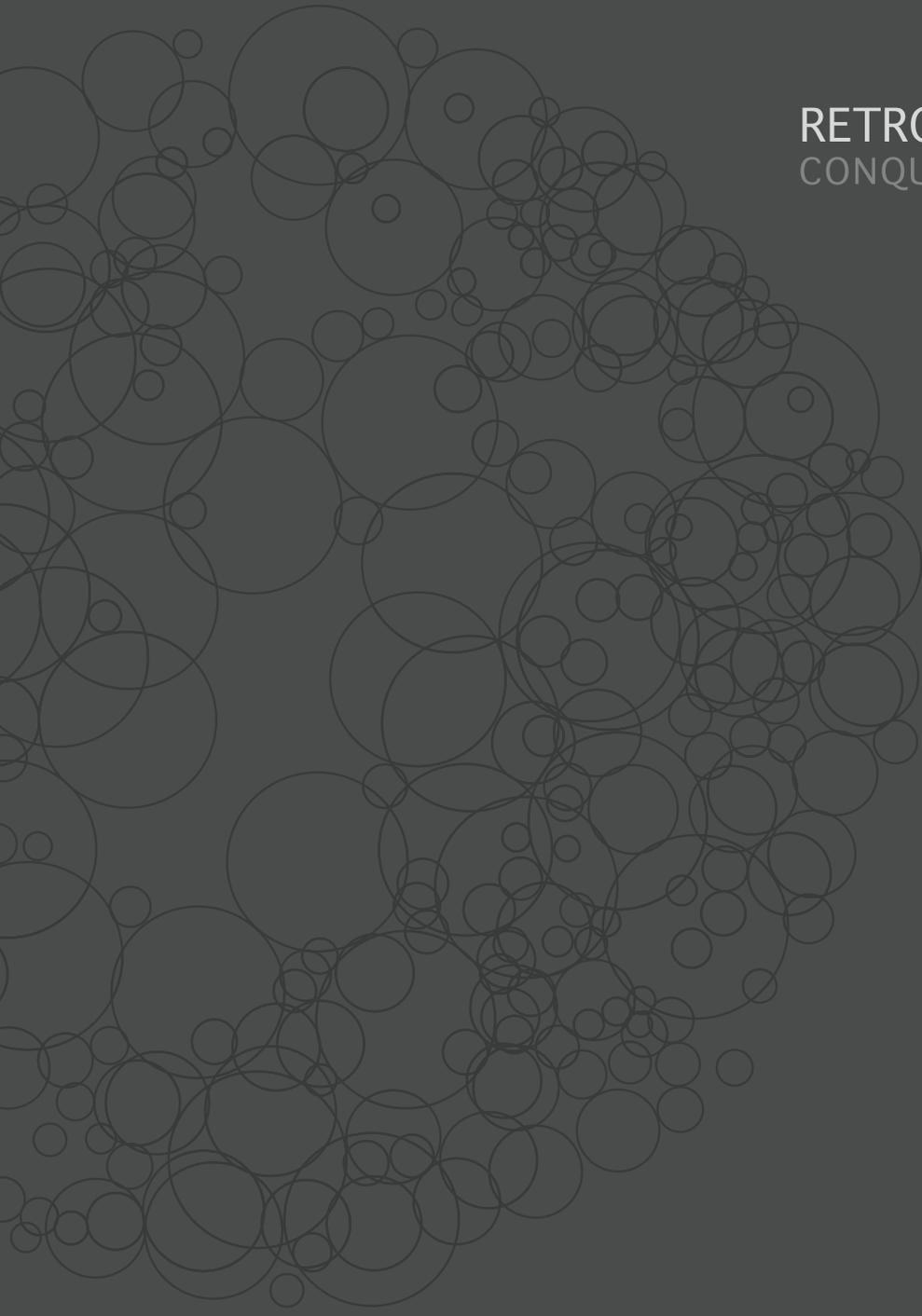




RETROSCREEN VIROLOGY  
CONQUERING VIRAL DISEASE



A BROADENING CAPABILITY

ANNUAL REPORT AND ACCOUNTS **2013**

# WHO WE ARE

## RETROSCREEN IS PIONEERING HUMAN CHALLENGE MODELS OF DISEASE IN *hVIVO*

**Retroscreen Virology Group plc (“Retroscreen”) is a rapidly growing UK life sciences company pioneering a technology platform called *hVIVO* which uses human challenge models of disease involving healthy volunteers to study new drugs and investigate disease in a safe, controlled environment.**

Retroscreen has established itself as the world leader in this field through the provision of clinical research services to third party study sponsors. To date, we have conducted 35 clinical studies, involving more than 1,600 volunteers for a range of leading industry, governmental and academic clients.

However, the platform has a much wider application in helping to understand illness better because our belief is that the best way to understand human disease is by studying it in humans, not laboratory models.

## CONTENTS

### Business review

- 1 Highlights of the year
- 2 *hVIVO* – it’s what we do
- 4 *hVIVO* – proof of delivery
- 6 Chief Executive Officer’s statement
- 9 Broadening our capability
- 14 Finance Director’s report

### Corporate governance

- 16 Board of Directors
- 18 Strategic report
- 22 Directors’ report
- 25 Corporate governance statement
- 27 Directors’ remuneration report
- 29 Directors’ responsibilities statement

### Financial statements

#### Group financial statements

- 30 Independent auditor’s report
- 31 Consolidated statement of comprehensive income
- 32 Consolidated statement of financial position
- 33 Consolidated statement of changes in equity
- 34 Consolidated statement of cash flows
- 35 Notes to the consolidated financial statements

### Company financial statements

- 57 Company statement of financial position
- 58 Company statement of changes in equity
- 59 Company statement of cash flows
- 60 Notes to the Company financial statements

### Additional information

- 64 Glossary
- IBC Advisers

## HIGHLIGHTS OF THE YEAR

2013 has been a year of tremendous growth, both in terms of revenues and number of client studies and also in building and broadening our capability

- Revenue increased by **91% to £27.5 million** (2012: £14.4 million)
- Gross profit increased by **124% to £8.3 million** (2012: £3.7 million)
- Gross profit margin increased to **30.2%** (2012: 25.7%)
- Loss before taxation increased to **£1.2 million** (2012: £0.4 million loss) as investment in building and broadening our capability continues
- Successful fundraising completed in the year raising **£25.5 million** before expenses, from new and existing institutional investors
- Strong financial position with short-term deposits, cash and cash equivalents of **£35.8 million** at 31 December 2013 (2012: £16.3 million)
- Managed over 500 volunteers safely through quarantine studies in the year
- Opened new volunteer screening centre in Manchester and increased the number of volunteers participating in studies by 210% year on year
- Conducted landmark “EMIT” flu transmission study and the largest ever “RSV” viral challenge study
- Successfully characterised new “HRV-16” virus for challenge model studies
- Launched new branding and business structure for our hVIVO human challenge model platform

## WHAT'S INSIDE



**hVIVO – IT'S WHAT WE DO**

→ [more on page 2](#)



**CEO's statement**

→ [more on page 6](#)



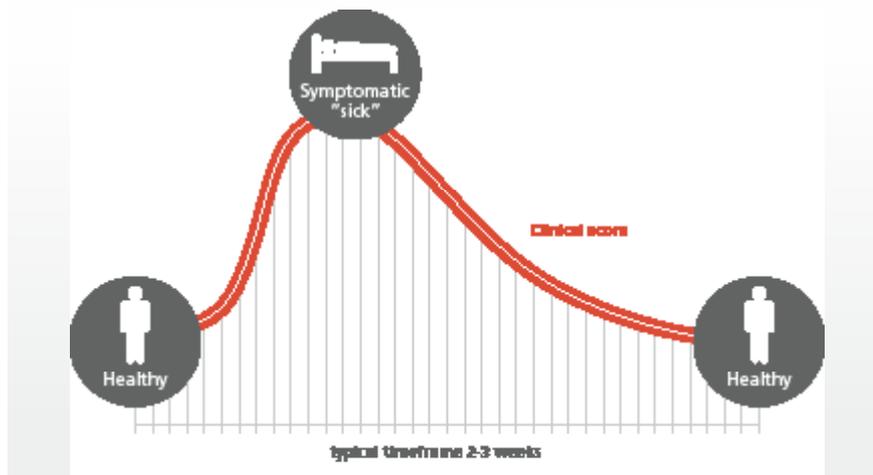
**BROADENING OUR CAPABILITY**

→ [more on page 9](#)

# hVIVO™ – IT'S WHAT WE DO

## A BROAD TECHNOLOGY PLATFORM FOR THE RESEARCH AND DEVELOPMENT OF NEW THERAPIES

The hVIVO lifecycle approach to studying human disease



1

Industry leading volunteer recruitment

We have extended our proprietary term hVIVO™ to embrace the whole of our technology platform, from patient recruitment through to biomedical research and accelerated drug development.

### hVIVO – harnessing the power of human challenge models

Retroscreen is pioneering its hVIVO technology platform which uses human challenge models to research disease and study new drugs in volunteers in a safe, controlled environment. We believe that hVIVO has the power to overcome key industry bottlenecks to deliver new innovative therapies and better diagnostics to market in an accelerated timeframe.

We have proven so far that by carefully selecting human volunteers and monitoring them throughout a disease episode under tightly controlled medical quarantine conditions, a concept we term “h-vivo”, we can demonstrate proof of concept for a new investigational drug in a much shorter timeframe and in fewer subjects than traditionally. Importantly, this allows better decision making by our clients before they invest in large, expensive field based pivotal studies. We have extended our proprietary term hVIVO to embrace the whole of our technology platform, from patient recruitment through to biomedical research and accelerated drug development.

Our hVIVO human models of disease utilise the ability of challenge agents, such as respiratory viruses, to elicit common

self-limiting diseases such as flu (Influenza), cold Human Rhinovirus (“HRV”), and Respiratory Syncytial Virus (“RSV”) in otherwise healthy volunteers. By watching the entire disease lifecycle as subjects move from healthy to sick and recover back to healthy again, we can obtain high quality, longitudinal data from the before, during and after phases of disease. These models can be used to study the efficacy of new therapies such as antiviral drugs and vaccines and also to study the target disease itself.

Retroscreen has built a robust, proven platform around this concept, which starts with carefully selected healthy human volunteers being recruited into one of our quarantine based studies. The subject is inoculated with the appropriate challenge agent either before or after the volunteer is administered either a drug or placebo. The course of the resulting infection, or disease episode, is monitored intensively by a team of on-site doctors and nurses until the patient has returned to a healthy state. We call this the Human Challenge Model (“HCM”) and where a virus is used as the challenge agent, a Viral Challenge Model (“VCM”). We have developed a range of viral challenge agents to date, most notably the common cold (HRV-16),



**2** High quality viral challenge agents



**3** Human challenge models in state-of-the-art biomedical quarantine facilities



**4** Laboratory research and analysis utilising unique longitudinal samples from our human challenge models

RSV and influenza (H3N2). These have all been manufactured to very high standards and validated to ensure the safety of the volunteer or patient.

The *hVIVO* platform has been developed over more than 25 years during which we have completed 35 client studies involving more than 1,600 volunteers in the study of cold, flu and RSV therapies. There has been a notable acceleration and broadening of our capability over the last couple of years as we have started to commercialise our HCMs and gain industry recognition. Our track record of delivery gives us a major competitive edge in the industry, as this unique clinical research approach emerges.

**Broadening our *hVIVO* platform**

The next stage of our development is to broaden our capability into new disease areas such as asthma and Chronic Obstructive Pulmonary Disease (commonly known as “COPD”) and areas of new understanding afforded by our unique samples. To this end, Retroscreen is actively building its bioanalytical capability to gain important insights from the human disease models that we are developing.

**Addressing the industry bottleneck: the new drug challenge**

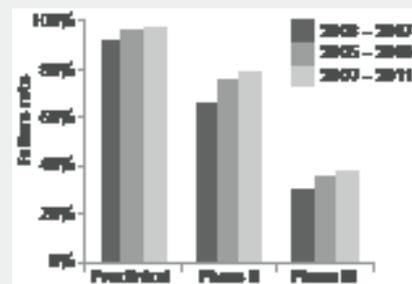
The identification of new drug candidates is typically hypothesis led, based on laboratory models of human disease. However, several years of preclinical work are required before a drug can be tested in humans. As a first step, the safety of the drug must be established, in Phase 1 studies, before the dosing and first evidence of a therapeutic effect can be investigated in Phase 2 studies.

If these are successful, and the drug looks promising, it must then undergo rigorous

testing in large multicentre field based outpatient studies. To overcome the high degree of variability and noise in these field based studies, large patient populations are required and as a result, these studies are generally slow, expensive and not always clear cut in terms of data reliability.

It is typically only after more than a decade and the investment of hundreds of millions of dollars, that the original laboratory derived hypothesis can be proven to be correct. More often than not, it is not. *hVIVO* has the potential to address these industry bottlenecks.

→ High industry attrition rates in drug development



Sources: Dr Tim Anderson, Bernstein Research, 2012

→ Drug development typically takes more than a decade



Sources: Timeline schematic adapted from “Research and Development of New Drugs” Juan D Guzman, Ximena Montes-Rincón and Wellman Ribón, 2013, www.intechopen.com

# hVIVO™ – PROOF OF DELIVERY

## PUSHING THE BOUNDARIES OF CLINICAL RESEARCH



**1** Recruitment at call centre



**2** Volunteer medical screening



**3** Challenge agent administered, before or after investigational medicinal product or placebo

### CASE STUDY 1

#### Largest RSV challenge trial ever conducted

In January 2013, Retroscreen commenced the largest ever RSV HCM trial on behalf of the study sponsor, a leading global biopharmaceutical company.

RSV is a pathogen that infects the human respiratory tract, potentially leading to infections such as bronchiolitis and pneumonia. While most otherwise healthy people recover from the virus within a few weeks, the US Centers for Disease Control and Prevention ("CDC") estimates that up to 125,000 infants are hospitalised due to RSV infection in the United States each year. There is an increased risk of severe disease in premature infants, the immunocompromised, individuals with asthma and COPD, and the elderly. Globally, the annual death rate from RSV is estimated at more than 160,000 and the clinical burden of RSV infection is comparable to that of influenza.

This RSV challenge study was also the largest single trial delivered by Retroscreen to date. With around 15,000 potential volunteers contacted in relation to the study, following comprehensive study specific screening processes, we hosted and managed a total of 143 study volunteer subjects. The subjects were inoculated over the seven quarantines at our Whitechapel facility over a six-month period.

The study was completed successfully in June 2013. While the data results are confidential to the sponsor, we are proud of the speed, reliability and efficacy of using our human challenge model when compared to traditional field-based study alternatives.

**"Amongst the significant volume of samples collected throughout the complete study were over 3,000 nasal washes, over 1,700 throat swabs, 2,600+ ECGs, more than 1,800 spirometry tests, over 4,000 blood samples and more than 34,000 tissues (weighed and analysed for viral shedding), all in all a comprehensive data set to collect, store and analyse."**



**4** Patient symptomology monitored throughout quarantine period



**5** Sample collection and analysis



**6** Volunteer is medically assessed and released at the end of the quarantine

## CASE STUDY 2

### “EMIT” – a novel influenza person-to-person transmission study

During 2013, Retroscreen completed its largest ever influenza study to date – the Evaluating Modes of Influenza Transmission (“EMIT”) study, part of a major new research programme to help further uncover how the influenza virus is transmitted between people. Led by the Health Protection and Influenza Research Group (“HPIRG”) at The University of Nottingham, the study was funded under a research grant from the CDC in the US.

The study conducted by Retroscreen began in early March 2013 and involved three separate cohorts, each one requiring 45 volunteers, both male and female between the ages of 18 and 45. The volunteers were placed in quarantine in ‘exposure rooms’ to deliberately monitor the transmission and cross-infection patterns from person to person. The conditions were maintained on the cool and dry side to give the best possible chance of flu transmission, and airtight to avoid cross-contamination.

The last cohort group study was completed in the late summer.

Professor Jonathan Van-Tam, at the University of Nottingham School of Community Health Sciences and the project leader commented:

**“Scientists regularly give people a well-characterised flu virus to test drugs and vaccines, so we thought why can’t we turn this model on its head and give people this flu virus in the same way, but instead of studying treatment, see how it can be transmitted to other people”**

Professor Jonathan Van-Tam

Final results of the overall study are soon to be published, but Professor Van-Tam presented some initial findings in a pathogenesis plenary session at one of the year’s major influenza conferences, “Options for the Control of Influenza” in Cape Town South Africa, in September 2013.

## CHIEF EXECUTIVE OFFICER'S STATEMENT

### PROGRESS ON STRATEGY



**Kym Denny**  
Chief Executive Officer

**2013 has been a year of tremendous growth, both in terms of revenues and number of client studies and also in building and broadening our capability.**

**In July 2013, we raised an additional £25.5 million before expenses from existing and new shareholders as we sought to pursue our broader strategic vision.**

#### **A year in review**

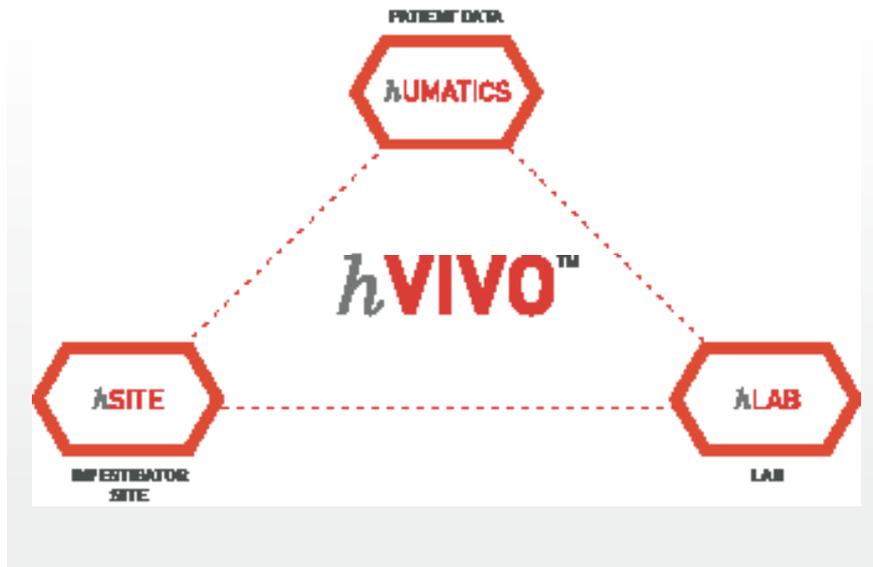
I am pleased to report that 2013 was another great year for the Group. It was a year in which we grew our revenues 91% to £27.5 million (2012: £14.4 million), increased our gross margin to 30.2% from 25.7% in 2012, completed a £25.5 million fundraise before expenses, invested in broadening our capability and completed some tremendous projects for our clients.

Most excitingly, 2013 was a launchpad year, paving the way for Retroscreen to enter its next phase of growth: new diseases and new patient populations, for which 2014 promises to be a watershed year.

In 2013 we decided we needed a way to describe what we do that was as unique and as original as the pioneering work we undertook every day. Thus, we introduced a new brand, *hVIVO*, to capture the full spectrum of our platform and its utility beyond our existing disease repertoire in 'flu, RSV and HRV (the "common cold"). *hVIVO* underlines what we as a Group firmly believe: we are the next evolutionary step in drug development – from *in vitro* (research in labs) to *in vivo* (research in animal models) to "*h-vivo*" (research in human models). The brand recognises the revolution of putting humans at the heart of disease modelling, as denoted by the 'h' in *hVIVO*.

To complement our new nomenclature, and to accommodate our expanding medical and scientific capabilities, we restructured the business into three divisions: *hUMATICS*, which is responsible for volunteer recruitment as well as data management, *hSITE*, which undertakes the challenge studies, and *hLAB*, which is responsible for sample analysis ("bioanalytics"). These divisions are underpinned by our general corporate and business services functions.

### hVIVO: our three operational divisions



In December 2012, we announced that Retroscreen had reached a significant milestone in the Group's history: our 1,000th volunteer inoculated since the model was first developed. Barely one year later, in January 2014, we had inoculated an additional 500+ volunteers, effectively doing in one year half of what it had taken us 25 years to achieve previously. Such a dramatic increase in our inoculation numbers speaks volumes about how firmly industry has embraced hVIVO as its research platform of choice, and we continue to go from strength to strength in this area, with 34% more long-term leads in our sales pipeline than this time last year. Thus, 2013 was about scaling our capacity and capability to deliver both client work and our internal R&D activities over the next few years. We opened a temporary second quarantine unit at Bourn Hall in Cambridgeshire, UK and for the first time, Retroscreen was able to conduct simultaneous HCM engagements at two different quarantine facilities. We also undertook the search for a permanent second quarantine facility, which culminated in our recent announcement that we have plans to open a cutting edge biomedical facility at Chesterford Research Park near Cambridge, UK expected to be operational in 2015.

This bespoke 42,000 square foot facility will house a 40 isolation bed quarantine unit and a suite of state-of-the-art laboratories. Bringing these capabilities together under one roof will enable us to conduct clinical and fundamental research with a continuous flow of data from bedside to bench. It will also give us the additional capacity to leverage the new human disease models which we are currently developing.

Working to our theme of expanded capabilities, in July 2013 we opened a new volunteer screening centre in Manchester, UK to sit alongside our existing UK screening centres in London and Ely, Cambridgeshire. We benefited immediately from the additional geographic reach in screening volunteers for our hVIVO studies and increased the number of volunteers participating in studies by 210% year on year.

Our increased capability translated into a year of strong client delivery in which we initiated a range of studies for a multitude of new customers with tremendous results. This included the successful completion of the largest respiratory syncytial virus ("RSV") challenge study ever performed with an investigational drug. Not only was this the largest RSV challenge study, but it was also Retroscreen's largest Human Challenge Model ("HCM") study to date. In the first half of 2013 we also had the honour of conducting the largest and most definitive investigation into how flu is transmitted, in collaboration with Nottingham University, UK and via funding from the Centers for Disease Control and Prevention ("CDC") in the US. More information on this landmark study is provided on page 5.

We also ran a HCM validation study for our newly manufactured HRV-16 cold virus, prior to its use in a study for a global pharmaceutical client in the second half of 2013, and which will be our flagship inoculum for our Airways Disease HCM ("AD-HCM"). We now also have our new H3N2 ("Perth") influenza virus added to our portfolio and this is ready for use by large pharmaceutical clients during 2014.

# CHIEF EXECUTIVE OFFICER'S STATEMENT

## CONTINUED

### New human models of disease

Having demonstrated how revolutionary our *hVIVO* human challenge models of disease could be in the flu, cold and RSV space, we turned our attention to related disease areas of high unmet medical need and began mapping our strategy to go 'beyond flu' and develop new HCMs that could help revolutionise the way we conduct research as an industry. To that end, in July 2013, we raised an additional £25.5 million before expenses from existing and new shareholders to enable us to push forward with our ambitious plans to diversify our platform into new disease areas and new patient populations, as well as to build our bioanalytical capability.

Our first new *hVIVO* model will be our "Over 45" model, which involves healthy adult volunteers over the age of forty five. It is well documented that the immune system declines with age to the extent that many very elderly patients are not adequately protected by current vaccines putting them at serious risk. Furthermore, the Over 45 model is a prerequisite to our planned COPD-HCM as outlined below. We are currently preparing to launch this model, with first subject first sample ("FSFS") stated for summer 2014.

The next new *hVIVO* model to come on line will be our first AD-HCM, in asthma. It is estimated that up to 80% of asthma attacks ("exacerbations") are caused by seasonal respiratory viruses, principally HRV-16 and influenza. The AD-HCM asthma concept is that by inoculating mild asthmatic volunteers in our quarantine facility, we can cause these patients to exacerbate in a safe, controlled environment so that we can study these diseases and new therapies to be tested in our *hVIVO* platform. After significant consultation with key opinion leaders and regulatory authorities, including a meeting with the FDA in March 2014, we are pleased to announce that the FSFS for our AD-HCM asthma will be summer 2014, followed by COPD in 2015. We are also actively evaluating the opportunity and feasibility of developing a number of other new disease models that we can exploit using our *hVIVO* platform.

### Understanding human disease: unlocking *hVIVO*'s potential

A key driver behind the building of Retroscreen's capability is our ambition to unlock additional value from all our HCMs by using them in a novel way, as tools to better understand the course of and susceptibility to disease. By conducting HCMs without investigational drug, we intend to study the mechanics of virus induced disease and disease exacerbations to give a much better understanding of disease pathways and how they differ between patient types.

The precise ability to elicit, monitor and measure the volunteer's response to a challenge agent, from start to finish, will help us to gain a better understanding of the underlying mechanisms in our target diseases. Using samples taken from our HCM studies, we will gain insights at the molecular level which we believe will lead to the development of better treatments and diagnostics. To that end, 2013 saw us designing the IT infrastructure and data analytical capability we would need to harvest and mine our proprietary samples.

Retroscreen is about to launch an e-Source system that will allow us to capture data from all subjects and we are collaborating with Professor Yike Guo, Imperial College London, a world leading expert in the development and implementation of bioinformatics architecture. We also announced in March 2014 the £4.0 million all-share acquisition of Activiomics Ltd, a start-up company with a powerful proteomics technology called TIQUAS. This technology is capable of revealing crucial differences in the protein content of our study samples, enabling us to follow the course of the disease and any impact of an investigational drug at the mechanistic level.

### Board changes

We also announced today a number of strategic changes to our Board. Professor John Oxford, one of the founders of the Group, and Duncan Peyton, who has represented the Northern Entrepreneurs Fund on the Board since its investment in October 2009 through until Retroscreen's IPO in May 2012, are both standing down from the Board after making key contributions to the development of Retroscreen Virology Group plc to date.

We have also announced our intention that Dr Trevor Nicholls, a company director with an outstanding track record over 30 years of building international businesses in the life science industry, will be joining the Board. Trevor has valuable experience in the genomics and proteomics field, including roles as the previous Chairman of both Oxford Nanopore Technologies Limited and Activiomics Limited, and as the current Chairman of Avacta Group plc, which will be enormously helpful to Retroscreen as we continue to grow and utilise our bioanalytical activities.

### 2014: the year of new models

After two consecutive years of exceptional growth, 2014 sees Retroscreen wholeheartedly entering its next phase of growth as we expand beyond our existing human models into new disease areas and patient populations. Much of the last two years has been spent preparing for this moment, spearheading industry adoption of our *hVIVO* platform and building our capacity and capability to develop new models and unlock the value of our proprietary samples whilst delivering a great clinical service to our customers. The Group's focus in 2014 thus shifts from building to doing: we are scheduled to deliver FSFS on two new models this year, and will conduct, for the first time, dedicated *hVIVO* projects to harvest proprietary samples so that we can begin analysing them. I would like to thank our staff and our investors for delivering Retroscreen to this exciting juncture in the Group's journey, and I look forward to updating you further as we progressively pioneer our *hVIVO* platform in new and novel ways.



**Kym Denny**

Chief Executive Officer

8 April 2014

# BROADENING OUR CAPABILITY

## 1 EXPANDED VOLUNTEER RECRUITMENT

More on page 10



## 2 STATE-OF-THE-ART BIOMEDICAL RESEARCH FACILITY

More on page 11



## 3 NEW DISEASE MODELS IN AIRWAYS DISEASES

More on page 12



## 4 BUILDING OUR BIOANALYTICS CAPABILITY

More on page 13





## BROADENING OUR CAPABILITY

→ Members of our FluCamp team in Manchester

# 1 EXPANDED VOLUNTEER RECRUITMENT

### **hUMATICS – the human challenge**

In July 2013, we opened a new volunteer screening centre in Manchester to complement existing sites at Whitechapel, London and Ely, Cambridgeshire. This facility provides much greater and easier access to volunteers in the north of the UK. With full medical screening facilities and the recruitment of a specialist clinical workforce, the new 6,000 square foot centre opened, and was supported by local and regional advertising to appeal to the local community keen to contribute to research into important new medical discoveries.

A great deal of effort, know-how and planning is required to ensure that the right number of screened and relevant volunteers are delivered at the right time and in the right place for a study to commence, in a process that typically takes three months.

Industry assessments note that 45% of clinical sites fail to reach 80% of their

enrolment target, with less than one third of trials recruiting targeted subjects in original timelines<sup>1</sup>. Retroscreen's position within the industry, according to these standards, is far exceeding average enrolment by vast proportions, not falling below a 97% on-time, complete enrolment since 2012.

Volunteer recruitment is conducted by our hUMATICS division which is responsible for driving top line awareness and advertising appeals to our telephone-based contact centre.

Under our 'FluCamp' branding we have continued to work to build and maintain awareness of the opportunity for members of the public (within certain health and age criteria) to volunteer to participate in clinical quarantine-based trials.

In 2013, we handled nearly 80,000 expressions of interest from members of the public in taking part in a Retroscreen study. Following website and telephone screening and further information provision by our dedicated contact centre team, we managed over 15,000 'out-patient' clinical visits for the purposes of medical screening to select the right subjects for our studies.

We continue to work hard to make the volunteer experience as comfortable and as hospitable as we possibly can, and

our continual monitoring of volunteer feedback is testament to this. They are to a great extent literally the lifeblood of our organisation.

**"I think that this is the best medical trial that one can get and will highly recommend it to all of my friends. I will tell everybody about this one! Thank you very much for everything!"**

Female volunteer, aged 27, London

**"The atmosphere was friendly, much friendlier than other trials I've done. The medical staff were friendly, knowledgeable and very helpful – would always answer any questions."**

Male volunteer, aged 32, London

Subject recruitment:

# 97%

on-time, complete enrolment since 2012

<sup>1</sup> Source: [www.trialsjournal.com/content/11/1/78](http://www.trialsjournal.com/content/11/1/78)



→ Retroscreen's facility at Chesterford Research Park

## 2 STATE-OF-THE-ART BIOMEDICAL RESEARCH FACILITY

To facilitate our growth strategy, we are in the process of building a state-of-the-art biomedical facility at Chesterford Research Park, near Cambridge in the UK. The new bespoke 42,000 square foot facility will house a quarantine unit, containing 40 ensuite isolation beds, together with a separate suite of laboratories for our bioanalytical work. This will enable the fundamental convergence of biology and bioinformatics on one site, enabling a continuous flow of information from bedside to bench.

The park is located at Little Chesterford, south of Cambridge, and is only three miles from the world renowned Wellcome Genome Campus. The park is being developed as a 250 acre low density scheme to provide high-quality accommodation in an attractive environment for science and technology based companies.

Importantly, this new bespoke facility will dramatically improve and broaden our operational capability. In particular, this planned expansion will allow us both to conduct clinical studies for our clients and to leverage our new human challenge models for commercial and research purposes. The site is scheduled to be fully operational from early 2015, and work is well underway to deliver this impressive leading edge biomedical research facility.

**“Our new Chesterford Park facility will allow us to conduct clinical and fundamental biomedical research with a continuous flow of information from bedside to bench.”**



→ Proposed ground floor at Chesterford Research Park



## BROADENING OUR CAPABILITY CONTINUED

### 3 NEW DISEASE MODELS IN AIRWAYS DISEASES

→ Despite current therapy, there remain major unmet medical needs in the diagnosis and treatment of asthma and COPD

**“Hundreds of millions of people worldwide suffer from chronic respiratory diseases – currently 235 million people have asthma and 64 million people suffer from COPD. We are developing airways disease models to study these diseases using our hVIVO platform.”**

Asthma and COPD are both chronic respiratory diseases, also known as airways diseases. They are characterised by underlying inflammation which results in restricted airflow to the lungs, thereby making it harder for the patient to breathe. In addition to a restricted lifestyle, these patients run the continuous risk of succumbing to attacks (“exacerbations”), making these diseases a major health problem. In the majority of cases, these exacerbations are caused by respiratory viruses and, while the severity and frequency of these attacks vary from person to person, both diseases can be life threatening.

#### Asthma:\*

- considered a reversible disease but can be life threatening;
- 1 in 12 people in the US and 235 million worldwide suffer from asthma;
- 80% of all asthma attacks are caused by viral infections;
- severe exacerbations require hospitalisation; and
- asthma costs the US \$56 billion per year.

#### COPD:\*

- an irreversible progressive disease that ultimately leads to death;
- main risk factors for COPD are smoking and air pollution;
- the disease is considerably under-diagnosed, but it is estimated that 64 million people currently have COPD;
- COPD is increasing dramatically in the developing world; and
- COPD causes about 3 million deaths worldwide each year and the WHO predicts that it will become the third leading cause of death worldwide by 2030.

While the industry’s knowledge of asthma and COPD has been evolving steadily over several decades, the underlying causes of these diseases are still not understood, and are likely to vary from patient to patient.

Consequently, there has been little advancement in the type of treatments available and the disease control over all severity levels is surprisingly low. The challenges of developing new, more targeted medications is compounded not only by our poor understanding of the exact molecular events and pathways activated during the disease, but also the difficulty in studying these diseases in patients especially during the exacerbation episodes.

Retroscreen is currently developing controlled human challenge models of these airways disease, exploiting the fact that exacerbations are caused by respiratory viral infections. Pilot studies in both asthma and COPD are scheduled to commence in the second half of 2014 and the first half of 2015 respectively. If successful, these models will not only allow new therapies to be tested more effectively, but by analysing samples from our asthma airways disease model, we hope to solve the puzzle of the diseases themselves.

\*Source: CDC, WHO

## 4 BUILDING OUR BIOANALYTICS CAPABILITY

→ Bronchoscopy samples from the lung will allow detailed molecular measurements to be made at the site of the disease

**“Our biosamples, taken from different ‘compartments’ of the body over the lifecycle of an infection or an exacerbation, can be used to elucidate mechanisms of disease and patient responses.”**

Field-based outpatient studies require patients to make multiple visits to their recruiting centre for treatment and follow ups. This makes it challenging to obtain consistent, quality measurements including patient samples. Our human models of disease enable a wide range of high-quality samples to be taken from volunteers before, during and after an infection or disease exacerbation.

### **TIQUAS is a powerful proteomics technology for finding biomarkers of disease**

In March we announced the £4.0 million all-share acquisition of Activiomics Ltd, a privately owned company spun out of Barts and the London Medical School, part of Queen Mary University of London. Activiomics’ core technology is called “TIQUAS” (Targeted Quantification of Cell Signalling) which is an advanced, mass spectrometry technology platform that

allows the identification and quantification of the global phosphorylation status of cells and tissues, providing a direct read-out of the biological processes that underpin disease progression as well as responses to drug administration.

The TIQUAS platform works by using a protease to break down a cell or tissue extract into peptide fragments. Phosphopeptide enrichment, mass spectrometry and our proprietary software allow thousands of phosphopeptides to be quantified. TIQUAS has broad application in the area of biomarker and drug discovery as the cross-comparison of treated samples enables biomarker discovery and/or drug profiling.

### **Bioinformatics database**

Retroscreen is currently establishing the necessary infrastructure to store and analyse the data derived from our clinical samples. While we are not taking a “big data” approach, we expect to generate large amounts of data that we will organise into a bioinformatics database that can be easily and rapidly interrogated. This data will become increasingly rich as the results of new experiments and increasing sample sizes are incorporated into the database. We believe that this database will hold the key to many of the secrets behind the cause of certain virally induced disease, the host response and individual variability to disease.

## FINANCE DIRECTOR'S REPORT

### STRONG GROWTH



**Graham Yeatman**  
Finance Director

The financial statements for the year ended 31 December 2013 are presented in accordance with the Group's accounting policies based on International Financial Reporting Standards ("IFRS") as adopted by the European Union.

**"2013 was another great year for the Group. It was a year in which we grew our revenues 91% to £27.5 million (2012: £14.4 million), increased our gross margin to 30.2% from 25.7% in 2012, completed a £25.5 million fundraise, invested in broadening our capability and completed some tremendous projects for our clients"**

#### Consolidated statement of comprehensive income

Revenue for the year ended 31 December 2013 was £27.5 million (2012: £14.4 million).

Gross profit was £8.3 million and gross profit margin 30.2% (2012: gross profit £3.7 million and gross profit margin 25.7%).

Loss before taxation was £1.2 million (2012: £0.4 million).

Profit for the year was £1.5 million (2012: profit of £0.5 million).

#### Research and development expenses

The Group's separate independent research and development expenses (excluding provision against virus inventory) were £1.2 million this year (2012: £0.3 million), primarily in respect of the Group investing in its research and development capability and starting to evaluate the opportunity and feasibility for new hVIVO human models of disease.

Research and development expenses also included a provision in full of £1.3 million (2012: £nil) against the carrying value of "Virus – work in progress" relating to a virus to be used in the development and commercialisation

of new Human Challenge Models ("HCM"), where the new HCM models have not yet demonstrated technical feasibility. This expense has been presented separately as "Research and development expense – provision against virus inventory" in the consolidated statement of comprehensive income.

In addition, significant research and development was undertaken as a natural consequence of operating and pioneering the HCM during client HCM studies. These expenses are included within cost of sales.

#### Administrative expenses

Administrative expenses were £7.3 million (2012: £3.9 million). The increase is primarily due to the Group's significant growth, increasing staff cost base and expanding capability and infrastructure.

#### Finance income

The Group invests its surplus funds in bank deposits and money market investments of up to one year. In the year ended 31 December 2013 interest receivable was £0.2 million (2012: £0.1 million). The increase is due to the Group's increased cash balances, primarily as a result of £25 million (net) raised via a placing in June 2013.

## Financial KPIs

	2013	2012
Revenue	<b>£27.5m</b>	£14.4m
Gross profit	<b>£8.3m</b>	£3.7m
Gross profit margin	<b>30.2%</b>	25.7%
Research and development expense (excluding provision against virus inventory)	<b>£1.2m</b>	£0.3m
Profit for the year	<b>£1.5m</b>	£0.5m
Short-term deposits, cash and cash equivalents	<b>£35.8m</b>	£16.3m

### Taxation

The Group makes claims each year for research and development tax credits and, since it is loss-making, elects to surrender these tax credits for a cash rebate.

The amount credited to the consolidated income statement in respect of amounts received and receivable for the surrender of research and development expenditure is £2.7 million for the year ended 31 December 2013 (2012: £1.0 million).

### Consolidated statement of financial position

As at 31 December 2013 total assets less liabilities amounted to £42.9 million (2012: £16.3 million) including short-term deposits of £22.5 million (2012: £nil) and cash and cash equivalents of £13.3 million (2012: £16.3 million).

The principal movements in the consolidated statement of financial position during the year were:

- purchases of intangible assets of £1.1 million;
- purchases of property, plant and equipment of £3.1 million;
- increase in inventories of £1.5 million;
- increase in research and development tax credit receivable of £1.4 million;
- increase in trade and other receivables of £3.2 million;
- increase in short-term deposits of £22.5 million;
- decrease in cash and cash equivalents of £3.1 million; and
- increase in current trade and other payables of £1.6 million.

### Cash flow

The principal cash flows in the year were as follows:

#### Inflows:

- cash outflow from operating activities of £2.2 million (2012: cash inflow £2.1 million);
- other payables received of £0.75 million (2012: £nil);
- net proceeds on issue of shares of £25.0 million (2012: £14.1 million); and
- finance income of £0.2 million (2012: £0.1 million).

#### Outflows:

- purchases of intangible assets of £1.1 million (2012: £nil); and
- purchases of property, plant and equipment of £3.1 million (2012: £1.2 million).

### Key performance indicators

The Directors consider the principal financial performance indicators of the Group to be:

- revenue;
- gross profit;
- gross profit margin;
- research and development expense;
- net profit; and
- short-term deposits, cash and cash equivalents.

The Directors consider the principal non-financial performance indicators of the Group to be:

- the expansion of the HCM and its increasing acceptance by global pharmaceutical companies and regulatory authorities;
- organic growth and building of capability;
- development of new human challenge models; and
- research and development in other disease areas including asthma and COPD.

These elements are discussed within the Chief Executive Officer's statement.



**Graham Yeatman**

Finance Director

8 April 2014

## BOARD OF DIRECTORS

The Board of Directors has overall responsibility for the Group. Its aim is to represent the interests of the Group's shareholders and to provide leadership and control in order to ensure the growth and development of a successful business.

### **David Norwood** Non-Executive Chairman

David Norwood was appointed Chairman of Retroscreen Virology Limited in February 2011 and became Chairman of Retroscreen Virology Group plc in April 2012. David has had a long career building a number of science, technology and investment companies. He is the founder of IP Group plc, one of the UK's leading technology commercialisation businesses. Previously, he was Chief Executive of stockbroker Beeson Gregory (acquired by Evolution Group plc) after its acquisition of IndexIT Partnership, a technology advisory boutique he had founded in 1999.

He was a founding shareholder of Evolution Group plc (recently acquired by Investec), and also co-founder of Ora Capital plc. David has been a founder and/or Director of many UK technology companies including Oxford Nanopore Technologies, Proximagen (acquired by Upsher-Smith Laboratories, Inc.), Synairgen, Ilika Technologies, Oxford Catalysts and Plectrum Petroleum (acquired by Cairn Energy). He has also acted as seed investor and/or adviser to Wolfson Microelectronics, Nanoco Technologies, Tissue Regenix and ArcInternational (now part of Synopsys). He is also Non-Executive Chairman of Oxford Pharmascience Group plc.

### **Kym Denny** Chief Executive Officer

Kym Denny was appointed CEO of Retroscreen Virology Limited in December 2010 and became CEO of Retroscreen Virology Group plc in April 2012. Kym has over 15 years senior management experience of international clinical trials including Phase I-IV clinical operations, project management, drug safety, data management and site management. This experience was gained in a wide range of therapeutic areas including infectious disease and respiratory, CNS, oncology and women's health.

Kym began her career as a Clinical Research Associate at Kendle Research. She went on to found InSite Clinical Trials, a hybrid CRO and site management company in Atlanta, Georgia, USA, and then to the UK where she was appointed to the Board of Profiad Limited where she also oversaw the Clinical Operations function. She later became Managing Director, UK, for Harrison Clinical Research and then joined Origin as Head of International Clinical Operations, being promoted to Vice President of Clinical Research when the company was acquired by Constella LLC and later, SRA International.

### **Graham Yeatman** Finance Director

Graham Yeatman joined Retroscreen Virology Limited as Finance Director in May 2011 and became Finance Director of Retroscreen Virology Group plc in April 2012. Graham has significant experience of building businesses for rapid growth and profitability. He is a Chartered Accountant and trained and worked with PricewaterhouseCoopers for thirteen years across its audit, tax, consultancy, business process re-engineering and outsourcing divisions.

In 2001 he joined buyingTeam Limited (subsequently renamed Proxima) as Finance & Operations Director and was influential in growing the business to become one of the UK's leading purchasing services providers. In 2006 he joined Neuropharm Group plc as Chief Financial Officer. Graham has a First class degree in Economics and Maths from Bristol University.

**Professor John Oxford**  
Non-Executive Director

Professor John Oxford is President, Scientific Director and founder of Retroscreen Virology Limited and Professor of Virology at St Bartholomew's and the Royal London Hospital, Queen Mary's School of Medicine and Dentistry.

He has co-authored two standard texts: "Influenza, the Viruses and the Disease" with Sir Charles Stuart-Harris and GC Schild and most recently, "Human Virology, a Text for Students of Medicine, Dentistry and Microbiology", published by Oxford University Press. Professor Oxford has also published over 250 scientific papers.

**Duncan Peyton**  
Non-Executive Director

Duncan Peyton became a Non-Executive Director in April 2012, having previously represented the Northern Entrepreneurs Fund on the Board of Retroscreen Virology Limited since its investment in October 2009. Duncan is a founder of Aquarius Equity Partners, a specialist investor in businesses within the life science sector, and offers investors access to innovative, high-growth potential companies that can deliver significant capital growth. Duncan founded Aquarius in 2005, which made founding investments into Nanoco Technologies, Auralis (subsequently sold to Viropharm, Inc.) and Tissue Regenix.

**Charles Winward**  
Non-Executive Director

Charles Winward joined Retroscreen Virology Limited, as the Board representative of IP2IPO Services Limited in early 2009 and became a Non-Executive Director of the Company in April 2012.

Charles is a director of IP Group plc, one of the investors in the Company. Charles joined IP Group in April 2007 to manage investments by Top Technology Ventures Limited, the Group's venture capital fund management subsidiary. Previously Charles was Vice President, Technology Infrastructure at JPMorgan Chase & Co, where he worked in a variety of roles in London, New York and Brussels, and Investment Manager at Axiomlab, an AIM-listed early stage investment specialist. Charles is a CFA charterholder and has an MBA from the University of California at Berkeley.

## STRATEGIC REPORT

### **hVIVO**

Retroscreen is a rapidly growing UK life sciences company pioneering a technology platform called *hVIVO* which uses human models of disease involving healthy volunteers to study new drugs and investigate disease in a safe, controlled environment. Retroscreen has established itself as the world leader in this field through the provision of clinical services to third-party study sponsors. To date, we have conducted 35 clinical studies, involving more than 1,600 volunteers for a range of leading industry, governmental and academic clients. However, the platform has a much wider application in helping to understand illness better because our belief is that the best way to understand human disease is by studying it in humans, not laboratory models.

### **Human challenge models of disease**

We are pioneering our *hVIVO* technology platform which uses human models of disease to research disease and study new drugs in volunteers in a safe, controlled environment. We believe that *hVIVO* has the power to overcome key industry bottlenecks to deliver new innovative therapies and better diagnostics to market in an accelerated timeframe. We have proven so far that by carefully selecting human volunteers and monitoring them throughout a disease episode under tightly controlled medical quarantine conditions, a concept we term "*h-vivo*", we can demonstrate proof of concept for a new investigational drug in a much shorter timeframe and in fewer subjects than traditionally, and crucially, before investing in large, expensive field-based pivotal studies. We have extended our proprietary term *hVIVO* to embrace the whole of our technology platform, from patient recruitment through to biomedical research and accelerated drug development. Our *hVIVO* human challenge models of disease ("HCM") utilise the ability of challenge agents, such as respiratory viruses to elicit common self-limiting diseases such as flu, cold (Human Rhinovirus, "HRV") and Respiratory Syncytial Virus ("RSV") in otherwise healthy volunteers. By watching the entire disease lifecycle as subjects move from healthy to sick and recover back to healthy again, we can obtain high-quality, longitudinal data from the before, during and after phases of disease. These models can be used to study the efficacy of new therapies such as antiviral drugs and vaccines and also to study the target disease itself.

### **Broadening our hVIVO platform**

The next stage of our development is to broaden our capability into new disease areas such as asthma and Chronic Obstructive Pulmonary Disease (commonly known as "COPD") and areas of new understanding afforded by our unique samples. Retroscreen is currently developing controlled human challenge models of these airways diseases, exploiting the fact that exacerbations are caused by respiratory viral infections. Pilot studies in both asthma and COPD are scheduled to commence in the second half of 2014 and the first half of 2015 respectively. If successful, these models will not only allow new therapies to be tested more effectively, but by analysing samples from our asthma airways disease model, we hope to solve the puzzle of the diseases themselves.

### **Building our bioanalytics capability**

Field-based outpatient studies require patients to make multiple visits to their recruiting centre for treatment and follow ups. This makes it challenging to obtain consistent, quality measurements including patient samples. Our human models of disease enable a wide range of high quality samples to be taken from volunteers before, during and after an infection or disease exacerbation.

In March 2014 we announced the £4.0 million all-share acquisition of Activiomics Limited, a privately owned company spun out of Barts and the London Medical School, part of Queen Mary University of London. Activiomics' core technology is called "TIQUAS" (Targeted Quantification of Cell Signalling) which is an advanced, mass-spectrometry technology platform that allows the identification and quantification of the global phosphorylation status of cells and tissues, providing a direct read-out of the biological processes that underpin disease progression as well as responses to drug administration. The TIQUAS platform works by using a protease to break down a cell or tissue extract into peptide fragments. Phosphopeptide enrichment, mass spectrometry and our proprietary software allow thousands of phosphopeptides to be quantified. TIQUAS has broad application in the area of biomarker and drug discovery as the cross-comparison of treated samples enables biomarker discovery and/or drug profiling.

Retroscreen is currently establishing the necessary infrastructure to store and analyse the data derived from our clinical samples. While we are not taking a "big data" approach, we expect to generate large amounts of data that we will organise into a bioinformatics database that can be easily and rapidly interrogated. This data will become increasingly rich as the results of new experiments and increasing sample sizes are incorporated into the database. We believe that this database will hold the key to many of the secrets behind the cause of certain virally induced diseases, the host response and individual variability to disease.

## Key performance indicators

### Financial KPIs

	2013	2012
Revenue	<b>£27.5m</b>	£14.4m
Gross profit	<b>£8.3m</b>	£3.7m
Gross profit margin	<b>30.2%</b>	25.7%
Research and development expense (excluding provision against virus inventory)	<b>£1.2m</b>	£0.3m
Profit for the year	<b>£1.5m</b>	£0.5m
Short-term deposits, cash and cash equivalents	<b>£35.8m</b>	£16.3m

The Directors consider the principal financial performance indicators of the Group to be:

- revenue;
- gross profit;
- gross profit margin;
- research and development expense;
- net profit; and
- short-term deposits, cash and cash equivalents.

The Directors consider the principal non-financial performance indicators of the Group to be:

- the expansion of the HCM and its increasing acceptance by global pharmaceutical companies and regulatory authorities;
- organic growth and building of capability;
- development of new human challenge models; and
- research and development in other disease areas including asthma and COPD.

### Principal risks and uncertainties

The principal risks and uncertainties that could have an adverse impact on the performance of the Group are detailed below:

#### Sales pipeline

Retroscreen has a small number of high-value HCM client engagements, whereas its cost base (being primarily staff, premises and facilities) is relatively committed and fixed. Delays in HCM client engagement contract signatures and the creation of gaps in the quarantine schedule, with Retroscreen's quarantine facilities not being fully utilised, would potentially have a material impact on Retroscreen's revenue and profitability. In addition, our clients are at earlier stages of drug development (Phase Ib/IIa), so there is higher risk of delays or cancellation events for their compounds.

Clients will typically sign a Start-up Agreement, whereby Retroscreen provides value-added consultancy to the client by designing a trial protocol to support the client's objectives. This initial consultancy stage will continue through to Retroscreen supporting the client in its engagement with the appropriate Ethics Committees for approval of the HCM clinical trial. The start-up phase will conclude with a trial protocol and permission to proceed to a trial. Not all clients will proceed from the start-up phase as it may be concluded that a trial is not feasible, or there may be external factors that prevent a trial from progressing. Once this start-up phase has come to an end, in the event the client wishes to proceed, Retroscreen will then agree with each client a binding contract for a defined, costed HCM engagement.

Retroscreen continues to focus on building and diversifying the client pipeline and has strategies in place to (i) increase scheduling flexibility, (ii) accelerate the timeline to full contract signature, (iii) extend the time interval between contract signature and commencement of quarantines and (iv) develop long-term relationships with clients, with a view to conducting repeat business.

#### Delay, early termination or cancellation of trials and impact on pipeline

All HCM client engagement contracts allow postponement or cancellation of a trial by the client without cause, usually with a 30 to 60 day notice period. Reasons for postponement or delay may include (i) the failure of the client product to satisfy safety or efficacy requirements, (ii) unexpected or undesirable results of the client product, or (iii) a decision by the client that a particular study is no longer necessary. The loss of business or a significant decrease therein, due to short notice, unexpected postponement or cancellation would potentially have a material impact on revenue and profitability.

## STRATEGIC REPORT CONTINUED

### Principal risks and uncertainties continued

#### Delay, early termination or cancellation of trials and impact on pipeline continued

Retroscreen mitigates the financial risk by including postponement and cancellation charges in our HCM contracts. Additionally, as noted above, Retroscreen continues to focus on building and diversifying the client base and has strategies in place to (i) increase scheduling flexibility, (ii) accelerate the timeline to full contract signature, (iii) extend the time interval between contract signature and commencement of quarantines and (iv) develop long-term relationships with clients, with a view to conducting repeat business.

#### Challenges to achieving statistically significant volunteer numbers and infectivity rates

Retroscreen maintains a dossier of historical infectivity rates from previous clinical trials (i.e. the proportion of subjects who, when inoculated with a virus, become infected and go on to develop symptoms). Client sponsors access this data and other published literature in order to make an assumption on the expected infectivity rate and thus the number of subjects that will need to be included in their trial in order to deliver statistically significant results. Infectivity rate is a natural feature of a virus/human interaction and while Retroscreen can exploit current scientific best practice and knowledge to provide the most appropriate circumstances and environment for infection to occur, this cannot be guaranteed. If insufficient volunteers become infected, it may prevent the data generated being statistically significant and thus the primary objectives of the trial may not be achieved.

Infectivity rate is not a contracted deliverable and Retroscreen includes clear language in contracts to disclaim this risk. While infectivity rate is an uncontrollable parameter, each HCM clinical study that is completed provides additional data for Retroscreen's viral inoculum dossier, thus increasing the confidence level of the predicted infection rates. Additionally the Group monitors literature and regularly liaises with collaborators and scientific colleagues to remain at the forefront of current knowledge. Retroscreen also actively collaborates and conducts research to determine the most robust and efficient method of virus inoculation.

Assuming the infectivity rate lies within the assumed range, Retroscreen's ability to fulfil HCM contracts is then dependent upon being able to enrol the required number of subjects for the trial. The lead generation, recruitment and screening process is a multi-stage funnel, with each stage resulting in the exclusion of a percentage of the volunteer population. Retroscreen utilises screening data from its previous clinical trials, as well as the study-specific requirements, to provide the client with an estimate of the number of leads that will need to be generated at the top of the funnel in order to provide the required number of clean volunteers at the bottom of the funnel. The estimates are inherently variable and dependent on factors outside of Retroscreen's control, such as the prevalence of the virus in the population, environmental conditions (time of year, weather, major events) and volunteer availability. Although Retroscreen's HCM client engagement contracts contain provisions for a change order, if the change in funnel assumptions is significant, it is possible that the client may choose not to progress with the study. Additionally it may not be possible to recruit sufficient volunteers in the timescales required.

To mitigate this risk, Retroscreen has developed a regional screening programme and has established screening centres in London, Ely and Manchester. Not only does this increase throughput and capacity, but it also allows access to wider population centres and reduces the risk of geographically specific outbreaks of a particular virus strain.

#### Regulatory and ethics framework/market adoption

At present, in the UK, the regulation of viruses is a far simpler regime than the regulation of medicinal products and medical devices. Additionally, the HCM is currently viewed favourably by Ethics Committees. Were this situation to change, and viruses be regulated in a manner akin to medicinal products, then this could substantively increase the regulatory and administrative burden on Retroscreen.

The HCM is attractive to clients as a means of reducing the time of trials and targeting their development spend. However, there is no guarantee that the HCM will continue to be adopted or will become a standard for Phase II trials. A failed viral challenge study, for example either due to poor infectivity or under-recruitment, would be detrimental to the industry acceptance of the model, thus impacting Retroscreen's revenue, profitability and growth plan.

Retroscreen is pioneering the HCM, so is in a unique position to discuss and help define regulatory and ethics policy, while promoting the HCM in the wider scientific community. Retroscreen continues to push the rigour of its methodology, and the development of its challenge viruses, such that it is in a position to inform through good science, an increasing body of safety data and an unblemished safety record.

Retroscreen has a very active programme of publication and conference attendance. Retroscreen engages with key opinion leaders and thought leaders to promote the HCM, its acceptance and the importance of the data produced. Retroscreen encourages collaboration with academic groups to perform HCM trials and to further the science behind the HCM.

Publication of trial results is a key route to adoption of the HCM. Retroscreen is focused on delivering successful, large-scale trials and then actively participating in the publication of the study data and the promotion of the results. Retroscreen ensures that its contracts allow full participation in the publication of data.

### Protection of the HCM and competition

Although Retroscreen has been pioneering the HCM to date, operation of the HCM itself is not subject to any protection or restriction, nor can it be, due to the extensive prior art in the public domain.

Additionally, although Retroscreen has rights relating to the viruses it owns and uses, there is no restriction on similar or new virus strains being manufactured and exploited. There can be no assurance that others have not developed or will not develop similar methodologies and services, nor duplicate any of the Group's services. As the understanding and acceptance of the HCM continues, we have begun to see the emergence of competition.

Competition has, and will continue, to come from the contract research organisation industry, ranging from large multi-nationals to smaller, niche businesses within clinical and academic institutions. Although there are a number of significant barriers to entry, the emergence of competition will continue, which in turn, could impact Retroscreen's revenues and profitability.

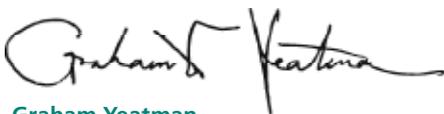
Retroscreen enjoys a significant advantage over existing and potential competition, due to Retroscreen's wealth of know-how, proprietary information, experience and track record built over many years of successful operation of the HCM with its own viruses. Retroscreen continues to evolve, refine and leverage the HCM methodology, while driving cost efficiencies. The number of successful trials conducted and volunteers safely inoculated by Retroscreen is unrivalled.

### Treasury policy and financial risk

The Group maintains a centralised treasury function, which operates under policies and guidelines approved by the Board. These cover funding, management of foreign exchange exposure and interest-rate risk. The purpose is to manage the financial risks of the business and to secure the most cost-effective funding.

The Group's principal financial assets are bank balances and long-term deposits, which are exposed to varying degrees to the following risks: liquidity risk, credit risk and foreign currency risk. The policy for managing these risks is outlined below:

- **liquidity risk** – the Group maintains good relationships with its banks, financial institutions with high credit ratings, and its working capital requirements are anticipated via the forecasting and budgetary process;
- **credit risk** – the Group is mainly exposed to credit risk from its trade and other receivables, short-term deposits and bank balances. An allowance for impairment is made where there is an identified loss event which, based on previous experience, is evidence of a reduction in the recoverability of the cash flows. Management considers the above measures to be sufficient to control the credit risk exposure;
- **foreign currency risk** – the Group is exposed to minimal foreign currency risk. The functional currency of the Company is Sterling, which is the currency in which the Group's sales and the majority of its purchases are denominated. The Group seeks to negotiate the majority of its contracts with international clients in Sterling; however, where this is not possible, the Group will seek to hedge against the foreign currency risk. Some third party supplier purchases are made in Euros and US Dollars, although these are not considered to be significant.



**Graham Yeatman**

Finance Director

8 April 2014

## DIRECTORS' REPORT

### Financial statements

The Directors present their report and financial statements for the Company and Group for the year ended 31 December 2013.

### Principal activities

The Company was incorporated on 27 March 2012 under the name of PIMCO 2917 Limited. On 3 April 2012 the Company changed its name to Retroscreen Virology Group Limited. On 13 April 2012 the Company subsequently shortened its accounting reference date to 31 December.

On 25 April 2012 the Company was re-registered as a public limited company and its name was changed to Retroscreen Virology Group plc.

Retroscreen is a virology healthcare business that provides clinical services, focused on the Human Challenge Model ("HCM") primarily to pharmaceutical companies and biotechnology organisations. The Group has grown and developed the HCM for evidencing the efficacy of antiviral and viral therapeutics in RSV, flu and cold.

The operational activities of the Group are carried out through Retroscreen Virology Limited, a 100% owned subsidiary of Retroscreen Virology Group plc. The principal activity of the Company was that of a holding company.

### Group reconstruction

Under a group reconstruction on 20 April 2012 the Company acquired the whole of the issued ordinary share capital of Retroscreen Virology Limited, satisfied by the issue or transfer of 1,101,971 ordinary shares of £1.00 in the Company.

The reconstruction does not meet the definition of a business combination. It is noted that such transactions are outside the scope of IFRS 3 and there is no other guidance elsewhere in IFRS covering such transactions. IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors requires that where IFRS does not include guidance for a particular issue, the Directors may also consider the most recent pronouncements of other standard setting bodies that use a similar conceptual framework to develop accounting standards when forming an appropriate accounting policy.

In this regard, it is noted that the UK Accounting Standards Board has, in issue, an accounting standard covering business combinations (FRS 6) that permits the use of the merger accounting principles for such transactions. The Directors have therefore chosen to adopt these principles and the financial statements have been prepared as if Retroscreen Virology Limited had been owned and controlled by the Company throughout the years ended 31 December 2012 and 31 December 2013.

### Business review and key performance indicators

The Group's results are set out in the consolidated statement of comprehensive income on page 31 and are explained in the Finance Director's report on pages 14 and 15. A detailed review of the business, its results and future direction is included in the Chief Executive Officer's statement on pages 6 to 8.

### Capital structure

The Company is primarily financed through equity provided by its shareholders.

### Research and development

The Group considers that the majority of its activities constitute research and development, whether as separate independent research and development (separately identified as a research and development expense in the consolidated statement of comprehensive income), or as a natural consequence of operating and pioneering the HCM during client HCM studies (included within cost of sales). In the opinion of the Directors, continuity of the investment in this area is essential for the development of the HCM, maintenance of the Group's market position and for continued growth.

### Dividends

The Directors do not recommend the payment of a dividend (2012: £nil).

### Directors

The Directors of the Company are as follows:

Kym Denny  
Graham Yeatman  
David Norwood  
Professor John Oxford  
Duncan Peyton  
Charles Winward

At 31 December 2013, the Directors had the following beneficial interests in the Company's shares:

	<b>31 December 2013 Number</b>	31 December 2012 Number
<b>Executive Directors</b>		
Kym Denny	<b>347,680</b>	347,680
Graham Yeatman	<b>185,200</b>	185,200
<b>Non-Executive Directors</b>		
David Norwood	<b>3,219,520</b>	3,219,520
Professor John Oxford	<b>1,285,760</b>	1,285,760
Charles Winward	<b>66,080</b>	66,080

Biographical details of the Directors are given on pages 16 and 17.

Professor John Oxford and Duncan Peyton retire by rotation and are not seeking reappointment at the forthcoming Annual General Meeting.

#### Directors' interests

The interests of Directors in the shares and options of the Company are given above and in the Directors' remuneration report on pages 27 and 28.

None of the Directors had a material interest at any time during the year in any contract of significance with the Group other than a service contract. Information regarding Directors' service contracts is given on page 27 within the Directors' remuneration report.

#### Third-party indemnity provision for Directors

Qualifying third-party indemnity provision is in place for the benefit of all Directors of the Company.

#### Share capital

On 14 June 2013, 12,750,000 ordinary shares of 5 pence were issued via a placing at a price of 200 pence per ordinary share.

As at 31 December 2013, the issued share capital of the Company was:

	Number of ordinary 5p shares	Nominal value £
Issued and fully paid up	53,726,920	2,686,346

On 4 March 2014, 996,901 ordinary shares were issued to acquire the entire issued share capital of Activiomics Limited (on a fully diluted basis including all outstanding options). See note 29.

The average market price of the Company's ordinary shares at close of business on 31 December 2013 was 305.5 pence.

The maximum share price during the period was 362.5 pence (11 October 2013) and the minimum price was 137.5 pence per share (3 January 2013).

## DIRECTORS' REPORT CONTINUED

### Substantial share interests

At 8 April 2014, the Company had been advised or is aware of the following interests of 3% or more in the Company's issued share capital:

	Number of shares	Percentage of issued share capital
Invesco Asset Management Limited	13,845,893	25.3%
IP2IPO Limited	10,315,407	18.9%
Lansdowne Partners Limited	4,187,500	7.7%
IP Venture Fund	4,140,133	7.6%
Sand Aire Limited	3,948,776	7.2%
David Norwood	3,219,520	5.9%
Ruffer LLP	3,160,000	5.8%
Henderson Global Investors Limited	2,269,414	4.1%
Queen Mary & Westfield College, University of London	2,013,195	3.7%

### Employees

The Group is committed to providing equal opportunities in employment. All job applicants and employees receive equal treatment regardless of sex, race, colour, age, and nationality or ethnic origin.

The Group places considerable value on the involvement of its employees and keeps them informed on matters affecting them as employees and on the various factors affecting the performance of the Group. This is achieved through formal and informal meetings, together with the Annual Report and Accounts. Employees are consulted regularly on a wide range of matters affecting their current and future interests.

Retroscreen recognises that commercial success depends on the full commitment of all its employees and commits to respecting their human rights, to provide them with a good working environment, free from unnecessary risk, and to maintain fair and competitive terms and conditions of employment at all times.

### Statement as to disclosure of information to the auditor

The Directors who were in office on the date of approval of these financial statements have confirmed that, as far as they are aware, there is no relevant audit information of which the auditor is unaware. Each of the Directors have confirmed that they have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that it has been communicated to the auditor.

### Auditors

Since the year end the Group's Board, advised by the Audit Committee, has carried out a review of Group audit arrangements and invited a number of firms to tender for the audit of the Group and the Company. As a result of this review the Board has decided to propose a resolution to appoint Deloitte LLP as auditor to the Group and the Company with effect from the close of the forthcoming Annual General Meeting and to authorise the Directors to determine their remuneration.

### Annual General Meeting

The Notice convening the Annual General Meeting, which will take place at 10.00am on 21 May 2014 at the Company's registered office, has been sent out to shareholders with the Annual Report. Details of the business to be transacted at the AGM can be found in the Notice.

By order of the Board



**Graham Yeatman**

Company Secretary

8 April 2014

# CORPORATE GOVERNANCE STATEMENT

## Principles of corporate governance

The Company's Board appreciates the value of good corporate governance not only in the areas of accountability and risk management but also as a positive contribution to business prosperity. It believes that corporate governance involves more than a simple "box ticking" approach to establish whether a company has met the requirements of a number of specific rules and regulations. Rather the issue is one of applying corporate governance principles (including those set out in the Corporate Governance Code for Small and Mid-Size Quoted Companies published by the Quoted Companies Alliance) in a sensible and pragmatic fashion having regard to the individual circumstances of a particular company's business. The key objective is to enhance and protect shareholder value.

## Board of Directors

The Board of Retroscreen Virology Group plc comprises two Executive Directors and four Non-Executive Directors, one of whom is the Chairman. The roles of Chairman and Chief Executive Officer are distinct and are held by different people to ensure a clear division of responsibility. The role of the Non-Executive Directors is to bring valuable judgement and insight to Board deliberations and decisions. The Non-Executive Directors are all experienced and influential individuals whose blend of skills and business experience contributes to the proper functioning of the Board and its Committees, ensuring that matters are fully debated and that no individual or group dominates the Board's decision-making processes.

All Directors have access to the advice and services of the Company Secretary and in the course of their duties, if necessary, are able to take independent professional advice at the Company's expense. Committees have access to such resources as are required to fulfil their duties.

The Board receives regular reports detailing the progress of the Group, the Group's financial position and projections, as well as business development activities and operational issues, together with any other material deemed necessary for the Board to discharge its duties. The Chairman is primarily responsible for the effective operation and chairing of the Board and for ensuring that it receives appropriate information to make informed judgements.

The Board has a formal schedule of matters reserved to it for decision but otherwise delegates specific responsibilities to Committees, as described below. The terms of reference of the Committees are available on request from the Company Secretary. The Board is responsible for the review and approval of key policies and decisions in respect of business strategy and operations, Board appointments, budgets and forecasts, items of substantial investment and acquisitions.

Under the Articles of Association, all Directors must offer themselves for re-election at least once every three years. One third of the Directors retires by rotation at every Annual General Meeting and is eligible for re-appointment.

## Board Committees

The Board has established an Audit Committee and a Remuneration Committee with written terms of delegated responsibilities for each.

### Audit Committee

The Audit Committee comprises three Non-Executive Directors: Duncan Peyton, who chairs the Committee, David Norwood and Charles Winward. The external auditor, Chief Executive Officer and Finance Director may be invited to attend Audit Committee meetings and, following each meeting, the Audit Committee and external auditor have the opportunity to meet without the Executive Directors present. The Audit Committee meets at least twice each year.

The Committee reviewed the half-year and full year results as well as the Half-year Report and Annual Report and Accounts prior to their submission to the Board and considered any matters raised by the external auditor. All scheduled Committee meetings were quorate and the conclusions from those meetings were presented to the Board.

In certain circumstances it is permitted by the Board for the auditor to supply non-audit services (for example, in the provision of tax advice). The Audit Committee has approved and monitored the application of this policy in order to safeguard auditor objectivity and independence. The overall fees paid to the auditor are not deemed significant enough to them so as potentially to impair their independence. The auditor is awarded assignments on a competitive basis and the Audit Committee pre-approves all permitted non-audit expenditure incurred and during the year reviews the cost-effectiveness, independence and objectivity of the external auditor. A formal Statement of Independence is received from the external auditor each year.

### Remuneration Committee

The Remuneration Committee comprises three Non-Executive Directors: Charles Winward, who chairs the Committee, David Norwood and Duncan Peyton. The Remuneration Committee meets at least twice each year.

The Committee is responsible for considering the Executive Directors' and senior management's remuneration packages and makes its recommendations to the Board.

The Chief Executive Officer may be invited to attend Remuneration Committee meetings, other than when her own remuneration is discussed. No Director is involved in deciding his own remuneration.

Further details of Directors' remuneration are disclosed in the Directors' remuneration report.

## CORPORATE GOVERNANCE STATEMENT CONTINUED

### Internal control and risk management

The Board acknowledges its responsibility for safeguarding the shareholders' investments and the Group's assets. In applying this principle, the Board recognises that it has overall responsibility for ensuring that the Group maintains a system of internal control that provides it with reasonable assurance regarding effective and efficient operations, internal financial control and compliance with laws and regulations. The system of internal control is designed to manage rather than eliminate the risk of failure to achieve business objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss.

Through the Audit Committee, the Directors have reviewed the effectiveness of the internal controls. Since admission to AIM in May 2012, management has invested significant time in further developing the Group's internal control environment. The key features of the internal control system are described below:

- **control procedures and environment** – the Group has an organisational structure with clearly drawn lines of accountability and authority. Employees are required to follow well-defined internal procedures and policies appropriate to the business and their position within the business and management promotes the highest levels of professionalism and ethical standards;
- **identification and evaluation of risks** – the Group employs Executive Directors and senior management with the appropriate knowledge and experience required for a medical and scientific research group. Identification and evaluation of risk is a continuous process running in parallel with the significant organic growth of the Group;
- **financial information** – the Group prepares detailed budgets and working capital forecasts annually. These are based upon the strategy of the Group and are approved by the Board. Detailed management accounts and working capital re-forecasts are reviewed at least quarterly for each Board meeting, with any variances from budget investigated thoroughly and a summary provided to the Board. Annual Reports, Preliminary Statements and Half-year Reports prepared by the Group are reviewed by the Audit Committee prior to approval by the Board;
- **monitoring** – the Board monitors the activities of the Group through the supply of reports from various areas of the business as contained in the Board papers. The Executive Committee performs a more detailed review, taking corrective action if required. The Board, through the Audit Committee, reviews the effectiveness of the systems of internal control.

Given the Group's relative small size, the Board does not consider it either necessary or practical at present to have its own internal audit function. The Board will continue to monitor the requirement to have an internal audit function.

### Communication with shareholders

The Board attaches great importance to communication with both institutional and private shareholders.

Regular communication is maintained with all shareholders through Company announcements, the Annual Report and Accounts, Preliminary Statements and Half-year Report.

The Directors seek to build on a mutual understanding of objectives between the Company and its shareholders, especially considering the long-term nature of the business. Institutional shareholders are in contact with the Directors through presentations and meetings to discuss issues and to give feedback regularly throughout the year. With private shareholders this is not always practical. The Board, therefore, intends to use the Company's Annual General Meeting as the opportunity to meet private shareholders who are encouraged to attend, after which the Chief Executive Officer will give a presentation on the activities of the Group. Following the presentation there will be an opportunity to ask questions of Directors on a formal and informal basis and to discuss development of the business.

The Company operates a website at [www.retroscreen.com](http://www.retroscreen.com). The website contains details of the Group and its activities, regulatory announcements and Company announcements, Annual Reports and Half-year Reports, and the Terms of Reference of the Audit and Remuneration Committees.

### Going concern

As disclosed in note 2 to the consolidated financial statements, having made relevant and appropriate enquiries, including consideration of the Company and Group current resources and working capital forecasts, the Directors have a reasonable expectation that, at the time of approving the financial statements, the Company has adequate resources to continue in operational existence for at least the next twelve months. Accordingly, the Board continues to adopt the going concern basis in preparing the financial statements.

# DIRECTORS' REMUNERATION REPORT

## Introduction

Retroscreen has elected voluntarily to prepare a Directors' remuneration report as set out below.

## Remuneration policy overview

The aim of the remuneration policy is to encourage and reward superior performance by the Executive Directors and senior management, with performance being measured by reference to the achievement of corporate goals, strong financial performance and the delivery of value to shareholders.

The policy is designed to offer rewards that:

- enable the Group to attract and retain the management talent it needs to ensure its success;
- incentivise the achievement of the Group's strategy and the delivery of sustainable long-term performance of the Group by the executives; and
- have flexibility to accommodate the changing needs of the Group as it grows and its strategy evolves.

Remuneration levels will be benchmarked against a subset of companies in the UK life sciences and biotechnology sectors with the aim of achieving the following:

Base salary	between average and upper quartile
Performance-based bonus	between average and upper quartile
Share incentives	industry average
Total compensation	between average and upper quartile

The Remuneration Committee intends to establish a policy that enables the Group to retain and motivate the Executive Directors and senior management appropriately while still maintaining a strong "pay-for-performance" culture within the Group. The remuneration policy is reviewed by the Remuneration Committee on an annual basis to ensure that it is in line with the Group's objectives and shareholders' interests.

## Executive Directors

Kym Denny has a service agreement with Retroscreen Virology Group plc dated 26 April 2012, with continuous employment from 28 September 2009. Her appointment is terminable on six months' notice by either party.

Graham Yeatman has a service agreement with Retroscreen Virology Limited dated 20 February 2012, with continuous employment from 3 May 2011. His appointment is terminable on three months' notice by either party.

## Non-Executive Directors

The Non-Executive Directors have entered into letters of appointment with the Company, with the Board determining any fees paid. The Non-Executive Directors do not participate in the Group's pension, bonus or option schemes. The appointments are terminable on three months' notice by either party.

## Remuneration

The Executive Directors, Kym Denny and Graham Yeatman, are entitled to receive base salary, travel allowance, employer pension contributions, share options and a discretionary performance-related bonus.

### Salary

Base salaries are reviewed annually and effective from the beginning of April.

The Remuneration Committee seeks to assess the market competitiveness of pay primarily in terms of total remuneration, with less emphasis on base salary.

### Bonuses

The timing and amount of bonuses are decided by the Remuneration Committee with reference to the individual's performance and contribution to the Group. The maximum bonus that can be earned by an Executive Director is 100% of base salary.

### Pensions

The Group operates a Group Personal Pension scheme. Under the scheme rules, the Group pays an employer pension contribution of between 3% and 9% of base salary. The scheme is open to the Executive Directors and employees.

## DIRECTORS' REMUNERATION REPORT CONTINUED

Remuneration continued

### Directors' remuneration

The Directors received the following remuneration during the year<sup>1</sup>:

	Salary and fees <sup>2</sup> £'000	Bonus £'000	2013 total excluding pensions £'000	2013 Pensions £'000	2012 total excluding pensions £'000	2012 Pensions £'000
Kym Denny	157	104	261	13	182	11
Graham Yeatman	137	71	208	11	182	11
<b>Executive Directors</b>	294	175	469	24	364	22
David Norwood <sup>3</sup>	6	—	6	—	—	—
Professor John Oxford <sup>4</sup>	—	—	—	—	—	—
Duncan Peyton <sup>5</sup>	10	—	10	—	7	—
Charles Winward <sup>6</sup>	10	—	10	—	7	—
<b>Non-Executive Directors</b>	26	—	26	24	14	—
<b>Total</b>	320	175	495	24	378	22

- For the ease of comparison, remuneration for 2012 has been disclosed for a full year being the aggregate remuneration paid by both Retroscreen Virology Group plc and Retroscreen Virology Limited.
- Salary and fees including travel allowances.
- David Norwood has a fee of £25,000 per annum from 1 October 2013 having waived his fee since the Company's admission to AIM in May 2012.
- Professor Oxford has no fee in relation to his appointment as a Non-Executive Director of the Company. He separately provides services to Retroscreen Virology Limited pursuant to a secondment agreement between Retroscreen Virology Limited and Queen Mary, University of London.
- Duncan Peyton became a Non-Executive Director of the Company on 3 April 2012, representing the Northern Entrepreneurs Fund as a Corporate Director of Retroscreen Virology Limited.
- Charles Winward became a Non-Executive Director of the Company on 3 April 2012, representing IP2IPO Services Limited as a Corporate Director of Retroscreen Virology Limited.

### Share options

The Company issues share options to the Executive Directors and employees to reward performance, to encourage loyalty and to enable valued employees to share in the success of the Company.

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.

The Share Scheme was established immediately following the Company's acquisition of the entire issued share capital of Retroscreen Virology Limited on 20 April 2012. The Share Scheme replicates the terms of the Retroscreen Virology Share Option Scheme (the "Old Share Scheme") which was operated by Retroscreen Virology Limited prior to the acquisition. Options over ordinary shares in Retroscreen Virology Limited outstanding under the Old Share Scheme at the time of the acquisition were exchanged by option holders for options on the same terms.

	Options as at 31 December 2012	Number of options granted during the year <sup>1</sup>	Options as at 31 December 2013	Date of grant	Expiry of option	Exercise price	% vested
Kym Denny	145,540	—	145,540	13 Jan 2010	12 Jan 2020	6.25p	100%
Kym Denny	1,366,320	—	1,366,320	23 Dec 2011	22 Dec 2021	8.15p	66.6%
Graham Yeatman	644,600	—	644,600	23 Dec 2011	22 Dec 2021	8.15p	66.6%

On 26 April 2012, following the share-for-share exchange and 20 for 1 share split, the original options on shares in Retroscreen Virology Limited were exchanged for new options on shares in the Company on an equivalent basis.

No options held by the Directors were exercised or lapsed during the year.

## DIRECTORS' RESPONSIBILITIES STATEMENT

The Directors are responsible for preparing the strategic report and the Directors' report and the financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Group and Company financial statements for each financial year. The Directors are required by the AIM Rules of the London Stock Exchange to prepare Group financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union ("EU") and have elected under company law to prepare the Company financial statements in accordance with IFRS as adopted by the EU.

The financial statements are required by law and IFRS adopted by the EU to present fairly the financial position of the Group and the Company and the financial performance of the Group. The Companies Act 2006 provides in relation to such financial statements that references in the relevant part of that Act to financial statements giving a true and fair view are references to their achieving a fair presentation.

Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period. In preparing each of the Group and Company financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- state whether they have been prepared in accordance with applicable IFRS as adopted by the EU; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and the Company will continue in business.

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

The Directors are responsible for the maintenance and integrity of the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## INDEPENDENT AUDITOR'S REPORT

to the members of Retroscreen Virology Group plc

We have audited the Group and Parent Company financial statements (the "financial statements") which comprise the Group and Parent Company statements of financial position, the Group statement of comprehensive income, the Group and Parent Company statements of cash flows, the Group and Parent Company statements of changes in equity and the related notes. The financial reporting framework that has been applied in their preparation is applicable law and International Financial Reporting Standards (IFRS) as adopted by the European Union and, as regards the Parent Company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

### Respective responsibilities of directors and auditor

As more fully explained in the Directors' responsibilities statement set out on page 29, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's (APB's) Ethical Standards for Auditors.

### Scope of the audit of the financial statements

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at [http://www.frc.org.uk/Our-Work/Codes-Standards/Audit-and-assurance/Standards-and-guidance/Standards-and-guidance-for-auditors/Scope-of-audit/UK-Private-Sector-Entity-\(issued-1-December-2010\).aspx](http://www.frc.org.uk/Our-Work/Codes-Standards/Audit-and-assurance/Standards-and-guidance/Standards-and-guidance-for-auditors/Scope-of-audit/UK-Private-Sector-Entity-(issued-1-December-2010).aspx).

### Opinion on financial statements

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and the Parent Company's affairs as at 31 December 2013 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with IFRS as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with IFRS as adopted by the European Union and as applied in accordance with the Companies Act 2006; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

### Opinion on other matter prescribed by the Companies Act 2006

In our opinion the information given in the strategic report and the Directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

### Matters on which we are required to report by exception

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

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

*Baker Tilly UK Audit LLP*

### GRAHAM BOND FCA (Senior Statutory Auditor)

For and on behalf of Baker Tilly UK Audit LLP  
Statutory Auditor  
Chartered Accountants  
3 Hardman Street  
Manchester M3 3HF

8 April 2014

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

for the year ended 31 December 2013

	Note	2013 £'000	2012 £'000
<b>Revenue</b>		<b>27,490</b>	14,395
Cost of sales		<b>(19,177)</b>	(10,694)
<b>Gross profit</b>		<b>8,313</b>	3,701
Research and development expense (excluding provision against virus inventory)		<b>(1,198)</b>	(307)
Research and development expense – provision against virus inventory	6	<b>(1,270)</b>	—
Administrative expense		<b>(7,253)</b>	(3,921)
<b>Loss from operations</b>	7	<b>(1,408)</b>	(527)
Finance income	9	<b>226</b>	111
Finance costs	10	<b>(11)</b>	(12)
<b>Loss before taxation</b>		<b>(1,193)</b>	(428)
Taxation	11	<b>2,705</b>	957
<b>Profit for the year</b>		<b>1,512</b>	529
<b>Total comprehensive profit for the year attributable to owners of the parent</b>		<b>1,512</b>	529
Earnings per share – basic (pence)	12	<b>3.2p</b>	1.5p
Earnings per share – diluted (pence)	12	<b>2.9p</b>	1.4p

All activities relate to continuing operations.

The Group has no recognised gains or losses other than the profit for the year.

The accompanying notes are an integral part of the consolidated statement of comprehensive income.

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

at 31 December 2013

	Note	2013 £'000	2012 £'000
<b>Assets</b>			
<b>Non-current assets</b>			
Intangible assets	13	1,079	—
Property, plant and equipment	14	3,667	1,377
		<b>4,746</b>	1,377
<b>Current assets</b>			
Inventories	15	3,116	1,613
Trade and other receivables	16	5,851	2,695
Research and development tax credit receivable		2,425	1,075
Short-term deposits	17	22,500	—
Cash and cash equivalents	18	13,310	16,338
		<b>47,202</b>	21,721
<b>Total assets</b>		<b>51,948</b>	23,098
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital	23	2,686	2,049
Share premium account		37,363	13,013
Share-based payment reserve		239	217
Merger reserve		4,199	4,199
Retained deficit		(1,630)	(3,142)
<b>Total equity</b>		<b>42,857</b>	16,336
<b>Non-current liabilities</b>			
Other payables	20	625	—
Provisions	21	110	—
		<b>735</b>	—
<b>Current liabilities</b>			
Trade and other payables	19	8,356	6,762
		<b>8,356</b>	6,762
<b>Total liabilities</b>		<b>9,091</b>	6,762
<b>Total liabilities and equity</b>		<b>51,948</b>	23,098

The consolidated financial statements of Retroscreen Virology Group plc (registered company number 08008725) on pages 31 to 56 were approved and authorised for issue by the Board on 8 April 2014 and signed on its behalf by:



**Kym Denny**

Chief Executive Officer



**Graham Yeatman**

Finance Director

The accompanying notes are an integral part of the consolidated statement of financial position.

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2013

	Share capital £'000	Share premium account £'000	Share-based payment reserve £'000	Merger reserve £'000	Retained deficit £'000	Total equity £'000
<b>As at 1 January 2012</b>	1,096	—	5	4,196	(3,671)	1,626
Proceeds from shares issued:						
Issued in subsidiary undertakings	6	—	—	3	—	9
Placing on admission to AIM, net of related expenses	947	13,177	—	—	—	14,124
Total transactions with owners in their capacity as owners	953	13,177	—	3	—	14,133
Profit for the year	—	—	—	—	529	529
Share-based payment expense	—	—	48	—	—	48
Warrants issued	—	(164)	164	—	—	—
<b>As at 31 December 2012</b>	2,049	13,013	217	4,199	(3,142)	16,336
Proceeds from shares issued:						
Placing net of related expenses (see note 23)	637	24,350	—	—	—	24,987
Total transactions with owners in their capacity as owners	637	24,350	—	—	—	24,987
Profit for the year	—	—	—	—	1,512	1,512
Share-based payment expense	—	—	22	—	—	22
<b>As at 31 December 2013</b>	<b>2,686</b>	<b>37,363</b>	<b>239</b>	<b>4,199</b>	<b>(1,630)</b>	<b>42,857</b>

The accompanying notes are an integral part of the consolidated statement of changes in equity.

## CONSOLIDATED STATEMENT OF CASH FLOWS

for the year ended 31 December 2013

	2013 £'000	2012 £'000
<b>Cash flow from operating activities</b>		
Loss before income tax	(1,193)	(428)
Adjustments for:		
Depreciation of property, plant and equipment	812	230
Amortisation of intangible assets	2	—
Loss on disposal of property, plant and equipment	—	2
Share-based payment expense	22	48
Finance costs	11	12
Finance income	(226)	(111)
Gain on foreign exchange	(48)	(16)
Changes in working capital:		
Increase in provisions	110	—
Increase in inventories	(1,503)	(168)
(Increase)/decrease in trade and other receivables	(3,156)	192
Increase in trade and other payables	1,640	1,941
<b>Cash (used in)/generated from operations</b>	<b>(3,529)</b>	<b>1,702</b>
Finance costs	(11)	(12)
Income tax refund	1,355	383
<b>Net cash (used in)/generated from operating activities</b>	<b>(2,185)</b>	<b>2,073</b>
<b>Cash flows from Investing activities</b>		
Acquisition of intangible assets	(1,081)	—
Acquisition of property, plant and equipment	(3,102)	(1,214)
Increase in balances on short-term deposit	(22,500)	—
Finance income	105	111
<b>Net cash used in investing activities</b>	<b>(26,578)</b>	<b>(1,103)</b>
<b>Cash flows from financing activities</b>		
Net proceeds from issue of shares	24,987	14,133
Cash flow from other payables	750	—
Other payables repaid	(50)	—
Loans repaid	—	(374)
<b>Net cash generated from financing activities</b>	<b>25,687</b>	<b>13,759</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>(3,076)</b>	<b>14,729</b>
Exchange gain on cash and cash equivalents	48	16
Cash and cash equivalents at the start of year	16,338	1,593
<b>Cash and cash equivalents at the end of year</b>	<b>13,310</b>	<b>16,338</b>

The accompanying notes are an integral part of the consolidated statement of cash flows.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## 1. General information

Retroscreen Virology Group plc (the “Company”) and its subsidiaries (together, the “Group”) is a virology healthcare business that provides clinical services, focused on the Human Challenge Model (“HCM”) primarily to pharmaceutical companies and biotechnology organisations. The Group has grown and developed the HCM for evidencing the efficacy of antiviral and viral therapeutics in respiratory syncytial virus (“RSV”), flu and cold. The Group carries out all its activities from the United Kingdom.

The Company is incorporated and domiciled in the United Kingdom and its shares are listed on the London Stock Exchange’s AIM market (“RVG”). The Company’s registered office address is Queen Mary BioEnterprises Innovation Centre, 42 New Road, London E1 2AX.

The Company was incorporated on 27 March 2012 and on 20 April 2012 ownership of Retroscreen Virology Limited was transferred to the Company in exchange for the issue of ordinary shares in the Company (hereinafter referred to as the “Reorganisation”).

The Reorganisation is not deemed to be a business combination within the scope of IFRS 3 Business Combinations and accordingly, these consolidated financial statements reflect the merger basis of accounting whereby:

- the carrying amount of assets and liabilities included are based on the historical carrying amounts of such assets and liabilities recognised by Retroscreen Virology Limited;
- the results and cash flows are presented as though the Reorganisation occurred on 1 January 2012 and reflects the results and cash flows of Retroscreen Virology Limited; and
- the amount recognised in equity is based on the historical carrying amounts recognised by Retroscreen Virology Limited. However, the share capital balance is adjusted to reflect the equity structure of the outstanding stock of the Company, and any corresponding differences are reflected as an adjustment to additional paid in capital.

## 2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

### Basis of preparation

The financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as adopted by the European Union and as issued by the International Accounting Standards Board (“IASB”). The Group financial statements also comply with the requirements of the Companies Act 2006 applicable to companies reporting under IFRS.

The Company has elected to take the exemption under section 408 of the Companies Act 2006 not to present the Parent Company’s statement of comprehensive income. The Company’s result for the period was a profit of £23,000 (2012: £21,000).

The Group and the Company financial statements are presented in Sterling and all values are rounded to the nearest thousand (£’000) except where indicated otherwise.

The financial statements have been prepared under the historical cost convention.

### Going concern

The Group’s business activities, together with the factors likely to affect its future development, performance and position are set out in the Chief Executive Officer’s statement, Finance Director’s report, strategic report and Directors’ report on pages 6 to 8, pages 14 and 15, and pages 18 to 24.

In determining the basis for preparing the financial statements, the Directors are required to consider whether the Company can continue in operational existence for the foreseeable future, being a period of not less than twelve months from the date of the approval of the financial statements. During the year ended 31 December 2013, the Group has continued to focus on building solid foundations for significant revenue growth and a strong pipeline of HCM client engagements. As at 31 December 2013 the Group had short-term deposits, cash and cash equivalents of £35.8 million (2012: £16.3 million) and net current assets of £38.8 million (2012: £15.0 million).

Management prepares detailed working capital forecasts which are reviewed by the Board on a regular basis. The forecasts include assumptions regarding the status of client engagements and sales pipeline, future revenues and costs together with various scenarios which reflect growth plans, opportunities, risks and mitigating actions. Whilst there are inherent uncertainties regarding the cash flows associated with the development of the HCM, together with the timing of signature and delivery of HCM client engagements, the Directors are satisfied that there is sufficient discretion and control as to the timing and quantum of cash outflows to ensure that the Company and Group are able to meet their liabilities as they fall due for a period of at least twelve months from the date of approval of the financial statements.

As part of its going concern review the Board has followed the guidelines published by the Financial Reporting Council entitled “Going Concern and Liquidity Risk Guidance for UK Companies 2009”. Having made relevant and appropriate enquiries, including consideration of the Company’s and Group’s current cash resources and the working capital forecasts, the Directors have a reasonable expectation that the Company and Group will have adequate cash resources to continue to meet the requirements of the business for at least the next twelve months. Accordingly, the Board continues to adopt the going concern basis in preparing the financial statements.

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## CONTINUED

### 2. Summary of significant accounting policies continued

#### Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company (its subsidiaries) made up to 31 December each year. Control is achieved when the Company has the power over the investee; is exposed, or has rights, to variable return from its involvement with the investee; and, has the ability to use its power to affect its returns. The Company reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above. Consolidation of a subsidiary begins when the Company obtains control over the subsidiary and ceases when the Company loses control of the subsidiary. Specifically, the results of subsidiaries acquired or disposed of during the year are included in the consolidated statement of comprehensive income from the date the Company gains control until the date when the Company ceases to control the subsidiary.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring the accounting policies used into line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between the members of the Group are eliminated on consolidation.

#### Business combinations

Acquisitions of subsidiaries and businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interest issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognised in profit or loss as incurred.

At the acquisition date, the identifiable assets acquired and the liabilities assumed are recognised at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities and assets or liabilities related to employee benefit arrangements are recognised and measured in accordance with International Accounting Standard ("IAS") 12 Income Taxes and IAS 19 Employee Benefits respectively; and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that Standard.

Goodwill is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree, and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed. If, after reassessment, the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed exceeds the sum of the consideration transferred, the amount of any non-controlling interests in the acquiree and the fair value of the acquirer's previously held interest in the acquiree (if any), the excess is recognised immediately in profit or loss as a bargain purchase gain.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the 'measurement period' (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as measurement period adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not re-measured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is re-measured at subsequent reporting dates in accordance with IAS 39, or IAS 37 Provisions, Contingent Liabilities and Contingent Assets, as appropriate, with the corresponding gain or loss being recognised in profit or loss.

When a business combination is achieved in stages, the Group's previously-held interests in the acquired entity is re-measured to its acquisition date fair value and the resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognised as of that date.

## Foreign currencies

### (a) Functional and presentational currency

Items included in the financial information are measured using the currency of the primary economic environment in which each entity within the Group operates (the “functional currency”) which in all cases is Sterling (£). The financial information is presented in Sterling (£), which is the Company’s presentational currency.

### (b) Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in net profit or loss in the consolidated statement of comprehensive income.

Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

## Revenue recognition

Revenue is recognised at the fair value of the consideration received or receivable for sale of goods and services in the ordinary course of business and is shown net of Value Added Tax.

The Group primarily earns revenues by undertaking HCM client engagements. A HCM engagement typically comprises a number of quarantines. Each quarantine lasts two to three weeks, but the timeline of work involved in building up to undertaking a quarantine is in the range of three to twelve months. Whether a HCM engagement is for one quarantine or for a number of quarantines the overall timeline of the HCM is much the same, apart from the additional time for the quarantines themselves and the time lags in between quarantines (since sequential), as much of the upfront work is the same whether for one or a number of quarantines. HCM revenue is recognised on a percentage of completion method. Depending on the contractual terms, revenue is recognised based on the level of work completed to date in respect of each individual element of the HCM contract.

Contracts generally contain provisions for renegotiation in the event of changes in the scope, nature, duration, volume of services or conditions of the contract. Renegotiated amounts are recognised as revenue by revision to the total contract value arising as a result of an authorised customer change order. Provisions for losses to be incurred on contracts are recognised in full in the period in which it is determined that a loss will result from performance of the contractual arrangement.

The difference between the amount of revenue recognised and the amount invoiced on a particular contract is included in the consolidated statement of financial position as deferred income. Normally amounts become billable in advance upon the achievement of certain milestones, in accordance with pre-agreed payment schedules included in the contract or on submission of appropriate detail. Any cash payments received as a result of this advance billing are not representative of revenue earned on the contract as revenues are recognised over the period during which the specified contractual obligations are fulfilled. Amounts included in deferred income are expected to be recognised within one year and are included within current liabilities.

In the event of contract termination, if the value of work performed and recognised as revenue is greater than aggregate milestone billings at the date of termination, cancellation clauses provide for the Group to be paid for all work performed to the termination date.

## Internally generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred. Development costs are capitalised when the related products meet the recognition criteria of an internally generated intangible asset, the key criteria being as follows:

- technical feasibility of the completed intangible asset has been established;
- it can be demonstrated that the intangible asset will generate probable future economic benefits;
- adequate technical, financial and other resources are available to complete the development;
- the expenditure attributable to the intangible asset can be reliably measured; and
- management has the ability and intention to use or sell the intangible asset.

Expenses for research and development include associated wages and salaries, material costs, depreciation on non-current assets and directly attributable overheads. Development costs recognised as assets are amortised over their expected useful life.

## Purchased software

The cost of a purchased intangible asset is the purchase price plus any cost directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 2. Summary of significant accounting policies continued

#### Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and any impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the items. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. The carrying amount of the replaced part is de-recognised. All other repairs and maintenance are charged to the consolidated statement of comprehensive income statement during the period in which they are incurred.

Depreciation is charged, on a straight-line basis, so as to write off the costs of assets less their residual values, over their estimated useful lives, on the following basis:

Leasehold improvements	the shorter of five years or the life of the lease
Plant and machinery	four years straight line
Computer equipment	three years straight line

The assets' estimated useful lives, depreciation basis and residual values are reviewed, and adjusted if appropriate, at the end of each reporting period.

The gain or loss arising on the disposal of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in the consolidated statement of comprehensive income.

#### Impairment of non-current assets

At each reporting date, the Group reviews the carrying amounts of its property, plant and equipment to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

#### Inventories

Inventories are reported at the lower of cost (purchase price and/or production cost) and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and applicable variable selling expenses.

Inventories comprise completed manufactured grade viruses, work in process in relation to the manufacture of viruses, and laboratory and clinical consumables. The cost of virus inventory is calculated using the weighted average cost method for each individual strain, with cost including direct materials and, where applicable, direct labour costs and an attributable portion of production overheads that have been incurred in bringing the inventories to their present location and condition. Adjustments are made for any inventories where net realisable value is lower than cost, or which are considered to be obsolete. Any inventories which management consider are not usable on future commercial engagements are written off in the consolidated statement of comprehensive income.

#### Financial instruments

Financial assets and financial liabilities are recognised in the consolidated statement of financial position when the Group becomes party to the contractual provisions of the instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial asset expire or when the contractual rights to those assets are transferred. Financial liabilities are derecognised when the obligation specified in the contract is discharged, cancelled or expired.

#### Trade receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment. Appropriate provisions for estimated irrecoverable amounts are recognised in the consolidated statement of comprehensive income when there is objective evidence that the assets are impaired. The carrying amount of these assets approximates their fair value.

#### Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, demand deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. The carrying amount of these assets approximates their fair value.

### Short-term deposits

Short term deposits comprise money market deposits which are convertible to known amounts of cash and have an original maturity of between three months and twelve months.

### Equity instruments

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by the Group are recorded at the proceeds received, net of direct issue costs.

### Trade and other payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Trade payables are recognised initially at their fair value and are subsequently measured at their amortised cost using the effective interest rate method. Due to the short-term nature of these balances, the carrying amount of trade payables approximates to their fair value.

### Borrowings

Borrowings, including advances received from related parties are initially recognised at the fair value of the consideration received less directly attributable transaction costs. After initial recognition borrowings are subsequently measured at amortised cost using the effective interest method.

### Current and deferred tax

The tax credit represents the sum of the tax currently payable or recoverable and the movements in deferred tax assets and liabilities.

The tax currently payable is based on taxable profit or loss for the year. Taxable profit or loss differs from net profit or loss before income tax as reported in the consolidated statement of comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated by using tax rates that have been enacted or substantively enacted by the reporting date.

Credit is taken in the accounting period for research and development tax credits, which will be claimed from HM Revenue & Customs, in respect of qualifying research and development costs incurred in the same accounting period.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled based upon tax rates that have been enacted or substantively enacted by the reporting date. Deferred tax is charged or credited in the consolidated statement of comprehensive income, except when it relates to items credited or charged directly to equity, in which case the deferred tax is also dealt with in equity.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 2. Summary of significant accounting policies continued

#### Current and deferred tax continued

Current and deferred tax are recognised in profit or loss, except when they relate to items that are recognised in other comprehensive income or directly in equity, in which case, the current and deferred tax are also recognised in other comprehensive income or directly in equity, respectively. Where current tax or deferred tax arises from the initial accounting for a business combination, the tax effect is included in the accounting for the business combination.

#### Operating leases

Rentals payable under operating leases are charged to income on a straight-line basis over the term of the relevant lease. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

#### Share-based payment transactions

##### Options

The Group operates an equity-settled share-based compensation plan, under which the Group receives services from employees (including Directors) as consideration for equity instruments (options) of the Company. The fair value of the employee services received in exchange for the grant of the options is recognised as an expense over the vesting period.

The total amount to be expensed is determined by reference to the fair value of the options granted, at the grant date. The fair value excludes the effect of non-market-based vesting conditions. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in note 24.

The fair value determined at the date of grant is expensed on a straight-line basis over the vesting period, based upon the Group's estimate of the number of equity instruments that will eventually vest. At each reporting date, the Group revises its estimate of the number of equity instruments expected to vest as a result of the effect of non-market-based vesting conditions. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to equity reserves.

##### Warrants

The Group enters into equity-settled share-based payment transactions, involving the issuance of warrants, with parties other than employees. Pursuant to these transactions, the Group receives services from such parties as consideration for equity instruments (warrants) issued. The fair value of such services received in exchange for the grant of warrants is recognised as an expense over the service period.

#### Pension costs

The Group operates a defined contribution pension scheme for all employees. The assets of the scheme are held separately from those of the Group. Payments into the scheme are charged as an expense as they fall due.

#### Provisions

Provisions for dilapidations are recognised when: the Group has a present legal or constructive obligation as a result of past events, it is probable that the Group will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation. The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material). When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

### 3. Critical accounting estimates and judgements

In the application of the Group's accounting policies, which are described in note 2, the Group makes estimates and assumptions concerning the future based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. The estimates and assumptions that have a significant effect on the amounts recognised in financial statements are addressed below.

#### Revenue, deferred income and accrued income

Revenue is recognised based on the level of work completed to date under the percentage of completion method. The recognition of revenue (and hence the related deferred and accrued income balances) requires management to make estimates in relation to the level of work done to date and assumptions of the costs to complete each project.

At each period end, management reviews each individual contract to assess whether any anticipated losses should be recognised immediately.

#### Virus inventory

The cost of inventories requires assumptions to be made in relation to accounting for the costs of directly attributable internal costs and overheads in developing new virus strains for commercial use. These assumptions are based primarily on management's estimates of employee average annual utilisation and overhead absorption multiple, in determining the valuation of internal costs and overheads incurred in bringing the inventories to their present location and condition.

In valuing virus inventory, management is required to make assumptions in relation to the future commercial use, being both external client revenue engagements and internal R&D engagements, for each virus strain. This includes consideration of both the current business pipeline and management's estimates of the future virus strain requirements, based on its significant knowledge and experience in the field of virology.

#### Research and development tax credit

The Group's research and development tax claim is complex and requires management to make significant assumptions in building the methodology for the claim, interpreting research and development tax legislation to the Group's specific circumstances, and agreeing the basis of the Group's tax computations with HM Revenue and Customs.

#### Recoverability of deferred tax assets

Deferred tax assets are recognised only to the extent that it is considered probable that those assets will be recoverable. This involves an assessment of when those deferred tax assets are likely to reverse, and a judgement as to whether or not there will be sufficient taxable profits available to offset the tax assets when they do reverse. This requires assumptions regarding future profitability and is therefore inherently uncertain. To the extent assumptions regarding future profitability change, there can be an increase or decrease in the level of deferred tax assets recognised which can result in a charge or credit to the consolidated statement of comprehensive income in the period in which the change occurs.

### 4. Interpretations of accounting standards

#### Amendments to published standards effective for the year ended 31 December 2013

During the year no amendments to standards that became effective during the year were relevant to the Group.

#### Standards adopted early by the Group

The Group has not adopted any standards or interpretations early in either the current or the preceding financial year.

#### Standards, amendment and interpretations effective in 2013 but not relevant

The following standards, amendments and interpretations were effective during 2013 but not relevant to the Group:

- IAS 1 (Improvements) Presentation of Financial Statements – Presentation beyond the minimum comparative periods;
- IAS 16 (Improvements) Property, Plant and Equipment – Presentation of servicing, spare parts equipment;
- IAS 32 (Improvements) Financial Instruments: Presentation – Treatment of income tax of an equity instrument;
- IAS 34 (Improvements) Interim Financial Reporting – Segment reporting of assets and liabilities;
- IFRS 10 Consolidated Financial Statements – Amendment, Control over an Investee;
- IFRS 11 Joint Arrangements;
- IFRS 12 Disclosure of Interests in Other Entities;
- IFRS 7 Financial Instruments Disclosure – Amendment, Offsetting Financial Assets and Financial Liabilities;
- IFRS 13 Fair Value Measurement;
- IAS 19 (revised) Employee Benefits – Defined benefit accounting provisions;
- IAS 27 (Improvements) Consolidated and Separate Financial Statements; and
- IAS 28 Investments in Associates and Joint Ventures (amended 2011).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 4. Interpretations of accounting standards continued

**Interpretations to existing standards and new standards that are not yet effective and have not been early adopted by the Group:**

- IFRS 10 Consolidated Financial Statements – Amendment, Investment entities;
- IFRS 12 Disclosure of Interest – Amendment, Investment entities;
- IAS 27 Consolidated and Separate Financial Statements – Amendment, Investment entities;
- IAS 32 Offsetting Financial Assets and Financial Liabilities;
- IAS 36 Impairment of Assets – Amendment, Recoverable Amount Disclosures for Non-financial Assets;
- IFRS 9 Financial Instruments – Amendment, Hedge Accounting;
- IAS 39 Financial Instruments Recognition and Measurement – Amendment, Hedge Accounting;
- IFRS 2 (Improvements) Share-based Payment – Definitions of conditions;
- IFRS 3 (Improvements) Business Combinations – Contingent consideration;
- IFRS 8 (Improvements) Operating Segments – Disclosure of Judgements in Aggregation;
- IAS 16 (Improvements) Property, Plant and Equipment – Revaluation of assets;
- IAS 38 (Improvements) Intangible Assets – Revaluation of assets; and
- IAS 24 (Improvements) Related Party disclosures – Definition of a Related Party.

The Directors are of the opinion that the application of these standards is unlikely to have any significant impact, other than increased disclosures, on the financial statements of the Group or Company.

### 5. Segmental information

The Group's Chief Operating Decision Maker, the Chief Executive Officer, is responsible for resource allocation and the assessment of performance. In the performance of this role, the Chief Executive Officer reviews the Group's activities, in the aggregate. The Group has therefore determined that it has only one reportable segment under IFRS 8 Operating Segments, which is "medical and scientific research services".

The Group carries out all its activities from the United Kingdom.

During the year ended 31 December 2013 the Group had five customers who generated revenues greater than 10% of total revenue. These customers generated 24%, 20%, 17%, 15% and 13% of revenue.

During the year ended 31 December 2012 the Group had three customers who generated revenues greater than 10% of total revenue. These customers generated 54%, 26% and 12% of revenue.

### 6. Provision against virus inventory

Following a review of the virus inventory valuations as at 31 December 2013, a provision in full of £1.3 million (2012: £nil) against the carrying value of "Virus – work in progress" has been recognised relating to a virus to be used in the development and commercialisation of new HCM models, where the new HCM models have not yet demonstrated technical feasibility. This expense is recorded within research and development expense and has been presented separately in the consolidated statement of comprehensive income.

A further provision of £0.3 million (2012: £nil) against the carrying value of "Virus – finished goods" has been recognised due to management's assessment that the carrying values exceeded the net realisable values of such inventories resulting from changes in forecasted usage. This expense is recorded within cost of sales.

## 7. Expenses by nature

The aggregate of cost of sales, research and development, and administrative expenses by nature is as follows:

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
Employee benefit expense (note 8)	14,346	6,937
Recruitment and other human resources	1,369	1,644
Share-based payment charge	22	48
Premises and equipment	2,470	1,010
Volunteer costs	2,955	1,638
Inventories used	1,457	567
Virus inventory written off (note 15)	70	352
Virus inventory provision (cost of sales, finished goods, note 15)	301	—
Virus inventory provision (research and development, work in progress, note 15)	1,270	—
Insurance	199	179
Professional fees	1,096	486
Marketing	136	62
Information technology, including telecommunications	1,186	377
Depreciation of property, plant and equipment	812	230
Amortisation of intangible assets	2	—
Other expenses	1,207	1,392
	<b>28,898</b>	<b>14,922</b>

Amounts payable to the Company's external auditor and its associates were as follows:

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
<b>Auditor fee:</b>		
Fees payable to the Company's auditor for audit of the Company's annual accounts	14	11
Fees payable to the Company's auditor and its associates for other services		
– the audit of the Company's subsidiaries pursuant to legislation	18	16
<b>Total audit fees</b>	<b>32</b>	<b>27</b>
Audit-related fees		
– audit-related assurance services	8	9
<b>Total audit and audit-related fees</b> (included within the loss for the year)	<b>40</b>	<b>36</b>
<b>All other fees:</b>		
– as reporting accountant for AIM admission <sup>1</sup>	—	73
– other services <sup>1</sup>	—	9
Total other fees	—	82
<b>Total non-audit fees</b>	<b>8</b>	<b>91</b>
	<b>40</b>	<b>118</b>

1. Amounts payable in relation to services provided as reporting accountant for AIM admission and the other services have been taken to reserves.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 8. Employees

	Year ended 31 December 2013 Number	Year ended 31 December 2012 Number
The average number of people (including Executive Directors) employed was:		
Management, administration and business development	40	22
Operations and project management	233	101
	<b>273</b>	123

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
The aggregate employee benefit expense comprised (including Directors):		
Wages and salaries	12,755	6,014
Social security costs	1,341	682
Pension cost – defined contribution plans	228	193
Share option expense	22	48
	<b>14,346</b>	6,937

The remuneration of the Directors, who are the key management personnel of the Group, is shown within note 26.

### 9. Finance income

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
Finance income	226	111

### 10. Finance costs

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
Interest on borrowings	11	12

## 11. Taxation

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
Current tax:		
Current year research and development tax credit	<b>(2,425)</b>	(947)
Adjustments in respect of previous periods	<b>(280)</b>	(10)
	<b>(2,705)</b>	(957)
Factors affecting the tax charge for the period:		
The income assessed for the year differs from the theoretical amount that would arise by applying the UK corporation tax rate of 23.25% (2012: 24.5%), as explained below:		
Loss before taxation	<b>(1,193)</b>	(428)
Tax at the UK corporation tax rate of 23.25% (2012: 24.5%)	<b>(277)</b>	(104)
Expenses not deductible in determining taxable profit	<b>18</b>	91
Fixed asset timing differences not recognised	<b>(779)</b>	3
Current year research and development tax credit	<b>(1,425)</b>	(947)
Movement in unrecognised deferred tax asset	—	10
Temporary timing differences not recognised	<b>38</b>	—
Adjustments in respect of prior periods	<b>(280)</b>	(10)
Tax for the year	<b>(2,705)</b>	(957)

### Factors affecting current and future taxation

The rate of UK corporation tax for the period to 31 March 2013 was 24%, and 23% with effect from 1 April 2013. During the year further reductions to 21% with effect from 1 April 2014, and to 20% with effect from 1 April 2015, were enacted.

As at 31 December 2013, the Group had tax losses available for carry forward of approximately £2.62 million (2012: £2.44 million). The Group has not recognised deferred tax assets relating to carried forward losses and other temporary differences. These deferred tax assets have not been recognised as the Group's management considers that there is insufficient future taxable income, taxable temporary differences and feasible tax-planning strategies to utilise all of the cumulative losses and therefore it is probable that the deferred tax assets will not be realised in full. If future income differs from current projections, this could significantly impact the tax charge or benefit in future periods.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 12. Earnings per share (EPS)

Basic earnings per share is calculated by dividing profit for the year by the weighted average number of ordinary shares in issue during the year. Diluted EPS is computed based on the weighted average number of ordinary shares plus the effect of dilutive potential ordinary shares outstanding during the period based on the number of shares that could have been acquired at fair value (determined as the average annual market share price of the Company's shares) based on the monetary value of the subscription rights attached to outstanding share options and warrants.

Dilutive potential ordinary shares include share options and warrants as described in note 2.

The calculation of the basic and diluted EPS as included in the consolidated statement of comprehensive income is based on the following data:

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
<b>Earnings</b>		
Profit for the year	1,512	529
<b>Number of shares</b>		
Weighted average number of ordinary shares for the purposes of basic EPS	47,963,221	34,580,451
Effect of dilutive potential ordinary shares:		
– share options	3,744,509	3,582,103
– warrants	143,449	56,596
Weighted average number of ordinary shares for the purposes of diluted EPS	51,851,179	38,219,150

### 13. Intangibles

	31 December 2013 £'000	31 December 2012 £'000
<b>At 1 January</b>	—	—
Additions at cost – software	1,081	—
Amortisation charge for the year	(2)	—
<b>At 31 December</b>	1,079	—

Intangible assets comprise software acquired and capitalised during the year.

#### 14. Property, plant and equipment

	Leasehold improvements £'000	Plant and machinery £'000	Computer equipment £'000	Total £'000
<b>Cost:</b>				
<b>At 1 January 2012</b>	239	499	129	867
Additions	479	503	232	1,214
Disposals	—	(106)	(2)	(108)
<b>At 31 December 2012</b>	718	896	359	1,973
Additions	974	1,617	511	3,102
<b>At 31 December 2013</b>	<b>1,692</b>	<b>2,513</b>	<b>870</b>	<b>5,075</b>
<b>Accumulated depreciation:</b>				
<b>At 1 January 2012</b>	40	351	81	472
Charge for the year	65	109	56	230
Disposals	—	(105)	(1)	(106)
<b>At 31 December 2012</b>	105	355	136	596
Charge for the year	277	356	179	812
<b>At 31 December 2013</b>	<b>382</b>	<b>711</b>	<b>315</b>	<b>1,408</b>
<b>Carrying amount:</b>				
At 1 January 2012	199	148	48	395
At 31 December 2012	613	541	223	1,377
<b>At 31 December 2013</b>	<b>1,310</b>	<b>1,802</b>	<b>555</b>	<b>3,667</b>

#### 15. Inventories

	31 December 2013 £'000	31 December 2012 £'000
Laboratory and clinical consumables	104	89
Virus – finished goods	2,527	1,122
Virus – work in progress	485	402
	<b>3,116</b>	<b>1,613</b>

Inventories expensed in the consolidated statement of comprehensive income are shown within cost of sales. All inventories are carried at the lower of cost and net realisable value.

In the year to 31 December 2013 finished goods inventories with a carrying value of £70,000 were written off (31 December 2012: £352,000) due to obsolescence and this expense is recognised in cost of sales.

A provision of £301,000 (2012: £nil) against the carrying value of "Virus – finished goods" has been recognised due to management's assessment that the carrying values exceeded the net realisable values of such inventories resulting from changes in forecasted usage. This expense is recorded within cost of sales.

Following a review of the virus inventory valuations as at 31 December 2013, a provision in full of £1.3 million (2012: £nil) against the carrying value of "Virus – work in progress" has been recognised relating to a virus to be used commercially in HCM models, where the new HCM models have not yet demonstrated technical feasibility. This expense is recognised in research and development expenses and has been presented separately on the consolidated statement of comprehensive income.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 16. Trade and other receivables

	31 December 2013 £'000	31 December 2012 £'000
Trade receivables	3,511	633
VAT recoverable	585	223
Other receivables	484	346
Prepayments	769	409
Accrued income	502	1,084
	<b>5,851</b>	<b>2,695</b>

Contractual payment terms with the Group's clients are typically 30 to 45 days.

The Group recognises an allowance for doubtful debts against trade receivables based on estimated irrecoverable amounts determined by reference to past default experience of the counterparty and an analysis of the counterparty's current financial position. The movement on the allowance for doubtful debts on trade receivables and other receivables is as follows:

	31 December 2013 £'000	31 December 2012 £'000
Balance at beginning of the year	—	(105)
Impairment losses recognised through the consolidated statement of comprehensive income for the year	—	—
Amounts written off as unrecoverable during the year	—	105
Balance at end of the year	—	—

As at 31 December 2013 trade and other receivables of £3,511,000 (2012: £633,000) were past due but not impaired. The age profile of these balances is as follows:

	31 December 2013 £'000	31 December 2012 £'000
Up to three months	3,472	633
Three to six months	39	—
	<b>3,511</b>	<b>633</b>

The Directors believe that the carrying value of trade and other receivables represents its fair value. All trade receivables are denominated in pounds Sterling (£). In determining the recoverability of trade receivables the Group considers any change in the credit quality of the receivable from the date credit was granted up to the reporting date.

For details on the Group's credit risk management policies, refer to note 22.

The Group does not hold any collateral as security for its trade and other receivables.

### 17. Short-term deposits

	31 December 2013 £'000	31 December 2012 £'000
Short-term deposits	22,500	—

Balances held on short-term deposits have maturity dates between six and twelve months from the point of investment.

## 18. Cash and cash equivalents

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Cash at bank and in hand	<b>13,310</b>	16,338

All the Group's cash and cash equivalents at 31 December 2013 are at floating interest rates. Included in the cash and cash equivalents of the Group at 31 December 2013 was the equivalent of £329,000 (31 December 2012: £157,000) denominated in US Dollars and £98,000 denominated in Euros (31 December 2012: £7,000); the remaining cash and cash equivalents balance was denominated in Sterling (£).

The Directors consider that the carrying value of cash and cash equivalents approximates fair value. For details on the Group's credit risk management, refer to note 22.

## 19. Trade and other payables

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Trade payables	<b>2,083</b>	1,690
Other taxes and social security	<b>490</b>	305
Other payables	<b>186</b>	22
Accruals	<b>2,705</b>	1,102
Deferred income	<b>2,892</b>	3,643
	<b>8,356</b>	6,762

Trade payables principally comprise amounts outstanding for trade purchases and ongoing costs. Trade payables are non-interest bearing and are typically settled on 30 to 45 day terms.

The Directors consider that the carrying value of trade and other payables approximates fair value. All trade and other payables are denominated in Sterling.

The Group has financial risk management policies in place to ensure that trade payables are settled within the credit timeframe and no interest has been charged by any suppliers as a result of late payment of invoices during the reporting periods presented herein.

## 20. Other payables

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Amounts to be settled beyond one year	<b>625</b>	—
	<b>625</b>	—

On 11 March 2013, the Group signed an Agreement for Lease with Queen Mary BioEnterprises Limited to develop the 3rd floor of the QMB Innovation Centre with a five-year term and an option to extend for another five years. As part of the agreement, QMB advanced the Group a repayable interest-free lease incentive of £750,000 to develop the 3rd floor, with £75,000 per annum repayable over a ten-year period. The lease incentive is recognised as a liability. In the event the Group does not exercise its option to extend the lease agreement for another five years, the remaining unpaid principal of the advance (£375,000) must be repaid at the end of the five-year contractual lease term.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 21. Provisions

	31 December 2013 £'000	31 December 2012 £'000
At 1 January	—	—
Charged to the consolidated statement of comprehensive income – additional provision	110	—
At 31 December	110	—

Provisions are in respect of building dilapidations, and represent the present value of costs to be incurred for the restoration of premises occupied by the Company. The provision is expected to be used during 2015 and 2018. Total expected costs to be incurred are £110,000.

### 22. Financial risk management

The Group is exposed to the risks that arise from its use of financial instruments. This note describes the objectives, policies and processes of the Group for managing those risks and the methods used to measure them. Risk management is carried out by management under the supervision of the Board of Directors. Management identifies and evaluates financial risks in close co-operation with the business' department heads.

#### Capital management

The Group manages its capital to ensure that it will be able to continue as a going concern while maximising the return to stakeholders. The Group is funded principally by equity although long-term and short-term loans have been utilised from time to time. As at 31 December 2013, a repayable lease incentive of £700,000 was outstanding.

Financing decisions are made by the Board of Directors based on forecasts of the expected timing and level of capital and operating expenditure required to meet the Company's commitments and development plans.

#### Financial assets

At the reporting date, the Group held the following financial assets:

	31 December 2013 £'000	31 December 2012 £'000
Cash and cash equivalents	13,310	16,338
Short-term deposits	22,500	—
Trade receivables	3,511	633
Other receivables	484	346
Accrued income	502	1,084
	<b>40,307</b>	<b>18,401</b>

#### Financial liabilities

At the reporting dates, the Group held the following financial liabilities, all of which were classified as other financial liabilities at amortised cost:

	31 December 2013 £'000	31 December 2012 £'000
Trade payables	2,083	1,690
Accruals	2,705	1,102
Repayable lease incentive from related parties	700	—
Other payables	111	22
	<b>5,599</b>	<b>2,814</b>

**Market risk**

The Group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates and interest rates. In the year ending 31 December 2013, both these risks are considered to have been minimal.

**Credit risk**

Credit risk arises principally from the Group's short-term deposits, cash and cash equivalents and trade and other receivables.

The Group gives careful consideration to which organisations it uses for its banking services in order to minimise credit risk. The Group seeks to limit the level of credit risk on cash and cash equivalents by only depositing surplus liquid funds with counterparty banks that have high credit ratings.

The nature of the Group's business and the current stage of its development are such that individual customers can comprise a significant proportion of the Group's trade and other receivables at any point in time. The Group mitigates the associated risk by ensuring that its contracting terms provide for invoices to be raised in advance of the work being carried out and through the close monitoring of the debtor ledger. In addition, many of the Group's clients are either large, global, publicly listed companies or are owned by such entities.

There were no other significant concentrations of credit risk at the reporting date. At 31 December 2013, the Group's trade receivables balance was £3,511,000 (31 December 2012: £633,000).

The carrying amount of financial assets recorded in the financial statements, net of any allowances for losses, represents the Group's maximum exposure to credit risk. At 31 December 2013, the allowance for impairment losses totalled £nil (31 December 2012: £nil). In the opinion of the Directors, there has been no impairment of financial assets during the year ended 31 December 2013 (31 December 2012: £105,000).

An allowance for impairment is made where there is an identified loss event which, based on previous experience, is evidence of a reduction in the recoverability of the cash flows. Management considers the above measures to be sufficient to control the credit risk exposure.

No collateral is held by the Group as security in relation to its financial assets.

**Liquidity risk management**

Liquidity risk is the risk that the Group will encounter difficulty in meeting its financial obligations as they fall due. Ultimate responsibility for liquidity risk management rests with the Board of Directors. The Board of Directors manages liquidity risk by regularly reviewing the Group's cash requirements by reference to short-term cash flow forecasts and medium-term working capital projections.

At 31 December 2013, the Group had short-term deposits, and cash and cash equivalents of £35,810,000 (31 December 2012: £16,338,000).

**Foreign currency risk management**

Historically, the Group's exposure to foreign currency risk has been limited, as all of its invoicing and the majority of its payments are in Sterling. The balance held in foreign currencies at the end of the reporting period was not material and the Group has made no payments in foreign currencies other than US Dollars and Euros. As such, management has not presented any sensitivity analysis in this area as this is immaterial.

**Maturity of financial assets and liabilities**

With the exception of the lease incentive from a related party (see note 20), all of the Group's non-derivative financial liabilities and its financial assets at 31 December 2013 are either payable or receivable within one year.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 23. Share capital

	Number	£'000
Issued and fully paid:		
At 1 January 2012	—	—
Issued subscriber shares – 27 March 2012	1	—
Issued to former shareholders of Retroscreen Virology Limited – 20 April 2012	1,095,835	1,096
1 January 2012 – Adjusted for merger	1,095,836	1,096
Issued to Director of the Company	6,135	6
Subdivision of ordinary shares – 25 April 2012	20,937,449	—
Issued under placing agreement – 3 May 2012	18,937,500	947
At 31 December 2012	40,976,920	2,049
Issued under placing agreement – 14 June 2013	12,750,000	637
<b>At 31 December 2013</b>	<b>53,726,920</b>	<b>2,686</b>

On 14 June 2013, 12,750,000 ordinary shares of 5 pence were issued via a placing at a price of 200 pence per ordinary share raising £25.5 million which after share issue expenses of £0.5 million gave net consideration of £25.0 million.

On 4 March 2014, 996,901 ordinary shares were issued to acquire the entire issued share capital of Activiomics Limited (on a fully diluted basis including all outstanding options) (see note 29).

#### Options

Share options outstanding at 31 December 2013 have the following expiry date and exercise prices:

Grant date	Number (‘000)	Option price (pence)	Date from which exercisable	Expiry date
7 April 2009	108	5.0	7 April 2010	6 April 2019
7 April 2009	108	5.0	7 April 2011	6 April 2019
7 April 2009	108	5.0	7 April 2012	6 April 2019
14 September 2009	53	6.3	14 September 2010	13 September 2019
14 September 2009	53	6.3	14 September 2012	13 September 2019
14 September 2009	54	6.3	3 May 2012	13 September 2019
13 January 2010	79	6.3	13 January 2011	12 January 2020
13 January 2010	79	6.3	13 January 2012	12 January 2020
13 January 2010	80	6.3	3 May 2012	12 January 2020
23 December 2011	1,045	8.2	3 May 2012	22 December 2021
23 December 2011	1,045	8.2	23 December 2012	22 December 2021
23 December 2011	1,046	8.2	23 December 2013	22 December 2021
	3,858			

Details of share options are disclosed in note 24 to the accounts.

#### Components of equity

The components of equity are as follows:

- share capital and the share premium account, both of which arise on the issue of shares;
- share-based payment reserve, which results from the Company's grant of equity-settled share options to selected employees and Directors; and
- merger reserve, which was created as a result of the acquisition by the Company of the entire issued share capital of Retroscreen Virology Limited in 2012 (see note 1). This reserve is not considered to be distributable; and retained deficit, which reflects losses incurred to date.

## 24. Share-based payments

### Retroscreen Virology Group plc share option plan

The Group has a share option plan under which it grants options and shares to certain Directors and employees of the Group.

Options are exercisable at a price equal to the estimated value of the Company's shares on the date of the grant. The options are settled in equity once exercised. If the options remain unexercised for a period after ten years from the date of grant, the options expire. Options are forfeited if the employee leaves the Group before the options vest.

Details of the number of share options and the weighted average exercise price ("WAEP") outstanding during the period are as follows:

	31 December 2013		31 December 2012	
	Number (‘000)	WAEP £	Number (‘000)	WAEP £
<b>Outstanding at the beginning of the year</b>	<b>3,868</b>	<b>0.08</b>	3,868	0.08
Expired during the year	(10)	0.05	—	—
<b>Outstanding at the end of the year</b>	<b>3,858</b>	<b>0.08</b>	3,868	0.08
<b>Exercisable at year end</b>	<b>2,733</b>	<b>0.08</b>	1,698	0.07

The options outstanding at 31 December 2013 had a weighted average exercise price of £0.08 and a weighted average remaining contractual life of 7.5 years.

The fair values of options granted were calculated using the Black Scholes pricing model. The Group used historical data to estimate option exercise and employee retention within the valuation model. All options outstanding were granted prior to the Company's admission to AIM, consequently expected volatilities on the grant date were based on implied volatilities of a sample of listed companies based in similar sectors. The risk-free rate for the period within the contractual life of the option was based on the UK gilt yield curve at the time of the grant.

The Group recognised a charge of £22,000 (31 December 2012: £48,000) related to equity-settled share-based payment transactions during the year.

### Adviser warrants

In part settlement of adviser fees in the year ending 31 December 2012, warrants over 204,885 ordinary shares were granted at an exercise price of 80 pence per ordinary share.

## 25. Pensions

The Group operates a defined contribution pension scheme whose assets are held separately from those of the Group in an independently administered fund. The pension charge represents contributions payable by the Group and amounted to £228,000 for the year (31 December 2012: £193,000). Contributions totalling £86,000 were payable to the fund at the year end and are included within trade and other payables (31 December 2012: £21,000).

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 26. Related party transactions

#### Remuneration of key personnel

The remuneration of the Directors, who are the key management personnel of the Group, is shown below:

	Year ended 31 December 2013 £'000	Year ended 31 December 2012 £'000
<b>Executive Directors – aggregate</b>		
Short-term employee benefits and fees	469	364
Employer's National Insurance contributions	41	46
Post-employment benefits	24	22
Share-based compensation charge	14	22
	<b>548</b>	454
<b>Non-Executive Directors – aggregate</b>		
Short-term employee benefits and fees	6	—
Payments to third parties	20	14
Total short-term employee benefits and fees	26	14
<b>Total Directors' remuneration</b>	<b>574</b>	468

Remuneration and benefits paid to the highest paid Director totalled £192,000 (31 December 2012: £182,000).

#### Amounts outstanding to key personnel

As at 31 December 2013, £31,000 was due in relation to employer pension contributions (31 December 2012: £17,000).

#### Transactions with the Group's shareholders

The Group has entered into a number of arrangements with Queen Mary, University of London ("QMUL"), a shareholder, and an entity related to QMUL, Queen Mary BioEnterprises Limited ("QMB") including:

- on 18 February 2011, the Group commenced a five-year lease with QMB of the 2nd floor of the QMB Innovation Centre at a rent of £645,474 per annum. The lease included a break clause, after three years, subject to six months' notice;
- on 2 November 2012, the Group signed an Agreement for Lease with Works to develop the 3rd floor of the QMB Innovation Centre. As part of the agreement, during the first quarter of 2013, QMB advanced the Group a repayable interest-free lease incentive of £750,000 (note 20) to develop the 3rd floor, with £75,000 per annum repayable over a ten-year period;
- on 11 March 2013, the Group commenced a five-year lease with QMB on the 2nd and 3rd floors of the QMB Innovation Centre at a rent of £925,000 per annum. This lease replaced the original lease of the 2nd floor. The lease includes an option to extend the lease for a further five-year period, with the option exercisable by the Group during the period of six months following the fourth anniversary of the lease; and
- during 2012, and up to moving into the 3rd floor, the Group had a number of leases for units on the 1st floor of the QMB Innovation Centre. These leases were for twelve months, but from six months terminated by giving one month's notice. Since March 2013, the Group has continued to rent three small units on the 1st floor, but the other leases of units have been terminated.

Professor John Oxford has no fee in relation to his appointment as a Non-Executive Director. He is seconded to the Group from QMUL at a cost of £40,000 per annum.

Dave Norwood has a fee of £25,000 per annum payable from 1 October 2013 having waived his fee since the Company's admission to AIM in May 2012.

The appointment on 3 April 2012 of Charles Winward as a Non-Executive Director of the Company is invoiced by IP2IPO Limited at a cost of £10,000 per annum.

The appointment on 3 April 2012 of Duncan Peyton as a Non-Executive Director of the Company is invoiced by Aquarius Equity Partners Limited at a cost of £10,000 per annum.

The amounts paid to shareholders and their connected parties in each period (including VAT) were as follows:

	<b>Year ended 31 December 2013 £'000</b>	Year ended 31 December 2012 £'000
Rent and facilities	<b>1,143</b>	1,020
Director salary recharged	<b>47</b>	47
Non-Executive Director fees	<b>16</b>	4
Fees and expenses relating to the IPO	<b>—</b>	102
Other expenses recharged	<b>5</b>	5
	<b>1,211</b>	1,178

The balances outstanding to related parties at the end of the period are as follows:

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
<b>Shareholders</b>		
Repayable lease incentive	<b>700</b>	—
Invoices outstanding included in trade and other payables in the consolidated statement of financial position	<b>281</b>	128
	<b>981</b>	128

## 27. Operating lease arrangements

At the reporting date, the Group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Within one year	<b>1,313</b>	1,263
In the second to fifth years inclusive	<b>3,940</b>	3,038
After five years	<b>252</b>	472
	<b>5,505</b>	4,773

As detailed in note 26, on 18 February 2011 the Company commenced a five-year lease with QMB of the 2nd floor of the QMB Innovation Centre. On 11 March 2013, this lease was replaced by a five-year lease with QMB of the 2nd and 3rd floor of the QMB Innovation Centre.

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CONTINUED

### 28. Capital commitments

At the reporting date, the Group had no capital commitments (31 December 2012: £590,000).

### 29. Post balance sheet event

On 4 March 2014, the Company announced the acquisition of Activiomics Limited (“Activiomics”) for a total consideration of up to £4.0 million in new ordinary shares of 5 pence each in the Company. Activiomics is a private UK based proteomics company founded in 2010 and spun out of the Institute of Cancer at Saint Bartholomew’s Hospital (“Barts”) and the London Medical School, part of Queen Mary University of London. Activiomics has a powerful technology for protein identification which will help enable Retroscreen to mine its biological samples for novel insights into target diseases.

The £4.0 million consideration is for the entire issued share capital of Activiomics (on a fully diluted basis including all outstanding options), split between a £3.08 million initial consideration payable on the date of the transaction and £0.71 million of contingent consideration payable on the first anniversary of the date of transaction subject to the satisfaction of certain conditions and warranties. Activiomics option holders will roll over their options into Retroscreen options on similar terms, with options valued at £171,000 in respect of the initial consideration and £40,000 in respect of the contingent consideration.

Due to the timing of the acquisition the accounting for the acquisition has not yet been finalised.

The initial consideration was satisfied by the issue of 996,901 ordinary shares in the Company. Following admission of the new shares to trading on AIM, Retroscreen’s total number of ordinary shares with voting rights in issue was 54,723,821.

# COMPANY STATEMENT OF FINANCIAL POSITION

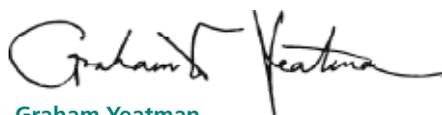
at 31 December 2013

	Note	2013 £'000	2012 £'000
<b>Assets</b>			
<b>Non-current assets</b>			
Fixed asset investments	3	17,707	17,685
		<b>17,707</b>	17,685
<b>Current assets</b>			
Trade and other receivables	4	124	6
Amounts due from Group undertakings		6,596	—
Short-term deposits	5	22,500	—
Cash and cash equivalents	6	9,980	14,176
		<b>39,200</b>	14,182
<b>Total assets</b>		<b>56,907</b>	31,867
<b>Equity and liabilities</b>			
<b>Equity</b>			
Share capital	9	2,686	2,049
Share premium account		37,363	13,013
Share-based payment reserve		239	217
Merger reserve		16,530	16,530
Retained earnings		44	21
<b>Total equity</b>		<b>56,862</b>	31,830
<b>Current liabilities</b>			
Trade and other payables	7	45	37
<b>Total liabilities</b>		<b>45</b>	37
<b>Total equity and liabilities</b>		<b>56,907</b>	31,867

The financial statements of Retroscreen Virology Group plc (registered company number 08008725) on pages 57 to 63 were approved and authorised for issue by the Board on 8 April 2014 and signed on its behalf by:



**Kym Denny**  
Chief Executive Officer



**Graham Yeatman**  
Finance Director

## COMPANY STATEMENT OF CHANGES IN EQUITY

for the year ended 31 December 2013

	Share capital £'000	Share premium account £'000	Share-based payment reserve £'000	Merger reserve £'000	Retained earnings £'000	Total equity £'000
<b>As at 1 January 2012</b>	—	—	—	—	—	—
Proceeds from shares issued:	947	13,177	—	—	—	14,124
Total transactions with owners in their capacity as owners	947	13,177	—	—	—	14,124
Profit for the period	—	—	—	—	21	21
Issued to acquire subsidiary company	1,102	—	—	16,530	—	17,632
Warrants issued	—	(164)	164	—	—	—
Share-based payment expense	—	—	53	—	—	53
<b>As at 31 December 2012</b>	<b>2,049</b>	<b>13,013</b>	<b>217</b>	<b>16,530</b>	<b>21</b>	<b>31,830</b>
Proceeds from shares issued:	637	24,350	—	—	—	24,987
Total transactions with owners in their capacity as owners	637	24,350	—	—	—	24,987
Profit for the year	—	—	—	—	23	23
Share-based payment expense	—	—	22	—	—	22
<b>As at 31 December 2013</b>	<b>2,686</b>	<b>37,363</b>	<b>239</b>	<b>16,530</b>	<b>44</b>	<b>56,862</b>

## COMPANY STATEMENT OF CASH FLOWS

for the year ended 31 December 2013

	2013 £'000	2012 £'000
<b>Cash flow from operating activities</b>		
Profit before income tax	23	21
Adjustments for:		
Increase in trade and other receivables	(118)	(6)
Increase in trade and other payables	8	37
Finance income	(97)	(97)
<b>Cash from operations</b>	<b>(184)</b>	<b>(45)</b>
<b>Net cash used in operations</b>	<b>(184)</b>	<b>(45)</b>
<b>Investing activities</b>		
Loans to subsidiaries	(6,596)	—
Increase in short-term deposits	(22,500)	—
Finance income	97	97
<b>Net cash (used in)/generated from investing activities</b>	<b>(28,999)</b>	<b>97</b>
<b>Financing activities</b>		
Net proceeds from issue of shares	24,987	14,124
<b>Net cash generated from financing activities</b>	<b>24,987</b>	<b>14,124</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>(4,196)</b>	<b>14,176</b>
Cash and cash equivalents at the start of year	14,176	—
<b>Cash and cash equivalents at the end of year</b>	<b>9,980</b>	<b>14,176</b>

## NOTES TO THE COMPANY FINANCIAL STATEMENTS

### 1. Principal accounting policies

The separate financial statements of the Company are presented as required by the Companies Act 2006. As permitted by the Act, the separate financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") adopted by the European Union.

The financial statements have been prepared on the historical cost basis. The principal accounting policies adopted are the same as those set out in note 2 of the Group's financial statements, except where noted below.

#### Investments

Investments are initially recorded at cost including directly attributable acquisition costs. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying value may not be recoverable.

#### Share-based payments

Refer to note 2 of the Group's financial statements for the principal accounting policy relating to share-based payments.

Any share-based payment expense arising in relation to employee share options is recharged to the Company's trading subsidiary, Retroscreen Virology Limited.

### 2. Company results

The Company was incorporated and registered in England and Wales as a private company on 27 March 2012. On 25 April 2012 the Company was re-registered as a public limited company and changed its name to Retroscreen Virology Group plc.

The Company has taken the exemption under section 408 of the Companies Act 2006 not to present the Parent Company's income statement. The Parent Company's result for the period ended 31 December 2013 was a profit of £23,000 (2012: £21,000).

The audit fee for the Company is set out in note 7 of the Group's financial statements.

### 3. Financial asset investments

	31 December 2013 £'000	31 December 2012 £'000
Investments in subsidiaries:		
Balance at beginning of year	17,685	—
Additions	—	17,632
Share-based compensation adjustment	22	53
Balance at end of year	17,707	17,685

Details of subsidiaries, all wholly owned and included in the consolidated financial statements, are:

	Country of incorporation	Holding	Proportion of voting rights and shares held	Nature of business
Retroscreen Virology Limited	England	Ordinary shares	100%	Medical and scientific research services
Retroscreen Virology Services Limited	England	Ordinary shares	100%	Dormant

On 27 March 2012 the Company was incorporated with one ordinary share of £1.00 subscribed for £nil paid.

On 20 April 2012 the Company entered into an agreement to acquire the entire share capital of Retroscreen Virology Limited, satisfied by the issue of 1,101,970 ordinary shares of £1.00 each and the original one ordinary share credited as being fully paid.

The Company has opted to hold its investment in its subsidiary companies at cost in accordance with IAS 27 Consolidated and Separate Financial Statements. As a consequence, the investment has been adjusted from the nominal value of the shares issued to the fair value of the shares issued in exchange for the shares acquired as a result of the business combination. A corresponding adjustment was made to equity by recognition of a merger reserve given the criteria for relief under section 131 of the Companies Act 1985 had been met at that time.

**4. Trade and other receivables**

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Other receivables	1	4
Prepayments and accrued income	123	2
	<b>124</b>	<b>6</b>

**5. Short-term deposits**

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Short-term deposits	22,500	—

Balances held on short-term deposits have maturity dates between six and twelve months from the point of investment.

**6. Cash and cash equivalents**

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Cash at bank and in hand	9,980	14,176

All of the Group's cash and cash equivalents at 31 December 2013 are at floating interest rates and are all denominated in Sterling (£).

The Directors consider that the carrying value of cash and cash equivalents approximates their fair value. For details on the Company's credit risk management, refer to the note 22 of the Group's financial statements.

**7. Trade and other payables**

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Trade payables	—	5
Social security and other taxes	5	5
Accruals	40	11
Amounts due to Group undertakings	—	16
	<b>45</b>	<b>37</b>

## NOTES TO THE COMPANY FINANCIAL STATEMENTS

### CONTINUED

#### 8. Financial instruments

##### Principal financial instruments

The Company's financial instruments that principally expose it to financial risks are as follows:

- trade and other receivables;
- trade and other payables; and
- cash and cash equivalents.

##### Financial assets

At the reporting date, the Company held the following financial assets.

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Short-term deposits, cash and cash equivalents	<b>32,480</b>	14,176
Other receivables	<b>1</b>	4
	<b>32,481</b>	14,180

##### Financial liabilities

At the reporting dates, the Company held the following financial liabilities, all of which were classified as other financial liabilities:

	<b>31 December 2013 £'000</b>	31 December 2012 £'000
Trade payables	—	5
Accruals	<b>20</b>	—
Other payables	—	16
	<b>20</b>	21

Refer to note 22 of the Group's financial statements for more information.

#### 9. Share capital

Refer to note 23 of the Group's financial statements.

#### 10. Share-based payments

Refer to note 24 of the Group's financial statements.

## 11. Post balance sheet event

On 4 March 2014, the Company announced the acquisition of Activiomics Limited (“Activiomics”) for a total consideration of up to £4.0 million in new ordinary shares of 5 pence each in the Company. Activiomics is a private UK based proteomics company founded in 2010 and spun out of the Institute of Cancer at Saint Bartholomew’s Hospital (“Barts”) and the London Medical School, part of Queen Mary University of London. Activiomics has a powerful technology for protein identification which will help enable Retroscreen to mine its biological samples for novel insights into target diseases.

The £4.0 million consideration is for the entire issued share capital of Activiomics (on a fully diluted basis including all outstanding options), split between a £3.08 million initial consideration payable on the date of the transaction and £0.71 million of contingent consideration payable on the first anniversary of the date of transaction subject to the satisfaction of certain conditions and warranties. Activiomics option holders will roll over their options into Retroscreen options on similar terms, with options valued at £171,000 in respect of the initial consideration and £40,000 in respect of the contingent consideration. Due to the timing of the acquisition the accounting for the acquisition has not yet been finalised.

The initial consideration was satisfied by the issue of 996,901 ordinary shares in the Company on 4 March 2014. Following admission of the new shares to trading on AIM, Retroscreen’s total number of ordinary shares with voting rights in issue was 54,723,821.

## 12. Related party transactions

### Remuneration of key personnel

The remuneration of the Directors, who are the key management personnel of the Group, is shown at note 26 of the Group financial statements.

### Transactions with the Group’s shareholders

The amounts paid to shareholders and their connected parties (including VAT) were as follows:

	<b>31 December 2013 £’000</b>	31 December 2012 £’000
Non-Executive Director fees	<b>16</b>	11
Fees and expenses relating to the IPO	—	102
Other expenses recharged	<b>5</b>	5
	<b>21</b>	118

The balances outstanding to shareholders at the end of the period are as follows:

	<b>31 December 2013 £’000</b>	31 December 2012 £’000
Invoices outstanding	—	4
	—	4

## GLOSSARY

**antiviral** a drug effective against viruses which cause disease

**attenuation/attenuated virus** reduction of the ability of a virus to induce disease (virulence)

**CDC (Centers for Disease Control and Prevention)** a US government public health agency

**characterised/characterisation** having distinguishing features identified and described (for example a virus may be characterised by features such as activity and ability to induce disease)

**clinical trial (or trial)** a formal study of a therapeutic in order to demonstrate safety and efficacy and required in order to obtain regulatory approval of a therapeutic

**COPD (Chronic Obstructive Pulmonary Disease)** is a disease of the lungs in which the airways narrow over time, limiting airflow to and from the lungs, causing shortness of breath

**efficacy** the ability of a drug to produce a desired outcome or effect

**Ethics Committee** an independent committee responsible for the approval of clinical trials and their ethical conduct (also referred to as an institutional review board in the US)

**FDA (Food and Drug Administration)** the US government body responsible for the regulation of, testing and approval of therapeutics and medical devices in the US

**field-based trials** for cold and flu research, studies where volunteers already showing symptoms of cold or flu are recruited – often via a patient's presentation at a clinic, hospital or pharmacy

**first-in-man** a clinical trial where a therapeutic is tested on human subjects for the first time – in recent years, regulation of such studies has increased substantially following reassessment of the inherent riskiness of such studies

**FSFS** first subject first sample – this is a Retroscreen term used to define the effective launch of a new human challenge model, with the very first subject entering a quarantine study from which a sample can be obtained for subsequent analysis by Retroscreen's hLAB division

**GCP (Good Clinical Practice)** an international quality standard for clinical trials

**gene expression signature** a particular pattern of protein production from nucleic material which can help identify or predict immune responses

**HCM** Human challenge models – utilise the ability of challenge agents, for example respiratory viruses, to elicit common self-limiting diseases such as flu, cold (Human Rhinovirus, "HRV") and Respiratory Syncytial Virus ("RSV") in otherwise healthy volunteers. By watching the entire disease lifecycle as subjects move from healthy to sick and recover back to healthy again, high quality, longitudinal data from the before, during and after phases of disease can be obtained. These models can be used to study the efficacy of new therapies such as antiviral drugs and vaccines and also to study the target disease itself

**HRV (human rhinovirus)** the group of viruses predominantly responsible for causing the common cold

**influenza** a contagious virus infection that affects the respiratory system. Symptoms commence after an incubation period of 1-4 days and include headache, fever, loss of appetite and general aches and pains. Influenza viruses are subject to a high degree of mutation, creating different strains

- **H1N1** a subtype of influenza viruses which are a common cause of influenza. Strains of the H1N1 virus were responsible for the swine flu pandemic in 2009
- **H3N2** a subtype of influenza viruses that can infect birds and mammals. In birds, humans, and pigs, the virus has mutated into many strains and is increasingly abundant in seasonal influenza

**inoculum** the controlled quantity of attenuated virus administered to a volunteer

**IP (intellectual property)** patents, rights to inventions, utility models, copyright and related rights, trade marks, service marks, trade, business and domain names, rights in goodwill or to sue for passing off, unfair competition rights, rights in designs, rights in computer software, database right, rights in biological materials, rights in confidential information (including know-how and trade secrets) and any other intellectual property rights, in each case whether registered or unregistered and including all applications for and renewals or extensions of such rights, and all similar or equivalent rights or forms of protection in any part of the world

**MHRA (Medicines and Healthcare Products Regulatory Authority)** the UK government body responsible for the regulation of, testing and approval of therapeutics and medical devices in the UK

**Phase I** the phase of the approval process for a new therapeutic in which it is first given to healthy volunteers and tests carried out for safety and adverse effects

**Phase II** the phase of the approval process for a new therapeutic in which clinical trials are performed on larger groups to assess how well the therapeutic works, as well as to continue Phase I safety assessments in a larger group. Phase II studies may be divided into:

- **Phase IIa** intended primarily to investigate what is the most effective dose; and
- **Phase IIb** further work to investigate and demonstrate efficacy

**Phase III** the phase of the approval process for a new therapeutic that in Phase I and Phase II has been shown to be efficacious with tolerable side effects

**prophylactic** a medicine or course of action used to prevent disease

**protocol** the detailed plan and description setting out how a clinical study is to be carried out

**QMB** Queen Mary BioEnterprises Innovation Centre, 42 New Road, London E1 2AX or, in a separate context, the landlord Queen Mary BioEnterprises Limited

**qPCR (quantitative polymerase chain reaction)** a sensitive technique for measuring the number of specific DNA molecules in a biological matrix – an amplification step allows one (or a few) specific DNA molecules to generate many copies of itself and therefore achieve unparalleled sensitivity of detection

**RSV (respiratory syncytial virus)** a type of virus which causes infections of the nose and throat and is a major cause of pneumonia in young children

**sponsor** a company or organisation which commissions Retroscreen to carry out a clinical trial or related work on its behalf

**therapeutic** a drug used for treatment or cure of a disease – therapeutic may also refer to a drug with prophylactic effect, preventing or restricting the development of a disease

**vaccine** a biological preparation that improves immunity to a particular disease

**VCM (viral challenge model)** a viral challenge quarantine clinical trial that includes the development and maintaining of a characterised virus, the screening and recruitment of volunteers, the development of clinical trial protocol and obtaining of ethics approval, the use of virology assays to screen volunteers, the use of quarantine(s) virology assays to analyse clinical trial samples, project management (from the start to the end of the VCM), data recording and data analysis. A VCM engagement may include one quarantine or a number of quarantines. Each quarantine lasts two to three weeks, but the timeline of work involved in building up to undertaking a quarantine is in the range of nine to twelve months. Whether a VCM engagement is for one quarantine or for a number of quarantines, the overall timeline of the VCM is much the same, apart from the additional time for the quarantines themselves and the time lags in between quarantines (since sequential), as a lot of the upfront work is the same whether for one or a number of quarantines

**viral challenge quarantine** the quarantine stage of a VCM under which volunteers are screened for infection and studied within a residential unit under controlled conditions, quarantined from infectious contamination from the environment or from persons other than their fellow volunteers. A study under such quarantine conditions helps reduce interference from external factors such as drug and alcohol consumption, diet and environmental conditions which would otherwise exist in a field based trial

**virology** the study or science of viruses

**virometrics** a Retroscreen term to describe Retroscreen's activities and expertise in the collection, measurement and analysis of human biological data related to viruses and their effects on the human body

**virus** an infective agent generally consisting of a nucleic acid molecule within a protein shell, only able to multiply within the cells of a host

# ADVISERS

## **Auditor**

### **Baker Tilly UK Audit LLP**

Chartered Accountants  
3 Hardman Street  
Manchester  
M3 3HF

## **Nominated adviser and broker**

### **Numis Securities Limited**

The London Stock Exchange Building  
10 Paternoster Square  
London  
EC4M 7LT

## **Solicitors**

### **Pinsent Masons LLP**

30 Crown Place  
London  
EC2A 4ES

## **Registrars**

### **Equiniti**

Aspect House  
Spencer Road  
Lancing  
BN99 6DA

## **Registered office**

Queen Mary BioEnterprises Innovation Centre  
42 New Road  
London  
E1 2AX

Registered in England and Wales  
Registered number 08008725

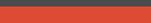
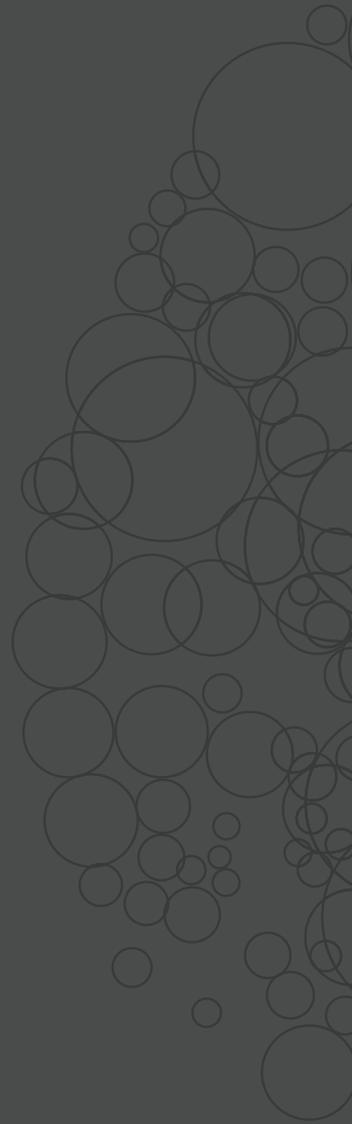
The paper used in this report is produced using virgin wood fibre from well managed forests in Brazil, Sweden and Germany with FSC® certification. All pulps used are Elemental Chlorine Free (ECF) and manufactured at a mill that has been awarded the ISO 14001 and EMAS certificates for environmental management. The use of the FSC® logo identifies products which contain wood from well-managed forests certified in accordance with the rules of the Forest Stewardship Council.

Printed by Pureprint Group Limited, a Carbon Neutral Printing Company. Pureprint Group Limited is FSC® certified and ISO 14001 certified showing that it is committed to all round excellence and improving environmental performance is an important part of this strategy. We aim to reduce at source the effect our operations have on the environment, and are committed to continual improvement, prevention of pollution and compliance with any legislation or industry standards.

Designed and produced by

**lyonsbennett**

[www.lyonsbennett.com](http://www.lyonsbennett.com)



**RETROSCREEN VIROLOGY GROUP PLC**

Queen Mary BioEnterprises  
Innovation Centre  
42 New Road  
London E1 2AX  
Tel: +44 (0)20 7756 1300

**[www.retroscreen.com](http://www.retroscreen.com)**