July 7, 2021

Biotechnology

Companies mentioned:

ANVS	**Buy**
Target Price:	*(Prior:$45.00)* $150.00
Closing Price:	$102.98
Market Cap (M):	818.4
Avg. Daily Volume:	1,309.6
INMB	**Buy**
Target Price:	*(Prior:$32.00)* $42.00
Closing Price:	$17.85
Market Cap (M):	266.5
Avg. Daily Volume:	175.6
SAVA	**Buy**
Target Price:	*(Prior:$80.00)* $190.00
Closing Price:	$92.80
Market Cap (M):	3,712.8
Avg. Daily Volume:	1,996.3

Biotechnology

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Aducanumab's Outcome is Driving a Re-Calibration of Alzheimer's Players – Raising PTs on SAVA, ANVS & INMB

Summary

- **The activity around Alzheimer's disease (AD) drug development continues to accelerate in 2021 driven by multiple factors including the aducanumab saga, which ultimately led to its controversial approval on 6/7/21. Lilly's (LLY - NR) donanemab has also been active, though whether they can file a BLA on P2 data without the P3s remains to be seen.**
- **A number of other key events occurred as well in 2021, particularly Cassava Sciences' simufilam 6-month cognition data in February. Within our coverage universe, in addition to Cassava, we also observed positive AD data updates from INmune Bio's XPro1595 and most recently Annovis Bio's ANVS-401. We would also point to Vivorion Therapeutics (AMS:VVY - NR) with its EU P2b study of varoglutamstat well underway and a P2a/b study to start in the US this year.**
- **We expect the data readouts and trends in the space to continue as drug developers and investors now look towards the upcoming Alzheimer's Association International Conference (AAIC) this month (7/26 -7/29).**
- **Based on the approval of aducanumab and other positive activity, the AD space is being re-calibrated from a valuation perspective. Each of the aforementioned companies has an AD-targeting drug with something unique, but also something in common around the targeting of neuroinflammation. More data is coming for each as well. Based on these factors and what we see as lower risk in AD, and investor inflows lowering thecost of capital, we are raising the price target of ANVS to $150, from $45; SAVA to $190, from $80, and; INMB to $42, from $32.**

Details

Next event in the Alzheimer's disease space:

2021 Alzheimer's Association International Conference (AAIC)

July 26 - 29 (Mon-Thurs), 2021

The shock wave of aducanumab's approval on 6/7/21 is still being felt around the Alzheimer's disease space, from Wall Street to Main Street, payers, and even Congress. On the heels of all this, particularly the way in which aducanumab was approved, seems to have inspired Lilly (LLY - NR) on 6/24/21 to state it plans to file for donanemab's approval under the accelerated pathway since it was granted breakthrough therapy designation. By the way, this is all essentially based on P2 results. After aducanumab, the more likely scenario is going to be P3 trials for donanemab. But hey, with how aducanumab was approved...you may as well swing for the fences, so give Lilly credit! Kidding aside, let's look at what really happened and what it means for the AD space.

The approval of aducanumab in spite of a negative AdCom (subsequently post-approval, several members resigned, **LINK**), the efficacy in terms of cognition impact (or lack thereof) in the P3 trials and other factors have stirred up a debate, including a Congressional Committee being launched to probe the matter **(LINK)**. Pick one side or the other, that is not the purpose of our note. We want to step back and now look at the AD space and how the approval of aducanumab thrusts a space that was once left for dead, into what could be a new golden age.

The aducanumab P3 trials EMERGE and ENGAGE, as well as its Phase 1b PRIME study, were used in support of the BLA. The EMERGE study (N=1,638) met its primary endpoint, achieving a significant 23% reduction in clinical decline in Clinical Dementia Rating-Sum of Boxes (CDR–SB) scores at 18 months vs. placebo (p=0.01). While the ENGAGE study (N=1,647) failed to...*(continued on page 2+)*

meet its primary endpoint, a subset of the data was considered to complement and support the results seen in the EMERGE study. Despite the miss on the primary, the drug did demonstrate a consistent reduction of amyloid beta across studies, which the FDA considered a surrogate endpoint for clinical benefit. The FDA concluded that the potential benefits outweigh the risks for aducanumab. How the drug was approved, which in a 7/3 Barron's article titled *"Inside 'Project Onyx': How Biogen used an FDA back channel to win approval of its polarizing Alzheimer's drug",* details potential inappropriate interactions and relationships between company executives and certain FDA officials, is going to remain a hot button topic for some time. For better or worse in the case of Biogen and aducanumab (brand name is "Aduhelm"), for the AD drug development space and investors, publicity around aducanumab will keep AD at the forefront of discussion and activity in the biotech world.

Is amyloid back? Perhaps the amyloid hypothesis never left, nor should it, in our view. Sure, it cost literally billions in failed trials, but that does not necessarily mean amyloid and/or tau plaques are not important, nor their precursors and signaling pathways leading to plaques…it's all connected. Too many times, in our view, science/medicine, and basically everything else, instinctively becomes polarized and in some cases dismissed. Amyloid/tau are important to AD, no question. What, you think Biogen and Lilly are just making it up and spending billions of dollars in the process? There is debate, challenges in diagnostics and trials, trial design, and other factors like FDA and public opinion…all swirling together in controversy. However, controversy is not necessarily a bad thing. It keeps the discussion and the debate going. It prevents polarization toward one side, which can lead to the loss of valuable input and progress as a byproduct. Controversy in science/medicine leads toward collective progress in the right direction. So, how do we take that line of thinking and come back to aducanumab and the amyloid hypothesis?

Obviously there are challenges with amyloid, led by the aducanumab roller-coaster ride. However, its challenges over the past few years opened the door to the re-emergence of targeting inflammation/neuroinflammation – what could be called the "neuroinflammation hypothesis". We say re-emergence, because the concept is not new, in fact, in the early 1990s KOLs in the space pointed to TNF as a major culprit in AD and other neurodegenerative diseases. The emergence of amyloid and subsequent focus of the space on plaques overshadowed inflammation approaches. Nonetheless, the clearance of amyloid plaques and how that impacts cognition and/or function even today, is still not completely clear. As such, while aducanumab is approved, Biogen still needs a confirmatory trial, though by the time that data emerges, aducanumab will likely be years into commercialization. Lilly now is rapidly moving its amyloid targeting antibody donanemab forward, having reported mixed P2 results earlier this year. The company, as noted above, may try to file for accelerated approval, though the most likely scenario is that two P3 trials will be needed.

If we step back and look at aducanumab, taking away the administration challenges (monthly intravenous), the pricing, the AdCom/FDA controversy, and whatever side of the debate one lands on, we see a flag planted in the AD drug development space, a stepping stone, if you will.

This is a place, or re-newed foundation, for AD drug development that the space needed; from patients and caregivers, to regulators, payers, and drug developers. Does amyloid and/or tau plaque clearance have an impact? In our view, it is doing something, how meaningful that 'something' is will play itself out over time. It may be that while the plaques are being cleared, there is an impact that may be subclinical to the observer over say 1-2 years, but in the longer term, it may become quite clear. In addition, we must also consider that the plaque clearing may be having an impact at the molecular and physiological levels that may support long-term benefits to the patients, including the potential to make other therapies effective, or more effective. Interfering with plaques and plaque development is not only for the monoclonal antibody approaches. There are other approaches like that from Vivoryon Therapeutics, whose N3pE amyloid-targeting oral small molecule drug candidate, varoglutamstat, targets the enzyme glutaminyl cyclase. This program is actually in an EU-based P2b study, with a P2a/b planned for the US in 2021.

Perhaps drugs targeting plaques are more effective for certain populations than others. This is how oncology drugs are approved; they start with small populations, get an approval, and

expand into other populations. AD having long been viewed as a chronic, long-term disease, is finally being viewed more like the deadly disease that it is. As such, we see drug development in AD taking a more oncology-like approach going forward, and that is a significant positive, particularly for smaller players in the space. Interesting to see will be if the plaque targeting antibodies become to AD treatment what the checkpoints are to oncology treatment; an essential component to therapy and necessary components to development combination therapies. If we consider the size of the AD population, the complexity of the disease at both the molecular and physiological levels, as well as the heterogeneity of the populations, how could anyone reasonably assume that AD treatment is a one drug fits all scenario. Just like in oncology, AD is going to require combinations of drugs—maybe concurrently, maybe in sequence…who knows, but it's not going to be one drug. Aducanumab's approval, if for nothing else, has ushered in new hope, new enthusiasm, new investment, and a new path forward in AD drug development. In our opinion, this is what is driving valuations being re-calibrated across the space.

Re-calibrating valuations in the Alzheimer's disease (AD) space. From a valuation perspective, it means re-calibrating how AD-focused companies could be valued. Recall BIIB shares have essentially been on a roller coaster ride in terms of valuation for the better part of 2+ years based on aducanumab activity. This translated into swings in valuation of ~$10B-$20B, which to us, points to how valuable the Street may see an approved, or potentially approvable AD drug. Biogen's partner Eisai Inc. (ESALY - NR) currently has a market capitalization of ~ $30B, in large part due to aducanumab. If we look at other CNS-focused names like Denali (DNLI - NR) we see a ~$9B+ market capitalization with programs in relatively early stage development. So, what then, could or should be the value of a Cassava Sciences based on simufilam? What about Annovis' ANVS-401 or INmune's XPro1595?

Cassava currently has a market capitalization ~$3.7B. With simufilam's 9-month cognition data coming in July (12-month in September), more extension study biomarker and extension study data coming too, ~$275M in cash which funds the P3s, and a P3 starting in 2H21, it is reasonable to assume that SAVA shares, despite the rapid rise in 2021, remain undervalued. Annovis and INmune programs are in P2a and P1b programs, respectively. Annovis and INmune currently have market capitalizations of ~$815M and ~$265M, respectively, and both, like SAVA, have seen significant rises in valuation in 2021 as their respective AD programs reported data updates. That said, more is to come from both, and both are currently well-funded to reach the next sets of data, both expected in 2H21 (more likely over the Summer, we'll see). Given the activity in the space and considering the recalibration of the AD-focused names like SAVA, we see both ANVS and INMB as undervalued as they head toward their next near-term catalysts. As such we are raising price target on SAVA, ANVS, and INMB, discussed below in detail.

Annovis Bio (ANVS - Buy) – Raising PT to $150, from $45

- **Model, financing update:** On 5/27/21, Annovis announced the closing of an equity financing, which comprised 1,000,000 shares of common stock at $50 per share, raising gross proceeds of $50M. Given the burn rate of $3M per quarter, even with expenses increasing as ANVS401 programs advance, the company should have sufficient runway into 2023 or later. We have lowered our discount rate to 20%, from 30%, based on a combination of the strengthened balance sheet and activity in the space pointing to increased investor interest, the latter making raising capital for AD-focused companies more favorable. A 60% risk adjustment is applied to our therapeutic models which remain unchanged. Combined, our price target increases to $150, from $45.
- **ANVS-401.** On 5/21/21, Annovis announced positive cognition data from its ongoing P2a study in AD demonstrating a 4.4 point improvement in ADAS-Cog11 (vs. placebo was 3.3 point improvement). While a small N value in the study (N=14), the data are compelling and track with how impacting neuroinflammation and the inflammatory cascade can potentially lead to improvements or stabilization of cognition loss. This was the case with Cassava's simufilam on the 6-month open-label extension study readout in February 2021 (1.6pt improvement, n=50). We have also seen early biomarker data from INmune Bio's XPro1595, which blocks soluble TNF, that further builds support in the space, in our view, of what could

be referred to as an emerging neuroinflammation hypothesis (vs. the "amyloid hypothesis which has dominated AD drug development for 20+ years).

- In addition to the cog data in AD, there were also positive signals of ANVS-401 activity in the Parkinson's disease (PD) arm of the P2a AD/PD trial. In March, results were reported for the first N=14 PD patients who completed treatment with ANVS401 (nine received treatment, five received placebo). Positive improvements were observed for both speed and coordination scores by day 25. In May, the biomarker data was also positive, demonstrating significant lowering of inflammatory markers (complement C3, YKL40, sTREM2, GFAp). On the AD side of the trial, the cog data was already positive. Given this, and what the impact on biomarkers thus far was in PD, we expect the probability of positive biomarker data in AD to favor Annovis; this represents a significant catalyst for ANVS shares, in our view. The data is expected this summer. In addition, with the Alzheimer's Association International Conference (AAIC) in late July, we expect names in the space to be active.

Cassava Sciences (SAVA - Buy) – Raising PT to $190, from $80

- **Model update:** Cassava has one of the most advanced programs in the AD space with simufilam moving toward a P3 program in 2H21. Based on the continued positive shift in the AD space that we are observing, the simufilam cognition and biomarker data thus far, and Cassava's strong balance sheet with ~$275M in cash, we have lowered our risk adjustment to 50%, from 70%. We have also modestly increased pricing assumptions for simufilam in AD to $25K, from $15K, based on expectations from Biogen around aducanumab pricing of $56K. Combined, this raises the PT to $190, from $80.

- For simufilam, a lot of activity still lays ahead in 2021. The February announcement of positive 6-month cognition data for the first 50 patients in the P2b open-label extension study sent SAVA shares soaring. Recall the data demonstrated a 1.6-month improvement in ADAS-Cog11 score and a 1.3pt improvement in NPI score. This data stemmed from, and supported/ validated, the P2b biomarker study data reported in 2020. The Street, in our view, is clearly focused on the cognition data from February, but in our view, the connection back to the biomarkers of inflammation and other markers of AD is a critical piece of the advancing theme in AD drug development around neuroinflammation.

- Getting back to the cognition data, while it was 50 patients and only 6 months (vs. the 18 months for the plaque antibodies), there was actual cognition improvement. In our view, even stabilization would have marked the data as a success. The amyloid antibodies show essentially nothing at 6 months, and even at 18 months, they only show slowing decline in the best data sets. These also require large trials to see any effect size. Now, we appreciate the argument that the amyloid antibody trials include thousands of patients and simufilam is only 50, and the comparator for simufilam is only historical data around the acetylcholinesterase drugs. However, the drug is safe, it's oral, the biomarker data is there, and it seems to have a therapeutic signal thus far on cognition. More needs to be done, including completing the extension study, which is enrolling up to n=150 patients. The program is also moving to a P3 program in 2H21 as follows:
    - **First P3, evaluating symptomatic improvement:** N=600, randomized 1:1 to 100mg simufilam or placebo, treatment for 12 months, efficacy endpoints of ADAS-Cog and ADCS-ADL;
    - **Second P3, evaluating disease-modifying effects:** N=1,000, randomized 1:1:1 to 100mg, 50mg simufilam, or placebo, treatment for 18 months, efficacy endpoints of ADAS-Cog and ADCS-ADL.

- With 6-month cog data, early comparisons to the acetylcholinesterase inhibitor class (e.g., donepezil and related drugs) are being made. This class of drug has shown some stabilization and/or improvement on average in the first 6 months or so, which seems to be the best case scenario for these drugs. However, the effects of acetylcholinesterase inhibitors wears off over time as these drugs keep hitting the same receptor circuitry over and over and over again to have an effect, but ultimately burn that circuit out. Patients thus then experience decline. Simufilam has a differentiated MOA, which acts to correct a misfolded protein. This is a small

molecule interaction that theoretically should not change, thus there should be no tolerance or resistance issues. With the 6-month data positive for stabilization and/or improving cognition, the question will be, how durable is the effect beyond 6 months?

- Well, we are going to start to find out at the AAIC meeting later this month (7/26 - 7/29), when the 9-month data from those 50 patients will be presented. Expectations on this data readout are building and given that it is only 3 months on top of the first 6-month data set, we believe the probability that the cognition changes stay similar or at least above the stabilization threshold, should favor sumifilam. If the data stay within this range, SAVA shares could significantly rise in value. While much of the focus is on this readout, note that there are more data sets to come as well as the P2b open-label extension program, which is enrolling up to n=150 patients. This is going to include biomarker changes from baseline to month 6 for n=25 and to month 12 for n=25. In addition, there should be more cognition data beyond the first 50 patients we have already seen. If this data is positive, it should further support observations to date around cognition, the MOA of the drug, and mitigate some risk across the program.
- AAIC is the next event where the 50 patient 9-month data is expected to be presented, as well as the following biomarker analyses:
    - Biomarkers of Alzheimer's disease: amyloid beta42, total tau, P-tau181;
    - Biomarkers of neurodegeneration: neurogranin, neurofilament light change (NfL);
    - Biomarkers of neuroinflammation: YLK-40, sTREM2, HMGB1
- The 12-month data from the first 50 patients is also expected in the September/October timeframe. Also in 2021, the company, initiated a double-blind, randomized, placebo-controlled study in patients with AD, a Cognition Maintenance Study (CMS). Patients who previously completed at least one year of open-label treatment with simufilam qualify for this study. The study is designed to evaluate the effects of simufilam on cognition in AD patients who continue treatment vs. those that discontinue. Target enrollment is n=100, as of mid-June 2021, 30 had enrolled.
- In any case, the near-term focus is the 9-month data and then the 12-month data, both for cognition in the open-label P2b. In our view, even with just 6 months of data in 50 patients that was shown already, the case could start to be made that if this is replicated in larger trials, at a minimum, considering the positive safety profile, simufilam could theoretically replace acetylcholinesterase drugs and/or become another therapeutic option. In all, with the data in hand, the expected series of data readouts coming, the planned P3s set to start in 2H21, and the company's strong balance sheet (~$275M in cash), there is still significant upside potential at the current $3.7B market capitalization of the company.

INmune Bio (INMB - Buy) – Raising PT to $42, from $32

- **Model update:** Based on continued positive data emerging from the AD space, the approval of aducanumab inducing what we see as a re-calibration of valuations for AD-focused companies, the XPro1595 MOA in targeting TNF (as a dominant negative TNF inhibitor; soluble TNF only, not transmembrane), and the P1b data thus far, we have modestly lowered our risk adjustment for XPro1595 to 60%, from 65%. The change increases our PT to $42, from $32. INmune currently has a market capitalization of ~$265M relative to peer Annovis Bio, which has a market capitalization of ~$815M, with both companies having drug development at relatively similar stages and both targeting the neuroinflammation cascade. As such, we see a valuation gap. INmune's P1b reported positive data in January 2021 and is expected to have continued updates in 2H21. Combined with what we believe could be rising valuations around AAIC if positive data emerges around the space, INMB shares should be positioned to rise in value.
- **XPro1595:** XPro1595 is a PEGylated protein that selectively neutralizes human soluble TNF (sTNF), an inflammatory cytokine found to be elevated in the cerebrospinal fluid (CSF) and brain (post-mortem) of patients with Alzheimer's disease and other neurodegenerative disorders. XPro1595 is a dominant negative TNF inhibitor that forms heterotrimers with native sTNF (but not membrane-bound TNF), thereby sequestering sTNF away from TNF

receptors. By disrupting the biological activity of sTNF and preventing receptor interaction, XPro1595 selectively decreases the activation of TNFR1, as sTNF has greater affinity to TNFR1 relative to TNFR2, which allows for more precise targeting. XPro1595 can effectively and selectively neutralize >99% of sTNF within minutes when its concentration is at least 10-fold higher than the native sTNF concentration. Further, by sparing transmembrane TNF (tmTNF), XPro1595 maintains the protective roles of TNF, which occur primarily through TNFR2 signaling, differentiating it from the FDA-approved first-generation antiTNF biologics (approved for the treatment of autoimmune disorders such as rheumatoid arthritis) that inhibit both sTNF and tmTNF. Of note, XPro1595 does not cause immunosuppression and demyelination, which are the primary complications of currently available nonselective TNF inhibitors, as it does not interfere with the role of tmTNF in immunity.

- **Phase 1b Study in AD.** The P1b study is open-label, with up to 18 patients with mild-moderate AD and is being conducted in Australia. The trial is evaluating weekly sub-cut doses of XPro1595 for 3 months. Dosing is across 3 cohorts at 0.3, 1.0, and 3.0 mg/kg. The primary endpoint is safety and biomarker analysis, including the use of MRI imaging of white matter free water, or WMFT. This is based on rationale that AD pathology is initially occurring in the white matter, active portions of the brain tissue and that changes related to AD are representative of neuroinflammation, which is driving the disease. The 'free water' component represents edema, which if there is neuroinflammation would be expected to be higher in AD patients. This is a novel approach in the AD drug development space and further differentiates INmune, in our view.
- In January 2021, an update on 9 patients was provided, 6 of whom were in the high-dose group. The data thus far has demonstrated a reduction in neuroinflammation during the 12-week treatment period via biomarker changes; YKL-40, c-reactive protein. In the neurodegeneration results, there were decreased levels of visinin-like protein 1, neurofilament light, contactin-2, and neurogranin small, N-value, but this is not unlike what was observed in the sumifilam (Cassava Sciences) P2a and P2b studies, which ultimately translated to cognition improvement at 6 months for sumifilam (n=50, open-label extension, see Cassava section above) and based on prior results for Annovis' ANVS-401, what we are expecting when that biomarker is reported this summer. Note, the biomarkers chosen to analyze between these three drug programs have overlap, but some are/will be different. Key is all seem to be disrupting neuroinflammation, and that is the theme to focus on.
- In the P1b XPro1595 update there was observation of reduced whole brain neuroinflammation via neuroimaging of WMFW which demonstrated a 6% reduction. When the biomarker data is combined with the WMFW imaging, a significant correlation emerges. The WMFW aspect of the INmune approach is essentially a virtual biopsy that measures brain quality. This is a non-invasive MRI that captures qualitative changes in both gray and white matter. The quality of the white matter is measured via assessing apparent fiber density (AFD), which is reduced in patients with AD. The quality of the gray matter assesses cortical disarray measurements (CDM). As noted above, there was a 6% reduction in WMFW in the P1b thus far for observed patients. Note, 5% reduction is considered clinically meaningful. It was also noted that in the two patients with the greatest apparent improvement in cognition in the study, they also had the largest reduction in neuroinflammation.
- There is more to come from this study and combined with a rapidly evolving AD space with the AAIC meeting coming next, INMB shares should be poised to continue to rise in value. We would also point out that as of the end of 1Q21, INmune had ~$45M in cash on the balance sheet. Given the burn rate of ~$4M-$5M per quarter, the company should be funded well-through its next readouts.

Annovis Bio.: Income Statement ($000)																
YE December 31	2019A	2020A	1Q21A	2Q21E	3Q21E	4Q21E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E
Revenue:																
ANVS401 (AD)													66,227	142,179	381,454	654,830
ANVS401 (AD-DS)											21,414	68,803	196,500	315,677	422,613	603,491
ANVS401 (PD)											49,390	106,086	238,541	504,192	710,457	938,536
Net revenue	-	-	-	-	-	-	-	-	-	-	70,804	174,888	501,268	962,048	1,514,524	2,196,857
Collaborative revenue:																
Revenues																
Other Income	-	-					-	-	-	-	-	-	-	-	-	-
	-	-					-	-	-	-	-	-	-	-	-	-
Total Collaborative Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	-	-	-	-	-	-	-	-	-	-	70,804	174,888	501,268	962,048	1,514,524	2,196,857
Gross Margins:																
Cost of Goods Sold									-	-	7,080	17,489	50,127	125,066	151,452	219,686
%Gross Margin											90%	90%	90%	87%	90%	90%
Gross Profit	-	-	-	-	-	-	-	-	-	-	63,723	157,400	451,141	836,982	1,363,071	1,977,172
Operating Expenses:																
Research and Development	776	3,054	2,390	2,400	2,500	2,600	9,890	15,000	18,000	20,000	20,200	20,402	20,606	20,812	21,020	21,230
%R&D																
Selling, General and Administrative	829	3,586	840	500	525	535	2,400	5,500	6,000	6,060	6,121	6,182	6,244	6,306	6,369	6,433
%SG&A																
Total Expenses	1,606	6,640	3,229	2,900	3,025	3,135	12,289	20,500	24,000	26,060	33,401	44,073	76,976	152,184	178,842	247,349
Operating Income (Loss)	(1,606)	(6,640)	(3,229)	(2,900)	(3,025)	(3,135)	(12,289)	(20,500)	(24,000)	(26,060)	37,403	130,816	424,291	809,863	1,335,682	1,949,508
Change in fair value of derivative liability	(80)	(27)					-	-	-	-	-	-	-	-	-	-
Interest and other income	(41)	47	0				0	-	-	-	-	-	-	-	-	-
Grant income	735	1,157	29				29	-	-	-	-	-	-	-	-	-
		-					-	-	-	-	-	-	-	-	-	-
		-					-	-	-	-	-	-	-	-	-	-
		-					-	-	-	-	-	-	-	-	-	-
Total Other Income	**615**	**1,178**	**30**	**-**	**-**	**-**	**30**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Pretax Income	(991)	(5,462)	(3,200)	(2,900)	(3,025)	(3,135)	(12,260)	(20,500)	(24,000)	(26,060)	37,403	130,816	424,291	809,863	1,335,682	1,949,508
Taxes on income	-	-	-	-	-	-	-	-	-	-	-	-	-	16,197	66,784	97,475
Tax Rate														2%	5%	5%
GAAP Net Income (Loss)	(991)	(5,462)	(3,200)	(2,900)	(3,025)	(3,135)	(12,260)	(20,500)	(24,000)	(26,060)	37,403	130,816	424,291	793,666	1,268,898	1,852,033
Foreign currency translation loss																
Total comprehensive loss	(991)	(5,462)	(3,200)	(2,900)	(3,025)	(3,135)	(12,260)	(20,500)	(24,000)	(26,060)	37,403	130,816	424,291	793,666	1,268,898	1,852,033
GAAP-EPS	(3.51)	(0.87)	(0.46)	(0.37)	(0.38)	(0.39)	(1.60)	(2.57)	(2.63)	(2.21)	2.22	6.33	20.45	38.10	60.67	88.20
GAAP-EPS (Dil)	(3.51)	(0.87)	(0.46)	(0.37)	(0.38)	(0.39)	(1.60)	(2.57)	(2.63)	(2.21)	2.22	6.33	20.45	38.10	60.67	88.20
Wgtd Avg Shrs (Bas) - '000s	283	6,309	6,921	7,928	7,935	7,943	7,682	7,963	9,121	11,785	16,840	20,665	20,748	20,831	20,915	20,998
Wgtd Avg Shrs (Dil) - '000s	283	6,309	6,921	7,928	7,935	7,943	7,682	7,963	9,121	11,785	16,840	20,665	20,748	20,831	20,915	20,998

Source: Company reports and Maxim

INmune Bio Income Statement ($000)																
.: YE December 31	2016A	2017A	2018A	2019A	2020A	1Q21A	2Q21E	3Q21E	4Q21E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Revenue:																	
INB03 - Solid tumors (US)													-	-	5,845	18,065	83,748
INKmune - Ovarian Cancer (US)													-	-	10,063	17,278	39,160
XPro1595 - Alzheimer's Disease (US)													-	227,460	354,975	492,421	768,472
Net revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	227,460	370,883	527,764	891,381
Collaborative revenue (Royalty):																	
INB03 - Solid tumors (EU, Australia)														-	-	2,420	5,818
INKmune - Ovarian Cancer (EU)														-	-	5,683	12,880
XPro1595 - Alzheimer's Disease (EU, Australia)														-	24,962	46,747	81,059
Other					11												
				-	-					-	-	-	-	-	-	-	-
Total Collaborative Revenue	-	-	-	-	11	-	-	-	-	-	-	-	-	-	24,962	54,850	99,756
Total Revenue	-	-	-	-	11	-	-	-	-	-	-	-	-	227,460	395,845	582,614	991,136
Gross Margins:																	
Cost of Goods Sold				-									-	56,865	98,961	145,653	247,784
%Gross Margin		-															
		-															
Gross Profit	-	-	-	-	11	-	-	-	-	-	-	-	-	170,595	296,884	436,960	743,352
Operating Expenses:																	
Research and Development	101	435	1,105	3,282	6,321	2,061	2,102	2,207	2,318	8,688	10,426	12,511	13,762	15,138	15,290	15,443	15,597
%R&D																	
Selling, General and Administrative	126	546	11,335	6,016	5,917	2,491	2,541	2,668	2,801	10,501	11,026	11,247	11,471	11,701	11,935	12,174	12,417
%SG&A																	
Waiver of common stock issuable				(1,542)													
Total Expenses	227	981	12,440	7,756	12,239	4,552	4,643	4,875	5,119	19,189	21,452	23,758	25,234	26,839	27,225	27,616	28,014
Operating Income (Loss)	(227)	(981)	(12,440)	(7,756)	12,228	(4,552)	(4,643)	(4,875)	(5,119)	(19,189)	(21,452)	(23,758)	(25,234)	143,756	269,659	409,344	715,338
Other income		-	-	78						-	-	-	-	-	-	-	-
Other expense:	-	(0)			129												
Gain on settlement of lawsuit	(50)	150	-	-						-	-	-	-	-	-	-	-
		-	-	-						-	-	-	-	-	-	-	-
Total Other Income	**(50)**	**150**	**-**	**78**	**129**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Pretax Income	(277)	(831)	(12,440)	(7,678)	12,099	(4,552)	(4,643)	(4,875)	(5,119)	(19,189)	(21,452)	(23,758)	(25,234)	143,756	269,659	409,344	715,338
Taxes on income		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14,307
Tax Rate																	2%
GAAP Net Income (Loss)	(277)	(831)	(12,440)	(7,678)	12,099	(4,552)	(4,643)	(4,875)	(5,119)	(19,189)	(21,452)	(23,758)	(25,234)	143,756	269,659	409,344	701,031
Other comprehensive income (loss) -gain (loss) on foreign currency translation			(26)	(15)	19												
Total comprehensive loss	(277)	(831)	(12,466)	(7,693)	12,080	(4,552)	(4,643)	(4,875)	(5,119)	(19,189)	(21,452)	(23,758)	(25,234)	143,756	269,659	409,344	701,031
GAAP-EPS	(0.06)	(0.13)	(1.43)	(0.75)	1.01	(0.35)	(0.36)	(0.38)	(0.39)	(1.48)	(1.59)	(1.60)	(1.67)	9.46	17.67	26.71	45.57
GAAP-EPS (Dil)	(0.06)	(0.13)	(1.43)	(0.75)	1.01	(0.35)	(0.36)	(0.38)	(0.39)	(1.48)	(1.59)	(1.60)	(1.67)	9.46	17.67	26.71	45.57
Wgtd Avg Shrs (Bas) - '000s	5,000	6,564	8,677	10,273	11,988	12,952	12,965	12,978	12,991	12,972	13,524	14,830	15,140	15,201	15,262	15,323	15,384
Wgtd Avg Shrs (Dil) - '000s	5,000	6,564	8,677	10,273	11,988	12,952	12,965	12,978	12,991	12,972	13,524	14,830	15,140	15,201	15,262	15,323	15,384

Source: Company reports and Maxim

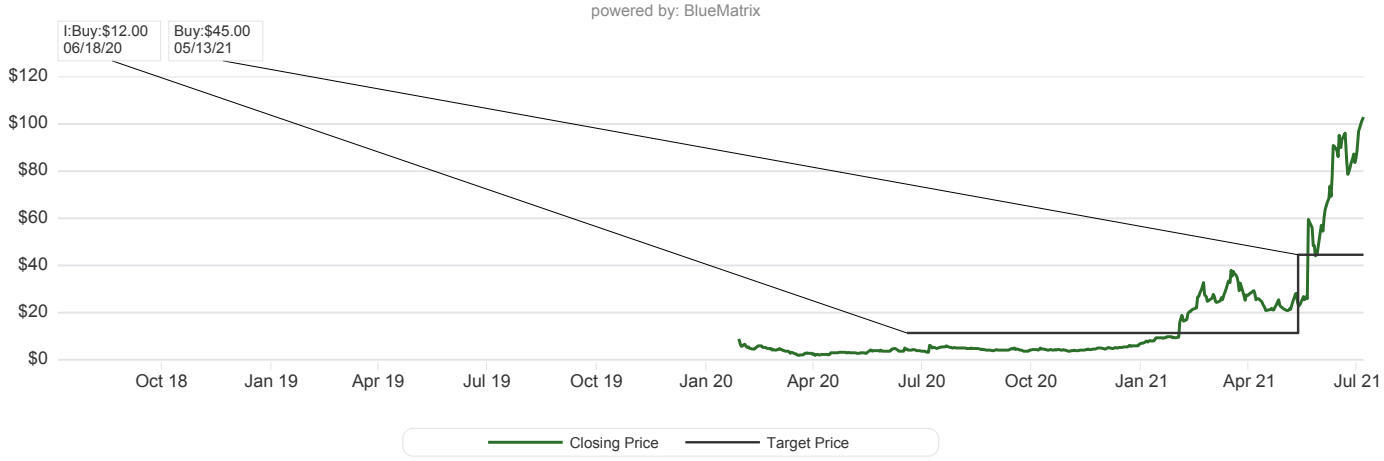
Cassava Sciences, Inc.: Income Statement ($000)																		
FYE December 31	2018A	2019A	2020E	1Q21A	2Q21E	3Q21E	4Q21E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E
Revenue:																		
Simufilam mild-mod Alzheimer's Disease (US)										-	-	285,202	402,815	1,066,745	1,355,989	1,795,481	2,028,730	2,417,638
Simufilam mild-mod Alzheimer's Disease (EU)										-	-	350,799	495,463	1,049,677	1,667,867	1,913,983	2,183,420	2,395,476
PTI-125Dx (diagnostic)										-		5,000	6,250	7,813	9,766	12,207	15,259	19,073
Net revenue	-	-	-	-	-	-	-	-	-	-	-	641,001	904,528	2,124,234	3,033,622	3,721,671	4,227,409	4,832,188
Collaborative revenue:																		
										-	-	-	-	-	-	-	-	-
										-	-	-	-	-	-	-	-	-
Total Collaborative Revenue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Revenue	-	-	-	-	-	-	-	-	-	-	-	641,001	904,528	2,124,234	3,033,622	3,721,671	4,227,409	4,832,188
Gross Margins:																		
Cost of Goods Sold												128,200	171,860	382,362	455,043	558,251	634,111	724,828
%Gross Margin												80%	81%	82%	85%	85%	85%	85%
Gross Profit	-	-	-	-	-	-	-	-	-	-	-	512,800	732,668	1,741,872	2,578,579	3,163,421	3,593,297	4,107,359
Operating Expenses:																		
Research and Development	2,969	1,568	1,973	2,529	2,700	2,800	3,000	10,000	10,500	15,000	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575
%R&D																		
General and Administrative	3,693	3,391	3,776	1,004	1,500	2,500	3,000	12,000	15,000	25,000	26,250	27,563	28,941	30,388	31,907	33,502	35,178	36,936
%SG&A																		
Gain on sale of property and equipment			(346)															
Total Expenses	6,662	4,959	5,403	3,533	4,200	5,300	6,000	22,000	25,500	40,000	41,550	43,169	44,859	46,624	48,468	50,395	52,408	54,511
Operating Income (Loss)	(6,662)	(4,959)	(5,403)	(3,533)	(4,200)	(5,300)	(6,000)	(22,000)	(25,500)	(40,000)	(41,550)	597,832	859,669	2,077,610	2,985,154	3,671,277	4,175,001	4,777,676
Interest Income	105	328	106	7				7	-	-	-	-	-	-	-	-	-	-
	-	-	-					-	-	-	-	-	-	-	-	-	-	-
	-	-	-					-	-	-	-	-	-	-	-	-	-	-
	-	-	-					-	-	-	-	-	-	-	-	-	-	-
	-	-	-					-	-	-	-	-	-	-	-	-	-	-
	-	-	-					-	-	-	-	-	-	-	-	-	-	-
Total Other Income	**105**	**328**	**106**	**7**	-	-	-	**7**	-	-	-	-	-	-	-	-	-	-
Pretax Income	(6,557)	(4,631)	(5,297)	(3,526)	(4,200)	(5,300)	(6,000)	(21,993)	(25,500)	(40,000)	(41,550)	597,832	859,669	2,077,610	2,985,154	3,671,277	4,175,001	4,777,676
Taxes on income	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59,703	146,851	208,750	286,661
Tax Rate															2%	4%	5%	6%
GAAP Net Income (Loss)	(6,557)	(4,631)	(5,297)	(3,526)	(4,200)	(5,300)	(6,000)	(21,993)	(25,500)	(40,000)	(41,550)	597,832	859,669	2,077,610	2,925,451	3,524,426	3,966,251	4,491,016
Total comprehensive loss	(6,557)	(4,631)	(5,297)	(3,526)	(4,200)	(5,300)	(6,000)	(21,993)	(25,500)	(40,000)	(41,550)	597,832	859,669	2,077,610	2,925,451	3,524,426	3,966,251	4,491,016
GAAP-EPS	(0.61)	(0.27)	(0.20)	(0.09)	(0.11)	(0.14)	(0.16)	(0.57)	(0.66)	(0.99)	(0.97)	13.38	19.16	46.13	64.69	77.63	87.01	98.13
GAAP-EPS (Dil)	(0.61)	(0.27)	(0.20)	(0.09)	(0.11)	(0.14)	(0.16)	(0.57)	(0.66)	(0.99)	(0.97)	13.38	19.16	46.13	64.69	77.63	87.01	98.13
Wgtd Avg Shrs (Bas) - '000s	10,682	17,412	27,151	37,721	38,509	38,547	38,586	38,341	38,682	40,588	43,005	44,680	44,859	45,039	45,220	45,401	45,583	45,765
Wgtd Avg Shrs (Dil) - '000s	10,682	17,412	27,151	37,721	38,509	38,547	38,586	38,341	38,682	40,588	43,005	44,680	44,859	45,039	45,220	45,401	45,583	45,765

Source: Company reports and Maxim

DISCLOSURES

Annovis Bio, Inc. Rating History as of 07/06/2021

powered by: BlueMatrix



INmune Bio Inc. Rating History as of 07/02/2021

powered by: BlueMatrix

Cassava Sciences, Inc. Rating History as of 07/02/2021

powered by: BlueMatrix

Maxim Group LLC Ratings Distribution			As of: 07/06/21
		% of Coverage Universe with Rating	% of Rating for which Firm Provided Banking Services in the Last 12 months
Buy	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to outperform its relevant index over the next 12 months.	**86%**	**53%**
Hold	Fundamental metrics are currently at, or approaching, industry averages. Therefore, we expect this stock to neither outperform nor underperform its relevant index over the next 12 months.	**14%**	**45%**
Sell	Fundamental metrics and/or identifiable catalysts exist such that we expect the stock to underperform its relevant index over the next 12 months.	**0%**	**0%**
	**See valuation section for company specific relevant indices*		

I, Jason McCarthy, Ph.D., attest that the views expressed in this research report accurately reflect my personal views about the subject security and issuer. Furthermore, no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views expressed in this research report.

The research analyst(s) primarily responsible for the preparation of this research report have received compensation based upon various factors, including the firm's total revenues, a portion of which is generated by investment banking activities.

Maxim Group makes a market in Annovis Bio, Inc., INmune Bio Inc. and Cassava Sciences, Inc.

Maxim Group managed/co-managed/acted as placement agent for an offering of the securities for Annovis Bio, Inc. and Cassava Sciences, Inc. in the past 12 months.

Maxim Group received compensation for investment banking services from Annovis Bio, Inc., INmune Bio Inc. and Cassava Sciences, Inc. in the past 12 months.

Maxim Group expects to receive or intends to seek compensation for investment banking services from Annovis Bio, Inc., INmune Bio Inc. and Cassava Sciences, Inc. in the next 3 months.

ANVS: For Annovis Bio, we use the BTK (ARCA Biotechnology Index) as the relative index.
INMB: For INmune Bio, we use the BTK (NYSE Arca Biotechnology Index) as the relevant index.
SAVA: For Cassava Sciences, we use the BTK (NYSE Arca Biotechnology Index) as the relevant index.

Valuation Methods

ANVS: We model commercialization of ANVS401 in the US for AD-DS and PD in 2025, followed by AD in 2027. A risk adjustment of 60% is applied to our therapeutic models based on stage of development, clinical trial risk, activity in the AD space away from amyloid and plaques, and other factors. A 20% discount is applied to the free cash flow, discounted EPS, and sum-of-the-parts models, which are equally weighted to derive a 12-month price target.
INMB: We model INBO3 for solid tumors, in 2026 (US) and 2027 (EU, AUS), INKmune for r/r ovarian cancer in 2026 (US) and 2027 (EU), and XPro1595 in Alzheimer's disease (AD) in 2025 (US) and 2026 (EU, AUS). Risk adjustments are factored in based on stage of development, clinical trial risk and other factors; 65% IO, 60% AD. A 30% discount is applied to the free cash flow, dEPS, and SOP Models, which are equally weighted to derive a 12-month price target.
SAVA: Our model assumes Simufilam is commercialized for Alzheimer's disease in 2025 in the US and EU. A 50% risk adjustment is factored in based on stage of development, clinical trial risk and other factors. A modest platform value for the companion diagnostic, SavaDx is also factored in concurrent with the 2025 Simufilam drug launch. We then apply a 20% discount to the free cash flow, discounted EPS, and sum-of-the-parts models, which are equally weighted to derive a 12-month price target.

Price Target and Investment Risks

ANVS: Aside from general market and other economic risks, risks particular to our price target and rating for Annovis Bio include: (1) the regulatory and clinical risk associated with product development; (2); the ability to access capital and the very high likelihood that company will need to raise additional capital, the terms of which may not be favorable based on the outcome of clinical data and other factors; (3) the rate and degree of progress of product development; (4) the rate of regulatory approval and timelines to potential commercialization of products; (5) the level of success achieved in clinical trials; (6) the requirements for marketing authorization from regulatory bodies in the United States and other countries; (7) the liquidity and market volatility of the company's equity securities; (8) regulatory and manufacturing requirements and uncertainties; (9) product and technology developments by competitors. (10) The company is heavily dependent on the potential of ANVS401, which contains the active pharmaceutical ingredient in ANVS405 (injectable) as well. Failure of ANVS401 to have clinical success could impact the company's ability to operate. (11) Delays related to COVID-19 could impact the company's ability operate and impact also clinical trials. (12) The company is targeting

two indications in Alzheimer's disease and Parkinson' disease which are spaces dominated by larger companies and organizations which have signifcantly more resources.

INMB: Aside from general market and other economic risks, risks particular to our price target and rating for INmune Bio include: (1) the regulatory and clinical risk associated with product development; (2) the ability to access capital and the very high likelihood that the company will need to raise additional capital; (3) the rate and degree of progress of product development; (4) the rate of regulatory approval and timelines to potential commercialization of products; (5) the reliance on collaborators and/or potential collaborators from which there could be unforeseen delays and expenses; (6) the requirements for marketing authorization from regulatory bodies in the United States and other countries, as well as potential differences in clinical trial requirements in different regions; (7) the liquidity and market volatility of the company's equity securities; (8) regulatory and manufacturing requirements and uncertainties; (9) product and technology developments by competitors; (10) inability, if product(s) is/are approved to gain adequate market share and maintain adequate revenue growth; (11) competion in the immune oncology and neurodegenerative disease spaces from companies and groups with more advanced programs and greater resources.

SAVA: Aside from general market and other economic risks, risks particular to our price target and rating for Cassava Sciences include: (1) the regulatory and clinical risk associated with product development; (2) the ability to access capital and the very high likelihood that the company will need to raise additional capital; (3) the rate and degree of progress of product development; (4) the rate of regulatory approval and timelines to potential commercialization of products; (5) the reliance on collaborators and/or potential collaborators from which there could be unforeseen delays and expenses; (6) the requirements for marketing authorization from regulatory bodies in the United States and other countries; (7) the liquidity and market volatility of the company's equity securities; (8) regulatory and manufacturing requirements and uncertainties; (9) product and technology developments by competitors; (10) inability, if product(s) is/are approved to gain adequate market share and maintain adequate revenue growth; (11) the ability of the company to maintain its exchange listing; (12) the company had setbacks in its analgesic programs around Remoxy and is attempting to transition to a new focus in Alzheimer's disease and may not be successful; (13) the company has a limited operating history in Alzheimer's disease; (14) following the P2b fail for PTI-125, the path forward for Cassava is subject to significant uncertainty as the company's ability to continue to operate. (15) COVID-19 issues may impact enrollment of clinical programs and/or impact the company's ability to operate. (16) SAVA shares have risen sharply on the basis of P2b extension study data which was based on data that lacked a controlled study comparator. The study is also in a small number of patients. These factors and other aspects of the data represent risks in designing and executing a phase 3 program based on these observations.

RISK RATINGS

Risk ratings take into account both fundamental criteria and price volatility.

Speculative – Fundamental Criteria: This is a risk rating assigned to early-stage companies with minimal to no revenues, lack of earnings, balance sheet concerns, and/or a short operating history. Accordingly, fundamental risk is expected to be significantly above the industry. Price Volatility: Because of the inherent fundamental criteria of the companies falling within this risk category, the price volatility is expected to be significant with the possibility that the investment could eventually be worthless. Speculative stocks may not be suitable for a significant class of individual investors.

High – Fundamental Criteria: This is a risk rating assigned to companies having below-average revenue and earnings visibility, negative cash flow, and low market cap or public float. Accordingly, fundamental risk is expected to be above the industry. Price Volatility: The price volatility of companies falling within this category is expected to be above the industry. High-risk stocks may not be suitable for a significant class of individual investors.

Medium – Fundamental Criteria: This is a risk rating assigned to companies that may have average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to approximate the industry average.

Low – Fundamental Criteria: This is a risk rating assigned to companies that may have above-average revenue and earnings visibility, positive cash flow, and is fairly liquid. Accordingly, both price volatility and fundamental risk are expected to be below the industry.

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