacy in multiple sclerosis is disappointing; mexiletine where the poor side effect profile requires intense monitoring of patients; and N-methyl D-aspartate receptor antagonists, which are ketamine-like substances under development. Methadone also shows some promise, through a different mechanism of action from other opioids.

Bridgehead believes that there are significant opportunities in the multiple sclerosis symptom-relieving market as there is relatively little competitive activity in this market and there are enormous unmet clinical needs. It has to be noted that the market for multiple sclerosis disease-altering drugs has significant potential to affect the market for treatment of multiple sclerosis symptoms. Effective drugs will prevent relapse, so reducing the number of days patients need to use symptom-altering drugs (and hence sales volume).

4.2.3 Potential market value

Bridgehead considers that GW's multiple sclerosis product could take a significant share (up to 25 per cent. and potentially higher in the UK) of this market if results from Phase III clinical trials support the efficacy achieved in earlier trials and the effects achieved in this indication from smoking cannabis. If efficacy is confirmed, the product could also expect to command a high annual treatment price (>£2,000 treatment cost per patient per year). Given the number of patients in the UK is 100,000, in Europe is 500,000 and in the US is 350,000, GW could expect to derive substantial revenues from this market.

In addition Bridgehead considers that the MS product may eventually be shown to have disease-modifying activity in MS. If this is the case, a market penetration of 35 per cent. could be possible.

4.2.4 Development plans

Phase I studies for CBME have established the tolerability of an initially proposed dosing regimen in healthy subjects and helped to refine the formulation and method of delivery for larger scale clinical studies. Early results from the ongoing Phase II programme based upon studies of "N of one" design are consistent with the wealth of anecdotal data indicating that a number of patients experience significant benefit from cannabis-based products.

The first Phase III study, a double blind parallel group study of patients with pain, spasm, spasticity, bladder symptoms or tremor, started in early May 2001. For each individual patient the symptom that is most troublesome will be selected as the primary outcome measure. Patients will receive 1:1 THC:CBD or placebo for six weeks, at the end of which time all patients will commence a four week treatment period of active therapy. There is an initial period of rigid dosing followed by self-titration after three days. The study is being undertaken in Oxford under the guidance of GW's Medical Director and can therefore be expected to progress on schedule. The Oxford study is the first of a number of Phase III studies planned as part of a comprehensive Phase III trials programme over the next two years.

Bridgehead considers that timings allowed for the clinical studies, at 18 months for the Phase III clinical trials are adequate assuming good investigator selection and study management. With successful outcome of the clinical studies, this programme could lead to an initial marketing authorisation for a high THC product with an indication for pain and spasm in multiple sclerosis, with an unrestricted duration of treatment, or to the approval of the 1:1 THC:CBD product, with a treatment duration limited to six months. Once the carcinogenicity studies are complete, this programme will allow for the approval of the 1:1 THC:CBD product for use in multiple sclerosis with an unrestricted duration of treatment.

4.2.5 Project merits

Bridgehead considers that GW's THC:CBD (narrow ratio) product for use in multiple sclerosis has the following merits.

- GW's CBME is at a late stage in the pharmaceutical development process entering a number of Phase III clinical trials.
- There are enormous well defined unmet clinical needs in this market.
- There is strong anecdotal evidence to support the efficacy of cannabis for this indication.
- The efficacy of GW's product has been demonstrated in clinical trials.

4.2.6 Risk factors

Bridgehead considers, however, that the product is subject to some risks which are highlighted below.

- Phase III trials may not substantiate the efficacy observed in Phase II trials.
- Problems in carrying out effective blinding in clinical trials.
- The Phase III studies in multiple sclerosis recruit patients who have one of a range of principal symptoms, the most predominant of which is selected as the primary variable for that patient. Success or failure will be determined for that variable. While this approach enables investigation and potentially demonstration of effect of the treatment on a broad range of symptoms associated with multiple sclerosis, it is not without some risk. If effectiveness of the treatment differs between the primary symptoms this design has the effect of diluting the benefit on those symptoms for which the treatment is most effective. In the worst case this can result in the study not showing effectiveness on the primary variable overall, the factor on which marketing authorisation will normally be judged, while it may be very effective on some of the underlying symptoms.

4.3 *Rheumatoid Arthritis*

Rheumatoid Arthritis is a chronic, systemic, inflammatory disease that chiefly affects the synovial membranes of multiple joints in the body. The disease is considered an autoimmune disease that is acquired and in which genetic factors appear to play a role. In most cases of rheumatoid arthritis, the patient has remissions and exacerbations of the symptoms.

GW believes that CBD may be effective in the treatment of rheumatoid arthritis since it acts as a weak analgesic, an anti-inflammatory (possibly via Cox-2 inhibition) and a TNF-inhibitor. Bridgehead believes these constitute credible potential mechanisms of action for the GW broad ratio product, and that further clinical studies will elucidate any clinically important mechanisms of action.

4.3.1 Commercial potential

Patient numbers and trends

Prevalence of the disease, worldwide, is 1-2 per cent. of the general population and rising with females outnumbering males by 3:1. The number of patients with rheumatoid arthritis is approximately 2.1 million in the USA, approximately 0.5 million in the UK and approximately 2.8 million in Europe.

Current treatment

Early aggressive treatment of rheumatoid arthritis with disease modifying medications (DMARDs) is common especially when the disease is severe or very active. These reduce or prevent joint damage and preserve joint integrity and function, but they tend to be slow acting, very toxic, of variable efficacy and they do not provide analgesia. DMARDs include methotrexate, gold salts, penicillamine, sulphasalazine, cyclosporin leflunomide and cyclophosphamide. DMARDs are often used in combination with corticosteroids or non-steroidal anti-inflammatories (NSAIDs) during the first few months while the DMARD takes effect. DMARDs are switched if side effects become a problem and used in combination with each other or with corticosteroids if use of a single agent is ineffective.

Corticosteroids are used intermittently at low dose to control flares and may be used intra-articularly, i.e. within the joints if only one, or a few, joints are involved. Non-steroidal anti-inflammatories (NSAIDs) are used intermittently or continuously to control pain. They may be used first line in mild disease. Cox-2 specific NSAIDs are selected where there are gastrointestinal problems.

Anti-TNF therapies (e.g. Enbrel) are disease modifying and have rapid onset. This approach shows great promise but the antibody-based products are extremely expensive, have to be injected, and are currently used only after failure on several conventional DMARDs.

Unmet needs

There is significant unmet need. The onset of the disease peaks at ages 40 to 50 years and patients will suffer, on average, at least 20 to 30 years of active disease and its consequences. Pain and disability result in loss of productivity and income and decreased quality of life. 50 - 60 per cent. of patients stop work within 10 years of diagnosis; ultimately 90 per cent. have to stop work. The life expectancy of RA sufferers is approximately 3 to 18 years shorter than that of the general population. The disease therefore has serious consequences for patients, carers and society in general.

Currently available therapies are beneficial but not curative, and they can be safely and effectively administered for only a portion of this total disease duration. There are concerns over long term toxicity and disease resistance with DMARDs leading to the need to switch patients from drug to drug. There are also poor and inconsistent responses in some patients to these drugs. Toxicity is also an issue for long term use of steroids.

There are clear needs for safe, well tolerated drugs which act rapidly to stop disease progression and for drugs which stop joint pain and tenderness and increase mobility. In both cases the treatments should be safe and well tolerated with no long term side effects.

Competitive position

The development pipeline for rheumatoid arthritis is very active with further anti-TNF drugs, novel anti-cytokine strategies, matrix metalloproteinase inhibitors and new Cox-2 inhibitors in development.

4.3.2 Potential Market Value

Bridgehead believes that strong anecdotal evidence exists to support the view that GW products may provide symptomatic relief in some sufferers of RA. Both the price which GW's product will demand and its likely market penetration will depend on its efficacy for treating RA, the extent to which it provides equivalent or superior pain relief to the Cox-2 drugs, the superiority of its side effect profile, and the degree of disease modifying activity which it exhibits. Some illustrative scenarios are given below:

1. Demonstrable symptom-relieving activity, with efficacy equivalent to that given by Cox-2 inhibitors, no advantage demonstrated over Cox-2s in terms of improved symptom relief or improved side effect profile; no disease-modifying activity. The price charged would need to be similar to that of current Cox-2s (in the region of £1000 per patient per year) and the market penetration could be in the region of 2 per cent.

2. Demonstrable symptom relieving activity with advantages over Cox-2 inhibitors in terms of improved symptom relief and/or improved side effect profile; no disease modifying activity. Here potential revenues from the product would be dependant on the trade off between price and market penetration. Market penetration could range from 5 per cent. to 15 per cent.

3. Strong disease-modifying activity and symptom-relieving activity, where the price charged could be higher than that for Cox-2s and market penetration could be expected to be in the region of 20 per cent.

Bridgehead considers that GW could achieve significant sales in this attractive market where patient numbers are 500,000 for the UK; 2,700,000 for Europe and 2,100,000 for the US, and where total sales of Enbrel in the 12 months to April 2000 were over $400 million. In addition, if GW's product demonstrates disease modifying activity then market penetration would be expected to be significantly higher resulting in further enhanced potential sales.

4.3.3 Development plans

GW's programme in rheumatoid arthritis is at a much earlier stage than its programmes in cancer pain and multiple sclerosis. However *in-vitro* studies have suggested that cannabis extracts have beneficial effects as antagonists of TNF and beneficial effects have been shown in a mouse model of arthritis. Further *in-vitro* studies have demonstrated the presence of receptors to CBD on lymphocytes which may have relevance to effects on the immune system concerned with auto-immune disease such as arthritis. The responses of the first two patients recruited into the Phase II programme with arthritis are reported to be encouraging.

A Phase II pilot study is planned for the second half of 2001, studying the effect primarily on pain and stiffness. This is a short-term study that is anticipated to provide data to enable the finalisation and initiation of a Phase III programme across Europe commencing in the latter half of 2001. A second pilot Phase II study is also planned which will study surrogate markers of disease modifying activity. Bridgehead considers that this is an ambitious programme, with initiation of the Phase III programme on current scheduled timings allowing very little time to gain information from the pilot Phase II programme. Plans beyond the first Phase III study have not been elucidated and no backup studies have been identified.

4.3.4 Project Merits

- There are significant unmet clinical needs in the RA market.
- Approval for use in RA is likely to lead to approval for use in other rheumatological and autoimmune conditions.
- The market size is large.

4.3.5 Risk factors

- Potential indications such as rheumatoid arthritis provide market opportunities which combine both significant market size and relatively high unmet medical need. However evidence for the effectiveness of cannabinoids in this indication is minimal and primarily comes from data in animal models. There is limited clinical evidence yet to support the hypothesis that cannabinoid products will modify the underlying disease in RA.

- The disease-modifying and symptom-relieving markets are highly competitive and significant advances in competing technologies may severely reduce the market potential for GW products.
- As an initial indication for rheumatoid arthritis, GW's product would be limited to relief of pain and morning stiffness (rather than DMARD activity) and this is an area where a wealth of products are already licensed (although these products do have a range of unpleasant side effects).
- GW needs to plan to develop its clinical programme in this area appropriately.

4.4 *Schizophrenia, Epilepsy and Stroke*

Research regarding cannabis' potential role in schizophrenia treatment is in its infancy. However, emerging research on the endocannabinoid, anandamide, from scientists at the University of California at Irvine found that anandamide acts as a brake on neural activity in the brains of rats, and might be used to treat the side effects of diseases that cause uncontrollable movements.

While there are several studies and references by the Institute of Medicine, House of Lords Science and Technology Committee, Australian National Task Force on Cannabis, and others regarding cannabis' anti-convulsant properties, there are few human studies specific to epilepsy. The 1998 House of Lords Science and Technology Committee expressed interest in the use of CBD to treat epilepsy, but refrained from recommending the drug because of the limited number of participants in controlled studies. They noted that the British Medical Association determined that CBD "could possibly provide an adjunctive therapy for patients poorly controlled on presently available drugs." The BMA did not believe that THC demonstrated potential.

Research indicates that cannabinoids possess neuroprotective properties which may be useful in the treatment of stroke. Researchers at the National Institute for Mental Health (NIMH) demonstrated in 1998 that the cannabinoids THC and cannabidiol (CBD) are potent anti-oxidants in animals. Anti-oxidants are used to protect stroke and head trauma victims from exposure to toxic levels of reactive molecules – free radicals that are produced when the brain's blood supply is cut off. Head injuries and strokes cause the release of excessive glutamate, often resulting in irreversible damage to brain cells. NIMH scientists focused the bulk of their research on CBD because the compound is non-psychoactive, fast acting and nontoxic. They found that CBD protected rat brain cells that had been exposed to toxic levels of glutamate better than standard anti-oxidants like vitamins C and E. Researchers hope that the drug could someday be administered to stroke victims to limit brain damage.

A previous study of 67 patients by the Pharmos pharmaceutical company in Israel demonstrates that a synthetic drug similar to CBD (Dexanabinol) reduced mortality and eased intracranial pressure in patients suffering from severe head injuries. Dexanabinol also appears to be neuroprotective against brain damage incurred by certain types of seizures. GW expects to begin large, Phase III human trials on the drug in Europe and America in 2002.

5. Conclusions

Bridgehead considers that GW's approach possesses considerable merit with the main strengths residing in the Group's basic technical approach based on the use of cannabis-based medicinal extracts in a variety of indications. These merits are highlighted in section 5.1 below.

The main risks to the Group reside in the commercialisation of this technology. However, GW has put together a team and is developing a programme which understands and seeks to minimise these risks, which are highlighted in section 5.2 below.

5.1 *Key merits of GW's approach*

Technology merits

GW's medicines are derived from whole extracts of selected cannabis plant varieties and Bridgehead believes that this approach has a number of advantages:

- GW is at the forefront of cannabinoid research with the ability to investigate the therapeutic capabilities of its products to standards required for a pharmaceutical product;
- GW has unique access to a large number of cannabis chemovars, developed by Hortapharm, based on plants from legitimate sources which are now closed off from potential competitors;

- hundreds of years of cannabis use provide for compelling evidence of safety. There is no reported death from cannabis use. Indeed, the therapeutic index for cannabis (the ratio between a normal and lethal dose) is estimated to be 40,000 to 1. The equivalent ratio for aspirin is 23 to 1 and for morphine is 50 to 1;
- the medical literature contains a wealth of evidence pertaining to the potential therapeutic benefit of cannabis. It is very rare at this stage of product development for there to be such a wealth of evidence of efficacy, and in Bridgehead's opinion this evidence reduces the risk of failure of GW's products;
- the development of a number of medicines from a single plant species means that much of the early pharmaceutical development work carried out by GW can be applied to a range of product opportunities, thereby avoiding the need to repeat significant amounts of work for each additional product in the portfolio;
- clinical trials in man can commence at a very early stage in the development process – GW's Phase II trials commenced just 20 months after its crop was planted. In addition, such trials can proceed rapidly to large scale Phase III trials;
- faster development timescales mean that the overall costs of development are significantly reduced; and
- GW's approach gives consistency of product allowed by GW's control of the whole production process from optimal growth of chemovar clones with defined cannabinoid composition through to harvesting, extraction, filling and finishing under GMP conditions at the Group's own facility.

Clinical merits

- GW's products for multiple sclerosis and cancer are at a very late stage in the pharmaceutical development cycle (at the beginning of Phase III trials) meaning that the risk of failure for the products is reduced.
- There is a huge unmet need in the relief of neurological pain and in treatment of the indications targeted by GW. Particularly in the field of multiple sclerosis there is a significant patient demand for cannabinoid therapy. GW has received communications from over 3000 patients interested in participating in its clinical trials, with a large proportion of these now using cannabis to assist with their medical conditions.
- The initial indications being explored in Phase III studies are those on which there is the greatest amount of anecdotal data supporting efficacy of cannabinoids.
- Few products at this stage of development have the volume of data comprising anecdotal reports of efficacy and indications of safety of the active ingredients as the cannabinoids. This must significantly reduce the risk of failure of the programme compared with a new chemical entity.
- The choice of cancer pain as an initial indication is logical given the time it will take to complete carcinogenicity on CBD. The duration of treatment is relatively short and for treatment of patients, with an advanced or terminal cancer, carcinogenicity studies are not normally required.
- The inclusion of a high THC treatment in the Phase III studies of multiple sclerosis opens a route to an early marketing approval without limitation to dosing duration which would be applied in the case of a CBD containing product, prior to successful completion of a carcinogenicity study.

Regulatory merits

- Unusually GW has a regulatory strategy which has been endorsed by the MCA in the UK at an early stage.
- GW is able to deliver a legitimate supply of pharmaceutical grade material under licence.
- GW has a portfolio of recently filed patent cases and proposes to file more, providing a level of protection for the Group's proposed products. GW appreciates the importance of and is keen to protect its intellectual property, aiming to build a matrix of intellectual property rights.
- Timescales between submission and likely approval are shorter than is usual for normal drug development.

Commercial merits

- GW has brought together a team of people particularly skilled in the area of plant medicines and therapeutic cannabinoids.

- GW aims to provide products with unique and advantageous features. The Group has considerable "know how", not available elsewhere, which will receive statutory protection in this highly regulated field.

5.2 *Risk factors*

Bridgehead Technologies Ltd considers that the Group however will face certain risks in the realisation of its business plan. These are outlined below:

Technology risks

- Many assumptions of efficacy are based on a large volume of anecdotal reports from patients. Results of clinical trials will be needed for confirmation of efficacy.

- There is the potential for other companies to develop alternative delivery technologies and GW's delivery systems may not provide what is required for effective delivery of the Group's plant-based products.

- Potentially GW could fail to produce enough material to the required quality level to supply the need of the market. Bridgehead considers however, that this is unlikely given the manufacturing and production facilities which are already in place and envisaged.

- The development of a monoculture, such as GW's *Cannabis sativa* clones, leaves the Group open to the risk of loss of a complete crop. However, GW's crop can be regrown in 13 weeks and GW is further mitigating against this risk by planning separate cultivation sites.

Clinical risks

- There is the potential for Phase III clinical trials not to proceed as well as expected, delivering poorer efficacies, poorer side effect profile, for example highlighting problems of dependency or carcinogenicity in chronic controlled self-titration dosage. In mitigation there is a large amount of historical and anecdotal evidence which would give the expectation that the risk is less for the CBME than for a NCE.

- Taste and the psychoactive effects of treatment make it very difficult to complete truly double blind studies. In the initial Phase III studies at least, independent observers are being used to make evaluations, which is a sensible approach. However these difficulties in establishing truly randomised and blinded clinical studies may cause delays to market authorisation in some countries.

- Poor results from the carcinogenicity study on CBD could limit the use of this product. However, pre-clinical studies carried out by GW on CBD to date have not provided any concerns. Furthermore, the long history of use of cannabis provides much reassurance that the CBD carcinogenicity study will not produce poor results. However, this must remain a risk until the study is complete.

- Efficacy varies with indication and patient with resultant difficulty in determining the optimum dose for efficacy without side effects or observation of a "cannabis high". This variability in patient response will mean that it will be difficult to prepare a label with a concise, simple to follow dosing regimen.

- The cognitive effects of cannabinoids will mean that GW's product could affect patients' ability to drive with a consequent effect on the potential market for cannabis-based products.

- Wider discussion with the regulatory authorities may reveal the need for studies of potential drug interactions and in special populations which are not currently included within GW's plans.

Regulatory risks

- Whilst CBME of defined cannabis composition is likely to be accepted as a "medicine" in the UK, the climate for acceptance in other countries, particularly the USA, may not be as positive. However, in 2000 the FDA issued draft botanical drug guidelines which are proving to be useful in determining GW's regulatory strategy in the US.

Commercial risks

- There is considerable prior art which will either make it difficult or impossible to gain broad patent claims for GW's products. However implementation of the policy of building a matrix of rights should help to overcome this difficulty.
- There is some and apparently increasing competition in the cannabinoid field, with GW believing that it has a lead time over such competition. There is third party competition in the filing of patent applications and such companies could develop equally, or more, effective non-infringing products and means of administration.

In conclusion Bridgehead considers that GW has significant expertise in the field of cannabis-based pharmaceuticals and has put in place manufacturing, regulatory, commercial and importantly clinical strategies and programmes to allow maximum exploitation of the potential of the Group's products.

Yours faithfully

For and on behalf of Bridgehead Technologies Ltd.

Fiona J Paton	F David Alcraft
Director	Director

PART VI

Accountants' Report on GW Pharmaceuticals plc

ARTHUR ANDERSEN
Abbots House
Abbey Street
Reading
RG1 3BD

The Directors
GW Pharmaceuticals plc
Porton Down Science Park
Salisbury
Wiltshire SP4 0JQ

The Directors
Collins Stewart Limited
9th Floor
88 Wood Street
London EC2V 7QR

21 June 2001

Dear Sirs

GW Pharmaceuticals plc

We report on the financial information on GW Pharmaceuticals plc set out below. This financial information has been prepared for inclusion in the AIM Admission Document dated 21 June 2001 of GW Pharmaceuticals plc ("the AIM Admission Document").

Basis of preparation

The financial information set out below, which has been prepared in accordance with applicable United Kingdom generally accepted accounting principles, is based on the audited non-statutory financial statements of GW Pharmaceuticals plc for the period from incorporation on 15 February 2001 to 31 March 2001 ("the financial statements"), to which no adjustments were considered necessary.

Responsibility

The financial statements are the responsibility of the Directors of GW Pharmaceuticals plc who approved their issue.

The Directors of GW Pharmaceuticals plc are responsible for the contents of the AIM Admission Document in which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued in the United Kingdom by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that previously obtained by us relating to the audit of the financial statements underlying the financial information.

We planned and performed our work 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 information is free from material misstatement whether caused by fraud or other irregularity or error.

Opinion

In our opinion, the financial information gives, for the purposes of the AIM Admission Document, a true and fair view of the state of affairs of GW Pharmaceuticals plc as at 31 March 2001.

We consent to the inclusion of this report in the AIM Admission Document and accept responsibility for this report for the purposes of paragraph 45(8)(b) of Schedule 1 to the Public Offers of Securities Regulations 1995.

Balance Sheet

	Note	*31 March 2001* *p*
Debtors – amounts unpaid on share capital		0.2
Net assets		0.2
Capital and reserves		
Called up share capital	2	0.2
Equity shareholders' funds		0.2

The accompanying notes are an integral part of this balance sheet.

1. Accounting policies

A summary of the principal accounting policies, all of which have been applied consistently throughout the period and the preceding periods, is set out below.

(a) **Basis of accounting**

The accounts have been prepared under the historical cost convention and in accordance with applicable UK accounting standards.

2. Share capital

	31 March 2001 *£*
Authorised	
100,000,000 ordinary shares 0.1p each	100,000
Allotted, called-up and fully paid	
2 ordinary shares at 0.1 p each	0.002

3. History

The company was incorporated on 15 February 2001 as Mawlaw 541 plc and on 6 March 2001 changed its name to GW Pharmaceuticals Group plc. On 1 June 2001 its name was changed to GW Pharmaceuticals plc. It has not traded and no dividends have been declared or paid. Accordingly no profit and loss account is presented.

4. Subsequent events

During May 2001, the company purchased the entire shareholding of GW Pharma Limited and the consideration was settled by way of a share for share exchange.

During June 2001, the company issued warrants over 195,750 ordinary shares each at a strike price of £1.03 per ordinary share to Lord Weinstock and Atlantic and General Investment Trust Limited, a subsidiary of RIT Capital Partners plc.

Yours faithfully

Arthur Andersen
Chartered Accountants

PART VII

Accountants' Report on GW Pharma Limited

ARTHUR ANDERSEN
Abbots House
Abbey Street
Reading
RG1 3BD

The Directors
GW Pharmaceuticals plc
Porton Down Science Park
Salisbury
Wiltshire SP4 0JQ

The Directors
Collins Stewart Limited
9th Floor
88 Wood Street
London EC2V 7QR

21 June 2001

Dear Sirs

GW Pharma Limited ("GW Pharma")

We report on the financial information on the GW Pharma Group (as defined under Basis of preparation below) set out below. This financial information has been prepared for inclusion in the AIM Admission Document dated 21 June 2001 of GW Pharmaceuticals plc ("the AIM Admission Document").

Basis of preparation

The financial information set out below, which has been prepared on the basis set out under Basis of compilation below and in accordance with applicable United Kingdom generally accepted accounting principles, is based on the audited financial statements of GW Pharma for the period from 25 February 1999 to 30 September 1999, the year ended 30 September 2000 and the 6 months ended 31 March 2001, of Guernsey Pharmaceuticals Limited for the period from 19 June 1998 to 30 September 1999, the year ended 30 September 2000 and the 6 months ended 31 March 2001, and of G-Pharm Limited from 1 October 1998 to 30 September 1999, year ended 30 September 2000, and the 6 months ended 31 March 2001 (together "the financial statements"), after making such adjustments as we considered necessary.

Responsibility

The financial statements are the responsibility of the directors who approved their issue.

The Directors of GW Pharmaceuticals plc are responsible for the contents of the AIM Admission Document in which this report is included.

It is our responsibility to compile the financial information set out in our report from the financial statements, to form an opinion on the financial information and to report our opinion to you.

Basis of opinion

We conducted our work in accordance with the Statements of Investment Circular Reporting Standards issued in the United Kingdom by the Auditing Practices Board. Our work included an assessment of evidence relevant to the amounts and disclosures in the financial information. The evidence included that

recorded by the auditors who audited the financial statements underlying the financial information. It also included an assessment of significant estimates and judgements made by those responsible for the preparation of the financial statements underlying the financial information and whether the accounting policies are appropriate to the entity's circumstances, consistently applied and adequately disclosed.

We planned and performed our work 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 information is free from material misstatement whether caused by fraud or other irregularity or error.

Opinion

In our opinion, the financial information gives, for the purposes of the AIM Admission Document, a true and fair view of the state of affairs of the GW Pharma Group as at the dates stated and of its losses and cash flows for the periods then ended.

We consent to the inclusion of this report in the AIM Admission Document and accept responsibility for this report for the purposes of paragraph 45(1)(b)(iii) and 45(10)(b) of Schedule 1 to the Public Offers of Securities Regulations 1995.

Accounting policies

A summary of the principal accounting policies, all of which have been applied consistently throughout the period covered by this report, is set out below.

(a) Basis of accounting

The financial information has been prepared under the historical cost convention and in accordance with applicable UK accounting standards.

(b) Basis of compilation

Subsequent to the period end, G-Pharm Limited's entire shareholding was purchased by GW Pharma.

Given that all three companies were under common management throughout the period covered by this report, the financial information has been prepared by combining the information in the accounts of the three companies applying merger accounting principles as if they had been in a group relationship throughout the period. In this report, we refer to GW Pharma, Guernsey Pharmaceuticals Limited and G-Pharm Limited together as the "the GW Pharma Group".

(c) Tangible fixed assets

Tangible fixed assets are stated at cost, net of depreciation and any provision for impairment.

Depreciation is provided on all tangible fixed assets to write off the cost less estimated residual value of each asset on a straight line basis over its expected useful life, at the following annual rates:

	%
Motor vehicles	25
Laboratory equipment	25
Office fixtures and equipment	25
Plant and machinery	20

(d) Finance and operating leases

Assets held under finance leases and other similar contracts, which confer rights and obligations similar to those attached to owned assets, are capitalised as tangible fixed assets and are depreciated over the shorter of the lease terms and their useful lives. The capital elements of future lease obligations are recorded as liabilities, while the interest elements are charged to the profit and loss account over the period of the leases to produce a constant rate of charge on the balance of capital repayments outstanding.

Rentals under operating leases are charged on a straight-line basis over the lease term, even if the payments are not made on such a basis.

(e) Taxation

Tax deferred or accelerated is accounted for, using the liability method, in respect of all material timing differences to the extent that it is probable that a liability or asset will crystallise.

(f) Pension scheme arrangements

Contributions to employee personal pension schemes are charged to the profit and loss account in the period in which they become payable.

(g) Investment in research and development

Expenditure on research and development is charged to the profit and loss account in the period in which it is incurred.

(h) Foreign currency transactions

Transactions in foreign currencies are recorded at the rate of exchange at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are reported at the rates of exchange prevailing at that date. Any gains or losses arising during the period are included in the profit and loss accounts.

(i) Government grants

Grants of a revenue nature are credited to the Profit and Loss Account in the period to which they relate. Any amounts receivable are included under accrued income.

(j) Turnover

Turnover represents amounts receivable for services provided in the normal course of business, net of VAT and other sales related taxes.

Combined profit and loss account

	Note	*Period from 19 June 1998 to 30 September 1999* £	*Year ended 30 September 2000* £	*6 months ended 31 March 2001* £
Turnover		13,748	—	—
Operating expenses	1	(1,474,512)	(2,432,402)	(2,377,147)
Other income		54,545	56,238	68,108
Operating loss		(1,406,219)	(2,376,164)	(2,309,039)
Interest income		21,390	69,851	110,282
Interest payable		(418)	(2,009)	(674)
Loss for the year before taxation	2	(1,385,247)	(2,308,322)	(2,199,431)
Taxation		(3,900)	92,116	145,748
Retained loss for the period	11	(1,389,147)	(2,216,206)	(2,053,683)
Loss per share – basic	5	192.0	1.5	1.3

There are no recognised gains or losses in any period other than those included in the profit and loss account. No dividends were declared or paid in any period.

All results derive from continuing operations.

The accompanying notes are an integral part of this combined profit and loss account.

Combined balance sheet

	Note	*30 September 1999* £	*30 September 2000* £	*31 March 2001* £
Fixed assets				
Tangible assets	6	54,693	125,745	490,219
Current assets				
Debtors	7	171,714	226,245	643,847
Cash at bank and in hand		595,171	1,757,713	6,291,658
		766,885	1,983,958	6,935,505
Creditors: Amounts falling due within one year	8	(298,787)	(339,393)	(683,365)
Net current assets		468,098	1,644,565	6,252,140
Creditors: Finance lease creditors falling due in more than one year		(9,018)	(4,442)	(1,845)
Provisions for liabilities and charges	9	—	—	(7,343)
Net assets		513,773	1,765,868	6,733,171
Capital and reserves				
Called up share capital	10	1,611	1,984	2,389
Share premium account	11	1,770,457	5,238,385	12,258,966
Merger reserve	11	130,852	130,852	130,852
Profit and loss account	11	(1,389,147)	(3,605,353)	(5,659,036)
Equity shareholders' funds	11	513,773	1,765,868	6,733,171

The accompanying notes are an integral part of this combined balance sheet.

Combined cash flow statement

	Note	*Period from 19 June 1998 to 30 September 1999* £	*Year ended 30 September 2000* £	*6 months ended 31 March 2001* £
Net cash outflow from operating activities	12	(1,270,409)	(2,249,485)	(2,151,986)
Returns on investments and servicing of finance	13	20,972	67,842	109,608
Taxation paid		—	(3,900)	—
Capital expenditure and financial investments	13	(57,766)	(116,460)	(442,476)
Cash outflow before financing		(1,307,203)	(2,302,003)	(2,484,854)
Management of liquid resources	14	(400,000)	(900,000)	(4,120,488)
Financing	13	1,902,374	3,464,545	7,018,800
Increase in cash in the period	14	195,171	262,542	413,458

The accompanying notes are an integral part of this combined cash flow statement.

Notes to the financial information

1. Operating expenses

	Period from 19 June 1998 to 30 September 1999	*Year ended 30 September 2000*	*6 months ended 31 March 2001*
	£	*£*	*£*
Research and development costs	1,292,185	2,042,625	2,065,124
Administration costs	182,327	389,777	312,023
	1,474,512	2,432,402	2,377,147

2. Loss on ordinary activities before taxation

Loss on ordinary activities before taxation is stated after charging:

	Period from 19 June 1998 to 30 September 1999	*Year ended 30 September 2000*	*6 months ended 31 March 2001*
	£	*£*	*£*
Depreciation			
– owned	12,693	41,708	76,152
– under finance leases	3,700	3,700	1,850
Auditors' remuneration			
– audit services	7,800	10,850	750
– other services	3,819	6,065	16,714

3. Directors' remuneration

	Period from 19 June 1998 to 30 September 1999	*Year ended 30 September 2000*	*6 months ended 31 March 2001*
	£	*£*	*£*
Emoluments	75,893	218,237	148,692
Fees to third parties	64,775	—	—
Money purchase contributions	1,110	13,701	7,772
	141,778	231,938	156,464

Fees to third parties comprise amounts paid to GWG Limited under an agreement to provide the group with the services of Dr Geoffrey Guy.

	Period from 19 June 1998 to 30 September 1999 £	Year ended 30 September 2000 £	6 months ended 31 March 2001 £
Highest paid director			
Emoluments	22,040	82,887	56,250
Fees to third parties	64,775	—	—
Money purchase contributions	—	8,337	4,252
	86,815	91,224	60,502

Aggregate emoluments disclosed above do not include any amounts for the value of options to acquire ordinary shares in the company granted to or held by the directors. Details of the options are as follows:

Name of director	*Granted*	*Exercised*	*Lapsed*	*At 31 March 2001*	*Exercise price £*
Geoffrey Guy	19,500	—	—	19,500	10.50
Justin Gover	16,250	—	—	16,250	5.95
Brian Whittle	16,250	—	—	16,250	5.95
Jonathan Laughton	13,000	—	—	13,000	5.95
David Mace	1,500	—	—	1,500	10.50

4. Staff costs

The aggregate payroll costs were as follows:

	Period from 19 June 1998 to 30 September 1999 £	Year ended 30 September 2000 £	6 months ended 31 March 2001 £
Wages and salaries	240,049	568,970	494,678
Social security costs	12,094	54,989	57,152
Other pension costs	4,721	34,366	23,729
	256,864	658,325	575,559

The average monthly number of employees, including directors was:

	Period from 19 June 1998 to 30 September 1999 Number	Year ended 30 September 2000 Number	6 months ended 31 March 2001 Number
Management and administration	5	6	9
Research and development	5	13	30
	10	19	39

5. Loss per share

The calculations of loss per share are based on the following losses and numbers of shares.

	Period from 19 June 1998 to 30 September 1999	*Year ended 30 September 2000*	*6 months ended 31 March 2001*
	£	*£*	*£*
Loss for the financial period	(1,389,147)	(2,216,206)	(2,053,683)
	Number	*Number*	*Number*
Weighted average number of shares	7,245	1,488,439	1,605,727

6. Tangible fixed assets

	Motor vehicles	*Laboratory equipment*	*Office fixtures and equipment*	*Plant and machinery*	*Total*
	£	*£*	*£*	*£*	*£*
Cost					
Additions	14,800	2,369	26,344	27,573	71,086
As at 30 September 1999	14,800	2,369	26,344	27,573	71,086
Depreciation					
Charge	3,700	592	6,586	5,515	16,393
As at 30 September 1999	3,700	592	6,586	5,515	16,393
Net book value					
As at 30 September 1999	11,100	1,777	19,758	22,058	54,693
Cost					
As at 1 October 1999	14,800	2,369	26,344	27,573	71,086
Additions	26,695	47,271	40,503	1,991	116,460
As at 30 September 2000	41,495	49,640	66,847	29,564	187,546
Depreciation					
As at 1 October 1999	3,700	592	6,586	5,515	16,393
Charge	10,374	12,410	16,712	5,912	45,408
As at 30 September 2000	14,074	13,002	23,298	11,427	61,801
Net book value					
As at 30 September 2000	27,421	36,638	43,549	18,137	125,745

	Motor vehicles £	*Laboratory equipment* £	*Office fixtures and equipment* £	*Plant and machinery* £	*Total* £
Cost					
As at 1 October 2000	41,495	49,640	66,847	29,564	187,546
Additions	19,477	270,252	152,278	469	442,476
As at 31 March 2001	60,972	319,892	219,125	30,033	630,022
Depreciation					
As at 1 October 2000	14,074	13,002	23,298	11,427	61,801
Charge	7,622	39,986	27,391	3,003	78,002
As at 31 March 2001	21,696	52,988	50,689	14,430	139,803
Net book value					
As at 30 September 1999	11,100	1,777	19,758	22,058	54,693
As at 30 September 2000	27,421	36,638	43,549	18,137	125,745
As at 31 March 2001	39,276	266,904	168,436	15,603	490,219

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
The net book value of assets held under finance leases	11,100	7,400	5,550

7. Debtors: Amounts due within one year

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Other debtors	169,002	199,258	436,494
Prepayments and accrued income	2,712	26,987	207,353
	171,714	226,245	643,847

8. Creditors: Amounts falling due within one year

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Obligations under finance leases	3,756	4,577	4,987
Trade creditors	235,327	235,143	584,918
Corporation tax	3,900	—	—
Other taxation and social security costs	24,960	24,996	40,249
Other creditors	—	431	2,834
Accruals and deferred income	30,844	74,246	50,377
	298,787	339,393	683,365

9. Provisions for liabilities and charges

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Provision for national insurance on share options	—	—	7,343
	—	—	7,343

10. Share capital

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Authorised			
100,000,000 ordinary shares at 0.1p each, (1999: 1,000,000 shares at 10p each, 2000: 100,000,000 shares at 0.1p each)	100,000	100,000	100,000
Allotted, called-up and fully paid			
2,388,685 ordinary shares at 0.1 p each (1999: 16,109 ordinary shares at 10p each, 2000: 1,984,200 ordinary shares at 0.1p each)	1,611	1,984	2,389

During the year ended 30 September 2000, 3,733 ordinary shares of 10p each were issued. The consideration in relation to this was £3,522,083. On 12 July 2000, the company's share capital was sub-divided into 100 0.1p shares for every 10p share in issue

During the six months ended 31 March 2001 the company issued 404,485 ordinary shares with a nominal value of 0.1p and at a premium of £17.50 for cash.

GW Pharmaceuticals Employee Share Schemes

Approved Company Share Option Scheme

Date of grant	*No. of ordinary shares under option*	*Exercise price*
2 October 2000	1,300	£5.95
2 October 2000	3,250	£7.35
2 October 2000	5,200	£7.86
1 February 2001	9,700	£10.50
23 February 2001	1,050	£10.50

Executive Share Option Scheme

Date of grant	*No. of ordinary shares under option*	*Exercise price*
2 October 2000	55,900	£5.95
2 October 2000	13,000	£7.35
2 October 2000	1,950	£7.86
15 January 2001	12,023	£10.50
1 February 2001	10,023	£10.50

Unapproved Share Option Scheme

Date of grant	*No. of ordinary shares under option*	*Exercise price*
2 October 2000	15,600	£5.95
15 January 2001	9,977	£10.50
1 February 2001	4,977	£10.50

All the above options may not be exercised any time prior to the third anniversary of the date of the grant and lapse on the tenth anniversary of the date of the grant.

Warrants

Peter Mountford is the registered holder of a warrant to subscribe for 24,285 shares of £0.001 each in GW Pharma Limited. Details of the warrant are summarised below:

Shares	*Number of shares over which warrant may be exercised*	*Warrant price*	*Warrant term*
Grant A shares	9,285	£17.50	5 years
Grant B shares	7,500	£29.74	7 years
Grant C shares	7,500	£54.40	10 years

11. Reserves

	Ordinary share capital £	*Share premium account* £	*Merger reserve* £	*Profit and loss account* £	*Total* £
Share issues	1,611	1,770,457	130,852	—	1,902,920
Retained loss for the year	—	—	—	(1,389,147)	(1,389,147)
At 1 October 1999	1,611	1,770,457	130,852	(1,389,147)	513,773
Share issues	373	3,467,928	—	—	3,468,301
Retained loss for the year	—	—	—	(2,216,206)	(2,216,206)
At 1 October 2000	1,984	5,238,385	130,852	(3,605,353)	1,765,868
Share issues	405	7,020,581	—	—	7,020,986
Retained loss for the year	—	—	—	(2,053,683)	(2,053,683)
At 31 March 2001	2,389	12,258,966	130,852	(5,659,036)	6,733,171

12. Reconciliation of operating loss to operating cash flows

	Period from 19 June 1998 to 30 September 1999 £	*Year ended 30 September 2000* £	*6 months ended 31 March 2001* £
Operating loss	(1,406,219)	(2,376,164)	(2,309,039)
Depreciation	16,393	45,408	78,002
(Increase)/decrease in debtors	(171,714)	37,585	(271,855)
Increase in creditors	291,131	43,686	343,563
Increase in provisions	—	—	7,343
Net cash outflow from operating activities	(1,270,409)	(2,249,485)	(2,151,986)

13. Analysis of cash flows

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Returns on investments and servicing of finance			
Interest received	21,390	69,851	110,282
Interest paid	(418)	(2,009)	(674)
	20,972	67,842	109,608
Capital expenditure and financial investment			
Purchase of tangible fixed assets	(57,766)	(116,460)	(442,476)
Financing			
Issue of ordinary share capital	1,902,920	3,468,301	7,020,986
Finance leases	(546)	(3,756)	(2,186)
	1,902,374	3,464,545	7,018,800

14. Reconciliation of net cash flow to movement in net funds

	30 September 1999 £	*30 September 2000* £	*31 March 2001* £
Increase in cash in the period	195,171	262,542	413,458
Cash outflow from decrease in lease financing	546	3,756	2,186
Cash inflow from change in liquid resources	400,000	900,000	4,120,488
Change in net cash resulting from cash flows	595,717	1,166,298	4,536,132
New finance leases	(13,320)	—	—
Movement in net funds	582,397	1,166,298	4,536,132
Net cash brought forward	—	582,397	1,748,695
Net funds carried forward	582,397	1,748,695	6,284,827

15. Related party transactions

Brian Whittle Associates Limited

The company is wholly owned by Brian Whittle. GW Pharma Limited has purchased services to the value of approximately £70,000 (excluding director's remuneration) from this company during the period from 25 February 1999 to 31 March 2001.

16. Subsequent events

On 3 April 2001, 66,883,180 0.1p bonus shares were issued, being 28 new shares for every one held on the register at that date.

During May 2001, the company purchased the entire share capital of G-Pharm Limited and settled the consideration by way of 13,018,970 0.1p shares.

During May 2001, the company's entire shareholding was purchased by GW Pharmaceuticals plc and the consideration was settled by way of a share for share exchange.

Market price risk

The company has been in a pre-trading, start up phase throughout the period to 31 March 2001. There has been no significant exposure towards either interest rate or currency risks. The company is instituting a policy to manage these risks.

Yours faithfully

Arthur Andersen
Chartered Accountants

PART VIII

Additional Information

1. Responsibility

The Directors of the Company, whose names appear on page 7 of this document, accept responsibility for the information contained in this document including individual and collective responsibility for compliance with the AIM Rules. To the best of the knowledge and belief of the Directors (who have taken reasonable care to ensure that such is the case) the information contained in this document is in accordance with the facts and does not omit anything likely to affect the import of such information.

2. Incorporation and Registration

2.1 The Company was incorporated and registered as a public company limited by shares in England and Wales under the Act with the name Mawlaw 541 plc on 15 February 2001. The name of the Company was changed to GW Pharmaceuticals Group plc on 6 March 2001 and was changed to GW Pharmaceuticals plc on 1 June 2001. The Company operates under the Act. The liability of the members is limited.

2.2 The registered office and principal place of business of the Company is at Porton Down Science Park, Salisbury, Wiltshire SP4 0JQ. The registered number of the Company is 4160917.

2.3 The Company received a certificate under section 117 of the Act on 1 June 2001 enabling the Company to do business and exercise its borrowing powers.

3. Share Capital

3.1 The Company was incorporated with an authorised share capital of £100,000 divided into 100,000,000 ordinary shares of 0.1p each of which two were issued as subscriber shares to the two subscribers to the Memorandum of Association.

3.2 On 20 June 2001:

(a) the authorised share capital of the Company was increased to £150,000 divided into 150,000,000 Ordinary Shares;

(b) the Directors were unconditionally authorised for the purposes of Section 80(1) of the Act to allot up to £13,736.27 in nominal value of Ordinary Shares pursuant to the Placing, such authority to expire on 31 December 2001 and the Directors were generally and unconditionally authorised for the purposes of Section 80(1) of the Act to exercise all the powers of the Company to allot relevant securities (within the meaning of Section 80(2) of the Act) up to a maximum aggregate nominal amount of £53,295.45, such authority to expire on 20 June 2006 save that the Company may, before such expiry, make an offer or agreement which would or might require relevant securities to be allotted after such expiry and the Directors may allot relevant securities pursuant to any such offer or agreement as if such authority had not expired;

(c) the Directors were empowered under Section 95 of the Act to exercise the powers of the Company to allot equity securities (as defined in Section 94(2) of the Act) of the Company for cash pursuant to the authority referred to in paragraph (b) above as if Section 89(1) of the Act did not apply to the allotment, such authority expiring on 20 June 2006 in connection with:

(i) the allotment pursuant to the Placing of 13,736,264 new Ordinary Shares to persons nominated by Collins Stewart and approved by the Company;

(ii) the allotment pursuant to the share option schemes of the Company;

(iii) the allotment to existing members by way of rights or open offer; and

(iv) the allotment of equity securities of an aggregate nominal value of up to £4,801.35.

3.3 On 31 May 2001, 82,290,835 Ordinary Shares were issued to former shareholders of GW Pharma in consideration for the transfer by them to the Company of the entire issued share capital of GW Pharma.

3.4 On 20 June 2001, 13,736,264 new Ordinary Shares were provisionally allotted for subscription pursuant to the Placing Agreement, conditionally upon Admission.

3.5 Following the Placing, 96,027,099 Ordinary Shares will be in issue and 53,972,901 Ordinary Shares will remain unissued representing approximately 36.0 per cent. of the total authorised share capital of the Company and approximately 56.2 per cent. of the total issued share capital.

3.6 Save as disclosed in this document there is no share capital of the Company or any of its subsidiaries which is under option or agreed conditionally or unconditionally to be put under option at the date hereof.

4. The Group

Details of the Company's subsidiary undertakings are as follows:

Company	*Place of Incorporation*	*Date of Incorporation*	*Activity*	*Issued share capital*
GW Pharma Limited	England and Wales	29 January 1999	Pharmaceutical Developments	82,290,835 ordinary shares of 0.1p each
G-Pharm Limited	England and Wales	28 September 1995	Plant Cultivation	130,852 ordinary shares of £1 each
Guernsey Pharmaceuticals Limited	Guernsey	24 April 1998	Pharmaceutical Developments	1,329 ordinary shares of £1 each
GWP Trustee Company Limited	England and Wales	23 May 2000	Trustee holding company for the All Employee Scheme	1 ordinary share of £1
G-Pharm Trustee Company Limited	England and Wales	20 October 2000	Dormant	1 ordinary share of £1

5. Directors' and other interests

5.1 As at 20 June 2001 (the latest practicable business day prior to the date of this document) the interests (except as shown below, all of which are beneficial) of the Directors and their immediate families in the existing share capital of the Company which have been notified to the Company pursuant to Section 324 or 328 of the Act or which are required to be entered into the Register maintained under the provisions of Section 325 of the Act and (so far as is known to the Directors, having made appropriate enquiries) persons connected with them (which expression shall be construed in accordance with Section 346 of the Act) are as follows:

Director	*Number of Ordinary Shares*	*Approximate percentage of issued ordinary share capital*
J Gover	4,184,001	5.1
Dr G Guy	25,903,708	31.5
J Laughton	1,747,482	2.1
D Mace[1]	174,000	0.2
P Mountford*[2]	497,205	0.6
Dr B Whittle[3]	11,445,446	13.9

* Peter Mountford also holds warrants to subscribe for 269,265 Ordinary Shares. The warrants are in three tranches of 51,765, 108,750 and 108,750 respectively and are exerciseable at £0.60, £1.03 and £1.88 respectively during the period to 14 January 2006, 2008 and 2011 respectively.

1. David Mace's holding includes 87,000 Ordinary Shares held by his wife.
2. Peter Mountford's holding includes 165,735 Ordinary Shares held by his wife.
3. Brian Whittle's holding includes 207,942 held by his pension trust.

In addition, the Directors hold the following number of options:

Director	*Earliest normal exercise date*	*Exercise price (£)*	*Number of shares*
Justin Gover	2 October 2003	0.2052	471,250
	14 May 2004	1.82	217,500
	14 May 2004	2.37	217,500
Dr Geoffrey Guy	15 January 2004	0.3621	565,500
Jonathan Laughton	2 October 2003	0.2052	377,000
	14 May 2004	1.82	145,000
	14 May 2004	2.37	145,000
David Mace	1 February 2004	0.3621	43,500
	14 May 2004	1.82	50,750
	14 May 2004	2.37	50,750
Peter Mountford	14 May 2004	1.82	36,250
	14 May 2004	2.37	36,250
Dr Brian Whittle	2 October 2003	0.2052	471,250

5.2 Immediately following the Placing (assuming all of the Placing Shares are subscribed) the interests (except as shown below, all of which are beneficial) of the Directors, their immediate families and connected persons in the share capital of the Company as appearing in the Register maintained under the provisions of Section 324 of the Act will be as follows:

Director	*Number of Ordinary Shares*	*Approximate percentage of issued ordinary share capital*	*Options*
J Gover	4,184,001	4.4	906,250
Dr G Guy	25,903,708	27.0	565,500
J Laughton	1,747,482	1.8	667,000
D Mace	174,000	0.2	145,000
P Mountford*	497,205	0.5	72,500
Dr B Whittle	11,445,446	11.9	471,250

* Peter Mountford also holds warrants to subscribe for 269,265 Ordinary Shares. The warrants are in three tranches of 51,765, 108,750 and 108,750 respectively and are exercisable at £0.60, £1.03 and £1.88 respectively during the period to 14 January 2006, 2008 and 2011 respectively.

5.3 In addition to the shareholdings detailed above, the Directors are aware of the following persons who will directly or indirectly be interested in 3 per cent. or more of the issued share capital of the Company as enlarged immediately following the Placing.

Holder	*Number of Ordinary Shares*	*Approximate percentage of issued ordinary share capital*
Preston L Parish	8,201,015	8.5

The Directors are not aware of any person who will directly or indirectly be interested in 3 per cent. or more of the issued share capital of the Company as enlarged immediately following the Placing.

5.4 Save as disclosed in this document:

(a) no Director has any interests in the issued share capital of the Company and no Director will acquire shares in the Company pursuant to the Placing;

(b) the Directors are not aware of any person interested in 3 per cent. or more of the issued share capital of the Company;

(c) no contract or arrangement with the Company or any of its subsidiaries subsists or has subsisted within the period of 2 years immediately preceding the date hereof in which any Director is or was materially interested and which is significant in relation to the business of the Company and its subsidiaries taken as a whole;

(d) no Director has had any interest, direct or indirect, in any assets which within the period of 2 years immediately preceding the date hereof has been or which is proposed to be acquired, disposed of by or leased to the Company or any of its subsidiaries; and

(e) no amount or benefit has been paid or given by the Company within 2 years before the date hereof to any promoter nor is any such payment or gift intended.

5.5 The Directors have held the following directorships within the five years prior to the date of this document:

Director	*Current*	*Past*
J Gover	GW Pharmaceuticals plc	—
Dr G Guy	GW Pharmaceuticals plc	Amarin Corporation Plc Lotus Healthcare Corporation Oxford Health Management Limited[1] Medi-Ject Inc. Phytopharm Plc
1 Now in liquidation		
J Laughton	GW Pharmaceuticals plc	—
D Mace	Marwell Preservation Trust Limited D C M Ventures Limited GW Pharmaceuticals plc Landgrove Hardwoods Limited Champion Catch Limited	Aquapark Investments Limited* Real Live Leisure Holdings Limited Vardon Plc
* Now dissolved		
P Mountford	Bradmount Holdings Limited Comprehensive Business Services Plc Crystalware Limited GW Pharmaceuticals plc Honeycombe Leisure Plc HTB Holdings Limited Internet Direct Plc TSS&P Limited	Earlyweigh Limited Layton Blackham Group Limited
Dr B Whittle	Brian Whittle Associates Limited GW Pharmaceuticals plc Nutraceuticals Limited	Phytopharm Plc

5.6 A resolution to wind-up Oxford Health Management Limited pursuant to a creditors' voluntary liquidation arrangement was passed on 12 January 2001. Geoffrey Guy resigned as a director of that company on 21 June 2000. Dr Guy originally held this non-executive directorship as a nominee of Ethical Holdings and did not receive any directors fees from that company. Dr Guy had no knowledge of the trading position of the company from June 2000 onwards and has not been contacted by the liquidator to date.

5.7 Save as disclosed, none of the Directors has:

(a) any unspent convictions in relation to indictable offences;

(b) had any bankruptcy order made against him or entered into any voluntary arrangements;

(c) been a director of a company which has been placed in receivership, liquidation, administration, been subject to a voluntary arrangement or any composition or arrangement with its creditors generally or any class of its creditors whilst he was a director of that company or within the 12 months after he ceased to be a director of that company;

(d) been a partner in any partnership which has been placed in liquidation, administration or been the subject of a voluntary arrangement whilst he was a partner in that partnership or within the 12 months after he ceased to be a partner in that partnership;

(e) been the owner of any asset or a partner in any partnership which has been placed in receivership whilst he was a partner in that partnership or within the 12 months after he ceased to be a partner in that partnership;

(f) been publicly criticised by any statutory or regulatory authority (including recognised professional bodies); or

(g) been disqualified by a court from acting as a director of a company or from acting in the management or conduct of the affairs of any company.

5.8 For the year ended 30 September 2000 the aggregate remuneration paid and benefits in kind granted to the Directors of the Company was approximately £232,000. Under arrangements now in force the Directors' aggregate remuneration and benefits in kind for the year ending 30 September 2001 are estimated to be approximately £370,000.

6. Memorandum and Articles of Association

6.1 The Memorandum of Association of the Company provides that the Company's principal object is to carry on the business of a holding and investment Company. The objects of the Company are set out in full in Clause 4 of the Memorandum of Association, a copy of which is available for inspection at the Company's registered office.

6.2 The Articles of Association of the Company contain provisions, *inter alia*, to the following effect:

(a) *Voting Rights*

Subject to disenfranchisement of a member in the event of non-payment of calls or other sums due and payable in respect of any shares, or in the event of non-compliance with a statutory notice served pursuant to Section 212 of the Act requiring disclosure as to beneficial ownership in shares, every member present in person or by proxy or a corporation represented by a duly authorised representative (not being himself a member) has one vote on a show of hands. On a poll every member present or by proxy or in corporation represented as aforesaid has one vote for each share of which he is the holder.

(b) *Variation of rights*

The rights attached to any class of shares may (unless otherwise provided by the terms of issue of the shares of that class) be varied or abrogated with the consent in writing of the holders of three-fourths in nominal amount of the issued shares of that class or with the sanction of an extraordinary resolution passed at a separate general meeting of the holders of the shares of that class.

(c) *Alteration of Capital*

The Company may by ordinary resolution increase its share capital, consolidate all or any of its share capital into shares of larger amount, and cancel any shares not taken up or not agreed to be taken up and, subject to the provisions of the Act, sub-divide its existing shares or any of them into shares of smaller amounts. Subject to the provisions of the Act, the Company may by special resolution reduce its share capital, any capital redemption reserve fund and any share premium account and may redeem or purchase any of its own shares.

(d) *Transfer of Shares*

All shares in the Company are in registered form and may be transferred by a transfer in any usual form or in any manner acceptable to the Directors and permitted by the London Stock Exchange. The Directors may decline to register a transfer of a share which is:

(a) not fully paid or on which the Company has a lien provided that, where any such share is listed on the London Stock Exchange, or the Official List, such discretion may not be exercised in such a way as to prevent dealings in shares of that class from taking place on an open and proper basis; or

(b) not lodged duly stamped at the registered office of the Company; or

(c) not accompanied by the share certificate and other documents reasonably required by the Directors to show the right of the transferor to make the transfer; or

(d) in respect of more than one class of share; or

(e) in the case of a transfer to joint holders of a share, a transfer to more than four joint holders.

(e) *Dividends and other distributions*

Subject to the Act and every other statute from time to time in force concerning companies and affecting the Company (together the "Statutes"), the Company may by ordinary resolution declare dividends in accordance with the respective rights of members but no dividend shall exceed the amount recommended by the Directors. If, in the opinion of the Directors, the profits of the Company available for distribution justify such payments, the Directors may pay fixed dividends payable on any shares of the Company with preferential rights, half-yearly or otherwise, on fixed dates and from time to time pay interim dividends to the holders of any class of shares provided that no preferential dividend is in arrears at that time. Subject to any special rights attaching to or terms of issue of any shares, all dividends shall be declared and paid according to the amounts paid up on the shares on which the dividend is paid.

The Company may, upon the recommendation of the Directors, by ordinary resolution, direct payment of a dividend wholly or partly by the distribution of specific assets.

The Directors may deduct from any dividend all sums owed by a shareholder to the Company whether on account of any call, lien, debt otherwise.

All dividends unclaimed may be invested or otherwise used at the Directors' discretion for the benefit of the Company until claimed and all dividends unclaimed after a period of 12 years from the date when such dividend became due for payment shall be forfeited and shall revert to the Company.

The Directors may, with the prior approval by ordinary resolution of the Company, offer shareholders in respect of any dividend the right to elect to receive ordinary shares by way of scrip dividend instead of cash.

The Company may cease to send any cheque or warrant through the post or may stop the transfer of any sum by any bank or other funds transfer system for any dividend payable if in respect of at least two consecutive dividends the cheques or warrants have been returned undelivered or remain uncashed or the transfer has failed or in respect of one dividend the cheques or warrants have been returned undelivered or remain uncashed or the transfer has failed and reasonable enquiries made by the Company have failed to establish any new address of the holder.

The Company or the Directors may specify a "record date" on which persons registered as the holders of shares shall be entitled to receipt of any dividend.

(f) *Distribution of assets on a winding up*

On a winding up the liquidator may with the sanction of an extraordinary resolution of the Company and any other sanction required by the Act divide among the Company's members in specie or in kind the whole or any part of the assets of the Company and may for such purpose set such value as he deems fair upon any one or more class or classes of property and may determine how such division shall be carried out as between the members or different classes of members. The liquidator may, with the like sanction, vest the whole or any part of the assets in trustees upon such trusts for the benefit of the members as he with the like authority determines, and the liquidation of the Company may be closed and the Company dissolved, but so that no members shall be compelled to accept any shares or other property in respect of which there is a liability.

(g) *Pre-emption Rights*

The Company may at any time and from time to time by special resolution authorise the Directors to allot a specified amount of equity securities (as defined in Section 94 of the Act) wholly for cash as if Section 89(1) of the Act did not apply to any such allotment provided that this power shall be limited to:

(i) the allotment of equity securities in connection with a rights issue being an offer of equity securities open for a fixed period to holders of equity securities in proportion to their respective holdings of such securities or in accordance with the rights attached to such securities; and

(ii) the allotment (otherwise than pursuant to sub-paragraph (1) above) of equity securities having, in the case of relevant shares (as defined in Section 94 of the Act), a nominal amount or, in the case of other equity securities, giving the right to subscribe for or convert into relevant shares having a nominal amount, not exceeding in aggregate the sum specified in the special resolution;

and such power shall be exercisable for such period (not exceeding five years) as the power may be granted or renewed by special resolution but the Directors may during such period make offers or agreements which would or might require equity securities to be allotted after the expiry of such period and the Directors may allot equity securities pursuant to the offer or agreement as if such power had not expired.

Save as provided below, the Company may not allot any of the authorised but unissued Ordinary Shares of the Company, not subject to the power referred to above unless the shares are to be allotted wholly or partly paid up otherwise than in cash or unless the Company has followed the procedure laid down by section 89(1) of the Act. This procedure is broadly as follows:

Before agreeing to allot any Ordinary Shares to persons who are not existing shareholders, the Company must previously make an offer in writing to each existing holder of Ordinary Shares to allot to him on the same or more favourable terms such proportion of the shares to be all allotted as is pro rata to his existing holding. The offer must be sent to his registered address in the United Kingdom or to the address in the United Kingdom supplied by him to the Company for the giving of notice to him. The offer must state the period of not less than 21 days during which the offer may be accepted; and the offer shall not be withdrawn before the end of that period. Only after the period during which the offer may be accepted has expired or after the Company has received notice of the acceptance or refusal of every offer so made, may it allot the shares which are the subject of the offer to a person other than the offeree.

Save as pursuant to the provisions of the Act as set out above, no other pre-emption rights are contained in the Articles of Association of the Company regarding the issue and allotment of shares in respect of authorised share capital or to the transfer of shares.

(h) *Borrowing powers*

The Directors may exercise all the powers of the Company to borrow money and to mortgage or charge its undertaking, property and uncalled capital or any part or parts thereof and to issue debentures and other securities whether outright or as collateral security for any debt, liability or obligations of the Company or of any third party. The Directors are to restrict the borrowings of the Company, and exercise all voting and other rights or powers of control exerciseable by the Company in relation to its Subsidiaries, so as to secure that the aggregate principal amount outstanding of all moneys borrowed by the Group (exclusive of money borrowed by and between the Company and/or the Subsidiaries) should not, without previous sanction of an ordinary resolution of the Company, exceed an amount equal to three times the Adjusted Share Capital and Reserves.

(i) *Uncertificated securities*

The Articles allow the Directors, without having to seek permission from Shareholders, to resolve that any class of shares in the Company may be issued in uncertificated form and transferred by means of any computer-based system permitted by relevant statutes and the London Stock Exchange which enables title to shares to be transferred without written instrument of transfer and, in addition, to implement such arrangements as the Directors consider fit in accordance with and subject to the relevant statutes and the rules of the London Stock Exchange to evidence and regulate transfer of title to shares in the Company and to approve (or disapprove as the case may be) the registration of such transfers. In any event, the Company will still be obliged to issue share certificates to those Shareholders who request them. These provisions are to enable the holding of the Company's securities by electronic means so as to permit their transfer and settlement on the CREST system.

7. Employee Share Schemes

7.1 **Introduction**

The Company has adopted two employee share option schemes, the Approved Scheme and the Executive Scheme, for the grant of options over Ordinary Shares.

GW Pharma adopted similar schemes (the GW Pharma Approved Scheme and the GW Pharma Executive Scheme) for the grant of options over its shares prior to its acquisition by the Company. Options over GW Pharma shares have now been replaced with equivalent rights over Ordinary Shares, and GW Pharma will not grant any further options under those schemes.

GW Pharma also adopted the All Employee Scheme, which is an all-employee share ownership plan approved under schedule 8 to the Finance Act 2000, for the grant of rights over its shares. Shares awarded to participants under this scheme were replaced by Ordinary Shares as a result of the acquisition of GW Pharma by the Company. It is intended that the Scheme be amended so that future awards can be made over Ordinary Shares.

Additionally certain options have been granted to certain consultants of the Group and Non-Executive Directors of the Company under arrangements outside these schemes.

7.2 **Summary of principal features of the Approved Scheme**

(a) *Introduction*

The Approved Scheme was approved by the shareholders and adopted on 31 May 2001. The approval of the Inland Revenue pursuant to schedule 9 to the Income and Corporation Taxes Act 1988 has been applied for. It provides for eligible employees and directors to be granted options to acquire Ordinary Shares at the discretion of the Remuneration Committee of the Board.

(b) *Eligibility*

Directors who work at least 25 hours a week and employees of the Group will be eligible. Participation is at the discretion of the Remuneration Committee.

(c) *Individual Limit on Participation*

Options cannot be granted where to do so would cause the aggregate market value at the date of grant of shares which can be acquired under the Approved Scheme by any individual to exceed £30,000.

(d) *Grant Periods*

Options cannot be granted until the Approved Scheme has been approved by the Inland Revenue. Options may thereafter only be granted within 42 days of the date of such approval, or within 42 days of the announcement of the Company's yearly or half-yearly results, or on any day when the Remuneration Committee resolve that exceptional circumstances exist which justify the grant of options. No options can be granted later than ten years after the adoption of the scheme.

(e) *Performance Targets*

The Remuneration Committee may grant options on the basis that they will normally only be exercisable if pre-set objective performance targets are met. Options may provide that performance targets may be waived or varied at the discretion of the Remuneration Committee.

(f) *Exercise*

Subject to achievement of any performance targets, participants will be able to exercise their options and acquire shares at a price per share which will be fixed by the Remuneration Committee when the option is granted. This exercise price may not be less than the greater of the market value of the Ordinary Shares on the date of grant or their nominal value.

An option may not normally be exercised earlier than three years nor later than ten years after its grant.

Special provisions apply where there is a takeover, reconstruction or winding up of the Company. These provisions may allow the earlier exercise of options, normally within 6 months.

If the Company is acquired by another company, option holders may, with the agreement of the acquiring company, release their options in consideration of the grant of new options over the shares of the acquiring company. The new options must be equivalent to the old options.

Options may not be exercised when the shares do not satisfy the conditions set out in schedule 9 to the Income and Corporation Taxes Act 1988.

Options will normally lapse if an option holder ceases to be an eligible employee or director or becomes bankrupt. Special provisions apply if an option holder retires or ceases to be eligible due to injury, ill health or disability. These provisions allow the exercise of the options within the following six months. If an option holder dies his personal representatives may exercise the options within the following twelve months. The Remuneration Committee has discretion to allow exercise after an employee ceases to be eligible for any other reason.

(g) *Non transferability of options*

All options are non-transferable.

(h) *Scheme Limits*

As at the date of grant of any options under the Approved Scheme the total number of shares which have been placed under option or warrant to incentivise employees, directors, consultants or officers of the Group, or otherwise issued to or for the benefit of such persons pursuant to non-option incentive arrangements during the preceding ten years must not exceed 10 per cent. of the issued ordinary share capital of the Company at that date. Options granted or shares issued prior to Admission, and any options which have lapsed, been surrendered or otherwise became unexerciseable (other than by reason of exercise), are not taken into account for these purposes.

(i) *Variations of share capital*

In the event of an increase or variation of the ordinary share capital of the Company, the Remuneration Committee can make any adjustments considered appropriate to the number of shares subject to any option or the price payable for shares under any option to preserve the position of the option holders. No adjustment will be effective until approved by the Inland Revenue. No adjustment is allowed if it has the effect of making the exercise price less than the nominal value of the shares.

(j) *Alterations*

The Remuneration Committee may make any alterations to the Approved Scheme that are considered appropriate provided that: (i) no such adjustment after the approval of the Scheme by the Inland Revenue shall take effect until approved by the Inland Revenue and (ii) no increase in the limit on the number of Ordinary Shares which may be used may be made without the approval of the Company in general meeting.

7.3 **Summary of principal features of the Executive Scheme**

(a) *Introduction*

The Executive Scheme has two functions: (i) to grant options which qualify as enterprise management incentives under the legislation introduced by the Government in the Finance Act 2000 ("EMI Options") and (ii) to grant options which do not benefit from any advantageous tax treatment ("Unapproved Options").

The Executive Scheme does not require Inland Revenue approval. It was approved by shareholders and adopted on 31 May 2001.

(b) *Use of Executive Scheme*

Normally unapproved options under the Executive Scheme will be granted where the grant of an EMI Option or an option under the Approved Scheme is not appropriate (whether because the individual limits have been reached or otherwise). EMI Options or options under the Approved Scheme will generally be granted first where this is possible as they have tax advantages for both the Company and the participants.

(c) *Scheme rules*

The general rules of the Executive Scheme relating to the grant of options are basically the same as the Approved Scheme, save that:

- the £30,000 limit on the value of shares which may be put under option to any one option holder does not apply;
- options may in exceptional circumstances be granted with an exercise price below the market value at the date of grant, and may be calculated by reference to a procedure or formula determined at the time of grant of the option;
- options may in exceptional circumstances be granted on the basis that they may be exercised earlier than provided for in the Approved Scheme; and
- amendments to the Executive Scheme need not be approved by the Inland Revenue.

Certain other minor restrictions which apply to the Approved Scheme do not apply. The same overall limits on the number of shares which may be used apply.

The Board may adopt sub-schemes under the Executive Scheme to enable options to be granted on a tax-advantaged basis to employees tax resident outside the UK, subject to the same overall limit on the number of shares which may be used.

(d) *EMI Options*

The Remuneration Committee may designate an option to be an EMI Option where it reasonably expects that the relevant requirements for such options as set out in schedule 14 to the Finance Act 2000 to be met.

(e) *Option grants*

The following options have been granted under the Executive Scheme:

Date of Grant	*Exercise Price*	*Number of shares*
1 June 2001	55p	146,607
1 June 2001	182p	785,570
1 June 2001	237p	1,232,500

The Remuneration Committee considers that it may be necessary to grant further options over Ordinary Shares with an exercise price equal to the Placing Price for the purpose of recruiting key senior management, even though the market value of those shares may at the time be higher than the Placing Price. The potential grant of such further options will be limited in number by reference to the Association of British Insurers' guidelines. The committee considers this to amount to exceptional circumstances justifying the grant of options with an exercise price below the market value.

7.4 **Summary of principal features of All Employee Scheme**

(a) *Introduction*

The All Employee Scheme was approved by shareholders of GW Pharma on 12 July 2000, and the trust deed establishing the scheme was executed on 16 August 2000. It was approved by the Inland Revenue under schedule 8 to the Finance Act 2000 on 26 September 2000.

The scheme originally allowed GW Pharma to distribute its shares free to employees, and/or to offer such shares for sale to employees in a tax efficient manner. It is intended that the Scheme be amended to provide that Ordinary Shares are to be used rather than shares in GW Pharma for future awards.

Shares in GW Pharma originally awarded under the scheme have now been exchanged for Ordinary Shares.

The trustee of the scheme is GWP Trustee Company Limited, a subsidiary of GW Pharma.

(b) *Eligibility*

Subject to certain exclusions all UK employees of GW Pharma and specified subsidiaries are allowed to participate. Employees who have (or have within the previous 12 months had) a material interest in the Company or certain specified companies are excluded from participating. A material interest is broadly 25 per cent. control of the relevant company.

(c) *Operation*

The All Employee Scheme contains three elements and GW Pharma may decide which (if any) of these elements to offer to employees. GW Pharma can distribute 'free shares' to employees, eligible employees can buy 'partnership shares' out of their pre-tax earnings; and the company can distribute free 'matching shares' to employees in respect of partnership shares purchased.

(d) *Free Shares*

GW Pharma may distribute free shares equally among employees, or may distribute them on the basis of salary, length of service, hours worked, individual performance or the performance of the Company or one or more business units. Any performance targets must be set by reference to business results or objective criteria. There are two specified methods of awarding shares by reference to performance targets. Free shares must be held for a period of between 3 and 5 years from the date of award. During this period, participants are restricted in the way they may deal with their free shares. Under the All Employee Scheme, the market value of free shares that can be distributed to an employee in any tax year must not be over £3,000. Distribution of free shares must be even-handed.

(e) *Partnership Shares*

Under the All Employee Scheme, GW Pharma may invite eligible employees to buy partnership shares up to the value of £1,500 (or 10 per cent. of his salary, if this is lower) in any tax year. The trustee acquires the partnership shares and holds them in the trust for employees. The money needed to buy the shares is deducted from the employee's gross salary. Deductions can be accumulated before being used to acquire the shares. Salary deductions are limited to £125 per month. The minimum deduction is £10 per month.

(f) *Matching Shares*

Matching shares are extra free shares which are distributed to employees who buy partnership shares. The highest number of matching shares that can be distributed to an employee is two matching shares for every one partnership share he has bought. Matching shares are of the same class and have the same rights as 'partnership shares'. Matching shares must be held for a period of between 3 and 5 years from the date of award. During the holding period employees are restricted in their dealings with the shares.

(g) *Holding shares*

All free shares and matching shares which have been allocated to employees and any partnership shares bought for the employees are held in a specially established trust. Employees can withdraw partnership shares from the trust at any time.

GW Pharma may make awards of shares on the basis that employees who leave within a period of up to three years of being allocated free or matching shares will lose those shares, except in certain circumstances, for example, if they die or are made redundant.

(h) *Scheme limit*

The Company cannot issue more than 10 per cent. of its ordinary shares under the All Employee Scheme over a ten year period. For the purpose of this limit, Ordinary Shares which may be or have been issued pursuant to rights granted during that period under any of the Company's employees' share schemes (including shares issued pursuant to the GW Pharma Option Schemes, and shares issued to the trustee as a consequence of the acquisition of GW Pharma by the Company) are also taken into account. It is intended that this limit be amended to conform it to the limit in the Approved and Executive Schemes, and following such amendment any increase in the limit would require Shareholder approval.

(i) *Issue price – partnership shares*

Where there is only one deduction from employees' pay, the price at which partnership shares are issued will be their market value on, or shortly before, the day on which they are issued.

Where there is more than one deduction from employees' pay, the price at which partnership shares are issued will be the lower of their market value on, or shortly before, the start and end of the accumulation periods over which the deductions are made. The accumulation period may be up to 12 months long.

(j) *Dividends on shares held by trustee*

Employees will be treated as the beneficial owners of shares held for them by the trustee. Dividends paid on the shares may either be used to buy extra shares for employees or be distributed to employees. Where shares are acquired using dividends, the value of shares acquired will be taken into account when determining the £1,500 limit for partnership shares. Shares acquired using dividends must be held for 3 years.

(k) *Alterations*

GW Pharma (with the consent of the trustee) may change the rules and trust deed of the All Employee Scheme as they see fit. No change which adversely affects the rights attaching to shares in the plan is allowed. Certain changes are not effective until approved by the Inland Revenue. Following the proposed amendment referred to in (h) above, no increase in the limit on the number of Ordinary Shares which may be used may be made without the approval of the Company in general meeting.

(l) *Reconstruction*

Special rules apply if there is a reconstruction which for capital gains tax purposes results in shares being treated as if they are not disposed.

(m) *Rights issues*

If there is a rights issue, the employees may instruct the trust to sell shares to raise funds to participate in the rights issue.

(n) *Awards*

As a result of an award of free shares made on 2 October 2000 there are currently 158,079 Ordinary Shares held on behalf of participants. The trust also has a further 764,121 unallocated Ordinary Shares available for use in the All Employee Scheme.

7.5 **GW Pharma Approved Scheme**

(a) *Introduction*

The GW Pharma Approved Scheme was approved by the shareholders of GW Pharma on 12 July 2000 and was adopted by that company on 16 August 2000. It was approved by the Inland Revenue pursuant to Schedule 9 of the Income and Corporation Taxes Act 1988 on 26 September 2000.

The scheme provided for eligible employees and directors of GW Pharma and its subsidiaries to be granted approved options to acquire shares in GW Pharma. Options granted under the scheme have been exchanged for equivalent options over Ordinary Shares. No further options over GW Pharma shares will be granted under the scheme.

(b) *Terms of options*

The terms of options granted under the GW Pharma Approved Scheme are substantially the same as those of the Approved Scheme, save that they are over GW Pharma shares.

(c) *Option Exchange Offer*

Options granted under the scheme did not become exercisable following the acquisition of GW Pharma by the Company, as the GW Pharma shares then ceased to satisfy the conditions set out in schedule 9 to the Income and Corporation Taxes Act 1988. The Company offered to grant an equivalent option over Ordinary Shares (governed by the same scheme) in exchange for option holders agreeing to cancel their options over GW Pharma shares. The replacement options will be treated for the purposes of the scheme as having been granted on the same day as the original options. They are not exercisable as a result of the acquisition of GW Pharma by the Company.

The Inland Revenue has approved the terms of the option exchange and confirmed that the scheme remains approved under schedule 9 to the Income and Corporation Taxes Act 1988.

All option holders have accepted the option exchange offer.

(d) *Option grants*

There are the following options over Ordinary Shares outstanding (these figures take into account an adjustment for the bonus issue of shares effected by GW Pharma on 3 April 2001).

Date of grant	*Exercise price (pence)*	*Number of shares*
2 October 2000	20.5172	37,700
2 October 2000	25.3448	94,250
2 October 2000	27.1034	150,800
1 February 2001	36.2069	281,300
23 February 2001	36.2069	30,450

7.6 **GW Pharma Executive Scheme**

(a) *Introduction*

The GW Pharma Executive Scheme was approved by the shareholders of GW Pharma on 12 July 2000 and was adopted by that company on 16 August 2000.

The scheme provided for eligible employees and directors of GW Pharma and its subsidiaries to be granted either EMI Options or Unapproved Options to acquire shares in GW Pharma. Options granted under the scheme have now been exchanged for equivalent options over Ordinary Shares. No further options will be granted under the scheme.

(b) *Terms of options*

The terms of options granted under the GW Pharma Executive Scheme are substantially the same as those of the Approved Scheme, save they are over GW Pharma shares.

(c) *Option Exchange*

Following the acquisition of GW Pharma by the Company all option holders agreed to release their options over GW Pharma shares in exchange for the grant of equivalent options over Ordinary Shares by the Company. The replacement options will be treated for the purposes of the scheme as having been granted on the same day as the original options. They are not exercisable as a result of the acquisition of GW Pharma by the Company.

(d) *Option grants*

There are the following options over Ordinary Shares outstanding under the GW Pharma Executive Scheme (these figures take into account an adjustment for the bonus issue of shares effected by GW Pharma on 3 April 2001 where applicable).

Date of grant	*Exercise price (pence)*	*Number of shares*
2 October 2000	20.5172	1,621,100
2 October 2000	25.3448	377,000
2 October 2000	27.1034	56,550
15 January 2001	36.2069	638,000
1 February 2001	36.2069	391,500
14 May 2001	55.0	635,668
14 May 2001	182.0	446,930

7.7 **Options granted to consultants and Non-Executive Directors**

Consultants and Non-Executive Directors are not eligible for the grant of options under the Executive or Approved Schemes.

Options over Ordinary Shares have been granted to such persons on similar terms to options granted under the Executive Scheme as set out in the table below. Where the effective date of grant is before 1 June 2001, the option replaces a prior option or right to an option granted over GW Pharma shares.

Effective Date of Grant	*Exercise price (pence)*	*Number of shares*
2 October 2001	20.5172	296,525
1 February 2001	36.2069	43,500
1 June 2001	36.2069	17,400
1 June 2001	55.0	20,300
1 June 2001	182.0	123,250
1 June 2001	237.0	123,250

8. Placing Agreement

On 21 June 2001 the Company entered into an agreement with Collins Stewart and the Directors pursuant to which Collins Stewart has agreed to use its reasonable endeavours to procure subscribers on behalf of the Company for up to 13,736,264 new Ordinary Shares at the Placing Price. The Placing Agreement is conditional on the entire issued and to be issued share capital of the Company being admitted to trading on AIM by no later than 28 June 2001 (or such other date as may be agreed between the parties).

In consideration of their services in connection with the Placing, the Company will pay to Collins Stewart a fee of £270,000 together with an additional fee of 3 per cent of the Placing Price for each of the Placing Shares for which Collins Stewart have arranged or procured placees on behalf of the Company. In addition, Collins Stewart has been granted an option to subscribe for 240,068 new Ordinary Shares at the Placing Price (representing 0.25 per cent of the enlarged issued share capital as at Admission) exercisable at any time on or before the fifth anniversary of Admission.

The Placing Agreement contains warranties given by the Company and the Directors as to the accuracy of the information contained in this document and other matters relating to the Company and its business. In addition, the Company has given an indemnity to Collins Stewart in respect of certain matters. Collins Stewart are entitled to terminate the Placing Agreement in specified circumstances prior to Admission, principally in the event of a material breach of the Placing Agreement or of any of the warranties contained in it or if an event of force majeure arises.

Pursuant to the Placing Agreement the Directors have also agreed to lock-in arrangements in relation to their shares in the Company pursuant to which they have undertaken not to dispose of any shares in the Company held by them for a period of 12 months from Admission. They have further agreed that for a period of 6 months from the anniversary of Admission they will not dispose of more than 50 per cent. of their holding of shares in the Company, with any disposal first requiring consultation with Collins Stewart. The lock-ins cease to apply in certain limited circumstances such as a general offer being made for the Company. There are also some orderly marketing provisions set out in the Placing Agreement.

9. Lock-In Arrangements

As referred to in Part II of this document, the Directors (and persons who are connected with the Directors) have undertaken not to dispose of any of their Ordinary Shares, which will represent approximately 45.8 per cent. of the Company's issued share capital immediately following the Placing (assuming full implementation) for a period of one year from the date of Admission. They have further undertaken, that for a further six months from the date of Admission, not to dispose of more than 50 per cent. of the Ordinary Shares in which they have an interest.

Preston L. Parish, who will hold approximately 8.5 per cent. of the issued share capital of the Company following the Placing (assuming full implementation) has entered into a lock-in agreement dated 20 June 2001 with the Company and Collins Stewart purusuant to which he has agreed not to dispose of Ordinary Shares held by him for the period of 12 months after the date of Admission, other than with the prior written consent of Collins Stewart and the Company.

In addition, an employee who will own approximately 2.4 per cent. of the issued share capital of the Company following the Placing) (assuming full implementation) has entered into a lock-in agreement dated 20 June 2001 with the Company and Collins Stewart pursuant to which the employee has agreed not to dispose of Ordinary Shares in which she has an interest for a period of 12 months after the date of Admission.

10. Directors' Service Agreements

10.1 Each of the Executive Directors, namely Dr Geoffrey Guy, Dr Brian Whittle, Justin Gover and Jonathan Laughton, has a service agreement with the Company dated 1 November 2000. The Executive Directors each agree to devote their whole time and attention to the Group. Each of the service agreements, other than that of Dr Guy, is terminable on not less than 6 months' written notice by either party. Dr Guy's service agreement is terminable on not less than 12 months' written notice by either party.

Basic annual salaries under the service agreements are £130,000 for Dr Guy, £82,680 for Dr Whittle, £75,000 for Justin Gover and £46,000 for Jonathan Laughton. Dr Guy's service agreement provided however, that for the year ended 31 December 2000 Dr Guy agreed that he would be paid a salary of £95,000.

The Executive Directors are in addition eligible for a bonus on such terms and of such amount as may be approved from time to time by the board in its sole discretion. The authority to award bonuses has been delegated to the Remuneration Committee. Each Executive Director is entitled to life assurance, private medical insurance and permanent health insurance. Justin Gover and Jonathan Laughton are also entitled to a contribution by the Company to a personal pension scheme of a sum equal to 6.66 per cent. of their salaries. Dr Guy is entitled to a contribution by the Company to a personal pension scheme of a sum equal to 12.0 per cent. of his salary. Each of the Executive Directors has agreed to give a restrictive covenant during the term of their service agreement and for 12 months after termination of their service agreement not to carry on any competing business or solicit customers or employees of the Group.

The appointments of David Mace and Peter Mountford as non-executive directors of the Company are governed by the terms of letters of appointment both dated 20 June 2001. Each appointment is terminable on not less than 3 months' written notice by either party. Pursuant to the letters Mr Mace and Mr Mountford are each entitled to a fee of £12,000 per annum payable quarterly in arrears plus £2,000 per annum for each committee of the Board on which they sit. They are also entitled to reimbursement for all reasonable out of pocket expenses properly incurred by them on Company business. They are not eligible for any other benefits.

10.2 Save as aforesaid, no Director has entered into a service agreement with any Company in the Group which is not determinable by the employing Company without payment of compensation (other than statutory compensation) within one year.

11. Material Contracts

The following contracts, not being contracts entered into in the ordinary course of business, have been entered into by the Company and its subsidiaries within two years immediately proceeding the date of this document and are or may be material:

(a) the Placing Agreement described at paragraph 8 above;

(b) on 31 May 2001, the Company entered into a share sale and purchase agreement with the shareholders of GW Pharma to purchase the entire issued share capital of GW Pharma in consideration of the allotment of shares in the Company. Each shareholder was allotted one Ordinary Share in the Company for every one share he held in GW Pharma, with the exception of Geoffrey Guy and Justin Gover who received one Ordinary Share less than their entitlement since each already owned one subscriber share in the Company;

(c) on 20 June 2001 the Company entered into a nominated adviser and broker agreement with the Directors and Collins Stewart pursuant to which the Company has appointed Collins Stewart to act as nominated adviser and broker to the Company for the purposes of the AIM Rules. The Company has agreed to pay Collins Stewart a fee of £25,000 plus VAT per annum for services as nominated adviser and broker under this agreement. The agreement contains certain undertakings and indemnities given by the Company and the Directors in respect of, inter alia, compliance with all applicable laws and regulations. The agreement is subject to termination on one month's notice by either party;

(d) on 10 May 2001 GW Pharma entered into a share sale and purchase agreement with Justin Gover, Geoffrey Guy, Brian Whittle and others being the shareholders of G-Pharm Limited ("G-Pharm"). Pursuant to the share sale and purchase agreement GW Pharma agreed to acquire the entire issued share capital of G-Pharm in consideration for the issue of 13,018,970 ordinary shares of 0.1p each in GW Pharma Limited (the "Consideration Shares") (representing approximately 15.8 per cent. of the issued share capital of G W Pharma following the allotment of the Consideration Shares). Justin Gover, Geoffrey Guy and Brian Whittle (the "Warrantors") have given GW Pharma a set of warranties relating to business and assets of G-Pharm ("the General Warranties") on reasonable commercial terms. All shareholders have given warranties as to their title and capacity to sell the G-Pharm shares held by them. The Warrantors also granted a deed of tax covenant in favour of GW Pharma. The maximum liability of the Warrantors under the General Warranties and the deed of tax covenant is the lower of £5,067,277 and the amount they are able to realise on a sale of the Consideration Shares. The maximum liability of shareholders in respect of the title warranties is the amount of consideration received by them;

(e) on 19 July 2000 GW Pharma entered into an agreement with Hortapharm B.V. ("Hortapharm") (a company registered in the Netherlands) pursuant to which Hortapharm granted GW Pharma a worldwide exclusive licence to exploit all varieties of the cannabis plant developed by Hortapharm, together with a worldwide exclusive licence over Hortapharm's know-how in respect of the species or varieties of cannabis plant developed by Hortapharm. This agreement is the continuation of an arrangement which has been in place between GW Pharma (or its successors in title) and Hortapharm since 30 April 1998. An exclusive licence over Hortapharm's US Patent Application No. 08/919317 which relates to Hortapharm's vaporisation technology or derivation process is also granted to GW Pharma. The licence granted to GW Pharma is limited to human and veterinary medicine and/or nutraceutical products. Also excluded from the scope of the licence are a number of areas where Hortapharm is either pursuing its own research or where it already has an agreement with a third party. These exclusions are in four parts and can be summarised as follows:

1. Breeding tricks and proprietary information in relation to the development of new plant varieties but not so as to affect GW's rights under the agreement.
2. Information relating to HP's existing agreement with a company for the extraction of a single cannabinoid from one plant variety.
3. Hortapharm's anandamide project.
4. Information relating to use of any plant variety outside of the fields of human and veterinary medicine and/or as a nutraceutical product including industrial hemp, fibre or seed exclusively for non-medical or non-nutraceutical purposes.

GW Pharma has licensed back to Hortapharm on a non-exclusive basis the right of exploitation in the Peoples Republic of China. Additionally where GW Pharma decides not to commercially exploit a particular plant variety Hortapharm is permitted to exploit it.

Under the Agreement, Hortapharm is obliged to make available to GW Pharma any know-how it develops in relation to the licence and to provide suitably qualified staff to assist in the transfer of this know-how in exchange for 24 monthly payments of £25,000 commencing on 30 April 1998 . GW Pharma is to pay to Hortapharm the sum of £100,000 on signature, a further £50,000 on completion of a transition plan to be agreed between the parties and further payments of £50,000 should development work for GW Pharma continue to be done by Hortapharm in the period 25 to 36 months after signature and 36-47 months after signature. Additionally, GW Pharma is obliged to pay Hortapharm for any development works carried out by Hortapharm not covered by these payments the results of which GW Pharma subsequently commercially exploits. Royalties are to be paid by GW Pharma on sales exceeding £750,000 of all plant varieties licensed to GW Pharma under the Agreement. This royalty is calculated as 5 per cent. of sales receipts less direct costs for the first three quarters of any year and 5 per cent. of sales receipts less direct costs less maintenance costs for the last quarter of each year. This royalty rate increases to 8 per cent. where the technology protected by the US patent is utilised but is reduced by half if GW Pharma is licensed on a semi-exclusive (where one additional third party is also licensed) basis. Royalties are payable for the life of any United Kingdom plant registration protecting the relevant plant variety or where no such plant registration exists ten years from the date on which royalties first become due for that plant variety. The Agreement remains in force until no further royalties are due.

The Agreement may be assigned, transferred, charged, licensed or dealt with in any other way by GW Pharma who may also sub-contract its rights under it. Any assignment, sub-licence or sub-contract by Hortapharm cannot be done without the prior written consent of GW Pharma (such consent not to be unreasonably withheld). Certain warranties are given by Hortapharm relating to its ownership of all plant varieties developed by it and in relation to the adequacy of the know-how in relation to the exploitation of the various plant varieties. Hortapharm also warrants that its earlier agreements in this area will not conflict with or limit GW Pharma's rights under this agreement. Hortapharm provides an indemnity against the infringement of any third party rights by GW Pharma's exploitation of any of the rights licensed to it and against breach of its warranties; and

(f) on 20 June 2001, the Company entered into an option agreement with Collins Stewart pursuant to which the Company granted Collins Stewart the option to subscribe for 240,068 new Ordinary Shares at the Placing Price (representing 0.25 per cent. of the enlarged issued ordinary share capital of the Company immediately following the Placing) exercisable at any time on or before the fifth anniversary of Admission.

12. Warrants

The Company has issued a number of warrants to subscribe for Ordinary Shares. Details of these warrants are summarised as follows:

1. Earlier in 2001, the Company began negotiations with Prospect Investment Management Limited which was acting on behalf of certain clients which it advises with a view to the Company securing the necessary funding to meet its anticipated working capital requirements in the next 12 months, in the event the Company were unable to effect an initial public offering by July 2001. On 4 June 2001, the Company granted each of Lord Weinstock and Atlantic and General Investment Trust Limited (a subsidiary of RIT Capital Partners plc) a warrant to subscribe for 195,750 Ordinary Shares exercisable at £1.03 during the period to 3 June 2006, by way of a commitment fee and in consideration of them undertaking to subscribe for 7,766,990 Ordinary Shares for an aggregate consideration of £8,000,000. The obligation to subscribe is unconditional in all respects and crystalises on 31 July 2001, unless prior to such date Admission has occurred. In the event Admission has occurred prior to such date, the obligation/entitlement to subscribe will cease to be of effect.

2. On 9 February 2001, GW Pharma granted to Peter Mountford, in consideration for the provision of past and future services, a warrant to subscribe for 24,285 ordinary shares of £0.001 each, which warrant was held on his own behalf and on trust for Adrian Bradshaw. The warrant was exercisable in three tranches of 9,285, 7,500 and 7,500 shares respectively and exercisable at £17.50, £29.74 and £54.40 respectively during the period to 14 January 2006, 2008 and 2011 respectively. The terms of the warrant provided that in the event of a capital reorganisation, such warrant would become a warrant in respect of the shares of any holding company of GW Pharma. Accordingly, following a capital reconstruction and bonus issue and upon the share for share exchange on 31 May 2001, whereby the Company became the holding company of GW Pharma, the warrant became warrants in respect of 704,265 Ordinary Shares in the Company. On 20 June 2001, the warrant, as aforesaid, was cancelled and in its place two separate warrants were issued to Peter Mountford and Adrian Bradshaw each in respect of 269,265 and 435,000 shares respectively and exercisable by Peter Mountford in three tranches of 51,765, 108,750 and 108,750 and by Adrian Bradshaw in three tranches of 217,500, 108,750 and 108,750 at £0.60, £1.03 and £1.88 respectively during the same periods detailed above.

13. Litigation

Neither the Company nor any of its subsidiaries is or has been engaged in any legal or arbitration proceedings which may have, or has had during the twelve months preceding the date of this document, a significant effect on the Group's financial position nor are any such proceedings pending or threatened.

14. Working Capital

The Company is of the opinion that, having made due and careful enquiry and taking into account the net proceeds of the Placing, the Group has sufficient working capital for its present requirements, that is for at least the next twelve months from the date of Admission.

15. Consents

15.1 Arthur Andersen have given and have not withdrawn their written consent to the inclusion in this document of its reports and name and references thereto in the form and context in which they are included.

15.2 Bridgehead Technologies Limited has given and has not withdrawn its consent to the issue of this document with the inclusion in it of its report and references to its name in the form and context in which it is included.

16. United Kingdom Taxation

Stamp duty and stamp duty reserve tax

16.1 The Company has been advised that the issue of Placing Shares will not be liable to stamp duty or stamp duty reserve tax.

Taxation on dividends

16.2 Under current United Kingdom tax legislation, no United Kingdom tax will be withheld from any dividend paid by the Company.

16.3 An individual shareholder resident (for tax purposes) in the United Kingdom who receives a dividend from the Company will be entitled to a tax credit equal to one-ninth of the dividend which he may set off against his total income tax liability. Basic rate and starting rate taxpayers will normally have no further liability to tax on the dividend. Higher rate taxpayers will be liable to tax on the sum of the dividend plus the tax credit at the higher rate of 32.5 per cent. against which liability the tax credit can be offset. So, for example, a dividend of £80 will carry a tax credit of £8.89 (one-ninth of £80) and to the extent that the dividend and the related tax credit fall above the threshold for the higher rate of income tax, a taxpayer will be subject to income tax on £88.89 (£80+£8.89) at 32.5 per cent. i.e. £28.89 less a tax credit of £8.89, leaving a tax charge of £20.

16.4 Subject to certain limited exceptions, a corporate shareholder resident (for tax purposes) in the United Kingdom will not be liable to United Kingdom corporation tax on any dividend received from the Company.

16.5 The right of a shareholder who is not resident (for tax purposes) in the United Kingdom to a tax credit in respect of a dividend received from the Company and to claim payment of any part of that tax credit from the Inland Revenue will depend on the existence and terms of any double taxation convention between the United Kingdom and the country in which the holder is resident. Such a shareholder should consult his own tax adviser concerning his tax liability on dividends received, whether he is entitled to claim any part of the tax credit and, if so, the procedure for doing so.

United Kingdom taxation on chargeable gains

16.6 A disposal of all or any part of the Placing Shares may, depending on the shareholder's individual circumstances, give rise to a liability to pay United Kingdom taxation on chargeable gains. Individuals, personal representatives and trustees may be entitled to taper relief, which may serve to reduce the chargeable gain. Companies are not entitled to taper relief, but are entitled to indexation allowance which may reduce the chargeable gain.

Inheritance Tax ("IHT") Relief

16.7 Unquoted Ordinary Shares in a qualifying Company such as the Company ordinarily qualify for 100 per cent. IHT Business Property Relief provided they have been held for two years prior to the event giving rise to IHT. Shares traded on AIM are regarded as unquoted for this purpose and are therefore in principle eligible for IHT Business Property Relief.

The above statements are intended only as a general guide to certain aspects of current tax law and Inland Revenue practice in the United Kingdom. It is directed at United Kingdom residents beneficially entitled to their Ordinary Shares held as investments. It may not apply to certain classes of shareholder such as dealers in securities or to persons who are not resident or ordinarily resident in the United Kingdom. Any person who is in any doubt as to his tax position or who is subject to tax in a jurisdiction other than the United Kingdom is strongly advised to consult their own professional adviser immediately.

17. Intellectual Property Rights

Patents

GW is the proprietor of the following five UK and one US patent applications:

1. UK patent application number 0025809.5 entitled "Dose Dispensing Apparatus" filed on 20 October 2000.
2. UK patent application number 0025811.1 entitled "Secure Dispensing of Materials" filed on 20 October 2000.
3. UK patent application number 0103638.3 entitled "Pharmaceutical formulations" filed on 14 February 2001". This is also the subject of a related US patent application number also initiated on 14 February 2001. There is a statutory 6 week holding period on all foreign applications made by UK residents and therefore this US equivalent was not filed until 5 April 2001 and has not yet been allocated an application number.
4. UK patent application 0111046.9 entitled, "Process and apparatus for extraction of active substances and enriched extracts from natural products" filed on 4 May 2001.
5. UK patent application 0111597.1 entitled, "Pharmaceutical Compositions" filed on 11 May 2001.

As is standard practice in these matters none of these patent applications have been the subject of any formal pre-application searches in respect of their subject matter and none have as yet progressed to either search or examination as to patentability by the relevant patent offices. GW has however in some cases carried out its own informal searches which have not identified any major problems.

GW currently expects that, assuming the search results are favourable, all five UK applications will also form the basis for international patent applications which it will be able to file under an international treaty called the Patent Cooperation Treaty. It is anticipated that these UK applications will form a basis of applications in Europe, the US and Japan and in Australia, Canada, South Africa, Korea, China and Taiwan.

In addition to these patent applications already filed GW have a number of other inventions in various stages of development relating to extraction processes and apparatus for extraction processes as well as drug delivery apparatus. These are also likely to be the subject of patent applications in due course.

GW have the benefit of an exclusive licence with Hortapharm BV in respect of US patent application number 08/919317 entitled "Vaporiser for inhalation and method for extraction of active ingredients from a crude natural product or other matrix". This US patent application was filed on 28 August 1997 and has recently been formally

allowed by the US Patent Office. It is expected to proceed to grant very shortly. This patent was originally filed in the name of its inventor, David Pate and was assigned to Hortapharm by assignments dated 26 August 1997 and 20 December 2000.

This assignment was recorded at the USPTO with effect from 9 January 2001.

Trade marks

To date GW has one UK trade mark for a device incorporating the words "UK Medicinal Cannabis Project". This is UK Registration No. 2213257.

GW is however also actively involved in a search programme to identify potential and available names for the products it is developing. It is anticipated that these will be the subject of trade mark applications in due course.

Plant variety rights

GW has an exclusive licence to use certain plant variety rights applied for in the name of Hortapharm BV. In addition, GW are themselves actively involved in obtaining plant variety right registrations across the European community in relation to new cannabis chemovars.

18. General

18.1 There is no minimum amount which in the Directors' opinion must be raised in respect of the matters referred to in paragraph 21 of Schedule 1 to the POS Regulations.

18.2 Save as disclosed in this document, no person (other than a professional adviser referred to in this document or trade suppliers) has:

(i) received, directly or indirectly, from the Company within the 12 months proceeding the Company's application for Admission; or

(ii) entered into any contractual arrangement (not otherwise disclosed in this document) to receive (directly or indirectly), from the Company on or after Admission any of the following:

(a) fees totalling £10,000 or more;

(b) securities in the Company with a value of £10,000 or more calculated by reference to the Placing Price; or

(c) any other benefit with a value of £10,000, or more at the date of the Admission.

In November 2000 BGL Reads Asset Management Limited received a fee of £21,800 from GW Pharma in respect of corporate finance advice given in relation to the last round of financing of the Group. In January 2001 Edward Gold received a fee of £26,952 from GW Pharma in respect of services provided to the Group in relation to its last round of financing - this sum was used to subscribe for shares in GW Pharma.

18.3 There has been no significant change in the financial or trading position of the Company or its subsidiaries since 31 March 2001, the date to which the latest interim accounts were made up.

18.4 The estimated amount of the expenses of the Placing is approximately £1.5 million (exclusive of VAT) and is payable by the Company, out of which Collins Stewart will receive commission of approximately £750,000 in respect of the placing of the new Ordinary Shares.

18.5 The financial information contained in the Accountants' Reports set out in Parts VI and VII of this document does not constitute statutory accounts within the meaning of Section 240 of the Act. Statutory accounts for GW Pharma for the two periods ended 30 September 2000 have been delivered to the Registrar of Companies. The auditors' reports on all of the above accounts were unqualified and did not contain a statement under Section 237(2) or (3) of the Act.

18.6 The amount payable on application and allotment of each New Ordinary Share is 182p of which 181.9p is payable by way of premium.

18.7 The Company is making an application to CRESTCo Limited for the Ordinary Shares to be settled through CREST and to be admitted as a participating security. It is expected that the admission of the new Ordinary Shares in CREST as a participating security will be effective upon Admission. Shareholders who are direct or sponsored members of CRESTCo Limited will then be able to dematerialise their Ordinary Shares in accordance with the rules and practices instituted by CRESTCo Limited.

19. Document available for inspection

Copies of this document will be available free of charge at the registered office of the Company and at the offices of Collins Stewart, 9th Floor, 88 Wood Street, London EC2V 7QR during normal business hours on any weekday (Saturdays and public holidays excepted) until the date falling one month after the date of Admission. Copies of the following documents will be available for inspection at the offices of Rowe & Maw, 20 Black Friars Lane, London EC4V 6HD during normal business hours on any week day (excluding Saturdays and public holidays) for the same period:

(i) memorandum and articles of association of the Company;

(ii) the audited financial statements of GW Pharma for the two financial periods ended 30 September 2000;

(iii) the reports produced by Arthur Andersen set out in Parts VI and VII of this document;

(iv) the long-form report of Bridgehead Technologies Limited referred to in Part V of this document;

(v) the placing agreement referred to in paragraph 8 above;

(vi) the lock-in arrangements referred to in paragraph 9 above;

(vii) the Directors' service agreements and letters of appointment referred to in paragraph 10 above;

(viii) the material contracts referred to in paragraph 11 above;

(ix) the consent letters referred to in paragraph 15 above; and

(x) this document.

Dated 21 June 2001