31 March 2011

Addex Pharmaceuticals

Year End	Revenue (CHFm)	PBT* (CHFm)	EPS* (CHF)	DPS (CHF)	P/E (x)	Yield (%)
12/09	4.5	(42.4)	(7.2)	0.0	N/A	N/A
12/10	4.0	(33.3)	(5.3)	0.0	N/A	N/A
12/11e	6.5	(33.3)	(4.3)	0.0	N/A	N/A
12/12e	0.2	(30.4)	(3.7)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding goodwill amortisation and exceptional items.

Investment summary: Two Phase II study starts

Addex has announced initiation of two Phase IIa studies: one by partner Johnson & Johnson for JNJ-40411813 (ADX71149) in schizophrenia and the other internally for dipraglurant in Parkinson's disease levodopa-induced dyskinesia (PD-LID). The J&J study initiation triggers a €2m milestone under the companies' €112m licensing deal. Addex now has a more mature pipeline, with two mid-stage R&D programmes.

Phase II initiation for JNJ-40411813

J&J's study of JNJ-40411813 (ADX71149), a mGluR2 PAM, has an initial 15 patient open-label, dose-escalation phase as monotherapy before moving to a randomised phase as adjunctive (add-on) therapy in 90 patients with residual positive symptoms or predominant negative symptoms or inadequate response to clozapine. Completion is expected in December this year. Lilly recently opened a Phase III study in schizophrenia with its competing orthosteric mGluR2/3 agonist, LY2140023.

Dipraglurant PD-LID study starts

Addex's Phase IIa study will test the IR version of dipraglurant, an mGluR5 NAM, in 72 patients with PD-LID. This study should read out in H112. An ER version of dipraglurant will enter Phase I studies in H2 and Phase II studies in non-Parkinsonian dystonia in 2012. Dipraglurant is a fast follower to Novartis's AFQ056, which has just finished a large Phase II study. Novartis has confirmed plans to move AFQ056 into Phase III studies for PD-LID this year.

Improvement in pipeline maturity

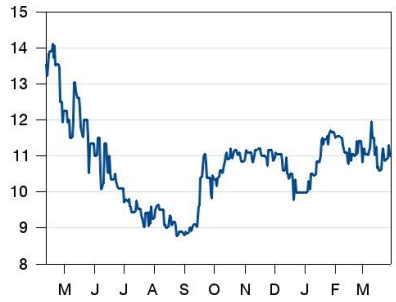
The investment case centres on the success of these two studies combined with Addex's ability to secure new licensing deals. However, now that it has two mid-stage R&D programmes, Addex may benefit from stock market recognition of the improvement in the maturity in its pipeline.

Valuation: Risk-adjusted NPV of CHF344m

Addex has considerable unrecognised value in its R&D pipeline. We value the company at CHF280m (CHF344m including cash, equivalent to CHF44 per share), based on a risk-adjusted net present value of its key R&D programmes.

Price	CHF11.1
Market Cap	CHF89m

Share price graph



Share details

Code	ADXN
Listing	SIX
Sector	Biotech
Shares in issue	7.83m

Price

52 week	High	Low
	CHF14.2	CHF8.8

Balance Sheet as at 31 December 2010

Debt/Equity (%)	N/A
NAV per share (CHF)	10.0
Net cash (CHFm)	63.8

Business

Addex Pharmaceuticals is a Swiss biotech company with a proprietary allosteric modulator discovery platform and a pipeline in CNS, inflammatory and metabolic disorders. It has partnerships with J&J (Ortho-McNeil-Janssen) and Merck & Co.

Valuation

	2010	2011e	2012e
P/E relative	N/A	N/A	N/A
P/CF	N/A	N/A	N/A
EV/Sales	N/A	N/A	N/A
ROE	N/A	N/A	N/A

Revenues by geography

UK	Europe	US	Other
0%	100%	0%	0%

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Investment summary: Capturing the Phase II uplift

Company description: Leader in allosteric modulation

Addex Pharmaceuticals is a Swiss biotech company with a world-leading position in the identification of small molecule allosteric modulators.[1] It was founded in 2002 and has raised CHF263m in equity since inception (including CHF137m at its 2007 IPO and CHF20m in September 2010). Addex has 12 active drug development programmes, three of which are subject to partnerships: one with J&J and two with Merck & Co. Addex is located in Geneva, Switzerland, with a subsidiary in Archamps, France, and employs around 110 staff.

Exhibit 1: Addex development programmes (clinical/late preclinical)

Product	Indication	Phase	Notes
JNJ-4041183 (ADX71149)	Schizophrenia/ anxiety/other CNS	Phase II	Partnered with **J&J.**
Dipraglurant	PD-LID/dystonia	Entering Phase II	IR version for PD-LID; ER version for dystonia/other CNS indications
ADX68692	Endometriosis/BPH	Preclinical	In vivo PoC ongoing
ADX63365	Schizophrenia	Preclinical	Partnered with **Merck & Co**
mGluR4 PAM	Parkinson's disease	Lead opt	Partnered with **Merck & Co.**
mGluR2 NAM	AD/depression	Lead opt	In vivo PoC achieved
$GABA_B$ PAM	OA pain/other	Lead opt	Lead optimisation.
GLP1R PAM	Type II diabetes	Lead opt	

Source: Edison Investment Research

Valuation: Risk-adjusted NPV of CHF344m

There is significant unrecognised value in Addex's pipeline and its technology platform. Edison's risk-adjusted net present value of the key R&D programmes is CHF280m, which equates to a valuation of CHF344m (or CHF44 per share) including FY10 year-end cash. This figure should rise as products progress successfully through development. In addition, Addex has established a strong technology platform for identifying allosteric modulators and attractive and under-exploited area of pharmacology, which could make it a target for a buy-out offer.

Sensitivities

The company is subject to the same sensitivities typical of pharmaceutical drug development, including the unpredictable outcome of clinical trials, the success or failure of competitors, and a reliance on partners (and on the formation of new partnerships). A single investor, Biotechnology Value Fund, holds a significant 30% equity stake.

Financials

Addex ended the year with cash of CHF64m, which management estimates provides a runway into 2013 based on current expenditure levels, without assuming any new milestones. We have modelled revenue of CHF6.5m in 2011 (including the €2m Phase II-start milestone from J&J) and R&D expenditure of CHF34.5m (this is consistent with the upper limit of the management cash burn projection of CHF28-32m). Revenue and R&D costs may turn out to be higher, but likely by a similar sum. The model does not reflect milestone payments until received, as per our policy. Addex also holds CHF185m of unrecognised tax losses.

[1] Allosteric modulators (AMs) are compounds that bind to alternate sites and hence do not compete with endogenous ligands and therefore allow more subtle control than classical agonists/antagonists.

Review: J&J starts first Phase II study in schizophrenia

Addex has announced the initiation of two Phase IIa studies: one by partner Johnson & Johnson for JNJ-40411813 (ADX71149) in schizophrenia and the other internally for dipraglurant in Parkinson's disease levodopa-induced dyskinesia (PD-LID).

The J&J study has two stages: an initial 15-patient open-label dose escalation phase as monotherapy followed by a randomised phase as adjunctive (add-on to existing) therapy in 90 patients who do not fully respond to other antipsychotics. This second stage will recruit patients with residual positive symptoms (hallucinations delusions, disordered thought processes etc) or predominant negative symptoms (deficits of normal emotional responses), or those with an inadequate response to clozapine (considered the most effective antipsychotic drug). The study is expected to complete dosing in December this year.

Addex has also started its own Phase IIa study with the IR version of dipraglurant in Parkinson's disease levodopa-induced dyskinesias (PD-LID). This study will recruit 72 patients with PD-LID and should read out in H112.

The two announcements mean that Addex now has two Phase II compounds in its pipeline, with a further four in late preclinical. A summary of Addex's R&D pipeline is shown in Exhibit 2 (some earlier stage research programmes have been omitted).

Exhibit 2: Addex R&D pipeline (clinical/late preclinical).

Note: J&J reports clinical trial data for JNJ-40411813 and has not confirmed this to be the same as ADX71149. However, this can be readily established by searches of records on www.clinicaltrials.gov. Addex has not confirmed or denied whether this is the case.

Product (MoA)	Indication	Notes
JNJ-40411813 (ADX71149)/ (mGluR2 PAM)	Schizophrenia anxiety/other	Partnered with **Ortho-McNeil Janssen Pharmaceuticals (J&J).** 105-pt two-part Phase II study in schizophrenia. The study has an open-label dose escalation phase as monotherapy in 15 subjects with (sub) acute positive symptoms followed by a randomised phase as adjunctive (add-on) therapy. The open-label phase has a starting dose of 50mg bid, increasing in steps to a recommended dose of 150mg bid over up to 12 wks. The randomised phase will treat 90 subjects (c60 active, 30 placebo) with residual positive symptoms or predominant negative symptoms or in subjects with insufficient response to clozapine at two different dose levels of 50mg bid up to maximally 150mg bid. **Primary endpoints**: safety and tolerability. **Secondary endpoints**: efficacy Positive and Negative Syndrome Scale (PANSS); Clinical Global Impression - Schizophrenia (CGI-SCH) and subjective Well-being under Neuroleptics scale. **Results:** December 2011. Planned Phase II study in anxiety and other CNS indications in 2011/12.
Dipraglurant (formerly ADX48621)/ (mGluR5 NAM)	PD-LID /non-Parkinsonian dyskinesias	**IR version** 72-pt, four wk Phase II study in moderate to severe PD-LID (results: early/mid 2012). Dose titration from 50mg qd to 100mg tid taken with levodopa. **Primary endpoint**: safety and tolerability. **Secondary endpoints:** exploratory efficacy (trained observer scores LID severity – Abnormal Involuntary Movement Score, patient diaries, PD rating scales (including dystonia), evaluation of mood, objective evaluation in the clinic (at baseline, wks 2 and 4). **Results**: H112. **ER formulation** (bid or qd administration) Phase I to allow small proof-of-concept Phase II study in non-Parkinsonian dystonia. Potential target indications include idiopathic torsion dystonia, early-onset generalised dystonia and cervical dystonia (spasmodic torticollis). Potential for development by a licensee for other indications, including Fragile X syndrome, pain, anxiety, depression and GERD.
ADX68692/ (FSHR NAM)	Endometriosis/ BPH	Preclinical testing in an animal model of endometriosis underway. Prior animal studies have shown significant anti-oestrogenic effects.
ADX63365/ (mGluR5 PAM)	Schizophrenia/ cognition	Partnership with **Merck & Co.** Phase I start possible in 2011/12 (Edison estimate).
mGluR4 PAM	Parkinson's	Partnership with **Merck & Co.**
mGluR2 NAM	AD/depression	Lead candidate final selection.
$GABA_B$ PAM	Chronic pain	Possible development in other indications, including urinary incontinence and GERD.
GLP1R PAM	Type II diabetes	Lead optimisation.

Source: Edison Investment Research

Competition

There are four NCEs in active Phase III development for schizophrenia and probably a further ten compounds (including now JNJ-40411813) in Phase II studies, although some address only the cognitive deficit associated with schizophrenia (see Exhibit 3).

Exhibit 3: Competing programmes for schizophrenia (Phase II or later)

Notes: Excludes some investigator-sponsored studies of CNS drugs that are already approved in other indications.

Drug	Company	Development status/notes
Cariprazine (RGH-188)	Forest/Richter/ Mitsubishi Tanabe	450-pt and 600-pt Phase III (results: June 2011). Also in Phase III for bipolar disorder. Recent Phase II studies in bipolar depression and major depression failed to show difference, although showed some trends at the higher dose. D_2/D_3 antagonist
LY2140023	Eli Lilly	950-pt Phase III study of three doses seven wks (results: Feb 2013). 260-pt Phase II study (results pending, but presumed positive); 880-pt Phase II study (results: Dec 2011) and 280-pt Phase II study in schizophrenia with prominent negative symptoms (results: Oct 2011), 1,210-pt Phase II/III open label study (results: June 2015). mGluR2/3 agonist
Zicronapine (LU-31 030)	Lundbeck	160-pt Phase III study (results: July 2012). Two Phase II studies completed (data not yet reported). MOAI
RG1678/ RO4917838	Roche	Three planned 630-pt Phase III studies in pts with persistent, predominant negative symptoms of schizophrenia, add-on to psychotics (endpoint is 24 weeks PANSS negative symptom factor at 24 weeks).200-pt Phase II study for acute exacerbation of schizophrenia (results: October 2012). 320-pt Phase II study showed improvement on negative symptoms and personal/social functioning. 40-pt Phase I study for biomarkers of cognitive dysfunction (results: 2013). GlyT1 inhibitor.
BL-1020	BioLineRx/Cypress	Three Phase II studies completed. $GABA_A$ agonist.
EVP-6124	EnVivo Pharma	225-pt Phase II study (results due: February 2010). Phase IIb study (results: 2011). Also in Phase II development for AD. Nicotinic α7 agonist.
GSK239512	GSK	80-pt Phase II study in cognition in schizophrenia (results: Aug 2011). H_3 antagonist.
Eltroprazine	PsychoGenics	50-pt Phase II study in cognitive impairment with schizophrenia (results: March 2012). 5HT 1A/B agonist, 5HT2c antagonist.
CYR-101/ MT-210	Mitsubishi Tanabe/Cyrenaic	100-pt Phase II study underway. $5HT_{2a}$/sigma 2 antagonist.
PF-02545920	Pfizer	260-pt Phase II study for acute exacerbation of schizophrenia (results: Sept 2011). 20-pt Phase I study in ketamine model. PDE10 inhibitor.
ABT-126	Abbott	210-pt Phase II trial in cognition assoc with schizophrenia (results: April 2011).
ABT-288	Abbott	210-pt Phase II trial in cognition assoc with schizophrenia (results due: March 2011).
AQW051	Novartis	32-pt Phase II study on cognitive function in schizophrenia (results: Sept 2011). 132-pt Phase I/II study (results: March 2011). Alpha-7 nicotinic agonist.
SCH-900435	Merck & Co	200-pt Phase II study listed as "withdrawn" (probably discontinued).
Vabicaserin	Pfizer	Two Phase II studies terminated. Listed as Phase I in updated Pfizer pipeline (aka PF-05208769/SCA-136).

Source: Edison Investment Research

Lilly recently started a 950-patient Phase III study with its orthosteric mGluR2/3 agonist, LY2140023, in schizophrenia, apparently while still conducting two (of the three) Phase II studies. It will have to conduct other Phase III studies to achieve registration. It has completed one Phase II study, the outcome of which has not been disclosed but was presumably positive. Lilly has, however, published positive results of a Phase II trial with an earlier, now discontinued, mGluR2/3 agonist, LY404039. This showed similar efficacy in the control of schizophrenia symptoms to marketed schizophrenia drugs without the side-effects of weight gain or extrapyramidal symptoms (movement disorders) commonly associated with current agents.

J&J-40411813 is the only mGluR2 sub-type selective compound as well as the only other compound in development targeting mGluR2 activation after AstraZeneca's discontinuation of its mGluR2/3 PAM, AZD8529.

Dipraglurant: PD-LID entering Phase II

Addex has also opened its own Phase IIa study of the immediate-release formulation of dipraglurant in PD-LID. The study, which will recruit 72 patients, is expected to render results in H112. It will have a primary objective of safety but will explore efficacy through a variety of objective

and subjective measures of dyskinesia and other symptoms, including mood. Based on its mechanism, dipraglurant may offer some improvement in the cognitive deficits induced by dopamine depletion and the co-morbid anxiety/depression and GI dysfunction associated with Parkinson's disease.

In parallel, Addex is planning to initiate preparatory PK/PD (Phase I) studies with an extended-release formulation of the drug for use in other CNS indications in mid 2011 and expects to undertake a small proof-of-concept (possibly ~30-patient) study with this formulation in non-Parkinson's dystonia in 2012.

Dipraglurant is a fast-follower to Novartis's AFQ056, also an mGluR5 NAM. Novartis has confirmed plans to initiate Phase III studies with AFQ056 in PD-LID this year, having just completed a large (234 patient) Phase II study in this indication. Results of this study can be expected later this year. Novartis has already published positive results of two smaller studies of AFQ056 in PD-LID. It is also running a pivotal 160-patient Phase II/III study in Fragile X syndrome, which is expected to form the basis for a regulatory submission in 2012. This orphan disease may therefore be the first indication sought for the drug.

Addex believes dipraglurant will be differentiated from AFQ056 by the fact it has shown efficacy in dystonia (the slow often painful and disabling writhing-type movements) component of dyskinesia, as well as in chorea (sudden rapid uncontrolled involuntary movements). Dipraglurant is the only compound to date to have shown efficacy for dystonia in the primate MPTP model of PD-LID and is therefore likely to be differentiated from AFQ056.

There are about eight compounds in active clinical development for PD-LID. AFQ056 could reach the market for PD-LID in 2013, probably two years ahead of dipraglurant, which is effectively in joint second position with Santhera/Ipsen's fipamezole. Competing development programmes in this indication are shown in Exhibit 4.

Exhibit 4: Competing development programmes for PD-LID

Product	Company	Development stage/notes
AFQ056	Novartis	Phase III study expected in 2011. 234-pt Phase II study in PD-LID (completed, no results yet), 50-pt Phase II study with increased doses of l-dopa in moderate-severe PD-LID (results: April 2011). 244-pt open-label extension in PD (results: Dec 2014). Filing 2012. mGluR5 NAM.
preladenant/ SCH 420814	Merck & Co	18-pt Phase II study for PD-LID (completed, no results published). Three Phase III studies (1,000-pt and 750-pt and 450-pt) underway for PD plus extension. A2A antagonist.
ordopidine (ACR325)	Neurosearch	Phase II study planned in H2 11. Phase Ib study underway (results: H111). Dopaminergic stabiliser (full D2 antagonist, other glutaminergic activities).
Safinamide	Newron/ Merck KgaA	36-pt Phase II trial in PD-LID (results: April 2011), although primarily in development for symptomatic control of PD: 666-pt Phase III study (MOTION) (results: March 2011) and 484-pt Phase III study (SETTLE) (results: March 2011). MAO-B/glutamate release inhibitor.
NP002	Neuraltus	65-pt 14-week Phase II trial showed clinically relevant trends and/or statistical superiority of NP002 over placebo in a variety of efficacy outcome measures (all secondary endpoints). Primary endpoint was safety. NP-002 is a nicotine receptor agonist (ie nicotine).
fipamezole	Santhera/ Ipsen	Planned Phase III programme in PD-LID in 2012, subject to formation of North American partnership. 179-pt dose ranging, 28-day Phase IIb study (FJORD) showed significant reduction for highest dose (titrated up to 90mg tid) placebo (p=0.047, n=29). A2A antagonist.
Neu-120	Neurim	20-pt Phase I/II study completed. MAO-B/GSK-3 beta inhibitor.
ND001	NeuroDerm	24-pt Phase I/II study of NN001 (sc continuously-delivered carbidopa) with levodopa/carbidopa in LPD-LID (results: Jan 2012).
naluzotan (PRX00023)	Proximagen	Possible development for PD-LID, subject to partnership. Could move into Phase II based on prior Phase IIb/III studies in depression and anxiety. $5HT_{1A}$ agonist.
N/A	Adolor	Preclinical studies of centrally-acting mu opioid receptor (CAMOR) antagonists in PD-LID model.
N/A	Xenoport	Preclinical studies of oral prodrug of acamprosate in PD-LID model.

Source: Edison Investment Research

Metabotropic glutamate receptors

Metabotropic glutamate receptors (mGluRs) control release of glutamate, a neurotransmitter that is integral to the functioning of memory, learning and perception, and interacts with many receptors in the brain. There are eight known subtypes of mGluRs, all with different activities. Although mGluRs are attractive potential CNS targets, they have not to date proved tractable to conventional orthosteric agonists/antagonists, because of requirement for subtle control of glutamate activity and the difficulty in achieving sufficient receptor selectivity (because all the receptors are structurally similar). Hence allosteric modulation should make these unexploited targets accessible. Addex has the dominant position in the development of allosteric modulators to mGluRs and a substantial proportion of all the agents acting on these receptors. It has two of the seven active clinical-stage programmes targeting mGluRs (JNJ-40411813 and dipraglurant) and most of the known research programmes (Exhibit 5).

Exhibit 5: Metabotropic glutamate modulator universe

Product	Mechanism	Indication	Development stage/indication
LY2140023/ **Lilly**	mGluR2/3 agonist	Schizophrenia	950-pt Phase III study in schizophrenia (results: Feb 2013). 260-pt Phase II study (results pending); 880-pt Phase II study (results: Dec 2011) and 280-pt Phase II study in pts with prominent negative symptoms (results: Oct 2011), 1,210-pt Phase II/III open label study (results: June 2015).
AFQ056/ **Novartis**	mGluR5 NAM	PD-LID/ Huntington's chorea/ Fragile X syndrome	160-pt Phase II/III study in Fragile X syndrome (results: November 2011); 234-pt Phase II study in PD-LID (completed, no results yet) 60-pt Phase II study in Huntington's (results: Sept 2011); and 50-pt Phase II study with increased doses of l-dopa in moderate-severe PD-LID (results: October 2010). 244-pt open-label extension in PD (results: Dec 2014). Filing 2012. Prior studies in GERD, smoking cessation, and Fragile X.
ADX48621/ **Addex**	mGluR5 NAM	PD-LID/ dystonia	140-pt Phase II study in PD-LID (start in Q111, results: early 2012). 32-pt Phase II study planned in focal dystonia (start mid year 2011, results: mid 2012).
JNJ-4048133/ **J&J/Addex**	mGluR2 PAM	Schizophrenia/ anxiety/other	105-pt two-part Phase II study in schizophrenia.
RO4917523/ /**Roche**	mGluR5 antagonist	Depression	48-pt Phase IIa study for treatment-resistant depression (results: June 2012, LPI: Q410). 60-pt Phase II study in Fragile X (results: April 2012).
STX107/ **Seaside**	mGluR5 antagonist	Fragile X syndrome	40-pt Phase I study in healthy volunteers completed (no results published).
RG1578/ **Roche**	mGluR2 antagonist	Depression	104-pt Phase I study.
ADX63365/**Merck & Co/Addex**	mGluR5 PAM	Schizophrenia/ cognition	Phase I start possible in 2011/12.
N/A /**Addex/ Merck & Co**	mGluR4 PAM	Parkinson's/ other	Preclinical
N/A/**Addex**	mGluR2 NAM	AD/depression	Lead candidate final selection.
N/A/**Merck KGaA/Domain**	mGluR4 PAM	Parkinson's/ other	Preclinical.

Source: Edison Investment Research

AstraZeneca recently discontinued two Phase I projects in the metabotropic glutamate area: AZD8529, an mGluR2/3 PAM, for schizophrenia and AZD2516, mGluR5 antagonist for chronic neuropathic pain. AstraZeneca also appears to have terminated a later stage mGluR5 antagonist, AZD2066, although there is some uncertainty over this and it is not shown in Exhibit 5.[2]

[2] AZ has terminated this compound for GERD, although it remains listed in its R&D pipeline in Phase II studies for chronic neuropathic pain and major depression. However both Phase II studies in these indications are listed as "terminated" on www.clinicaltrials.gov.

Sensitivities

Addex is subject to sensitivities common to many biotech companies, including the unpredictable outcome of clinical trials, the success or failure of competitors, and a reliance on existing partners (and on the formation of new partnerships). The company is well funded by biotech standards, with cash to 2013 and significant potential milestones payable under existing partnerships. A single investor, Biotechnology Value Fund, holds a 30% equity stake.

Valuation

There is significant unrecognised value in Addex's pipeline and its technology platform. Our risk-rNPV is CHF280m or CHF344m (equivalent to CHF44 per share, based on 7.83m shares) including FY10 year-end cash. This figure should rise rapidly as products progress successfully through development. The valuation does not ascribe any specific value to Addex's technology platform for identifying allosteric modulators, which we consider to be an attractive (and could make it a target for a buy-out offer). Inputs used in the valuation are tabulated in Exhibit 6.

Exhibit 6: Edison risk-adjusted NPV inputs

Product	Indication	Stage	Year of launch	Probability	Peak market share	Potential market size ($bn)
Dipraglurant IR	PD-LID	Phase II	2015	35%	25%	2.0
Dipraglurant- ER	Other CNS*	Phase I	2015	35%	15%	0.5
JNJ-40411813	Schizophrenia	Phase II	2015	35%	3%	16.0
JNJ-40411813	Other	Phase II	2015	35%	5%	4.0
ADX68592	Endometriosis/BPH/	Preclinical	2016	5%	5%	6.0
GABA-B	OA pain	Preclinical	2016	5%	2%	10.0
ADX63365	Schizophrenia	Preclinical	2016	5%	2%	16.0

Source: Edison Investment Research

Financials

Addex will receive a €2m milestone from J&J associated with the Phase II start of JNJ-40411813. A further c €105m of milestones are available under this licensing deal. Financial terms of all three agreements are shown in Exhibit 7.

Exhibit 7: Addex partnered programmes – deal terms

Product/ MoA	Partner	Deal terms
JNJ-40411813 (ADX71149) (mGluR2 PAM)	Ortho-McNeil-Janssen (J&J)	€3m upfront and deal with €112 in milestones (€7.2m received to date) tied to clinical and regulatory events and low double-digit royalties on sales. J&J is responsible for all costs of preclinical and clinical development.
ADX63365/ (mGluR5 PAM)	Merck & Co.	$22m upfront received and up to $680m in milestones payable ($455m in research, development, regulatory and sales milestones for the first product [in two indications] and a further $225m in development, regulatory and sales milestones for a second product [in two indications]), plus royalties. Addex has option to co-promote in EU.
mGluR4 PAM	Merck & Co.	$3m upfront with up to $106.5m in research development and regulatory milestones for the first product developed for multiple indications (of which $3.3m has been received to date), plus $61m in milestones payable on second/third product, plus royalties. Research phase completed in November 2010.

Source: Edison Investment Research

Addex management projects that its current cash should provide a runway into Q113 based on current expenditure levels, without assuming any additional milestones. We have modelled revenue of CHF6.5m in 2011 and R&D expenditure of CHF34.5m. This would be consistent with the upper limit of the management cash burn projection of CHF28-32m. Revenue and R&D costs may turn out to be higher, but likely by a similar sum. The model does not reflect milestone payments until received, as per our policy. Our financial model is shown in Exhibit 8.

Exhibit 8: Addex financial model

Notes: No assumption of future milestones from collaborations is made. Expenditure is consistent with the upper level of management guidance for cash burn in 2011 (CHF28-32m).

Year ending 31 December	CHF'000s	2008	2009	2010	2011e	2012e
PROFIT & LOSS						
Revenue		**26,874**	**4,503**	**4,000**	**6,522**	**227**
Cost of sales		0	0	0	0	0
Gross profit		26,874	4,503	4,000	6,522	227
EBITDA		**(21,505)**	**(39,044)**	**(29,353)**	**(30,983)**	**(28,358)**
Operating profit (before GW and except.)		**(23,420)**	**(41,758)**	**(32,178)**	**(32,705)**	**(29,540)**
Amortisation		(102)	(121)	(116)	(80)	(40)
Share-based payments		(1,350)	(975)	(1,104)	(1,104)	(1,104)
Exceptionals		0	0	0	0	0
Operating profit		**(24,872)**	**(42,855)**	**(33,398)**	**(33,889)**	**(30,684)**
Net interest		2,805	362	(48)	500	200
Profit before tax (norm)		**(21,965)**	**(42,372)**	**(33,329)**	**(33,309)**	**(30,444)**
Profit before tax (FRS 3)		**(22,066)**	**(42,493)**	**(33,445)**	**(33,389)**	**(30,484)**
Tax		0	0	0	0	0
Profit after tax (norm)		**(20,614)**	**(41,396)**	**(32,225)**	**(32,205)**	**(29,340)**
Profit after tax (FRS3)		**(22,066)**	**(42,493)**	**(33,445)**	**(33,389)**	**(30,484)**
Average number of shares outstanding (m)		5.7	5.7	6.1	7.5	7.8
EPS - normalised (CHF)		(3.6)	(7.2)	(5.3)	(4.3)	(3.7)
EPS - FRS 3 (CHF)		(3.8)	(7.4)	(5.5)	(4.5)	(3.9)
Gross margin (%)		100.0%	100.0%	100.0%	100.0%	100.0%
EBITDA margin (%)		N/A	N/A	N/A	N/A	N/A
Operating margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/A
BALANCE SHEET						
Fixed assets		**9,731**	**10,155**	**7,689**	**6,132**	**5,155**
Intangible assets		224	182	84	49	54
Tangible assets		8,994	9,568	6,568	5,046	4,064
Refund from assumption of dev costs		0	0	0	0	0
Other		513	405	1,037	1,037	1,037
Current assets		**122,596**	**78,399**	**66,495**	**34,414**	**6,010**
Stocks		0	0	0	0	0
Debtors		1,890	737	1,199	1,199	1,199
Cash		119,471	76,560	63,797	31,716	3,313
Other		1,236	1,102	1,499	1,499	1,499
Current liabilities		**(13,336)**	**(10,890)**	**(9,277)**	**(10,335)**	**(10,335)**
Trade payables		(4,145)	(4,524)	(3,147)	(4,500)	(4,500)
Short term borrowings		0	0	0	0	0
Provisions		0	0	0	0	0
Finance lease liabilities		0	0	0	0	0
Other current liabilities		(7,324)	(5,679)	(5,835)	(5,835)	(5,835)
Current portion deferred income		(1,867)	(687)	(295)	0	0
Long Term Liabilities		**0**	**(83)**	**(592)**	**(592)**	**(592)**
Long-term borrowings		0	0	0	0	0
Provisions		0	(83)	(592)	(592)	(592)
Deferred income		0	0	0	0	0
Deferred taxes		0	0	0	0	0
Other long-term liabilities		0	0	0	0	0
Net assets		**118,991**	**77,581**	**64,314**	**29,617**	**237**
CASH FLOW						
Operating cash flow		**(17,792)**	**(39,376)**	**(31,341)**	**(32,336)**	**(28,358)**
Net interest		3,307	315	(48)	500	200
Tax		0	0	0	0	0
Capex		(5,486)	(4,137)	(408)	(200)	(200)
Acquisitions/disposals		0	0	0	0	0
Financing		(102)	315	19,851	0	0
Dividends		0	0	0	0	0
Other		(124)	(73)	(452)	(45)	(45)
Net cash flow		(20,197)	(42,957)	(12,397)	(32,081)	(28,403)
Opening net debt/(cash)		**(140,045)**	**(119,471)**	**(76,560)**	**(63,797)**	**(31,716)**
HP finance leases initiated		(507)	46	(366)	0	0
Other		130	(0)	0	0	0
Closing net debt/(cash)		**(119,471)**	**(76,560)**	**(63,797)**	**(31,716)**	**(3,313)**

Source: Edison Investment Research, Addex Pharmaceuticals accounts