EDISON

Quantum Genomics

Strategic update

Accelerating timelines

Pharma & biotech

Quantum Genomics made a number of announcements when it presented its three-year strategic plan on 19 April 2018. Importantly, it is accelerating both its hypertension and heart failure programmes. The NEW-HOPE study in 250 hypertensive overweight patients is expected to complete patient dosing by the end of the year (previously Q119). It is also moving forward with the Phase IIb trial in heart failure without waiting for the final results due to the safety data seen so far and positive results in recent animal studies. The study is expected to launch in Q418 with results expected in H220.

Year end	Revenue (€m)	PBT* (€m)	EPS* (€)	DPS (€)	P/E (x)	Yield (%)
12/16	0.0	(6.2)	(0.60)	0.0	N/A	N/A
12/17	0.0	(10.3)	(0.93)	0.0	N/A	N/A
12/18e	0.0	(11.4)	(0.73)	0.0	N/A	N/A
12/19e	0.0	(16.2)	(1.00)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

NEW-HOPE enrolling faster than expected

In November, Quantum Genomics announced that it had recruited the first patients into the NEW-HOPE trial in 250 hypertensive overweight patients across 25 major US hospitals, with a primary endpoint of change from baseline in office systolic blood pressure (SBP) at week eight. Recruitment is outpacing internal projections and it now believes it can complete patient dosing by the end of 2018 (previously Q119). We now expect data in Q119 (previously H119).

Moving forward with Phase IIb in heart failure

The company will move forward with the Phase IIb in heart failure without waiting for the final results of its Phase IIa trial (QUID-HF) due to the safety data seen so far in humans and positive results from recent animal studies. The trial will include a larger number of patients with heart failure following myocardial infarction. Additional details on the trial design are expected in June.

A new CEO

Earlier in April, the company announced that it is separating the chairman and CEO positions, so Jean-Philippe Milon, who had been the part-time COO, now becomes CEO. Lionel Segard remains as chairman. The new CEO brings over three decades of experience in the biopharmaceutical industry, most notably as president of global licensing and M&A at Bayer Pharmaceuticals. This experience is especially key as Quantum Genomics expects to sign a strategic partnership or licence agreement within the next 24 months.

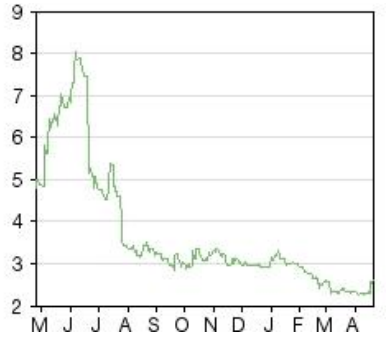
Valuation: €201m or €18.31 per share

We are maintaining our valuation of €201m or €18.31 per share as we have not changed our estimates following these announcements. We may revisit our valuation following data from the QUID-HF and NEW-HOPE trials.

23 April 2018

Price	**€2.60**
Market cap	**€29m**
Net cash (€m) at 31 December 2017	11.1
Shares in issue	11.0m
Free float	84.3%
Code	ALQGC
Primary exchange	Euronext Paris
Secondary exchange	OTCQX

Share price performance



%	1m	3m	12m
Abs	8.6	(13.3)	(43.4)
Rel (local)	5.6	(11.5)	(47.3)
52-week high/low		€8.1	€2.3

Business description

Quantum Genomics is a biopharmaceutical company developing QGC001, a brain aminopeptidase A inhibitor for the treatment of hypertension and heart failure. Its mechanism is implicated in the 25% of patients resistant to treatment.

Next events

Initiation of Phase IIb heart failure study	Q418
NEW-HOPE data	Q119

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Faster development

Quantum Genomics has announced that the NEW-HOPE trial is enrolling very rapidly, exceeding its expectations, with completion of patient dosing expected by the end of 2018 so that we now expect data in Q119 (previously H119). We view this as a positive sign as it is typically a signal of physician confidence in a therapy. As a reminder, the NEW-HOPE trial is on 250 hypertensive overweight (BMI 25-45kg/m^2) patients, with a primary endpoint of change from baseline in office SBP at week eight. SBP at screening will have to be 145-170mmHg if previously untreated, or 130-150mmHg if treated. Following a two-week, run-in period in which there would be no treatment, SBP would need to be 145-170mmHg. Patients will start off on 250mg twice a day (BID) for two weeks and then either continue at that dose or increase to 500mg BID for another two weeks. Following that, patients would either be on 250mg BID, 500mg BID or 500mg BID with 25mg of hydrochlorothiazide (HCT), an often-used diuretic, added in.

The company expects that at least 50% of patients will be self-identified as African American or Hispanic. African Americans have a higher prevalence of hypertension compared to other groups, but also, along with Hispanics, are less likely to have their hypertension under control compared to their white counterparts.

Quantum Genomics also announced that it is moving forward with the Phase IIb in heart failure without waiting for the final results of its 75-patient Phase IIa trial (QUID-HF) due to the safety data seen so far in humans and positive results from recent animal studies. The trial will include a larger number of patients with heart failure following myocardial infarction. Additional details on the trial design are expected in June.

Other announcements include that the World Health Organization has approved the generic name for QGC001, which is now firibastat. Also, the company is working on developing a controlled-release version of firibastat, which would allow for once-daily dosing (currently, it is twice daily) and make the product more attractive for potential partners and patients. It intends to start a clinical trial of that formulation in healthy volunteers to assess pharmacokinetics by the end of the year.

Finally, earlier in April, the company announced that it is separating the chairman and CEO positions, so Jean-Philippe Milon, who had been the part-time COO, now becomes CEO. Lionel Segard remains as chairman. The new CEO brings over three decades of experience in the biopharmaceutical industry, most notably as president of global licensing and M&A at Bayer Pharmaceuticals (other positions at Bayer include president of general medicine, SVP of global strategic marketing and president of Bayer Healthcare, France). This experience is especially key as Quantum Genomics expects to sign a strategic partnership or licence agreement within the next 24 months.

Valuation

We are maintaining our valuation of €201m or €18.31 per share as we have not changed our estimates following these announcements. We may revisit our valuation following data from the QUID-HF and NEW-HOPE trials.

Exhibit 1: Quantum Genomics valuation table

Product	Main Indication	Local	Status	Probability of success	Launch year	Peak sales ($m)	Patent protection	rNPV
Firibastat (QGC001)	Hypertension	US	Phase II	15%	2023	$1,110	2031	€118.27
Firibastat (QGC001)	Hypertension	Europe	Phase II	15%	2023	$959	2031	€100.33
Firibastat (QGC001)	Development costs							(€124.76)
Firibastat (QGC001)	Heart failure	US	Phase IIa	15%	2023	$574	2031	€75.27
Firibastat (QGC001)	Heart failure	Europe	Phase IIa	15%	2023	$687	2031	€89.31
Firibastat (QGC001)	Development costs							(€68.31)
Total								€190.10
Cash and cash equivalents (31 December 2017) (€m)								€11.09
Total firm value (€m)								€201.19
Total shares (m)								10.99
Value per basic share (€m)								€18.31

Source: Edison Investment Research

Financials

Quantum ended 2017 with €11.1m in cash and investments. In March, it announced an equity line of credit with Kepler Cheuvreux, which could raise €24m over three years in four tranches. The initial tranche of €6m does not require shareholder approval, but the final three will be subject to a vote at the next meeting of shareholders later this year (in 2017, the shareholder meeting occurred in June). The company has stated it believes that if the equity line is approved by shareholders, it would be funded through the end of 2020. This will be somewhat dependent on whether additional trials are conducted by the company or a partner. As late-stage cardiovascular trials are extremely expensive to conduct, we expect further development (such as Phase III trials) to be financed via a partnership.

Exhibit 2: Financial summary

€000s	2016	2017	2018e	2019e
Year end 31 December	PCG	PCG	PCG	PCG
PROFIT & LOSS				
Revenue	0	0	0	0
Cost of Sales	0	0	0	0
Gross Profit	0	0	0	0
EBITDA	(6,216)	(10,292)	(10,948)	(14,792)
Operating Profit (before amort. and except.)	(6,216)	(10,292)	(10,948)	(14,792)
Intangible Amortisation	0	0	0	0
Other	1	0	0	0
Exceptionals	0	0	0	0
Operating Profit	(6,216)	(10,292)	(10,948)	(14,792)
Net Interest	0	0	(481)	(1,440)
Other	18	(176)	0	0
Profit Before Tax (norm)	(6,216)	(10,292)	(11,429)	(16,232)
Profit Before Tax (FRS 3)	(6,198)	(10,468)	(11,429)	(16,232)
Tax	958	1,150	1,486	2,110
Deferred tax	0	0	0	0
Profit After Tax (norm)	(5,258)	(9,142)	(9,943)	(14,122)
Profit After Tax (FRS 3)	(5,240)	(9,318)	(9,943)	(14,122)
Average Number of Shares Outstanding (m)	8.7	9.9	13.6	14.1
EPS - normalised (c)	(59.79)	(92.81)	(73.20)	(99.97)
EPS - FRS 3 (€)	(0.60)	(0.95)	(0.73)	(1.00)
Dividend per share (c)	0.0	0.0	0.0	0.0
BALANCE SHEET				
Fixed Assets	701	439	434	431
Intangible Assets	142	91	91	91
Tangible Assets	60	52	48	44
Other	500	296	296	296
Current Assets	13,809	13,478	15,540	13,422
Stocks	1,011	189	189	189
Debtors	1,599	2,197	2,197	2,197
Cash	11,198	11,089	13,151	11,033
Other	1	3	3	3
Current Liabilities	(3,481)	(4,572)	(4,572)	(4,572)
Creditors	(3,480)	(4,571)	(4,571)	(4,571)
Short term borrowings	(1)	(1)	(1)	(1)
Long Term Liabilities	(506)	(474)	(6,474)	(18,474)
Long term borrowings	(18)	(19)	(6,019)	(18,019)
Other long term liabilities	(488)	(454)	(454)	(454)
Net Assets	10,524	8,871	4,929	(9,193)
CASH FLOW				
Operating Cash Flow	(5,531)	(7,977)	(9,931)	(14,110)
Net Interest	0	0	0	0
Tax	0	0	0	0
Capex	(66)	32	(8)	(8)
Acquisitions/disposals	0	0	0	0
Financing	7,744	7,733	6,000	0
Dividends	0	0	0	0
Other	399	104	0	0
Net Cash Flow	2,546	(108)	(3,939)	(14,118)
Opening net debt/(cash)	(8,573)	(11,179)	(11,069)	(7,131)
HP finance leases initiated	0	0	0	0
Exchange rate movements	0	0	0	0
Other	60	-2	0	0
Closing net debt/(cash)	(11,179)	(11,069)	(7,130)	6,988

Source: Quantum Genomics accounts, Edison Investment Research. Note: We assume €24m additional financing, the amount of the equity credit line, €18m of which is shown as debt for the purpose of our model.

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