

Estimated price: €18.08

Share price (€) 7.50
(as of July 5th, 2016)

High/Low (€) 8.59/7.36
(since Jan. 1st, 2016)

Market Cap. (€M) 106.83
(as of July 5th, 2016)*

Estimated Net Cash (€M) 15.0

Estimated Market Cap. (€M) 255.9

Number of shares (M) 14.2

Estimated price (€) 18.08

3-month average daily volume 8,287

Free Float 46.0%

Euronext since Jan. 1st, 2016

OSE Immuno. -11.5%

Alys France* -20.9%

Next Biotech -18.3%

CAC Healthcare. -4.3%

CAC 40 -10.2%

CAC Small -7.9%

* 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>

OSE Immunotherapeutics: Janssen Biotech exercises option for a €155 million global licensing deal for FR104

OSE Immunotherapeutics announced that Janssen Biotech, part of the American group Johnson & Johnson, will pursue their collaboration for the development, registration and worldwide commercialization of FR104. This product has been developed by Effimune through a collaboration concluded with Janssen Biotech in September 2013, in several indications such as autoimmune diseases and transplantation. OSE Immunotherapeutics is the result of the recent merger between OSE Pharma, specializing in cancer immunotherapy, and Effimune, specializing in immune regulation. Under the terms of the agreement OSE Immunotherapeutics could receive up to €155M, including a €10M upfront, in addition to royalties on sales. Following this announcement, we increased our target price for OSE Immunotherapeutics to €18.08/share.

FR104: a phase II-ready drug candidate to treat autoimmune diseases and manage transplantation

FR104 is an antibody directed against CD28, thus blocking its interaction with its natural ligands. FR104 was developed under a European program whose main objective was to demonstrate the ability of the molecule to restore an immune balance in autoimmune diseases involving T cells. The company recently completed the Phase I trial of FR104, a first-in-class CD28 immuno-modulator, in healthy volunteers. Clinical results have shown a good safety profile, and have established the pharmacological profile of the drug. In addition, the company demonstrated a dose/response relationship, thus confirming the CD28 antagonist activity of the drug. Based on these first positive results, Janssen will further evaluate FR104's therapeutic potential in three indications: autoimmune diseases, especially rheumatoid arthritis, transplantation and Graft-versus-Host Diseases. FR104's mechanism of action can be relevant to treat several IMIDs other than those listed above, thus increasing the market potential of FR104.

With its original mechanism of action, FR104 prevents Treg (regulatory T cells) inhibition by APCs (Antigen Presenting Cell) without activating Teff (Effector T cells). The selective blockage of CD28 by FR104 activates Treg

whose role precisely consists in regulating Teff through their suppressive activity. At the same time, FR104 inhibits Teff that are responsible for auto-immune diseases when over-activated. This leads to the selective activation of Treg cells only, and then to the modulation of the immune system activity as required in indications like autoimmune diseases or transplantation.

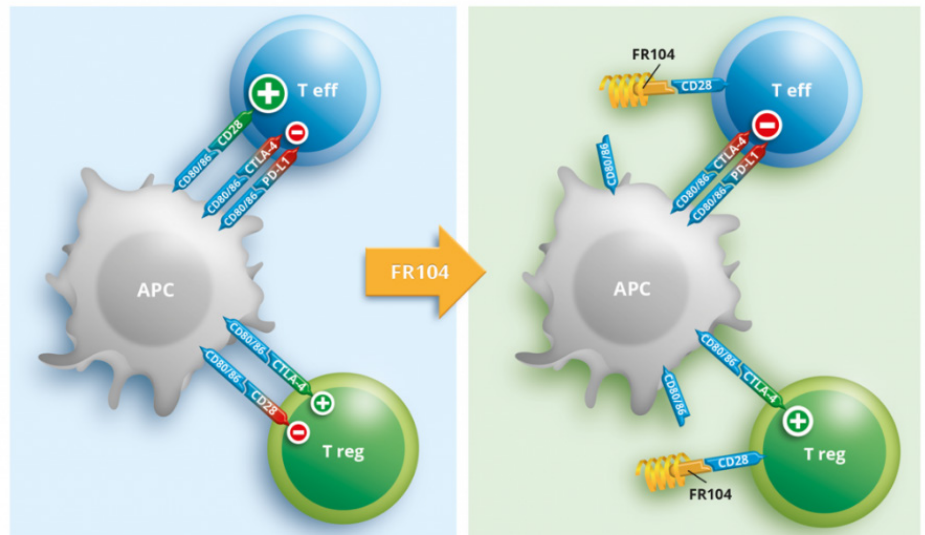


Figure 1. Mechanism of action of FR104: enhancing Treg cells' activation while preventing Teff cells' activation. Thus, FR104 selectively promotes immune regulation and downregulates Teff cells activity (source: OSE Immunotherapeutics).

A well-balanced product pipeline that could provide significant upsides

The company has 2 products in clinical trials. Tedopi is a cancer vaccine, currently in an international Phase III trial, offering new perspectives for the management of Non-Small Cell Lung Cancer (NSCLC). FR104, an anti-CD28, has recently completed a Phase I trial and has been licensed by Janssen to provide new therapeutic options for immune-mediated inflammatory diseases (IMID), such as rheumatoid arthritis. OSE Immunotherapeutics' business model is to license its products after they reach key development milestones. The company intends to license Tedopi after Phase III trial. OSE Immunotherapeutics owns two more drug candidates. Effi-7 developed for transplantation and auto-immune diseases, is a monoclonal immune-modulatory antibody targeting the CD127 receptor, with *in vivo* proof of concept for several autoimmune models. Effi-DEM developed in immuno-oncology, is a second generation checkpoint inhibitor which targets particular suppressor cells present in the tumor microenvironment. These two assets are at the advanced preclinical stage. Moreover, OSE Immunotherapeutics is considering the development of Tedopi for NSCLC in combination with an Immune Checkpoint Inhibitor. The company will combine a marketed anti-PD1 or anti-PDL1 such as Keytruda or Opdivo with Tedopi. A Phase II trial is to be launched in 2017.

Valuation of OSE Immunotherapeutics

Following this announcement, we decided to increase our valuation of OSE Immunotherapeutics to €18.08 per share. This target price includes the value associated with the Tedopi and FR104 drug candidates, in NSCLC treatment and Rheumatoid Arthritis, respectively. In our model, we included the FR104 licensing deal with the financial terms provided by the company with the following details: a €155M deal, including an upfront payment of €10M, a 10% royalty rate on sales.

Stock performance

As with other French Biotech smallcaps, OSE Immunotherapeutics was impacted by negative macroeconomic events, and more specifically, the Brexit that led to a global market plummet. The YTD performance of OSE Immunotherapeutics is -23.3% closing at €7.50 per share on July 5th, 2016. However, the company’s stock gained 6.1% since the beginning of June 2016, after the merger between OSE Pharma and Effimune.

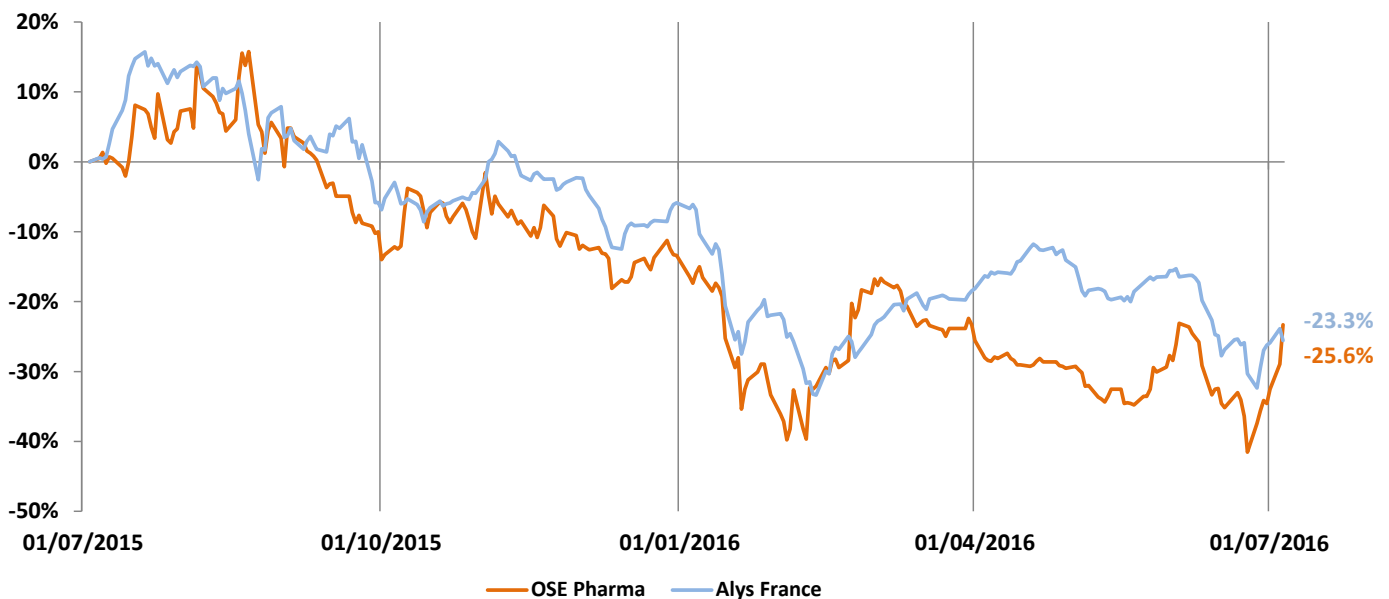


Figure 2. One-year chart dated July 5th, 2016, comparing the performance of OSE Immunotherapeutics’s stock with French smallcaps of the life sciences and healthcare sector (Alys France index).

Financial Data

Statements for the years 2013, 2014, and 2015 are OSE Pharma's financial statements. Estimated figures are for OSE Immunotherapeutics.

Earnings Per Shares (€)	2013	2014	2015	2016e	2017e	2018e
EPS	-0.03	-0.36	-0.59	-0.42	-0.39	-0.26

Income Statement (€M)	2013	2014	2015	2016e	2017e	2018e
Revenues	0.0	0.0	0.0	3.3	3.3	3.3
EBIT	-0.3	-2.8	-5.6	-6.5	-6.0	-4.2
Net Income	-0.3	-2.8	-5.6	-6.0	-5.5	-3.7

Balance Sheet (€M)	2013	2014	2015	2016e	2017e	2018e
Non-Current Assets	0.0	0.1	0.1	59.8	58.3	56.8
Current Assets	0.3	1.9	16.9	22.6	14.2	8.1
<i>Including Cash and Cash equivalents</i>	<i>0.3</i>	<i>1.1</i>	<i>9.3</i>	<i>15.1</i>	<i>6.8</i>	<i>4.4</i>
Total Assets	0.3	2.0	17.0	82.4	72.5	65.0
Total Equity	-0.9	-0.8	14.5	57.4	51.9	48.2
Non-Current Liabilities	1.1	0.9	0.2	16.0	15.1	14.1
Current Liabilities	0.1	1.9	2.3	8.9	5.5	2.6
Total Equity and Liabilities	0.3	2.0	17.0	82.4	72.5	65.0

Cash Flow Statement (€M)	2013	2014	2015	2016e	2017e	2018e
Cash from operating activities	-0.2	-1.9	-4.6	1.8	-7.8	-5.2
Cash from investing activities	0.0	0.0	-6.2	-0.1	-0.1	-0.1
Cash from financing activities	0.3	2.8	19.1	-1.0	-0.5	2.8
Change in Cash	0.1	0.8	8.2	0.8	-8.3	-2.4

Résumé en français

OSE Immunotherapeutics a annoncé le 5 juillet 2016 que la société Janssen Biotech, du groupe Johnson & Johnson, a levé l'option sur le produit FR104 qu'elle avait initialement posée en exclusivité dans le cadre d'un partenariat avec Effimune en septembre 2013. Les termes de cet accord prévoient un montant total pouvant atteindre 155M d'euros incluant un versement initial de 10M d'euros et des paiements d'étapes, auxquels seront additionnés des royalties sur la base des ventes du produit. Janssen prend en charge à compter de ce jour, l'ensemble des frais liés au développement clinique, à l'enregistrement et à la commercialisation potentielle du produit. Il s'agit d'un accord de licence mondiale pour le traitement des maladies auto-immunes.

FR104 est un anti-CD28 first-in-class développé pour traiter les maladies auto-immunes, en particulier la polyarthrite rhumatoïde qui est la première indication envisagée par le groupe, mais également pour améliorer la transplantation d'organes et le rejet de greffe dans le cadre des greffes de cellules souches hématopoïétiques. FR104 est un immuno-modulateur qui agit en bloquant spécifiquement le récepteur CD28, ce qui lui confère la propriété d'activer les cellules T régulatrices tout en bloquant les cellules T effectrices connues pour être responsables des maladies auto-immunes. Cette stratégie originale permet donc la modulation du système immunitaire qui est un enjeu majeur dans le traitement des maladies auto-immunes, autant que dans l'amélioration des chances de succès des transplantations et greffes.

Cette levée d'option par Janssen s'est décidée sur la base des premiers résultats obtenus en Phase I chez des volontaires sains. Cette étude a montré un bon profil de tolérance et a établi le profil pharmacologique du produit. Les résultats ont également mis en évidence une relation effet/dose, et ont ainsi confirmé l'activité antagoniste de FR104.

Pour rappel, OSE Immunotherapeutics, acteur fort de l'immunothérapie, est issue de la fusion des sociétés OSE Pharma, spécialiste de l'immuno-oncologie, et d'Effimune, spécialiste de l'immuno-modulation qui a eu lieu le 31 mai 2016. A la suite de cette levée d'option, nous revalorisons notre estimation du prix par action d'OSE Immunotherapeutics à 18,08€.

Notes

Notes

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About Aurgalys indices

Aurgalys launched on October 2013, the Alys France index measuring the performance of the 40 French smallcap companies (less than €1B of market capitalization) listed on Euronext/Alternext Paris. Three 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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