# LETTER TO OUR SHAREHOLDERS



Vector of innovation.



## **CONTENTS**

MESSAGE FROM CHAIRMAN - p3

ONCODESIGN: stock price comfortably outperforms

the biotech sector - p4

PARKINSON'S DISEASE: growing prevalence and continued

significant medical need - p6

LATEST NEWS - p10
BROKERS' RATING - p10
CALENDAR AND KEY FIGURES - p11
ONCODESIGN AT A GLANCE - p12



#### MESSAGE FROM THE CHAIRMAN

Philippe Genne, Chairman and CEO



Tough times indeed for a small cap listed on the Paris Euronext Growth market.

Sale temps pour les mouches ! (title of a film based on a novel by Frédéric Dard)

This title, meaning here "Small is not beautiful", may not mean much to some of our shareholders, but will be instantly recognized by those of you who, like me, enjoyed reading Frédéric Dard's hilarious crime novels featuring the detective San Antonio, written in the second half of the 1900s.

But it pretty well describes the stock market climate at the moment. Tough times indeed for a small cap listed on the Paris Euronext Growth market. What have we done to deserve such a markdown in value? Why is Oncodesign so different from the US healthcare companies?

In this turbulent stock market environment, what have we done to deserve relegation to the ranks of the minnows?

Intrinsically, what can possibly justify such a difference in market value between a US biotech and a French biotech? The quality of the people? The technology? Corporate maturity level? Stock market configuration? Entrepreneurial culture? Global leadership?

For many years now, Oncodesign has been a major player in the services market, including the prediction of therapeutic potential of molecules developed by the major global biopharma groups, including US groups, so therapeutic innovation is clearly not the main cause.

I believe the reasons are more to do with the global ecosystem. Developing a new drug is a long and risky enterprise. This type of venture requires time and leading-edge expertise, and the US financial analysts have a keen understanding of this. As always, their financial clout and ability to perceive therapeutic potential means that they can very quickly create international leaders in the health industry. Their market is strong because they are strong and sure of their choices. In these circumstances, the stock market has reason to be right.

But these structural differences in no way discredit Oncodesign's success. As an entrepreneur, I know how to question myself and fight for the company to achieve its goals. The pathway to those goals is narrow and strewn with successes and failures. Although it may appear long to some, we continue to move forward and remain firmly on course. The company has its own storms to weather, but we roll up our sleeves and get on with it, with a firm belief in our success. In a nutshell: believe, support and understand.

Oncodesign has certainly not become a minnow but I get the feeling that the French biotech market is a bit like an aquarium in the middle of the ocean.

Please excuse this somewhat sour mood, which began on a humorous note, but I urge you all to stay aboard and keep your eyes firmly fixed on the future: we believe in it.

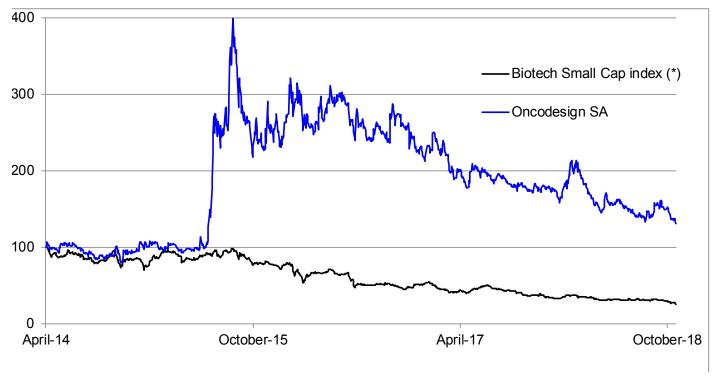
Sincerely yours,

Philippe Genne

# ONCODESIGN STOCK PRICE COMFORTABLY OUTPERFORMS THE BIOTECH SECTOR

We have taken a long view for our analysis, starting from Oncodesign's IPO in early April 2014 through to the end of October 2018. The base for comparison between the performance of Oncodesign's stock price relative to the Biotech Small Cap France (\*) is set at 100.

# Oncodesign stock price performance vs Biotech Small Cap France index (base 100 / April 2, 2014 to October 24, 2018)



Source: Factset

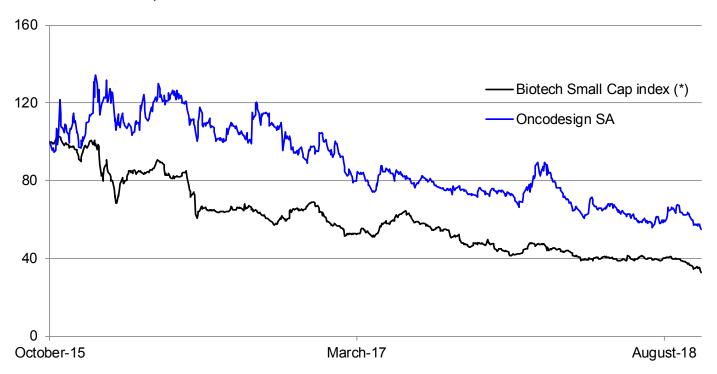
(\*)The Biotech Small Cap France index comprises 22 French biotech stocks with a market capitalization of less than €200 million: Abivax, Adocia, Biophytis, Cerenis, Eurobio-Scientific (ex-Diaxonhit), Geneuro, Genkyotex (ex-Genticel), Genomic Vision, Genoway, Gensight, Hybrigenics, Integragen, Lysogène, Nanobiotix, Neovacs, Oncodesign, Onxeo (ex-BioAlliance Pharma), Oselmmuno, Poxel, Quantum Genomics, Sensorion, Transgene.

Oncodesign's stock price rose by 31% across the period as a whole while the Biotech Small Cap France(\*)shed three quarters of its value. This excellent performance was driven partly by a sharp rise in Oncodesign's stock price at the end of first-half 2015, when it quadrupled in value. After that, it fell by 45% over the next three years compared with a 67% fall for the Biotech Small Cap France(\*), a significant 22 percentage points difference. Over the past year, Oncodesign has performed in line with the index, losing about 26%.





Oncodesign stock price performance vs Biotech Small Cap France index Base 100 at October 23, 2015



Source: Factset

Overall, we put this outperformance down to several factors, not least of all our robust business model which has enabled us to self-fund a growing amount of research without raising further capital since 2014<sup>1</sup>. High growth in R&D spend has been accompanied by an increase in staff from 63 people in 2014 to 227 today.

From late August 2018 to 26 October 2018 the Biotech index lost 13.4% and the Small Cap index 17.1% for three reasons:

- Investor concern about the equity markets;
- The negative impact of capital outflows on small caps (which are less liquid). These forced outflows caused some small caps to lose more than 30% in a month without any justification in terms of published data;
- Some investors took advantage of this period to clean up their portfolios by selling stocks that had heavily underperformed since the beginning of the year, thus avoiding the need to explain their poor choices to clients.

In this climate, Biotech stocks that have underperformed since the beginning of the year have been particularly badly hit by portfolio rationalization.

<sup>&</sup>lt;sup>1</sup> Oncodesign invested €13.9 million in R&D in 2017

# PARKINSON'S DISEASE: GROWING PREVALENCE AND CONTINUED SIGNIFICANT MEDICAL NEED

Parkinson's disease is the second most prevalent neurodegenerative disorder and leads to progressive impairment of the sufferer's motor functions caused by the loss of dopaminergic neurons.



# SCIENTIFIC AND CLINICAL STATUS: THERE IS NO NEUROPROTECTIVE TREATMENT FOR PARKINSON'S DISEASE DESPITE ITS GROWING PREVALENCE

Parkinson's disease is a chronic neurodegenerative disorder that affects the nerve cells in the brain that produce dopamine, leading to progressive impairment of voluntary movement. Its causes are unknown but could include factors related to age, environment and genetics.

For almost half a century treatment has focused on supplementing the supply of dopamine to the brain, the most commonly used drugs being Sinemet (carbidopa/levodopa) and Madopar (benserazide/levodopa). In addition, MAO-B and COMT inhibitors are prescribed to inhibit the enzymes responsible for dopamine deterioration, with limited efficacy.

More recently two "first-in-class" drugs — Gocovri from Adamas and Nuplazid from Acadia — have been approved to

treat, respectively, the dyskinesias caused by overhigh dopamine supplements and the psychoses brought on by the disease.

However, these treatments are symptomatic and do not address complications of the disease. At present, there is no treatment that can stop its progression despite the growing prevalence of the disease (Figure 1).

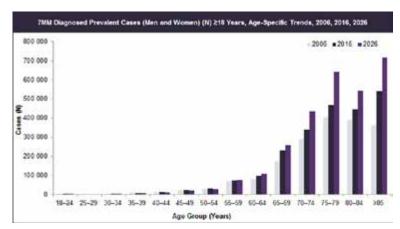


Figure 1 : Prevalence of Parkinson's disease, distribution by age in 2006, 2016 and 2026 <sup>2</sup>

<sup>1 -</sup> After Alzheimer's

<sup>2 -</sup> Global Data, Parkinson's Disease : Global Drug Forecast and Market Analysis to 2026, May 2018

#### 13 RESEARCH PROGRAMS NOW IN CLINICAL PHASES II/III

Most of the research programs in clinical phase are exploring new therapeutic avenues to develop improved dopamine formulations (such as Acorda's inhaled CVT-301 emergency treatment), or to treat motor and non-motor problems related to Parkinson's disease. Only one molecule — Roche/Prothena'a PRX-002 antibody — aims to protect the neurons by targeting the protein  $\alpha$ -synuclein, an important component of "Lewy bodies", pathogenic clumps of protein that form in the dopaminergic nerve cells.

However, clinical trials have yet to confirm PRX-002's potential and the relevance of targeting  $\alpha$ -synuclein to halt the progression of Parkinson's disease.

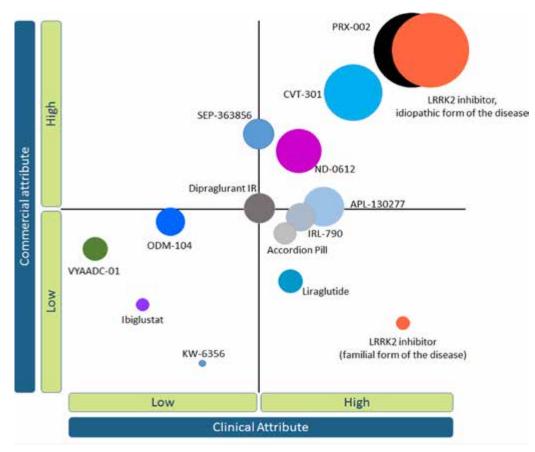


Figure 2: Competitive evaluation of agents in clinical development with potential to be approved for the treatment of Parkinson's disease between 2016 & 2026<sup>3</sup>

## LRRK 2 KINASE, A HIGHLY PROMISING TARGET FOR PARKINSON'S DISEASE

LRRK2 has been found in the familial form of the disease, which affects 1-2% of all patients. The discovery that the most frequent mutation (G2019S) is an activator of LRRK2's kinase function has led to many new research programs in the pharmaceutical industry since 2005, aiming to identify LRRK2 inhibitors.

Pfizer, Genentech, Novartis, AstraZeneca, Merck, Sanofi and Lundbeck have all patented their discoveries. These research efforts have been largely supported by the Michael J. Fox foundation created in 2000 by the actor best known for his role in the "Return to the Future" movies, who was struck down by Parkinson's disease at the age of 30. The foundation has raised over \$650 million since 2000 and is now a key driver of research into therapies for Parkinson's disease and has co-financed many research programs on LRRK2.

It was not until the end of 2017 that the first LRRK2 kinase inhibitor molecules reached clinical trial stage (Denali Therapeutics, a Genentech spin-off). A number of difficulties were at the root of this unusually long delay:

<sup>3 -</sup> Based on Global Data report (2018), updated and enriched by the company

- The need to identify very powerful and selective LRRK2 kinase inhibitors. Parkinson's disease is chronic and progressive, requiring treatment at a very early stage and throughout the patient's life. No side effects are therefore acceptable. The family of human kinases comprises 518 enzymes of a similar nature involved in most physiological processes and the LRRK2 inhibitors must therefore be very specifically targeted to avoid any risk of toxicity.
- The need to identify inhibitors that cross the blood-brain barrier is a major impediment to molecule development. This barrier is an extremely selective filter which protects the brain from any potentially pathogenic external agent.
- LRRK2 is also expressed in the lungs and kidneys, which has led to potentially undesirable side effects. Since then, this risk has been mitigated through investigations led by the Michael J. Fox foundation and the initial phase I results from Denali Therapeutics.

Recent progress has rekindled pharmaceutical and clinical industry interest in the LRRK2 protein, which is considered to be a high potential target for treating Parkinson's disease. Furthermore, several scientific reports show that activation of non-mutated LRRK2 is involved in the idiopathic form of the disease. The emergence of a direct link between LRRK2 and  $\alpha$ -synuclein has also fueled this renewed interest.

To conclude, if LRRK2 activation proves to be a causal factor for a large proportion of Parkinson's sufferers, LRRK2 inhibitors could revolutionize the treatment of this devastating illness and represent a substantial therapeutic market.

# NEW RESEARCH FINDINGS SHOW A ROLE FOR THE LRRK2 PROTEIN IN PARKINSON'S DISEASE AMONG PEOPLE WITHOUT A LRRK2 GENETIC MUTATION



Researchers study genetic mutations linked to Parkinson's to understand the causes of the disease and develop potential treatments. Human trials are already testing therapies designed to tackle the effects of mutations in the LRRK2 and GBA genes, for example. However, most people with Parkinson's do not carry these mutations, which raises the question of whether these therapies will work for others with the disease.

The new findings from a study funded by The Michael J. Fox Foundation (MJFF) suggest that they might. In a paper published in the journal Science Translational Medicine, researchers reported activity of the LRRK2 protein was enhanced in dopamine neurons in people with idiopathic (i.e., unknown cause) Parkinson's and in laboratory models of the disease.

"Our work suggests that the LRRK2-targeted treatments that are being developed for the three percent of Parkinson's patients with LRRK2 mutations may be useful for people without mutations. It's an exciting time for those affected by Parkinson's; disease-modifying therapies are on the horizon," said lead author J. Timothy Greenamyre, MD, PhD, of the Pittsburgh Institute for Neurodegenerative Diseases and the University of Pittsburgh.

Companies are developing drugs to lower LRRK2 protein activity after an MJFF-led group showed it was safe to test this type of therapy in humans.

MICHAEL J. FOX FOUNDATION FOR PARKINSON'S RESEARCH

#### LRRK2 KINASE INHIBITORS, FLAGSHIP PROJECT OF ONCODESIGN'S NANOCYCLIX® PLATFORM

For several years now, Oncodesign has been investing in the development of LRRK2 kinase inhibitors using its Nanocyclix® technology, which is currently in the advanced optimization phase. These inhibitors are the result of a collaboration with Ipsen from 2012 to 2017, which significantly advanced the research program.

In 2017, following a strategic change at Ipsen, all program rights were obtained by Oncodesign. The LRRK2 program has become one of Oncodesign's main priorities; it is led by the scientific team from the former GSK research site in Paris, which joined Oncodesign at the end of 2016. At this stage of development, the molecules display good oral bioavailability and are brain-penetrant. Oncodesign has shown that the molecules are reaching the LRRK2 target in the brain without side effects at effective dosages. A drug candidate is expected during 2020 at the latest.

#### A MAJOR CHALLENGE. EARLY STAGE DIAGNOSIS USING A BIOMARKER

There is also a technological gap in terms of diagnosis, as there is currently no biomarker to diagnose Parkinson's disease at the pre-symptom stage when the chances of treating the disease are much better. The combination of an early biomarker and an effective LRRK2 inhibitor would bring great hope to sufferers.

Oncodesign has chosen to include a biomarker approach (PET tracer) in its LRRK2 discovery program, a technology already successfully used in its mutated EGFR approach for some lung cancers.

#### LATEST NEWS ON KINASE INHIBITORS

On November 1, 2018, Sanofi and Denali Therapeutics announced a new collaboration on the development of multiple RIPKI inhibitor molecules. DNL747 targets multiple sclerosis, Alzheimer's disease and amyotrophic lateral sclerosis, and DNL758 targets systemic inflammatory diseases.

Under the terms of the agreement, Sanofi will make an upfront cash payment to Denali of \$125 million, with future development and commercial milestone payments that could exceed \$1 billion. DNL747 is currently in Phase 1 and DNL758 will probably reach clinical trial from 2019.

The agreement demonstrates the market's interest in these small molecules and the relevance of an early-phase agreement model to deliver the necessary impact and maximize the scientific potential of a drug candidate across a wide range of therapeutic indications.



## **LATEST NEWS**



#### BIOTECH FINANCES - JULY 2018

#### 15H Biotech express Wednesday: Oncodesign

"Revenue of at least €40m in 2020! Philippe Genne, Chairman and CEO of Oncodesign (ALONC) remains staunchly on course supported by good first-half results in 2018. First-half revenue came to €9.2 million versus €5.85 million in first-half 2017, a year-on-year increase of 57.9%."

#### INVESTIR - AUGUST 2018

#### **Oncodesign – Momentum ongoing unnoticed**

"Thanks to its innovative Nanocyclix technology, Oncodesign can predict a molecule's potential to become a drug candidate very early on. (...) This biotech is attracting interest from the major pharmaceuticals companies for their own products and could form new partnerships."

Our opinion: speculative buy



#### Oncodesign: when a BioTech nurses its development

"(...). With more than 600 clients today, this biotech company is a major player in precision medicine and has doubled its revenue and headcount in less than two years, driven by its evolving business model and strategy of continuous new technology integration."



#### **OUR PRESS RELEASES**

- 1- Service partnership agreement between Oncodesign and Galderma November 7, 2018
- 2- Centre Georges François Leclerc presents the detailed results of the first two stages of its clinical study in lung cancer at the EANM Congress October 15, 2018
- 3- Oncodesign: 1st half 2018 results September 26, 2018
- 4- Precision medicine: Cap Digital and Medicen Paris-Region team up with Oncodesign, Servier and Intersystems on Hu-PreciMED project September 18, 2018
- 5- Oncodesign furthers its cooperation with Eisai, started 12 years ago September 6, 2018
- 6- Very strong revenue growth in the first half of 2018 July 24, 2018
- 7- Oncodesign announces the results of the second stage of its clinical study in lung cancer July 3, 2018
- 8- IDMIT: inauguration of a new Biology and Health research infrastructure devoted to human infectious diseases and immunology June 21, 2018

Scan this QR code to access the Press Releases section







## **BROKERS' RATING**

Broker	Analyst	Date	Recommendation
\$LCM	Gilbert Ferrand	September 27, 2018	Buy
Kepler Cheuvreux	Thomas Guillot	September 27, 2018	Buy
CM-CIC Market Solutions	Fanny Meindre	September 27, 2018	N/A

# THE NOTEBOOK OF SHAREHOLDER



## 2018 CALENDAR



#### ONCODESIGN & THE STOCK MARKET

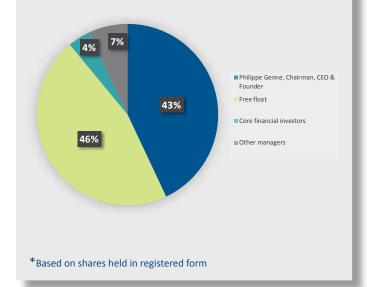
Euronext Growth Paris			
ISIN Code	FR0011766229		
Number of shares	6,818,412		
Market capitalization	€51 million*		
Share price	€7.80*		
12 month high/low	€14.00/€7,04		

<sup>\*</sup>Data at November 16, 2018





#### **ONCODESIGN CAPITAL STRUCTURE**



#### **Publication of FY 2018 Revenues**

January 31, 2019

#### **Scientifiques**

MedChem

November 23 - Namur (Belgium)

#### **ICI EUROPE**

November 27-29 - Berlin - (Germany)

### **DOCUMENTATION**



Our financial report for FY 2017 is available from the investor section of our website:





Flash this QRCode to access the investor section.

# A TEAM ATTENTIVE TO OUR SHAREHOLDERS



Agence NewCap Louis-Victor Delouvrier/ Mathilde Bohin Sharehoders Relations oncodesign@newcap.eu

Tel: +33 (0)144 719 494

#### AT ONCODESIGN, WE TAKE THE PRIVACY OF YOUR PERSONAL DATA VERY SERIOUSLY

You have received this newsletter because you have given your consent and details to Oncodesign or by delegation to NewCap, its agency. The data gathered by Oncodesign is processed by Oncodesign for marketing and investor relations purposes to keep you up to speed on the Company's latest developments. The data will be held for a maximum of three years from the time of our most recent contact.

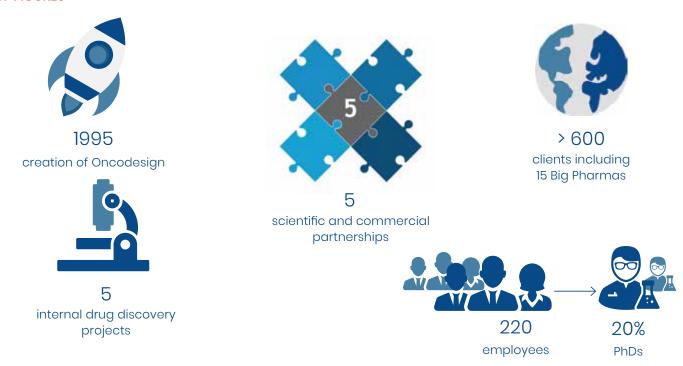
In line with the French Data Protection Act of January 6, 1978 as amended, you have a right to access and amend the data held concerning you.

You can access the information we hold about you by contacting us at oncodesign@newcap.eu CNIL reference 2102182 v 0.

## **ONCODESIGN AT A GLANCE**

Oncodesign, a vector of innovation, is a biopharma company whose mission is to find new avenues of treatment using precision medicine based on its unique patient-centered innovation model.

#### **K**EY FIGURES



#### **OUR MISSION AND OUR TECHNOLOGICAL STRENGTH**

"Discover innovative new therapies effective against cancer and serious illnesses with unmet medical needs." Philippe Genne - Oncodesign Chairman & CEO.

Oncodesign's specific strength lies in its technology continuum, which covers the entire molecule discovery cycle from identification of resistant patient populations right through to the drug candidate. Oncodesign puts the patient at the heart of its technology continuum to target the problem of inherent or acquired therapeutic resistance. This innovation model sets us apart.



It is based on our three strategic activities:

- 1- Etiology of diseases
- 2- Discovery of new therapeutic target/ molecule combinations
- 3- Experimentation of new treatments.

#### **O**UR BUSINESS MODEL

Oncodesign leverages its strategic activities through three types of contractual arrangement:



#### **SERVICE**

Based on targets or molecules, Oncodesign provides services to other companies in selecting the best drug candidates.

Service revenue expected to reach €25-30 million in 2020



#### **PARTNERSHIP**

Programs to develop kinase inhibitors using our proprietary Nanocyclix® technology, and core technological partnerships.

Transition to phase III then commercial launch of the first radiotracer: AMM 2020-2021



#### **LICENSING**

Licensing of Oncodesign portfolio technologies, drug candidates and radiotracers.

A therapeutic composite in clinical trial by the end of 2020

- Signature of Integrated Drug Discovery Service (IDDS) contracts
- Signature of service partnerships
- External growth potential
- Development of other radiotracers
- Ramp-up and milestone payments for BMS and UCB
- Signature of new early-stage partnerships based on Nanocyclix® technology
- Development of OncoSNIPE® & IMODI technologies
- Build-up of a mature pipeline of kinase inhibitor drug candidates in oncology
- Selection of drug candidates (e.g.: LRRK2, RIPK2, ALK1 and MNK1/2)
- Signature of clinical development partnerships

#### What is a kinase inhibitor?

body. Kinase is a protein that speeds up chemical reactions in the body. Kinase deregulation is the cause of more than 400 diseases. This deregulation can be resolved by binding a small molecule to the kinase to block its activity.

#### What is a radiotracer?

A traceable radioactive isotope added to a substance and used in imaging techniques such as Positron Emission Tomography (PET) to trace the path of the substance in an organ.

#### What is a biomarker?

A biomarker is an accurately measurable indicator of a particular bodily function, disease or action of a drug.



# **NOTES**






## CONTACT

Oncodesign - HEADQUARTERS 20 rue Mazen - BP 27627 FR-21076 Dijon Cedex

**(**+33 (0)380 788 260 contact@oncodesign.com









in 😘 🍅 😉 🕟 oncodesign.com

Oncodesign makes no representation or warranty in relation to, statistical data or forward-looking statements contained in this presentation that were taken or are derived from third party sources or industry publications; such statistical data and forward-looking statements are used in this presentation for informational purposes only.

This presentation contains only summary information and should not be considered exhaustive. Oncodesign's forward-looking objectives, statements and prospective information contained in this document are provided for illustrative purposes only and are based on management's current views and assumptions. Such forward-looking objectives, statements and prospective information, including express or implied statements regarding future sales and revenues, involve known and unknown risks and uncertainties that may cause the results, achievements or performance of the Group to be substantially different from those anticipated in the summary information.

A number of factors could cause actual results and developments to differ materially from those expressed or implied by the forward-looking information.

Oncodesign undertakes no obligation to publicly update or revise any of these objectives, statements and information contained in this presentation due to changes in Oncodesign's strategy or intentions or in the course of events or in the conditions, assumptions or circumstances used to establish such information, except for legal obligations.

This document does not constitute or form part of any offer or invitation to subscribe shares or securities in any other country. In France, the offer of securities of Oncodesign may only be made by means of a prospectus, or under an exemption from the obligation to publish a prospectus and outside France, only by means of a translation of this prospectus prepared for this purpose and only in countries and in circumstances where such investments comply with the applicable regulations.

No public offering of securities is contemplated in France or outside France. The securities of Oncodesign are not, and will not be, registered under the United States Securities Act 1933, as amended (the "Securities Act"), and may not be offered or sold in the United States of America except after registration or subject to an exemption from registration under the Securities Act.