UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark one)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended **December 31, 2020**

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission file number **000-05576**

AIKIDO PHARMA INC.

(Exact name of Registrant as specified in its Charter)

Delaware	**52-0849320**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Rockefeller Plaza, 11th Floor, New York, NY 10020	**703-992-9325**
(Address of principal executive offices)	(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock ($0.0001 par value per share)	AIKI	The NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting stock held by non-affiliates of the registrant as of the last business day of the registrant's most recently completed second fiscal quarter ended June 30, 2020: $28,614,668 based upon the closing sale price of our common stock of $0.82 on that date. Common stock held by each officer and director and by each person known to own in excess of 5% of outstanding shares of our common stock has been excluded in that such persons may be deemed to be affiliates. The determination of affiliate status is not necessarily a conclusive determination for other purposes.

There were 88,906,146 shares of the Registrant's common stock outstanding as of March 25, 2021.

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PART I

SPECIAL CAUTIONARY NOTICE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act") and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Forward looking statements are often identified by the words "will," "may," "believes," "estimates," "expects," "intends," "plans," "projects" and words of similar import. Such words and expressions are intended to identify such forward-looking statements, but are not intended to constitute the exclusive means of identifying such statements. Such forward looking statements involve known and unknown risks, uncertainties and other factors, including those described in "Risk Factors" below that may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements.

All references in this Annual Report on Form 10-K to "we," "us," "our" and the "Company" refer to AIkido Pharma Inc., a Delaware corporation, and its consolidated subsidiaries unless the context requires otherwise.

Item 1. BUSINESS.

Overview

AIkido Pharma Inc. was initially formed in 1967. Since 2017, the Company has operated as a biotechnology company with a diverse portfolio of small-molecule anticancer and antiviral therapeutics in development. The Company's pipeline consists of patented technology from leading universities and researchers. We are currently in the process of developing our innovative therapeutic drug pipeline through strong partnerships with world renowned educational institutions, including the University of Texas at Austin, the University of Maryland, Baltimore and Wake Forest University. Our oncology therapeutics include treatments for pancreatic cancer, acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL). The Company is also developing a broad-spectrum antiviral platform, in which the lead compounds have activity against multiple viruses including Influenza virus, Ebolavirus and Marburg virus, SARS-CoV, MERS-CoV, and SARS-CoV-2, the cause of COVID-19.

As a result of the Company's biotechnology research and development and associated investments and acquisitions, our business portfolio now focuses on the treatment of three different cancers and multiple types of viral infections. Our pancreatic drug candidate, DHA-dFdC, developed at and licensed from the University of Texas at Austin, is a new compound that we hope will become the next generation of chemotherapy treatment for advanced pancreatic cancer. DHA-dFdC overcomes tumor cell resistance to current chemotherapeutic drugs and is well tolerated in preclinical toxicity tests. Preclinical studies have also indicated that DHA-dFdC inhibits pancreatic cancer cell growth (up to 100,000-fold more potent that gemcitabine, a current standard therapy), targets pancreatic tumors and has demonstrated activities against other cancers, including leukemia, lung and melanoma. Our AML and ALL compound, developed at the Wake Forest University, is a targeted therapeutic designed to overcome multiple resistance mechanisms observed with the current standard of care.

Our broad-spectrum antiviral platform was developed at the University of Maryland Baltimore ("UMB"), which granted the Company an exclusive worldwide Master License Agreement (MLA") to technology covered by three separate patent applications. The licensed technology comprises broadly acting pan-viral inhibitory compounds targeting multiple viral pathogens. The technology was invented by UMB scientists Drs. Matthew Frieman, Alexander MacKerell and Stuart Watson. The Company has also executed a Sponsored Research Agreement with UMB to support the development of the technology under the direction of these inventors at UMB.

In addition, we are constantly seeking to grow our pipeline of treatments in oncology indications. For example, in January 2021, the Company invested in Convergent Therapeutics, Inc., which has exclusive rights to technology related to next-generation dual-action peptide receptor radionuclide therapy ("PRRT") for prostate cancer covered by multiple issued U.S. and foreign patents. Convergent is currently conducting advanced human trials relating to prostate cancer treatments utilizing PRRT that targets the prostate-specific membrane antigen ("PSMA") present on prostate cancer cells. The technology was developed under the direction of Dr. Neil Bander, Professor of Urologic Oncology at Weill Cornell Medicine. In addition, the Company was granted a license to four patent applications for the use of psilocybin in cancer indications.

Additionally, on January 6, 2021 the Company announced that it entered into an exclusive patent license agreement with Silo Pharma Inc. ("Silo Pharma") pursuant to which Silo Pharma granted the Company a worldwide exclusive, sublicensable, royalty-bearing license to certain Silo Pharma owned provisional patent applications directed to the use of psilocybin in cancer treatment, and any patents issuing therefrom, including all continuations, continuations-in-part, divisions, extensions, substitutions, reissues, re-examinations, and any applications and all patents issuing from any applications and patents that claim domestic benefit or foreign priority to the provisional patent applications. The license is for "Field of Use" (as defined in the exclusive patent license agreement) of "treatment of cancer and symptoms caused by cancer, including but not limited to pain, nausea, neuroinflammation, brain and neural dysfunction, depression, seizures, confusion, dizziness, numbness/tingling, dysfunction of the senses and all other symptoms that are caused by cancer of any type."

Our Drugs in Development

DHA-dFdC from the University of Texas at Austin

DHA-dFdC (4-(N)-Docosahexaenoyl 2´, 2´-Difluorodeoxycytidine) is patented technology licensed to the Company from the University of Texas at Austin. DHA-dFdC is a new compound we believe may become the next generation of second-line chemotherapy treatment for advanced pancreatic cancer. DHA-dFdC overcomes tumor cell resistance to current chemotherapeutic drugs and is well tolerated in preclinical toxicity tests. Preclinical studies, referenced in subsection ***DHA-dFdC Published Data*** below, have also indicated that DHA-dFdC inhibits pancreatic cancer cell growth (up to 100,000-fold more potent that gemcitabine, a current standard therapy; for example, the IC_{50} value of DHA-dFdC is more than 100,000-fold smaller than gemcitabine), targets pancreatic tumors and has demonstrated activities against other cancer cell lines, including leukemia, lung and melanoma.

Background*

According to the Hirshberg Foundation for Pancreatic Research, pancreatic cancer has the highest mortality rate of all major cancers. It is currently the 3rd leading cause of cancer-related death in the United States after lung and colon cancer. In January 2020, the Hirschberg Foundation estimated that 60,430 Americans will be diagnosed with pancreatic cancer, and more than 48,220 will die from the disease. For all stages combined, the 5-year relative survival rate is 10%. Even for the small percentage of people diagnosed with local disease, the 5-year survival is only 39%. The majority of patients are diagnosed at a distant stage, for which the 5-year survival is 3%.

Pancreatic cancer is one of the few cancers for which survival has not improved substantially over nearly 40 years. Treatment options for pancreatic cancer include surgery, radiation therapy and chemotherapy, which extend survival or relieve symptoms, but seldom produce a cure. Surgical removal of the tumor is possible in less than 20% of patients diagnosed with pancreatic cancer because detection is often in late stages and has spread beyond the pancreas. The current state of the art chemotherapy treatment is gemcitabine, Folfirinox cocktail or gemcitabine in combination with Abraxane.

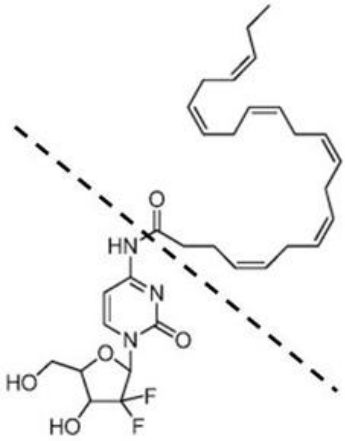
The University of Texas at Austin has identified a new drug, DHA-dFdC, that has shown positive results in preclinical studies (see publications listed below), inhibiting pancreatic tumor growth in clinically relevant transgenic mouse models. In preclinical studies, DHA-dFdC has:

- inhibited pancreatic cancer cell growth (up to 100,000-fold more potent that gemcitabine, a current standard therapy);
- targets pancreatic tumors;
- has overcome tumor cell resistance to current chemotherapeutic drugs;
- is well tolerated in preclinical toxicity test;
- has demonstrated activities against other cancers (e.g. leukemia, lung, melanoma); and
- may stimulate immunogenic cell death to activate host antitumor immunity.

* Hirshberg Foundation for Pancreatic Cancer Research

DHA-dFdC Technology Summary

DHA-dFdC is a conjugate molecule containing gemcitabine linked to a fatty acid called docosahexaenoic acid (DHA). The chemical structure is shown in the following diagram:



The DHA structure is illustrated above the dashed line in the graphic above and the gemcitabine structure is illustrated below the dashed line. The DHA-dFdC published data indicates that DHA-dFdC was more effective than gemcitabine alone in killing cancer cells in vitro and in vivo in a certain mouse model. In addition, conjugation of gemcitabine with fatty acids other than DHA did not increase effectiveness over gemcitabine.

In collaboration with our contract manufacturing organization, Parimer Scientific, we are currently optimizing the manufacturing procedure for DHA-dFdC. We have now successfully replicated the synthesis as reported in the literature with satisfactory yield and purity. We are currently optimizing the procedure to ensure batch-to-batch consistency. We plan to begin formulation development in the second quarter of 2021, which will require limited animal testing to determine proper dosage. We expect to have manufactured 20,000 mg of purified DHA-dFdC during the second quarter of 2021 to use for such purposes. We plan to engage a contract research organization for the purpose of such animal testing during the second quarter of 2021. Our goal is to have acceptable intravenous and oral formulations developed in the fourth quarter of 2021.

DHA-dFdC Published Data

The science behind DHA-dFdC has been published in the following peer-reviewed scientific journals:

- Naguib *et al.* (2016) Synthesis, characterization, and in vitro and in vivo evaluations of 4-(N)-docosahexaenoyl 2′, 2′- difluorodeoxycytidine with potent and broad-spectrum antitumor activity, *NeoPlasia* 18: 33-48.

- Valdes *et al.* (2017) Preclinical evaluation of the short-term toxicity of 4-(N)-docosahexaenoyl 2′, 2′- difluorodeoxycytidine (DHA-dFdC), *Pharm. Res.* 34: 1224-1232.

- Valdes *et al.* (2019) A solid lipid nanoparticle formulation of 4-(N)-docosahexaenoyl 2′, 2′- difluorodeoxycytidine with increased solubility, stability, and antitumor activity, *Int. J. Pharm.* 570:118609.

- Valdes *et al.* (2020) Effect of a Solid Lipid Nanoparticle Formulation on the Bioavailability of 4-(N)-Docosahexaenoyl 2′, 2′-Difluorodeoxycytidine After Oral Administration, *AAPS PharmSciTech* 21:77.

Portions of the published data also indicate the following:

- The drug unexpectedly concentrates itself in the pancreas relative to other organs.
- It significantly increases the lifespan of mice with pancreatic cancer in either mice predisposed to develop the cancer, or into which human pancreatic cancer has been injected.
- It significantly decreases the growth of pancreatic tumors in mice, better than gemcitabine, the current standard of care.
- An oral formulation using lipid nanoparticles is highly effective and stable and has outstanding bioavailability.

DHA-dFdC Patent Coverage

DHA-dFdC is covered by one issued patent on the drug itself and there is one application relating to the oral formulation, as listed in the following table:

Number	Priority	Expiration	Title
PCT App. No. PCT/US2015013454, filed 1/29/2015	1/29/2014	N/A	Nucleobase Analogue Derivatives and Their Applications
App. Serial No. 16/576,127, filed 9/19/2019 as continuation of App. Serial No. 15/115,393, filed 1/29/2015	1/29/2014	N/A	Nucleobase Analogue Derivatives and Their Applications
U.S. Patent No. 10,463,684, issued 11/5/2019 from App. Serial No. 15/115,393, filed 1/29/2015	1/29/2014	10/07/2035	Nucleobase Analogue Derivatives and Their Applications
PCT App. No. PCT/US2020036603, filed 06/08/2019	6/06/2019	N/A	Lipid Nanoparticles Containing Pharmaceutical and/or Nutraceutical agents and methods thereof

Pursuant to the Patent License Agreement between the Company and the University of Texas, as amended, the patents listed above have been exclusively licensed to the Company for commercial development worldwide, in all fields, along with all future patent applications that are entitled to claim priority from the listed patents, and all patents that issue from such applications (See also the ***Licenses*** section below).

Broad Spectrum Antiviral Platform from University of Maryland, Baltimore

Scientists at UMB have discovered that the SKI complex present in all mammalian cells, including human cells, is a broad-spectrum, host-directed, antiviral drug target. Using computer modeling technology and database screening, the scientists identified binding pockets on the SKI complex structure and designed compounds predicted to bind to the pockets. Tests of the designed compounds identified several chemical structures that had antiviral activity against influenza A virus along with the filoviruses Ebola and Marburg and two further coronaviruses, SARS-CoV and SARS-CoV-2, the cause of COVID-19. The tests are currently at an early stage and there is no guarantee that the aintiviral platform will be effective on human cells. In conjunction with the MLA, the Company has also executed a Sponsored Research Agreement SRA with UMB to support the development of the technology, which is currently ongoing at UMB under the direction of the inventors. Under the MLA and SRA, to meet the first two milestones of the MLA the Company shall make periodic payments for the support of the research outlined in the SRA totaling $3.1M over a period of two years. The research under the SRA will entail initial development and optimization of the most effective compounds and will be performed by the scientists who invented the licensed technology.

Background

At the end of 2019, cases of pneumonia of unknown etiology were identified in China. In the first week of January 2020, a novel coronavirus was identified as the cause and was found to be spreading between people. Throughout 2020, the virus spread around the world with over 28 million cases by September 2020. Among many things that the SARS-CoV-2 (severe acute respiratory syndrome coronavirus-2) outbreak has demonstrated is the immense need for both specific and broadly acting antiviral therapeutics to treat known viruses and those yet to emerge in the human population.

Viral infection can have a major burden on human health. Influenza has historically caused numerous large epidemics and pandemics such as 1918 Spanish flu and swine flu. Ebola has caused sporadic outbreaks since the 1970s, but in recent years these have been growing in scale. The 2014 West Africa Ebola outbreak saw over 28,000 people contract the disease causing over 11,000 deaths. Coronaviruses have always posed a threat of mass spread because of their respiratory transmission. In 2002 to 2003, the emergence of SARS-CoV infected over 8,000 people, killing around 10% in nine months, while MERS-CoV-has sporadically spread since 2012, causing around 2,500 infections with a case fatality rate of around 35%.

* Weston *et al.* (2020) The SKI complex is a broad-spectrum, host-directed antiviral drug target for coronaviruses, influenza, and filoviruses *PNAS* 117 (48) 30687-30698, https://doi.org/10.1073/pnas.2012939117

The year 2020 has seen the rapid emergence of the novel coronavirus, SARS-CoV-2, the cause of COVID-19, which rapidly spread after its identification in Wuhan, China, caused a pandemic, and has infected almost 110 million people and killed over 2.4 million people worldwide, with almost 490,000 deaths in the United States.

* Johns Hopkins University of Medicine, Coronavirus Resource Center, https://coronavirus.jhu.edu/

Scientists at UMB, including Drs. Matthew Frieman, Alexander MacKerell and Stuart Watson have demonstrated that the SKI complex is a broad-spectrum antiviral target and designed compounds using *in silico* drug design that target the SKI complex and inhibit replication of several virus types, influenza A virus along with the filoviruses Ebola and Marburg and two further coronaviruses, SARS-CoV and SARS-CoV-2.

UMB has filed three separate patent applications on the resulting antiviral compounds and has granted the Company an exclusive worldwide license to the technology. UMB recently filed the following PCT application claiming priority to the first two of the three applications:

Number	Priority to	Publication No.	Title
PCT App. No. PCT/US2020036482, Int'l filing date 5/6/2020	US62/858,0710, filed 6/6/2019, US62/909,352, filed 2/10/2019	WO/2020/247860	Broad Spectrum Antiviral Compounds Targeting the SKI Complex

KPC34 from Wake Forest University

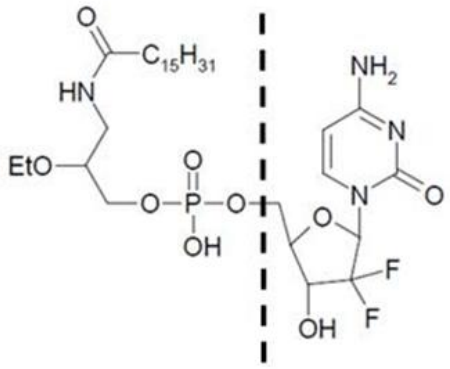
Our small molecule treatment for AML and ALL, developed at the Wake Forest University and called KPC34, is a next generation targeted therapeutic designed to overcome multiple resistance mechanisms observed with the current standard of care.

Background

AML is an uncommon cancer, making up about 1% of cancers. In 2020, an estimated 19,940 people of all ages (11,090 males and 8,850 females) in the United States were be diagnosed with AML. It is the second most common type of leukemia diagnosed in adults and children, but most cases occur in adults. AML makes up 32% of all adult leukemia cases. AML can be diagnosed at any age, but it is uncommon in people younger than 45. The average age of diagnosis is age 68. An estimated 11,180 deaths (6,470 men and boys and 4,710 women and girls) from AML occurred in 2020. (https://www.cancer.net/cancer-types/leukemia-acute-myeloid-aml/statistics). ALL is also a rare disease, making up only half of 1% of cancers diagnosed in the United States. In 2020, an estimated 6,150 people of all ages (3,470 males and 2,680 females) in the United States were diagnosed with ALL. Most cases occur in children. In people under age 20, ALL is the most common type of leukemia, accounting for 74% of all leukemia diagnosed in this age group. Children younger than 5 have the highest risk of ALL. After a child grows into adulthood, the general risk of ALL rises again after age 50. About 4 out of every 10 people diagnosed with ALL are adults. An estimated 1,520 deaths (860 men and boys and 660 women and girls) from ALL will occur this year. (https://www.cancer.net/cancer-types/leukemia-acute-lymphocytic-all/statistics).

KPC34 Technology Summary

KPC34, a conjugate molecule made of a gemcitabine molecule linked to a phospholipid, has the following structure:



In the illustration above, to the left of the dashed line is the phospholipid portion and to the right of the dashed line is gemcitabine.

Gemcitabine is a chemotherapy drug used to treat a wide array of cancers, including breast cancer, ovarian cancer, non-small cell lung cancer, pancreatic cancer and bladder cancer. The drug interferes with DNA and its function of the phospholipid to which the gemcitabine is linked in KPC34, is to inhibit protein kinase C-type enzymes, which are involved in multiple signaling pathways in leukemia.

The strategy behind targeting both DNA synthesis and protein kinase C with one molecule is to double-target different mechanisms of action in leukemia cells and greatly reduce the possibility of development of resistance to the drug.

KPC34 is intended to treat the relatively small population of patients with AML and ALL. Because of the low patient population, FDA orphan drug status can be sought, which provides expedited review and seven years of exclusivity from approval of the new drug application.

Preliminary data from preclinical studies at Wake Forest on the drug includes the following results:

- kills leukemia cells in vitro;
- inhibits protein kinase C in biochemical assays;
- targets ALL;
- targets central nervous system leukemia;
- targets AML exhibiting phosphorylated protein kinase C; and
- KPC34 also appears to overcome resistance to gemcitabine; it is effective against gemcitabine-resistant cancer.

The technology licensed is much broader than KPC34 represents, and includes both anticancer and antiviral conjugates, and could include a much broader range of indications, but we have no such drug candidates in development other than KPC34.

KPC34 Patent Coverage

The KPC34 license includes five issued patents, but only one of them covers KPC34. The patent is US7309696, entitled “Compositions and methods for targeting cancer cells.” It expires on August 11, 2021. All five of the licensed patents will expire by late 2022.

Licenses

On April 12, 2018, CBM entered into a patent license agreement (the “UT Agreement”) with the University of Texas at Austin on behalf of the Board of Regents of the University of Texas System. The UT Agreement granted to CBM an exclusive, royalty-bearing license to certain patent applications related to nucleobase analogue derivatives and their applications, and specifically to the DHA-dFdC drug candidate. On November 13, 2019, the University of Texas at Austin, the Company and CBM entered into an assignment of agreement, whereby CBM assigned all of its rights, title and interest to, and obligations under the UT Agreement to the Company.

On April 17, 2018, CBM entered into a license agreement (the “WF Agreement”) with Wake Forest University Health Sciences (“WF”). The WF Agreement granted to CBM an exclusive, royalty-bearing license to WF’s and The University of North Carolina at Chapel Hill’s patents relating to the KPC34 drug candidate. On November 13, 2019, WF, the Company and CBM entered into an assignment of agreement, whereby CBM assigned all of its rights, title and interest to, and obligations under the WF Agreement to the Company.

On April 13, 2020, the Company executed a Master License Agreement (the “UMB License Agreement”) with UMB, pursuant to which UMB agreed to license inventions collectively known as “Broad Spectrum Antiviral Compounds Which Target the SKI Complex” (the “Inventions”) to the Company. The Inventions, which are covered by three patent applications on file with the United States Patent and Trademark Office, are currently in the pre-clinical stage and seek to inhibit replication of multiple viruses, including the Influenza virus, SARS-CoV, MERS-CoV, Ebolavirus and Marburg virus. In addition, the Company entered into a Sponsored Research Agreement with UMB to support the development of various technologies. Pursuant to the UMB License Agreement, UMB grants to the Company the ability to utilize the licensed products (“Licensed Products”) and patents associated with the Inventions, subject to certain limitations described in the UMB License Agreement. All improvements to the Inventions are solely owned by the party improving the Inventions, unless jointly made, in which case both parties jointly own the improvements; however, the Company grants to UMB the royalty-free license to practice the Company’s improvements. The Company has agreed to deliver to UMB a commercialization plan setting forth the Company’s plan for research and development required to develop the Licensed Products and the Company’s overall commercialization strategy by December 31, 2022.

On August 7, 2020, the Company entered into a fixed price agreement (the “Fixed Price Agreement”) with the University of Kentucky Research Foundation (“UKRF”), pursuant to which the Company received an option to negotiate an exclusive license with the UKRF for certain of its patents related to G4-1 for solid tumor treatment in exchange for $67,000. The research shall involve testing of the drug G4-1 and its ability to increase the duration of survival of mice injected with tumor cells relative to an FDA approved drug. The patents subject to the option do not expire until 2035.

Commercialization

Our business success with our drug portfolio depends not only on the successful development and approval of the products but also on the commercialization. At present, our plan anticipates us making the investments necessary to build an in-house marketing and sales capability for the U.S. market for our drug pipeline, or to partner with a larger drug development company to commercialize our drugs as they move through the FDA approval process. As our drug compounds make their way through clinical development in the U.S., we intend to approach pharmaceutical and biotechnology companies outside the U.S. to negotiate and enter into strategic partnerships that will enable development and commercialization of our platform outside the U.S., where we believe the market opportunity is larger than that of the U.S. albeit far more complex to reach. We have no operations outside the U.S., nor are we planning to have any non-U.S. operations.

Manufacturing and Supply

We do not have any manufacturing capabilities and therefore we will have to engage a third party to assist in manufacturing. Such manufacturing will need to be done in accordance with good manufacturing practice requirements ("cGMP") regulations, to formulate and manufacture our product candidates. A list of third party manufacturers is currently being developed.

Government Regulation

Governmental authorities in the U.S. and other countries extensively regulate the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing of pharmaceutical products such as those being developed by us. In the U.S., the FDA regulates such products under the FDCA and implements related regulations. Failure to comply with applicable FDA requirements, both before and after approval, may subject us to administrative and judicial sanctions, such as a delay in approving or refusal by the FDA to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions and/or criminal prosecution.

U.S. Food and Drug Administration Regulation

United States Drug Development

In the United States, the FDA regulates drugs, medical devices and combinations of drugs and devices, or combination products, under the FDCA and its implementing regulations. Drugs are also subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, requests for voluntary product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of extensive pre-clinical laboratory tests, animal studies and formulation studies in accordance with applicable regulations, including the FDA's Good Laboratory Practice regulations;
- submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials in accordance with an applicable IND and other clinical study related regulations, sometimes referred to as good clinical practices, or GCPs, to establish the safety and efficacy of the proposed drug for its proposed indication;
- submission to the FDA of an NDA;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with the FDA's cGMP requirements;
- potential FDA audit of the clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA prior to any commercial marketing or sale.

Once a pharmaceutical product candidate is identified for development, it enters the pre-clinical testing stage. Pre-clinical tests include laboratory evaluations of product chemistry, toxicity, formulation and stability, as well as animal studies. An IND sponsor must submit the results of the pre-clinical tests, together with manufacturing information, analytical data and any available clinical data or literature, to the FDA as part of the IND. The sponsor must also include a protocol detailing, among other things, the objectives of the initial clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the initial clinical trial lends itself to an efficacy evaluation. Some pre-clinical testing may continue even after the IND is submitted. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA raises concerns or questions related to a proposed clinical trial and places the trial on a clinical hold within that 30-day period. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. Clinical holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns or non-compliance, and may be imposed on all drug products within a certain class of drugs. The FDA also can impose partial clinical holds, for example, prohibiting the initiation of clinical trials of a certain duration or for a certain dose.

All clinical trials must be conducted under the supervision of one or more qualified investigators in accordance with GCP regulations. These regulations include the requirement that all research subjects provide informed consent in writing before their participation in any clinical trial. Further, an IRB must review and approve the plan for any clinical trial before it commences at any institution, and the IRB must conduct continuing review and reapprove the study at least annually. An IRB considers, among other things, whether the risks to individuals participating in the clinical trial are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the information regarding the clinical trial and the consent form that must be provided to each clinical trial subject or his or her legal Representative and must monitor the clinical trial until completed.

Each new clinical protocol and any amendments to the protocol must be submitted for FDA review, and to the IRBs for approval. Protocols detail, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- Phase 1. The product is initially introduced into a small number of healthy human subjects or patients and tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion and, if possible, to gain early evidence on effectiveness. In the case of some products for severe or life-threatening diseases, especially when the product is suspected or known to be unavoidably toxic, the initial human testing may be conducted in patients.

- Phase 2. Involves clinical trials in a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage and schedule.

- Phase 3. Clinical trials are undertaken to further evaluate dosage, clinical efficacy and safety in an expanded patient population at geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit relationship of the product and provide an adequate basis for product labeling.

Post-approval trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 trials. Companies that conduct certain clinical trials also are required to register them and post the results of completed clinical trials on a government-sponsored database, such as ClinicalTrials.gov in the United States, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA, and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected adverse events, findings from other studies that suggest a significant risk to humans exposed to the product, findings from animal or in vitro testing that suggest a significant risk to human subjects, and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. The FDA or the clinical trial sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether a trial may move forward at designated check points based on access to certain data from the study. The clinical trial sponsor may also suspend or terminate a clinical trial based on evolving business objectives and/or competitive climate.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the product and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the manufacturer must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life.

NDA and FDA Review Process

The results of product development, pre-clinical studies and clinical trials, along with descriptions of the manufacturing process, analytical tests conducted on the drug, proposed labeling and other relevant information, are submitted to the FDA as part of an NDA for a new drug, requesting approval to market the product. The submission of an NDA is subject to the payment of a substantial user fee, and the sponsor of an approved NDA is also subject to an annual program user fee; although a waiver of such fee may be obtained under certain limited circumstances. For example, the agency will waive the application fee for the first human drug application that a small business or its affiliate submits for review.

The FDA reviews all NDAs submitted before it accepts them for filing and may request additional information rather than accepting an NDA for filing. The FDA typically makes a decision on accepting an NDA for filing within 60 days of receipt. The decision to accept the NDA for filing means that the FDA has made a threshold determination that the application is sufficiently complete to permit a substantive review. Under the goals and policies agreed to by the FDA under the Prescription Drug User Fee Act ("PDUFA"), the FDA's goal to complete its substantive review of a standard NDA and respond to the applicant is ten months from the receipt of the NDA. The FDA does not always meet its PDUFA goal dates, and the review process is often significantly extended by FDA requests for additional information or clarification and may go through multiple review cycles.

After the NDA submission is accepted for filing, the FDA reviews the NDA to determine, among other things, whether the proposed product is safe and effective for its intended use, and whether the product is being manufactured in accordance with cGMPs to assure and preserve the product's identity, strength, quality and purity. The FDA may refer applications for novel drug products or drug products which present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. The FDA will likely re-analyze the clinical trial data, which could result in extensive discussions between the FDA and us during the review process. The review and evaluation of an NDA by the FDA is extensive and time consuming and may take longer than originally planned to complete, and we may not receive a timely approval, if at all.

Before approving an NDA, the FDA will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMPs. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. In addition, before approving an NDA, the FDA may also audit data from clinical trials to ensure compliance with GCP requirements. After the FDA evaluates the application, manufacturing process and manufacturing facilities, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes all the specific deficiencies in the NDA identified by the FDA. The Complete Response Letter may require additional clinical data and/or an additional pivotal Phase 3 clinical trial(s), and/or other significant and time-consuming requirements related to clinical trials, nonclinical studies or manufacturing. If a Complete Response Letter is issued, the applicant may either resubmit the NDA, addressing all the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive, and the FDA may interpret data differently than we interpret the same data.

There is no assurance that the FDA will ultimately approve a product for marketing in the United States, and we may encounter significant difficulties or costs during the review process. If a product receives marketing approval, the approval may be significantly limited to specific diseases and dosages or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings or precautions be included in the product labeling or may condition the approval of the NDA on other changes to the proposed labeling, development of adequate controls and specifications, or a commitment to conduct post-market testing or clinical trials and surveillance to monitor the effects of approved products. For example, the FDA may require Phase 4 clinical trials to further assess drug safety and effectiveness and may require testing and surveillance programs to monitor the safety of approved products that have been commercialized. The FDA may also place other conditions on approvals, including the requirement for a risk evaluation and mitigation strategy ("REMS"), to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA must submit a proposed REMS; the FDA will not approve the NDA without an approved REMS, if required. A REMS could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory requirements or if problems occur following initial marketing.

Reimbursement

Potential sales of any of our product candidates, if approved, will depend, at least in part, on the extent to which such products will be covered by third-party payors, such as government health care programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly limiting coverage and/or reducing reimbursements for medical products and services. A third-party payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. In addition, the U.S. government, state legislatures and foreign governments have continued implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our future revenues and results of operations. Decreases in third-party reimbursement or a decision by a third-party payor to not cover a product candidate, if approved, or any future approved products could reduce physician usage of our products, and have a material adverse effect on our sales, results of operations and financial condition.

In the United States, the Medicare Part D program provides a voluntary outpatient drug benefit to Medicare beneficiaries for certain products. We do not know whether our product candidates, if approved, will be eligible for coverage under Medicare Part D, but individual Medicare Part D plans offer coverage subject to various factors such as those described above. Furthermore, private payors often follow Medicare coverage policies and payment limitations in setting their own coverage policies.

Healthcare Laws and Regulations

Sales of our product candidates, if approved, or any other future product candidate will be subject to healthcare regulation and enforcement by the federal government and the states and foreign governments in which we might conduct our business. The healthcare laws and regulations that may affect our ability to operate include the following:

- The federal Anti-Kickback Statute makes it illegal for any person or entity to knowingly and willfully, directly or indirectly, solicit, receive, offer, or pay any remuneration that is in exchange for or to induce the referral of business, including the purchase, order, lease of any good, facility, item or service for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. The term "remuneration" has been broadly interpreted to include anything of value.

- Federal false claims and false statement laws, including the federal civil False Claims Act, prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, for payment to, or approval by, federal programs, including Medicare and Medicaid, claims for items or services, including drugs, that are false or fraudulent.

- Health Insurance Portability and Accountability Act of 1996 ("HIPAA") created additional federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors or making any false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and their implementing regulations, impose obligations on certain types of individuals and entities regarding the electronic exchange of information in common healthcare transactions, as well as standards relating to the privacy and security of individually identifiable health information.

- The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services information related to payments or other transfers of value made to physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members.

Also, many states have similar laws and regulations, such as anti-kickback and false claims laws that may be broader in scope and may apply regardless of payor, in addition to items and services reimbursed under Medicaid and other state programs. Additionally, we may be subject to state laws that require pharmaceutical companies to comply with the federal government's and/or pharmaceutical industry's voluntary compliance guidelines, state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, as well as state and foreign laws governing the privacy and security of health information, many of which differ from each other in significant ways and often are not preempted by HIPAA.

Additionally, to the extent that our product is sold in a foreign country, we may be subject to similar foreign laws.

Employees

As of December 31, 2020, we have four full-time employees and one part-time employee, none of which are represented by a labor union or covered by a collective bargaining agreement.

Item 1A. RISK FACTORS.

Risks Related to Our Business

Because we have a limited operating history to evaluate our company, the likelihood of our success must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered by an early-stage company.

Since we have a limited operating history in our current business of technology and biotechnology development, it will make it difficult for investors and securities analysts to evaluate our business and prospects. You must consider our prospects in light of the risks, expenses and difficulties we face as an early stage company with a limited operating history. Investors should evaluate an investment in our securities in light of the uncertainties encountered by early stage companies in an intensely competitive industry. There can be no assurance that our efforts will be successful or that we will be able to become profitable.

Our cancer treatment business is pre-revenue, pre-development and subject to the risks of an early stage biotechnology company.

Since the Company's primary focus for the foreseeable future will likely be our cancer treatment business, shareholders should understand that we are primarily an early stage biotechnology company with no history of revenue-generating operations, and our only assets consist of our proprietary drug and the know-how of our officers. Therefore we are subject to all the risks and uncertainties inherent in a new business, in particular new businesses engaged in the early detection of certain cancers. DHA-dFdC is in its early stages of development, and we still must establish and implement many important functions necessary to commercialize the biotechnology.

Accordingly, you should consider the Company's prospects in light of the costs, uncertainties, delays and difficulties frequently encountered by companies in their pre-revenue and pre-development generating stages, particularly those in the biotechnology field. Shareholders should carefully consider the risks and uncertainties that a business with no operating history will face. In particular, shareholders should consider that there is a significant risk that we will not be able to:

- demonstrate the effectiveness of DHA-dFdC;
- implement or execute our current business plan, or that our current business plan is sound;
- raise sufficient funds in the capital markets or otherwise to fully effectuate our business plan;
- maintain our management team;
- conduct the required clinical studies;
- determine that the processes and technologies that we have developed or will develop are commercially viable; and/or
- attract, enter into or maintain contracts with potential commercial partners such as licensors of technology and suppliers.

Any of the foregoing risks may adversely affect the Company and result in the failure of our business. In addition, we expect to encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. At some point, we will need to transition from a company with a research and development focus to a company capable of supporting commercial activities. We may not be able to reach such achievements, which would have a material adverse effect on our Company.

We continue to incur operating losses and may not achieve profitability.

We have experienced losses from operations since our inception. Our ability to become profitable depends upon our ability to generate revenue from biotechnology products. We do not know when, or if, we will generate any revenue from such biotechnology products. Even though our revenue may increase, we expect to incur significant additional losses while we grow and expand our business. We cannot predict if and when we will achieve profitability. Our failure to achieve and sustain profitability could negatively impact the market price of our common stock.

If we fail to maintain an effective system of internal controls over financial reporting, we may not be able to accurately report our financial results or prevent fraud and our business may be harmed and our stock price may be adversely impacted.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and to effectively prevent fraud. Any inability to provide reliable financial reports or to prevent fraud could harm our business. The Sarbanes-Oxley Act of 2002 requires management to evaluate and assess the effectiveness of our internal control over financial reporting. In order to continue to comply with the requirements of the Sarbanes-Oxley Act, we are required to continuously evaluate and, where appropriate, enhance our policies, procedures and internal controls. If we fail to maintain the adequacy of our internal controls over financial reporting, we could be subject to litigation or regulatory scrutiny and investors could lose confidence in the accuracy and completeness of our financial reports. We cannot assure you that in the future we will be able to fully comply with the requirements of the Sarbanes-Oxley Act or that management will conclude that our internal control over financial reporting is effective. If we fail to fully comply with the requirements of the Sarbanes-Oxley Act, our business may be harmed and our stock price may decline.

Our assessment, testing and evaluation of the design and operating effectiveness of our internal control over financial reporting resulted in our conclusion that, as of December 31, 2020, our internal control over financial reporting was not effective, due to our lack of segregation of duties, and lack of controls in place to ensure that all material transactions and developments impacting the financial statements are reflected. We can provide no assurance as to conclusions of management with respect to the effectiveness of our internal control over financial reporting in the future.

We may seek to internally develop additional new inventions and intellectual property, which would take time and be costly. Moreover, the failure to obtain or maintain intellectual property rights for such inventions would lead to the loss of our investments in such activities.

Part of our business may include the internal development of new inventions or intellectual property that we will seek to monetize. For example, in December 2019, we acquired substantially all of the assets of CBM, including the acquisition of certain licensing rights with respect to patents and other intellectual property related to pioneering drug compounds that were developed at the University of Wake Forest and the University of Texas at Austin, in the areas of AML, ALL, acral lentiginous melanoma and pancreatic cancer (collectively, the “University Developments”). Should we choose to assist in the development of the University Developments and/or internally develop any other inventions or intellectual property, such aspect of our business will require significant capital and will take time to achieve. Such activities may also distract our management team from its present business initiatives, which could have a material and adverse effect on our business. There is also the risk that our initiatives in this regard would not yield any viable new inventions or technology, which would lead to a loss of our investments in time and resources in such activities.

We are exploring and evaluating strategic alternatives and there can be no assurance that we will be successful in identifying, or completing any strategic alternative or that any such strategic alternative will yield additional value for shareholders.

Our management and Board of Directors (“Board of Directors”) has commenced a review of strategic alternatives which could result in, among other things, a sale, a merger, consolidation or business combination, asset divestiture, partnering or other collaboration agreements, or potential acquisitions or recapitalizations, in one or more transactions, or continuing to operate with our current business plan and strategy. There can be no assurance that the exploration of strategic alternatives will result in the identification or consummation of any transaction. In addition, we may incur substantial expenses associated with identifying and evaluating potential strategic alternatives. The process of exploring strategic alternatives may be time consuming and disruptive to our business operations and if we are unable to effectively manage the process, our business, financial condition and results of operations could be adversely affected. We also cannot assure you that any potential transaction or other strategic alternative, if identified, evaluated and consummated, will provide greater value to our shareholders than that reflected in the current stock price. Any potential transaction would be dependent upon a number of factors that may be beyond our control, including, among other factors, market conditions, industry trends, the interest of third parties in our business and the availability of financing to potential buyers on reasonable terms.

We may be at risk for delay in technology development and other economic repercussions as a result of the COVID-19 pandemic.

We may be at risk as a result of the current COVID-19 pandemic. Risks that could affect our business include the duration and scope of the COVID-19 pandemic and the impact on the demand for our products; actions by governments, businesses and individuals taken in response to the pandemic; the length of time of the COVID-19 pandemic and the possibility of its reoccurrence; the timing required to develop effective treatments and a vaccine in the event of future outbreaks; the eventual impact of the pandemic and actions taken in response to the pandemic on global and regional economies; and the pace of recovery when the COVID-19 pandemic subsides.

New York, where our U.S. operations are based, has been significantly affected by COVID-19, which led to measures taken by the New York government trying to contain the spread of COVID-19, such as shelter in place, closure of schools and travel restrictions. Additional travel and other restrictions may be put in place to further control the outbreak in U.S. Accordingly, our operation and business have been and will continue to be adversely affected as the results of the COVID-19 pandemic. Additionally, for our pipeline products, DHA-dFdC was delayed due to COVID-19 because our manufacturer was recruited by the U.S. and South Carolina governments to manufacture hand sanitizer for use in hospitals. For that reason, our manufacturing activities did not begin in earnest until the beginning of the third quarter of 2020. Once manufacturing began, shipping delays due to the pandemic further slowed progress. Despite these delays, we have now successfully replicated the synthesis as reported in the literature with satisfactory yield and purity and are currently optimizing the procedure to ensure batch-to-batch consistency. We expect to have manufactured 20,000 mg of purified DHA-dFdC during the second quarter of 2021 to use for formulation development. For the UMB compounds discussed, UMB was closed at the beginning of the pandemic and the researchers were unable to further their studies. UMB has since reopened and the researchers have commenced working on the compounds again.

The extent to which COVID-19 negatively impacts our business is highly uncertain and cannot be accurately predicted. We believe that the coronavirus outbreak and the measures taken to control it may have a significant negative impact on not only our business, but economic activities globally. The magnitude of this negative effect on the continuity of our business operations in the U.S. remains uncertain. These uncertainties impede our ability to conduct our daily operations and could materially and adversely affect our business, financial condition and results of operations, and as a result affect our stock price and create more volatility.

Risks Related to the Product Development, Regulatory Approval, Manufacturing and Commercialization

We are early in our development efforts and currently have no clinical-stage product candidates. If we are unable to clinically develop and ultimately commercialize DHA-dFdC, antiviral compounds or other product candidates, or experience significant delays in doing so, our business will be materially harmed.

We are early in our development efforts and have no clinical-stage product candidates as of the date of this prospectus. For example, we have the exclusive U.S. rights to develop DHA-dFdC for the treatment of cancer in the licensed field. We are presently planning on filing an IND for DHA-dFdC, and we hope to begin human testing for this indication in 2022, although no assurance can be given that we will be able to achieve this goal. We also have rights to assist in the development of various antiviral compounds with UMB,

Therefore, our ability to generate product or royalty revenues, which we do not expect will occur for several years, if ever, will depend heavily on our ability to develop and eventually commercialize our product candidate. The positive development of our product candidate will depend on several factors, including the following:

- positive commencement and completion of clinical trials;
- successful preparation of regulatory filings and receipt of marketing approvals from applicable regulatory authorities;
- obtaining and maintaining patent and trade secret protection and potential regulatory exclusivity for our product candidate and protecting our rights in our intellectual property portfolio;

- launching commercial sales of our product, if and when approved for one or more indications, whether alone or in collaboration with others;
- acceptance of the product for one or more indications, if and when approved, by patients, the medical community and third-party payors;
- protection from generic substitution based upon our own or licensed intellectual property rights;
- effectively competing with other therapies;
- obtaining and maintaining adequate reimbursement from healthcare payors; and
- maintaining a continued acceptable safety profile of our product following approval, if any.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to clinically develop and commercialize DHA-dFdC as a therapy for cancer and at least one of the UMB lead compounds as an antiviral therapy, which would materially harm our business.

Clinical drug development involves a lengthy and expensive process, with an uncertain outcome. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidate.

The risk of failure for product candidates in clinical development is high. It is impossible to predict when our product candidates, including DHA-dFdC and any of the lead UMB compounds, will prove effective and safe in humans or will receive regulatory approval for the treatment of any disease, the indication for which is licensed to us. Before obtaining marketing approval from regulatory authorities for the sale of DHA-dFdC as a cancer therapy or one or more of the lead UMB compounds as antiviral therapy, we must conduct one or more clinical trials to demonstrate the safety and efficacy of each product candidate in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. Moreover, the outcome of early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in clinical trials have nonetheless failed to obtain marketing approval of their products.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidate, including:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- clinical trials of our product candidate may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs, which would be time consuming and costly;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- we may have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks;

- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;

- the cost of clinical trials may be greater than we anticipate;

- the supply or quality of materials necessary to conduct clinical trials of our product candidate may be insufficient or inadequate;

- our product candidate may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials; and

- interactions with other drugs.

If we are required to conduct additional clinical trials or other testing of our product candidate beyond those that we currently contemplate, if we are unable to complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidate for one or more indications;

- not obtain marketing approval at all for one or more indications;

- obtain approval for indications or patient populations that are not as broad as intended or desired (particularly, in our case, for different types of cancer);

- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;

- be subject to additional post-marketing testing requirements; or

- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know which, if any, of our clinical trials will need to be restructured or will be completed on schedule, or at all. Significant preclinical or clinical trial delays also could shorten any periods during which we may have the right to commercialize our product candidate or allow our competitors to bring products to market before we do and impair our ability to commercialize our product candidate and may harm our business and results of operations.

We rely on third parties to conduct our clinical trials and to assist us with pre-clinical development. If these third parties do not perform as contractually required or expected, we may not be able to obtain regulatory approval for or commercialize our products.

We do not have the ability to independently conduct our pre-clinical and clinical trials for our product candidates, and we must rely on third parties, such as CROs, medical institutions, clinical investigators and contract laboratories to conduct such trials. If these third parties do not successfully carry out their contractual duties or regulatory obligations, meet expected deadlines or need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our pre-clinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize, our products on a timely basis, if at all. Furthermore, our third-party clinical trial investigators may be delayed in conducting our clinical trials for reasons outside of their control. The occurrence of any of the foregoing may adversely affect our business, operating results and prospects.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidate and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of cancer. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

Many of the companies against which we are competing or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs, and we may be unable to effectively compete with these companies for these or other reasons.-

Members of our management team lack experience in the pharmaceutical field.

Members of our management team lack experience in the pharmaceutical field. This lack of experience may impair our ability to commercialize our pharmaceutical products and attain profitability. We will need to hire or engage managerial personnel with relevant experience in the pharmaceutical field; however, there can be no assurance that such personnel will be available to us or, that once engaged, will be retained by us. Failure to establish and maintain an effective management team with experience in the pharmaceutical field and commercialization of pharmaceuticals products would have a material adverse effect on our business and results of operations.

Risks Related to Ownership of Our Common Stock

Our common stock may be delisted from The Nasdaq Capital Market if we fail to comply with continued listing standards.

Our common stock is currently traded on The Nasdaq Capital Market under the symbol “AIKI”. If we fail to meet any of the continued listing standards of The Nasdaq Capital Market, our common stock could be delisted from The Nasdaq Capital Market. These continued listing standards include specifically enumerated criteria, such as:

- a $1.00 minimum closing bid price;
- stockholders’ equity of $2.5 million;
- 500,000 shares of publicly-held common stock with a market value of at least $1 million;
- 300 round-lot stockholders; and
- compliance with Nasdaq’s corporate governance requirements, as well as additional or more stringent criteria that may be applied in the exercise of Nasdaq’s discretionary authority.

There can be no assurance that we will be able to maintain compliance and remain in compliance in the future. In particular, our share price may continue to decline for a number of reasons, including many that are beyond our control. See "*Our share price may be volatile and there may not be an active trading market for our common stock*".

If we fail to comply with Nasdaq's continued listing standards, we may be delisted and our common stock will trade, if at all, only on the over-the-counter market, such as the OTC Bulletin Board or OTCQX market, and then only if one or more registered broker-dealer market makers comply with quotation requirements. In addition, delisting of our common stock could depress our stock price, substantially limit liquidity of our common stock and materially adversely affect our ability to raise capital on terms acceptable to us, or at all. Further, delisting of our common stock would likely result in our common stock becoming a "penny stock" under the Exchange Act.

Our share price may be volatile and there may not be an active trading market for our common stock.

There can be no assurance that the market price of our common stock will not decline below its present market price or that there will be an active trading market for our common stock. The market prices of technology or technology related companies have been and are likely to continue to be highly volatile. Fluctuations in our operating results and general market conditions for technology or technology related stocks could have a significant impact on the volatility of our common stock price. We have experienced significant volatility in the price of our common stock. From January 1, 2020 through December 31, 2020, the share price of our common stock (on a split-adjusted basis) ranged from a high of $3.22 to a low of $0.49. The reason for the volatility in our stock is not well understood and may continue. Factors that may have contributed to such volatility include, but are not limited to:

- developments regarding regulatory filings;
- our funding requirements and the terms of our financing arrangements;
- technological innovations;
- introduction of new technologies by us or our competitors;
- material changes in existing litigation;
- changes in the enforceability or other matters surrounding our patent portfolios;
- government regulations and laws;
- public sentiment relating to our industry;
- developments in patent or other proprietary rights;
- the number of shares issued and outstanding;
- the number of shares trading on an average trading day;
- performance of companies in the non-performing entity space generally;
- announcements regarding other participants in the technology and technology related industries, including our competitors;
- block sales of our shares by stockholders to whom we have sold stock in private placements, or the cessation of transfer restrictions with respect to those shares; and
- market speculation regarding any of the foregoing.

Our shares of common stock are thinly traded and, as a result, stockholders may be unable to sell at or near ask prices, or at all, if they need to sell shares to raise money or otherwise desire to liquidate their shares.

Our common stock has been "thinly-traded" meaning that the number of persons interested in purchasing our common stock at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company that is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we become more seasoned and viable. Our trading volumes are further adversely affected by the 1-for-19 reverse stock split that was effective as of March 4, 2016. In addition, we believe that due to the limited number of shares of our common stock outstanding, an options market has not been established for our common stock, limiting the ability of market participants to hedge or otherwise undertake trading strategies available for larger companies with broader shareholder bases which prevents institutions and others from acquiring or trading in our securities. Consequently, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give stockholders any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained.

Because of the "anti-takeover" provisions in our Amended and Restated Certificate of Incorporation, Amended and Restated Bylaws and Delaware General Corporation Law, a third party may be discouraged from making a takeover offer that could be beneficial to our stockholders.

The effect of certain provisions of our Amended and Restated Certificate of Incorporation, Amended and Restated Bylaws and the anti-takeover provisions of the Delaware General Corporation Law (the "DGCL"), could delay or prevent a third party from acquiring us or replacing members of our Board of Directors, or make more costly any attempt to acquire control of the Company, even if the acquisition or the Board designees would be beneficial to our stockholders. These factors could also reduce the price that certain investors might be willing to pay for shares of the common stock and result in the market price being lower than it would be without these provisions.

Dividends on our common stock are not likely.

During the last five years, we have not paid cash dividends on our common stock, and we do not anticipate paying cash dividends on our common stock in the foreseeable future. Investors must look solely to the potential for appreciation in the market price of the shares of our common stock to obtain a return on their investment.

It may be difficult to predict our financial performance because our quarterly operating results may fluctuate.

We currently do not have any revenues and our operating results and valuations of certain assets and liabilities may vary significantly from quarter to quarter due to a variety of factors, many of which are beyond our control. You should not rely on period-to-period comparisons of our results of operations as an indication of our future performance. Our results of operations may fall below the expectations of market analysts and our own forecasts. If this happens, the market price of our common stock may fall significantly. The factors that may affect our quarterly operating results include the following:

- fluctuations in results of our enforcement and licensing activities or outcome of cases;
- fluctuations in duration of judicial processes and time to completion of cases;
- the timing and amount of expenses incurred to negotiate with licensees and obtain settlements from infringers;
- the impact of our anticipated need for personnel and expected substantial increase in headcount;

- fluctuations in the receptiveness of courts and juries to significant damages awards in patent infringement cases and speed to trial in the jurisdictions in which our cases may be brought and the accepted royalty rates attributable to damages analysis for patent cases generally, including the royalty rates for industry standard patents which we may own or acquire;

- worsening economic conditions which cause revenues or profits attributable to infringer sales of products or services to decline;

- changes in the regulatory environment, including regulation of NPE activities or patenting practices, that may negatively impact our or infringers practices;

- the timing and amount of expenses associated with litigation, regulatory investigations or restructuring activities, including settlement costs and regulatory penalties assessed related to government enforcement actions;

- Any changes we make in our Critical Accounting Estimates described in the Management's Discussion and Analysis of Financial Condition and Results of Operations sections of our periodic reports;

- the adoption of new accounting pronouncements, or new interpretations of existing accounting pronouncements, that impact the manner in which we account for, measure or disclose our results of operations, financial position or other financial measures; and

- costs related to acquisitions of technologies or businesses.

If we fail to retain our key personnel, we may not be able to achieve our anticipated level of growth and our business could suffer.

Our future depends, in part, on our ability to attract and retain key personnel and the continued contributions of our executive officers, each of whom may be difficult to replace. In particular, Anthony Hayes, our Chief Executive Officer, is important to the management of our business and operations and the development of our strategic direction. The loss of the services of any such individual and the process to replace any key personnel would involve significant time and expense and may significantly delay or prevent the achievement of our business objectives.

Item 1B. UNRESOLVED STAFF COMMENTS.

As a smaller reporting company, we are not required to provide the information required by this item.

Item 2. PROPERTIES.

Our main office is located in New York, New York where we lease one office with a monthly payment of approximately $3,320. We also lease space in Longview, Texas, on a month to month basis, for approximately $2,000 per month. We believe that the New York and Texas facilities are sufficient to meet our needs.

Item 3. LEGAL PROCEEDINGS.

In the past, in the ordinary course of business, we actively pursued legal remedies to enforce our intellectual property rights and to stop unauthorized use of our technology. Other than ordinary routine litigation incidental to the business, we know of no material, active or pending legal proceedings against us.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock is traded on the NASDAQ Capital Market under the symbol "AIKI". No dividends were paid in 2020 or 2019 and we do not currently anticipate paying any cash dividends on our capital stock in the foreseeable future.

On March 24, 2021, the closing price of our common stock, as reported by the NASDAQ Capital Market, was $1.29. As of March 24, 2021, we had approximately 122 holders of record of our common stock.

Equity Compensation Plan Information

The following table provides information about our common stock that may be issued upon the exercise of options, warrants and rights under all of our existing equity compensation plans as of December 31, 2020 (on a split-adjusted basis).

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (1)) (2)
Equity compensation plans approved by security holder	384,304	$ 40.15	4,650,494
Equity compensation plans not approved by security holder	-	-	-
	384,304		4,650,494

(1) Consists of options to acquire 24,840 shares of our common stock under the 2013 Equity Incentive Plan and 359,464 under the 2014 Equity Incentive Plan.

(2) Consists of shares of common stock available for future issuance under our equity incentive plan or any other individual compensation arrangement.

Item 6. SELECTED FINANCIAL DATA

As a smaller reporting company, we are not required to provide this information.

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

You should read this discussion together with the Financial Statements, related Notes and other financial information included elsewhere in this Form 10-K. The following discussion contains assumptions, estimates and other forward-looking statements that involve a number of risks and uncertainties. These risks could cause our actual results to differ materially from those anticipated in these forward-looking statements.

Overview

AIkido Pharma Inc. (the "Company"), was initially formed in 1967 and is currently a biotechnology company with a diverse portfolio of small-molecule anti-cancer therapeutics in development. The Company's platform consists of patented technology from leading universities and researchers and we are currently in the process of developing an innovative therapeutic drug platform through strong partnerships with world-renowned educational institutions, including the University of Texas at Austin, the University of Maryland, Baltimore and Wake Forest University. Our diverse pipeline of therapeutics includes therapies for pancreatic cancer, acute myeloid leukemia ("AML") and acute lymphoblastic leukemia ("ALL"). The Company is also developing a broad-spectrum antiviral platform that may potentially inhibit replication of multiple viruses including Influenza virus, SARS-CoV (coronavirus), MERS-CoV, Ebolavirus and Marburg virus.

The Company previously focused its efforts on owning, developing, acquiring and monetizing intellectual property assets. Since May 2016, the Company has received limited funds from its intellectual property monetization. In addition to its patent monetization efforts, since the fourth quarter of 2017, the Company has been transitioning to focus its efforts as a technology and biotechnology development company. These efforts have focused on biotechnology research and blockchain technology research. The Company's investment in biotechnology research development includes: (i) an investment in Hoth Therapeutics, Inc. ("Hoth"), a development stage biopharmaceutical company focused on unique targeted therapeutics for patients suffering from indications such as atopic dermatitis, also known as eczema, (ii) an investment in DatChat, Inc. ("DatChat"), a privately held personal privacy platform focused on encrypted communication, internet security and digital rights management, and (iii) the acquisition of assets of CBM BioPharma, Inc. ("CBM"), a pharmaceutical company focusing on the development of cancer treatments.

As a result of the Company's biotechnology research development and associated investments and acquisitions, our business portfolio now focuses on the treatment of three different cancers, including pancreatic cancer, AML and ALL. Our AML and ALL compounds, developed at Wake Forest University, are targeted therapeutics designed to overcome multiple resistance mechanisms observed with the current standard of care. DHA-dFdC, our pancreatic drug candidate developed at the University of Texas at Austin ("UTA"), is a new compound that we hope will become the next generation of chemotherapy treatment for advanced pancreatic cancer. DHA-dFdC overcomes tumor cell resistance to current chemotherapeutic drugs and is well tolerated in preclinical toxicity tests. Preclinical studies have also indicated that DHA-dFdC inhibits pancreatic cancer cell growth (up to 100,000-fold more potent that gemcitabine, a current standard therapy), has documented efficacy against pancreatic tumors in a clinically relevant transgenic mouse model and has demonstrated activities against other cancers, including leukemia, lung and melanoma. DHA-dFdC is being developed by certain third parties for oral administration in a solid lipid nanoparticle carrier matrix, which has also been licensed from UTA, and is intended to be a second-line treatment for advanced pancreatic cancer. The Company has entered into agreements with a number of third parties to assist in optimizing the manufacturing process of the active ingredient, formulate the dosage form and do other tests, like drug stability, pre-clinical animal studies, and assistance with potential FDA clearance. The Company's license with UTA (the "License") is a royalty-bearing exclusive license that, unless terminated earlier, continues until the last date of expiration or termination of the patent rights granted under the License (the "Patent Rights"). With regard to DHA-dFdC, the Patent Rights include several filed U.S. patent applications (a "U.S. Patent Application") and an application filed under the Patent Cooperation Treaty ("PCT") that is currently being prosecuted to secure rights in foreign countries. From these applications, one patent, U.S. Patent No. 10,463,684 (the "684 Patent"), contains items covering the compound DHA-dFdC. Assuming all maintenance fees are timely paid, the 684 Patent is expected to expire on October 27, 2035. The Company's license with UTA also covers a non-provisional U.S. Patent Application filed with respect to the lipid nanoparticle carrier matrix for the drug, which was filed on June 6, 2019. In June of 2020, at the request of the Company, UTA filed both a U.S. non-provisional utility patent application as well as a PCT application relating to the lipid nanoparticle carrier matrix. Patent prosecution on all pending patent applications is currently underway. The Company is currently engaged in Chemistry, Manufacturing and Controls ("CMC") activities related to DHA-dFdC. Manufacturing activities thus far have confirmed the critical chemical steps required for the manufacturing and scalability of the process. In collaboration with our contract manufacturing organization, Parimer Scientific, we are currently optimizing the manufacturing procedure for DHA-dFdC. Our manufacturing activities were initially delayed several months due to COVID-19 because Parimer was recruited by the U.S. and South Carolina governments to manufacture hand sanitizer for use in hospitals. For that reason, our manufacturing activities did not begin in earnest until the beginning of the third quarter of 2020. Once manufacturing began, shipping delays due to the pandemic further slowed progress. Despite these delays, we have now successfully replicated the synthesis as reported in the literature with satisfactory yield and purity and are currently optimizing the procedure to ensure batch-to-batch consistency. In tandem, the Company is developing the solid lipid nanoparticle delivery system and is currently optimizing the manufacturing process for size and consistency of the particles. We plan to begin formulation development in the second quarter of 2021, which will require limited animal testing to determine proper dosage. We expect to have manufactured 20,000 mg of purified DHA-dFdC during the second quarter of 2021 to use for such purposes. We plan to engage a contract research organization for the purpose of such animal testing during the second quarter of 2021. Our goal is to have acceptable intravenous and oral formulations developed in the fourth quarter of 2021. The Company expects these activities, as well as the development of the final formulation to comprise most of the CMC activities through the end of the year. Optimization of the formulation will require in vitro studies as well as some preliminary animal studies. During the second half of 2021 and into 2022, optimization of the formulation and biological studies, including animal toxicology testing and pharmacology testing, are scheduled to occur. To the extent costs are incurred relating to governmental regulations, including under the FDA and environmental regulations, those costs will be borne by our Contract Manufacturing Organizations and Contract Research Organizations and will be passed on to the Company as part of their fees. FDA approval will eventually be required to begin administering DHA-dFdC to patients as part of any clinical trials. The animal studies performed next year will be a necessary prerequisite to filing an Investigational New Drug Application ("IND") with the FDA. The Company's development activities in the first half of 2021 will also include preparing the IND for submission to the FDA. The Company's formulation is a new chemotherapy oral dosage form "repurposing" the chemotherapeutic agent gemcitabine, enabling it to be developed for use in patients following a special regulatory pathway codified in Section 505(b)(2) of the FDA rules. Section 505(b)(2) was enacted to enable sponsors to seek New Drug Application ("NDA") approval for novel repurposed drugs without the need for such sponsors to undertake certain time consuming and expensive safety studies. Proceeding under this regulatory pathway, we hope to be able to rely upon all of the publicly available safety and toxicology data with respect to gemcitabine in our FDA submissions. We believe that this path will dramatically reduce the required clinical development efforts, costs and risks as compared to what would be required of us if we were required to conduct the entire scope of trials required for new chemical entities that are not eligible to be reviewed pursuant to the Section 505(b)(2) regulatory pathway. We estimate that by using the Section 505(b)(2) regulatory pathway, the clinical development process may be several years shorter than is required for a new chemical entity, and the FDA approval process may be six to nine months shorter than the typical eighteen-month period, which we believe may result in lower development costs and shorter development time. As of the date hereof, we have not submitted an IND or an NDA to the FDA. During the latter half of 2021, we hope to schedule and attend the first of a series of meetings with the FDA to review the requirements for submission and activation of an IND with respect to the DHA/dFdC formulated in SLNs for second-line treatment of advanced pancreatic cancer. At that meeting, we will present to the FDA our proposed clinical trial plan for the treatment of advanced pancreatic cancer. As part the meeting, as is standard, the FDA will provide us with general guidance with respect to specific animal studies, dosing schedules and suggested human safety studies before we commence clinical trials in patients. In addition, we are constantly seeking to grow our pipeline to treat unmet medical needs in oncology.

In addition, the Company owns an exclusive world-wide license to patented technology from the University of Maryland Baltimore ("UMB"). Our license is for a broad-spectrum antiviral drug platform. The licensed technology is a broadly acting pan-viral inhibitory compound with efficacy against multiple viral pathogens. The technology works to inhibit replication of multiple viruses including Influenza virus, SARS-CoV (coronavirus), MERS-CoV, Ebolavirus and Marburg virus. The technology is covered by two patent applications already on file with the United States Patent and Trademark Office. The Company's license covers two U.S. Nonprovisional Applications, which were consolidated and timely filed as a PCT application on June 5, 2020, commencing patent prosecution. Any patents issued from this application are expected to expire 20 years later, on June 5, 2040, unless the term is extended by the patent office. Publication of the results of the work to which the Company is licensed is expected later this year. Currently, the Company and UMB are collaborating to identify chemical structures that are as effective as, or more effective than, the lead compounds covered in the PCT application. The UMB inventors are Drs. Matthew Frieman, Alexander MacKerell and Stuart Watson. The Company has also executed a Sponsored Research Agreement with UMB to support the development of the technology.

Critical Accounting Policies

Our critical accounting policies are disclosed in Note 3 to the condensed consolidated financial statements.

Recently Issued Accounting Pronouncements

See Note 3 to the consolidated financial statements for a discussion of recent accounting standards.

Results of Operations

Fiscal Year Ended December 31, 2020 Compared to Fiscal Year Ended December 31, 2019

The Company experienced very little or no revenue in the last two years and we don't expect any revenue until a biotechnology product is fully developed which may not occur for many years.

For the year ended December 31, 2020 and 2019, we incurred a loss from operations of $6.5 million and $5.7 million, respectively. The increase in loss was primarily attributed to $1.0 million increase in other research and development expense, and $0.9 million increase in general and administrative expenses, partially offset by $1.0 million decrease in research and development expense incurred in connection with the license acquired.

For the year ended December 31, 2020 and 2019, other (expense) income was approximately $(5.8) million and $1.5 million, respectively. The increase in other expense was primarily attributed to a $8.2 million decrease in change in fair value of investment in Hoth, due to the decrease in Hoth's common stock price for the year ended December 31, 2020, and partially offset by $1.0 million increase in gains on marketable securities.

Liquidity and Capital Resources

We continue to incur ongoing administrative and other expenses, including public company expenses, in excess of corresponding (non-financing related) revenue. While we continue to implement our business strategy, we intend to finance our activities through:

- managing current cash on hand from our past debt and equity offerings;
- seeking additional funds raised through the sale of additional securities in the future;
- seeking additional liquidity through credit facilities or other debt arrangements; and
- increasing revenue from its patent portfolios, license fees and new business ventures.

During the first quarter of 2021, the Company consummated a public offering of 53,905,927 shares of common stock (including the underwriter overallotment). The Company received gross proceeds of approximately $86.2 million before deducting underwriting discounts and commissions and estimated offering expenses payable by the Company. Therefore, the Company has adequate cash to fund its operations for at least the next twelve months.

Management is currently evaluating the impact of the COVID-19 pandemic on the industry and has concluded that while it is reasonably possible that the virus could have a negative effect on the Company's financial position, results of its operations and/or search for drug candidates, the specific impact is not readily determinable as of the date of these financial statements. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Cash Flows from Operating Activities - For the year ended December 31, 2020 and 2019, net cash used in operations was $4.0 million and $3.0 million, respectively. The cash used in operating activities for the year ended December 31, 2020 primarily resulted from a net loss of $12.3 million, and partially offset by reduction in fair value of investment of $6.8 million and $1.5 million research and development expense related with license acquired. The cash used in operating activities for the year ended December 31, 2019 primarily resulted from a net loss of $4.2 million, reduced by $1.4 million change in fair value of our investment, $0.1 million unrealized loss on marketable securities and $0.2 million change in assets and liabilities, and partially offset by $2.5 million research and development expense related with license acquisition.

Cash Flows from Investing Activities - For the year ended December 31, 2020, net cash used in investing activities was approximately $25.0 million as compared to net cash provided by investing activities of approximately $1.3 million for the year ended December 31, 2019. The cash used in investing activities for the year ended December 31, 2020 primarily resulted from our purchase of marketable securities of $98.8 million and research and development expense related with license acquired of $1.5 million, partially offset by our sale of marketable securities of $74.9 million since we invest excess cash into marketable securities until additional cash is needed. The cash provided by investing activities for the year ended December 31, 2019 of $10.3 million primarily resulted from our sale of marketable securities, partially offset by our purchase of marketable securities of $8.5 million.

Cash Flows from Financing Activities – For the year ended December 31, 2020, cash provided by financing activities for the year ended December 31, 2020 was $31.6 million, which reflects the net proceeds of $6.6 million from investors in exchange of issuance of common stock, common warrants and prefunded warrants, net proceeds of $17.8 million from investors in exchange of issuance of common stock, and net proceeds of $7.2 million from the exercise of common warrants and prefunded warrants. Cash provided by financing activities for the year ended December 31, 2019 was $1.8 million, which reflects the net proceeds of $0.8 million from investors in exchange of issuance of common stock and prefunded common stock warrants, and net proceeds of $1.0 million from the issuance of common stock as part of our ATM offering.

We have filed a shelf registration statement on Form S-3 with the SEC. Whether we sell securities under the registration statement will depend on a number of factors, including the market conditions at that time, our cash position at that time and the availability and terms of alternative sources of capital.

Contractual obligations

None.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

As a smaller reporting company, we are not required to provide the information required by this item.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Financial statements and supplementary data required by this Item 8 follow.

Index to Financial Statements Page

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
AIkido Pharma Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AIkido Pharma Inc. (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of operations, stockholders' equity and cash flows for each of the two years in the period ended December 31, 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

Critical Audit Matters are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2013.

New York, NY
March 25, 2021

AIKIDO PHARMA INC.
Consolidated Balance Sheets
($ in thousands except per share amounts)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets		
Cash	$ 2,715	$ 91
Marketable securities	24,801	857
Prepaid expenses and other assets	215	181
Total current assets	27,731	1,129
Investments	2,764	10,153
	$ 30,495	**$ 11,282**
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable and accrued expenses	$ 567	$ 68
Accrued salaries and benefits	310	682
Total current liabilities	877	750
Total liabilities	**877**	**750**
Stockholders' equity		
Preferred stock, $.0001 par value, 50,000,000 Authorized		
Series D: 5,000,000 shares designated; 4,725 shares issued and outstanding at December 31, 2020 and 2019; liquidation value of $0.0001 per share	-	-
Series D-1: 5,000,000 shares designated; 834 shares issued and outstanding at December 31, 2020 and 2019; liquidation value of $0.0001 per share	-	-
Common stock, $0.0001 par value, 100,000,000 shares authorized; 34,920,222 and 4,825,552 shares issued at December 31, 2020 and 2019, respectively; 34,920,219 and 4,825,549 shares outstanding at December 31, 2020 and 2019, respectively	3	-
Additional paid-in-capital	186,482	155,062
Treasury stock, at cost, 3 shares at December 31, 2020 and 2019	(264)	(264)
Accumulated deficit	(156,603)	(144,266)
Total stockholders' equity	29,618	10,532
Total liabilities and stockholders' equity	**$ 30,495**	**$ 11,282**

The accompanying notes are an integral part of these consolidated financial statements.

AIKIDO PHARMA INC.
Consolidated Statements of Operations
($ in thousands)

	Years Ended December 31,	
	2020	**2019**
Revenues	$ -	$ 9
Operating costs and expenses		
General and administrative	$ 4,057	$ 3,172
Research and development	1,020	10
Research and development - license acquired	1,469	2,512
Total operating expenses	6,546	5,694
Loss from operations	(6,546)	(5,685)
Other income (expenses)		
Other income	19	-
Gains on marketable securities	1,001	14
Change in fair value of investment	(6,811)	1,406
Change in fair value of warrant liabilities	-	82
Total other (expenses) income	(5,791)	1,502
Net loss	**$ (12,337)**	**$ (4,183)**
Net loss per share, basic and diluted		
Basic and Diluted	$ (0.44)	$ (1.67)
Weighted average number of shares outstanding, basic and diluted		
Basic and Diluted	28,074,116	2,511,566

The accompanying notes are an integral part of these consolidated financial statements.

AIKIDO PHARMA INC.
Consolidated Statements of Changes in Stockholders' Equity
($ in thousands)

	Common Stock		Preferred Stock		Additional Paid-in	Treasury Stock		Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Shares	Amount	Deficit	Equity
Balance at December 31, 2018	**2,010,025**	**$ -**	**5,559**	**$ -**	**$ 152,445**	**3**	**$ (264)**	**$ (140,083)**	**$ 12,098**
Issuance of common stock and prefunded common stock warrants, net of offering cost	221,000	-	-	-	787	-	-	-	787
Issuance of common stock, net of offering cost / At-the-market offering	532,070	-	-	-	1,047	-	-	-	1,047
Issuance of common stock for research and development - license acquired	1,939,058	-	-	-	2,152	-	-	-	2,152
Exercise of prefunded common stock warrants	201,961	-	-	-	-	-	-	-	-
Warrant exercise	33,333	-	-	-	-	-	-	-	-
Exchange of common shares for prefunded warrants	(115,269)	-	-	-	-	-	-	-	-
Distribution of Hoth common stock	-	-	-	-	(1,698)	-	-	-	(1,698)
Fractional shares adjusted for reverse split	3,371	-	-	-	-	-	-	-	-
Stock-based compensation	-	-	-	-	329	-	-	-	329
Net loss	-	-	-	-	-	-	-	(4,183)	(4,183)
Balance at December 31, 2019	**4,825,549**	**$ -**	**5,559**	**$ -**	**$ 155,062**	**3**	**$ (264)**	**$ (144,266)**	**$ 10,532**
Issuance of common stock, common warrants and prefunded warrants, net of offering cost (net of offering costs of $941)	3,245,745	-	-	-	6,559	-	-	-	6,559
Issuance of common stock, net of offering cost (net of offering costs of $1,905)	16,090,909	2	-	-	17,843	-	-	-	17,845
Common warrant and prefunded warrant exercise	10,758,016	1	-	-	7,203	-	-	-	7,204
Distribution of Hoth common stock	-	-	-	-	(269)	-	-	-	(269)
Stock-based compensation	-	-	-	-	84	-	-	-	84
Net loss	-	-	-	-	-	-	-	(12,337)	(12,337)
Balance at December 31, 2020	**34,920,219**	**$ 3**	**5,559**	**$ -**	**$ 186,482**	**3**	**$ (264)**	**$ (156,603)**	**$ 29,618**

The accompanying notes are an integral part of these consolidated financial statements.

AIKIDO PHARMA INC.
Consolidated Statements of Cash Flows
($ in thousands)

	Years Ended December 31,	
	2020	**2019**
Cash flows from operating activities		
Net loss	$ (12,337)	$ (4,183)
Adjustments to reconcile net loss to net cash used in operating activities:		
Change in fair value of investment	6,811	(1,406)
Change in fair value of warrant liabilities	-	(82)
Research and development-acquired license, expensed	1,469	2,512
Stock-based compensation	84	329
Realized (gain) loss on marketable securities	(509)	172
Unrealized loss (gain) on marketable securities	218	(145)
Changes in assets and liabilities:		
Prepaid expenses and other assets	(34)	7
Accounts payable and accrued expenses	499	(64)
Accrued salaries and benefits	(372)	(50)
Payable to DatChat	150	(107)
Net cash used in operating activities	(4,021)	(3,017)
Cash flows from investing activities		
Purchase of marketable securities	(98,827)	(8,461)
Sale of marketable securities	74,873	10,277
Sale of Hoth common shares	460	-
Purchase of investments at fair value	-	(200)
Purchase of research and development licenses	(1,469)	(360)
Net cash (used in) provided by investing activities	(24,963)	1,256
Cash flows from financing activities		
Proceeds from issuance common stock, common warrants and prefunded warrants, net of offering cost	6,559	-
Proceeds from issuance common stock, net of offering cost	17,845	787
Proceeds from issuance common stock/ At-the-market offering	-	1,154
Offering costs from the issuance of common stock / At-the-market offering	-	(106)
Proceeds from exercise of warrants	7,204	-
Net cash provided by financing activities	31,608	1,835
Net increase in cash	2,624	74
Cash, beginning of period	91	17
Cash, end of period	$ 2,715	$ 91
Non-cash investing and financing activities		
Distribution of Hoth common stock	$ 269	$ 1,698

The accompanying notes are an integral part of these consolidated financial statements.

Note 1. Organization and Description of Business

Organization and Description of Business

AIkido Pharma Inc., formerly known as Spherix Incorporated, was initially formed in 1967. Since 2017, the Company has operated as a biotechnology company with a diverse portfolio of small-molecule anticancer and antiviral therapeutics in development. The Company's pipeline consists of patented technology from leading universities and researchers. The Company is currently in the process of developing its innovative therapeutic drug pipeline through strong partnerships with world renowned educational institutions, including the University of Texas at Austin, the University of Maryland, Baltimore and Wake Forest University. The Company's oncology therapeutics include prospective treatments for pancreatic cancer, acute myeloid leukemia (AML) and acute lymphoblastic leukemia (ALL). The Company is also developing a broad-spectrum antiviral platform, in which the lead compounds have activity in cell-based assays against multiple viruses including Influenza virus, Ebolavirus and Marburg virus, SARS-CoV, MERS-CoV, and SARS-CoV-2, the cause of COVID-19.

As a result of the Company's biotechnology research and development and associated investments and acquisitions, its business portfolio now focuses on the treatment of three different cancers and multiple types of viral infections. The Company's pancreatic drug candidate, DHA-dFdC, developed at and licensed from the University of Texas at Austin, is a new compound that it hopes will become the next generation of chemotherapy treatment for advanced pancreatic cancer. DHA-dFdC overcomes tumor cell resistance to current chemotherapeutic drugs and is well tolerated in preclinical toxicity tests. Preclinical studies have also indicated that DHA-dFdC inhibits pancreatic cancer cell growth (up to 100,000-fold more potent that gemcitabine, a current standard therapy), targets pancreatic tumors and has demonstrated activities against other cancers, including leukemia, lung and melanoma. The Company's AML and ALL compound, developed at the Wake Forest University, is a targeted therapeutic designed to overcome multiple resistance mechanisms observed with the current standard of care.

The Company's broad-spectrum antiviral platform was developed at the University of Maryland Baltimore ("UMB"), which granted the Company an exclusive worldwide Master License Agreement (MLA") to technology covered by three separate patent applications. The licensed technology comprises broadly acting pan-viral inhibitory compounds targeting multiple viral pathogens. The technology was invented by UMB scientists Drs. Matthew Frieman, Alexander MacKerell and Stuart Watson. The Company has also executed a Sponsored Research Agreement with UMB to support the development of the technology under the direction of these inventors at UMB.

Reverse Stock Split

On May 10, 2019, the Company effected a reverse stock split of its outstanding shares of common stock at a ratio of one-for-4.25 (the "Reverse Stock Split"). The Reverse Stock Split, which was approved by the Company's Board of Directors under authority granted by the Company's stockholders at the Company's 2019 Annual Meeting of Stockholders held on April 15, 2019, was consummated pursuant to a Certificate of Amendment filed with the Secretary of State of Delaware on May 9, 2019 (the "Certificate of Amendment"). Unless the context otherwise requires, all references in this report to shares of the Company's common stock, including prices per share of its common stock, reflect the Reverse Stock Split. Fractional shares were not issued, and the final number of shares were rounded up to the next whole share.

Note 2. Liquidity and Financial Condition

The Company continues to incur ongoing administrative and other expenses, including public company expenses, in excess of corresponding (non-financing related) revenue. While the Company continues to implement our business strategy, it intends to finance our activities through:

- managing current cash on hand from our past debt and equity offerings;
- seeking additional funds raised through the sale of additional securities in the future;
- seeking additional liquidity through credit facilities or other debt arrangements; and
- increasing revenue from its patent portfolios, license fees and new business ventures.

During the first quarter of 2021, the Company consummated a public offering of 53,905,927 shares of common stock (including the underwriter overallotment). The Company received net proceeds of approximately $78.2 million after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company. Therefore, the Company has adequate cash to fund its operations for at least the next twelve months.

Management is currently evaluating the impact of the COVID-19 pandemic on the industry and has concluded that while it is reasonably possible that the virus could have a negative effect on the Company's financial position, results of its operations and/or search for drug candidates, the specific impact is not readily determinable as of the date of these financial statements. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Note 3. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Nuta Technology Corp. ("Nuta"), Spherix Portfolio Acquisition II, Inc. ("SPAII"), Guidance IP, LLC ("Guidance"), Directional IP, LLC ("Directional"), Spherix Management Services, LLC ("SMS"), Spherix Delaware Merger Sub Inc. ("Merger Sub"), Spherix Merger Subsidiary, Inc ("SMSI") and NNPT, LLC ("NNPT"). All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("US GAAP"). This requires management to make estimates and assumptions that affect certain reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the period. The Company's significant estimates and assumptions include stock-based compensation, the valuation of investments and the valuation allowance related to the Company's deferred tax assets. Certain of the Company's estimates could be affected by external conditions, including those unique to the Company and general economic conditions. It is reasonably possible that these external factors could have an effect on the Company's estimates and could cause actual results to differ from those estimates and assumptions.

Segments

The Company operates in one operating segment and, accordingly, no segment disclosures have been presented herein.

Concentration of Cash

The Company maintains cash balances at two financial institutions in checking accounts and money market accounts. The Company considers all highly liquid investments with original maturities of three months or less when purchased to be cash equivalents. The Company has not experienced any losses in such accounts. There were no cash equivalents as of December 31, 2020 and 2019.

Marketable Securities

Marketable securities are classified as trading and are carried at fair value. The Company's marketable securities consist of corporate bonds and highly liquid mutual funds and exchange-traded & closed-end funds which are valued at quoted market prices.

Research and Development

Research and development costs, including acquired in-process research and development expenses for which there is no alternative future use, are expensed as incurred. Advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Accounting for Warrants

The Company accounts for the issuance of common stock purchase warrants issued in connection with the equity offerings in accordance with the provisions of ASC 815, *Derivatives and Hedging* ("ASC 815"). The Company classifies as equity any contracts that (i) require physical settlement or net-share settlement or (ii) gives the Company a choice of net-cash settlement or settlement in its own shares (physical settlement or net-share settlement).

Stock-based Compensation

The Company accounts for share-based payment awards exchanged for services at the estimated grant date fair value of the award. Stock options issued under the Company's long-term incentive plans are granted with an exercise price equal to no less than the market price of the Company's stock at the date of grant and expire up to ten years from the date of grant. These options generally vest over a one- to five-year period.

The Company estimates the fair value of stock option grants using the Black-Scholes option pricing model and the assumptions used in calculating the fair value of stock-based awards represent management's best estimates and involve inherent uncertainties and the application of management's judgment.

Expected Term - The expected term of options represents the period that the Company's stock-based awards are expected to be outstanding based on the simplified method, which is the half-life from vesting to the end of its contractual term.

Expected Volatility - The Company computes stock price volatility over expected terms based on its historical common stock trading prices.

Risk-Free Interest Rate - The Company bases the risk-free interest rate on the implied yield available on U. S. Treasury zero-coupon issues with an equivalent remaining term.

Expected Dividend - The Company has never declared or paid any cash dividends on its common shares and does not plan to pay cash dividends in the foreseeable future, and, therefore, uses an expected dividend yield of zero in its valuation models.

The Company accounts for forfeitures as they occur.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes in accordance with ASC 740, "*Income Taxes*" ("ASC 740"). Under this method, income tax expense is recognized as the amount of: (i) taxes payable or refundable for the current year and (ii) deferred tax consequences of temporary difference resulting from matters that have been recognized in the Company's financial statement or tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities measured at the enacted tax rates in effect for the year in which these items are expected to reverse. Deferred tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Recently Adopted Accounting Standards

In August 2018, the Financial Accounting Standards Board ("FASB") issued ASU 2018-13, "*Fair Value Measurement* (Topic 820), - Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement," which makes a number of changes meant to add, modify or remove certain disclosure requirements associated with the movement amongst or hierarchy associated with Level 1, Level 2 and Level 3 fair value measurements. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted upon issuance of the update. The Company adopted this ASU on January 1, 2020 and the adoption of this ASU did not have a material impact on its consolidated financial statements or related disclosures.

In December 2019, the Financial Accounting Standards Board ("FASB") issued ASU No. 2019-12, "*Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company adopted ASU No. 2019-12 effective January 1, 2021, and the adoption did not have a material impact on its consolidated financial statements.

Note 4. Investments in Marketable Securities

The realized gain or loss, unrealized gain or loss, and dividend income related to marketable securities for the year ended December 31, 2020 and 2019, which are recorded as a component of other (expenses) income on the consolidated statements of operations (excluding a $70,000 distribution to CBM shareholders during the year ended December 31, 2020), are as follows ($ in thousands):

	For the Years Ended December 31,	
	2020	**2019**
Realized gain (loss)	$ 509	$ (172)
Unrealized gain (loss)	(218)	145
Dividend income	636	38
Interest income	4	4
	$ 931	$ 14

Note 5. Investment in Hoth Therapeutics, Inc.

Hoth is a clinical stage biopharmaceutical company focused on unique targeted therapeutics for patients suffering from indications such as atopic dermatitis, also known as eczema, skin toxicities associated with cancer therapy, chronic wounds, psoriasis, asthma, acne, and pneumonia.

On February 20, 2019, Hoth closed its initial public offering (the "IPO") at an initial offering price to the public of $5.60 per share. The Company records this investment at fair value and records any change in fair value in the statements of operations (see Note 8).

On October 2, 2019, the Board of Directors approved a distribution to the Company's stockholders of 100,000 Hoth Shares held by the Company. Accordingly, each of the Company's stockholders received one (1) share of Hoth common stock for every twenty-nine (29) shares of Company common stock held as of 5 p.m. Eastern Time on October 21, 2019, the dividend record date. The Company did not distribute fractional shares of Hoth common stock, and any fractional shares were rounded down to the nearest whole share.

On February 23, 2020, the Board of Directors approved a distribution to the Company's stockholders of up to 70,000 Hoth Shares held by the Company. Accordingly, each of the Company's stockholders received one (1) share of Hoth common stock for every five hundred (500) shares of Company common stock held as of 5 p.m. Eastern Time on April 30, 2020, the dividend record date. The Company did not distribute fractional shares of Hoth common stock, and any fractional shares were rounded down to the nearest whole share. The final distribution amount of Hoth Shares is 69,815. The fair value of this distribution is approximately $0.3 million on the dividend record date.

On May 6, 2020, the Company entered into that certain Stock Transfer Agreement, by and between the Company and a purchaser, and sold 400,000 shares of Hoth common stock for net proceeds of approximately $0.5 million.

The following summarizes the Company investment in Hoth:

Security Name	Shares Owned as of December 31, 2020	Fair value per Share as of December 31, 2020	Fair value as of December 31, 2020 (in thousands)
HOTH	1,166,415	$ 2.37	$ 2,764

Security Name	Shares Owned as of December 31, 2019	Fair value per Share as of December 31, 2019	Fair value as of December 31, 2019 (in thousands)
HOTH	1,636,230	$ 6.19	$ 10,128

The fair value of Hoth common shares as of December 31, 2020 and 2019 was based on the closing price of $2.37 and $6.19, respectively, reported on The NASDAQ Capital Market as of December 31, 2020 and 2019.

Note 6. Investment in Others

In May 2019, the Company purchased (a) a senior convertible note issued by DatChat with outstanding principal of $300,000, with an initial conversion rate of $0.20 per share, (b) a warrant to purchase 2,250,000 shares of DatChat common stock at an initial exercise price of $0.20 per share, (c) an option to acquire an additional $300,000 senior convertible note and a warrant to purchase 1,500,000 shares of DatChat common stock, (d) a contingent option to purchase 500,000 shares of DatChat common stock from an existing DatChat stockholder, (e) a contingent option to put 200,000 shares of DatChat common stock and (f) 50,000 shares of common stock of CBM which represents a 20% interest in CBM. The Company allocated all the fair value of this investment to CBM. As a result of the nominal purchase price allocated to DatChat, the Company reviewed its existing holdings in DatChat and reduced its existing carrying amount from $1.0 million to $0. The Company recorded its initial investment in DatChat on adjusted cost method measurement alternative in accordance with ASU 2016-01.

On December 5, 2019, in connection with the acquisition of the assets of CBM, the Company wrote-off its investment to research and development expense as the original purchase of 50,000 CBM shares was a component of the transaction contemplated with CBM.

During the year ended 2020, the Company wrote-off its investment of $25,000 in The BitDaily.

The balance of Company's other investments was $0 and $25,000 as of December 31, 2020 and 2019, respectively.

Note 7. CBM Asset Acquisition

On October 10, 2018, the Company entered into that certain Agreement and Plan of Merger, dated as of October 10, 2018, by and among the Company, Spherix Delaware Merger Sub Inc., a Delaware corporation, Scott Wilfong, as the CBM stockholder representative, and CBM, a Delaware corporation and a pharmaceutical company focused on the development of cancer treatments, pursuant to which all shares of capital stock of CBM were be converted into the right to receive an aggregate of 15,000,000 shares of the Company's common stock, with CBM continuing as the surviving corporation in the merger.

On May 15, 2019, the Company restructured the terms of the CBM merger and chose to proceed with purchasing substantially all of the assets, properties and rights (the "Acquisition") of CBM. On December 5, 2019, the Company completed the Acquisition of CBM, pursuant to that certain Asset Purchase Agreement, dated as of May 15, 2019, by and between the Company and CBM, as amended by that certain Amendment No. 1 to Asset Purchase Agreement, dated as of May 30, 2019, and Amendment No. 2 to Asset Purchase Agreement, dated as of December 5, 2019 (collectively, the "CBM Purchase Agreement"). As consideration for the Acquisition, the Company agreed to pay to CBM consideration consisting of (i) $1,000,000 in cash (the "Cash Consideration") and (ii) an aggregate of 1,939,058 shares (the "Stock Consideration") of the Company's common stock valued at a price per share of $3.61. The Cash Consideration will become payable to CBM upon the consummation by the Company of the first sale of the Company's common stock or any other equity or equity-linked financing of the Company to investors in or more transactions, after the date of the CBM Purchase Agreement, for which the Company receives aggregate gross proceeds of greater than $2,000,000 (a "Qualified Financing").

Upon the consummation of the Qualified Financing, the Company shall retain the first $2,000,000 of the gross proceeds from the Qualified Financing and CBM shall receive 100% of the gross proceeds of such Qualified Financing received by the Company in excess of $2,000,000 as well as the gross proceeds of any subsequent equity financings by the Company until the Cash Consideration amount is satisfied in full. Additionally, at closing, 7% or 135,734 shares of common stock of the Stock Consideration was deposited with VStock (the "Escrow Shares"), the Company's transfer agent, to be held in escrow for six months post-closing to satisfy certain indemnification obligations pursuant to the terms and conditions of the CBM Purchase Agreement, and 93% or 1,803,324 shares of the Stock Consideration was issued and delivered to CBM.

On December 5, 2019, the Company recorded the issuance of Stock Consideration at fair value, based upon the closing stock price per share of $1.11 as of December 5, 2019. The issuance of Escrow Shares was considered probable as of December 31, 2019. The Cash Consideration was not considered probable as of December 31, 2019 as such consideration is payable on a Qualified Financing. Because acquisition of CBM's intellectual property had not received regulatory approval, the $2.5 million purchase price paid for CBM was immediately expensed in the Company's statement of operations as research and development – intellectual property acquired.

On March 9, 2020, the Company raised over $2.0 million of proceeds (see Note 10), therefore a payment of $1.0 million was due to CBM under the CBM Purchase Agreement. The Company recorded this Cash Consideration as a component of research and development license acquired during the year ended December 31, 2020 the consolidated statements of operations.

Note 8. Fair Value of Financial Assets and Liabilities

Financial instruments, including cash, accounts payable and accrued liabilities are carried at cost, which management believes approximates fair value due to the short-term nature of these instruments. The Company measures the fair value of financial assets and liabilities based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value.

The Company uses three levels of inputs that may be used to measure fair value:

Level 1 - quoted prices in active markets for identical assets or liabilities

Level 2 - quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 - inputs that are unobservable (for example, cash flow modeling inputs based on assumptions)

The following table presents the Company's assets and liabilities that are measured at fair value at December 31, 2020 and 2019 ($ in thousands):

	Fair value measured at December 31, 2020			
	Total at December 31, 2020	**Quoted prices in active markets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
Assets				
Marketable securities - mutual and exchange traded funds	$ 24,801	$ 24,801	$ -	$ -
Investments in Hoth	$ 2,764	$ 2,764	$ -	$ -

	Fair value measured at December 31, 2019			
	Total at December 31, 2019	**Quoted prices in active markets (Level 1)**	**Significant other observable inputs (Level 2)**	**Significant unobservable inputs (Level 3)**
Assets				
Marketable securities - mutual and exchange traded funds	$ 857	$ 857	$ -	$ -
Investments in Hoth	$ 10,128	$ 10,128	$ -	$ -

While the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Note 9. Net Earnings (Loss) per Share Applicable to Common Stockholders

Securities that could potentially dilute loss per share in the future that were not included in the computation of diluted loss per share at December 31, 2020 and 2019 are as follows:

	As of December 31,	
	2020	**2019**
Convertible preferred stock	688	688
Warrants to purchase common stock	1,656,354	285,273
Options to purchase common stock	384,304	88,950
Total	**2,041,346**	**374,911**

Note 10. Stockholders' Equity and Convertible Preferred Stock

Common Stock

On March 3, 2020, the Company entered into that certain Securities Purchase Agreement, by and among the Company and certain purchasers, pursuant to which the Company agreed to issue and sell to the purchasers 3,245,745 shares of the Company's common stock, and common warrants ("Common Warrants") to purchase up to 7,142,858 shares of common stock at a price of $1.05 per share of common stock and Common Warrant. The Company also offered 3,897,113 pre-funded warrants ("Pre-Funded Warrants") to purchase shares of common stock with a purchase price of $1.0499 each Pre-Funded Warrant. The exercise price of each Pre-Funded Warrant was $0.0001 per share.

This offering resulted in gross proceeds of approximately $7.5 million before deducting the placement agent's fee and related offering expenses of $1.0 million.

On March 9, 2020, the Company entered into that certain Securities Purchase Agreement, by and among the Company and certain purchasers, pursuant to which the Company agreed to issue and sell, in a registered direct offering, 2,090,909 shares of the Company's common stock at an offering price of $2.75 per share. This offering resulted in gross proceeds to the Company of $5.8 million, before deducting the placement agent's fee and other related offering expenses.

The Company also issued placement agent warrants to the placement agent (the "Placement Agent Warrant") to purchase 167,273 shares of common stock with an exercise price of $3.4375 per share.

The Company has determined that the Placement Agent Warrant should be accounted as a component of stockholders' equity. On the issuance date, the Company estimated the aggregate fair value of Placement Agent Warrant at $0.2 million using the Black-Scholes option pricing model using the following primary assumptions: fair value of common stock underlying the warrants is $1.83, expected life of 5 years, volatility rate of 122.29%, risk-free interest rate of 0.63% and expected dividend rate of 0%.

On April 14, 2020, the Company, entered into that certain Securities Purchase Agreement, by and among the Company and certain purchasers, pursuant to which the Company agreed to issue and sell 14,000,000 shares of the Company's common stock at an offering price of $1.00 per share. The registered offering resulted in gross proceeds to the Company of $14.0 million, before deducting the placement agent's fee and other related offering expenses.

The Company also issued placement agent warrants to the placement agent (the "Placement Agent Warrant") to purchase 1,120,000 shares of common stock with an exercise price of $1.25 per share.

At The Market Offering Agreement

On August 9, 2019, the Company entered into an At The Market Offering Agreement (the "ATM Agreement") with H.C. Wainwright & Co., LLC, as agent ("H.C. Wainwright"), pursuant to which the Company may offer and sell, from time to time through H.C. Wainwright, shares of the Company's common stock having an aggregate offering price of up to $1.2 million (the "Shares"). The Company will pay H.C. Wainwright a commission rate equal to 3.0% of the aggregate gross proceeds from each sale of Shares.

During the year ended December 31, 2019, the Company sold a total of 532,070 shares of common stock under the ATM for aggregate total gross proceeds of approximately $1.2 million at an average selling price of $2.17 per share, resulting in net proceeds of approximately $1.1 million after deducting commissions and other transaction costs.

Registered Common Stock and Warrant Financing

On May 29, 2019, the Company entered into a Securities Purchase Agreement (the "Common Stock Purchase Agreement") for the sale by the Company of 221,000 shares of the Company's common stock, at a purchase price of $2.60 per share, and pre-funded common stock purchase warrants to purchase up to 86,692 shares of common stock at a purchase price of $2.5999 per Warrant, which represents the per share purchase price, less a $0.0001 per share exercise price for each of the warrants ("Penny Warrants"). The Company sold the shares and warrants for net proceeds of approximately $0.8 million which transaction closed on May 31, 2019.

Common Stock Warrant Exchange

On June 6, 2019, the Company entered into an amendment to the Common Stock Purchase Agreement, pursuant to which the Purchaser surrendered an aggregate of 115,269 shares to the Company and the Company issued 115,269 Penny Warrants to the Purchaser in order to limit the Purchaser's beneficial ownership.

The exchange of 115,269 Penny Warrants do not meet the definition of a derivative under ASC 815 because their fair value at issuance is equal to the fair value of the shares underlying the warrant. As such, they have the characteristics of a prepaid forward sale of equity. Since the shares underlying the Penny Warrants are issuable for little or no consideration, they are considered outstanding in the context of earnings per share, as discussed in ASC 260-10-45-13.

Preferred Stock

Series D Convertible Preferred Stock

In connection with the acquisition of North South's patent portfolio in September 2013, the Company issued 1,379,685 shares of its Series D Convertible Preferred Stock ("Series D Preferred Stock") to the stockholders of North South. Each share of Series D Preferred Stock has a stated value of $0.0001 per share and is convertible into ten-nineteenths of a share of Common Stock. Upon the liquidation, dissolution or winding up of the Company's business, each holder of Series D Preferred Stock shall be entitled to receive, for each share of Series D Preferred Stock held, a preferential amount in cash equal to the greater of (i) the stated value or (ii) the amount the holder would receive as a holder of Common Stock on an "as converted" basis. Each holder of Series D Preferred Stock shall be entitled to vote on all matters submitted to its stockholders and shall be entitled to such number of votes equal to the number of shares of Common Stock such shares of Series D Preferred Stock are convertible into at such time, taking into account the beneficial ownership limitations set forth in the governing Certificate of Designation and the conversion limitations described below. The conversion ratio of the Series D Preferred Stock is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions.

As of December 31, 2020 and 2019, 5,000,000 Series D Preferred Stock designated; 4,725 shares remained issued and outstanding.

Series D-1 Convertible Preferred Stock

The Company's Series D-1 Convertible Preferred Stock ("Series D-1 Preferred Stock") was established on November 22, 2013. Each share of Series D-1 Preferred Stock has a stated value of $0.0001 per share and is convertible into ten-nineteenths of a share of Common Stock. Upon the liquidation, dissolution or winding up of the Company's business, each holder of Series D-1 Preferred Stock shall be entitled to receive, for each share of Series D-1 Preferred Stock held, a preferential amount in cash equal to the greater of (i) the stated value or (ii) the amount the holder would receive as a holder of Common Stock on an "as converted" basis. Each holder of Series D-1 Preferred Stock shall be entitled to vote on all matters submitted to the Company's stockholders and shall be entitled to such number of votes equal to the number of shares of Common Stock such shares of Series D-1 Preferred Stock are convertible into at such time, taking into account the beneficial ownership limitations set forth in the governing Certificate of Designation. The conversion ratio of the Series D-1 Preferred Stock is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions. The Company commenced an exchange with holders of Series D Convertible Preferred Stock pursuant to which the holders of the Company's outstanding shares of Series D Preferred Stock acquired in the Merger could exchange such shares for shares of the Company's Series D-1 Preferred Stock on a one-for-one basis.

As of December 31, 2020 and 2019, 5,000,000 Series D-1 Preferred Stock designated; 834 shares remained issued and outstanding.

Warrants

A summary of warrant activity for year ended December 31, 2020 and 2019 is presented below:

	Warrants	Weighted Average Exercise Price	Total Intrinsic Value	Weighted Average Remaining Contractual Life (in years)
Outstanding as of December 31, 2018	294,072	$ 38.15	$ -	1.92
Issued	301,960	-	506,273	-
Exercised	(235,294)	-	394,940	-
Expired	(8,799)	476.66	-	-
Outstanding as of December 31, 2019	351,939	$ 19.96	$ 111,332	0.94
Issued	12,327,244	0.77	-	0.17
Exercised	(10,758,016)	0.67	-	-
Expired	(198,147)	-	-	-
Outstanding as of December 31, 2020	1,723,020	$ 3.07	57,333	1.11

On May 29, 2019, the Company entered into the Master Service Agreement (“MSA”) with a consultant, World Wide Holdings, LLC (“Consultant”). In consideration for services provided by Consultant, the Company paid to Consultant three warrants (the “Consultant Warrants”), with each warrant immediately exercisable for 33,333 shares of common stock with a $0.01 strike price. The Company issued each of the three warrants on June 28, July 28 and August 27, 2019, respectively. The Company recorded $0.3 million in stock-based compensation during the year ended December 31, 2019 related to this arrangement. On July 12, 2019, the Company issued 33,333 shares of common stock upon exercise of one Consultant Warrant which resulted in gross proceeds of approximately $333.

Stock Options

2014 Plan and Option Grants

On November 17, 2020, the Board approved to amend 2014 Equity Incentive Plan to increase the number of shares of common stock authorized to be issued pursuant to the 2014 Plan from 243,344 to 5,000,000 shares.

At December 31, 2020, there were 359,464 options outstanding and 4,640,536 shares available for grant under the AIkido Pharma Inc. 2014 Equity Incentive Plan.

The fair value of options granted in 2020 and 2019 was estimated using the following assumptions:

	For the Years Ended December 31,	
	2020	2019
Exercise price	$0.64	-
Term (years)	9.98	-
Expected stock price volatility	124.0%	-
Risk-free rate of interest	0.37%	-

A summary of option activity under the Company's stock option plan for year ended December 31, 2020 and 2019 is presented below:

	Number of Shares	Weighted Average Exercise Price	Total Intrinsic Value	Weighted Average Remaining Contractual Life (in years)
Outstanding as of December 31, 2018	124,381	$ 209.22	$ -	4.8
Employee options expired	(35,121)	302.29	-	-
Non-employee options expired	(310)	571.71	-	-
Outstanding as of December 31, 2019	88,950	$ 172.39	$ -	5.7
Employee options granted	300,000	0.64	69,000	10.0
Employee options expired	(4,646)	-	-	-
Outstanding as of December 31, 2020	384,304	$ 40.15	$ 69,000	8.9
Options vested and exercisable	234,304	$ 65.45	$ 34,500	8.2

Stock-based compensation associated with the amortization of stock option expense was $84,000 and $8,000 for the years ended December 31, 2020 and 2019, respectively. All stock compensation was recorded as a component of general and administrative expenses.

Estimated future stock-based compensation expense relating to unvested stock options is approximately $77,000 and will be recorded through June 2021.

Note 11. Commitments and Contingencies

Legal Proceedings

In the past, in the ordinary course of business, the Company actively pursued legal remedies to enforce its intellectual property rights and to stop unauthorized use of our technology. Other than ordinary routine litigation incidental to the business, we know of no material, active or pending legal proceedings against us.

Risks and Uncertainties – COVID-19

Management is currently evaluating the impact of the COVID-19 pandemic on the industry and has concluded that while it is reasonably possible that the virus could have a negative effect on the Company's financial position, results of its operations and/or search for drug candidates, the specific impact is not readily determinable as of the date of these financial statements. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Note 12. Income Taxes

The income tax provision consists of the following ($ in thousands):

	For the years ended December 31,	
	2020	2019
Federal		
Current	$ (85)	$ -
Deferred	(1,821)	3,862
Increase in valuation allowance	1,821	(3,862)
State and local		
Current		
Deferred	(3,739)	(12,115)
Increase in valuation allowance	3,739	12,115
Income Tax Provision (Benefit)	$ (85)	$ -

The following is a reconciliation of the U.S. federal statutory rate to the effective income tax rates for the years ended December 31, 2020 and 2019:

	For the years ended December 31,	
	2020	2019
U.S. Statutory Federal Rate	21%	21%
State Taxes, Net of Federal Tax Benefit	%	13.62%
Other Permanent Differences	0.04%	0.01%
State rate change in effect	40.36%	216.40%
AMT credit benefit	0.68%	%
Decrease due to true up of State NOL	(10.36)%	(19.10)%
Decrease due to change in Federal NOL and other true ups	(6.34)%	(34.64)%
Change in Valuation Allowance	(44.7)%	(197.29)%
Income Tax Benefit	0.68%	-%

At December 31, 2020 and 2019, the Company's deferred tax assets and liabilities consisted of the effects of temporary differences attributable to the following ($ in thousands):

	As of December 31,	
	2020	2019
Deferred tax assets:		
Net-operating loss carryforward	$ 19,000	$ 15,443
Stock based compensation	8,290	8,104
Patent portfolio and other	14,917	15,004
Total Deferred Tax assets	42,207	38,551
Valuation allowance	(40,670)	(35,084)
Deferred Tax Asset, Net of Allowance	$ 1,537	$ 3,467
Deferred tax liability:		
Fair value adjustment of investment	(1,537)	(3,467)
	-	-

In assessing the realization of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the period in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. The Company has determined that, based on objective evidence currently available, it is more likely than not, the deferred tax assets will not be realized in future periods. Accordingly, the Company has provided a full allowance for the deferred tax assets at December 31, 2020 and 2019. As of December 31, 2020, the change in valuation allowance is approximately $5.56 million.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was enacted in response to the COVID-19 pandemic. The CARES Act, among other things, makes any Alternative Minimum Tax Credit carry forward fully refundable in tax years beginning on or after January 1, 2018. The Company filed Form 1139 in 2020 and received a cash refund for its $85k AMT credit carry forward before December 31, 2020.

On December 27, 2020 the Consolidated Appropriations Act, 2021 (“CAA”) was signed into law. The CAA includes the COVID-related Tax Relief Act of 2020 (“COVID TRA”). The Company is continuing to assess the effect of the CAA and does not believe it will result in a material impact to the Company’s income tax provision.

As of December 31, 2020, the Company has approximately $41 million federal net operating loss carryovers (“NOLs”), which expire from 2033 through 2037, and $22 million of federal NOLs with indefinite utilization. The Company has approximately $85 million of state and city NOLs, which expire from 2024 through 2040.

The NOL carryover may be subject to limitation under Internal Revenue Code section 382, should there be a greater than 50% ownership change as determined under the regulations. No study has been performed since the last known ownership change of September 10, 2013.

As required by the provisions of ASC 740, the Company recognizes the financial statement benefit of a tax position only after determining that the relevant tax authority would more likely than not sustain the position following an audit. For tax positions meeting the more likely than not threshold, the amount recognized in the consolidated financial statements is the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement with the relevant tax authority. Differences between tax positions taken or expected to be taken in a tax return and the net benefit recognized and measured pursuant to the interpretation are referred to as “unrecognized benefits.” A liability is recognized (or amount of NOL or amount of tax refundable is reduced) for an unrecognized tax benefit because it represents an enterprise’s potential future obligation to the taxing authority for a tax position that was not recognized as a result of applying the provisions of ASC 740.

If applicable, interest costs and penalties related to unrecognized tax benefits are required to be calculated and would be classified as interest and penalties in general and administrative expense in the statement of operations. As of December 31, 2020 and 2019, no liability for unrecognized tax benefit was required to be reported. No interest or penalties were recorded during the years ended December 31, 2020 and 2019. The Company does not expect any significant changes in its unrecognized tax benefits in the next year. The Company files U.S. federal and state income tax returns. As of December 31, 2020, the Company’s U.S. and state tax returns (Delaware, New York, New York City, Pennsylvania, Virginia, and Texas) remain subject to examination by tax authorities beginning with the tax return filed for the year ended December 31, 2017, however, there were no audits pending in any of the above-mentioned jurisdictions during 2020 and 2019. The Company believes that its income tax positions would be sustained upon an audit and does not anticipate any adjustments that would result in material changes to its consolidated financial position.

Note 13. Subsequent Events

Silo License Agreement

Effective January 5, 2021, the Company entered into an exclusive patent license agreement (the "License Agreement") with Silo Pharma Inc., a Delaware corporation and Silo Pharma Inc., a Florida corporation, and their affiliates/subsidiaries (collectively, "Silo Pharma").

As consideration for the license of the Licensed Patents, the Company will issue and deliver to Silo Pharma 500 shares of the Company's Series M Convertible Preferred Stock. The Company paid a one-time nonrefundable cash payment of five-hundred thousand US Dollars ($500,000.00) to Silo Pharma. The Company shall also pay Silo Pharma a running royalty equal to two percent (2%) of "net sales" (as such term is defined in the License Agreement).

Convergent Investment

On January 29, 2021, the Company purchased an 8% convertible promissory note ("Convertible Note") issued by Convergent Therapeutics, Inc. ("Convergent") with a principal amount of $2 million pursuant to a Note Purchase Agreement with Convergent. The Company paid a purchase price for the Convertible Note of $2 million. The Company will receive interest on the Convertible Note at the rate of 8% per annum payable upon conversion or maturity of the Convertible Note. The Convertible Note shall mature on January 29, 2023.

Public Offering

On February 19, 2021, the Company consummated the public offering pursuant to an amended and restated underwriting agreement (the "Underwriting Agreement") with H.C. Wainwright & Co., LLC, as representative to the underwriters named therein (the "Underwriter"), pursuant to which the Company agreed to issue and sell to the Underwriter in an underwritten public offering (the "Offering") an aggregate of 46,875,000 shares (the "Shares") of common stock, $0.0001 par value per share, of the Company (the "Common Stock"). The Company received gross proceeds of approximately $75 million before deducting underwriting discounts and commissions and estimated offering expenses payable by the Company. On February 23, 2021, the Underwriter partially exercised its over-allotment option and purchased an additional 7,030,927 Shares, resulting in aggregate proceeds of approximately $86.2 million., before deducting underwriting discounts and commissions and other expenses.

In connection with the Offering, the Company issued the Underwriter warrants (the "Underwriter's Warrants") to purchase up to 4,312,475 shares of Common Stock, or 8% of the Shares sold in the Offering. The Underwriter's Warrants will be exercisable for a period of five years from February 19, 2021 at an exercise price of $2.00 per share, subject to adjustment.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures.

The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. With respect to the annual period ended December 31, 2020, under the supervision and with the participation of our management, we conducted an evaluation of the effectiveness of the design and operations of our disclosure controls and procedures. Based upon this evaluation, our management has concluded that our disclosure controls and procedures were not effective as of December 31, 2020. We have a lack of segregation of duties, and a lack of controls in place to ensure that all material transactions and developments impacting the financial statements are reflected.

However, to the extent possible, we will implement procedures to assure that the initiation of transactions, the custody of assets and the recording of transactions will be performed by separate individuals. We believe that the foregoing steps will remediate the material weakness identified above, and we will continue to monitor the effectiveness of these steps and make any changes that our management deems appropriate.

Management is in the process of determining how best to make the required changes that are needed to implement an effective system of internal control over financial reporting. Our management acknowledges the existence of this problem, and intends to develop procedures to address it to the extent possible given the Company's limitations in financial and human resources.

Management's Annual Report on Internal Control over Financial Reporting

Our management, including our Chief Executive Officer and Interim Chief Financial Officer assessed the effectiveness of our internal control over financial reporting as of December 31, 2020 and concluded that our internal controls over financial reporting were not effective. In making this assessment, our management used the 2013 framework established in "Internal Control-Integrated Framework" promulgated by the Committee of Sponsoring Organizations of the Treadway Commission, commonly referred to as the "COSO" criteria.

In connection with management's assessment of our internal control over financial reporting described above, management has identified the following material weaknesses in our internal control over financial reporting as of December 31, 2020.

(1) The Company has inadequate segregation of duties consistent with control objectives.

(2) The Company does not have properly documented controls designed and operating in place to ensure that it's financial statements properly reflect material transactions and developments.

We are currently reviewing our internal controls and procedures related to these material weaknesses and expect to implement changes in the near term, including identifying specific areas within our governance, accounting and financial reporting processes to add adequate resources to potentially mitigate these material weaknesses.

Our management team will continue to monitor and evaluate the effectiveness of our disclosure controls and procedures and our internal controls over financial reporting on an ongoing basis and is committed to taking further action and implementing additional enhancements or improvements, as necessary and as funds allow.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

This Annual Report does not contain an attestation report of our independent registered public accounting firm regarding internal control over financial reporting since the rules for smaller reporting companies provide for this exemption.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the year ended December 31, 2020 which have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

PART III

All per share amounts and outstanding shares, including stock options, restricted stocks and warrants, have been retroactively adjusted for all periods on a post-Reverse Stock Split basis below. Further, exercise prices of stock options and warrants have been retroactively adjusted in these consolidated financial statements for all periods presented to reflect the 1-for-19 Reverse Stock Split. Numbers of shares of the Company's preferred stock were not affected by the Reverse Stock Split; however, the conversion ratios have been adjusted to reflect the Reverse Stock Split.

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors and Executive Officers

The following table sets forth the name, age and position of each current director and executive officer of the Company.

Name	Age	Position	Director Since
Robert J. Vander Zanden (1)(2)(3)	75	Director and Chairman of the Board	2004
Anthony Hayes	53	Chief Executive Officer, Principal Accounting Officer, Principal Financial Officer and Director	2013
Tim S. Ledwick (1)(2)	63	Director	2015
Gregory James Blattner(1)(3)	43	Director	2018
Paul LeMire(2)(3)	65	Director	2020
Robert Dudley(2)(3)	66	Director	2020

(1) Member of our Audit Committee.
(2) Member of our Compensation Committee.
(3) Member of our Nominating Committee.

The biographies of our current directors are as follows:

Dr. Robert J. Vander Zanden

Dr. Robert J. Vander Zanden, a member of the Board of Directors since 2004, having served as a Vice President of R&D at Kraft Foods International, brings a long and distinguished career in applied technology, product commercialization, and business knowledge of the food science industry to us. Additionally, Mr. Vander Zanden has specific experience in developing organizations designed to deliver against corporate objectives. Dr. Vander Zanden holds a Ph.D. in Food Science and an M.S. in Inorganic Chemistry from Kansas State University, and a B.S. in Chemistry from the University of Wisconsin - Platteville, where he was named a Distinguished Alumnus in 2002. In his 30-year career, he has been with ITT Continental Baking Company as a Product Development Scientist; with Ralston Purina's Protein Technology Division as Manager Dietary Foods R&D; with Keebler as Group Director, Product and Process Development (with responsibility for all corporate R&D and quality); with Group Gamesa, a Frito-Lay Company, as Vice President, Technology; and with Nabisco as Vice President of R&D for their International Division. With the acquisition of Nabisco by Kraft Foods, he became the Vice President of R&D for Kraft's Latin American Division. Dr. Vander Zanden retired from Kraft Foods in 2004. He currently holds the title of Adjunct Professor and Lecturer in the Department of Food, Nutrition and Packaging Sciences at Clemson University, where he also is a member of their Industry Advisory Board. His focus on achieving product and process innovation through training, team building and creating positive working environments has resulted in his being recognized with many awards for product and packaging innovation. Mr. Vander Zanden executive experience provides him with valuable business expertise, which the Board believes qualifies him to serve as a director of the Company.

Anthony Hayes

Mr. Anthony Hayes, a director and Chief Executive Officer since 2013, has served as the Chief Executive Officer of North South since March 2013 and since June 2013, as a consultant to our Company. Mr. Hayes was the fund manager of JaNSOME IP Management LLC and JaNSOME Patent Fund LP from August 2012 to August 2013, both of which he co-founded. Mr. Hayes was the founder and Managing Member of Atwater Partners of Texas LLC from March 2010 to August 2012 and a partner at Nelson Mullins Riley & Scarborough LLP from May 1999 to March 2010. Mr. Hayes received his Juris Doctorate from Tulane University School of Law and his B.A. in economics from Mary Washington College. The Board believes Mr. Hayes is qualified to serve as a director of the Company based on his intimate knowledge of the Company through his service as Chief Executive Officer. On March 10, 2017, as a result of Mr. Frank Reiner's resignation as Chief Financial Officer, Mr. Hayes began serving as the Company's Principal Accounting Officer.

Tim S. Ledwick

Mr. Tim S. Ledwick, who joined as a director in 2015, is currently the Chief Financial Officer of Management Health Solutions, a private equity-backed company that provides software solutions and services to hospitals focused on reducing costs through superior inventory management practices. In addition, since 2012 he has served on the board and as Chair of the Audit Committee of Telkonet, Inc. (TKOI) a smart energy management technology company. From 2007 to 2011, Mr. Ledwick provided CFO consulting services to AdvantageResourcing (former Advantage Human Resourcing, Inc.) a $150 million services firm and, in addition, from 2007-2008 also acted as special advisor to The Dellacorte Group, a middle market financial advisory firm focused on transactions between $100 million and $1 billion. From 2002 through 2006, Tim was a member of the Board of Directors and Executive Vice President-CFO of Dictaphone Corporation playing a lead role in developing a business plan which revitalized the company, resulting in the successful sale of the firm and delivering a seven times return to shareholders. From 2001-2002, Mr. Ledwick was brought on as CFO to lead the restructuring efforts of Lernout & Hauspie Speech Products, a Belgium-based Nasdaq listed speech technology company, whose market cap had at one point reached a high of $9 billion. From 1999 through 2001, he was CFO of Cross Media Marketing Corp, an $80 million public company headquartered in New York City, playing a lead role in the firm's acquisition activity, tax analysis and capital raising. Mr. Ledwick is a member of the Connecticut Society of Certified Public Accountants and received his B.B.A. in accounting from The George Washington University and his M.S. in Finance from Fairfield University. The Board of Directors believes that Mr. Ledwick's executive experience and financial expertise qualifies him to serve as a director of the Company.

Paul LeMire

Mr. LeMire, who joined as a member of our Board of Directors in 2020, is a high-performing investment sales manager and product specialist with 25 years of verifiable success in positioning investment management solutions across multiple channels. Mr. LeMire currently serves as the Managing Director of National Sales at Day Hagan Asset Management where he is responsible for managing the firm's asset management business. Before joining Day Hagan Asset Management, Mr. LeMire was a Senior Regional Vice President for State Street Global Advisors and served in various other Vice President positions at Invesco, Old Mutual Investment Partners, Oppenheimer Funds and CitiGroup. Mr. LeMire holds a Master of Science degree in Mechanical Engineering from Polytechnic University, a Master of Business Administration from Adelphia University and a Bachelor of Science degree from Manhattan College. The Board of Directors believes that Mr. LeMire's executive experience and financial expertise qualifies him to serve as a director of the Company.

Robert Dudley

Mr. Dudley, who joined as a member of our Board of Directors in 2020, currently serves as the Eastern Division and Metropolitan New York City Regional Sales Manager for Select Sector Standard & Poor's Depositary Receipts ("SPDRs"). Prior to joining Select Sector SPDRs in 2008, Mr. Dudley held several managerial positions at Merrill Lynch within from 1981 through 2007. Mr. Dudley began his career in the Merrill Lynch White Weld Capital Markets in Corporate Bond Syndicate, later moving to Sales Manager for Taxable Fixed Income and Equity Marketing. Later, Mr. Dudley managed Merrill Lynch Consults for the New York City District and ended his career as a Financial Advisor and Sales Manager at the Merrill Lynch Rockefeller Center Branch office. The Board of Directors believes that Mr. Dudley's executive experience and financial expertise qualifies him to serve as a director of the Company.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act, requires our directors and executive officers, and anyone who beneficially owns ten percent (10%) or more of our Common Stock, to file with the SEC initial reports of beneficial ownership and reports of changes in beneficial ownership of Common Stock. Anyone required to file such reports also need to provide us with copies of all Section 16(a) forms they file.

Based solely upon a review of (i) copies of the Section 16(a) filings received during or with respect to 2020 and (ii) certain written representations of our officers and directors, we believe that all filings required to be made pursuant to Section 16(a) of the Exchange Act during and with respect to 2020 were filed in a timely manner.

Code of Ethics

We have adopted a Code of Ethics, which is available on our website at www.aikidopharma.com.

Audit Committee

We have a standing Audit Committee. The Audit Committee members are Mr. Ledwick, Chair, Dr. Vander Zanden and Mr. Gregory Blattner. The Audit Committee has authority to review our financial records, deal with our independent auditors, recommend financial reporting policies to the Board of Directors, and investigate all aspects of our business. The Audit Committee Charter is available for your review on our website at www.spherix.com. Each member of the Audit Committee satisfies the independence requirements and other criteria established by NASDAQ and the SEC applicable to audit committee members. The Board of Directors has determined that Mr. Ledwick meets the requirements of an audit committee financial expert as defined in the SEC and NASDAQ rules.

Item 11. EXECUTIVE COMPENSATION

The following Summary of Compensation table sets forth the compensation paid by our Company during the two years ended December 31, 2020, to all Executive Officers or employees earning in excess of $100,000 during any such year.

Summary of Compensation

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)(1)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Anthony Hayes, Chief Executive Officer, Director, Principal Accounting Officer and Principal Financial Officer	2020	395,341	700,000	-	26,910	-	-	-	1,122,251
	2019	350,000	-	-	-	-	-	-	350,000
Darrell Dotson, VP of Drug Development & General Counsel	2020	218,750	100,000	-	-	-	-	-	318,750
	2019	125,000	-	-	-	-	-	-	125,000

(1) Awards pursuant to the Spherix Incorporated 2013 Incentive Compensation Plan and 2014 Plan.

Narrative Disclosure to Summary Compensation Table

Employment Agreements

Anthony Hayes

On April 1, 2016, we entered into an employment agreement with Mr. Anthony Hayes pursuant to which Mr. Hayes serves as the Chief Executive Officer for a period of one year, subject to renewal. In consideration for his employment, we agreed to pay Mr. Hayes a base salary of $350,000 per annum. Mr. Hayes will be entitled to receive an annual bonus in an amount equal to up to 100% of his base salary if we meet or exceed certain criteria adopted by our Compensation Committee. We further agreed to grant executive restricted stock units, pursuant to the Corporation's 2014 Equity Incentive Plan, with respect to 118,512 shares of the Company's common stock. One-half of the grant shall vest if as of December 31, 2016, the Corporation has pro-forma cash of at least five million dollars ($5,000,000) (cash plus any cash used for a Board-approved extraordinary acquisition or transaction reconstituting the Company's core operations, less accrued bonuses) and one-half shall vest upon the Company meeting certain agreed upon criteria. As of December 31, 2020, 59,256 restricted stock units were vested and 59,256 restricted stock units were forfeited.

On October 19, 2017, the Company entered into an amendment to the employment agreement of Mr. Hayes, pursuant to which, effective January 1, 2017, Mr. Hayes was entitled to receive an annual cash bonus in an amount equal to up to $250,000 if the Company meets or exceeds certain criteria adopted by the Compensation Committee of the Company's Board of Directors. In addition, Mr. Hayes was awarded a restricted stock unit grant for 30,000 shares of the Company's common stock under the Company's 2014 Equity Incentive Plan. Such grant shall vest in installments, in tandem with the satisfaction of the same criteria to which the cash bonus is subject. If all criteria are met, 100% of the grant of restricted stock units shall vest upon the determination of the Compensation Committee, which in any event shall not be later than March 15, 2018. All other terms of Mr. Hayes' employment agreement, effective as of April 1, 2016, remain in full force and effect.

Under the April 1, 2016 employment agreement with Mr. Hayes, we have agreed to, in the event of termination by us without "cause" or pursuant to a change in control, grant Mr. Hayes, in addition to reimbursement of any documented, unreimbursed expenses incurred prior to such date, (i) any unpaid compensation and vacation pay accrued during the term of the Employment Agreement, and any other benefits accrued to him under any of our benefit plans outstanding at such time, (ii) twelve (12) months base salary at the then current rate to be paid in a single lump sum within thirty (30) days of Mr. Hayes' termination, (iii) continuation for a period of twelve (12) months of any benefits as extended to our executive officers from time to time, including but not limited to group health care coverage and (iv) payment on a pro rata basis of any annual bonus or other payments earned in connection with any bonus plans to which Mr. Hayes was a participant as of the date of termination. In addition, any options or restricted stock shall be immediately vested upon termination of Mr. Hayes's employment without "cause" or pursuant to a change in control.

Darrell Dotson

On January 1, 2017, we entered into an employment agreement with Mr. Darrell Dotson pursuant to which Mr. Dotson serves as the Vice President, for a period of three months, which shall automatically be extended for three months unless either party provides notice of non-renewal. In consideration for his employment, we agreed to pay Mr. Dotson a base salary of $125,000 per annum. Mr. Dotson will be entitled to receive an annual bonus in an amount equal to up to 50% of his base salary if we meet or exceed certain criteria adopted by our Compensation Committee. We further agreed to grant executive restricted stock units, pursuant to the Corporation's 2014 Equity Incentive Plan, in addition to the cash bonus, upon confirmation by the compensation committee.

On March 24, 2020, we entered into an amendment to the employment agreement of Mr. Dotson pursuant to which Mr. Dotson was entitled to receive a base salary of $250,000 per annum.

Under the January 1, 2017 employment agreement with Mr. Dotson, we have agreed to, in the event of termination by us without “cause” or pursuant to a change in control, grant Mr. Dotson, in addition to reimbursement of any documented, unreimbursed expenses incurred prior to such date, (i) a cash payment of $250,000 and any unpaid compensation and vacation pay accrued during the term of his employment agreement, and any other benefits accrued to him under any of our benefit plans outstanding at such time, (ii) continuation for a period of twelve (12) months of any benefits as extended to our executive officers from time to time, including but not limited to group health care coverage and (iii) payment on a pro rata basis of any annual bonus or other payments earned in connection with any bonus plans to which Mr. Dotson was a participant as of the date of termination. In addition, any options or restricted stock shall be immediately vested upon termination of Mr. Dotson employment without “cause” or pursuant to a change in control.

Outstanding Equity Awards at December 31, 2020

	Option Awards			
Name	**Number of Securities Underlying Unexercised Options (#) Exercisable**	**Number of Securities Underlying Unexercised Options (#) Unexercisable**	**Option Exercise Price ($)**	**Option Expiration Date**
Anthony Hayes	9,290	-	$ 571.71	4/1/2023
	930	-	$ 8.42	5/2/2021
	930	-	$ 4.34	5/30/2022
	25,000	25,000	$ 0.64	12/23/2030
Darrell Dotson	1,240	-	$ 108.21	8/1/2024

Director Compensation

The following table summarizes the compensation paid to non-employee directors during the year ended December 31, 2020.

	Fees earned or paid in cash ($)	Stock Awards ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Eric Weisblum (2)	15,000						15,000
Robert J. Vander Zanden (3)	70,000	-	26,910	-	-	-	96,910
Tim Ledwick (4)	60,000	-	26,910	-	-	-	86,910
Gregory Blattner (5)	60,000	-	26,910	-	-	-	86,910
Paul LeMire (6)	42,033	-	26,910	-	-	-	68,943
Robert Dudley (7)	42,033	-	26,910	-	-	-	68,943

(1) All stock options were granted in accordance with ASC Topic 718.

(2) Mr. Weisblum was paid $15,000 in cash compensation for his service as a director in 2020. Effective April 17, 2020, Mr. Weisblum resigned as a director and member of the Audit, Compensation and Nomination Committees of the Company.

(3) Mr. Vander Zanden was paid $70,000 in cash compensation for his service as a director in 2020. In addition, in December 2020, Mr. Vander Zanden was granted options to purchase 50,000 shares of Common Stock, with a term of ten years and an exercise price of $0.64, vesting with 50% vesting immediately and the remaining 50% vesting on the six months anniversary of the date of issue.

(4) Mr. Ledwick was paid $60,000 in cash compensation for his service as a director in 2020. In addition, in December 2020, Mr. Ledwick was granted options to purchase 50,000 shares of Common Stock, with a term of ten years and an exercise price of $0.64, vesting with 50% vesting immediately and the remaining 50% vesting on the six months anniversary of the date of issue.

(5) Mr. Blattner was paid $60,000 in cash compensation for his service as a director in 2020. In addition, in December 2020, Mr. Blattner was granted options to purchase 50,000 shares of Common Stock, with a term of ten years and an exercise price of $0.64, vesting with 50% vesting immediately and the remaining 50% vesting on the six months anniversary of the date of issue.

(6) Mr. LeMire was paid $42,033 in cash compensation for his service as a director in 2020. In addition, in December 2020, Mr. LeMire was granted options to purchase 50,000 shares of Common Stock, with a term of ten years and an exercise price of $0.64, vesting with 50% vesting immediately and the remaining 50% vesting on the six months anniversary of the date of issue.

(7) Mr. Dudley was paid $42,033 in cash compensation for his service as a director in 2020. In addition, in December 2020, Mr. Dudley was granted options to purchase 50,000 shares of Common Stock, with a term of ten years and an exercise price of $0.64, vesting with 50% vesting immediately and the remaining 50% vesting on the six months anniversary of the date of issue.

Non-employee directors received the following annual compensation for service as a member of the Board for the fiscal year ended December 31, 2020:

Annual Retainer	$	60,000	To be paid in cash in four equal quarterly installments.
Additional Retainer	$	5,000	To be paid to the Chairman of the Board upon election annually.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT, AND RELATED STOCKHOLDERS

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information about our Common Stock that may be issued upon the exercise of options, warrants and rights under all of our existing equity compensation plans as of December 31, 2020.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (1)) (2)
Equity compensation plans approved by security holder	384,304	$ 40.15	4,650,494
Equity compensation plans not approved by security holder	-	-	-
	384,304		4,650,494

(1) Consists of options to acquire 24,840 shares of our common stock under the 2013 Equity Incentive Plan and 359,464 under the 2014 Equity Incentive Plan.

(2) Consists of shares of Common Stock available for future issuance under our equity incentive plans.

Beneficial Ownership of our Capital Stock by Certain Beneficial Owners and Management

The following tables set forth certain information concerning the number of shares of our Common Stock, Series D Preferred Stock and Series D-1 Preferred Stock owned beneficially as of March 25, 2021 by (i) our officers and directors as a group and (ii) each person (including any group) known to us to own more than 5% of our Common Stock, Series D Preferred Stock and Series D-1 Preferred Stock. As of March 25, 2021 there were 88,906,146 shares of Common Stock outstanding, 4,725 shares of Series D Preferred Stock outstanding and 834 shares of Series D-1 Preferred Stock outstanding. Unless otherwise indicated, it is our understanding and belief that the stockholders listed possess sole voting and investment power with respect to the shares shown.

	Common Stock Beneficially Owned		Series D Preferred Stock		Series D-1 Preferred Stock	
Name of Beneficial Owner(1)	**Shares**	**Percentage**	**Shares**	**Percentage**	**Shares**	**Percentage**
Robert J. Vander Zanden	44,499(2)	*	—	—	—	—
Anthony Hayes	48,430(3)	*	—	—	—	—
Tim S. Ledwick	45,685(4)	*	—	—	—	—
Paul LeMire	25,000(5)	*				
Robert Dudley	25,000(6)	*				
Gregory James Blattner	36,766(7)	*				
All Directors and Officers as a Group (6 persons)	225,380	*	—	—	—	—
Stockholders						
Daniel W. Armstrong 611 Loch Chalet Ct Arlington, TX 76012-3470	—	—	1,350	28.57%	—	—
R. Douglas Armstrong 570 Ocean Dr. Apt 201 Juno Beach, FL 33408-1953	—	—	450	9.52%	—	—
Thomas Curtis 4280 10 Oaks Road Dayton, MD 21036-1124	—	—	900	19.05%	—	—
Francis Howard 376 Victoria Place London, SW1 V1AA United Kingdom	—	—	900	19.05%	—	—
Charles Strogen 6 Winona Ln Sea Ranch Lakes, FL 33308-2913	—	—	1,125	23.81%	—	—
Chai Lifeline Inc. 151 West 30th Street, Fl 3 New York, NY 10001-4027	—	—	—	—	834	100%

* Less than 1% of the outstanding shares of the Company Common Stock.

(1) Under Rule 13d-3 of the Exchange Act a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise has or shares: (i) voting power, which includes the power to vote or to direct the voting of shares; and (ii) investment power, which includes the power to dispose or direct the disposition of shares. Certain shares may be deemed to be beneficially owned by more than one person (if, for example, persons share the power to vote or the power to dispose of the shares). In addition, shares are deemed to be beneficially owned by a person if the person has the right to acquire the shares (for example, upon exercise of an option) within 60 days of the date as of which the information is provided. In computing the percentage ownership of any person, the amount of shares outstanding is deemed to include the amount of shares beneficially owned by such person (and only such person) by reason of these acquisition rights.

(2) Includes 4,944 shares of Common Stock and 39,555 options for purchase of Common Stock exercisable as of March 25, 2021.

(3) Includes 12,280 shares of Common Stock and 36,150 options for purchase of Common Stock exercisable as of March 25, 2021.

(4) Includes 7,059 shares of Common Stock and 38,626 options for purchase of Common Stock exercisable as of March 25, 2021.

(6) Includes 25,000 options for purchase of Common Stock exercisable as of January 30, 2021.

(7) Includes 25,000 options for purchase of Common Stock exercisable as of January 30, 2021.

(8) Includes 36,766 options for purchase of Common Stock exercisable as of January 30, 2021.

Effective March 23, 2020, and as amended and restated on November 24, 2020, the Company and Continental Stock Transfer & Trust Co. (the "Rights Agreement") The Rights Agreement provides each stockholder of record a dividend distribution of one "right" for each outstanding share of Common Stock. Rights become exercisable at the earlier of ten days following: (1) a public announcement that an acquirer has purchased or has the right to acquire 4.99% or more of our Common Stock, in connection with, (x) the Company consolidating, or merging into any other person, (y) any person consolidates or merges with or into the Company or (z) the Company sells or otherwise transfers to any person or persons, in one or more transactions, assets or earning power aggregating 50% or more of the assets or earning power of the Company, or (2) the commencement of a tender offer which would result in an offer or beneficially owning 10% or more of our outstanding Common Stock. All rights held by an acquirer or offer or expire on the announced acquisition date, and all rights expire at the close of business on March 23, 2023, subject to further extension. Each right entitles a stockholder to acquire, at a price of $5.00 per one one-thousandth of a share of our Series A Preferred Stock, subject to adjustments, which carries voting and dividend rights similar to one share of our Common Stock. The purchase price of the preferred stock fractional amount is subject to adjustment for certain events as described in the Rights Agreement. At the discretion of a majority of the Board of Directors and within a specified time period, we may redeem all of the rights at a price of $0.0001 per right. The Board may also amend any provisions of the Rights Agreement prior to exercise.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The current Board of Directors consists of Mr. Tim S. Ledwick, Mr. Anthony Hayes, Dr. Robert J. Vander Zanden, Mr. Robert Dudley, Mr. Paul LeMire, and Mr. Gregory James Blattner. The Board of Directors has determined that Dr. Vander Zanden, Mr. Ledwick, Mr. Weisblum and Mr. Blattner are independent directors within the meaning of the applicable NASDAQ rules. Our Audit, Compensation, and Nominating Committees consist solely of independent directors.

We have not adopted written policies and procedures specifically for related person transactions. Our Board of Directors is responsible to approve all related party transactions, and approved each of the transactions set forth above.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Fees Paid to Auditor

The following table sets forth the fees paid by our Company to Marcum LLP for audit and other services provided in 2020 and 2019.

	2020	2019
Audit Fees	$ 163,770	$ 227,630
Audit Related Fees	-	-
Tax Fees	-	-
All Other Fees	-	-
Total	163,770	227,630

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors

Consistent with SEC policies and guidelines regarding audit independence, the Audit Committee is responsible for the pre-approval of all audit and permissible non-audit services provided by our principal accountants. Our Audit Committee has established a policy regarding approval of all audit and permissible non-audit services provided by our principal accountants. No non-audit services were performed by our principal accountants during the fiscal years ended December 31, 2020 and 2019. Our Audit Committee pre-approves these services by category and service. Our Audit Committee has pre-approved all of the services provided by our principal accountants.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENTS, SCHEDULES

Consolidated Financial Statements

The following financial statements are included in Item 8 herein:

2. **Financial Statement Schedules**

None

Exhibits

Exhibit No.	Description
1.1	Underwriting Agreement, dated July 18, 2017, by and between Spherix Incorporated and Laidlaw & Co. (UK) Ltd (incorporated by reference to Form 8-K filed July 24, 2017)
1.2	Placement Agency Agreement, dated July 15, 2015, by and between Spherix Incorporated and Chardan Capital Markets LLC (incorporated by reference to Form 8-K filed July 17, 2015)
3.1	Amended and Restated Certificate of Incorporation of Spherix Incorporated, dated April 24, 2014 (incorporated by reference to Form 8-K filed April 25, 2014)
3.2	Certificate of Amendment of the Amended and Restated Certificate of Incorporation of Spherix Incorporated, dated March 2, 2016 (incorporated by reference to Form 8-K filed March 18, 2016)
3.3	Amended and Restated Bylaws of Spherix Incorporated (incorporated by reference to Form 8-K filed October 15, 2013)
3.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Spherix Incorporated, effective March 4, 2016 (incorporated by reference to Form 10-K filed March 29, 2016)
4.1	Specimen Certificate for common stock, par value $0.0001 per share, of Spherix Incorporated (incorporated by reference to Form S-3/A filed April 17, 2014)
4.2	Rights Agreement, dated as of January 24, 2013, by and between Spherix Incorporated and Equity Stock Transfer, LLC (incorporated by reference to Form 8-K filed January 30, 2013)
4.3	Amended and Restated Rights Agreement, dated as of June 9, 2017, by and between Spherix Incorporated and Transfer Online Inc. (incorporated by reference to Form 8-K filed June 9, 2017)
4.4	Certificate of Designation of Preferences, Rights and Limitations of Series J Convertible Preferred Stock (incorporated by reference to Form 8-K/A filed on June 2, 2014)
4.5	Certificate of Designation of Preferences, Rights and Limitations of Series K Convertible Preferred Stock (incorporated by reference to Form 8-K filed on December 3, 2015)
4.6	Form of Warrant (incorporated by reference to Form 8-K filed on March 26, 2014)
4.7	Form of Placement Agent Warrant (incorporated by reference to Form 8-K filed on March 26, 2014)
4.8	Form of Common Stock Purchase Warrant (incorporated by reference to Form 8-K filed July 17, 2015)
4.9	Form of Warrant (incorporated by reference to Form 8-K filed December 3, 2015)
10.1	2012 Equity Incentive Plan (incorporated by reference from the Company's Information Statement on Definitive 14C filed November 26, 2012)

10.2	Warrant Exchange Agreement, dated March 1, 2013, by and among the Company and certain investors (incorporated by reference to Form 8-K filed March 7, 2013)
10.3	Agreement and Plan of Merger, dated April 2, 2013 (incorporated by reference to the Form 8-K filed on April 4, 2013)
10.4	First Amendment to Agreement and Plan of Merger, dated August 30, 2013 (incorporated by reference to the Form 8-K filed on September 4, 2013)
10.5	Spherix Incorporated 2013 Equity Incentive Plan (incorporated by reference to the Form 8-K filed on April 4, 2013)
10.6	Spherix Incorporated 2014 Equity Incentive Plan (incorporated by reference from the Company's Proxy Statement on Form DEF 14A filed December 20, 2013)
10.7	Amendment to Spherix Incorporated 2014 Equity Incentive Plan (incorporated by reference from the Company's Proxy Statement on Form DEF 14A filed March 28, 2014)
10.8	Form of Indemnification Agreement (incorporated by reference to the Form 8-K filed on September 10, 2013)
10.9	Employment Agreement, by and between Spherix Incorporated and Anthony Hayes (incorporated by reference to the Form 8-K filed on September 13, 2013)
10.10	Indemnification Agreement, by and between Spherix Incorporated and Jeffrey Ballabon (incorporated by reference to the Form 8-K filed on June 13, 2014)
10.11**	Patent Purchase Agreement, by and between Spherix Incorporated and Rockstar Consortium US LP, including Amendment No. 1 thereto (incorporated by reference to the Form 8-K/A filed on November 19, 2013)
10.12	Form of Series F Exchange Agreement (incorporated by reference to the Form 8-K filed on November 26, 2013)
10.13	Form of Series D Exchange Agreement (incorporated by reference to the Form 8-K filed on December 30, 2013)
10.14	Confidential Patent Purchase Agreement, dated December 31, 2013, by and between Spherix Incorporated and Rockstar Consortium US LP (incorporated by reference to the Form S-1/A filed January 21, 2014)
10.15	Form of Subscription Agreement (incorporated by reference to the Form 8-K filed March 26, 2014)
10.16	Form of Registration Rights Agreement (incorporated by reference to the Form 8-K filed March 26, 2014)
10.17	Form of Subscription Agreement (incorporated by reference to the Form 8-K filed on May 29, 2014)
10.18	Letter of Agreement, dated January 6, 2014, by and between Spherix Incorporated and Chord Advisors, LLC (incorporated by reference to the Form 10-K filed on March 30, 2015)
10.19	Letter of Agreement, dated April 11, 2014, by and between Spherix Incorporated and Chord Advisors, LLC (incorporated by reference to the Form 10-K filed on March 30, 2015)

10.20	Securities Purchase Agreement, dated July 15, 2015, by and among Spherix Incorporated and the purchasers party thereto (incorporated by reference to Form 8-K filed July 17, 2015)
10.21	Employment Agreement, dated as of March 14, 2014, by and between Spherix Incorporated and Frank Reiner (incorporated by reference to Form 10-K filed March 29, 2016)
10.22	Amendment to Employment Agreement, dated as of June 30, 2015, by and between Spherix Incorporated and Frank Reiner (incorporated by reference to Form 10-K filed March 29, 2016)
10.23	Settlement and License Agreement, dated October 13, 2015, by and between Spherix Incorporated and Huawei Technologies Co., Ltd. (incorporated by reference to Form 10-K filed March 29, 2016)
10.24	Patent License Agreement, dated as of November 23, 2015, by and between Spherix Incorporated and RPX Corporation (incorporated by reference to Form 8-K filed November 30, 2015
10.25	Securities Purchase Agreement, dated as of December 2, 2015, by and among Spherix Incorporated and the investors party thereto (incorporated by reference to Form 8-K filed December 3, 2015)
10.26	Engagement Agreement, dated September 16, 2015, as amended, by and between Spherix Incorporated and H.C. Wainwright & Co., LLC (incorporated by reference to Form 8-K filed December 3, 2015)
10.27	Employment Agreement, effective as of April 1, 2016, by and between Spherix Incorporated and Anthony Hayes (incorporated by reference to Form 8-K filed May 26, 2016)
10.28	Amendment to Employment Agreement, by and between Spherix Incorporated and Anthony Hayes (incorporated by reference to the Form 8-K filed on October 25, 2017)
10.29	Separation Agreement and Release, dated March 10, 2017, by and between Spherix Incorporated and Frank Reiner (incorporated by reference to Form 8-K filed March 15, 2017)
10.30	Patent License Agreement, dated as of May 23, 2016, by and between Spherix Incorporated and RPX Corporation (incorporated by reference to Form 10-Q filed August 15, 2016)
10.31	Technology Monetization Agreement, dated as of March 11, 2016, and amended as of April 22, 2016, April 27, 2016 and May 22, 2016, by and between Spherix Incorporated and Equitable IP Corporation (incorporated by reference to Form 8-K filed August 2, 2016)
10.32	Underwriting Agreement, dated as of August 2, 2016, by and among Spherix Incorporated and the underwriters named on Schedule I thereto (incorporated by reference to Form 8-K filed August 3, 2016)
10.33	Assignment and Assumption of Rights Agreement, dated as of June 16, 2016, by and between Spherix Incorporated and Transfer Online, Inc. (incorporated by reference to Form 8-K filed June 21, 2016)
10.34	Securities Purchase Agreement, dated as of June 30, 2017, by and between Spherix Incorporated and Hoth Therapeutics, Inc. (incorporated by reference to Form 8-K filed July 3, 2017)
10.35	Registration Rights Agreement, dated as of June 30, 2017, by and between Spherix Incorporated and Hoth Therapeutics, Inc. (incorporated by reference to Form 8-K filed July 3, 2017)

10.36	Form of Shareholders Agreement, dated as of June 30, 2017 (incorporated by reference to Form 8-K filed July 3, 2017)
10.37	Agreement and Plan of Merger, dated as of March 12, 2018, by and among Spherix Incorporated, Spherix Merger Subsidiary Inc., DatChat, Inc. and Darin Myman (incorporated by reference to Form 8-K filed March 14, 2018)
10.38	Placement Agency Agreement, dated as of March 14, 2018, by and between Spherix Incorporated and Laidlaw & Company (UK) Ltd. (incorporated by reference to Form 8-K filed March 19, 2018)
10.39	Assignment of Agreement, dated as of November 13, 2019, by and among The University of Texas in Austin, on behalf of the Board of Regents of the University of Texas, CBM BioPharma, Inc. and Spherix Incorporated (incorporated by reference to Form S-1 filed January 31, 2020)
10.40	Assignment of Agreement, dated as of November 13, 2019, by and among Wake Forest University Health Sciences, CBM BioPharma, Inc. and Spherix Incorporated (incorporated by reference to Form S-1 filed January 31, 2020)
10.41	First Amendment to Agreement and Plan of Merger, dated as of May 3, 2018, by and among Spherix Incorporated, Spherix Merger Subsidiary Inc., DatChat, Inc. and Darin Myman (incorporated by reference to Form 8-K filed May 7, 2018)
10.42	Agreement and Plan of Merger, dated as of October 10, 2018, by and among Spherix Incorporated, Spherix Delaware Merger Sub Inc., Scott Wilfong and CBM Biopharma, Inc. (incorporated by reference to Form 8-K filed October 16, 2018)
10.43	At The Market Offering Agreement, dated as of August 9, 2019, by and between Spherix Incorporated and H.C. Wainwright & Co., LLC (incorporated by reference to Form 8-K filed August 9, 2019)
10.44	Asset Purchase Agreement, dated as of May 15, 2019, by and between the Company and CBM BioPharma, Inc. (incorporated herein by reference to Form 10-Q filed on August 14, 2019)
10.45	Amendment No. 1 to Asset Purchase Agreement, dated as of May 30, 2019, by and between the Company and CBM BioPharma, Inc. (incorporated herein by reference to Form 10-Q filed on August 14, 2019)
10.46	Amendment No. 2 to Asset Purchase Agreement, dated as of December 5, 2019, by and between the Company and CBM BioPharma, Inc. (incorporated herein by reference to Form 8-K filed on December 10, 2019)
10.47	Form of Placement Agent's Warrant (incorporated by reference to Form 8-K filed on March 10, 2020)
10.48	Form of Securities Purchase Agreement (incorporated by reference to Form 8-K filed on March 10, 2020)
10.49	Certificate of Designation of Series L Preferred Stock of AIkido Pharma Inc. (incorporated by reference to Form 8-K filed on March 25, 2020)
10.50	Rights Agreement, dated March 23, 2020, by and between AIkido Pharma Inc. and VStock Transfer, LLC (incorporated by reference to Form 8-K filed on March 25, 2020)

10.51	Form of Securities Purchase Agreement (incorporated by reference to Form 8-K filed on April 15, 2020)
10.52	Form of Placement Agent's Warrant (incorporated by reference to Form 8-K filed on April 15, 2020)
10.53	Certificate of Designation of Series M Preferred Stock (incorporated by reference to Form 8-K filed on January 11, 2021)
10.54	Securities Purchase Agreement bt and between Convergent Therapeutics, Inc. and AIkido Pharma Inc., dated January 29, 2021 (incorporated by reference to Form 8-K filed February 3, 2021)
10.55	Convertible Promissory Note, dated January 29, 2021 (incorporated by reference to Form 8-K filed February 3, 2021)
10.56	Amended and Restated Underwriting Agreement by and between the Company and H.C. Wainwright & Co., LLC, dated February 16, 2021 (incorporated by reference to Form 8-K filed on February 18, 2021)
10.48	Form of Underwriter's Warrant (incorporated by reference to Form 8-K filed on February 18, 2021)
21.1*	List of Subsidiaries
23.1*	Consent of Marcum LLP, independent registered public accounting firm
31.1*	Certification of Principal Executive Officer pursuant to Item 601(b)(31) of Regulation S-K, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** Pursuant to a Confidential Treatment Request under Rule 24b-2 filed with and approved by the SEC, portions of this exhibit have been omitted

Item 16. Form 10-K Summary

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Aikido Pharma Inc.

(Registrant)

By: /s/ Anthony Hayes
Anthony Hayes
Chief Executive Officer and Director
(Principal Executive Officer,
Principal Financial Officer and
Principal Accounting Officer)

Date: March 25, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

/s/ Anthony Hayes Anthony Hayes	Chief Executive Officer and Director	March 25, 2021
/s/ Tim S. Ledwick Tim S. Ledwick	Director	March 25, 2021
/s/ Robert J. Vander Zanden Robert J. Vander Zanden	Chairman of the Board	March 25, 2021
/s/ Paul LeMire Paul LeMire	Director	March 25, 2021
/s/ Robert Dudley Robert Dudley	Director	March 25, 2021
/s/ Gregory James Blattner Gregory James Blattner	Director	March 25, 2021

Exhibit 21.1

List of Subsidiaries

Nuta Technology Corp
Spherix Portfolio Acquisition II (SPAII)
Guidance IP, LLC
Directional IP, LLC
NNPT, LLC
Spherix Management Services, LLC
Spherix Delaware Merger Sub Inc.
Spherix Merger Subsidiary Inc.

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of Aikido Pharma, Inc. (the "Company") on Form S-8 (File No. 333-210627, File No. 333-197429, File No. 333-187811, and File No. 333-185524), Form S-3 (File No. 333-238172) and Form S-1 (File No. 333-236199), of our report dated March 25, 2021 with respect to our audits of the consolidated financial statements of Aikido Pharma, Inc. as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020, which report is included in this Annual Report on Form 10-K of Aikido Pharma, Inc. for the year ended December 31, 2020.

/s/ Marcum LLP

Marcum LLP
New York, NY
March 25, 2021

Exhibit 31.1

Certification of Principal Executive, Financial and Accounting Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Anthony Hayes, certify that:

1. I have reviewed this report on Form 10-K of AIkido Pharma Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's Board of Directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Anthony Hayes
Anthony Hayes
Chief Executive Officer
(Principal Executive Officer,
Principal Financial Officer and
Principal Accounting Officer)
March 25, 2021

Exhibit 32.1

Certification of Principal Executive, Financial and Accounting Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

I, Anthony Hayes, Director, Chief Executive Officer, Principal Financial and Accounting Officer of AIkido Pharma Inc. (the "Company"), in compliance with Section 906 of the Sarbanes-Oxley Act of 2002, hereby certify that, to the best of my knowledge, the Company's Annual Report on Form 10-K for the period ended December 31, 2020 (the "Report") filed with the Securities and Exchange Commission:

- Fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

- The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Anthony Hayes
Anthony Hayes
Chief Executive Officer
(Principal Executive Officer,
Principal Financial Officer and
Principal Accounting Officer)
March 25, 2021

A signed copy of this written statement required by Section 906 has been provided to AIkido Pharma Inc. and will be retained by AIkido Pharma Inc. and furnished to the Securities and Exchange Commission or its staff upon request.