

## Analyst Report

Coverage initiated on November 4<sup>th</sup>, 2014

Aurgalys is contracted by Quantum Genomics to provide equity research

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# Quantum Genomics

Alternext: ALQGC [FR0011648971]

October 12<sup>th</sup>, 2015

**Estimated price:** €12.66

Share price (€) 8.87

(as of Oct. 12<sup>th</sup>, 2015)

High/Low (€) 14.27/5.37

(since Jan. 1<sup>st</sup>, 2015)

Market Cap. (€M) 61.4

(as of Oct. 12<sup>th</sup>, 2015)

Estimated Net Cash 9.7

(€M)

Estimated Market Cap. 86.2

(€M)

Number of shares (M) 6.93

Estimated price (€) 12.66

3-month average daily 35,000

volume

Free Float 43.2%

## Quantum gets first positive DSMB with QGC001 in hypertension

Quantum Genomics, a French biopharmaceutical company developing cutting-edge drugs in the field of cardiovascular diseases, received the first positive recommendation from the Data Safety Monitoring Board (DSMB) to continue QGC001's phase 2a trial in hypertension. QGC001 is a first-in-class drug candidate addressing resistant hypertension, a serious condition affecting 100 to 150 million people worldwide, for which there is currently no effective drug. According to the World Health Organization, out of the 17 million cardiovascular-related deaths worldwide, this disease accounted for almost 10 million deaths in 2013. This positive recommendation by DSMB allows the company to pursue the development of this drug while preparing the launch of a second clinical program in congestive heart failure in mid-2016. Moreover, Quantum Genomics' partner in animal health could exercise an option to licence QGC101 for the treatment of heart failure in dogs by the end of the year, under terms that have yet to be negotiated.

### QGC001 ahead on schedule

Quantum Genomics' lead drug candidate QGC001 is a Brain Amino Peptidase Inhibitor (BAPAI), a new class of centrally active molecules that have promising potential to treat cardiovascular diseases, especially hypertension and heart failure. Early this year, Quantum Genomics initiated a phase 2a crossover double blind and randomized study on approximately 30 hypertensive patients, aiming to demonstrate the efficacy of QGC001 in controlling blood pressure compared to placebo. Other secondary parameters such as the pharmacodynamics profile of the drug as well as several hormonal biomarkers will also be evaluated. Last September, the company announced that half of the patients had been recruited, ahead of schedule.

The Data Monitoring Safety Board (DSMB), a panel of independent experts in charge of evaluating patient safety during the study, decided, in light of current data, that the Phase 2a study should continue as planned without any changes in the protocol. This was the first time that the DSMB committee evaluated the study. The positive recommendation, as well as the rapid patient enrolment, are good news for Quantum Genomics and allow them to stay on the schedule announced in this study. Primary

results are expected at the end of 2016. Should they be successful, Quantum Genomics would be in position to licence the drug to a major pharmaceutical company, which will take care of future developments and marketing.

Large pharmaceutical companies, in order to overcome the pending expiration of their major patents in this therapeutic area, as well as coping with the approval of a growing number of generic drugs, are actively seeking new products that will drive future growth. If Quantum Genomics demonstrates that QGCOO1 is effective in controlling blood pressure, the drug candidate could be a serious partnership candidate for large pharmaceutical companies, and could have the sales potential of a blockbuster drug.

### **Upcoming clinical program in heart failure with potential upside in animal health**

Quantum Genomics announced it would launch a new clinical program in 2016 in congestive heart failure (CHF), a serious condition in which the heart is unable to pump a sufficient volume of blood to fulfil the body's requirements. According to the European Society of Cardiology, CHF is one of the leading causes of death among all cardiovascular diseases affecting 1-2% of adults in developed countries, and up to 10% in people over 70 years old. The disease is also a strong growing economic burden, with associated costs estimated to reach \$51B by 2030, in the US alone.

Initially planned in 2017, Quantum Genomics announced it would initiate the heart failure program in mid-2016, thanks to promising preclinical results. The company announced positive preclinical results for QGC101 (which is QGCOO1 name for the heart failure program) in June 2015, which successfully demonstrated that the drug was improving the cardiac ejection fraction in dogs with heart failure after 28 days of treatment. Following these results, the company decided to accelerate the development of the drug on this indication and intends to confirm these results on human patients. Since the drug already demonstrated its good safety and tolerance profile in healthy human volunteers, QGC101 could directly enter Phase 2a clinical trials. The study should last 2 years and the company's strategy is also to licence the drug to a major pharmaceutical company, after completing the phase 2a study.

The preclinical studies were performed by Quantum Genomics' partner, a world leader in animal health, in order to assess QGC101's potential in animal heart failure. According to their agreement, the partner has 6 months after obtaining these preclinical results, to exercise an option to further develop the drug in animal heart failure. Should the option be exercised, Quantum Genomics' could receive milestone payments and royalties on sales under licencing terms that have yet to be negotiated. We believe that QGC101 could reach the market in animal health in 2 to 3 years.

Euronext since Jan. 1<sup>st</sup>, 2015

<b>Quantum Genomics</b>	<b>+55.6%</b>
Alys France*	+8.4%
Next Biotech	+23.2%
CAC Pharma.&Bio.	+14.9%
CAC 40	+9.7%
CAC Small	+19.9%

\* Index of French smallcaps (less than €1B market capitalization at time of inclusion) in the healthcare and life sciences sector, listed on Euronext Paris.

See <http://www.aurgalys.com/aurgalys-indices>

## Valuation

We maintain our valuation of the company with a target price of €12.66/share. However, with the pending option in the field of animal health, our valuation could be adjusted depending on the licensing terms, that Quantum Genomics has yet to negotiate.

## Upcoming news flow

- Q4-2015: Potential agreement with a large pharmaceutical player in the field of animal health in heart failure
- Q3-2016: Launch of Phase 2a study with QGC101 in Congestive heart failure
- Q4-2016: End of Phase 2a clinical trial with QGC 001 in Hypertension

## Stock Performance

Since the beginning of 2015, Quantum Geomics' shares have gained 55.6%. In June 2015, Quantum's shares went up 57%, probably in anticipation of the preclinical heart failure results that were obtained at the end of that month. However, the company's stock was affected by the difficult macroeconomic context (Greek debt crisis, the slowdown of the Chinese economy which triggered the market sell-off in August). Moreover, market indices of Biotech stocks have recently plummeted following increasing pressure from the American Congress, regarding high drug pricing in the US. For instance, Turing Pharmaceuticals increased the price of one of its drugs by 5,000 percent, while Valeant Pharmaceuticals has allegedly followed the same policy with two recently acquired drugs. The Nasdaq Biotech index wiped out its gains for 2015 and lost 15.2% in the second half of September. European stocks were also impacted with the Next Biotech index losing 12.6% and Alys France losing 9.4% over the same period.

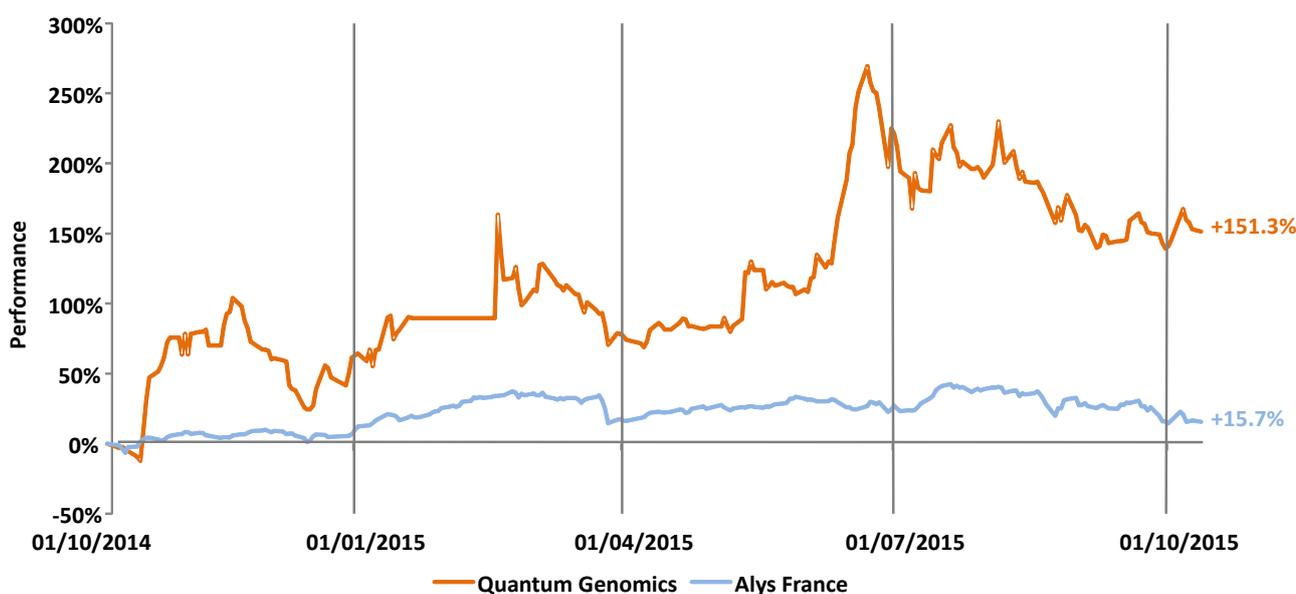


Figure 1. Quantum Genomics' one-year stock performance as of October 12<sup>th</sup>, 2015, compared to other French smallcaps of the healthcare and life sciences sector (Alys France Index)

## Financial Data

EARNING PER SHARE €				
	2013	2014	2015e	2016e
EPS	-0,38	-0,46	-0,57	-0,81
EPS (Diluted)	-0,33	-0,40	-0,52	-0,75

INCOME STATEMENT €M				
	2013	2014	2015e	2016e
<b>Revenue</b>	<b>0,0</b>	<b>0,3</b>	<b>0,2</b>	<b>0,2</b>
EBITDA	-1,9	-2,4	-4,6	-6,8
EBIT	-1,9	-2,5	-4,7	-6,8
<b>Net Income</b>	<b>-1,5</b>	<b>-2,2</b>	<b>-4,0</b>	<b>-5,6</b>

CASH FLOW STATEMENT €M				
	2013	2014	2015e	2016e
Net Income	-1,5	-2,2	-4,0	-5,6
Cash Flow from operation activities	-1,0	-2,8	-3,6	-4,5
Cash Flow from investing activities	-0,1	-0,4	-0,2	-0,3
Cash Flow from financing activities	1,4	6,1	9,9	-0,1
<b>Change in cash</b>	<b>0,3</b>	<b>2,9</b>	<b>6,2</b>	<b>-4,9</b>

BALANCE SHEET €M				
	2013	2014	2015e	2016e
<b>ASSET</b>				
Non current assets	0,5	0,6	0,6	0,8
Current assets	1,1	4,1	10,3	5,4
Including cash and equivalent	0,3	3,3	9,5	4,5
<b>Total Asset</b>	<b>1,7</b>	<b>4,8</b>	<b>10,9</b>	<b>6,2</b>
<b>LIABILITIES AND SHAREHOLDER'S EQUITY</b>				
Total Equity	-1,6	-0,1	8,8	3,2
Total Liabilities	3,3	4,9	2,1	3,1
<b>Total Liabilities and shareholder's Equity</b>	<b>1,7</b>	<b>4,8</b>	<b>10,9</b>	<b>6,2</b>

## Résumé en français

Quantum Genomics, société biopharmaceutique française développant des médicaments contre les maladies cardio-vasculaires, a reçu une première recommandation positive du Data Safety Monitoring Board (DSMB) pour poursuivre l'étude de phase 2a du QGCOO1 dans l'hypertension. QGCOO1 est une molécule first-in-class destinée aux personnes souffrant d'hypertension résistante, une affection sévère qui touche 100 à 150 millions de personnes dans le monde et pour laquelle aucun traitement n'est efficace. QGCOO1 est la molécule la plus avancée de la famille des Brain Amino Peptidase Inhibitors (BAPAI), une nouvelle classe de molécules ciblant le système Rénine-Angiotensine du cerveau, et qui présente un fort potentiel pour les maladies cardiovasculaires, notamment l'hypertension et l'insuffisance cardiaque.

Quantum Genomic a démarré début 2015, une étude de phase 2a, en double aveugle, randomisée, contre placebo, visant à démontrer l'efficacité de cette molécule sur une trentaine de patients hypertendus. En septembre dernier, la société a annoncé que la moitié des patients avait été recrutée, en avance sur le planning initial. A présent, la société vient de recevoir un premier avis positif du DSMB, qui au regard des données obtenues, recommande la poursuite de l'essai en cours, sans aucune modification du protocole. Pour rappel, le DSMB est un comité d'experts indépendants ayant pour mission d'évaluer le déroulement des études cliniques afin de s'assurer qu'elles ne présentent aucun danger pour les patients. C'est un signal encourageant pour la société, qui en plus de la bonne avancée du recrutement, lui permet de maintenir son agenda de développement sur ce produit.

Parallèlement Quantum Genomics a annoncé qu'elle démarrerait en 2016, un second programme clinique pour évaluer l'efficacité de son médicament dans l'insuffisance cardiaque. Initialement prévue en 2017, cette étude clinique a été avancée à mi-2016, suite à des résultats précliniques prometteurs où le médicament a démontré qu'il était capable d'améliorer la fraction d'éjection chez des chiens insuffisants cardiaques après 28 jours de traitement. Par ailleurs, précisons que cette étude a été réalisée par le partenaire de Quantum Genomics, un acteur majeur en santé animale. Suite à ces bons résultats et conformément à leur accord, le partenaire dispose de 6 mois (soit jusqu'à la fin de l'année) à compter de la date de publication de ces résultats pour décider ou non de lever l'option lui permettant de poursuivre le développement du médicament en santé animale. Auquel cas, il devra négocier les termes d'un accord de licence avec Quantum Genomics.

Nous maintenons notre valorisation de la société, avec un objectif de cours de 12,66€/action. Cependant, compte tenu de l'option qui pourrait être levée d'ici la fin de l'année avec le partenaire de Quantum Genomics pour développer le médicament en santé animale, cette valorisation pourrait être amenée à évoluer en fonction des termes de l'accord de licence.

## Notes

## Notes

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## About Aurgalys indices

Aurgalys launched on October 2013, the Alys France index measuring the performance of the 59 French smallcap companies (less than €1B of market capitalization) listed on Euronext/Alternext Paris. Four other indices also measure the performance of companies dedicated to the development of therapeutic molecules (Alys Therapeutics), diagnostic tests (Alys Diagnostics), medical devices (Alys Medtech) and Greentech (Alys Greentech). You can find our reports on our website at <http://www.aurgalys.com/aurgalys-indices>



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