



Update Report

Addex Therapeutics

Rich in cash and pipeline



Chief Research Analyst

Marcel Wijma MSc

+1 (917) 460 6185 (US)

+31 (6) 1848 4204 (NL)

m.wijma@leeuwenhoek.com

<http://www.leeuwenhoek.com>



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|-------------------------------------------|---------------------------|
| Name: | Addex Therapeutics |
| Country: | Switzerland |
| Price: | CHF 2.54 |
| ISIN Code: | CH0029850754 |
| Reuters Code: | ADXN.SW |
| Market Cap (CHF m): | 72.6 |
| EV (CHF m): | 25.6 |
| Cash & cash eq. (CHF m): | 47.0 |
| Shares outstanding (m): | 28.6 |
| Volume: | 25,937 |
| Free float: | 63% |
| 52-week Range: | 1.98-4.00 |
| *) Including payment Indivior partnership | |

| | 2015A | 2016A | 2017A |
|-----------------------------------|--------------|--------------|--------------|
| Total Revenues | 0.79 | 0.40 | 0.50 |
| Net (Loss)/Profit | (4.20) | (3.13) | (3.24) |
| Net loss per share (cents) | (0.39) | (0.28) | (0.25) |
| R&D costs | 1.78 | 2.46 | 2.63 |
| Cash increase/(decrease) | 0.79 | (1.20) | 1.22 |
| Cash and marketable sec. | 2.63 | 1.40 | 2.59 |



Executive Summary

- Addex Therapeutics is a Swiss based biopharmaceutical company that is developing innovative oral therapies with a focus on neurological disorders. Addex' lead program is in preparation to start a Phase IIb/III pivotal registration study for levodopa-induced dyskinesia associated with Parkinson's disease (PD-LID). Addex has a proprietary small molecule allosteric modulator discovery platform. The company currently has 4 drug programs in or close to the start of clinical development and another 6 in preclinical development.
- Addex' lead product is dipraglurant that successfully completed a phase IIa POC trial in Parkinson's disease levodopa induced dyskinesia (PD-LID). The drug is scheduled to start a Phase IIb/III pivotal registration study in PD-LID in the first half of 2019.
- Another promising program is ADX71441 in addiction. ADX71441 is a novel, first-in-class, oral, small molecules that has demonstrated excellent preclinical efficacy and tolerability in several rodent models of pain, anxiety, addiction and OAB and have also proven efficacy in a genetic model of Charcot-Marie-Tooth Type 1A disease (CMT1A). Beginning of this year, Addex announced a strategic partnership with Indivior PLC for the global development and commercialization of ADX71441 for the treatment of addiction. Under the terms of the agreement, Addex received USD 5 million upfront and is eligible for USD 330 million of development, regulatory and commercialization milestones, tiered royalties up to double digit and a minimum of USD 4 million in research funding over 2 years. In addition, Addex retains the right to select compounds from the research collaboration for exclusive development in certain indications, including Charcot-Marie-Tooth type 1a neuropathy (CMT1A).



- The Company's current cash position has improved dramatically and amounts to CHF 47 million following a successful raise of CHF 40 million and the first payment from its partner Indivior. This should be sufficient to carry out the further development of its pipeline and the important completion of the Phase IIb/III pivotal registration trial with dipraglurant in PD-L1D.
- Based on our NPV based valuation, we believe that Addex is substantially undervalued at the current share price of CHF 2.54. Using our valuation model and taking into account the future revenues from its late stage clinical pipeline as well as its current partnership with Indivior, the company's current total value should be CHF 300-330 million, or CHF 10.50-11.50 per share. This represents a substantial upside from the current share price.



Company Profile

Addex Therapeutics is a Swiss based biopharmaceutical company that is developing an emerging class of oral small molecule drugs known as allosteric modulators. Allosteric modulators target a specific receptor or protein and alter the effect of the body's own signaling molecules on that target through a novel mechanism of action. The company enjoyed first-mover advantage in the process of discovering and developing allosteric modulators. Addex has developed an allostery-biased library of more than 70,000 compounds and biological assays which enable detection, optimization and confirmation of the mechanism of action of allosteric compounds. Currently, Addex has a diverse pipeline of proprietary compounds that cater to a number of major diseases. The platform is broadly applicable and has generated several molecules for indications with significant commercial potential with a focus on central nervous system (CNS) disorders with orphan drug potential. Its lead product is dipraglurant that successfully completed a Phase IIa POC trial in Parkinson's disease levodopa induced dyskinesia (PD-LID). The drug is scheduled to start a Phase IIb/III pivotal registration study in PD-LID in 2019H1.

Business Strategy & Partnerships

Addex' current business strategy includes the possibility of entering into collaborative arrangements with third parties to complete the development and commercialization of its proprietary drug candidates. It currently has two partnerships with big pharma. For ADX71149 in the treatment of epilepsy and other undisclosed CNS disorders, it has a partnership with Janssen Pharmaceuticals. Earlier this year, Addex announced a strategic partnership with Indivior PLC for the global development and commercialization of its program ADX71441 for the treatment of addiction. Under the terms of the agreement, Addex received USD 5 million upfront and is eligible for USD 330 million of development, regulatory and commercialization milestones, tiered royalties up to double digit and a minimum of USD 4 million in research funding over 2 years. In addition, Addex retains the right to select compounds from the research collaboration for exclusive development in certain indications, including Charcot-Marie-Tooth type 1a neuropathy (CMT1A).





Indivior PLC (LON:INDV) is a specialty pharmaceutical company focused on addiction treatment. The company was incorporated in September 2014 as a result of demerger of Reckitt Benckiser Pharmaceuticals Inc from RB Group. Indivior is focused on commercializing Suboxone® for opioid addiction (2017 revenue: USD 1.1 billion) and advancing its therapeutic pipeline to address the growing health epidemic of addiction and related mental health disorders. Indivior's product pipeline includes: RBP-6000, a buprenorphine 1 month depot in Atrigel® indicated for the treatment of opioid dependence; RBP-6300, a buprenorphine hemiadipate oral swallowable tablet with abuse-deterrent properties indicated for the treatment of opioid dependence; RBP-8000, a cocaine esterase indicated for the treatment of cocaine intoxication. This product has concluded a Phase II trial. No results were made public. Given Indivior's world leading position in addiction therapeutics, we believe Addex has found a very strong partner for ADX71441.

Addex also received three grants from The Michael J. Fox Foundation for Parkinson's Research, two (totaling USD 1.9 million) for the development of dipraglurant (ADX48621) in the treatment of PD-LID and one (USD 835K) for the discovery of TrkB small molecule allosteric modulators, as well as grants from the InnoSuisse (Swiss Commission for Technology and Innovation) to advance the preclinical profiling of allosteric modulator therapeutics for neurodegenerative and psychiatric diseases.



Pipeline: Focus on CNS related indications

Using its allosteric modulator discovery capabilities, Addex has developed a pipeline of proprietary clinical and preclinical stage drug candidates. In 2012, the company revised its business strategy to focus on the advancement of allosteric modulators of four receptors, namely the metabotropic glutamate receptor 5 (mGlu5), the metabotropic glutamate receptor 2 (mGlu2), and the gamma-aminobutyric acid subtype B receptor (GABA_B).

| Molecule / <u>MoA</u> | Preclinical | Phase 1 | Phase 2 | Phase 3 Pivotal |
|--------------------------------------------|-------------------------------------------------|---------|---------|---------------------------------------------------------------------------------------|
| Dipraglurant-IR (mGluR5 NAM) | Parkinson's disease levodopa-induced dyskinesia | | | |
| Dipraglurant-ER (mGluR5 NAM) | Focal cervical dystonia | | | |
| ADX71149 (mGluR2 PAM) | Epilepsy | | |  |
| ADX71441 (GABA _B PAM) | Addiction | | |  |



Source: Addex Therapeutics

However since 2012, much has changed, particularly for its lead program Dipraglurant in PD-LID. Market size has increased dramatically due to increased pricing and a clearer view on the number of patients. Also, the company is now leading in PD-LID, ahead of Novartis. Furthermore, data following new FDA required analysis show much more robustness. And last but not least, the company received orphan drug status, which provides an additional seven years of protection. The program is funded through the recent capital increase and the patents are valid till 2034.



Dipraglurant in PD-LID: Major changes since 2012

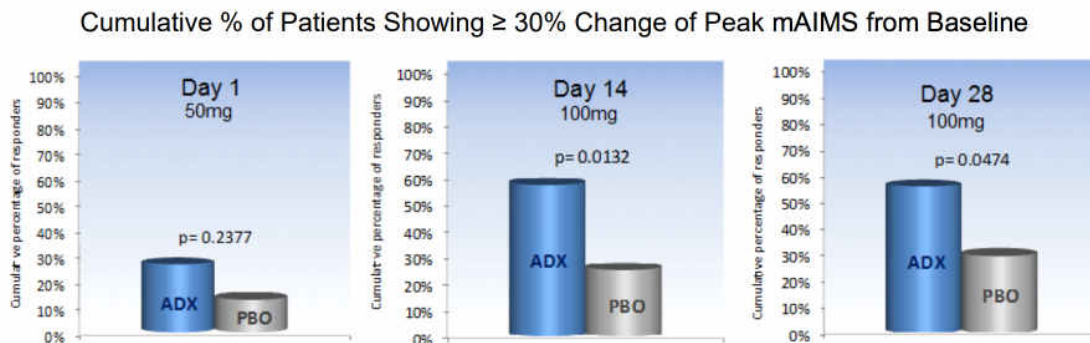
| | 2012 | 2018 |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PD-LID US Market Size | <ul style="list-style-type: none"> • Patient numbers unclear • Pricing in range of USD 3k-4k pa • Less than USD 400 million | <ul style="list-style-type: none"> • 170k PD-LID patients in US • Pricing expected in range of USD 20k-30k pa based on recent pricing Nuplazid, Ingrezza and Gocovri • USD 4.2bn PD-LID market in US |
| Dipraglurant Development Plan | <ul style="list-style-type: none"> • Regulatory path unclear • 3 studies anticipated (Ph IIb and 2 Ph III) • Efficacy endpoint – mAIMs (prone to placebo response) | <ul style="list-style-type: none"> • Precedented regulatory path in LID • Post FDA interaction – only 2 registration studies • Efficacy endpoint – UdysRS (developed for LID and includes objective clinician assessment) |
| Competition | <ul style="list-style-type: none"> • Dipraglurant 2nd in class behind mavoglurant (Novartis) • Long acting amantadine (ADS5102) | <ul style="list-style-type: none"> • Dipraglurant now 1st in class – mavoglurant terminated • Gocovri approved 24th August 2017, but safety profile similar to generic amantadine |
| Dipraglurant Data | <ul style="list-style-type: none"> • Efficacy signal poorly understood • Placebo effect in Phase II POC <ul style="list-style-type: none"> ◦ No placebo mitigated factors included • Short acting PK profile viewed as neg | <ul style="list-style-type: none"> • New FDA required analysis highlights robustness of efficacy signal • Placebo effect understood and mitigating factors built into registration studies • PK profile mirrors L-dopa – recognized by KOLs as a key advantage |
| Exclusivity | <ul style="list-style-type: none"> • Patent on composition of matter expires in 2025 | <ul style="list-style-type: none"> • Orphan drug designation – additional 7 years of protection • Additional patents filed to extend protection to 2034 |

Source: Addex Therapeutics



Dipraglurant IR in PD-LID

Addex' lead product in development is Dipraglurant IR (immediate release). Dipraglurant is a highly selective oral small molecule, which inhibits the metabotropic glutamate receptor 5 (mGluR5), and has potential to be used in combination with levodopa or dopamine agonists for treatment of Parkinson's disease (PD). The company is primarily testing dipraglurant for the treatment of PD levodopa-induced dyskinesia (PD-LID). In a double-blind, placebo-controlled, US and European Phase II study in PD-LID, data showed that dipraglurant met the primary objective of the study by exhibiting a good safety and tolerability profile. Dipraglurant also demonstrated a statistically significant reduction in LID severity with both 50 and 100 mg doses. Dipraglurant reduced dystonia severity in addition to chorea, the two major LID components. The trial was supported by a grant from The Michael J. Fox Foundation for Parkinson's Research.

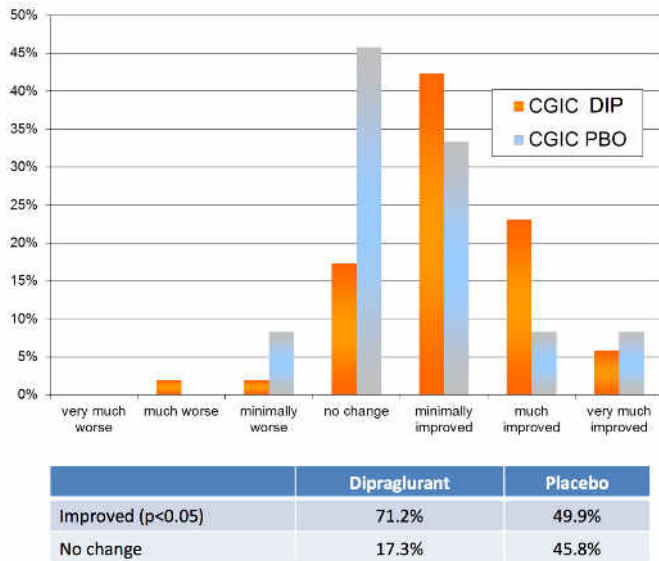


Source: Addex Therapeutics

This study found that dipraglurant therapy resulted in substantial improvements on multiple efficacy endpoints. Patients taking dipraglurant had significant reductions in modified Abnormal Involuntary Movement Scale (mAIMS) during peak levodopa concentrations and this response was maintained during the 3-hour post-dosing period. Participants receiving 50 mg dipraglurant on day 1 had a 19.9% reduction in mAIMS as compared to 4.1% for placebo ($p = 0.042$). After being titrated up to a 100 mg dose of dipraglurant, participants experienced a 32.3% reduction in mAIMS as compared to 12.6% for placebo ($p = 0.034$) on day 14. When looking at Clinical Global



Impression of Change (CGIC), there was even a greater improvement in dyskinesia with dipraglurant according to clinicians ($p < 0.05$). CGIC is a relatively simple scale that reflects the everyday clinical practice. The assessment is done by the treating physician which makes it a more objective assessment than the more subjective mAIMS.

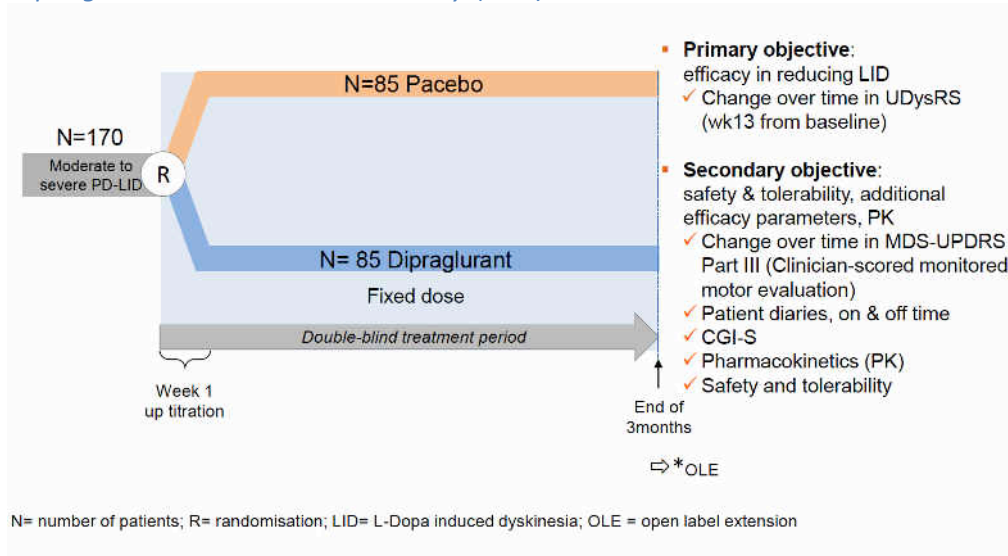


Source: Addex Therapeutics

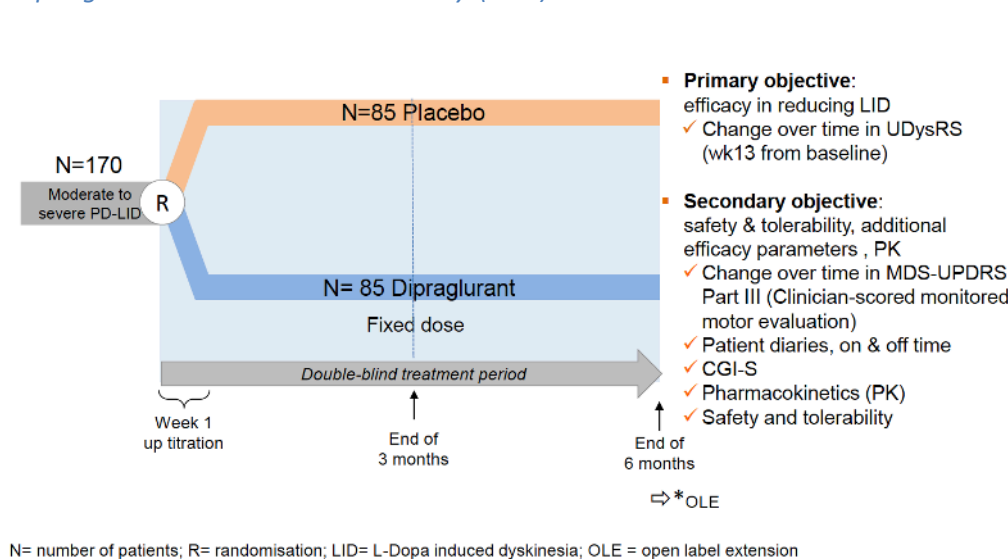
The company plans to launch a pivotal development program with the first clinical trial starting in 2019H1 to support regulatory filings for dipraglurant. This randomized, double blind, placebo-controlled Phase IIb/III pivotal registration study will assess the safety and efficacy of dipraglurant for the treatment of 170 patients with moderate to severe levodopa induced dyskinesia. Patients will be randomized 1:1 to receive dipraglurant or placebo three times daily, with levodopa treatment regimens remaining consistent. The optimal dose will be determined via titration over a two-week period, followed by 11 weeks of a maintenance dose. The primary endpoint is change in Unified Dyskinesia Rating Scale (UDysRS) Part IV. The secondary endpoints include change in clinician-scored Unified Parkinson's disease rating scale (UPDRS) Part III, patient diaries for on and off time.



Dipraglurant 1st Pivotal LID Study (301)



Dipraglurant 2nd Pivotal LID Study (302)



GABAB PAM: Addiction and Charcot-Marie-Tooth Type 1A

ADX71441 (GABAB PAM) is the third program drug in Addex' proprietary allosteric modulation technology platform and is targeted for the treatment of addiction (alcohol use disorder, cocaine and nicotine addiction) and has been licensed to Indivior PLC. Researchers have shown that GABAB receptor agonists such as baclofen are effective in reducing drug self-administration, cravings, and



anxiety, and thus promote abstinence. Baclofen, also known as chlorphenibut, is a conventional (orthosteric) stimulator (agonist) of the GABAB receptor and is primarily used to treat spasticity and is in early development for treating alcoholism. Addex' partner Indivior is developing ADX71441 for the treatment of addiction. Under the agreement with Indivior, Indivior is responsible for, including the financing of, development and commercialization of ADX71441. In October last year, the company announced that ADX71441 has received a grant from the US National Institute for Drug Abuse ("NIDA") of USD 5.3 million to fund Phase I and a Phase Ib cocaine interaction study. The grant was issued as part of the Grand Opportunity in Medications Development for Substance-Use Disorders (U01), a cooperative agreement providing for both financial assistance and significant scientific support from the NIH to selected clinical programs. Addex expects Indivior to initiate a Phase I clinical trial of ADX71441 in 2019H1. Addiction is an indication with significant commercial opportunity. Existing therapies often do not provide effective control of symptoms or have side effects that discourage adherence.

GABAB PAM is a fourth program targeted for the treatment of Charcot-Marie-Tooth (CMT) disease. CMT type 1A encompasses a heterogeneous group of inherited, progressive, chronic peripheral neuropathies. The most common type of CMT, is an orphan disease affecting at least 125,000 people in Europe and the U.S. The genetic mutation responsible for CMT1A is a duplication of the PMP22 gene coding for a peripheral myelin protein. Overexpression of this gene causes degradation of the neuronal sheath (myelin) responsible for nerve dysfunction, followed by loss of nerve conduction. As a result of peripheral nerve degradation, patients suffer from progressive muscle atrophy of legs and arms causing walking, running, balance problems and abnormal hand functioning. CMT1A patients end up in wheelchairs in at least 5% of cases.



SWOT Analysis

Strengths

Strong management with extensive relevant technical, commercial and financial expertise

Vast expertise in CNS related diseases

Relevant partnerships with credible partners

Abundant cash reserves

Weaknesses

Operating losses cumulating year-on-year

Delay pipeline development

Opportunities

Profitable partnerships and license agreements with large pharmaceuticals

High unmet medical need

Large potential markets

Threats

Uncertainty about the outcome of clinical trials

Higher level of expenditure than budgeted



Financials

For the year ended 31 December 2017, Addex reported an income of CHF0.5 million comprised of grants from The Michel J. Fox Foundation for Parkinson's Research to cover certain clinical activities related to dipraglurant development in Parkinson's disease levodopa-induced dyskinesia and discovery activities related to its TrkB PAM program. Total net loss in 2017 amounted to CHF 3.3 million compared to a net loss of CHF 3.1 million in the previous year. R&D expenses increased by 8% to CHF 2.6 million in 2017, compared to CHF2.4 million in 2016, mainly due to an increase in the number of staff and consultants deployed on the preparation of dipraglurant for registration studies in PD-LID and outsourced research costs on its Trk B PAM program. G&A expenses remained stable at CHF1.1 million in 2017 compared to 2016.

Cash and cash equivalents increased by 83% to CHF2.6 million at December 31, 2017, compared to CHF1.4 million at December 31, 2016. This increase of CHF 1.2 million is mainly due to the gross proceeds of CHF3.5 million from the sale of treasury shares partially offset by the cash used in operations of CHF2.2 million. On March 28, 2018, the Company increased its share capital by issuing 13,037,577 new shares with a nominal value of CHF1 each at an issue price of CHF 3.13 per share. Of these new shares, 12,917,129 were placed with investors raising CHF40.4 million of gross proceeds and the remaining 120,448 new shares were recorded as treasury shares, bringing the total outstanding issued share capital to 28,564,031. Each new share received a 7 year warrant to purchase 0.45 of a share at a price of CHF 3.43. On January 2, 2018, the group signed a licensing and collaboration agreement with Indivior PLC for the global development and commercialization of ADX71441 for the treatment of addiction. An upfront payment of USD 5.0 million has been received in January 2018.



Profit & Loss Statement

| CHF million | 2014A | 2015A | 2016A | 2017A |
|------------------------------|-------|-------|---------|---------|
| Revenues | 1.0 | 0.8 | 0.411 | 0.500 |
| R&D Costs | (0.9) | (1.8) | (2.461) | (2.629) |
| SG&A | (1.9) | (1.7) | (1.080) | (1.106) |
| Tax escrow account write-off | (-) | (1.2) | (-) | (-) |
| Operating Profit/(Loss) | (1.8) | (3.9) | (3.130) | (3.235) |
| Finance result | - | (0.3) | 0.019 | (0.045) |
| Net Profit/(Loss) | (1.8) | (4.2) | (3.149) | (3.280) |

Consolidated statement of cash flows

| CHF million | 2015A | 2016A | 2017A |
|------------------------------------------------------|---------|---------|---------|
| Cashflow from operating activities | (2.628) | (2.694) | (2.135) |
| Cash flow from investing activities | 0.400 | (0.01) | (0.02) |
| Cash flow from financing activities | 2.930 | 1.492 | 3.355 |
| Cash and cash equivalents at beginning of the period | 1.980 | 2.633 | 1.416 |
| Net change in cash and cash equivalents | 0.701 | (1.204) | 1.219 |
| Cash and cash equivalents at the end of the year | 2.633 | 1.416 | 2.590 |



Valuation

We have increased our valuation on Addex Therapeutics to CHF 300-330 million or CHF 10.50-11.50 per share from CHF 179 million or CHF 11.50 per share (lower number of shares outstanding) due to the fact that we have increased our LOA and market potential for Addex' lead product dipraglurant. Our previous valuation model on Addex Therapeutics showed a value of CHF 179 million or CHF 11.50 per share, which did not address any value to the preclinical programs in Addex' pipeline, including its ADX71441 programs. Following the deal with Indivior, this program already has a potential value of at least USD 330 million, taking into account the future milestones and up to double digit royalties. When taking into account a LOA for this program of 15% and peak sales of USD 600-700 million, the risk adjusted NPV of the program would be value at CHF 50-85 million or CHF 1.75-3.00 per share

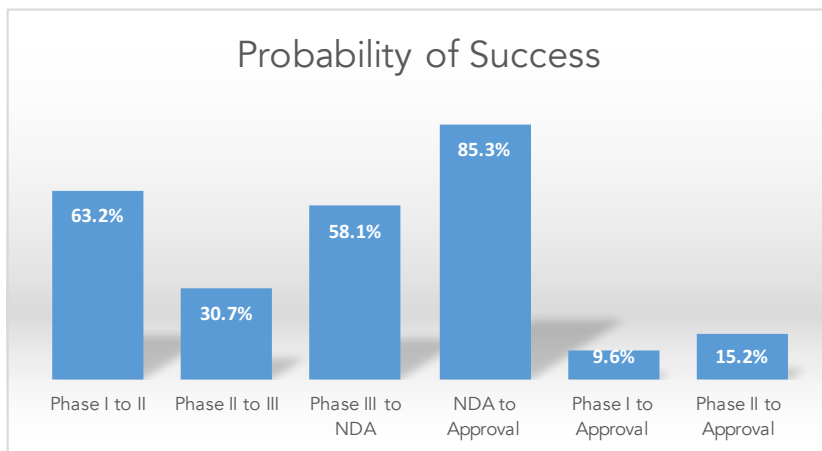
Phase Success and Likelihood of Approval (LOA)

In estimating a value for the clinical programs with dipraglurant, we made use of several studies that were done on the clinical development success rates for investigational drugs to measure success rates for investigational drugs. We analyzed individual drug program phase transitions from January 1, 2006 to December 31, 2015. For the ten years studied, 9,985 transitions in the Biomedtracker database were analyzed. A phase transition is the movement out of a clinical phase – for example, advancing from Phase I to Phase II development, or being suspended after completion of Phase I development. These transitions occurred in 7,455 clinical drug development programs, across 1,103 companies (both large and small), making this the largest study of its kind. With this broad set of data, we aimed to capture the diversity in drug development across levels of novelty, molecular modalities, and disease indications. Only company-sponsored, FDA registration-enabling development programs were considered; investigator-sponsored studies were excluded from this analysis.

The Phase I transition success rate was 63.2% (n=3,582). As this Phase is typically conducted for safety testing and is not dependent on efficacy results for candidates to advance, it is common



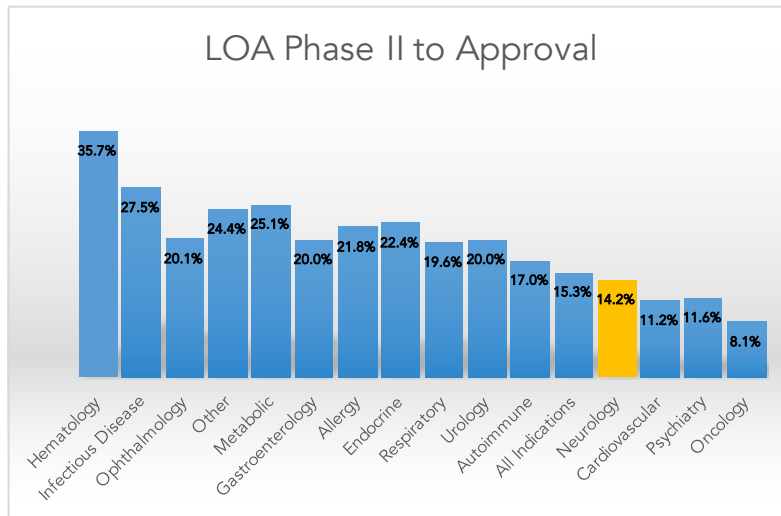
for this phase to have the highest success rate among the clinical phases across most categories analyzed in this report. Phase I success rates may also benefit from delayed reporting bias, as some larger companies may not deem failed Phase I programs as material and thereby not report them in the public domain. The Phase II transition success rate (30.7%, n=3,862) was substantially lower than Phase I, and the lowest of the four phases studied. As this is generally the first stage where proof-of-concept is deliberately tested in human subjects, Phase II consistently had the lowest success rate of all phases. This is also the point in development where industry must decide whether to pursue the large, expensive Phase III studies and may decide to terminate development for multiple reasons including commercial viability. The second-lowest phase transition success rate was found in Phase III (58.1%, n=1,491). This is significant as most company-sponsored Phase III trials are the longest and most expensive trials to conduct. The probability of FDA approval after submitting a New Drug Application (NDA) or Biologic License Application (BLA), taking into account re-submissions, was 85.3% (n=1,050). Multiplying these individual phase components to obtain the compound probability of progressing from Phase I to U.S. FDA approval (LOA) reveals that only 9.6% (n=9,985) of drug development programs successfully make it to market (see graph below)



Source: BIO Industry Analysis



Major disease areas were segmented according to the convention used by Biomedtracker, and categorized 21 major diseases and 558 indications for the 2006-2015 timeframe. As can be seen in the graphs below, there is a wide range of Likelihood of Approval (LOA) from Phase I, II and III.



Valuation dipraglurant HR in PD-L1D

In estimating a value for dipraglurant in PD-L1D, we took into account potential markets in the US and Europe with a total number of potential patients with PD-L1D of 180,000 in the US and 225,000 in Europe, with a market launch in the US in 2022 and 2023 in Europe. We calculate a Risk adjusted Discount Rate of 14%. Annual pricing is conservatively set at USD 20,000 for the US and USD 10,000 for Europe which is actually lower than pricing of competitive drugs (Gocovri for PD-L1D is priced at USD 28,500, Pimavanserin for PDP is priced at USD 24,000 and whereas Igrezza is even priced at USD 60,000-90,000) Although we believe that Addex will potentially partner its program in PD-L1D with a large pharmaceutical, in our model we have calculated its value by marketing the drug independently. We estimate that a peak market share of 25-30% is possible. Compared with the report of BioMedTracker (see neurological disorders), we used a somewhat higher LOA of 20%



as we believe that the vast amount of data justifies that. This leads to a total valuation of CHF 203 million or CHF 7.10 per share.

Valuation in PD-L1D US Market

| Year | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| No of patients US (yoy growth 2.5% as of 2015) | 186682 | 229619 | 235360 | 241244 | 247275 | 253457 | 259793 | 266288 | 272945 | 279769 |
| Penetration | 0.5% | 1.5% | 3.0% | 6.0% | 10.0% | 14.0% | 18.0% | 20.0% | 22.0% | 24.0% |
| Total Revenues (USD m) | 23.0 | 70.6 | 144.7 | 296.7 | 506.9 | 727.4 | 958.6 | 1091.8 | 1231.0 | 1376.5 |
| Margin 50% | 11.5 | 35.3 | 72.4 | 148.4 | 253.5 | 363.7 | 479.3 | 545.9 | 615.5 | 688.2 |
| WACC 14% | 0.59 | 0.52 | 0.46 | 0.40 | 0.35 | 0.31 | 0.27 | 0.24 | 0.21 | 0.18 |
| NPV (million) | 6.8 | 18.3 | 33.0 | 59.3 | 88.9 | 111.8 | 129.3 | 129.2 | 127.8 | 125.3 |
| Total NPV (million) | | | | | | | | | | 704.3 |
| LOA 20% | | | | | | | | | | 140.9 |

Valuation in PD-L1D European Market

| Year | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 |
|----------------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------|
| No of patients Europe (yoy growth 2.5% as of 2015) | 224019 | 275543 | 282432 | 289493 | 296730 | 304148 | 311752 | 319546 | 327534 | 335723 |
| Penetration | 0.5% | 1.5% | 3.0% | 6.0% | 10.0% | 14.0% | 18.0% | 20.0% | 22.0% | 25.0% |
| Total Revenues (USD m) | 14.1 | 43.4 | 89.0 | 182.5 | 311.8 | 447.4 | 589.6 | 671.4 | 757.1 | 881.8 |
| Margin 50% | 7,1 | 21,7 | 44,5 | 91,2 | 155,9 | 223,7 | 294,8 | 335,7 | 378,5 | 440,9 |
| WACC 14% | 0.52 | 0.46 | 0.40 | 0.35 | 0.31 | 0.27 | 0.24 | 0.21 | 0.18 | 0.16 |
| NPV (million) | 3.7 | 9.9 | 17.8 | 32.0 | 47.9 | 60.3 | 69.8 | 69.7 | 68.9 | 70.4 |
| Total NPV (million) | | | | | | | | | | 311.0 |
| LOA 20% | | | | | | | | | | 62.2 |

Partnership Leads to Substantial Higher Valuation

In our previous valuation model, we did not address value to the preclinical programs in Addex' pipeline, including its ADX71441 programs. Following the deal with Indivior, this program already has a potential value of at least USD 330 million, taking into account the future milestones and up to double digit royalties. When taking into account a LOA for this program of 15% and peak sales of USD 600-700 million, the risk adjusted NPV of the program would be value at CHF 50-70 million or CHF 1.60-2.30 per share.



Valuation dipraglurant ER in Focal Dystonia

In estimating a value for dipraglurant in focal dystonia, here we also took into account potential markets in the US and Europe with a total number of potential patients with focal dystonia of 75,000 in the US and 90,000 in Europe, with a market launch in the US and Europe in 2023. We

calculate a Risk adjusted Discount Rate of 14%. Annual pricing is set at USD 40,000 for the US and USD 20,000 for Europe which is comparable with pricing of competitive drugs. Although we believe that Addex will potentially partner its program in dystonia with a large pharmaceutical, in our model we have calculated its value by marketing the drug independently. We estimate that a peak market share of 20-25% is possible. Compared with the report of BioMedTracker (see neurological disorders), we used a LOA of 10%. This leads to a total valuation of CHF 53 million or CHF 3.42 per share.

Valuation in Focal Dystonia EU Market

| Year | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | |
|----------------------------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------------|
| No of patients in Europe) | 94144 | 96498 | 98910 | 101383 | 103917 | 106515 | 109178 | 111908 | 114705 | 117573 | |
| Penetration | 1.0% | 3.0% | 6.0% | 9.0% | 12.0% | 15.0% | 17.0% | 18.0% | 19.0% | 20.0% | |
| Total Revenues (USD m) | 18,8 | 57,9 | 118,7 | 182,5 | 249,4 | 319,5 | 371,2 | 402,9 | 435,9 | 470,3 | |
| Margin 50% | 9,4 | 28,9 | 59,3 | 91,2 | 124,7 | 159,8 | 185,6 | 201,4 | 217,9 | 235,1 | |
| WACC 14% | 0.52 | 0.46 | 0.40 | 0.35 | 0.31 | 0.27 | 0.24 | 0.21 | 0.18 | 0.16 | |
| NPV (million) | 4.9 | 13.2 | 23.7 | 32.0 | 38.3 | 43.1 | 43.9 | 41.8 | 39.7 | 37.6 | |
| Total NPV (million) | | | | | | | | | | | 241.0 |
| LOA 10% | | | | | | | | | | | 24.1 |

Valuation in Focal Dystonia US Market

| Year | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | |
|------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| No of patients US (yoy growth 2.5% as of 2015) | 78453 | 80415 | 82425 | 84486 | 86598 | 88763 | 90982 | 93256 | 95588 | 97977 | |
| Penetration | 1.0% | 3.0% | 6.0% | 10.0% | 14.0% | 17.0% | 19.0% | 20.0% | 21.0% | 22.0% | |
| Total Revenues (USD m) | 31,4 | 96,5 | 197,8 | 337,9 | 484,9 | 603,6 | 691,5 | 746,1 | 802,9 | 862,2 | |
| Margin 50% | 15,7 | 48,2 | 98,9 | 169,0 | 242,5 | 301,8 | 345,7 | 373,0 | 401,5 | 431,1 | |
| WACC 14% | 0.52 | 0.46 | 0.40 | 0.35 | 0.31 | 0.27 | 0.24 | 0.21 | 0.18 | 0.16 | |
| NPV (million) | 7.8 | 20.9 | 37.2 | 55.2 | 68.9 | 74.6 | 74.3 | 69.7 | 65.2 | 60.9 | |
| Total NPV (million) | | | | | | | | | | | 408.6 |
| LOA 10% | | | | | | | | | | | 40.9 |



Near Term Milestones

In the past 12 months, Addex has already reached a number of important milestones that brought the company back on track towards commercialization of its lead candidate. In the coming 12 months, we expect a number of important milestones that can drive the stock price upwards. These are:

- ADX71441 Phase I – start dosing: **2019H1**
- Dipraglurant Phase IIa POC study in focal cervical dystonia – start dosing: **2019H1**
- ADX71441 Phase I – results: **2020H1**
- Dipraglurant first pivotal study in LID registration program – start dosing: **2019H1**
- Dipraglurant Phase II POC study in focal cervical dystonia – results: **2019H2**
- Dipraglurant first pivotal study in LID registration program – results: **2020H1**
- Dipraglurant second pivotal study in LID registration program – start dosing: **2020H2**
- Dipraglurant second pivotal study in LID registration program – results: **2021H2**



Analyst: Marcel Wijma MSc

Marcel Wijma, Chief Research Officer and managing partner, has a longstanding history in financial biotech research. After selling Van Leeuwenhoek Research (VLR) to SNS Securities in 2006, he established an award winning analyst team in biotech/life sciences at SNS Securities. In 2009, Marcel was awarded by Financial Times/Starmine as being one of the Top-3 biotech analysts in Europe. Later that year, Marcel purchased VLR from SNS Securities after which the company was reconstituted. At VLR, he leads the professional VLR research organisation, which is augmented by selected external financial researchers with a specialisation in Life Sciences. Mr. Wijma has a Masters degree in Financial Economics from Erasmus University in Rotterdam.

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