Vertex Pharmaceuticals (Europe) Limited

Registered in England & Wales 02907620

Report and Financial Statements

31 December 2019

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Company information

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Strategic report

The Directors present their strategic report for the year ended 31 December 2019.

Principal activities

The principal activities of Vertex Pharmaceuticals (Europe) Limited ("VPEL" or "Vertex Europe" or the "Company") are to sell products in the United Kingdom ("UK"), manufacture products for sale to affiliated companies and distribution partners worldwide, hold the Group's non-North American intellectual property, and perform research on behalf of Vertex Pharmaceuticals Inc. ("VPI").

Review of the business and future developments

During the year, the Company continued to supply KALYDECO ("ivacaftor" or "VX-770"), ORKAMBI ("ivacaftor in combination with lumacaftor" or "VX-809") and SYMKEVI ("ivacaftor in combination with tezacaftor" or "VX-661") in a combination regimen with ivacaftor (KALYDECO) as treatments for the underlying cause of Cystic Fibrosis ("CF"). The Company also supplied SYMDECO (ivacaftor in combination with tezacaftor co-packaged with ivacaftor) and commenced supply of TRIKAFTA (ivacaftor in combination with elexacaftor and tezacaftor co-packaged with ivacaftor) to affiliate companies operating in jurisdictions where those products are approved and reimbursed by the relevant bodies.

The business review below outlines the progress during the year as well as future developments.

- In January 2019, the Company obtained approval for ORKAMBI in the European Union for children 2 to 5 years of age.
- In December 2019, the Company obtained approval for KALYDECO in the European Union for infants 6 to <12 months of age.
- In the fourth quarter of 2019, the Company submitted an application to the European Medicines Agency ("EMA") to extend the indication of tezacaftor in combination with ivacaftor (SYMKEVI) to children 6 to 11 years of age.
- In the fourth quarter of 2019, the Marketing Authorisation Application submitted for the triple combination of elexacaftor, tezacaftor, and ivacaftor in patients 12 years of age and older was validated by the EMA. A Phase 3 clinical trial evaluating the triple combination of elexacaftor, tezacaftor and ivacaftor in children six to 11 years of age who are F508del homozygous or who have one copy of the F508del mutation and one minimum function mutation is ongoing.

The approved medicines, including information regarding the indication and age groups for which the medicine is approved in the European Union, are set forth in the table below:

Product	Scientific Name	Indication	Eligible Age Group
KALYDECO	ivacaftor	People with CF - G551D and other specified mutations	6 months of age and older
ORKAMBI	lumacaftor/ ivacaftor	People with CF - homozygous for the F508del mutation	2 years of age and older
SYMKEVI	tezacaftor/ ivacaftor	People with CF - (i) homozygous for the F508del mutation or (ii) with one copy of the F508del mutation and one copy of certain mutations that result in residual CFTR activity	12 years of age and older

Strategic report (continued)

Review of the business and future developments (continued)

During 2019 VPEL, VPI and affiliate companies reached agreement to expand access to the Company's portfolio of CF medicines in many countries around the World, most notably the United Kingdom, United States, France, Spain, Australia and the Republic of Ireland.

To mitigate the supply risk caused by the UK leaving the European Union ("EU"), the Company transferred the EU distribution license to Vertex Pharmaceuticals (Ireland) Limited ("Vertex Ireland"). Accordingly, sales to Vertex companies within the EU are now fulfilled by Vertex Ireland. VPEL made an investment of \$450 million in Vertex Ireland to support the working capital requirement of the new arrangement.

Collaboration

In 2015, VPI and VPEL entered into a collaboration with CRISPR Therapeutics AG for the discovery and development of potential new treatments aimed at the underlying genetic causes of human diseases using CRISPR-Cas9 gene-editing technology. The Company is currently co-developing CTX001 for the treatment of sickle cell disease and beta-thalassemia and, if successful, have agreed to co-commercialize CTX001. In addition, the Company has exercised options to exclusively license treatments for specific targets, including CF, that were subject to the research programme.

Separately to this collaboration, VPEL holds a minority investment in CRISPR Therapeutics AG as detailed in Note 14 to these accounts.

Financial Results

The results of the Company are set out on page 14; The income for the year before taxation amounted to \$147.0 million (2018 - loss of \$249.5 million) which includes the impact of gains made in relation to the Company's investment in CRISPR of \$189.4 million (2018 - \$2.6million); The income for the year after taxation amounted to \$124.2 million (2018 - loss of \$102.5 million); The Company has reduced the operating loss in 2019.

The key performance indicators are as follows:

	2019	2018	Change
	\$'000	\$'000	%
Turnover	4,798,279	3,670,255	31%
Research and development expenditure - Oxford Research Centre	60,805	53,109	14.5%
Research and development expenditure - Other	30,423	48,438	-37.2%
Research and development - Non-North American IP	92,248	127,224	-27.5%
Research and development - Total	183,476	228,771	-19.8%
Average number of research employees	182	136	33.8%
Operating loss	(35,452)	(238,023)	-85%
Net assets	936,871	809,148	16%

The Company's turnover of \$4.8 billion for the year ended 31 December 2019 (2018: \$3.7 billion) has increased due to the further reimbursement for ORKAMBI, SYMKEVI and TRIKAFTA in several counties as mentioned in the review of the business above.

Total research and development expenditure decreased by 19.8% during the year. Expenditure at the Oxford Research Centre, UK site increased by 14.3% and the expenditure related to Non-North American owned IP, charged by the parent company and collaboration agreement contributions, decreased by 27.4% due to the timing of delivery of individual projects.

The average number of research employees increased by 33.8% in support of activities at the Oxford Research Centre.

Strategic report (continued)

Principal risks and uncertainties

The Company operates in a high-risk sector. The key risks facing the Company are as follows:

1. Financial risks

a) Cash flow risk

A key area of exposure for the Company is cash flow risk. The Company is wholly reliant on the liquidity of the parent organisation and its ability to provide the Company with adequate funds for the foreseeable future. VPI, the Company's ultimate parent, has confirmed in writing that it will support the Company to continue trading and enable it to meet its liabilities as they fall due for at least 12 months from the date of approval of these financial statements.

b) Exchange rate risk

There is an exchange rate risk as sales in the UK are made in GBP and sales to other Vertex group companies are in the functional currency of the buying company. In addition, the Company has entered into other transactions, excluding the purchase of inventory, which are denominated in foreign currencies. The Company's exposure to exchange rate risk is monitored by the ultimate parent company's treasury function.

c) Interest rate risk

At 31 December 2019, the Company had cash and bank balances of \$189.4 million and no external loans. Accordingly, the Company has no significant interest rate exposure to manage locally. The Company had intragroup liabilities of \$1,671.6 million and assets of \$204.8 million with variable interest rates, for which rates are managed by the parent company.

d) Credit risks

The Company is a commercial trading entity and as such bears a credit risk with third party customers. The Company also sells to public institutions where the credit risk is deemed low as it is based on the sovereign risk of the country.

2. Product and regulatory risks

The clinical development and commercial launch success of key drug candidates will depend on many factors. These include the timely completion and favourable outcome of clinical trials including achieving safety and efficacy end points, agreeing mutually acceptable scope and design of such clinical trials with relevant authorities, obtaining marketing and reimbursement access, establishing commercial manufacturing arrangements and gaining acceptance by the medical community for Vertex products ahead of those developed by our competitors.

3. Inventory

The Company has limited flexibility to adjust its supply in response to changes in demand, due to the significant lead times required to manufacture its products. Future adverse changes in the outlook for commercial sales could result in inventory write downs and related charges. Management are confident that inventory levels are sufficient to meeting current and anticipated future sales.

Strategic report (continued)

Going concern

VPI, the Company's ultimate parent, has confirmed in writing that it will support the Company to continue trading and enable it to meet its liabilities as they fall due for at least 12 months from the date of approval of these financial statements.

After making enquiries, the Directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the annual report and the financial statements.

The directors have considered the group's financial and operating ability and are confident the group has sufficient cash and liquidity to provide this support. The directors highlight the group's first-quarter 2020 financial results for the period ended 31 March 2020 which reported product revenues of \$1.52 billion (77% increase on the same quarter in 2019) and a raising of the group's product revenue guidance for the full-year to a range of \$5.3 billion to \$5.6 billion (previously \$5.1 billion to \$5.3 billion) with expenses guidance unchanged. This announcement also reaffirmed the global COVID-19 outbreak has not had any impact on the continuity of group's supply chain for its approved medicines and the group remains highly confident in its ability to continue to supply all of its approved medicines to patients around the world. The directors also highlight that group had \$4.2 billion of cash, cash equivalents and marketable securities as at 31 March 2020 and this cash position will be adequate to meet the group's operating and other cash expenditure for at least two years prior to any cash preservation measures. Whilst there remains uncertainty of the impact of the COVID-19 on the group and the Company the directors have concluded that on the above basis, it is appropriate for the Company's financial statements to be prepared on a going concern basis.

Statement of Compliance

The directors' compliance with Regulation 4 of the Companies (Miscellaneous Reporting) Regulations 2018 is discussed in the Directors' Report.

Approved by order of the Board of Directors on 28 May 2020 and signed on its behalf by:

Registered No. 02907620

Directors' report

The Directors present their report for the year ended 31 December 2019.

Results and dividends

The results of the Company are set out on page 14; the profit for the year after taxation amounted to \$124.1 million (2018 – loss of \$102.5 million). The Directors do not recommend a dividend for the year ended 31 December 2019 (2018 – \$nil).

Future developments

The future developments of the Company have been outlined in the strategic report.

Research and development activities

The Company performs research and development at its Oxford Research Centre site on behalf of the ultimate parent company, VPI. During the year the Company incurred expenditure of \$60.8 million (2018 – \$53.2 million) on research and development, which was all expensed to the statement of comprehensive income. In addition, amounts payable to VPI in 2019, for VPEL's share of development costs of the non-North American IP acquired on 30 November 2014 and other development projects entered into with third party collaborators, totalled \$92.3 million (2018 - \$127.2 million). Other research and development expenditure totalled \$30.4 million (2018 - \$48.4 million).

Financial instruments and risk management

The Company is exposed to a number of financial risks that include cash flow risk, credit risk, exchange rate risk and interest rate risk. Further information is disclosed in the strategic report.

The ultimate parent company's treasury function along with the Board of Directors actively monitor the financial risks that the Company is exposed to.

Subsequent events

Subsequent events are fully disclosed in Note 26, however the Directors wish to highlight two aspects:

Firstly, the Company approved the acquisition of the ex-North America Intellectual Property rights for the next generation of Vertex's Cystic Fibrosis medicines from a Group affiliate in April 2020. The intellectual property has been valued at \$1.1 billion and will be recorded in Intangible Assets in 2020. Once market approval is gained, the asset will be amortised on a straight-line basis over the remaining patent life period. This transaction will enhance the long-term outlook for the Company and reinforce the Directors confidence in the Company as a going concern.

Secondly, the challenges facing the World with the spread of COVID-19 are significant, but it is important for the medical and patient community to know that the Directors remain highly confident in the group's ability to continue to supply all medicines uninterrupted to patients who rely on them, well into the future. Vertex has constructed supply chains for its marketed medicines to ensure readiness for a wide variety of contingencies. The Company has built significant safety stock into its supply chain to manage potential disruptions and has secured second source suppliers that are geographically diverse. The Directors have considered the risks to the Company resulting from COVID-19 and have determined that the Company is well-prepared from a business continuity perspective.

There is no disruption in activity of the Company's group affiliates and therefore no indication of an adverse impact on the future sales of the Company or any indicators of impairment of the Company's investment in subsidiaries post balance sheet date.

Directors' report (continued)

Foreign branches

The Company operates branches in Norway and Denmark.

Directors

The Directors who served the Company during the year and to date were as follows:

S Lem

A Grist (appointed on 19 April 2019) K Holmlund (appointed on 19 April 2019) M Bellandi (resigned on 19 April 2019) I Smith (resigned on 23 January 2019)

Directors Duty to Promote the Success of the Company

The Directors have applied Regulation 4 and Regulation 13 of the Companies (Miscellaneous Reporting) Regulations 2018.

The Directors are aware of their role in promoting the success of the Company, setting the Company's short-term and long-term strategy, monitoring and reviewing progress against this strategy, and managing risk. In support of this responsibility, the Directors conduct reviews on a regular basis to consider and challenge the strategic plan and proposed organisational model to support that plan in a systematic and thorough manner. Further, they ensure the Company maintains an active dialogue with their shareholders, employees, patient communities and suppliers throughout the year.

Patients

The Company has an uncompromising commitment to patients, relentless in its pursuit to create transformative medicines for people with serious and life-threatening diseases, and it is committed investing in the development of new medicines for those still waiting for a treatment. The Company's intangible assets, including those research programs that are still in development, are detailed in Note 11b.

Employees

The Company operates a framework for employee information and consultation which complies with the requirements of applicable law. During the year, employees are provided with regular information relating to the economic and financial factors affecting the performance of the Company, through regular communications including quarterly all-employee updates. Employees are also encouraged to put forward their views to the Company through the bi-annual Vertex Pulse Survey. The result of the survey is used to continually improve on how work gets done in the Company. Vertex U, the Company's Learning Management System bridges personal development and role-based requirements to help its employees continuously learn and develop. Employees participate directly in the success of the business through the Company's employee share schemes.

The Company is committed to diversity and inclusion, and actively encourages and support various employee groups. The company gives full consideration to applications for employment from disabled persons where the candidate's particular aptitudes and abilities are consistent with adequately meeting the requirements of the job.

Directors' report (continued)

Directors Duty to Promote the Success of the Company (continued)

Suppliers

The Company's Supplier Code of Conduct articulates the Company's core values to its suppliers and that it only selects and engages with providers who share its commitment to high ethical standards (e.g. zero-tolerance policy regarding bribes and corruption, among others), who embrace diversity, exhibit a passion and sense of urgency to the patients it serves, strive for innovation as well as continuous improvement, support the communities they live in, and who operate in a socially and environmentally responsible manner. As part of the third-party evaluation process, the Company will seek to understand how potential providers comply with the expectations defined in the Supplier Code of Conduct. This input will form part of the Company's supplier selection process.

Environment

The Company is committed to limiting its environmental impacts and to operate in a sustainable manner. As a lean, science-driven biotech company, its environmental footprint is smaller in comparison to other sectors and manufacturers of volume products. The Company's research facility in Oxford currently sources 100 percent of its energy from renewable sources and has sent zero waste to landfill for more than five years and are building on that success through initiatives focused on reducing printer paper usage and increasing recycling. Further, its headquarter in London achieved a BREAM rating of Excellent.

Conducting business with the highest integrity

The Company's culture is built upon shared values of integrity, respect, excellence and transparency. The Company maintains a robust program of internal controls to ensure integrity of its financial results and reduce the risk of bribery and corruption. The Code of Conduct provides all employees with a clear understanding of the principles of business conduct, standards and ethical behaviours that are expected from them. The Company provides training and requires annual certification of the Code.

Further, the Company's dedicated Office of Business Integrity & Ethics ensures that the Company maintains the highest standards of legal and ethical conduct in everything it does.

Directors' liabilities

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

Disclosure of information to the auditors

So far as each person who was a Director at the date of approving this report is aware, there is no relevant audit information (as defined by section 418 of the Companies Act 2016), being information needed by the auditor in connection with preparing its report, of which the auditor is unaware. Having made enquiries of fellow Directors and the Company's auditor, each Director has taken all the steps that he is obliged to take as a Director in order to make himself aware of any relevant audit information and to establish that the auditor is aware of that information.

Auditors

A resolution to reappoint Ernst & Young LLP as auditors will be put to the members at the Annual General Meeting.

On behalf of the Board

Date

Statement of Directors' responsibilities

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

Company law requires the Directors to prepare financial statements for each financial year which give a true and fair view of the state of affairs of the Company for that period. Under that law the Directors have elected to prepare the financial statements in accordance with applicable law and United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period.

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

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- state whether applicable United Kingdom Accounting Standards have been followed, subject to any material departures disclosed and explained in the financial statements; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

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

Independent Auditor's Report to the Members of Vertex Pharmaceuticals (Europe) Limited

Opinion

We have audited the financial statements of Vertex Pharmaceuticals (Europe) Limited for the year ended 31 December 2019 which comprise the Statement of Comprehensive Income, the Balance Sheet, the Statement of Changes in Equity and the related Notes 1 to 26, including a summary of significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards FRS 101 "Reduced Disclosure Framework" (United Kingdom Generally Accepted Accounting Practice).

In our opinion, the financial statements:

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

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report below. We are independent of the company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter - Effects of COVID-19

We draw attention to note 26 of the financial statements, which describes the economic and social consequences the company is facing as a result of COVID-19 which is impacting supply chains and personnel available for work and/or being able to access offices. Our opinion is not modified in respect of this matter.

Conclusions relating to going concern

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

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

Other information

The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in this report, we do not express any form of assurance conclusion thereon.

Independent Auditor's Report to the Members of Vertex Pharmaceuticals (Europe) Limited (Continued)

Other information (continued)

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

We have nothing to report in this regard.

Opinions on other matters prescribed by the Companies Act 2006

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

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

Matters on which we are required to report by exception

In the light of the knowledge and understanding of the company and its environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or directors' report.

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

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

Responsibilities of directors

As explained more fully in the directors' responsibilities statement set out on page 10, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

Auditor's responsibilities for the audit of the financial statements

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

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

Independent Auditor's Report to the Members of Vertex Pharmaceuticals (Europe) Limited (Continued)

Use of our report

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.

Emal a Young Lil

Michael Philp (Senior statutory auditor) for and on behalf of Ernst & Young LLP, Statutory Auditor Reading

Date: 29 May 2020

Statement of Comprehensive Income

for the year ended 31 December 2019

		2019	2018
	Notes	\$'000	\$'000
Turnover	5	4,798,279	3,670,255
Cost of sales		(3,668,731)	(3,064,080)
Gross profit		1,129,548	606,175
Research and development expenditure		(183,476)	(228,771)
Administrative expenses		(984,438)	(617,469)
Other income		2,914	2,042
Operating loss	6	(35,452)	(238,023)
Foreign exchange gain/(loss)		3,804	(2,164)
Realised gain on disposal of investments	14	65,111	-
Gain from changes in fair value of listed equity investments	14	124,299	2,600
Interest receivable and similar income	8	868	813
Interest payable and similar charges	9	(11,634)	(12,690)
Income/(Loss) on ordinary activities before tax		146,996	(249,464)
Tax (charge)/credit on ordinary activities	10	(22,941)	146,922
Net income/(loss) for the year		124,055	(102,542)
Other comprehensive income for the year		-	-
Total comprehensive income for the year		124,055	(102,542)

All amounts relate to continuing activities.

The notes on pages 17 to 49 are integral part of these financial statements.

Balance sheet as at 31 December 2019

		2019	2018
	Notes	\$'000	\$'000
Fixed assets			
Intangible assets	11	1,173,268	1,286,963
Tangible fixed assets	12	34,234	35,039
Right-of-use assets	19	25,381	-
Investment in subsidiaries	13	499,060	49,060
Other investments	14	261,798	167,323
Deferred tax asset	10	128,893	148,942
		2,122,634	1,687,327
Current assets			
Inventories	15	134,288	105,875
Debtors – due within one year	16	285,795	202,776
Debtors – due after more than one year	16	3,204	5,011
Cash and cash equivalents		189,350	103,960
		612,637	417,622
Current liabilities			
Creditors: amounts falling due within one year	17	(1,754,545)	(1,282,504)
Net current liabilities		(1,141,908)	(864,882)
Non-current liabilities			
Provisions for liabilities	.18	(15,385)	(13,297)
Lease liabilities	19	(28,470)	-
		(43,855)	(13,297)
Net assets		936,871	809,148
Equity			
Called up share capital	20	201	201
Capital contribution		9,415	9,415
Share premium	21	1,502,485	1,502,485
Retained deficit		(575,230)	(702,953)
Total shareholder's funds		936,871	809,148

The notes on pages 17 to 49 are integral part of these financial statements.

The financial statements of Vertex Pharmaceuticals (Europe) Limited were approved for issue by the Board of Directors on 28 May 2020, and signed on its behalf by:

shley Grist Director

Date

Company number: 02907620

Statement of changes in equity

for the year ended 31 December 2019

	Shar e capit al	Capital contribution	Share premium account	Retained earnings	Total share- holders' funds
No es	t \$'00	\$'000	\$'000	\$'000	\$'000
At 1 January 2018	201	9,415	1,502,485	(607,400)	904,701
Loss for the year	-	-	-	(102,542)	(102,542)
Total comprehensive loss for the year	-	-	-	(102,542)	(102,542)
Transactions with shareholders:					
Share-based payment transactions 24	-	-	-	22,999	22,999
Parent undertaking charge for share-based payment transactions	-	-	-	(20,591)	(20,591)
Tax on share-based payments 10	-	-	-	4,581	4,581
Total shareholder transactions	-	-	-	6,989	6,989
At 31 December 2018	201	9,415	1,502,485	(702,953)	809,148
Income for the year	-	-	-	124,055	124,055
Total comprehensive income for the year	-	-	-	124,055	124,055
Transactions with shareholders:		*	_ <u></u> .	·	
Share-based payment transactions 24	-	-	-	25,943	25,943
Parent undertaking charge for share-based payment transactions	-	-	-	(24,292)	(24,292)
Tax on share-based payments 10	-	-	-	2,017	2,017
Total shareholder transactions	-	-	-	3,668	3,668
At 31 December 2019	201	9,415	1,502,485	(575,230)	936,871

The notes on pages 17 to 49 are integral part of these financial statements.

Notes to the financial statements

for the year ended 31 December 2019

1. General information

The annual report and financial statements were approved by the Directors of the Company on 28 May 2020.

The Company is a private company and is incorporated and domiciled in the United Kingdom. The address of its registered office is Level 9, Paddington Central, 2 Kingdom Street, London, W2 6BD.

The nature of the Company's operations and its principal activities are set out in the strategic report.

The financial statements present information about the Company as an individual undertaking and not about its group. The Company is exempt under section 402 of the Companies Act 2006 from preparing group financial statements on the basis that it is a wholly owned subsidiary of Vertex Pharmaceuticals, Incorporated, and its ultimate parent publishes group financial statements. These financial statements are separate financial statements.

2. Application of new and revised standards and changes in accounting policies

a) Changes in accounting policies

The Company applied IFRS 16 Leases for the first time from 1 January 2019. Other than the changes described below, the accounting policies adopted are consistent with those of the previous financial year.

b) New standards, amendments and IFRIC Interpretations

IFRS 16 is a new accounting standard and is effective for the year ended 31 December 2019.

There are no other amendments to accounting standards or IFRIC interpretations that are effective for the year ended 31 December 2019 which have had a material impact on the Company.

The Company has not early adopted any standards, interpretations or amendments that have been issued but are not yet effective.

(i) IFRS 16 Leases

IFRS 16 supersedes IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases-Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to recognise most leases on the balance sheet.

Lessor accounting under IFRS 16 is substantially unchanged from IAS 17. Lessors will continue to classify leases as either operating or finance leases using similar principles as in IAS 17. Therefore, IFRS 16 does not have an impact for leases where the Company is the lessor.

The Company adopted IFRS 16 using the modified retrospective method of adoption, with the date of initial application of 1 January 2019. The Company elected to use the transition practical expedient to not reassess whether a contract is, or contains, a lease at 1 January 2019. Instead, the Company applied the standard only to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 at the date of initial application. The Company also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of 12 months or less and do not contain a purchase option (short-term leases), and lease contracts for which the underlying asset is of low value (low-value assets).

For the year ended 31 December 2019

2. Application of new and revised standards and changes in accounting policies (continued)

b) New standards, amendments and IFRIC Interpretations (continued)

The impact of adopting IFRS 16 on the Company's balance sheet as at 31 December 2019 was as follows:

	As reported under IFRS	Balances without	Effect of
	16	adoption of IFRS 16	change higher/(lower)
	\$'000	\$'000	\$'000
Non-current assets			<u></u>
Right-of-use assets	25,381	-	25,381
Current assets	612,637	611,898	739
Creditors: amount falling due within one year	(1,754,545)	(1,756,518)	1,972
Net current liabilities	(1,141,908)	(1,144,619)	2,711
Non-current liabilities			
Lease liabilities	(28,470)	-	(28,470)
Net assets	936,871	937,249	(378)
Equity			
Retained loss	(575,230)	(574,852)	(378)
Total shareholder's funds	936,871	937,249	(378)

The impact of adopting IFRS 16 on the Company's statement of comprehensive income for the year ended 31 December 2019 was as follows:

	As reported under IFRS 16	without	Effect of change higher/(lower)
	\$'000	\$,000	\$'000
Research and development expenditure	(183,476)	(183,104)	(372)
Administrative expenses	(984,438)	(984,022)	(416)
Operating loss	(35,452)	(35,970)	518
Foreign exchange gain/(loss)	3,804	4,700	(896)
Income/(Loss) for the year	124,055	124,433	(378)

For the year ended 31 December 2019

2. Application of new and revised standards and changes in accounting policies (continued)

b) New standards, amendments and IFRIC Interpretations (continued)

IFRS 16 did not have an aggregate impact on the Company's net cash position.

Based on the above, as at 1 January 2019:

- Right-of-use assets of \$28.8 million were recognised.
- Lease liabilities of \$35.4 million were also recognised. Subsequent to initial recognition, a current
 portion of lease liabilities was reclassified to short-term payables and presented in the balance sheet
 as part of creditors due within one year.
- Deferred rent amounts totalling to \$6.6 million were reversed and were included in the calculation of the right-of-use assets and lease liabilities.

The lease liabilities at 1 January 2019 can be reconciled to the operating lease commitments as of 31 December 2018 as follows:

	2019
	\$'000
Operating lease commitments at 31 December 2018 disclosed under IAS 17	41,972
Discounted using the incremental borrowing rate at 1 January 2019	(7,938)
Impact due to forex conversion	1,376
Lease liabilities recognised as at 1 January 2019	35,410
out of which	
Current	3,015
Non-current	32,395

In calculating the lease liability to be recognised on adoption, the Company used a weighted average incremental borrowing rate at 1 January 2019 ranging from 3.84% to 4.02%.

For the year ended 31 December 2019

3. Summary of significant accounting policies

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

a) Statement of compliance

These financial statements were prepared in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework' ("FRS 101").

b) Basis of preparation

The financial statements are presented in USD, the functional currency, rounded to the nearest thousand USD (\$'000), except where otherwise stated. The USD: GBP exchange rate at the year-end was 0.7624 (2018: 0.7889).

The financial statements have been prepared under the historical cost convention and in accordance with Companies Act 2006. The preparation of financial statements in conformity with FRS 101 requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements are disclosed in Note 4.

Disclosure exemptions

The following exemptions from the requirements of IFRS have been applied in the preparation of these financial statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share based payment'.
- IFRS 7, 'Financial instruments: Disclosures'.
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement'.
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information
- requirements in respect of:
 - paragraph 79(a)(iv) of IAS 1
 - paragraph 73(e) of IAS 16, 'Property, plant and equipment'
 - paragraph 118(e) of IAS 38, 'Intangible assets'.
- The following paragraphs of IAS 1:
 - 10(d) (statement of cash flows)
 - 16 (statement of compliance with all IFRS)
 - 38A (requirement for minimum of two primary statements, including cash flow statement)
 - 38B-D (additional comparative information)
 - 111 (cash flow information)
 - 134-136 (capital management disclosures)
- IAS 7, 'Statement of cash flows'
- Paragraph 30 and 31 of IAS 8, 'Accounting policies, changes in accounting estimates and errors'
- Paragraph 17 of IAS 24, 'Related party disclosures'
- The requirements in IAS 24 to disclose related party transactions between two or more members of a group.
- The requirements of the second sentence of paragraph 110 and paragraphs 113(a), 114, 115, 118, 119(a) to (c), 120 to 127 and 129 of IFRS 15 Revenue from Contracts with Customers.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

c) Going concern

The financial statements are prepared on the going concern basis as the ultimate parent company, Vertex Pharmaceuticals Incorporated, has confirmed in writing that it will support the Company to continue trading and enable it to meet its liabilities as they fall due for at least 12 months from the date of approval of these financial statements.

The directors have considered the group's financial and operating ability and are confident the group has sufficient cash and liquidity to provide this support. The directors highlight the group's first-quarter 2020 financial results for the period ended 31 March 2020 which reported product revenues of \$1.52 billion (77% increase on the same quarter in 2019) and a raising of the group's product revenue guidance for the full-year to a range of \$5.3 billion to \$5.6 billion (previously \$5.1 billion to \$5.3 billion) with expenses guidance unchanged. This announcement also reaffirmed the global COVID-19 outbreak has not had any impact on the continuity of group's supply chain for its approved medicines and the group remains highly confident in its ability to continue to supply all of its approved medicines to patients around the world. The directors also highlight that group had \$4.2 billion of cash, cash equivalents and marketable securities as at 31 March 2020 and this cash position will be adequate to meet the group's operating and other cash expenditure for at least two years prior to any cash preservation measures. Whilst there remains uncertainty of the impact of the COVID-19 on the group and the Company the directors have concluded that on the above basis, it is appropriate for the Company's financial statements to be prepared on a going concern basis.

d) Turnover

Pursuant to IFRS 15, Revenue from Contracts with Customers, the Company recognises revenue when a customer obtains control of promised goods or services. The Company records the amount of revenue that reflects the consideration that it expects to receive in exchange for those goods or services. The Company applies the following five-step model in order to determine this amount: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. The Company only applies the five-step model to contracts when it is probable that it will collect the consideration to which it is entitled in exchange for the goods or services that it transfers to the customer. The Company identifies the promised goods and services within the contract. After identifying the promised goods and services within a contract, the Company then determines which of those goods and services will be accounted for as separate performance obligations. Promised goods and services represent separate performance obligations if the goods or services are distinct (by themselves or as part of a bundle of goods and services) or if the goods and services are part of a series of distinct goods and services that are substantially the same and have the same pattern of transfer to the customer. The Company recognises as revenue the amount of the transaction price that is allocated to each performance obligation when that performance obligation is satisfied or as it is satisfied. Generally, the Company's performance obligations are transferred to customers at a point in time, typically upon delivery.

Revenues from product sales are recorded at the net sales price, or "transaction price," which includes estimates of variable consideration that result from (a) invoice discounts and distribution fees, (b) government and private payer rebates, chargebacks, discounts and fees and (c) costs of co-pay assistance programs for patients, as well as other incentives for certain indirect customers.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

e) Research and development expenditure

Research expenditure is recognised in the statement of comprehensive income in the year it is incurred.

Internal development expenditure is capitalised only if it meets the recognition criteria of IAS 38, 'Intangible assets'. Where regulatory and other uncertainties are such that the criteria are not met, the expenditure is recognised in the statement of comprehensive income and development expenditure is written off to the statement of comprehensive income as it is incurred. Development expenditure is capitalised usually when a regulatory filing has been made and approval is considered highly probable. Tangible fixed assets used for research and development are capitalised and depreciated in accordance with Note 3(h).

Payments to in-licence products and compounds from third parties for new research and development projects (in process research and development), generally taking the form of upfront payments and milestones, are capitalised. Where payments are made to third parties representing future research and development activities, an evaluation is made as to the nature of the payments and may be recorded in prepayments.

Tax credits to be received in cash which relates to research and development expenditure recognised in the statement of comprehensive income are recorded in 'other income' in the period in which the qualifying expenditure was incurred.

f) Interest income and expense

Interest income and expense is recognised using the effective interest method.

g) Intangible Assets

Intellectual property rights

Separately acquired intellectual property rights are recognised at cost. Intellectual property rights which have a finite useful life are carried at cost less accumulated amortisation. Amortisation commences when the asset is available for use and is calculated using the straight-line method over the estimated useful life which is the contractual life or patent life of the intellectual property right.

Amortisation is recognised in administrative expenses.

Licenses and other intangible assets

Separately acquired licenses and other intangible assets are shown at historical cost. Licenses and other intangible assets acquired in a business combination are recognised at fair value at the acquisition date. Licenses and other intangible assets have a finite life and are carried at cost less accumulated amortisation. Amortisation is calculated using the straight-line method over their estimated useful lives.

Amortisation is recognised in administrative expenses, or research and development expenses.

h) Tangible fixed assets

The cost of tangible fixed assets is their purchase cost, together with any incidental costs of acquisition.

Depreciation is calculated so as to write off the cost of tangible fixed assets, less their estimated residual values, over the expected useful economic lives of the assets concerned. The principal annual rates and methods used for this purpose are:

Short leasehold improvements

the shorter of the estimated useful life or the remaining lease term

- straight-line

Plant and machinery

- 7 years - straight-line

Fixtures, fittings and equipment

4 years - straight-line

Computer hardware

- 3 years - straight-line

Assets under construction are not depreciated until they are available for use.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

i) Leases

The Company assesses at contract inception whether a contract is, or contains, a lease. That is, if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Company recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

Right-of-use assets

The Company recognises right-of-use assets at the commencement date of the lease (i.e., the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term and the estimated useful lives of the assets, as follows:

Office buildings – 10 to 15 years Research facility buildings – 10 years

If ownership of the leased asset transfers to the Company at the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

The right-of-use assets are also subject to impairment.

Lease liabilities

At the commencement date of the lease, the Company recognises lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Company and payments of penalties for terminating the lease, if the lease term reflects the Company's exercising the option to terminate. Variable lease payments that do not depend on an index or a rate are recognised as expenses (unless they are incurred to produce inventories) in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Company uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

The current portion of the lease liabilities is presented as part of creditors due within one year (see Note 17). The non-current portion is presented separately in the balance sheet.

Short-term leases and leases of low-value assets

The Company applies the short-term lease recognition exemption to its short-term leases (i.e., those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases that are considered to be low value. Lease payments on short-term leases and leases of low value assets are recognised as expense on a straight-line basis over the lease term.

j) Investment in subsidiaries

Investments in subsidiaries are held at cost less impairment losses.

· For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

k) Impairment of non-financial assets

Intangible assets that have an indefinite life or intangible assets not ready to use which are not subject to amortisation, are tested annually for impairment. Other assets that are subject to amortisation and depreciation, and investments in subsidiary undertakings, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash flows. Prior impairments of non-financial assets (other than goodwill) are reviewed for possible reversal at each reporting date.

l) Inventories

The Company values its inventory at the lower of cost or net realisable value. The Company determines the cost of its inventory, which includes amounts related to materials and manufacturing overhead, on a first-in, first-out basis. If the Company identifies excess, obsolete or unsalable items, its inventories are written down to their realisable value in the period in which the impairment is first identified. Shipping and handling costs incurred for inventory purchases and product shipments are recorded in cost of sales in the Company's statement of comprehensive income.

The Company capitalises inventory produced in preparation for initiating sales of a drug candidate when the related drug candidate is considered to have a high likelihood of regulatory approval and the related costs are expected to be recoverable through sales of the inventory. In determining whether or not to capitalise such inventory, the Company evaluates, among other factors, information regarding the drug candidate's safety and efficacy, the status of regulatory submissions and communications with the regulatory authorities and the outlook for commercial sales, including the existence of current or anticipated competitive drugs and the availability of reimbursement. In addition, the Company evaluates risks associated with manufacturing the drug candidate and the remaining shelf life of the inventory items.

m) Financial assets

Financial assets are classified, at initial recognition, and subsequently measured at amortised cost, fair value through OCI, or fair value through profit or loss. The classification of financial assets at initial recognition that are debt instruments depends on the financial asset's contractual cash flow characteristics and the Company's business model for managing them.

Financial assets at fair value through profit or loss or at fair value through other comprehensive income Financial assets at fair value through other comprehensive income (FVOCI) comprise:

- Equity securities which are not held for trading, and which the group has irrevocably elected at initial recognition to recognise in this category. These are strategic investments and the group considers this classification to be more relevant.
- Debt securities where the contractual cash flows are solely principal and interest and the objective of the group's business model is achieved

Financial assets at amortised cost

The Company classifies its financial assets as at amortised cost only if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cash flows; and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

Financial assets at fair value through profit or loss

The following financial assets are classified at fair value through profit or loss (FVPL):

- debt investments that do not qualify for measurement at either amortised cost (see above);
- equity investments that are held for trading; and
- equity investments for which the entity has not elected to recognise fair value gains and losses through OCI.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

m) Financial assets (continued)

Impairment of financial assets

The Company assesses, at the end of each reporting period, whether there is objective evidence that a financial asset or group of financial assets is impaired.

n) Trade debtors

Trade debtors are amounts due from customers for goods sold and services performed in the ordinary course of business. Trade and other receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less provision for impairment.

The Company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due.

o) Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks or with original maturities of three months or less.

p) Share capital

Ordinary shares are classified as equity.

q) Financial liabilities

Classification

The classifications of financial liabilities are determined by the Directors at initial recognition. The financial liabilities of the Company are classified as other financial liabilities. The Company's other financial liabilities comprise of trade creditors, amounts owed to group undertakings, accruals and promissory notes. Classification of less than one year or more than one year depends on the contractual terms of the liabilities.

Recognition and measurement

Other financial liabilities are recognised initially at fair value, net of transaction costs incurred, and subsequently measured at amortised cost. Any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the statement of comprehensive income over the period of the obligation using the effective interest method.

r) Trade creditors

Trade creditors are obligations to pay for goods or services received that have been acquired in the ordinary course of business from suppliers.

s) Provisions

A provision is recognised when the Company has a legal or constructive obligation as a result of a past event; it is probable that an outflow of economic benefits will be required to settle the obligation; and the amount has been reliably measured. Provisions are measured at the present value of the expenditures expected to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as an interest expense.

Provisions for property dilapidations are discounted at 0.76% p.a to 1.1% p.a (2018: 1.0% p.a to 1.6% p.a) as the leases expire in 2032. Provisions for national insurance are not discounted.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

t) Current and deferred taxation

The tax expense for the year comprises current and deferred taxation. Tax is recognised in the statement of comprehensive income, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

The current income tax charge is calculated on the basis of the UK tax laws enacted substantively at the balance sheet date. The Directors periodically evaluates positions in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. A provision is recognised where appropriate on the basis of amounts expected to be paid to the tax authorities.

Deferred taxation is recognised in respect of all temporary differences arising between the tax base of assets and liabilities and their carrying amount. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill; deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred tax is determined using the tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled. Deferred tax is measured on an undiscounted basis. Deferred tax assets are recognised only to the extent that the Directors consider that it probable that there will be suitable future taxable profits will be available against which the temporary differences can be utilised.

Deferred tax liabilities are provided on taxable temporary differences arising from investment in subsidiaries, except for any deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognised on deductible temporary differences arising from investments in subsidiaries only to the extent that it is probable the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same tax authority.

u) Foreign currencies

Transactions denominated in foreign currencies are translated in the functional currency using the exchange rates prevailing at the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing on the balance sheet date. All differences are taken to the Company's statement of comprehensive income in the period in which they arise. All foreign exchange gains and losses relating to trading activities are presented in the statement of comprehensive income within other operating income or expenses. Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented as a separate disclosure below the operating profit line in the statement of comprehensive income.

v) Employee benefits

Pensions

The Company makes contributions to defined contribution pension schemes. The assets of these schemes are held separately from those of the Company in independently administered funds. The Company has no legal or constructive obligation to pay further contributions if there are insufficient funds to pay all employees the benefits relating to employee service in the current or prior periods. The pension cost represents contributions payable by the Company to the schemes during the year.

Termination benefits

Termination benefits are payable when employment is terminated by the Company before normal retirement age, or whenever an employee accepts voluntary redundancy in exchange for these benefits.

For the year ended 31 December 2019

3. Summary of significant accounting policies (continued)

v) Employee benefits (continued)

Bonus plans

The Company recognises a liability and an expense for bonuses when contractually obliged or where there is a past practice that has created a constructive obligation. Bonuses are determined at the discretion of the Directors.

w) Share-based payments

The cost of equity-settled transactions with employees is measured by reference to the fair value at the date at which they are granted and is recognised as an expense over the vesting period, which ends on the date on which the relevant employees become fully entitled to the award. Fair value is determined using an appropriate pricing model. In valuing equity-settled transactions, no account is taken of any vesting conditions, other than conditions linked to the price of the shares of the Company (market conditions).

No expense is recognised for awards that do not ultimately vest.

At each balance sheet date before vesting, the cumulative expense is calculated; representing the extent to which the vesting period has expired and management's best estimate of the achievement or otherwise of non-market conditions and the number of equity instruments that will ultimately vest. The movement in cumulative expense since the previous balance sheet date is recognised in the statement of comprehensive income, with a corresponding entry in equity.

Charges received from the parent undertaking in respect of the share-based payment scheme are treated as a distribution in the reconciliation of shareholder's funds.

The Company provides for the National Insurance that would become payable on outstanding share-based payment arrangements awarded under unapproved schemes. The provision is calculated on the difference between the year-end share price of Vertex Pharmaceuticals Incorporated stock and the exercise price of outstanding share awards and is being allocated over the relevant vesting periods. The calculation is adjusted for estimates on forfeiture rates and likelihood of exercise.

x) Collaboration

The Company reviews each collaboration agreement pursuant to which the Company licenses assets owned by a collaborator in order to determine whether or not the Company has control over the entity licensing the assets. The Company controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. These entities are considered subsidiaries and are fully consolidated from the date on which control is transferred to the Company.

If the Company concludes that it does not control the entity, the Company then determines whether the arrangement qualifies as a joint arrangement in accordance with IFRS 11 and if not, whether it has significant influence over the entity. If neither is applicable to the arrangement, the Company applies IAS 38 in that payments for separately acquired research and development are capitalized as intangible assets provided that they meet the definition of an intangible asset: a resource that is (i) controlled by the Company, (ii) expected to provide future economic benefits for the Group, and (iii) identifiable (i.e. it is either separable or arises from contractual or legal rights). Under paragraph 25 of IAS 38, the first condition for capitalization (the probability that the expected future economic benefits from the asset will flow to the entity) is considered to be satisfied for separately acquired research and development. Because the amount of the payments is determinable, the second condition for capitalization (the cost can be measured reliably) is also met.

Consequently, upfront and milestone payments to third parties related to pharmaceutical products for which regulatory marketing approval has not yet been obtained are recognized as intangible assets and amortized on a straight-line basis over their useful lives from the date on which marketing approval is obtained.

For the year ended 31 December 2019

4. Critical accounting estimates and judgements

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including the expectations of future events that are believed to be reasonable under the circumstances.

a) Share-based payments

The Company participated in the Group's equity share-based payment schemes described in Note 24. There are a number of estimates that are made in the calculation of the annual share-based payment charge which are described below. The charge for the year was \$25.9 million (2018: \$23.0 million).

Fair value at grant date

The grant date fair values for the employee share purchase plan and stock options were determined using Black Scholes valuation model taking into account the expected stock price volatility, risk free interest rate, expected term and expected annual dividend.

Estimation of leavers

The calculation of the share-based payments is based on the outstanding options as at 31 December 2019. However, in the normal course of business it is expected that not all of the options or awards will vest because staff will leave the Company. As a result, an assumption has been made on staff attrition rates, which has been based on historical information and expectations. If the assumption on staff attrition rates was removed, the share-based payment charge would increase by \$2.5 million.

b) Intangible assets

Impairment of intangible assets

As at 31 December 2019, the Company holds a number of intangible assets which represented rights to the non-US commercialization of any product candidates that arise from a number of agreements, as well as a non-exclusive licence to exploit the CF franchise. The carrying value of these assets is \$1.2 billion (2018: \$1.3 billion). Refer to Note 11.

At the year end, not all of the acquired intangible assets were available for use; therefore, amortization of these assets had not begun. As a result, these intangible assets must be tested for impairment annually until they are available for use, at which point they are only tested where there are indications of impairment.

Impairment exists when the carrying value of an asset is lower than its recoverable amount (i.e. higher of value in use or fair value less costs of disposal). When it is determined that there is an impairment, the carrying value of the related intangible asset is written down to its recoverable amount and impairment charge is taken in the period in which the impairment occurs.

In some cases, it is not possible to determine the recoverable amount for an individual asset. When this is the case, the recoverable amount should be calculated for the cash-generating unit ("CGU") to which the asset belongs. A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or group of assets. For the purposes of the impairment testing of the intangible assets, two CGUs have been identified. In order to split the assets judgements on the expectation of the independence of future cash flows have been made.

For the year ended 31 December 2019

4. Critical accounting estimates and judgements (continued)

b) Intangible assets (continued)

The Company assesses the recoverable amounts of the CGUs using a variety of methods, including present-value models that are based upon multiple probability-weighted scenarios involving the development and potential commercialization of the acquired drug candidates.

The present-value models require the Company to make significant assumptions regarding the estimates that market participants would make in evaluating a drug candidate, including the probability of successfully completing clinical trials and obtaining regulatory approval to market the drug candidate, the timing of and the expected costs to complete in-process research and development projects, future net cash flows from potential drug sales, which are based on estimates of the sales price of the drug, expectations on when the regulatory approvals are received, the number of patients who will be diagnosed and treated, and our competitive position in the marketplace, and appropriate discount and tax rates. The periods over which the cash flows are forecast are based on the life of the patent and when the drug candidate receives regulatory approval.

The valuation method of the recoverable amount of each CGU was based on the value in use. The following assumptions are used in the calculations:

	CGU 1 - CF	CGU 2 – Sickle Cell
	%	%
Discount rate (post-tax)	10.7	9

During the year ended 31 December 2019, the Company recognised an impairment charge of \$10 million (2018: \$6 million). See note 11(b).

c) Deferred tax

As at 31 December 2019, the Company recognised a deferred tax asset on the carried forward taxable losses. Under IAS 12 – Income Taxes ("IAS 12") 'a deferred tax asset shall be recognised for the carry forward of unused tax losses and unused tax credits to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused tax credits can be utilised.'

Significant judgement is required in making this assessment. As at 31 December 2019, the Company assessed the recoverability of the deferred tax asset and considered that there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses can be utilised by the Company. This assessment included the review of income over the next 5 years revenue growth, clinical program progression, and expectations regarding future profitability, and negative evidence, including potential impact of competition on our projections and cumulative losses in on the jurisdictions. After assessing both the positive evidence and the negative evidence, we concluded that there is convincing evidence that it is probable that there will be future taxable profit for which the unused tax losses can be utilised.

For the year ended 31 December 2019

5. Turnover

a) Turnover by geographical area

	2019	2018
	\$'000	\$'000
United States of America	3,653,960	3,094,519
Rest of the World	1,144,319	575,736
Total	4,798,279	3,670,255

b) Turnover by type

	2019	2018
	\$'000	\$'000
Sale of inventory	4,734,113	3,613,587
Research and development services	64,166	56,668
Total	4,798,279	3,670,255

6. Operating loss

This is stated after charging:

	2019	2018
	\$'000	\$'000
Auditors' remuneration - audit of the financial statements	162	130
Depreciation (Note 12)	8,050	8,398
Impairment of licences and other intangible assets (Note 11)	10,000	6,000
Amortisation of licences and intellectual property ("IP") rights (Note 11)	141,495	131,467
Research and development expenditure ¹	183,476	228,771
Operating lease rentals - land and buildings	4,829	4,763
Cost of inventory recognised as an expense (included in cost of sales)	3,668,731	3,064,080

¹ Included within research and development is \$3.3 million of amortisation and \$10 million of impairment.

The Company has taken advantage of the exemption not to disclose amounts paid for non-audit services as these are disclosed in the Group accounts of its ultimate parent, Vertex Pharmaceuticals Incorporated.

For the year ended 31 December 2019

7. Staff costs and Directors' remuneration

a) Staff costs

The average monthly number of employees (including Directors) during the year was made up as follows:

	No.	No.
Sales and administration	169	163
Research and development	182	136
	351	299

b) Directors

During the year, Klas Holmlund and Ian Smith were Directors of the Company and other Vertex Group subsidiaries and an officer of the ultimate parent. Ian Smith was a director until 23 January 2019. They received their total remuneration from the ultimate parent for their services to the Vertex Group. It is not practicable to allocate their remuneration between their services as Director for the companies within the Vertex Group.

Ashley Grist, Simon Lem and Michele Bellandi received their remuneration from the Company, which is as follows:

as follows:	2010	2010
	2019	2018
	\$'000	\$'000
Aggregate remuneration	1,139	1,106
Aggregate gains made on the exercise of share options	1,389	5,091
Company contributions to defined contribution schemes	46	55
	No.	No.
Number of directors who received shares in respect of qualifying services	3	3
Highest paid director		
Highest paid director	2019	2018
Highest paid director The highest paid director's remuneration was as follows:	2019 \$'000	
The highest paid director's remuneration was as follows: Total amount of emoluments and amounts (excluding shares) receivable under long-term incentive schemes		2018 \$'000 417
The highest paid director's remuneration was as follows: Total amount of emoluments and amounts (excluding shares) receivable	\$'000	\$'000

During the year, the highest paid director received shares under a long-term incentive scheme.

Notes to the financial statements (continued) For the year ended 31 December 2019

Interest receivable and similar income

	2019	2018
	\$'000	\$'000
Interest receivable on bank deposits	2	5
Interest receivable on amounts due from group undertakings	866	808
	868	813

9. Interest payable and similar charges

	2019	2018
	\$'000	\$'000
Interest payable on amounts due to group undertakings	8,028	9,466
Interest payable on promissory notes	3,493	3,123
Interest accretion expense (see Note 18)	113	101
	11,634	12,690

10. Tax

a) Tax credit on ordinary activities

The tax is made up as follows:

•	2019	2018
	\$'000	\$'000
Current tax:		
Current tax expense on profit/ loss for the year	2,255	2,369
Over provision in prior years	-	(29)
Total current tax	2,255	2,340
Deferred tax:		
Deferred tax expense/(credit) for the year (Note 10 (d))	25,739	(166,822)
Over provision in prior years (Note 10 (d))	(2,528)	-
Effect of changes in tax rates	(2,525)	17,560
Total deferred tax	20,686	(149,262)
Tax expense/(credit) on ordinary activities (Note 10 (b))	22,941	(146,922)

For the year ended 31 December 2019

10. Tax (continued)

b) Factors affecting total tax income for the year

The credit for the year can be reconciled to the loss per the statement of comprehensive income as follows:

	2019	2018
	\$'000	\$'000
Income/(Loss) on ordinary activities before tax	146,996	(249,464)
Tax expense/(credit) at standard UK tax rate of 19% (2018: 19%)	27,929	(47,398)
Effects of:		
Adjustments in respect of prior years	(2,528)	(29)
Expenses not deductible and income not taxable	630	1,106
Tax rate changes	(2,525)	(17,560)
Change in unrecognised deferred tax assets	-	(79,807)
Equity investments	(565)	(51)
Tax on RDEC	-	100
Share-based payment	-	(3,283)
Total tax expense/(credit) for the year (Note 10 (a))	22,941	(146,922)

c) Tax recognised in equity

In addition to the amount credited to the statement of comprehensive income, the following amounts relating to tax have been recognised directly in equity:

•	2019 \$'000	2018	
		\$'000	
Current tax:			
Excess tax deductions related to share-based payments	(1,380)	(1,980)	
Total current tax	(1,380)	(1,980)	
Deferred tax:			
Excess tax deductions related to share-based payments	(637)	(2,601)	
Total deferred tax (Note 10 (d))	(637)	(2,601)	
Total income tax recognised directly in equity	(2,017)	(4,581)	

For the year ended 31 December 2019

10. Tax (continued)

d) Deferred tax

Recognised deferred tax assets and (liabilities) comprise:

	Fixed assets	Temporary differences	Tax losses	Equity investments	RDEC	Share- based payments	Total
	\$'000	\$000	\$000	\$'000	\$000	\$000	\$000
At 1 January 2018	(3,754)	-	6,206	(5,373)	-	-	(2,921)
Credit/(Debit) to Statement of Comprehensive	4,779	1,317	138,835	(435)	287	4,479	149,262
Income Credit to Equity	-	-	-	· •	-	2,601	2,601
At 31 December 2018	1,025	1,317	145,041	(5,808)	287	7,080	148,942
Prior year adjustment	655	11	312	89	1,461	-	2,528
(Debit)/Credit to Statement of Comprehensive Income	(271)	290	(1,997)	(20,723)	(1,748)	1,235	(23,214)
Credit to Equity	-	-	-	-	-	637	637
At 31 December 2019	1,409	1,618	143,356	(26,442)		8,952	128,893

As at 31 December 2019, the Company recognised a deferred tax asset on the carried forward taxable losses. Under IAS 12 – Income Taxes ("IAS 12") 'a deferred tax asset shall be recognised for the carry forward of unused tax losses and unused tax credits to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused tax credits can be utilised.'

Significant judgement is required in making this assessment. As at 31 December 2019, the Company assessed the recoverability of the deferred tax asset and considered that there is convincing other evidence that sufficient taxable profit will be available against which the unused tax losses can be utilised by the Company. This assessment included the review of income over the next 5 years revenue growth, clinical program progression, and expectations regarding future profitability, and negative evidence, including potential impact of competition on our projections and cumulative losses in on the jurisdictions. After assessing both the positive evidence and the negative evidence, we concluded that there is convincing evidence that it is probable that there will be future taxable profit for which the unused tax losses can be utilised.

e) Factors that may affect future tax charges

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period when the asset is realised or the liability settled, based on tax rates that have been enacted or substantively enacted at the balance sheet date. Finance Bill 2016 enacted provisions to reduce the main rate of UK corporation tax to 17% from 1 April 2020. However, in the March 2020 Budget it was announced that the reduction in the UK rate to 17% will now not occur and the Corporation Tax Rate will be held at 19%. As substantive enactment is after the balance sheet date, deferred tax balances as at 31 December 2019 continue to be measured at a rate of 17%.

For the year ended 31 December 2019

11. Intangible assets

	Intellectual Property (IP) Rights	Licences and other intangible assets	Total
	\$'000	\$'000	\$000
Cost:			
At 1 January 2019	1,651,057	124,589	1,775,646
Additions	-	37,800	37,800
Disposals	-	(51,000)	(51,000)
At 31 December 2019	1,651,057	111,389	1,762,446
Amortisation and impairment:			
At 1 January 2019	403,746	84,937	488,683
Impairment	-	10,000	10,000
Disposals	· _	(51,000)	(51,000)
Provided during the year ¹	135,402	6,093	141,495
At 31 December 2019	539,148	50,030	589,178
Carrying value:			
Net book value at 31 December 2019	1,111,909	61,359	1,173,268
Net book value at 1 January 2019	1,247,311	39,652	1,286,963

^{1 \$3.3} million of the amortisation is recognised in research and development. The remaining amortisation is recognised within administrative expense.

a) Intellectual property (IP) rights

,,	Cost	Accumulated amortisation	Net book value	Remaining useful life
	2019	2019	2019	2019
	\$'000	\$,000	\$'000	
VX-809 (ORKAMBI)	957,000	(352,579)	604,421	7 years
VX-770 (KALYDECO)	366,000	(167,863)	198,137	6 years
VX-661 (SYMKEVI)	163,000	(18,706)	144,294	9 years
VX-561	165,057	-	165,057	N/A
At 31 December 2019	1,651,057	(539,148)	1,111,909	· · · · · · · · · · · · · · · · · · ·

VX-809, VX-770 and VX-661

The amortisable basis for ex-North American IP represents a non-exclusive licence to exploit the CF franchise, including VX-809, VX-770 and VX-661. The licence value is based upon the net present value of future cash flow from revenues through to patent expiry for each product. VX-809, VX-770 and VX-661 were the only products with market approval at the end of the year and are consequently being amortised on a straight-line basis over an estimated useful life of approximately 10 to 11 years from either their launch date or acquisition date.

For the year ended 31 December 2019

11. Intangible assets (continued)

VX-561

On 6 March 2017, it was announced that VPEL and VPI had signed a definitive asset purchase agreement to acquire CTP-656 (renamed VX-561) from Concert Pharmaceuticals ("Concert"). VX-561 is an investigational CFTR potentiator that has the potential to be used as part of future once-daily combination regimens of CFTR modulators that treat the underlying cause of CF.

The asset purchase agreement was completed on 25 July 2017. As part of the agreement, VPEL paid Concert \$160.0 million in cash for all worldwide development and commercialization rights to VX-561. Transaction costs of \$5.1 million were also capitalised as part of the cost of the asset.

VX-561 was not available for use as clinical development is still ongoing, therefore amortisation had not commenced at the end of 2019.

b) Licenses and other intangible assets

	Cost	Accumulated impairment	Accumulated amortisation	Net book	Remainin g useful
	2019	2019	2019	value 2019	life 2019
	\$'000	\$'000	\$'000	\$'000	
UK wholesale distribution license	30,589	-	(14,030)	16,559	6 years
CRISPR Collaboration	30,000	-	-	30,000	N/A
CRISPR Co-Co	10,000	-	-	10,000	N/A
Apolo1	4,000	-	-	4,000	N/A
Q-State	800	-	-	800	N/A
Moderna	20,000	-	(20,000)	-	nil
BioAxone	6,000	(6,000)	-	•	N/A
AmorChem	10,000	(10,000)	-	-	N/A
At 31 December 2019	111,389	(16,000)	(34,030)	61,359	

CRISPR Therapeutics AG

On 26 October 2015, VPI, VPEL and CRISPR Therapeutics AG ("CRISPR") VXEU entered into a strategic collaboration, option, and license agreement with CRISPR Therapeutics AG to collaborate on the discovery and development of potential new treatments aimed at the underlying genetic causes of human diseases using CRISPR-Cas9 gene-editing technology. The Company had the exclusive right to license certain CRISPR Cas9-based targets.

In the fourth quarter of 2019, the Company paid an aggregate of \$30.0 million to exclusively license three CRISPR-Cas9-based targets, including CF, pursuant to the CRISPR Agreement. The payments were capitalised as part of intangible assets and are shown as CRISPR Collaboration in the table above. As these are still in pre-clinical trial, these have not been amortised yet.

On 12 December 2017, VPI, VPEL and CRISPR announced that the companies will co-develop and co-commercialize CTX001, an investigational gene editing treatment, as part of the companies' previously announced collaboration aimed at the discovery and development of new gene editing treatments that use the CRISPR/Cas9 technology. This is shown as CRISPR Co-Co in the table above. In order to enter into this arrangement, VPEL paid CRISPR \$7 million. In 2019, the Company paid CRISPR milestone payments totaling to \$3.0 million. These payments were capitalised as part of intangible assets.

For the year ended 31 December 2019

11. Intangible assets (continued)

b) License and other intangible assets (continued)

CTX001 represents the first gene-based treatment that VPEL exclusively licensed from CRISPR as part of the collaboration. For CTX001, CRISPR and VPEL will equally share all research and development costs and profits worldwide.

A Clinical Trial Application was submitted in 2017 for CTX001 to support the initiation of a Phase 1/2 trial in β -thalassemia in 2018 in Europe, and an Investigational New Drug (IND) Application was submitted in April 2018 to support the initiation of a Phase 1/2 trial in sickle cell disease in the U.S.

In May 2018, it was announced that the U.S. Food and Drug Administration (FDA) placed a clinical hold on the IND for CTX001 for the treatment of sickle cell disease, which was subsequently lifted in October 2018.

In January 2019, the FDA granted Fast Track Designation for CTX001 for the treatment of sickle cell disease. CTX001 is an investigational, autologous, gene-edited hematopoietic stem cell therapy for patients suffering from severe hemoglobinopathies.

ApoLo1

On June 14, 2016, the Company entered into a strategic collaboration and license agreement with ApoLo1 Bio, LLC ("ApoLo1") pursuant to which the Company and ApoLo1 will discover novel treatments for kidney disorders. ApoLo1 is an independent research organization based in Boxford, MA and was formed to provide biopharmaceutical services focused on small molecules in order to develop break-through treatments with transformative potential to address diseases and disorders, specifically for certain kidney disorders.

During the year, the Company paid milestone payments totalling to \$4 million, which were all capitalised.

The program is currently undergoing phase 1 clinical trials. Amortization begins once the asset is available for use, which would be once a product candidate has been given regulatory approval.

Q-State

On December 11, 2017, the Company entered into a collaboration and license agreement with Q-State Biosciences, Inc. ("Q-State") pursuant to which Q-State grants the Company a license to use Q-State's proprietary technology to leverage human biology and human cell-based assays for drug discovery in the field of Fragile X Syndrome (FXS). As part of the license, Q-State agrees to use its technology to perform research on behalf of the Company—i.e. the technology platform is actually not transferred to Vertex for use in-house use. During the year, the Company paid milestone payments totalling to \$0.8 million, which were all capitalised.

In the fourth quarter of 2019, Phase 1 clinical trial was completed. Phase 2 proof-of-concept clinical trial is planned to be initiated in 2020 to evaluate the reduction in protein levels with VX-147 in FSGS patients. Amortization begins once the asset is available for use, which would be once a product candidate has been given regulatory approval.

Moderna

On 1 July 2016, VPI and VPEL entered into a strategic collaboration and license agreement with Moderna Therapeutics ("Moderna"). Pursuant to the agreement, the collaboration with Moderna is aimed at the discovery and development of messenger Ribonucleic Acid ("mRNA") Therapeutics for the treatment of CF. The three-year collaboration will focus on the use of mRNA therapies to treat the underlying cause of CF by enabling cells in the lungs to produce functional copies of the cystic fibrosis transmembrane conductance regulator ("CFTR") protein, which is known to be defective in people with CF.

For the year ended 31 December 2019

11. Intangible assets (continued)

b) License and other intangible assets (continued)

VPEL paid Moderna \$20.0 million in cash as an upfront payment, which has been capitalized as an intangible asset. VPEL also made a \$20.0 million investment in Moderna in the form of a convertible note that converted into equity shares (see note 14).

Parion

On 4 June 2015, the Vertex Group entered into a strategic collaboration and license agreement with Parion Sciences, Inc ("Parion"). VPEL contributed \$48.0 million to enter the Parion Agreement. In 2016, the Company contributed a milestone payment of \$3m. This asset was reviewed for impairment in 2017 and in 2018 and as a result, was written down to nil.

In December 2019, the Company notified Parion of its intent to terminate the Agreement. The asset being already fully impaired, has been derecognized.

AmorChem

On 15 June 2016, VPEL entered into an asset purchase agreement with AmorChem L.P. ("AmorChem") to buy certain small molecule compounds for \$10.0 million. Despite extensive efforts, the Company has not identified any potential use of the molecule compounds and has terminated the works on the compounds. The provisional patent applications were not converted and have been abandoned. The investment has been fully impaired during the year.

For the year ended 31 December 2019

12. Tangible fixed assets

	Assets under construction \$'000	Short leasehold improvements	Fixtures, fittings and equipment	Total
		\$,000	\$'000	\$,000
Cost:				
At 1 January 2019	620	45,263	41,100	86,983
Additions	6,733	1,201	81	8,015
Exchange differences	-	(507)	61	(446)
Transfers	(6,455)	3,049	3,406	-
Disposals	-	(2,507)	(4,939)	(7,446)
At 31 December 2019	898	46,499	39,709	87,106
Depreciation:				
At 1 January 2019	-	24,292	27,652	51,944
Exchange differences	-	183	13	196
Charge for the year	-	3,345	4,705	8,050
Disposals	-	(2,507)	(4,811)	(7,318)
At 31 December 2019	-	25,313	27,559	52,872
Net book value:		······································	·	
At 31 December 2019	898	21,186	12,150	34,234
At 1 January 2019	620	20,971	13,448	35,039

13. Investment in subsidiaries

	2019	2018
	\$'000	\$'000
At 1 January	49,060	49,059
Additions	450,000	1
At 31 December	499,060	49,060

During 2019, the Company invested an additional \$450 (2018:\$Nil) million in Vertex Pharmaceuticals (Ireland) Limited, a 100% owned subsidiary.

Notes to the financial statements (continued) For the year ended 31 December 2019

13. Investment in subsidiaries (continued)

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

Name	Activity	Registered office	Country of registration	% Holding	Direct / Indirect
Vertex Pharmaceuticals (Ireland) Limited	Distributor of small molecular medicine	28-32 Upper Pembroke St, Dublin 2, Ireland	Republic of Ireland	100%	Direct
Vertex Pharmaceuticals (Sweden) Limited	Distributor of small molecular medicine	Torsgatan 13, 8 tr 111 23 Stockholm, Sweden	Sweden	100%	Direct
Vertex Pharmaceuticals (CH) GmbH	Distributor of small molecular medicine	Baarerstrasse 88, 6300 Zug, Switzerland	Switzerland	100%	Direct
Vertex Pharmaceuticals (Portugal) Unipessoal Lda	Distributor of small molecular medicine	Torre de Monsanto Rua Afonso Praça nº 30, 7º 1495-061 Miraflores Portugal	Portugal	100%	Direct
Vertex Pharmaceuticals GmbH	Distributor of small molecular medicine	Euro Plaza, Building H, Lehrbachgasse 13 1120 Wien, Austria	Austria	100%	Direct
Vertex Pharmaceuticals (U.K.) Limited	Non trading	2 Kingdom Street, 9th Floor, London W2 6BD	UK	100%	Direct
Vertex Pharmaceuticals Single Member Societe Anonyme	Distributor of small molecular medicine	62 Kifissias Avenue, 15124 Maroussi, Greece	Greece	100%	Direct
Vertex Pharmaceuticals (Poland) SP. Z O.O.	Sales and marketing of medical products	ul. Ludwika Warynskiego 3A 00-645 Warszawa	Poland	99%	Direct
Vertex Pharmaceuticals (International) B.V.	Non trading	Leidsevaart 20, 2013HA Haarlem, Netherlands	Netherlands	100%	Direct
Vertex Pharmaceuticals (Czech Republic) s.r.o	Distributor of small molecular medicine	Plzeňská 3350/18, Smíchov, 150 00 Prague 5	Czech Republic	100%	Direct
Vertex Farmacêutica do Brasil Ltda	Distributor of small molecular medicine	Rua Trindade, No. 125, Bloco 2, Jardim Margarida, 06730-000, Vargem Grande Paulista, São Paulo, Brazil	Brazil	99%	Indirect

For the year ended 31 December 2019

14. Other investments

	2019	2018
	\$'000	\$'000
At 1 January	167,323	94,821
Additions	-	69,902
Disposals	(94,935)	-
Realised gain on disposal of investment	65,111	-
Net gain from changes in fair value of listed equity investments	124,299	2,600
At 31 December	261,798	167,323

The financial assets at fair value through profit or loss include investments in listed equity shares. Fair values of these listed equity shares are determined by reference to published price quotations in an active market.

As at 31 December 2019, the fair value of the Company's investments in the common stock of CRISPR (a related party) and Moderna, both are publicly listed companies, were \$241.3 million and \$20.5 million, respectively.

For the year ended December 31, 2019, the Company recorded unrealised gains of \$124.3 million related to its investment in listed equity shares, which included an unrealised gain of \$117.4 million related to its investment in CRISPR and an unrealized gain of \$6.9 million related to its investment in Moderna.

During the year, the Company sold 1,418,779 shares of CRISPR's common stock resulting in a realised gain of \$65.1 million.

See Note 26 for shares sold subsequent to the year-end.

15. Inventories

	2019	2018
	\$'000	\$'000
Raw materials	26,247	9,677
Work in progress	106,998	88,317
Finished goods	1,043	7,881
	134,288	105,875

Inventories are presented at the lower of cost or net realisable value.

Notes to the financial statements (continued) For the year ended 31 December 2019

16. Debtors

	\$,000	
	\$ 000	\$'000
Amounts falling due within one year:		
Trade debtors	60,737	39,092
Amounts owed by group companies	204,756	104,356
Other debtors	13,856	2,345
Prepayments and accrued income	6,446	56,983
	285,795	202,776
Amounts falling due after more than one year:		
Prepayments and accrued income	3,204	3,364
Other debtors	-	1,647
	3,204	5,011

The amounts due from group companies were subject to variable interest rates ranging from 1.84% p.a. to 2.80% p.a. (1.52% p.a to 2.51% p.a. in 2018), are unsecured and repayable on demand.

For the year ended 31 December 2019

17. Creditors: amounts falling due within one year

	2019	2018
	\$'000	\$'000
Trade creditors	9,458	25,438
Contract liabilities	6,207	2,734
Other taxation and social security costs	14,209	6,638
Accruals	48,183	26,678
Lease liabilities (see note 19)	4,879	-
Amounts owed to group companies	1,135,388	910,366
Promissory note with Vertex Pharmaceuticals (France) SAS	263,429	104,850
Promissory note with Vertex Pharmaceuticals Incorporated	105,509	105,480
Promissory note with Vertex Pharmaceuticals (Netherlands) B.V.	48,376	46,410
Promissory note with Vertex Pharmaceuticals (Italy) S.r.L.	72,360	12,601
Promissory note with Vertex Pharmaceuticals (U.K.) Limited	38,136	41,309
Promissory note with Vertex Pharmaceuticals (Germany) GmbH	8,412	-
	1,754,546	1,282,504

The amounts due to group companies were subject to variable interest rates ranging from 1.84% p.a to 2.8% p.a. (1.52% p.a to 2.51% p.a. in 2018), are unsecured and repayable on demand.

The promissory notes are made up of the following amounts:

- The £234.7 million (2018: £91.5) intercompany promissory note with Vertex Pharmaceuticals (France) SAS is inclusive of accrued interest and is subject to a 0.25% per annum interest charge. The balance of this note together with any accrued interest is due and repayable on demand.
- The promissory notes owing to Vertex Pharmaceuticals Incorporated totalling \$105.5 million (2018: \$105.5 million) consists of the following:
 - \$75.4 million promissory note relating to an upfront payment to CRISPR. Interest is payable at 1.84% per annum and the balance of this note together with any accrued interest is due and repayable on demand.
 - \$30.1 million promissory note relating to the investment in CRISPR. Interest is payable at 1.75% per annum and the balance of this note together with any accrued interest is due and repayable on demand
- The intercompany promissory notes owing to Vertex Pharmaceuticals (Netherlands) B.V totalling to €43.2 million (2018: €40.5) are inclusive of accrued interest and are subject to a 0.25% per annum interest charge. The balances of these notes together with any accrued interest are due and repayable on demand.
- The intercompany promissory note owing to Vertex Pharmaceuticals (Italy) S.r.L. totalling to €64.6 million (2018: €11.0) is inclusive of accrued interest and is subject to a 0.25% per annum interest charge. The balance of this note together with any accrued interest is due and repayable on demand.
- The \$38.1 million (2018: \$41.3 million) intercompany promissory note with Vertex Pharmaceuticals (U.K.) Limited is inclusive of accrued interest and is subject to a 1.89% per annum interest charge. The balance of this note together with any accrued interest is due and repayable on demand.
- During the year, the Company entered into an intercompany loan agreement with Vertex Pharmaceuticals (Germany) GmbH. The total intercompany loan balance of €7.5 million is inclusive of accrued interest and is subject to a 0.25% per annum interest charge. The balance of this note together with any accrued interest are due and repayable on demand.

For the year ended 31 December 2019

18. Provisions for liabilities

	Deferred tax liability (Note 10 (d))	National Insurance on share option gains	Property dilapidation	Total
	\$'000	\$'000	\$'000	\$'000
At 1 January 2019	-	5,747	7,550	13,297
Increase	-	5,640	456	6,096
Utilised	-	(4,121)	-	(4,121)
Interest accretion	-	•	113	113
At 31 December 2019	•	7,266	8,119	15,385

National insurance on share option gains

Provision has been made for National Insurance contributions on those options awarded under unapproved share options schemes which are expected to be exercised. The amount of National Insurance payable depends upon the number of employees who remain with the Company and exercise their options, the market price of the VPI shares at the time of exercise and the prevailing National Insurance rates at the time. The provision takes into account the above factors and the movements in the market value of the VPI shares to 31 December 2019.

Under the additional restricted share scheme employees are granted restricted shares in VPI. These shares vest to the employee on an annual basis over a fixed period, where upon cessation of employment, the employee forfeits any unvested shares. For the restricted share scheme, the Company is liable to pay National Insurance on the market value at the time the shares vest to the employee unless the employee has elected to pay taxation and National Insurance at the date the shares are granted in which case the employers' National Insurance is liable at this date. Potential National Insurance on these share-based payments was also included in the provision.

Property dilapidation

The dilapidations provision is based on the future expected repair costs required to restore the leased properties to their original condition at the end of their respective lease terms.

The Oxford Research Centre leases were renegotiated in September 2014 and contractual amounts are due to be incurred at the end of the lease terms in 2024. The Company recorded a dilapidation provision of approximately \$5.0 million in 2018 as its present value of its initial estimate for this location.

In February 2015, the Company entered into a lease assignment with a third party to take over the third party's leased space at 2 Kingdom Street, London. The Company recorded a dilapidation provision of approximately \$1.6 million in 2018 as the present value of its initial estimate for this location.

In August 2017, the Company leased an office space at 4 Kingdom Street, London. The Company recorded a dilapidation provision of approximately \$1.2 million in 2018 as the present value of its initial estimate for this location.

For the year ended 31 December 2019

19. Leases

The Company has lease contracts in relation to its offices and research facilities. These leases have terms between 10 to 15 years.

Set out below are the carrying amounts of right-of-use assets recognised and movements during the year:

	2019	2018
	\$'000	\$'000
At 1 January (see note 2)	28,815	-
Depreciation expense	(3,412)	-
Exchange differences	(22)	-
At 31 December	25,381	-

	2019	2018
	\$'000	\$'000
At 1 January (see note 2)	35,411	-
Accretion of interest	1,307	-
Payments	(4,243)	-
Exchange differences	874	-
At 31 December	33,349	-

Current (see note 17)	4,879	-
Non-current	28,470	-
	33,349	-

During the year, total amortisation of the right-of-use assets amounting to \$1.1 million and \$2.3 million were charged to the research and development expenditure and administrative expenses, respectively.

The Company had a total cash outflows for these leases of \$4.2 million. The future cash outflows relating to these leases are disclosed in note 23.

20. Called up share capital

	2019	2019	2018
	No.	\$'000	\$'000
Allotted, called up and fully paid			
Shares in issue at 1 January	128,000	201	201
Ordinary shares of \$1.57 (£1) each at 31 December	128,000	201	201

The authorised share capital is 250,000 (2018: 250,000) ordinary shares of £1 each.

For the year ended 31 December 2019

21. Share premium account

The share premium account records the amount above the nominal value received for shares issued, less transaction costs. In accordance with Section 610 of the Companies Act 2006, the share premium account is not distributable but can be used to write-off the expenses of the issue of those shares; to write off any commissions paid on the issue of those shares; or to pay up new shares to be allotted to members as fully paid bonus shares.

22. Pensions

The Company operates a defined contribution pension scheme for its employees. Contributions for the year ended 31 December 2019 amounted to \$2.8 million (2018 – \$2.3 million). Outstanding contributions at 31 December 2019 were \$0.8 million (2018 – \$0.3 million). This amount is included within accruals.

23. Other financial commitments

At 31 December 2019 the Company had annual commitments under non-cancellable operating leases as set out below:

	2019	2018
	Land and buildings \$'000	Land and buildings \$'000
Future minimum lease payments due:		
Within one year	5,199	4,207
In two to five years	20,625	20,290
Over five years	13,254	17,475
	39,078	41,972

Other commitments

Collaborations

The Company has various ongoing collaborations arrangements with development partners. Such collaborations may require the Company to make payments on achievement of stages of development, launch or revenue milestones. Note 3(x) outlines the accounting policy for such arrangements.

The table below indicates potential development payments that the Group may be required to make under such collaborations.

	Within one year	In two to five years	Over five years	Total
	\$'000	\$'000	\$'000	\$'000
Future milestone payments	74,067	366,080	200,000	640,147

The table includes all potential payments based on our current timeline for achievement of development and regulatory milestones under ongoing arrangements.

The table excludes any payments already capitalised for the year ended 31 December 2019, and any royalties and commercial milestones based on future net product sales. The future payments we disclose represent contracted payments and, as such, are not discounted and are not risk adjusted.

The development of any pharmaceutical product candidate is a complex and risky process that may fail at any stage in the development process due to a number of factors (including items such as failure to obtain regulatory approval, unfavourable data from key studies, adverse reactions to the product candidate or indications of other safety concerns). The timing of the payments is based on the Company's current best estimate of achievement of the relevant milestone.

For the year ended 31 December 2019

23. Other financial commitments (continued)

Asset purchase - Concert Pharmaceuticals

On 6 March 2017, it was announced that VPEL and VPI had signed a definitive asset purchase agreement to acquire CTP-656 (renamed VX-561) from Concert Pharmaceuticals. VX-561 is an investigational CFTR potentiator that has the potential to be used as part of future once-daily combination regimens of CFTR modulators that treat the underlying cause of CF.

The asset purchase agreement was completed on 25 July 2017. As part of the agreement, VPEL paid Concert \$160.0 million in cash for all worldwide development and commercialization rights to VX-561. If VX-561 is approved as part of a combination regimen to treat CF, Concert could receive up to an additional \$90.0 million in milestones based on regulatory approval in the U.S. and reimbursement in the UK, Germany or France.

24. Share-based payments

The Company's employees participated in four group share based payment schemes which have been described below.

Employee share purchase plan ("ESPP")

The parent undertaking operates an employee share purchase plan, where all Company employees have the opportunity to save between 1-15% of their gross monthly salary, the sum of which is used to purchase shares at six monthly intervals, May and November, at a discounted price. The share price of the purchase is calculated at a 15% discount on the lower of the average daily rate of the anchor price and the purchase date price.

Stock options

The parent undertaking awards equity-settled stock options to company employees at the discretion of the compensation committee, managed by the ultimate parent. The options vest on a quarterly basis for a period of 4 years. An employee has 90 days upon leaving the Company to exercise vested options.

The following shows the number and weighted average exercise prices (WAEP) of share options exercised during the year:

	2019	2019	2018	2018
		WAEP		WAEP
	No.	\$	No.	\$
Exercised	140,907	114.31	151,997	98.75

The range of exercise prices for share options outstanding at the end of the year were:

	Ť.	2019	2018 No.
		No.	
\$18.93 - \$44.99		6,826	11,828
\$45.11 - \$96.87		57,611	135,840
\$109.14 - \$131.89		7,843	47,012
\$155.57 and over	•	205,559	191,599
Outstanding at 31 December		277,839	386,279

The weighted average remaining contractual life for options outstanding at the end of the year was 7.39 years (2018 – 6.73 years).

For the year ended 31 December 2019

24. Share-based payments (continued)

Restricted share awards

The parent undertaking awards equity settled restricted shares to company employees at the discretion of the compensation committee, managed by the ultimate parent. These shares vest on an annual basis over a period of 3 to 4 years. Restricted share awards are valued at the daily average of the high and low market price ruling at the date of grant.

Performance accelerated restricted shares ("PARS")

The parent undertaking awards equity settled PARS to eligible members of the global Senior Management team based in the UK. These shares are awarded at the discretion of the compensation committee, managed by the ultimate parent. These shares cliff vest after 4 years. However, the vesting of these shares may be accelerated based on the achievement of certain financial performance indicators and non-financial performance indicators relating to clinical and commercial milestones.

The total expense recognised for share-based payments in respect of employee services received during the year to 31 December 2019 is \$25.9 million (2018: \$23.0 million). The expense is split between each scheme as follows:

•	2019	2018
	\$'000	\$'000
ESPP Employee share purchase plan	879	692
Stock options	5,257	6,524
Restricted share awards	19,795	15,352
PARS Performance accelerated restricted shares	12	431
	25,943	22,999

25. Ultimate parent undertaking and controlling party

The immediate parent undertaking is Vertex Pharmaceuticals (Cayman) Limited.

The Directors consider the ultimate controlling party is Vertex Pharmaceuticals Incorporated, a company incorporated in the United States of America. This entity heads the smallest and largest group in which the results of the Company are consolidated. Copies of the parent's group financial statements may be obtained from The Secretary, Vertex Pharmaceuticals Incorporated, 50 Northern Avenue, Boston, Massachusetts, USA.

For the year ended 31 December 2019

26. Subsequent events

a) Listed Equity Investments

Subsequent to the year-end, the Company disposed of listed equity investments classified as a financial asset at fair value through profit or loss (see Note 14). The Company received proceeds of \$127.8 million related to the disposal of the common stock of publicly traded companies, resulting in a realised gain of \$81.0 million.

b) Intellectual Property

The Company approved the acquisition of the ex-North America Intellectual Property rights for the next generation of Vertex's Cystic Fibrosis medicines from a Group affiliate in April 2020. The intellectual property has been valued at \$1.1 billion and will be recorded in Intangible Assets in 2020. Once market approval is gained, the asset will be amortised on a straight-line basis over the remaining patent life period.

c) COVID-19

The challenges facing the world with the spread of COVID-19 are significant, but it is important for the medical and patient community to know that the Directors remain highly confident in the group's ability to continue to supply all medicines uninterrupted to patients who rely on them, well into the future. Vertex has constructed supply chains for its marketed medicines to ensure readiness for a wide variety of contingencies. Vertex has built significant safety stock into its supply chain to manage potential disruptions, and also has secured second source suppliers that are geographically diverse. The Directors have considered the risks to the Company resulting from COVID-19 and have determined that the Company is well-prepared from a business continuity perspective.

There is no disruption in activity of the Company's group affiliates and therefore no indication of an adverse impact on the future sales of the Company or any indicators of impairment of the Company's investment in subsidiaries post balance sheet date.