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BioXyTran, Inc.

Revolutionizing the Stroke Treatment

(OTCPK: BIXT, Target Price: $2.64)

INITIATING COVERAGE (July 23, 2019)

Equity | Healthcare / Biotechnology

COMPANY OVERVIEW

We are initiating coverage on BioXyTran, Inc. (BIXT) with a target price of $2.64 per share. Bioxytran, Inc., formerly U.S. Rare Earth Minerals, Inc., is a developmental stage biotechnology company, focused on developing treatments for hypoxic conditions such as stroke and ischemia that are a result of an inadequate blood supply to the organs. It has an oxygen delivery platform that can treat victims with brain stroke trauma. The Company's lead drug candidate, BXT-25, is a glyco-polymer that acts as an anti-necrosis drug, by carrying oxygen to tissues even when the flow of blood is blocked and can reverse hypoxia (oxygen deficiency). Another drug candidate from Bioxytran, BXT-252, is designed to treat chronic wounds resulting from ischemia caused by occlusion of capillaries.

RECOMMENDATION

Previous Recommendation	Initiation Report
Risk Rating	High
Current Share Price (07/22/2019)	$1.30
Shares Outstanding	85.1 M
12 Month Price Target	$2.64
Total Return (Capital + Yield)	203%
DCF Valuation	$.2.64
Market capitalisation	$110.6 M
Average Volume	2,422
52-Week High/Low	$0.20 – $1.95

Investment Rationale

Overcoming the Biggest Challenge in Stroke Treatment

The Company continues to focus on developing BXT-25, the only ambulatory treatment which can overcome the problem of a minuscule 3-hour treatment window available for victims of stroke. With an exclusive licensing agreement with MDX Lifesciences for its MDX viewer, the gold standard for measuring brain tissue and oxygen recovery status, the Company is not only on an accelerated pathway for the approval of its drug from the FDA, but also poised to capture a majority share of the multibillion-dollar global stroke market.

Other Potential Drugs in the Pipeline

Bioxytran plans to adopt a multipronged strategy by developing sub-classes of BXT-25 for numerous application such as wound-healing and organ transplantation. Its clinical pursuits are aimed at capturing a large market share of the anti-necrotic drug space with special focus on hypoxia.

Proven Track Record of Dr. David Platt

With Dr. David Platt, an expert in carbohydrate chemistry with a decade long management experience at its helm, BioXytran is on an accelerated path to emulating his earlier successes. Dr. Platt's various achievements include a portfolio of patents, distinction of uplisting two companies from OTC to NASDAQ and creating a value of nearly $1 billion for the investors through three publicly traded companies.

INVESTMENT VIEW:

A growing geriatric population along with a rising prevalence of stroke present the ideal conditions for future growth. The MDX viewer bolsters the robust intellectual property position of BioXytran, as management believes it is the only available development stage device that can measure increasing tissue oxygenation. However, the inability to garner sufficient funds for the drug development process may delay the clinical process of BXT-25. We are attracted to its strong management team and unique breakthrough technology. We adopt DCF valuation to arrive at a price target of $2.64/share, discounted at a WACC of 9.54%.

Financial Forecasts & Valuation Metrics

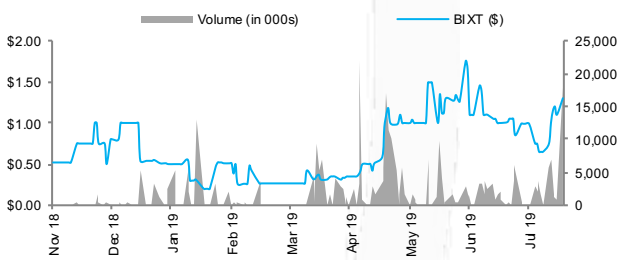
Y/e FY	FY18A	....FY26F	FY27F	FY28F
Revenue ($ in M)	-	7.36	19.02	27.36
% Growth (Y-o-Y)	-	*(1.4%)*	*158.4%*	*43.9%*
EBITDA Margin (%)	-	*80.8%*	*92.4%*	*94.5%*
EBIT ($ in M)	(0.05)	5.76	16.95	24.64
PAT ($ in M)	(0.05)	4.32	12.96	18.73
PAT Margin (%)	-	*58.7%*	*68.2%*	*68.5%*
EV/Sales (x)	-	13.3	5.2	3.6
EV/EBITDA (x)	-	16.5	5.6	3.8
P/BV (x)	-	3.3	2.9	2.1
RoCE (%)	-	*20.1%*	*50.1%*	*58.0%*

Source: Company, Avise Analytics Estimates

Risks

- Bioxytran plans to initiate pre-clinical studies of BXT-25 soon. But such clinical drug development process are expensive, time-consuming and uncertain.
- Failure to raise additional funding may adversely impact the management's planned R&D initiatives.
- Failure to secure FDA approval may delay or impair the Company's ability to commercialize its planned drug portfolio.

Share Price Chart



Source: Yahoo Finance, Avise Analytics Research

Overcoming the Biggest Challenge in Treating Stroke

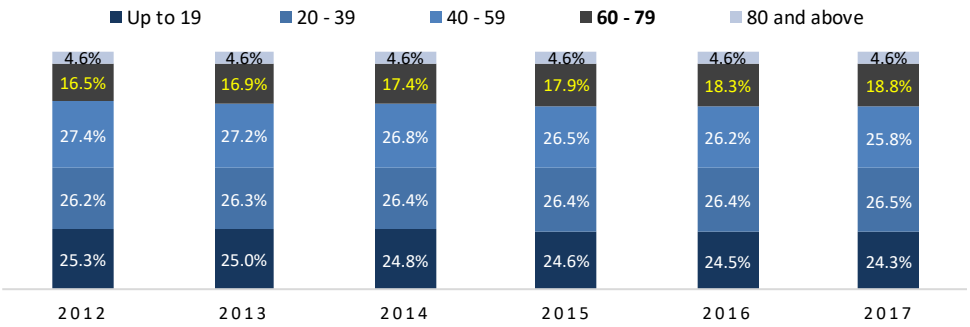
The Company plans to submit an Investigational New Drug (IND) application for its lead drug candidate, BXT-25, to the US FDA and initiate clinical trials. BXT-25 is designed to support the oxygenation of the brain until the clot is dissolved by medication or removed by surgery. By leveraging its breakthrough technology for hypoxic condition and necrosis prevention, it aims to address the biggest challenge in the multibillion global stroke management industry.

5th Leading Cause of Death in the United States

Stroke is a leading cause of disability, cognitive impairment, and death in the United States and accounts for 1.7% of the national health expenditures. Since the population is aging and the risk of stroke more than doubles for each successive decade after the age of 55 years (as shown in the chart below), these costs are anticipated to rise dramatically.

Population between the age group of 60 to 80 years is rising.

US Population Estimate : By Age

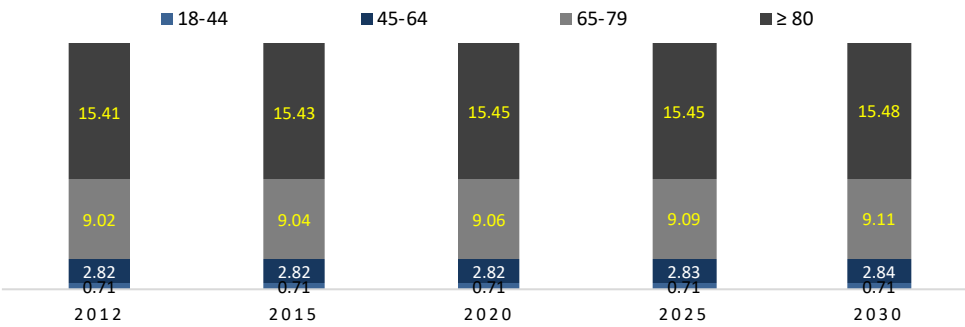


Source: U.S. Census Bureau, Population Division
Release Date: June 2018

With the aging population, the prevalence of stroke is projected to increase, which translates into an additional 3.4 million people with stroke by 2030, as compared to 2012. By 2030, U.S. Census Bureau projects that nearly 4% of the US population will suffer a stroke. Because the risk of stroke increases with age, people ≥65 years of age (particularly those ≥80 years of age) have a higher prevalence of stroke, and this segment of the population will grow substantially over the next 18 years (as shown in the chart below).

Stroke prevalence is projected to increase the most among people in the 65-79-year-old age category

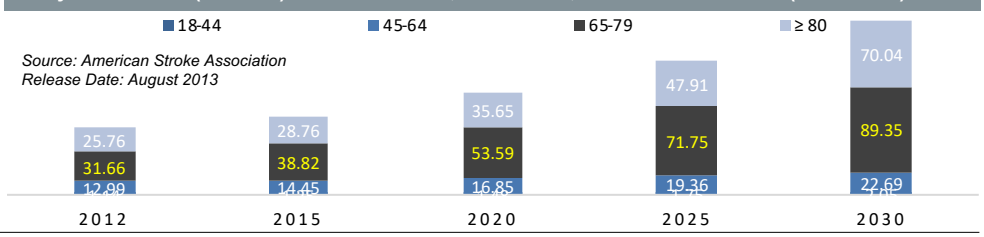
Projections of Crude Stroke Prevalence (%), 2012–2030, in the United States



Source: American Stroke Association
Release Date: August 2013

Not just the incidences of strokes, even the total direct medical stroke-related costs are increasing at an alarming rate. It increased by more than 16% in the three years until 2015 and is projected to triple from $71.55 billion in 2012 to $184.13 billion by 2030. These costs are projected to increase the most among people in the 65- to 79-year-old age category.

Projected Direct (Medical) Costs of Stroke, 2012–2030, in the United States (USD in Bn)

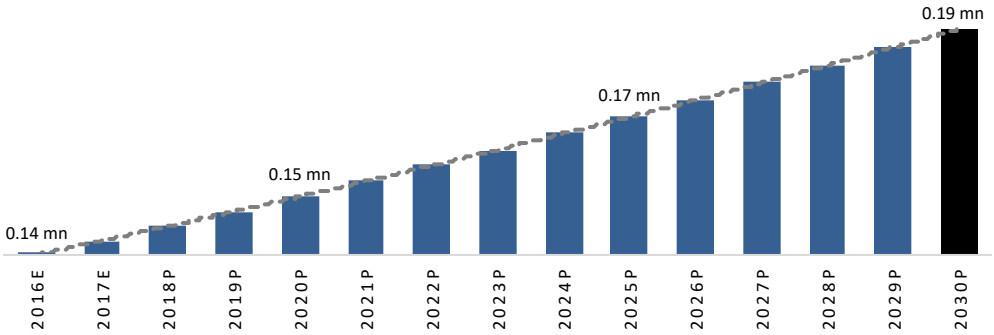


Source: American Stroke Association
Release Date: August 2013

According to the American Stroke Association, stroke ranks at No. 5 among all causes of death in the US, killing ~142,000 people every year. In 2016, the age-adjusted stroke death rate was 37.3 per 100,000, a decrease of 16.7% from 2006, whereas the actual number of stroke deaths increased 3.7% during the same time period. Assuming death rate to increase by 2% per annum, we estimate that the average death due to stroke to reach ~190,000 people a year by 2030.

Stroke accounted for about 1 of every 19 deaths in the US.

Average Death Due to Stroke: United States (in million)

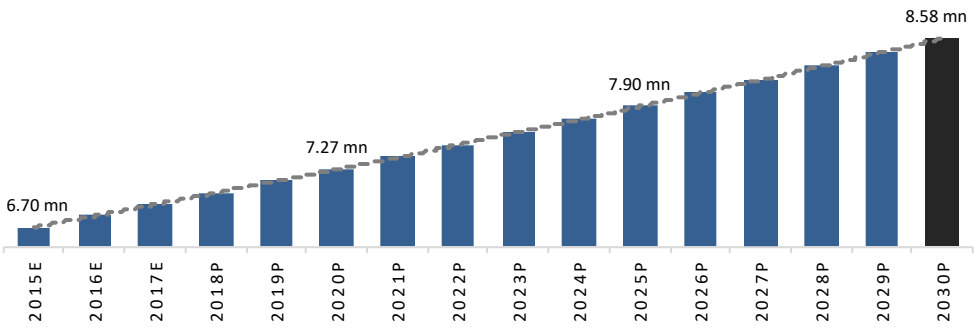


Source: American Stroke Association, Avise Analytics Research
Release Date: August 2013

2nd Leading Cause of Death Worldwide

Stroke has already reached epidemic proportions. 1 in every 6 individuals worldwide suffers a stroke in their lifetime. According to the latest research from World Stroke Organization, more than 10 million people worldwide suffer a stroke each year and 5.8 million people die from it. Current trends suggest that unless appropriate action is taken, the number of annual deaths (which was estimated at 6.7 million in 2015) will climb to 8.6 million by 2030.

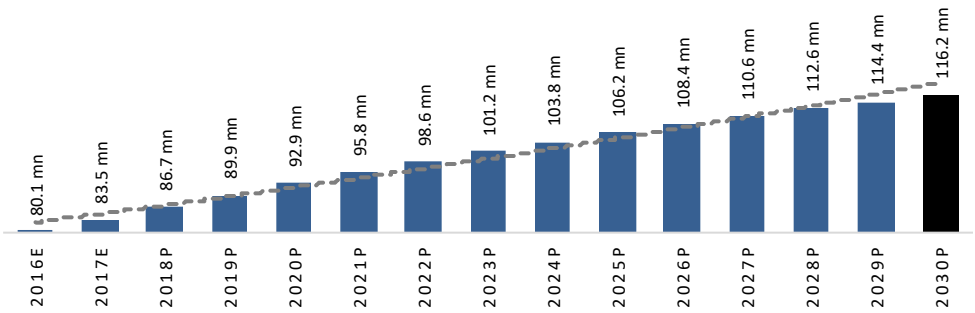
Average Death Due to Stroke: Worldwide (in million)



Source: World Stroke Organization, Avise Analytics Research

Assuming that 10 million people are likely to suffer from stroke each year and given that worldwide death is expected to increase at 2% per annual till 2030, we estimate that stroke prevalence cases may eventually cross 116 million, compared to 80 million patients in 2016 (as shown in the chart).

Projections of Crude Stroke Prevalence,2012-2030 in NUMBERS (units in million)

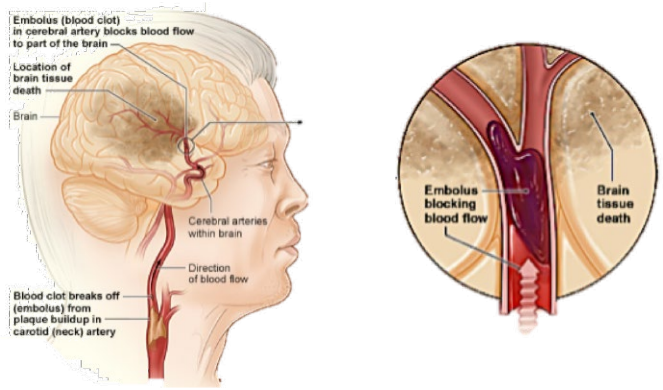


Source: World Stroke Organization, Avise Analytics Research

What Causes a Stroke?

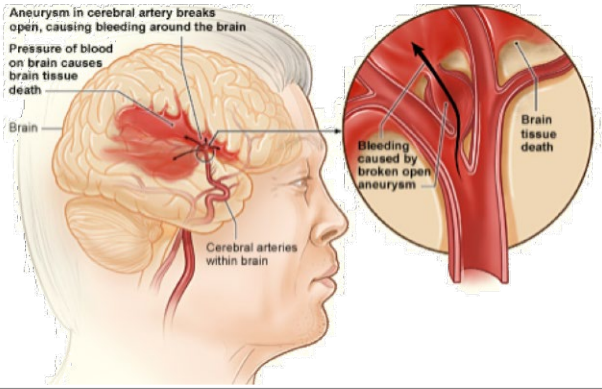
Stroke is a condition where the blood supply to the brain is disrupted, resulting in oxygen starvation, brain damage and loss of function. It is most commonly caused by a clot in an artery supplying blood to the brain, a situation known as ischemia.

Ischemic Stroke



It can also be caused by hemorrhage, when a burst vessel causes blood to leak into the brain. Stroke can cause permanent damage, including partial paralysis, impairment in speech, comprehension and memory. The extent and location of the damage determines the severity of the stroke, which can range from minimal to catastrophic.

Hemorrhage Stroke

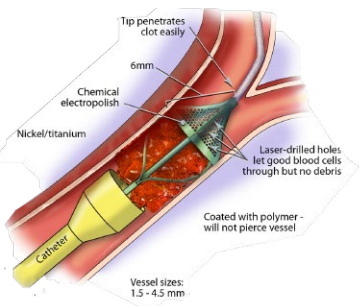


Promises & Limitations in the Ischemic Stroke Treatment

The most common stroke is the ischemic stroke, which accounts for ~ 85% of the total stroke cases in the United States. It can either be treated using drugs or through mechanical devices.

Drug Treatment

The only Food & Drug Administration (FDA) approved drug treatment for acute ischemic stroke is the Tissue plasminogen activator (tPA). It is given via intravenous therapy (IV) and works by dissolving the clot and improving blood flow to the part of the brain being deprived of blood. The limitations in this treatment is that the tPA should be administered within three hours (and up to 4.5 hours in certain eligible patients) of the onset of symptoms.



Mechanical Devices

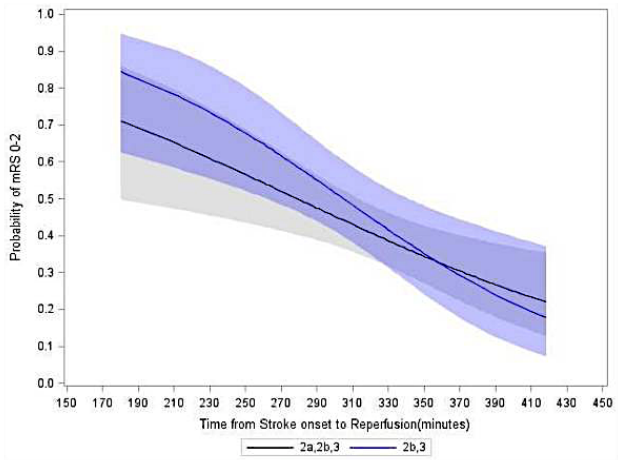
Some ischemic strokes are treated with a small mechanical devices that removes or breaks up blood clots. This procedures is popularly known as Endovascular therapy. A surgeon inserts a small mechanical device into the blocked artery using a thin tube. Once inside, the tool traps the clot, and either breaks it up or the surgeon pulls it out of the brain, reopening the blocked blood vessel in the process.

Though, it has greatly improved survival rates. it has some limitations. The procedure can be performed up to six to eight hours after a person exhibits symptoms of stroke and can be extended up to 24 hours. However, the probability of a good outcome declines as we move further and further away from the onset of symptoms.

Studies from the US National Institute of Health and National Institute of Neurological Disorders and Stroke, show that time is brain, as it is very crucial in case of stroke.

Of the 240 patients who were otherwise eligible for inclusion in our analysis, 182 (76%) achieved angiographic reperfusion. Mean time from symptom onset to reperfusion (i.e., procedure end) was 325 min (SD 52). Increased time to reperfusion was associated with a decreased likelihood of good clinical outcome (unadjusted relative risk for every 30-min delay 0·85 [95% CI 0·77-0·94]; adjusted relative risk 0·88 [0·80-0·98]).

Time to Angiographic Reperfusion and Clinical Outcome After Acute Ischemic Stroke



Source: US National Library of Medicine National Institutes of Health
Release Date: April 2014

Delays in angiographic reperfusion leads to a decreased likelihood of good clinical outcome in patients after a moderate to severe stroke.

Major Challenges in the treatment of Ischemic Stroke

Limited time window is one of the foremost limitations for not receiving IV tPA. In 2009, the American Stroke Association published a scientific advisory supporting the use of tPA within the 3- to 4.5-hour window, and this information was then disseminated to participating hospitals.

According to the research published in National Institute of Health by Brandi R. French, MD in 2016 Nov-Dec, between 15% to 32% of stroke patients successfully reach the hospital within three hours of symptom onset, while others fail to reach the hospital within the given time window. Only 2% to 3% of stroke patients receive intravenous tPA therapy, while between 1% to 7% of stroke patients arrive at hospital in-time for endovascular therapy.

The major disadvantage is that there is no treatment available for stroke patients before reaching the hospital. Even after reaching the hospital, very limited patients get treatment to dissolve the clot. This is because the treatment itself could be dangerous to the patient. Sometimes giving too much oxygen to remove the clot may also damage the brain.

However BXT-25 is Breaking Stereotypes

To prevent catastrophic brain damage from stroke, the Company is developing a drug, BXT-25, also known as oxygen bridge. It is a glycol-polymer, made of hybrid molecules of Heme chemical structure, taken from the hemoglobin molecule and a proprietary polymer chemical composition. The drug is intravenously administrated to supply oxygen to the hypoxic tissue.

Chemical Structure of BXT-25

Source: Company

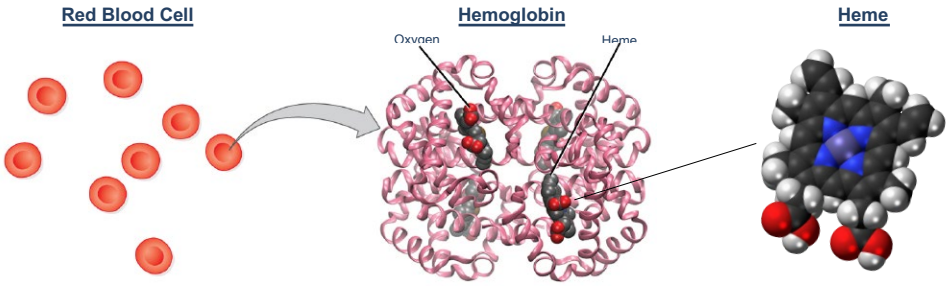
Heme, the Oxygen Carriers of Human Blood Cells

According to BJA Education, a single red blood cell (RBC) consists of 200-300 million hemoglobin molecules. Each hemoglobin molecule is made up of globin group (protein subunits) surrounded by four heme group. Each heme group contains one iron atom, that can bind to one oxygen molecule. Therefore, each hemoglobin molecule having four heme group can carry 4 oxygen molecules.

1 Red Blood Cell (RBC)
carries
200–300 million Hemoglobin
or
800-1,200 million Heme
or
800-1,200 million Oxygen

In other words, each RBC contains 800-1,200 million Heme

Image Illustration of Red Blood Cell



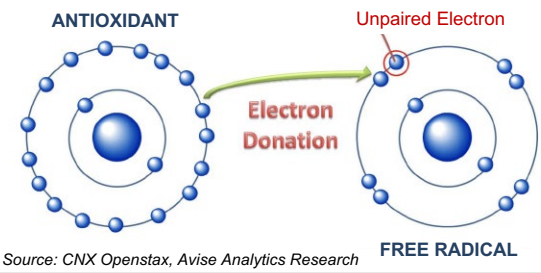
Source: CNX Openstax, Jynto (talk), Avise Analytics Research

Whereas, Excess Free Heme Causes Toxicity

According to the Frontiers, Heme (iron-protoporphyrin IX) is an essential co-factor involved in multiple biological processes of transporting and storing oxygen, transferring electrons and many more. In contrast to the positive functions of heme, excess free heme leads to undesirable toxicity. It can cause cell damage and tissue injury since heme catalyzes the formation of reactive oxygen species (ROS), resulting in oxidative stress.

According to National Institute of Health (NIH), oxidative stress occurs when there is an imbalance between free radicals and antioxidants in our body. Free radicals like Heme are the products of normal cellular metabolism. A free radical can be defined as an atom or molecule containing one or more unpaired electrons in valency shell or outer orbit and is capable of independent existence. The odd number of electron(s) of a free radical makes it unstable, short lived and highly reactive. Because of their high reactivity, they can extract electrons from other compounds to attain stability. Thus the attacked molecule loses its electron and becomes a free radical itself, beginning a chain reaction cascade which finally damages the living cell. On the other hand, antioxidants are the molecules that can donate an electron to a free radical without making themselves unstable. This causes the free radical to stabilize and become less reactive. When there are more free radicals present that can be kept in balance by antioxidants, the high reactivity property of free radicals extract electrons from other compounds to attain stability. As a result, the attacked molecule loses its electron and becomes a free radical itself, beginning a chain reaction cascade which finally damages the fatty tissue, DNA, and proteins in the body. Proteins, lipids, and DNA makes up a large part of the body, so that damage can lead to a vast number of diseases over time.

Image Illustration of Reaction Between Free Radical and Antioxidant



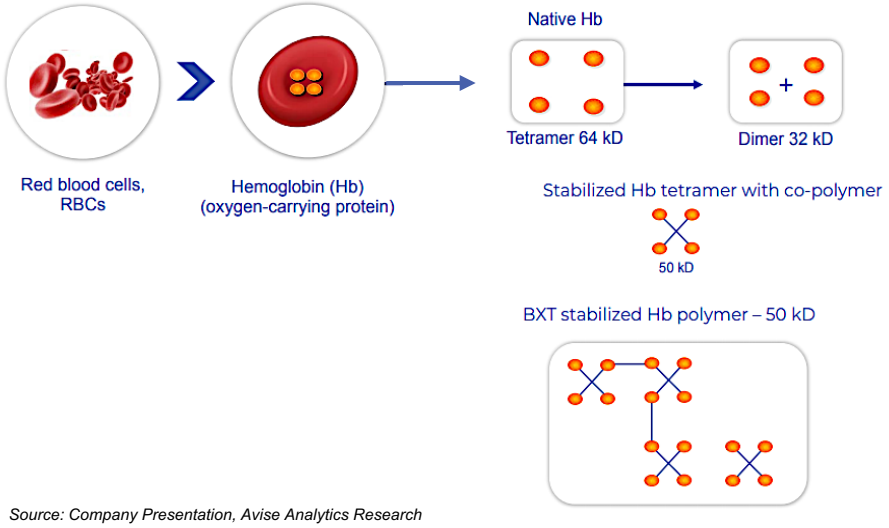
Source: CNX Openstax, Avise Analytics Research

However, BXT-25 has Overcome the Limitation of Heme

Bioxytran applies a unique chemistry to stabilize the free heme, by reattaching it to a proprietary polymer chemical structure, forming a glyco-polymer hybrid molecules, BXT-25. The polymer stabilizer mimics the sugar found in the blood cells. It is made from the galactoarabinan family of sugar chains and is therefore not metabolized.

When the heme stabilizes, it does not cause damage to the proteins, DNAs and lipids and thus prevents undesirable toxicity. Using carbohydrate chemistry, heme and the co-polymer is functioned to deliver oxygen to the brain.

BXT-25 - Stabilized Oxygen-Carrying Protein



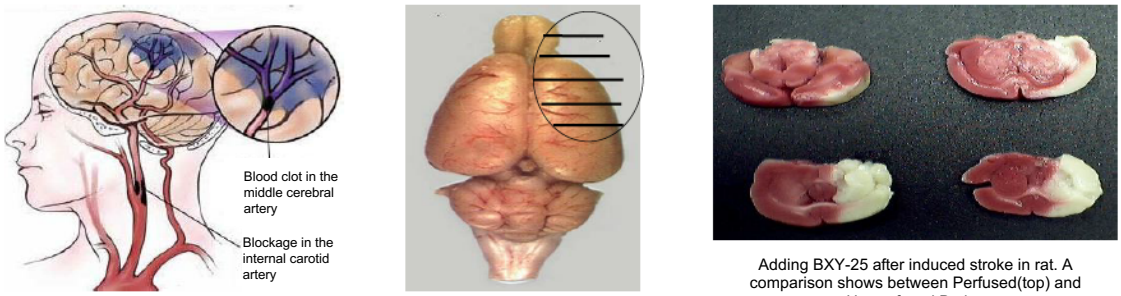
Source: Company Presentation, Avise Analytics Research

Proof of Concept of BXT-25 in Animals

Following are the key takeaways:

- Absence of nitric oxide scavenging, no increased blood pressure in diabetic mice (Harvard Medical, 2013)
- No toxicity from replacing 90% of the blood in dogs with similar chemistry to BXT-25.
- Oxygen delivery and brain recovery in stroke induced rats with similar chemistry to BXT-25 (Harvard Medical, 2013)

Middle Cerebral Artery Blockage Model in Rats



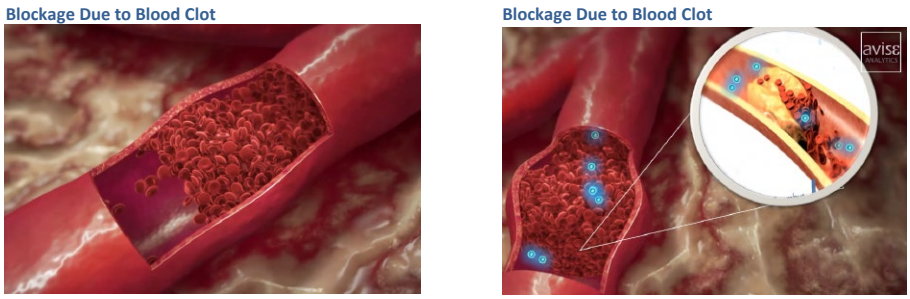
Adding BXY-25 after induced stroke in rat. A comparison shows between Perfused(top) and Un-perfused Brains

Source: Company Presentation, Avise Analytics Research

Unique Mechanism of Action of BXT-25

The drug, BXT-25, is a whopping 5000 times smaller than a red blood cell. It is small enough to overcome severe blockage and bring oxygen to the hypoxic tissue. The reduced size of the drug enables it to perfuse constricted ischemic capillaries, that are inaccessible to red blood cells due to clots. Instead of dissolving or breaking down the clot, BXT-25 penetrates a blood-clot to reach the brain within 3 minutes, reducing time-to-needle by a whopping **90%**.

BXT-25 Brings Oxygen to the Hypoxic Tissue



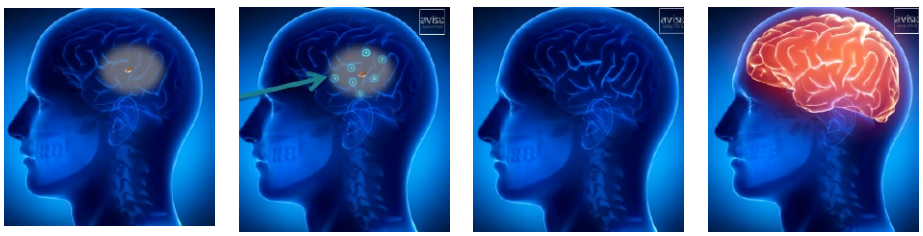
Source: Company, Avise Analytics Research

BXT-25, is whopping 5000 times smaller than a red blood cell

Until the clot is dissolved, or surgery is performed, it can continuously oxygenate the hypoxic tissue for up to 9 hours until the next IV injection is administered, and hence helps to widen the treatment window. BXT-25 is equally effective in case of hemorrhagic stroke.

Over-oxygenation is not an issue with BXT-25. The glycoprotein does not release oxygen into tissues if too much oxygen is already present, and keeps the normal tissue unaffected, where oxygen concentration is too low. The laws of physics and partial pressure chemistry are responsible for preventing over-oxygenation. Oxygen diffuses from high to low concentration. Perfusion works off the oxygen pressure differential. What keeps oxygen on the heme is a chemical bond. Perfusion of oxygen into tissue happens when the pressure of the tissue is low. Low pressure breaks the chemical bond.

Image of Demonstration on How it Works



Source: Company, Avise Analytics Research

Can be Stored for More Than Three Years

An interesting fact about BXT-25 is that, unlike blood, it does not need to be stored in a refrigerator. This new molecule is stable in solution for 3 years at room temperature and can be freeze-dried for even longer shelf life.

Only Treatment Before Reaching the Hospital

It widens the treatment window by 9 hours

While tPA is the only available FDA approved treatment for stroke, it needs to be administered within 3 hours of onset of symptoms. Therefore, the importance of immediate action cannot be emphasized enough, when the first symptoms of a stroke appear. For every minute the brain is deprived of oxygen, it looses 2 million brain cells which accelerates brain aging by 3.1 weeks. In a typical stroke scenario, 30 minutes is spent getting to the hospital which results in brain aging of 1.8 years and then an additional 2 hours to do CT scan and get imaging, resulting in another 7.2 years of brain aging. This brings the total aging of the brain to 9 years in an average stroke case.

Hospital Trip Could Age Brain Close to a Decade

	Neurons Lost	Synapses Lost	Myelinated Fibers Lost	Accelerated Aging
Per stroke (average)	300 million	2 trillion	1,800 km/1,100 miles	9 years
Per hour	120 million	830 billion	710 km/440 miles	3.6 years
Per minute	1.9 million	14 billion	12 km/7.5 miles	3.1 weeks
Per second	32,000	230 million	200 meters/220 yards	8.7 hours

Source: Company, Avise Analytics Research

The CT scan is mandatory because it is imperative to determine whether the victim has an ischemic stroke or hemorrhagic stroke as tPA can only be given to 87% of stroke patients that suffered an ischemic stroke. The tPA works by dissolving the clot and improving blood flow to the part of the brain being deprived of blood supply. But, if the victim falls in the category of hemorrhagic stroke and tPA is administered before diagnosis, it would result in the patient's death.

However, even in case of tPA being administered to an ischemic stroke patient, there is still a risk that when the clot is dissolved and blood suddenly flows back into the affected area of the brain, there will be bleeding that can cause more damage, or even death.

Also, it is quite challenging to complete the following within 3 hours of critical window:

1. Identifying the stroke symptoms,
2. Reaching hospital,
3. Diagnosing stroke with imaging, and
4. Administrating tPA for Ischemic Stroke.

Hospital Trip Could Age Brain Close to a Decade

Source: Company, Avise Analytics Research

The use of BXT-25 could drastically expand this window. Once developed and approved by the FDA, BXT-25 will be the only treatment that can be given to any stroke patient in an ambulance for immediate relief, as it is effective in both ischemic and hemorrhagic stroke. The doctor will no longer have to wait for CT scan, and subsequent therapeutic decisions, to understand whether the patient has had a hemorrhagic stroke or not. The drug can be injected to patient in the ambulance on the way to the hospital. We believe, BXT-25 would be the fastest way possible to save the brain cells from dying soon after the occurrence of a stroke. The drug is not meant as a long-term solution, but rather as a stop-gap measure. However, if the patient cannot get a clot removed, BXT-25 could be used to oxygenate the patient's brain over a longer period of time to minimize damage.

Comparing the Efficacies of BXT-25 with its Peer Group

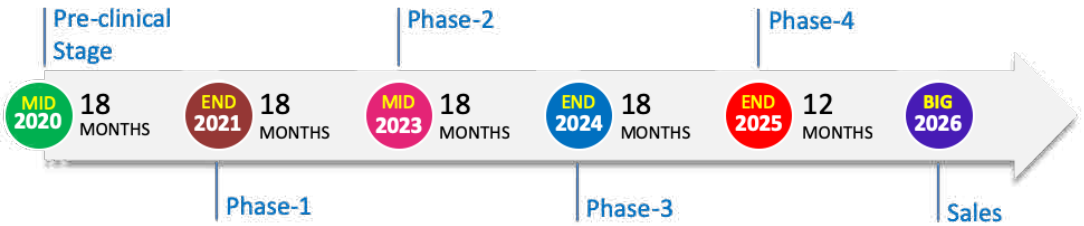
Development Stage Drugs	Cure Stroke	Dissolve Clot	Penetrate Through Clot	Time Window to Take Drug	Expand tPA Window	Available in Ambulance	Treat both AIS & HS
Diffusion Pharmaceuticals Inc. TSC	Pre-treatment drug	No	**Yes**; Effective for 3 hours	3 Hours	No	Yes	Yes
DiaMedica THERAPEUTICS DM199	Treatment drug	No	**Yes**; improvement after 12 days	24 Hours	tPA not required	No	No
NuvOx Pharma DDFPe	Pre-treatment drug	No	Yes	3 Hours	1.5hrs to 9hrs	Yes	Yes
Biogen TMS007	Treatment drug	Yes	No	24 Hours	tPA not required	No	No
BioXyTran BXT-25	Pre-treatment drug	No	**Yes**; Restores in 3 minutes	Any-time	> 9hrs	Yes	Yes

Source: Avise Analytics Research

On comparing the efficacies of each development stage stroke management drug with BXT-25, it is quite interesting to see that BXT-25 would be able to address some of the most serious limitations in the stroke treatment measures that are currently available. The above comparison table gives us a clearer picture – it shows that BXT-25 would be able to address 5 out of 7 highlighted limitations and would surpass most of the drugs that are currently being developed by peer companies.

Upon completing the clinical stages in 6 to 7 years, we expect doctors to prescribe this pre-treatment drug to most of the stroke patients, to be taken while in the ambulance or at home, before reaching the hospital for treatment.

Expected Roadmap of Timeline for Clinical Trials



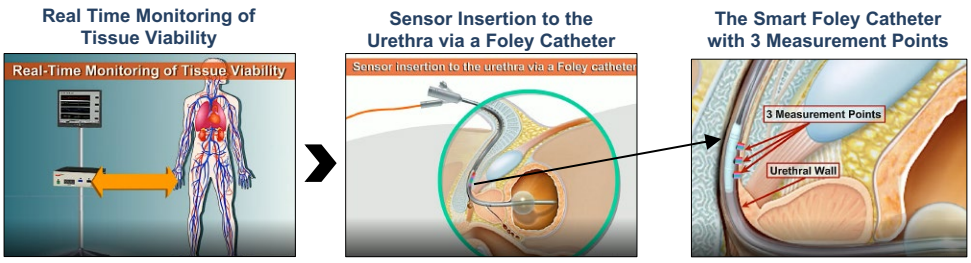
Source: Company, Avise Analytics Estimates

Licensed Technology to Measure the Tissue Metabolic State of the Brain

The Company has entered into an exclusive licensing agreement with MDX Lifesciences, Inc. (MDX) that will allow Bioxytran to continue commercial development of MDX technology and develop new protocols that measure the tissue metabolic state of the brain.

MDX viewer is a monitoring system that analyzes, in real time, the physiological activities at the tissue level integrated with systemic vital signs. It is connected to the urethral wall via a Foley catheter. It is an adjunctive bedside patient device to be applied in intensive care, operating suits and emergency care settings, providing early identification / warning of the body's critical metabolic imbalances or Tissue Metabolic Score (TMS) of a patient.

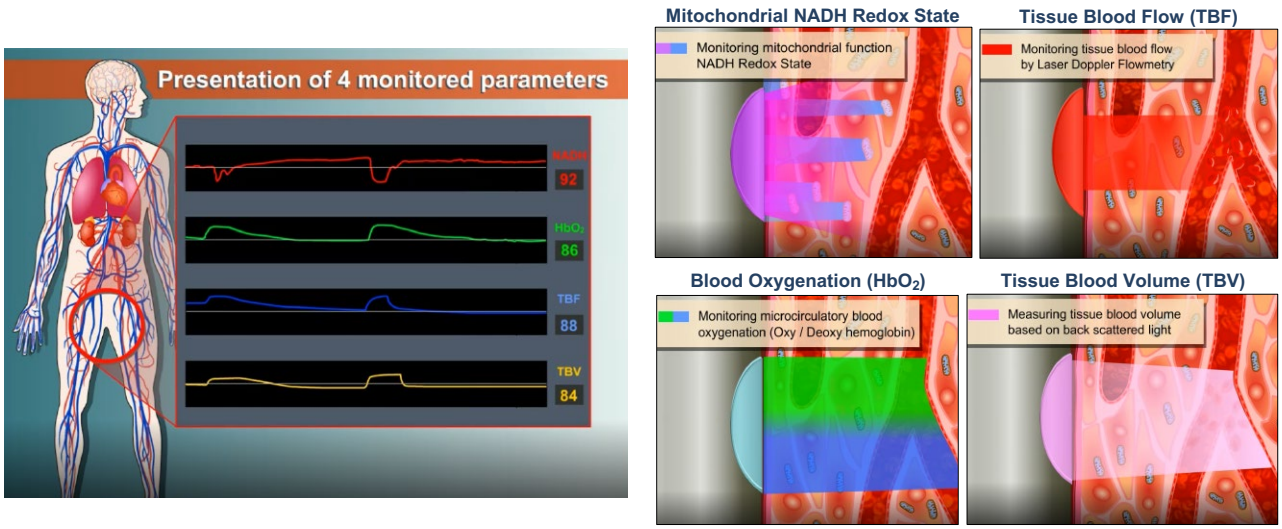
Image Illustration of Insertion of the Foley Catheter to the Urethra



Source : Mdx Lifesciences, Inc., Avise Analytics Research

The four parameters monitored at the tissue microcirculation and cellular compartment are as follows:

Image Illustration of Four Parameters Monitored by MDX Viewer



Source : Mdx Lifesciences, Inc., Avise Analytics Research

These parameters are then combined with systemic hemodynamic parameters, cardiovascular and respiratory, including heart rate, system IC blood pressure, respiratory rate, systemic haemoglobin saturation and body core temperature. The result is an entire body score, which is important to monitor whenever there is a hypoxic or critical pathologic state in the body.

The last model of the device was tested in animals that were mimicking the conditions of lack of oxygen in the human brain or in other organs in the body. The stability of the device was tested by monitoring an animal model for a number of hours.

With the help of Tissue Metabolic Score (TMS), tissue oxygenation levels can be measured before and after the administration of BXT-25. Once it is proved that tissue oxygenation increased, the drug can be approved.

Bioxytran Agreed to Pay the Licensing Fee

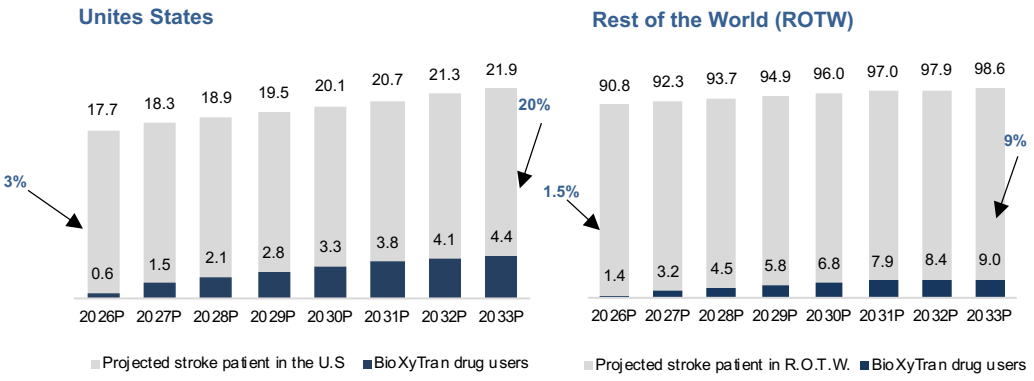
Bioxytran agreed to pay $500,000 as licensing fee, contingent upon its receipt of $3.0 million or more in equity financing under the S-1 registration. Bioxytran also agreed to reimburse MDX for development costs required to use the device with BXT-25 or other compounds, plus a 20% value added fee. We trust that MDXViewer will further the market position of BXT-25.

Projected Market Size of BXT-25

Following the FDA approval of the drug (BXT-25) for its sale and marketing in the United States, we forecast that at least 3% of the Stroke patients will be prescribed this drug for use during the initial year of sales – this figure may increase to reach as much as 20% in 7 to 8 years.

Similarly, for rest of the world, We forecast that at least 1.5% of stroke patients will be prescribed this drug for use during its initial year of sales. This number may grow to reach as much as 9% in 7-8 years.

Bxt-25 Drug Users Over Total Stroke Patients*



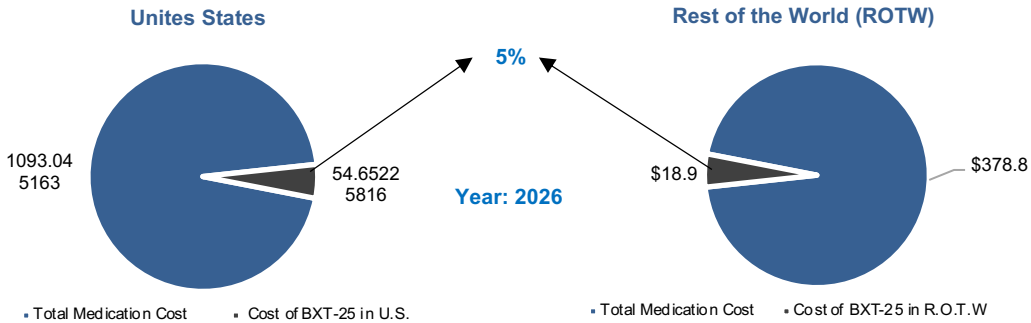
Source: Avise Analytics Estimates

**The above forecast is based on conservative estimates.*

Conservative Estimates on the Cost of BXT-25 Per Patient

According to a new study published by the National institute of Neurological Disorders and Stroke, approximately 13% of the total direct medical cost on stroke accounts for medication in the United States. Based on our most conservative estimates, we expect BXT-25 to cost a minimum of 5% of the total medication cost. In other words, the total dosage of BXT-25 in the U.S. would cost only $55 per patient in 2026, which is forecasted to reach $64 by 2033. Similarly, in rest of the world, it is estimated to cost a minimum of $19 per patient in 2026 and is forecasted to reach $25 by 2033.

BXT-25 to Cost Only 5% of the Total Medication Cost



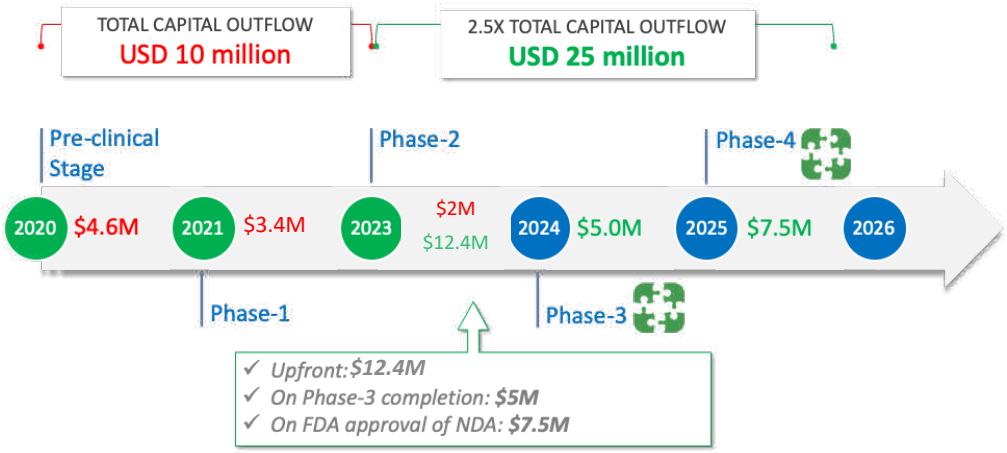
Source: Avise Analytics Estimates

Collaboration to Develop & Market BXT-25

The management of the Company expects to spend as much as $10 million to complete its Phase-2 clinical trial. Upon successful completion of Phase-2 trial of BXT-25, the Company plans to collaborate with an established pharmaceutical company or companies, to further develop and market the drug. Based on the valuation of similar deals that have happened in the past, we estimate Bioxytran to license the rights for $25 million, that is, 2.5x its capital outflow.

Under the same agreement, we estimate the Company to receive manufacturing royalties of 15% & 10% on net sales in the United States and Rest of the World, respectively.

Licensing the Development & Selling Rights at 2.5x its Capital Outflow

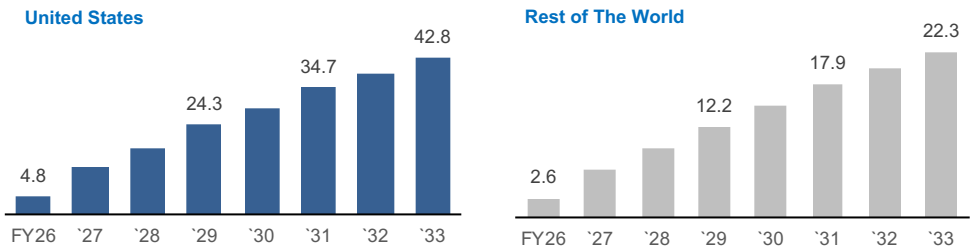


Source: Avise Analytics Estimates

Reasonable Estimates on Licensing Fees

Based on our reasonable assumptions, we forecast that the 15% royalty fees on the sale of BXT-25 in the United States would increase from $4.8 million in 2026 and reach $ 42.8 million by 2033. Similarly, the 10% royalty fees for rest of the world would fetch a royalty fee of $ 2.6 million in 2026 which will grow to $ 22.3 million by 2033.

Licensing the Development & Selling Rights at 2.5x its Capital Outflow



Source: Avise Analytics Estimates

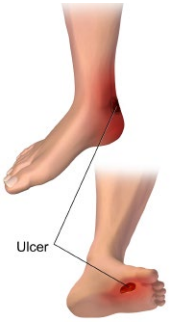
The above conservative estimates look very reasonable and should be achievable.

The path breaking technology of BXT-25 looks promising. We assume that Bioxytran will soon start its preclinical study and expect the Company to successfully complete each of its clinical phases on time.

Other Promising Drugs in the Pipeline

The Company plans to develop and commercialize two more products namely, BXT-252 and BXT-251 to address the challenges in the treatment of unmet clinical needs.

BXT-252 to Bring Disease-Altering Treatment in Wound Management



Foot Ulcers

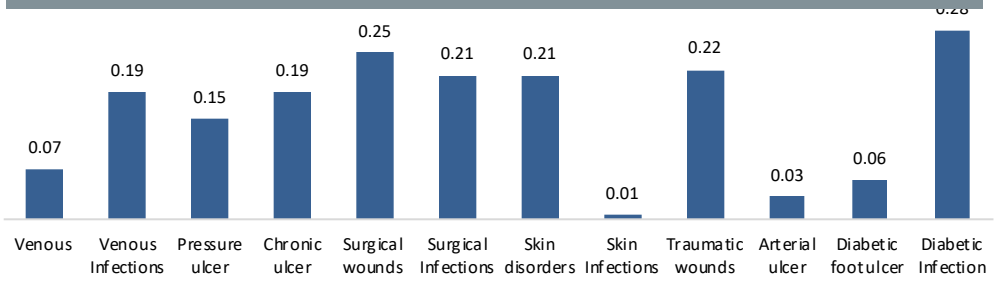
Bioxytran is developing new drug candidates and next generation technologies that will address real unmet medical needs in Ischemic wound healing. A second drug candidate, BXT-252 is a chemical structure sub-class of BXT-25, sharing the same physical properties (1/5000th of red blood cell) however, its proprietary co-polymer can improve the healing of pressure and arterial ulcers. It will be designed to treat the hypoxia in wounds that do not heal. The company is planning to begin pre-clinical studies and apply to the FDA for approval for these indications.

BXT-252, will be an injectable anti-necrosis drug, specifically meant to treat ischemic wounds, where poor blood flow causes the cells to die and damages the tissue. Generally, the mean healing time of ischemic wounds is about 3-6 months. However in the case of BXT-252, the Company expects, that it will enable quick delivery of oxygen to wounded tissue in conditions where red blood cells cannot reach, minimizing the time of wound healing significantly.

Growing Market Size, Prevalence and Cost of Wound in the U.S.

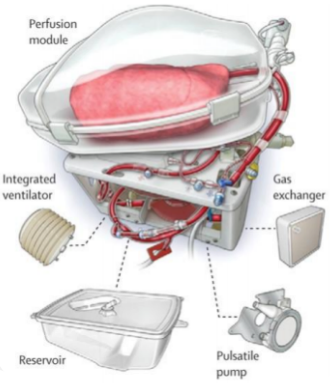
As per the latest research from Markets and Markets, the wound care market is expected to reach USD 22.81 billion by 2022 from USD 18.99 billion in 2018 at a CAGR of 3.7. According to National Institute of Health , chronic wounds affect around 6.5 million patients in the United States every year. It is claimed that in excess of $25 billion is spent annually on treatment of chronic wounds and the burden is growing rapidly due to increasing health care costs, an aging population and a sharp rise in the incidences of diabetes and obesity worldwide. 7.8% of the U.S. population suffers from diabetes. It is estimated that up to 25% of all diabetics will develop a diabetic foot ulcer. All these factors envisage a huge potential for BXT-252 drug candidate to accelerate revenue growth in the wound care market.

Prevalence of Wounds in the U.S in 2014 by Type of Wound (in millions)



Source : Value in Health, Avise Analytics Research

BXT-251 Bringing Innovation in Organ Preservation



According to Euro transplant Annual Report 2010, up to 72% of donated organs go to waste and are not transplanted. BXT-251, another drug candidate of Bioxytran, aims to prolong extracorporeal circulation and preservation of organs for transplant during transport or storage from hours to days.

Bioxytran Pipeline

Drug Candidate	Indication	Pre-clinical	Phase 1	Phase 2	Phase 3	Rights
BXT-252	Organ Preservation	●	●	●	●	Bioxytran Inc. BIXT
BXT-251	Wound Healing	●	●	●	●	Bioxytran Inc. BIXT

Source: Company

We believe both BXT 251 & 252 are highly potent drug candidates that are structurally different from many existing drugs and may address the key issues of emerging treatment resistance that limit duration of preservation & prompt and effective healing, respectively.

Proven Track Record of Dr. David Platt

Dr. David Platt

Dr. David Platt, Chief Executive Officer and Chairman of the Company, is a world-renowned carbohydrate chemist with a proven track record of shaping preclinical and clinical regulatory strategies and securing product approvals. With an extensive experience spanning over 30 years in the pharmaceutical industry, Dr. Platt created a value of nearly $1 billion for the investors of three publicly traded companies and has successfully raised $150 million, directly from public markets in the United States. He holds a solid patented portfolio of breakthrough technologies and has led the development of two drug candidates from concept through phase 2 clinical trials.

Dr. Platt received a Ph.D. in Chemistry in 1988 from Hebrew University in Jerusalem. In 1989, he was a research fellow at the Weizmann Institute of Science, Rehovot, Israel, and from 1989 to 1991, he was a research fellow at the Michigan Foundation (re-named Barbara Ann Karmanos Institute). From 1991 to 1992, Dr. Platt was a research scientist with the Department of Internal Medicine at the University of Michigan.

IGG International, Inc. Is now La Jolla Pharmaceutical

In 1995 Dr. Platt founded International Gene Group (NASDAQ: IGGI, GLGS now LPJC); where he developed the core technology of the company for the treatment of cancer and chronic kidney diseases and continued to serve the firm through 2000. At initiation, the valuation of IGGI was around $15-20 million which reached to $600 million by 2000.

Between 2001 and 2009, Dr. Platt became a founder of Pro-Pharmaceuticals, Inc. (OTC: PRWP and AMEX: PRW, now NASDAQ: GALT), and served as its chief executive officer and board chairman.

Observable Performance of Pro Pharmaceuticals During his tenure (2001-2009)

Galectin Therapeutics

Dr. Platt co-founded Pro Pharmaceuticals, which eventually changed its name to Galectin Therapeutics (GALT). He served as the Chairman, President and Chief Executive Officer in Pro Pharmaceuticals. In this company, he had a key role, along with Anatole Klyosov, in inventing the galectin inhibitor, DAVANAT, for the treatment of cancer. This had a ~$500 million market cap at its peak. The company was highly dependent on David Platt to develop their products and also to pursue collaborations.

Key Milestone Achieved During His Tenure (2001-2009)

2001
- Conducted preclinical trial in 2001 on DAVANAT

2002
- Raised more than $3 million in capital 2002
- The FDA accepted the IND of DAVANAT, authorizing the company to begin Phase I clinical trials

2003
- Began Phase I clinical trial of DAVANAT ® and DAVANAT ®/5-FU
- Raised approximately $9.9 million in new financing in 2003

2004
- Initiated and submitted to the FDA a Phase II clinical trial of DAVANAT ®/5-FU in colorectal cancer patients

2005
- Successfully completed a Phase I clinical trial for end-stage patients with all solid tumours
- Completed Phase II trial for end-stage patients with metastatic colorectal cancer.

2006
- Raised $10.0 million by issuing 7% Convertible Debentures and common stock warrants through a private placement

2007
- From inception through 2007 fiscal year, raised approximately $37.6 million from these offerings.

2008
- Entered into a license agreement with Medi-Pharma to commercialize all of the company's polysaccharide technology in exchange for a royalty equal to 10% of Medi-Pharma's net revenues from products sold based on the licensed technology.

2009
- DAVANAT completed Phase II trials for treatment of colorectal cancer.
- Received $1.0 million in advance under the terms of the agreement with Medi-Pharma

Source : Galectin Therapeutics, Avise Analytics Research

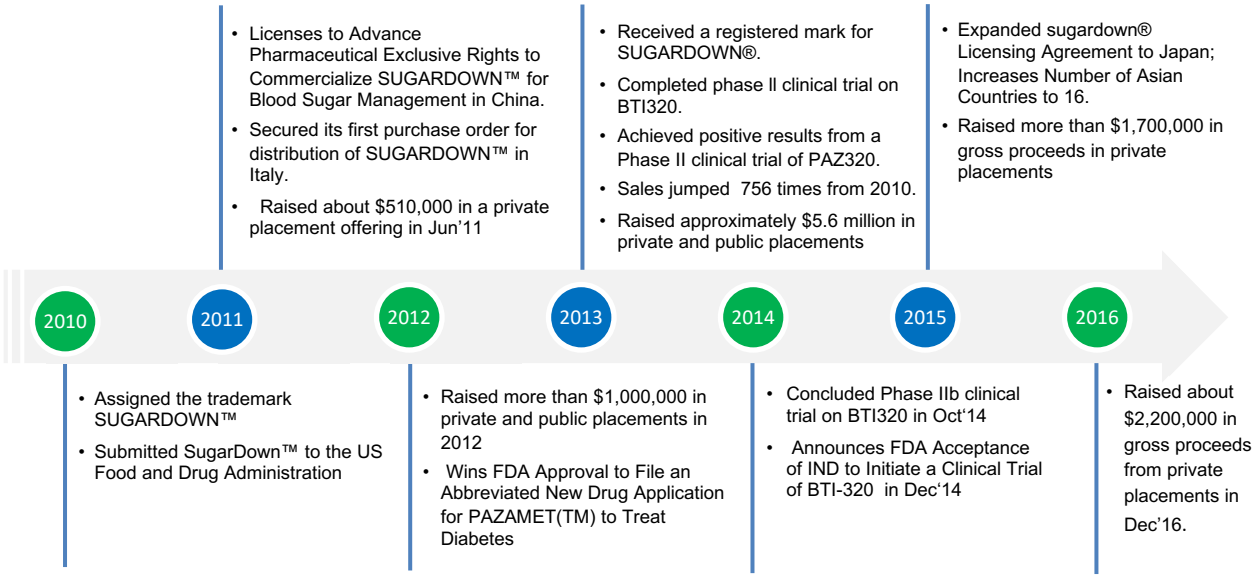
Summarizing the Achievements of the Company During his Tenure 2001-2009

1 Raised Capital: **$43.4 million**	2 U.S. Patents held: **5**	3 Licencing Agreement Achieved: **1** *Received $1.0 mn in advance*	4 DAVANAT ® ,the lead drug candidate completed Phase I clinical trial for 3 diseases	5 DAVANAT ® completed Phase II clinical trial for second line and end stage patients with colorectal cancer

Significant Progress at Boston Therapeutics During His Tenure (2010-2016)

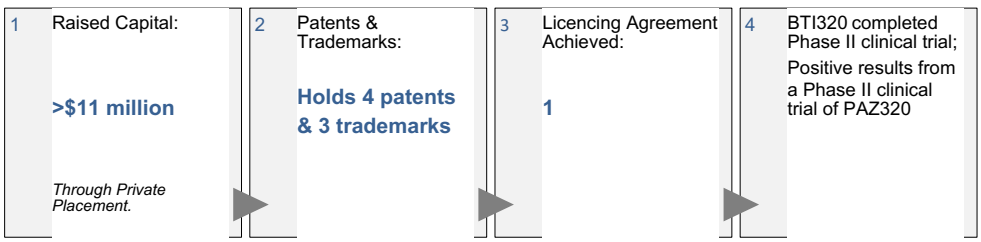
Bringing his management experience to the role, Dr. Platt became the Founder, Chairman and Chief Executive Officer of Boston Therapeutics between 2010-2016. He has played a significant role in the development and commercialization of complex carbohydrate science, and a pipeline of carbohydrate-based therapeutics, to address a variety of unmet medical needs in treating diabetes and inflammatory diseases. During this period, he invented and developed all the Intellectual properties of the company. His expertise was particularly valuable to bring progress to the clinical development of their drugs and work, to expand market awareness and sales of SUGARDOWN® , a dietary supplement designed to reduce post-meal sugar spikes.

Key milestone achieved during David Platt's tenure (2010-2016)



Source :Boston Therapeutics

Summarizing the achievements of the company during 2010-2016



1. We expect Dr. Platt to lead the Company through the evolving regulatory landscape in close collaboration with the development, CMC, and quality teams as it closes in on near-term milestones and prepares to bring drug therapies to patients. His leadership would strengthen the relationships of Bioxytran with key stakeholders towards the successful development of its drugs.

Overview of Other Key Management Team


Ola Soderquist

Ola Soderquist, CFO with experience in multiple industry sector

Mr. Soderquist has more than 30 years of senior international entrepreneurial management experience within technology companies. He has served as CFO and other capacities in multiple industry sectors. Ola is a multi-lingual senior finance professional poised to work globally and cross-functionally, particularly with complex projects involving business integration, systems implementation, continuous improvement, and process excellence. Ola's managerial experience portfolio includes; Start-ups, Private, Public, Venture Capital and Private Equity ownership. He obtained a BS and an MS in Accounting from Stockholm School of Economics and an MBA from Babson College – Franklin W. Olin Graduate School of Business.


Elena Chekhova

Elena Chekhova, Chief Scientist

Elena Chekhova received her Ph.D in Process Systems Engineering at MIT. Elena has over 10 years of experience in life sciences. She is the founder of Biotine Consulting, a life science consultancy that provides business development and project management services to life science companies in the US as well as internationally. Prior to founding Biotine, Elena served as Vice President of Business development at Chiral Quest, a manufacturing and technology start-up with offices in NJ and China.

Risk Assessment

Clinical Drug Development is a Lengthy and Expensive Process

Bioxytran plans to initiate pre-clinical studies of its lead drug, BXT-25, soon. However, such pre-clinical trials are not only expensive and time-consuming, but also carry greater risks of failure in terms of yielding negative test results. This could adversely affect the management's ability to raise capital, planned future activities and consequently operational and financial performance of the Company.

Failure to Secure FDA Approval

In US pharmaceutical products are subject to extensive regulation by Food and Drug Association (FDA). Any failure to comply with applicable U.S. Requirements, may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending new drug applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, etc. Occurrence of any such events may delay or impair the Company's ability to successfully commercialize its planned drug portfolio.

Ability to Raise Additional Capital

Bioxytran is an early stage pharmaceutical company and it will likely need further additional financing to undertake and complete clinical trials, testing and regulatory compliance activities for BXT-25 and cover projected general and administrative expenses. There is no guarantee that this type of financing would be available if needed and/or at terms that are acceptable to shareholders. Without such additional capital, the management may be forced to curtail operations or delay business plan.

Competition from Established Players in the Market

It faces stiff competition from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. The global stroke diagnostics and oxygen therapeutics market is characterized by intense competition, with a relatively small selection of large global corporations having significant advantages of scale, sales distribution, research & development labs, and financial resources when compared to the smaller players in the industry. This dynamic may place the Company at a competitive disadvantage as it seeks to raise funds for its clinical trials and build a robust intellectual property portfolio of patent applications and trademarks.

Risk of Dilution

Given the significant costs associated with funding clinical studies required for regulatory approval, early-stage, development stage biotechnology companies are especially susceptible to the risk of dilution. If Bioxytran requires more capital than expected, or faces a more challenging capital raising environment, or if its clinical pipeline takes longer to develop than anticipated, the Company maybe forced to raise capital at prices/terms which are unfavourable to existing equity holders. This may include the issuance of new shares and dilutive instruments such as warrants, convertible debt and preferred stock. Dilution reduces the proportionate ownership of shareholders and may adversely impact the Company's common stock value.

INCOME STATEMENT

PARTICULARS ($ in M)	FY19F	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
NET REVENUE															
Licencing Revenue															
Domestic	-	-	-	-	12.44	4.98	7.46	4.78	12.68	18.22	24.33	29.26	34.67	38.58	42.81
As a % of Net Revenue						*100.0%*	*100.0%*	*64.9%*	*66.7%*	*66.6%*	*66.6%*	*66.2%*	*65.9%*	*65.8%*	*65.8%*
International	-	-	-	-	-	-	-	2.58	6.33	9.14	12.21	14.95	17.93	20.02	22.27
As a % of Net Revenue								*35.1%*	*33.3%*	*33.4%*	*33.4%*	*33.8%*	*34.1%*	*34.2%*	*34.2%*
Revenue from Cont Ops	**0.00**	**0.00**	**0.00**	**0.00**	**12.44**	**4.98**	**7.46**	**7.36**	**19.02**	**27.36**	**36.54**	**44.21**	**52.60**	**58.60**	**65.09**
y/y growth						*(60.0%)*	*50.0%*	*(1.4%)*	*158.4%*	*43.9%*	*33.6%*	*21.0%*	*19.0%*	*11.4%*	*11.1%*
G&A Expenses	0.47	0.47	0.47	0.47	1.15	1.19	1.22	1.26	1.30	1.34	1.38	1.42	1.46	1.51	1.55
As a % of Net Revenue	-	-	-	-	*9.3%*	*23.9%*	*16.4%*	*17.1%*	*6.8%*	*4.9%*	*3.8%*	*3.2%*	*2.8%*	*2.6%*	*2.4%*
R&D Expenses	2.70	1.50	1.95	1.50	0.15	0.15	0.15	0.15	0.15	0.16	0.16	0.16	0.16	0.17	0.17
As a % of Net Revenue	-	-	-	-	*1.2%*	*3.0%*	*2.0%*	*2.1%*	*0.8%*	*0.6%*	*0.4%*	*0.4%*	*0.3%*	*0.3%*	*0.3%*
D&A	0.08	0.09	0.09	0.09	0.02	0.02	0.02	0.19	0.61	1.22	2.04	2.89	3.69	4.46	5.19
As a % of Net Revenue	-	-	-	-	*0.1%*	*0.3%*	*0.3%*	*2.5%*	*3.2%*	*4.5%*	*5.6%*	*6.5%*	*7.0%*	*7.6%*	*8.0%*
Total Operating Expenses	**3.25**	**2.05**	**2.51**	**2.06**	**1.32**	**1.36**	**1.40**	**1.60**	**2.06**	**2.72**	**3.58**	**4.47**	**5.32**	**6.13**	**6.91**
Operating Profit/(Loss)	**(3.25)**	**(2.05)**	**(2.51)**	**(2.06)**	**11.12**	**3.62**	**6.07**	**5.76**	**16.95**	**24.64**	**32.97**	**39.74**	**47.28**	**52.46**	**58.17**
As a % of Net Revenue					*89.4%*	*72.8%*	*81.3%*	*78.3%*	*89.1%*	*90.1%*	*90.2%*	*89.9%*	*89.9%*	*89.5%*	*89.4%*
EBITDA	**(3.17)**	**(1.97)**	**(2.42)**	**(1.97)**	**11.25**	**3.68**	**6.16**	**5.95**	**17.56**	**25.86**	**35.00**	**42.63**	**50.97**	**56.92**	**63.36**
As a % of Net Revenue	-	-	-	-	*89.5%*	*73.1%*	*81.6%*	*80.8%*	*92.4%*	*94.5%*	*95.8%*	*96.4%*	*96.9%*	*97.1%*	*97.4%*
Interest Expenses (net)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Profit/(Loss) Before Taxes	**(3.25)**	**(2.05)**	**(2.51)**	**(2.06)**	**11.12**	**3.62**	**6.07**	**5.76**	**16.95**	**24.64**	**32.97**	**39.74**	**47.28**	**52.46**	**58.17**
As a % of Net Revenue	**-**	**-**	**-**	**-**	*89.4%*	*72.8%*	*81.3%*	*78.3%*	*89.1%*	*90.1%*	*90.2%*	*89.9%*	*89.9%*	*89.5%*	*89.4%*
Income Tax Expenses (Benefits)	-	-	-	-	-	-	-	1.44	3.99	5.91	7.99	9.94	11.82	13.12	14.54
Net Profit / (Loss) for the period	**(3.25)**	**(2.05)**	**(2.51)**	**(2.06)**	**11.12**	**3.62**	**6.07**	**4.32**	**12.96**	**18.73**	**24.97**	**29.81**	**35.46**	**39.35**	**43.63**
As a % of Net Revenue	**-**	**-**	**-**	**-**	*89.4%*	*72.8%*	*81.3%*	*58.7%*	*68.2%*	*68.5%*	*68.3%*	*67.4%*	*67.4%*	*67.1%*	*67.0%*

Source: Company's filings and Avise Analytics estimates

BALANCE SHEET

PARTICULARS ($ in M)	FY19F	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Assets															
Current Assets:															
Cash & Cash Equivalents	6.42	4.30	1.92	0.00	10.99	22.10	25.72	30.02	30.68	40.11	54.85	75.95	101.46	133.01	168.23
Accounts & Other Receivables	-	-	-	-	-	-	-	1.07	2.77	3.98	5.32	6.44	7.66	8.53	9.48
Inventories	-	-	-	-	-	-	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Current Assets	-	-	-	-	-	-	-	0.15	0.38	0.55	0.73	0.88	1.05	1.17	1.30
Total Current Assets	**6.42**	**4.30**	**1.92**	**0.00**	**10.99**	**22.10**	**25.72**	**31.24**	**33.83**	**44.64**	**60.90**	**83.27**	**110.17**	**142.71**	**179.01**
Non-Current Assets:															
Property, Plant & Equipment, net	0.25	0.19	0.14	0.08	0.10	0.11	0.12	0.73	2.22	4.13	6.43	8.92	11.69	14.53	17.50
Intangibles Assets - IP	0.08	0.07	0.04	0.01	0.00	0.00	0.00	0.17	0.54	0.96	1.38	1.75	2.12	2.44	2.74
Total Non-Current Assets	**0.32**	**0.26**	**0.17**	**0.09**	**0.10**	**0.11**	**0.12**	**0.89**	**2.75**	**5.09**	**7.80**	**10.66**	**13.81**	**16.97**	**20.24**
Total Assets	**6.74**	**4.55**	**2.10**	**0.09**	**11.09**	**22.21**	**25.84**	**32.13**	**36.58**	**49.73**	**68.71**	**93.94**	**123.98**	**159.68**	**199.25**
Liabilities & Shareholders' Equity/(Deficit)															
Current Liabilities:															
Accounts & Other Payables	0.37	0.23	0.29	0.34	0.22	0.22	0.23	0.34	0.44	0.58	0.77	0.96	1.14	1.31	1.48
Convertible Notes Payable, net	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounts Payable Related Party	-	-	-	-	-	-	-	0.11	0.14	0.19	0.25	0.31	0.37	0.43	0.48
Total Current Liabilities	**0.37**	**0.23**	**0.29**	**0.34**	**0.22**	**0.22**	**0.23**	**0.45**	**0.59**	**0.77**	**1.02**	**1.27**	**1.51**	**1.74**	**1.96**
Non-Current Liabilities:															
Long-Term Debt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Non-Current Liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Non-Current Liabilities	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Liabilities	**0.37**	**0.23**	**0.29**	**0.34**	**0.22**	**0.22**	**0.23**	**0.45**	**0.59**	**0.77**	**1.02**	**1.27**	**1.51**	**1.74**	**1.96**
Shareholders' Equity															
Preferred Stock															
Contributed Equity	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Add: Additional Capital Required	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Accumulated Losses	(3.63)	(5.68)	(8.19)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)	(10.25)
Retained Earnings	-	-	-	-	11.12	22.24	25.86	31.92	36.24	49.21	67.94	92.91	122.72	158.18	197.53
Total Shareholders' Eq/(Def)	**6.37**	**4.32**	**1.81**	**(0.25)**	**10.87**	**21.99**	**25.61**	**31.68**	**36.00**	**48.96**	**67.69**	**92.67**	**122.47**	**157.94**	**197.29**
Total Liabilities & Shareholders' Equity/(Deficit)	**6.74**	**4.55**	**2.10**	**0.09**	**11.09**	**22.21**	**25.84**	**32.13**	**36.58**	**49.73**	**68.71**	**93.94**	**123.98**	**159.68**	**199.25**

Source: Company's filings and Avise Analytics estimates

KEY RATIOS

PARTICULARS	FY19F	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Diluted Earnings per Share ($)	(0.03)	(0.02)	(0.03)	(0.02)	0.12	0.04	0.06	0.05	0.14	0.20	0.26	0.31	0.37	0.41	0.46
Book Value per Share ($)	0.07	0.05	0.02	0.00	0.11	0.23	0.27	0.33	0.38	0.51	0.71	0.97	1.29	1.66	2.07
Dividend Per Share ($)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Payout (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LIQUIDITY RATIOS															
Debt/Equity Ratio (x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current Ratio (x)	17.33	17.83	12.53	3.37	25.36	75.01	105.79	90.48	63.20	57.78	58.91	62.78	69.28	77.42	86.50
TURNOVER RATIOS															
Debtors Turnover Ratio (x)	-	-	-	-	-	-	-	6.9	9.9	8.1	7.9	7.5	7.5	7.2	7.2
Debtors day	-	-	-	-	-	-	-	53	37	45	46	49	49	50	50
Net Fixed Assets Turnover Ratio (x)	-	-	-	-	125.0	46.7	63.4	17.4	12.9	8.6	6.9	5.8	5.1	4.5	4.1
PROFITABILITY RATIOS															
Gross Profit Margin	-	-	-	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBIT Margin	-	-	-	-	89.4%	72.8%	81.3%	78.3%	89.1%	90.1%	90.2%	89.9%	89.9%	89.5%	89.4%
EBITDA Margin	-	-	-	-	89.5%	73.1%	81.6%	80.8%	92.4%	94.5%	95.8%	96.4%	96.9%	97.1%	97.4%
NPAT Margin	-	-	-	-	89.4%	72.8%	81.3%	58.7%	68.2%	68.5%	68.3%	67.4%	67.4%	67.1%	67.0%
Return on Capital Employed	(51%)	(38%)	(82%)	(263%)	209.3%	22.0%	25.5%	20.1%	50.1%	58.0%	56.5%	49.6%	44.0%	37.4%	32.8%
Return on Networth [RONW]	(51%)	(38%)	(82%)	(263%)	209.3%	22.0%	25.5%	15.1%	38.3%	44.1%	42.8%	37.2%	33.0%	28.1%	24.6%
VALUATION RATIOS															
P/E (x)	-	-	-	-	9.4	28.9	17.2	24.2	8.1	5.6	4.2	3.5	2.9	2.7	2.4
P/BV (x)	16.4	24.2	57.7	-424.7	9.6	4.8	4.1	3.3	2.9	2.1	1.5	1.1	0.9	0.7	0.5
EV/Sales (x)	-	-	-	-	7.9	19.7	13.2	13.3	5.2	3.6	2.7	2.2	1.9	1.7	1.5
EV/Adj. EBITDA (x)	-	-	-	-	8.8	27.0	16.1	16.5	5.6	3.8	2.8	2.3	1.9	1.7	1.5
Dividend Yield	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAPEX / Dep (x)	5.0	0.2	0.0	0.0	1.8	1.7	1.4	5.1	4.1	2.9	2.3	2.0	1.9	1.7	1.6
CAPEX / Sales (x)	-	-	-	-	0.002	0.006	0.004	0.130	0.130	0.130	0.130	0.130	0.130	0.130	0.130
No. of Shares Outstanding (in M) =	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1	95.1
Year end Adj. Share price ($) =	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Add: Debt ($ in M) =	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minority Interest ($ in M)=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Preferred shares ($ in M) =	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less: Cash & CE ($ in M)=	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
Enterprise Value ($ in M) =	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**	**98.2**
DU-Pont ANALYSIS															
PAT/PBT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	76.5%	76.0%	75.8%	75.0%	75.0%	75.0%	75.0%
PBT/EBIT	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
EBIT/Revenue	-	-	-	-	89.4%	72.8%	81.3%	78.3%	89.1%	90.1%	90.2%	89.9%	89.9%	89.5%	89.4%
Revenue/Total Assets	0.00	0.00	0.00	0.00	1.12	0.22	0.29	0.23	0.52	0.55	0.53	0.47	0.42	0.37	0.33
Total Asset/Total Equity	1.06	1.05	1.16	-0.37	1.02	1.01	1.01	1.01	1.02	1.02	1.02	1.01	1.01	1.01	1.01
Return on Equity (RoE)	**-**	**-**	**-**	**-**	**102.3%**	**16.5%**	**23.7%**	**13.6%**	**36.0%**	**38.3%**	**36.9%**	**32.2%**	**29.0%**	**24.9%**	**22.1%**

Source: Company's filings and Avise Analytics estimates

VALUATION & OUTLOOK

VALUATION:

PARTICULARS ($ in M)	FY19F	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Operating Income (EBIT)	(3.25)	(2.05)	(2.51)	(2.06)	11.12	3.62	6.07	5.76	16.95	24.64	32.97	39.74	47.28	52.46	58.17
Less: CAPEX	0.40	0.02	0.00	0.00	0.03	0.03	0.03	0.96	2.47	3.56	4.75	5.75	6.84	7.62	8.46
Add: D & A + Impairment	0.08	0.09	0.09	0.09	0.02	0.02	0.02	0.19	0.61	1.22	2.04	2.89	3.69	4.46	5.19
Current Assets excl. cash	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.22	3.15	4.53	6.05	7.32	8.71	9.70	10.78
Less: Current Liabilities	0.37	0.23	0.29	0.34	0.22	0.22	0.23	0.45	0.59	0.77	1.02	1.27	1.51	1.74	1.96
Working Capital (WC)	**(0.37)**	**(0.23)**	**(0.29)**	**(0.34)**	**(0.22)**	**(0.22)**	**(0.23)**	**0.76**	**2.56**	**3.76**	**5.04**	**6.05**	**7.20**	**7.96**	**8.81**
Increase/(Decrease) in WC	(0.11)	0.14	(0.05)	(0.05)	0.12	(0.01)	(0.01)	0.99	1.80	1.20	1.28	1.02	1.15	0.76	0.85
Less: Taxes	-	-	-	-	-	-	-	1.44	3.99	5.91	7.99	9.94	11.82	13.12	14.54
FCF for the Firm/Equity =	**(3.46)**	**(2.12)**	**(2.37)**	**(1.92)**	**10.98**	**3.61**	**6.07**	**2.56**	**9.30**	**15.20**	**20.99**	**25.93**	**31.17**	**35.43**	**39.51**
Terminal Value =															**621.90**
Present Value of FCF =	**(3.23)**	**(1.81)**	**(1.85)**	**(1.36)**	**7.12**	**2.14**	**3.28**	**1.26**	**4.19**	**6.25**	**7.88**	**8.88**	**9.75**	**10.12**	**172.41**

Particulars ($ in M except per Share data)	
Total Present Value of Free Cash Flows	225.0
Add: Cash & Cash Equivalents	0.12
Less: P.V. of Total Debt o/s (as per latest filings)	0.74
Less: Preferred Shares	-
Less: Minority Interest	-
Equity Value (Present Value)	224.41
Number of Shares outstanding (in M)	85.10
Fair Value per Share ($)	**2.64**

Estimating Weighted Average Cost of Capital (WACC)	
WACC Inputs	
Risk-free rate	2.0%
Excess Return on NASDAQ Biotechnology Index (3-Yr)	3.6%
Beta	0.69
Unadjusted Equity Risk Premium	2.5%
+Company Specific Risk Premium	3.0%
+ Small Business Risk Premium	2.0%
Cost of Equity (CAPM)	**9.54%**
Cost of Debt	
Statutory Tax rate	25.0%
Debt / Capital	0.0%
After Tax Cost of Debt	0.0%
WAC (Debt)	**0.0%**
Cost of Equity (CAPM)	9.54%
Equity / Capital	100.0%
WAC (equity)	9.54%
WACC Conclusion	**9.54%**
Long Term Growth Rate (Assumed) =	**3.0%**

OUTLOOK:

Amid aging U.S. population and rising stroke fatalities, the successful launch of BXT-25 could bring significant improvement over conventional treatment methodology in reversing ischemic stroke hypoxia. An exclusive license to use FDA approved MDX Viewer which measures tissue oxygenation level, would accelerate the development process of BXT-25. We are particularly attracted toward its novel drug, solid management, and huge market opportunities.

Based on our assumption that Bioxytran would license BXT-25 after completing Phase-2 clinical trial in 2023, we estimate 10% royalty revenue with net margin of ~67% from the sale of BXT-25, starting from 2026.
This model is highly dependent upon the continued clinical success of BXT-25 and will be adjusted accordingly based upon future clinical results.

We are initiating coverage on Bioxytran with a price target of $2.64 per share, achievable in 12 months, discounted at a WACC of 9.54%, using DCF valuation as our preferred methodology for valuing the stock, as it incorporates our long-term view about the Company's operations. On comparing the technology value of its peer group based on market cap per drug, BIXT is valued at $107.7 million or $1.3 per share.

SENSITIVITY ANALYSIS

Change in Fair Value per Share with a 1% Change in WACC

WACC	8.54%	9.54%	10.54%	11.54%	12.54%
Terminal Growth %	3.00%	3.00%	3.00%	3.00%	3.00%
Fair Value ($ / Share)	**3.39**	**2.64**	**2.10**	**1.70**	**1.40**

Change in Fair Value per Share with a 0.5% Change in Terminal Growth %

WACC	9.54%	9.54%	9.54%	9.54%	9.54%
Terminal Growth %	2.00%	2.50%	3.00%	3.50%	4.00%
Fair Value ($ / Share)	**2.37**	**2.49**	**2.64**	**2.80**	**3.00**

TECHNOLOGY VALUE

Peer Company	Bloomberg Ticker	Market Cap ($ in M)	Commercial No. of Drugs	Developing No. of Drugs	Total No. of Drugs	Market Cap /drugs
Diffusion Pharmaceuticals, Inc.	DFFN:US	13.95	0	2	2	7.0
DiaMedica Therapeutics, Inc.	DMAC:US	55.71	0	1	1	55.71
Akebia Therapeutics, Inc.	AKBA:US	521.0	1	1	2	260.48
					Mean Market Cap Per Drug ($ in M):	**107.72**
BIOXYTRAN (BIXT)						
Implied Market Cap/ Drug of Bioxytran, Inc. ($ in M)						107.7
No. of Drugs						1
No. of Common Stock (in M)						85.1
					Share Price (in $)	**$1.3 / share**

Source: Yahoo Finance, Company, Diffusion Pharmaceuticals, DiaMedica, Akebia and Avise Analytics estimates. As on Jun 21, 2019

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

➢ Revenue:

Our sales revenue forecast model for Bioxytran is primarily based on assumption that it is very likely the Company would be able to start with the pre-clinical trial of BXT-25 in 2019. Considering the time taken by the peer companies in completing different phases of the clinical trials, we estimate that the drug development process would successfully be completed by 2026, before it can be prescribed to any stroke patient.

- Collaboration to Develop & Market BXT-25

Upon successful completion of Phase-2 trial of BXT-25, the Company targets to collaborate with established pharmaceutical company or companies, to further develop and market the drug. Based on the valuation of similar deals happened in the past, we estimate Bioxytran to license the rights for $25 million, that is, 2.5x of its capital outflow.

- BXT-25 Sales & Marketing

Following the FDA approval of BXT-25 for its sale and marketing in the United States, we have assumed the following market size for this drug:

US	RoW
A minimum 3% of the stroke patients are expected to be prescribed to use BXT-25 during the first year of sales in 2026, which will gradually increase to reach as high as 20% by 2033.	A minimum 1.5% of the stroke patients are expected to be prescribed to use BXT-25 during the first year of sales in 2026, which will gradually increase to reach as high as 9% by 2033.

For estimating the drug market size for BXT-25 in the US and RoW, we have made the following assumptions and projections:

Estimating the Overall Drug Market Size for Stroke Management for the forecast period 2019-2033: US & Global

US	Global
POPULATION: For US population projections, we have referred to the data published by the US Census Bureau	**POPULATION:** For global population projections, we have referred to Worldometers
AVERAGE DEATH DUE TO STROKE According to a report by the American Heart Association (AHA), the average death rate in the US, due to stroke, increased at a CAGR of 1.97% between 2011-2016. We expect this historical growth trend to continue and have assumed average growth rate of 2% p.a. for 2019-2033 in our model.	**AVERAGE DEATH DUE TO STROKE** According to World Health Organization (WHO), the average death cases due to stroke was ~6.70 million in 2015. This is expected to grow at a CAGR of ~1.66% during 2016-2030 to reach 8.58 million by 2030. For forecasting, we have assumed the same growth trend to continue during the rest of the forecast period.
AVERAGE ANNUAL STROKE CASES (NEW+RECURRENT) According to a report by the AHA, each year approximately 795,000 people experience a new or recurrent stroke, and this level is expected to continue in future.	**AVERAGE ANNUAL STROKE CASES (NEW+RECURRENT)** According to a report by the AHA, the incidence of stroke was 10.3 million in 2013, and we have assumed this to remain constant during the forecast period.
STROKE PATIENTS: According to a policy statement by the AHA and American Stroke Association (ASA), crude stroke prevalence rate in 2015 is estimated at 3.31%. For forecasting the stroke prevalence from 2016 onwards, we have incorporated the effect of average annual stroke cases (both new and recurrent attacks) and average death due to stroke each year and have arrived at the following growth trend: ~4% p.a. between 2017-2022, ~5% p.a. between 2023 - 2028 and ~6% p.a. for the rest of the forecast period.	**STROKE PATIENTS:** According to a report by the AHA, the global prevalence of stroke in 2016 was 80.1 million people. For forecasting the stroke prevalence from 2017 onwards, we have incorporated the effect of average annual stroke cases (both new and recurrent attacks) and average death due to stroke each year and have arrived at the following growth trend: ~0.14% p.a. between 2015-2017, ~0.13% p.a. between 2018 - 2025 and ~0.12% p.a. for the rest of the forecast period.
TOTAL DIRECT MEDICAL COSTS According to a policy statement by the AHA and ASA, the total direct medical costs of stroke in the US is projected to grow at a CAGR of ~5.4% between 2015-2030 to reach $184.13 billion by 20302. We have assumed the same growth trend to continue during the rest of the forecast period.	**MEDICATION & OTHER EXPENSES COST:** According to the market research firm ReportLinker, the acute ischemic stroke drug sales in the US represented 47% of all sales in 2017 from the 8MM. Based on this, we have assumed this ratio to remain constant during the forecast period. Further, based on our assumption and projections on total medication and expenses costs in the US, we have derived the projections for the global medication and other expense costs of stroke during 2019-2033
MEDICATION & OTHER EXPENSES COST: As per Healing in Motion, a patient-driven agency focused on strokes, brain injuries and brain attacks, the total medications and other expenses costs constitute 13% of total direct medical costs. We have assumed this ratio to remain constant during 2019-2033. Based on this and above projections related to total direct medical costs, we have derived the total medications and other expenses costs during our forecast period.	

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

Estimating the Overall Drug Market Size for Stroke Management for the forecast period 2019-2033: US

	2019F	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
US Population Forecast (mn)[1]	330	333	335	337	340	342	344	346	349	351	353	355	357	359	361
Projections of Crude Stroke Prevalence, in US (%)	*4%*	*4%*	*4%*	*4%*	*5%*	*5%*	*5%*	*5%*	*5%*	*5%*	*6%*	*6%*	*6%*	*6%*	*6%*
Projections of Crude Stroke Prevalence, in US (mn)	13.2	13.9	14.5	15.2	15.8	16.4	17.0	17.7	18.3	18.9	19.5	20.1	20.7	21.3	21.9
Avg. Annual Stroke Cases (new + recurrent attacks)[5]	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
As a % of US population	*0.24%*	*0.24%*	*0.24%*	*0.24%*	*0.23%*	*0.23%*	*0.23%*	*0.23%*	*0.23%*	*0.23%*	*0.23%*	*0.22%*	*0.22%*	*0.22%*	*0.22%*
Average Death Due to Stroke (mn)[4]	0.15	0.15	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.19	0.19	0.20	0.20
Growth (%)	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*
Projected Direct (Total Medical) Costs of Stroke ($ in bn)[2]	102	108	114	120	126	133	141	149	157	165	175	184	194	205	216
Growth (%)	*5.3%*	*5.3%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*	*5.5%*
Projected Direct (Medical) Costs of Stroke **per Patient**, in US ($ in '000s)	$7.72	$7.75	$7.82	$7.90	$8.01	$8.12	$8.26	$8.41	$8.57	$8.75	$8.94	$9.15	$9.37	$9.62	$9.87
Projected Medication & Other Expenses Costs in US *(13% of direct cost)* (bn)[3]	$13.3	$14.0	$14.8	$15.6	$16.4	$17.3	$18.3	$19.3	$20.4	$21.5	$22.7	$24.0	$25.3	$26.7	$28.1
Projected Medication and Other Expense Costs of Stroke **per Patient**, in US ($)	$1,003	$1,007	$1,016	$1,027	$1,041	$1,056	$1,074	$1,093	$1,114	$1,138	$1,163	$1,190	$1,219	$1,250	$1,283

Source :

[1] https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html
[2.] https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5619a2.htm
[2.] https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6120a5.htm
[2.] https://www.ahajournals.org/doi/pdf/10.1161/STR.0b013e31829734f2
[3.] http://www.healingsinmotion.org/what-is-a-stroke/stroke-facts/
[4] https://www.ahajournals.org/doi/pdf/10.1161/CIR.0000000000000659
[5] https://www.ahajournals.org/doi/pdf/10.1161/CIR.0000000000000659

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

Estimating the Overall Drug Market Size for Stroke Management for the forecast period 2019-2033: Global

	2019P	2020P	2021P	2022P	2023P	2024P	2025P	2026P	2027P	2028P	2029P	2030P	2031P	2032P	2033P
World Population Forecast (mn)[6]	7,715	7,795	7,875	7,954	8,032	8,110	8,186	8,261	8,335	8,408	8,480	8,551	8,621	8,691	8,759
Projections of Crude Stroke Prevalence, (%)	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
Projections of Crude Stroke Prevalence, (mn)[9]	89.9	92.9	95.8	98.6	101.2	103.8	106.2	108.4	110.6	112.6	114.4	116.2	117.7	119.2	120.5
Growth based on US Crude Stroke Patient Growth Projections (%)	*5.1%*	*4.8%*	*4.6%*	*4.4%*	*4.2%*	*4.0%*	*3.8%*	*3.6%*	*3.5%*	*3.4%*	*3.2%*	*3.1%*	*3.0%*	*2.9%*	*2.8%*
Average Annual Stroke Cases (new + recurrent attacks)[8]	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30	10.30
As a % of Total US Population	*0.13%*	*0.13%*	*0.13%*	*0.13%*	*0.13%*	*0.13%*	*0.13%*	*0.12%*	*0.12%*	*0.12%*	*0.12%*	*0.12%*	*0.12%*	*0.12%*	*0.12%*
Average Death Due to Stroke (mn)[7]	7.16	7.27	7.40	7.52	7.64	7.77	7.90	8.03	8.16	8.30	8.44	8.58	8.72	8.87	9.01
Growth (%)	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*	*1.66%*
Projected Medication & Other Expense Costs (13% of direct cost) (bn)	283	298	314	331	350	369	389	411	433	457	483	509	537	567	598
US Stroke Medication Cost Represents 47% of Global Medication Cost[10]	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*	*47%*
Projected Medication & Other Expense Costs of Stroke **per Patient**, ($)	$314.5	$320.3	$327.7	$336.1	$345.3	$355.5	$366.7	$378.8	$392.0	$406.3	$421.7	$438.4	$456.4	$475.8	$496.7

Source :

[6] Worldometers
[7] WHO
[8] https://www.ahajournals.org/doi/pdf/10.1161/CIR.0000000000000485
[9] https://www.ahajournals.org/doi/pdf/10.1161/CIR.0000000000000659
[10] https://www.prnewswire.com/news-releases/acute-ischemic-stroke-global-drug-forecast-and-market-analysis-to-2027-300744837.html

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

- **Cost of BXT-25 per patient: U.S. & RoW**

Based on our most conservative estimates, BXT-25 is expected to cost only 5% of the total medication cost. In other words, the total dosage of BXT-25 per patient in the U.S. would cost only $55 in 2026, which is forecasted to reach $64 by 2033. Similarly, in rest of the world, it is estimated to cost only $19 per patient in 2026 and is forecasted to reach $25 by 2033.

- **Assumptions related to License revenue**

Under the same agreement, we estimate the Company to receive manufacturing royalties of 15% & 10% on net sales in the US and RoW, respectively.

We forecast the license revenue in the U.S., to increase from $5.0 million in 2026 and reach $42.8 million by 2033. Similarly, for RoW, we forecast the license revenue to increase from $2.6 million in 2026 and reach $22.3 million by 2033.

Forecasting Total Revenue for Bioxytran for the period FY2019-33

BXT-25	FY19F	FY20F	FY21F	FY22F	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
DOMESTIC															
No. of Patients (mn)	-	-	-	-	-	-	-	0.58	1.52	2.14	2.79	3.28	3.79	4.11	4.45
As a % of total no. of stroke patients	-	-	-	-	-	-	-	0.03	0.08	0.11	0.14	0.16	0.18	0.19	0.20
Drug cost per patient ($)	-	-	-	-	-	-	-	54.65	55.72	56.88	58.14	59.49	60.95	62.50	64.15
As a % of total medication cost in US	-	-	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Gross Revenue to Licensee ($ in mn)	-	-	-	-	-	-	-	-	84.56	121.5	162.2	195.1	231.1	257.2	285.4
Licence Revenue ($ in mn)	0	0	0	0	12.55	5.02	7.53	4.78	12.68	18.22	24.33	29.26	34.67	38.58	42.81
Licence Commission								0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Transfer of licence	-	-	-	-	50%	20%	30%	-	-	-	-	-	-	-	-
Total Capital Spent before transfer of Licensee to develop BXT25 ($ in mn)	3.57	2.02	2.45	2.00	-	-	-	-	-	-	-	-	-	-	-
Assuming a licencing deal @ 2.5x of capital spent on BXT25 before the deal ($ in mn)	-	-	-	-	25.10	-	-	-	-	-	-	-	-	-	-
INTERNATIONAL															
No. of Patients (in mn) (Global *Less* US)	-	-	-	-	-	-	-	1.36	3.23	4.50	5.79	6.82	7.86	8.42	8.97
As a % of total no. of stroke patients	-	-	-	-	-	-	-	0.02	0.04	0.05	0.06	0.07	0.08	0.09	0.09
Drug cost per patient ($)	-	-	-	-	-	-	-	18.94	19.60	20.32	21.09	21.92	22.82	23.79	24.83
As a % of total medication cost in US	-	-	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Gross Revenue to Licensee ($ in mn)	-	-	-	-	-	-	-	25.79	63.32	91.35	122.1	149.5	179.3	200.2	222.7
Licence Revenue ($ in mn)	-	-	-	-	-	-	-	2.58	6.33	9.14	12.21	14.95	17.93	20.02	22.27
Licence Commission	-	-	-	-	-	-	-	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
PRODUCT TOTAL	-	-	-	-	-	-	-	**7.36**	**19.02**	**27.36**	**36.54**	**44.21**	**52.60**	**58.60**	**65.09**

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

➢ Operating Expenses:

i. Research & Development (R&D) Expenses: Between FY2019-22, we estimate Company to spend close to $8 million on research and development, to successfully complete the development of BXT-25 till phase-2 clinical trial. From FY2023 onwards, the collaboration license would allow partnered companies to conduct remaining clinical trials. This will eliminate the company's development cost on BXT-25.

R&D Expenses (as a % of Net Revenue)

PARTICULARS	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Assumption rate	1.2%	3.0%	2.0%	2.1%	0.8%	0.6%	0.4%	0.4%	0.3%	0.3%	0.3%

Source: Avise Analytics estimates

ii. General & Administration (G&A) Expenses: While the R&D cost on development of BXT-25 will be negligible post collaboration, the G&A expenses are also likely to be under control, even after the commercialization of BXT-25.

- For the purpose of forecasting salaries & wages, we have considered Dr. Platt and Mr. Soderquist as the only employees and each of them is expected to remain committed on a full-time basis. We expect the current management salary structure (@$6,000 per month) to remain unchanged during the development stage. Post-commercialization, i.e., from FY2023 onwards, we expect the management salary to increase to $40,000 per month to represent a fair compensation structure. Our forecast model further incorporates salary growth rate of 3% p.a. from FY2024 onwards.

G&A Expenses (as a % of Net Revenue)

PARTICULARS	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Assumption rate	9.2%	23.9%	16.4%	17.1%	6.8%	4.9%	3.8%	3.2%	2.8%	2.6%	2.4%
Salary & Wages as a % of G&A exp.	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.2%	83.1%	83.1%	83.1%	83.1%

Source: Avise Analytics estimates

- Overall, EBITDA margin is forecasted to stabilize from FY2027 onwards, to keep it at whooping 92% in 2027, which will gradually improve to reach 97% by FY2033.

iii. Depreciation & Amortization (D&A) Expenses:

Our valuation model assumes:

- the average useful life of computer hardware and software as ~4 years
- depreciation on leasehold improvements @5% p.a.

From FY2026 onwards, each year amortization equivalent to 3% of net revenue of the corresponding year has been charged on the opening balance of intangibles.

On an aggregate basis, D&A expenses as a % of net revenue, is expected to increase from 2.6% in FY2026 to 8.0% by FY2033.

D&A Expenses (as a % of Net Revenue)

PARTICULARS	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Assumption rate	0.1%	0.3%	0.3%	2.5%	3.2%	4.5%	5.6%	6.5%	7.0%	7.6%	8.0%

Source: Avise Analytics estimates

After adjusting the impact of D&A expenses, we forecast the operating margins to remain stable at ~90%.

iv. Financial Expenses:

We expect the Company to remain debt-free during the forecasting period. Hence, no outflow on account of interest expenses.

v. Tax rate:

From FY2026 onwards, we have assumed the corporate tax rate of 25% in our valuation model.

- We expect the net profit margin to remain rangebound between 67% to 68% during FY2027-33.

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

➢ Capital Expenditure (Capex):

From FY2026 onwards, we expect the Company's incur capex close to 13% of its net revenue each year.

➢ Non-Cash Working Capital Requirements:

Deriving Changes in Non-Cash Working Capital Requirements

PARTICULARS ($ IN Mn)	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Current Assets excl. cash	1.22	3.15	4.53	6.05	7.32	8.71	9.70	10.78
Less: Current Liabilities	0.34	0.44	0.58	0.77	0.96	1.14	1.31	1.48
Working Capital (WC)	**0.88**	**2.71**	**3.95**	**5.29**	**6.36**	**7.57**	**8.39**	**9.30**
Change in WC requirements	*1.01*	*1.83*	*1.24*	*1.34*	*1.08*	*1.21*	*0.82*	*0.91*
WC to Sales ratio (x)	*0.12*	*0.14*	*0.14*	*0.14*	*0.14*	*0.14*	*0.14*	*0.14*

Source: Avise Analytics estimates

i. Accounts Receivables (AR)

For the purpose of forecasting account receivables, based on industry average, we have assumed receivables turnover ratio of 6.9x for the period FY2026-33.

Accounts Receivables (Turnover ratio)

PARTICULARS	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Receivable Turnover (x)	-	-	-	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9

Source: Avise Analytics estimates

ii. Inventory

Since the Company would operate under the Licensee model from FY2026 onwards, there exists no requirement for inventory maintenance.

iii. Accounts Payable (AP)

For the purpose of forecasting account payables, we have assumed the same to be close to 16.4% of total operating costs each year (based on peer analysis), during the period FY2019-25. From FY2026 onwards, we expect this ratio to increase to 21.4% and stay at this level for the rest of the forecasting period.

Accounts Payables (as a % of OpEx)

PARTICULARS	FY23F	FY24F	FY25F	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
Accounts Payables	16.4%	16.4%	16.4%	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%	21.4%

Source: Avise Analytics estimates

➢ Free Cash Flow to the Firm (FCFF)

Post commercialization in FY26, we estimate the Company to maintain a strong and expanding free-cash-flow generating profile with the resulting cash increases being sufficient to fund the future expansionary requirements. The Company's FCFF is forecasted to significantly increase from $2.56 million in 2026 to reach $39.51 million by FY33.

PARTICULARS	FY26F	FY27F	FY28F	FY29F	FY30F	FY31F	FY32F	FY33F
FCF	2.56	9.30	15.20	20.99	25.93	31.17	35.43	39.51
Planned Capex	0.96	2.47	3.56	4.75	5.75	6.84	7.82	8.46
Working Capital (WC)	0.76	2.56	3.76	5.04	6.05	7.20	7.96	8.81
Change in WC requirements	***0.99***	***1.80***	***1.20***	***1.28***	***1.02***	***1.15***	***0.76***	***0.85***

Source: Avise Analytics estimates

FINANCIAL PROJECTIONS ASSUMPTIONS SHEET

➢ Capital Structure:

i. Debt

We expect the Company to remain debt-free during the forecasting period generating sufficient free cash flows to meet the capex and working capital requirements each year.

ii. Equity

Our forecast model is based on assumption that the Company would have sufficient funds to finance future expansionary plans and would not resort to fresh capital raising during the forecast period.

➢ WACC for DCF Valuation Methodology:

For the purpose of arriving at cost of capital, we have adopted weighted average cost of capital (WACC) approach:

i. Risk premium:

We have used NASDAQ Biotechnology Industry Index (NASDAQ: NBI) Index as best proxy of the market index. For the purpose of arriving at risk premium, we have used 3 years return on index.

ii. Risk free rate:

We have used 10-year US Treasury rate. Source: Bloomberg

Iii. Beta:

0.69. To calculate Beta, we have first arrived at the mean of unlevered Beta of the four peer company's stock and re-levered it based on company's Debt to Equity Ratio. *(Source: Company filings, Yahoo Finance)*. We have further adjusted the Company's cost of equity by net 300 bps to reflect company specific risk premium and by 200 bps to reflect small business risk premium.

iv. Terminal growth rate *(assumed)*:

3% p.a.

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