

INDEPENDENT RESEARCH

Biotechnology

Last mark down on biotech!

25th January 2016

Biotechnology

BONE THED ADELITICS

| BUNE I HERAPI | EUTICS## | DUT | FV EUR29 |
|------------------|----------|-----------------|-------------|
| Bloomberg | BONE FP | Reuters | BONE.PA |
| Price | EUR16.38 | High/Low | 24.1/15.15 |
| Market cap. | EUR112m | Enterprise Val | EUR-28,133n |
| PE (2015e) | x | EV/EBIT (2015e) | NS |
| | | | |
| ABLYNX | | BUY | FV EUR18 |
| Bloomberg | ABLX BB | Reuters | ABLX.BR |
| Price | EUR12.88 | High/Low | 16.1/9.06 |
| Market Cap. | EUR706m | Enterprise Val | EUR835m |
| PE (2015e) | NS | EV/EBIT (2015e) | NS |
| | | | |
| DRV TECHNOLOGIES | | RIIV | EV ELIDOS |

| BV TECHNOL | OGIES | BUY | FV EUR9 |
|-------------|-----------|-----------------|-------------|
| loomberg | DBV FP | Reuters | DBV.PA |
| rice | EUR47.74 | High/Low | 81.03/37.79 |
| larket Cap. | EUR1,151m | Enterprise Val | EUR808m |
| E (2015e) | NS | EV/EBIT (2015e) | NS |

| ERYTECH | | BUY | FV EUR51 |
|-------------|----------|-----------------|-------------|
| Bloomberg | ERYP FP | Reuters | ERYP.PA |
| Price | EUR20.14 | High/Low | 39.99/18.34 |
| Market Cap. | EUR158m | Enterprise Val | EUR138m |
| PE (2015e) | NS | EV/EBIT (2015e) | NS |
| | | | |
| GALAPAGOS | | BUY | FV EUR64 |

| ALAI AGGG | | DO 1 | |
|-------------|-----------|-----------------|-------------|
| Bloomberg | GLPG BB | Reuters | GLPG.BR |
| Price | EUR50.24 | High/Low | 58.53/17.35 |
| larket Cap. | EUR1,963m | Enterprise Val | EURm |
| PE (2015e) | NS | EV/EBIT (2015e) | x |
| | | | |
| | | | |

| | GENMAB | | BUY | FV DKK1170 |
|---------------|-------------|------------|-----------------|------------|
| | Bloomberg | GEN DC | Reuters | GEN.CO |
| | Price | DKK841.5 | High/Low | 954/413.4 |
| | Market Cap. | DKK49,919m | Enterprise Val | DKK46,754m |
| | PE (2015e) | NS | EV/EBIT (2015e) | NS |
| INNATE PHARMA | | | BUY | FV EUR19 |
| | Diagraham | ייי | Davitara | IDLLDA |

Enterprise Val

EV/EBIT (2015e) 54.8x

16.43/7.99

EUR403m

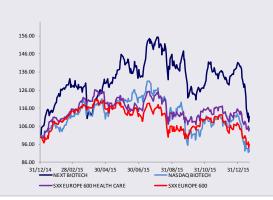
EUR12.31

EUR662m

72.1x

Market Cap

PE (2015e)



The recent market volatility has led to significant sell-off of biotech stocks, and notably the less liquid ones, over the past week. While the STOXX600 Europe dropped -7.51% YTD, both the STOXX600HC and the NBI dropped -5.8% and -14.87% respectively. In our biotechnology universe we have identified several companies that either have (i) near term catalysts and/or (ii) valuations offering opportunities to play derisked projects. Should they be our top picks for Q1 or not, we believe that they might be the first to benefit from a re-rating.

- In this note, we come back on the investment cases of seven biotechnology companies in our coverage universe. Following recent derating of the sector, we remain confident that they have attractive stories, poised to perform over the course of 2016. Should we have to, we would split them into two different categories. On the one hand, companies with identified near-term catalysts and thus potential for additional upside. On the other hand, companies with no short term catalysts but still exhibit unquestionable qualities (solid clinical package, attractive valuation, etc.).
- Genmab and Bone Therapeutics are two of our top picks for Q1. During the quarter, we identified two catalysts for both of these companies. For Genmab, we see 1/ Phase III results involving daratumumab, and 2/ Roche's ocrelizumab approval in multiple sclerosis (positive read-across for ofatumumab) as major catalysts. And icing on the cake, the scope of possibilities could be expanded with the inking of collaboration between JNJ and another big pharma. Regarding Bone Therapeutics, we believe that 1/ the results from the second patient cohort would be a clear positive signal to anticipate a premature stop of the trial which might be decided in Q2 by a DSMB and 2/ BD opportunities might arise should the first 8 osteoporotic patients treated be responders. These two stocks offer significant near-term upward revision in our fair values.
- Galapagos, Innate, Ablynx, DBV and Erytech are de-risked long term play that could be the first to benefit from a re-rating of the sector.



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1. Short-term play

1.1. Genmab (BUY Top Picks – FV DKK1,170)

Genmab remains one of our top picks as we have identified several significant catalysts that could add +DKK350 to our FV: 1/ a positive read-across for ofatumumab with the granting of a quite broad label for Roche's ocrelizumab (both compounds being anti-CD20) for the treatment of relapsing-remitting multiple sclerosis (potential positive impact: +DKK200); 2/ Phase III results for daratumumab (anti-CD38) in combination with the current standard of care in patients with MM who have received at least one prior therapy (+DKK150). As a reminder, daratumumab got its very first approval back in November 2015, but solely as a monotherapy and for the treatment of double-refractory or highly pre-treated patients (who have received at least 3 prior lines).

Icing on the cake, we believe a deal between JNJ and another big pharma is very likely, the objective being to evaluate daratumumab along with a PD-1/PD-L1 checkpoint blocker such as Celgene/AZN's durvalumab or Merck's pembrolizumab. Note also that ibrutinib (BTK inhibitor) could a pretty good candidate to be tested with in chronic lymphocytic leukaemia or non-hodgkin lymphomas... Plus this compound already belongs to JNJ.

At current levels, the street doesn't give any value to daratumumab outside multiple myeloma, or even of atumumab as a therapeutic option in multiple sclerosis.

1400 +66 1 170 1200 +56 +144 1000 +35 +815 current share price 800 600 400 200 53 Cash Dara - MM Dara - NHI Ofa - MS Ofa - Others Fair Value Others

Fig. 1: Genmab's valuation by project (in DKK)

Source: Bryan, Garnier & Co ests.

Please see our latest research reports on Genmab

- 10-nov.-15 Genmab The Force Awakens!
- 17-nov.-15 Daratumumab gets its first FDA approval! But that's just the first part of a "trilogy"
- 20-nov.-15 Genmab receives a USD45m milestone payment from [N]
 - Ofatumumab Phase III study in Follicular Lymphoma stopped for non-superiority. Limited impact to our
- 24-nov.-15 FV
- 1-déc.-15 BMS' elotuzumab gets FDA approval... but have no fear, the force is strong with daratumumab
- 11-déc.-15 ASHtonishing. The force is strong with this one
- 20-janv.-16 Ofatumumab approved for the maintenance therapy of patients with CLL



1.2. Bone Therapeutics(BUY Top Picks – FV EUR29)

Since its IPO in February 215, Bone Therapeutics' management successfully delivered on the anticipated newsflow. H1 2016 should be the cornerstone of the company's development with readout from two major trials which should trigger significant revision on our estimates.

We expect a strong news-flow in Q1/early Q2 with (i) the results from the second patient cohort in the delayed union trial (phase IIa/III). Recall that if interim results expected in H1 2016 showed a 75% responder rate in the first 16 patients treated (12/16), the study could be prematurely stopped and phase III initiated. PoS of 50% vs. 30% at the moment would add ~EUR6 to our fair value. In Osteoporotic patients, the IV route has been proved to be safe. Although cautious at this stage (EUR3 of our fair value), BD opportunities might arise should the efficacy results from the first 8 patients be positive.

At current levels, the price reflects phase III assets but does not value ongoing phase II trials in delayed-union patients and in spine fusion.

40 3 35 30 3 25 3 20 current share price 15 29 6 10 Cash net NU EU ON EU DU EU OP EU SF EU NU US ON US Fair Value DU EU OP EU 50% 20%

Fig. 2: Bone Therapeutics' valuation by project (in EUR)

Source: Bryan, Garnier & Co ests.

Please see our latest research reports on Bone Therapeutics

22-sept.-15 BONE THERAPEUTICS, H1 newsflow delivered on time is a good sign when we look towards H2
9-oct.-15 BONE THERAPEUTICS - BUY, Fair Value EUR26 (+31%) Next 6 months should be decisive
18-nov.-15 Q3 results

18-janv.-16 <u>Initiation of a Phase IIa in multiple delayed-union fractures</u>



2. "De-risked" long-term stories

2.1. Ablynx (BUY – FVEUR18)

Ablynx (BUY – FV EUR18) has already attracted nine pharma companies through partnerships or collaboration agreements. Among them, the AbbVie and Merck & Co ones are of great interest in our view. Following phase IIb readout from ALX-0061 in Rheumatoid Arthritis (BGe EUR1.5bn peak sales) expected by mid-2016, AbbVie would have a 60 days opt-in window for the product which we considered as being a best-in-class IL-6(R). Merck & Co expanded its immune-oncology collaboration agreement with Ablynx which now includes to up to 17 targets (bi- to penta-specifics nanobodies). We expect the US Pharma to give an update on the collaboration by year-end and potentially disclose the first targets. Not only did Ablynx business model is based on partnerships but it is also poised to evolve towards a biopharmaceutical one with caplacizumab (studied in acquired-TTP, a rare blood disorder) that could potentially reach the European market in 2018e (conditional approval). In the short term, ALX-0171 indicated in respiratory syncytial virus (BGe EUR1bn peak sales) should report phase IIa results in H1.

As shown below, the current share price overlook late stage collaboration agreements with AbbVie in our view.

21

18

15

current share price

12

9

6

3

Cash Caplacizumab ALX-0171 AbbVie/ALX-0061 Fair Value

Fig. 3: ABLYNX' valuation by project (in EUR)

Source: Bryan, Garnier & Co ests.

Please see our latest research reports on Ablynx

27-oct.-15 Pharmas lining up around the block
18-nov.-15 ABLYNX (BUY, FV EUR17) Progressing well on all fronts
18-nov.-15 FY 2015 cash burn guidance now expected at low-end of guidance
30-nov.-15 ABLYNX, Ablynx appoints CMO





2.2. DBV Technologies (BUY - FV EUR92)

Although the FDA's discussion from the Allergenic Product Advisory Committee on the development of food allergy immunotherapies was not company specific, it clearly pinpointed the safety issues that might arise from sublingual, oral and subcutaneous immunotherapy approaches to desensitize patients. Hence, DBV Epicutaneous Immunotherapy Technology (EPIT) platform which features unrivalled safety profile should benefit from increased adoption rate, the targeted population in Peanut and Milk allergy being mainly composed of infants.

While we do not identify major readouts in H1 2016 with the exception of the results from the CoFAR6 trial that should give in-depth knowledge on the mechanistic and biomarkers, recent pullback offers opportunity to invest in DBV which we see as a future leader in the untapped food allergy market.

100

80

60

Current share price

53

40

20

Cash Viaskin Peanuts US Viaskin Peanuts EU Viaskin Milk US Viaskin Milk EU Fair Value

Fig. 4: DBV's valuation by project (in EUR)

Source: Bryan, Garnier & Co ests.

Please see our latest research reports on DBV Technologies

| 5-oct15 | DBV TECHNOLOGIES, Efficacy improved in OLFUS, phase III to be initiated before year end |
|-----------|---|
| 3-nov15 | DBV reports Q3 results, Eyes on Viaskin Peanuts Phase III trial |
| 24-nov15 | DBV TECHNOLOGIES Could we also find PEPITES beyond allergies? |
| 12-janv16 | DBV not lagging behind Aimmune Therapeutics |
| 20-janv16 | FDA's briefing documents favouring EPIT |





2.3. ERYTech (BUY – FV EUR51)

The company's share price has tremendously suffered over the past few months, while 1/ we expect a European approval for GRASPA as a treatment of refractory/relapsed patients with acute lymphoblastic leukaemia (ALL); 2/ the company announced their intention to initiate several new trials to expand its addressable market. On the latter point, we'd like to remind our readers that a Phase III should be initiated to evaluate the potential of GRASPA in newly-diagnosed patients with ALL (thus leading to a multiplication by five of the addressable market for this particular indication). And following this announcement, we raised our peak sales estimated from EUR110m to EUR230m.

The market implicitly values a quite broad pipeline at only c.EUR100m... which looks quite severe when you compare it to the USD900m Baxalta paid to acquire Oncaspar). Based on our estimates, GRASPA ALL in Europe is partially priced in, while all the other developments are completely ignored. Finally, just to give a quick historical basis of comparison, such valuation would be very similar to what we saw before the Phase III results of GRASPA in ALL (i.e. back in 2014).

60 +2 51 +6 50 +11 40 +21 30 current share price 10 O ALL (Europe) ALL (US) AML (Europe) AML (US) Fair Value **Pancreas**

Fig. 5: ERYTech's valuation by project (in EUR)

Source: Company Data; Bryan, Garnier & Co ests.

Please see our latest research note on ERYTech

| 7-sept15 | ERYTech (BUY, FV EUR41 vs. 38.5) How to win the West |
|-----------|---|
| 15-sept15 | ERYTECH - BUY, Fair Value EUR42 vs. EUR41 (+22%) MAA submitted for GRASPA ALL in Europe |
| 20-oct15 | ERYTECH - BUY, Fair Value EUR42 (+42%) Pfizer's inotuzumab gets breakthrough therapy |
| | designation in ALL. Read-across for Erytech |
| 30-oct15 | Stronger penetration of Oncaspar in the US. Positive read-across for GRASPA |
| 4-déc15 | Let's "de-encapsulate" more upside! |
| 8-déc15 | Presentation of additional data for GRASPA ALL at the ASH meeting |
| 5-janv16 | Yann Godfrin is leaving the company to pursue new opportunities |
| 7-janv16 | GRASPA AML: third DSMB So far so good |



2.4. Galapagos (BUY – FV EUR64)

We do not expect the company's newsflow to be less intense than last year, especially in H2. As a reminder, Phase III in RA for filgotinib (BGe EUR2bn peak sales), now partnered to Gilead should start in Q1 2016 and 20 weeks phase IIb readout in Crohn's is expected in late Q1.

Galapagos and AbbVie have developed a broad Cystic Fibrosis alliance with 8 compounds expected to be in the clinic towards year-end and yet not reflected in the current valuation in our view. In its race against Vertex for the development of the triple combination which could address 90% of the CF population, Galapagos have superior compounds to Vertex. Phase II for the triple combination is expected to be initiated in early-2017. Before that, we should have several phase I readouts maintaining a positive momentum on the share price.

Based on our estimates, current share price does not take into account the AbbVies partnership in Cystic Fibrosis. We would remind that a recent update from the latter underlines the strong involvement on both sides to develop breakthrough therapies in this indication.

70 60 10 current share price 50 18 40 64 30 20 33 10 0 Filgotinib Cash net **CF Program GLPG1205 GLPG1690** Fair Value Servier

Fig. 6: Galapagos' valuation by project (in EUR)

Source: Bryan, Garnier & Co ests.

Please see our latest research note on Galapagos

| 17-nov15 | Galapagos (Buy, FV EUR52) We should have a gift under the tree |
|-----------|--|
| 8-déc15 | Crohn's 10w data out, deal should be next |
| 17-déc15 | and the winner isGalapagos! |
| 18-déc15 | Face B: Long-term value creation with the Gilead deal and CF opportunity |
| 12-janv16 | Read-across from AZN/INCY co-dev. agreement and ABBV's ABT-494 phase III programme |
| 19-janv16 | It is now "all" about CF: review of progress made with the CF portfolio |



2.5. Innate Pharma (BUY – FV EUR19)

Innate Pharma is also a stock that investors should look at starting from this H1 16. Three catalysts are of importance in the very short term: 1/ a clinical update regarding monalizumab (anti-NKG2A) in a set of different cancers, thus leading to a pretty strong upward revision of the consensus' estimates; 2/ results from the Phase II involving lirilumab (anti-KIR) as a maintenance therapy for elderly patients with acute myeloid leukaemia. As a reminder, we are quite optimistic with the outcome of this study given that a small phase I trial with dose escalation showed very promising efficacy results in 32 patients (PFS: 9.5 months within the high-dose group vs 2.3 months for the low-dose one); and 3/ potentially, Phase Ib results for the lirilumab/nivolumab combination therapy in different solid tumours. In a best-case scenario, this may add a +EUR3 to our FV.

Based on our figures, the market is currently ignoring the potential value arising from monalizumab (whereas this compound could potentially become a major asset for AstraZeneca).

21 19 +2 +4 18 15 +1 current share price +2 12 +0.5 +2 9 5.5 6 3 Cash Liri - AML Liri/Nivo - Liri/Elo - MM Mona - Lung Mona - CLL Mona -Mona - H&N Fair Value Ovarian

Fig. 7: Innate Pharma's valuation by project (in EUR)

Source: Bryan, Garnier & Co ests.

Please see our latest research note on Innate Pharma

- 29-sept.-15 Bryan Garnier: Innate Pharma (BUY initiation of coverage, TP EUR19) Brace yourselves... AZN is coming (back)!
- 7-oct.-15 INNATE PHARMA BUY, Fair Value EUR19 (+40%) AZN should come back... and it may be better than expected
- 14-oct.-15 INNATE PHARMA, IPH receives a USD5m milestone payment from BMS
- 12-nov.-15 Initiation of another trial testing lirilumab with BMS's blockbuster, nivolumab
- 1-déc.-15 Elotuzumab got its first approval in multiple myeloma. Lirilumab will be key for this new BMS' franchise
- 3-déc.-15 Feedback lunch meeting with management. Should we expect a deal with Celgene?
- 17-déc.-15 Opening of a fourth trial evaluating IPH2201
- 11-janv.-16 Out-licensing deal with Sanofi and in-licensing with OREGA Biotech



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