Erytech Pharma

Clinical update

Graspa safety reinforced by EAP

Pharma & biotech

A recent update from the Graspa Expanded Access Program (EAP) in France reaffirms its impressive safety profile, with patients allergic to L-asparaginase able to tolerate multiple Graspa doses (red blood cell encapsulated L-asparaginase). This is one of Graspa's key benefits, which should allow uptake in leukemia patients who cannot be treated with current forms of L-asparaginase, a mainstay therapy. Graspa EU filing is on-track for mid-2015 and Phase III data will be presented at upcoming conferences, helping to raise physician awareness.

Year end	Revenue ($m)	PTP* ($m)	EPADR ($)	DPADR ($)	P/E (x)	Gross yield (%)
12/13	2.0	(9.2)	(2.0)	0.0	N/A	N/A
12/14	2.3	(10.1)	(1.7)	0.0	N/A	N/A
12/15e	2.1	(11.7)	(1.7)	0.0	N/A	N/A
12/16e	2.5	(11.9)	(1.7)	0.0	N/A	N/A

Note: Converted at US$1.12 to €1. Dividend yield excludes withholding tax. Investors should consult their tax advisor regarding the application of any domestic and foreign tax laws.

Further confirmation of Graspa's safety with EAP

An Expanded Access Program is ongoing in France for patients who cannot tolerate L-asparaginase (either derived from *E. coli* or *Erwinia chrysanthemi*). To date 12 patients have been enrolled in the trial with a DSMB safety review in seven, who had received on average 3.4 doses of Graspa (range 2-7 doses). The DSMB concluded that the trial should continue to enroll patients as planned. Given these are ALL (acute lymphoblastic leukemia) patients with allergy to L-asparaginase, the ability to tolerate multiple Graspa doses reinforces its safety profile.

Additional Phase III Graspa data at ASCO and EHA

The positive Graspa Phase III ALL trial will be presented at both ASCO and EHA conferences, helping to raise awareness among physicians ahead of launch. In particular, mature complete remission (CR) data will be presented, demonstrating 65% CR on Graspa compared to 39% on L-asparaginase (p=0.026).

EU filing by mid-2015; multiple other Graspa events

Erytech anticipates Graspa ALL filing in Europe will be complete around mid-2015. A Phase II AML (acute myeloid leukemia) trial in Europe is also ongoing, funded by partner Recordati, with data expected in 2016; the trial has already successfully completed two DSMB's. In the US, a confirmatory safety study in ALL is ongoing; Erytech is seeking to accelerate US development in both ALL and AML, which is being discussed with the FDA. A Phase II pancreatic cancer is ongoing with the first DSMB anticipated around mid-2015. Erytech is also planning to start a Phase II NHL (non-Hodgkin's lymphoma) trial in H215.

Valuation: rNPV of $296m or $43.0/ADR

We have made no major changes to our underlying product assumptions, with our valuation increased slightly to $296m with rolling forwards in time and updating for estimated net cash of €33.2m ($37.2m) at end March 2015.

27 May 2015

Price	**US$38.28***
Market cap	**US$263m**

*underlying € price converted at US$1.12
ADR/Ord conversion ratio 1:1

Estimated net cash ($m) at end March 2015	37.2
ADRs in issue	6.9m
ADR Code	EYRYY
ADR exchange	OTC
Underlying exchange	Euronext
Depository	Bank of New York Mellon

Business description

Erytech is a French oncology company with a red blood cell encapsulation technology. Lead product Graspa has successfully completed a Phase III ALL trial and a Phase IIb in AML is ongoing, in addition to a Phase II in pancreatic cancer. Graspa is partnered with Orphan Europe/Recordati in Europe.

Next events

Graspa ALL EU filing	Mid-2015
Eryasp pancreatic cancer DSMB	Mid-2015
Eryasp US development plans	Q315
Start of Phase II NHL Eryasp trial	H215

Analysts

Dr Philippa Gardner +44 (0)20 3681 2521

Dr Mick Cooper +44 (0)20 3077 5734

healthcare@edisongroup.com

Edison profile page

Graspa data at upcoming conferences

Graspa Phase III ALL (acute lymphoblastic leukemia) data will be presented at two upcoming conferences, detailed below. As a reminder, top-line data (and further details) have already been presented where Graspa/Eryasp[1] demonstrated superior safety to native L-asparaginase, with no allergic reactions on Graspa versus 43% on native L-asparaginase (p<0.001). Graspa was shown to have a significantly longer duration of activity, an efficacy surrogate, with 20.5 days for Graspa compared to 9.2 days for native L-asparaginase (p<0.001). The data presented to date are summarized in Exhibit 1, with an overview of ongoing and planned development in Exhibit 2.

Exhibit 1: Phase III ALL trial data overview (shaded rows are the composite endpoints)

	Non-allergic patients			Allergic patients
	Graspa/Eryasp	Native L-asp	p value	Graspa/Eryasp
Number of patients	26	28		26
Allergic reactions (hypersensitivity)	0 (0%)	12 (43%)	<0.001	3 (12%)
Severe allergic reactions (≥Grade 3)	0 (0%)	7 (25%)		0 (0%)
Duration of asparaginase activity >100 IU/L	20.5 days	9.2 days	<0.001	18.6 days
Complete remission (CR)	17 (65%)	11 (39%)	<0.05	14 (54%)

Source: Erytech, Edison Investment Research.

Further details from the trial will be presented at two upcoming conferences. In particular, we expect maturing CR data to be available as further patients have been evaluated. Abstracts suggest a Graspa CR of 65% (which would imply 17 patients of the full 26 enrolled in the trial had a complete response) and L-asparaginase CR of 39% (implying 11 patients of the full 28 had a complete response), suggesting the data are now mature. Data will be presented at:

- **ASCO (American Society of Clinical Oncology)** – data will be presented in an oral session at 14:15 on Saturday May 30.
- **EHA (European Hematology Association):** – data will be presented in an oral session at 12:30-12:45 on Saturday June 13.

Exhibit 2: Graspa/Eryasp summary of planned/ongoing development

Product	Indication	Stage	Comments
Graspa	ALL	Phase III complete	European filing anticipated mid-2015 and launch therefore in H216. US: Phase Ib ALL confirmatory safety trial ongoing. Erytech seeking to accelerate pivotal development (expect update with H1 results).
	AML	Phase IIb	Europe: 75% recruited; two DSMBs complete; data in 2016.
Eryasp	NHL (DLBCL)	Phase II planning	Erytech planning to start Phase II development in H215.
Eryasp	Pancreatic cancer	Phase II	Trial ongoing; DSMB anticipated around mid-2015.
	Other solid tumors		50-90% of solid tumors could be eligible.

Source: Edison Investment Research. Note: DLBCL is diffuse large B-cell lymphoma.

Valuation

We have made no major adjustments to our underlying Graspa assumptions, maintaining our peak Graspa ALL sales of €225m ($252m), with launch in 2016 in Europe with partner Recordati. Our valuation has been updated with rolling forwards in time and for estimated net cash at end March 2015 of $37.2m. Our updated Erytech valuation is therefore $296m or $43.0/ADR, based on a risk-adjusted NPV analysis. The breakdown of our rNPV valuation, which uses a 12.5% discount rate, is shown in Exhibit 3.

[1] Note: Graspa is the European brand name for Eryasp in ALL and AML, which Recordati has licensed.

Exhibit 3: Erytech rNPV valuation

Product	Indication	Launch	Peak sales ($m)	NPV ($m)	Probability	rNPV ($m)	rNPV/ADR ($/ADR)
GRASPA Europe	ALL	2016	140	98.4	90%	88.5	12.9
	AML	2017	185	114.4	45%	51.5	7.5
Eryasp US	ALL	2019	112	68.4	80%	55.4	8.0
	AML	2020	134	77.7	35%	27.2	4.0
Eryasp	NHL	2020	246	125.0	20%	20.7	3.0
Eryasp	Pancreatic cancer/solid tumors	2022	336	103.2	20%	15.2	2.2
Net cash/(debt)				37.2	100%	37.2	5.4
Valuation				**624.3**		**295.7**	**43.0**

Source: Edison Investment Research

Financials

Erytech reported FY14 revenues of €2.0m, which was ahead of our forecasts, including €1.5m of research tax credits. Operating expenses including R&D of €6.6m and SG&A of €4.4m were both higher than we expected, with higher R&D owing to increased clinical trial activity (Phase II pancreatic cancer trial and Phase Ib US-based ALL trial) and SG&A costs reflecting a full year as a listed company, with the higher costs that it incurs. A summary of 2014 reported financials versus our estimates is shown in Exhibit 4.

With FY14 R&D spend ahead of our forecast, we have therefore increased our future R&D spend estimates and expect these to increase in 2015 compared to 2014 with the start of further trials later this year (potential US development and the launch of a Phase II NHL trial). This also drives higher revenues as the R&D tax credit (of up to 30% of the previous year R&D spend), which is recorded as revenue, has consequently increased. We have also raised our SG&A forecasts in-line with the trend observed with FY14 results. A summary of our key changes is summarized in Exhibit 4. Our financial forecasts are shown in Exhibit 5.

Gross cash at end March 2015 was €34m, which together with debt of €0.8m reported at end December 2014 (the majority relating to OSEO/BPI France grants, some of which are repayable over the next two years) suggests net cash of approximately €33.2m, assuming there have been no debt changes. Underlying cash burn in 2014 was €7.7m and although this is likely to increase in coming years as Erytech broadens Graspa development to additional indications and advances the earlier stage pipeline. We continue to estimate that cash should be sufficient to fund operations for the foreseeable future. Our financial forecasts and cash reach estimate do not include unknown or uncertain milestones and hence exclude a milestone payment of around €7-8m which is due from partner Recordati upon European approval in each of ALL and AML. In addition, if Erytech out-licenses Graspa (Eryasp) in the US or in NHL or solid tumors, additional licensing income could also be owed. All of these could extend the current cash runway even further.

Exhibit 4: Summary of FY14 results and key changes to future financial forecasts

€m	2014e Estimates	2014a Reported	Difference	2015e Old	2015e New	Change	2016e Old	2016e New	Change
Revenue	1.447	2.026	+40%	1.394	1.853	+33%	1.430	2.250	+57%
R&D	(5.578)	(6.613)	+19%	(5.719)	(8.200)	+43%	(5.579)	(8.560)	+53%
SG&A	(3.150)	(4.361)	+38%	(3.308)	(4.579)	+38%	(3.473)	(4.808)	+38%
EBITDA	(7.597)	(8.672)	+14%	(7.951)	(10.651)	+34%	(7.950)	(10.831)	+36%
Net loss (reported)	(7.042)	(8.860)	+26%	(7.128)	(10.444)	+47%	(7.053)	(10.631)	+51%

Source: Edison Investment Research

Exhibit 5: Financial summary

$'000s	2011	2012	2013	2014	2015e	2016e
December	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue	1,024	6,426	2,019	2,269	2,076	2,520
Cost of Sales	0	0	0	0	0	0
Gross Profit	1,024	6,426	2,019	2,269	2,076	2,520
Research and development	(4,302)	(3,876)	(5,967)	(7,406)	(9,184)	(9,587)
EBITDA	(6,725)	(1,530)	(8,257)	(9,712)	(11,929)	(12,131)
Operating Profit (before amort. and except.)	(6,419)	(1,230)	(7,963)	(10,012)	(12,225)	(12,438)
Intangible Amortization	27	27	27	(10)	(12)	(15)
Exceptionals	0	0	0	0	0	0
Other	22	(13)	23	132	0	0
Operating Profit	(6,370)	(1,216)	(7,913)	(9,890)	(12,237)	(12,452)
Net Interest	(252)	(1,208)	(1,254)	(56)	539	546
Pre-tax profit (norm)	(6,671)	(2,438)	(9,217)	(10,068)	(11,685)	(11,892)
Pre-tax profit (FRS 3)	(6,622)	(2,424)	(9,167)	(9,946)	(11,698)	(11,906)
Tax	3	(9)	45	23	0	0
Profit After Tax (norm)	(6,646)	(2,459)	(9,149)	(9,913)	(11,685)	(11,892)
Profit After Tax (FRS 3)	(6,619)	(2,433)	(9,122)	(9,923)	(11,698)	(11,906)
Average Number of Shares Outstanding (m)						
Average number of ADS outstanding (m)						
EPS - normalized ($)	(2.11)	(0.78)	(1.95)	(1.69)	(1.70)	(1.73)
EPS - normalized and fully diluted ($)	(2.11)	(0.78)	(1.95)	(1.69)	(1.70)	(1.73)
EPS - (IFRS) ($)	(2.10)	(0.77)	(1.95)	(1.69)	(1.70)	(1.73)
Earnings per ADR - normalized ($)	(2.11)	(0.78)	(1.95)	(1.69)	(1.70)	(1.73)
Earnings per ADR - normalized and fully diluted ($)	(2.11)	(0.78)	(1.95)	(1.69)	(1.70)	(1.73)
Earnings per ADR - (IFRS) ($)	(2.10)	(0.77)	(1.95)	(1.69)	(1.70)	(1.73)
Dividend per share ($)	0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)	100.0	100.0	100.0	100.0	100.0	100.0
EBITDA Margin (%)	-656.7	-23.8	-409.0	-428.1	-574.7	-481.4
Operating Margin (before GW and except.) (%)	-626.9	-19.1	-394.5	-441.3	-589.0	-493.6
BALANCE SHEET						
Fixed Assets	1,430	1,126	1,019	1,210	1,034	868
Intangible Assets	55	33	16	35	51	66
Tangible Assets	1,137	864	911	1,084	891	710
Investments	237	229	93	92	92	92
Current Assets	4,105	10,235	19,083	44,270	35,320	25,917
Stocks	110	130	155	222	222	222
Debtors	0	0	98	117	114	138
Cash	2,496	8,820	16,926	41,427	32,481	23,054
Other	1,499	1,285	1,905	2,503	2,503	2,503
Current Liabilities	(1,885)	(8,374)	(3,936)	(4,769)	(5,128)	(4,961)
Creditors	(1,712)	(3,191)	(3,621)	(4,395)	(4,752)	(4,876)
Short term borrowings	(174)	(5,183)	(315)	(374)	(376)	(85)
Long Term Liabilities	(5,783)	(7,497)	(949)	(588)	(1,416)	(2,536)
Long term borrowings	(5,570)	(7,249)	(818)	(488)	(1,317)	(2,437)
Other long term liabilities	(213)	(248)	(131)	(99)	(99)	(99)
Net Assets	(2,134)	(4,510)	15,217	40,123	29,810	19,288
CASH FLOW						
Operating Cash Flow	(5,681)	696	(7,250)	(8,107)	(10,190)	(10,647)
Net Interest	(131)	(1,045)	(2)	677	539	546
Tax	0	0	0	0	6	0
Capex	(99)	(54)	(469)	(443)	(104)	(126)
Acquisitions/disposals	0	0	0	0	0	0
Financing	0	0	15,610	32,673	0	0
Other	99	38	11,515	(28)	(29)	(29)
Dividends	0	0	0	0	0	0
Net Cash Flow	(5,812)	(365)	19,404	24,772	(9,777)	(10,256)
Opening net debt/(cash)	(2,565)	3,247	3,612	(15,793)	(40,565)	(30,788)
HP finance leases initiated	0	0	0	0	0	0
Other	0	0	0	0	(0)	0
Closing net debt/(cash)	3,247	3,612	(15,793)	(40,565)	(30,788)	(20,532)

Source: Erytech accounts, Edison Investment Research. Note: Our financial forecasts exclude Graspa royalty income until formal approval.

Solely for the convenience of the reader the financial summary table has been converted at a rate of US$1.12 to €1. Erytech Pharma reports statutory accounts in euros. These translations should not be considered representations that any such amounts have been or could be converted into US dollars at the assumed conversion rate.

Frankfurt +49 (0)69 78 8076 960
Schumannstrasse 34b
60325 Frankfurt
Germany

London +44 (0)20 3077 5700
280 High Holborn
London, WC1V 7EE
United Kingdom

New York +1 646 653 7026
245 Park Avenue, 39th Floor
10167, New York
US

Sydney +61 (0)2 9258 1161
Level 25, Aurora Place
88 Phillip St, Sydney
NSW 2000, Australia

Wellington +64 (0)48 948 555
Level 15, 171 Featherston St
Wellington 6011
New Zealand