10-K 1 healthdis_10k-123120.htm FORM 10-K

Table of Contents

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

FORM 10-K

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

For the fiscal year ended December 31, 2020

or

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

For the transaction period from _____ to _____

Commission File No. 333-62216

HEALTH DISCOVERY CORPORATION

Georgia	**74-3002154**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

2002 Summit Blvd NE, Suite 300, Atlanta, Georgia 30319
(404) 566-4865
www.healthdiscoverycorp.com

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

Title of each class	Trading Symbol(s)	Name of exchange on which registered
Common stock, no par value	**HDVY**	**N/A**

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 Exchange Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) 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 definitions 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. Yes ☐ No ☒

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

As of June 30, 2020, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $4.5 million based on the closing sale price.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

Class:	Outstanding as of March 19, 2021:
Common stock, no par value	**404,044,937 shares**

HEALTH DISCOVERY CORPORATION

FORM 10-K

For the Fiscal Year Ended December 31, 2020

TABLE OF CONTENTS

PART I

ITEM 1. BUSINESS

Business Overview

Health Discovery Corporation (the "Company") is a pattern recognition company that uses advanced mathematical techniques to analyze large amounts of data to uncover patterns that might otherwise be undetectable. We operate primarily in the field of molecular diagnostics where such tools are critical to scientific discovery. The terms artificial intelligence ("AI") and machine learning are sometimes used to describe pattern recognition tools.

Our principal asset is our intellectual property, which includes advanced mathematical algorithms called Support Vector Machines ("SVM"), as well as biomarkers that we discovered by applying our SVM techniques to complex genetic and proteomic data. Biomarkers are biological indicators or genetic expression signatures of certain disease states. While our historical foundation lies in the molecular diagnostics field, where we have made a number of discoveries that play a role in developing more personalized approaches to the diagnosis and treatment of certain diseases, our SVM assets in particular have broad applicability in many other fields. Intelligently applied, our pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our business model has evolved over time to respond to business trends that intersect with our technological expertise and our capacity to professionally manage these opportunities. Today, our commercialization efforts include utilization of our discoveries and knowledge to help develop diagnostic and prognostic predictive tests; licensing of the SVM technologies directly to diagnostic companies; the potential formation of new ventures with domain experts in other fields where our pattern recognition technology holds commercial promise; and protecting our proprietary technology against infringement from others.

COVID-19

The COVID-19 pandemic continues to have widespread, evolving and unpredictable impacts on global society, economies, financial markets and business practices. Federal and state governments have implemented measures in an effort to contain the virus, including social distancing, travel restrictions, border closures, limitations on public gatherings, work from home, and closure of non-essential businesses. The COVID-19 pandemic has impacted and may continue to impact our business operations, including our employees, customers, and communities, and there is substantial uncertainty in the nature and degree of its continued effects over time.

The intense focus on COVID-19 has also led to the suspension of some research projects, which may impact our ability to form new contractual arrangements to exploit our technology. While the full potential economic impact brought by and the duration of the pandemic may be difficult to assess or predict, it has already caused, and is likely to result in further, significant disruption of our business. In addition, a recession, depression or other sustained adverse market event resulting from the coronavirus could materially and adversely affect our business and the value of our common stock.

The extent to which the COVID-19 pandemic continues to impact our business going forward will depend on numerous evolving factors which we cannot reasonably predict, including, but not limited to, the duration and scope of the pandemic. These factors may materially and adversely affect our business and financial condition.

Intellectual Property Developments and Patent Defense Matters

As previously disclosed in our 2019 Form 10-K, we submitted Patent Application Number 14/754,434 (the "Biomarker Patent") to the United States Patent and Trademark Office ("USPTO").

We subsequently announced that the USPTO has issued a Notice of Allowance of this Biomarker Patent covering the four-gene prostate cancer test developed using our proprietary SVM-RFE technology. The allowed claims cover a method for screening for and treating prostate cancer by measuring expression levels of the four genes within a patient sample compared to one or more reference genes and generating a prediction score based on the averaged relative expression levels. This Notice of Allowance is important after encountering the significant barriers to patenting of biomarkers that had been raised by the U.S. Supreme Court's controversial decisions in *Mayo Collaborative Services v. Prometheus Laboratories* and *Association for Molecular Pathology v. Myriad Genetics*. This Biomarker Patent complements the Company's already issued European Biomarker Patent that covers similar claims.

We believe that this Biomarker Patent demonstrates the ability of the Company's proprietary technology in the discovery and validation of biomarkers for diseases. We believe this same method can be applied to numerous different diseases and will explore opportunities with partners to deploy these same methods using our proprietary technology in biomarker discovery.

We hold the exclusive rights to 21 issued U.S. patents covering uses of SVM technology for discovery of knowledge from large data sets. The Company also has 1 pending U.S. patent application covering uses of the SVM technology as well as diagnostic methods that have been discovered using the SVM technology.

The following represents a listing of our patents as of December 31, 2020:

Patent/Application No.	Title	Expiration Date
U.S. Patent No. 6,996,549	Computer-Aided Image Analysis	04/21/2021
U.S. Patent No. 7,117,188	Methods of Identifying Patterns in Biological Systems and Uses Thereof	03/09/2022
U.S. Patent No. 7,299,213	Method of Using Kernel Alignment to Extract Significant Features from a Large Dataset	03/01/2022
U.S. Patent No. 7,353,215	Kernels and Methods for Selecting Kernels for Use in a Learning Machine	05/07/2022
U.S. Patent No. 7,444,308	Data Mining Platform for Bioinformatics	06/25/2022
U.S. Patent No. 7,617,163	Kernels and Kernel Methods for Spectral Data	02/10/2023
U.S. Patent No. 7,970,718	Feature Selection and for Evaluating Features Identified as Significant for Classifying Data	01/24/2022
U.S. Patent No. 8,008,012	Biomarkers Downregulated in Prostate Cancer	01/24/2022
U.S. Patent No. 8,126,825	Method for Visualizing Feature Ranking of a Subset of Features for Classifying Data Using a Support Vector	05/20/2022
U.S. Patent No. 8,209,269	Kernels for Identifying Patterns in Datasets Containing Noise or Transformation Invariance	05/07/2022
U.S. Patent No. 8,293,469	Biomarkers Downregulated in Prostate Cancer	01/24/2022
U.S. Patent No. 8,682,810	Method and System for Analysis of Flow Cytometry Data Using Support Vector Machines	02/08/2029
U.S. Patent No. 9,336,430	Computer-Assisted Karyotyping	06/19/2033
U.S. Patent No. 9,952,221	Methods for Screening, Predicting and Monitoring Prostate Cancer	01/24/2022
U.S. Patent No. 10,402,685	Recursive Feature Elimination Method Using Support Vector Machines	06/07/2025
U.S. Patent Publication No. 2018/0321245	Methods for Screening, Predicting and Monitoring Prostate Cancer	01/24/2022
European Patent No. 1356421	Computer Aided Image Analysis	01/23/2022
European Patent No. 1459235	Methods of Identifying Patterns in Biological Systems and Uses Thereof	01/24/2022
Japanese Patent No. 5425814	Method and System for Analysis of Flow Cytometry Data Using Support Vector Machines	02/08/2029
European Patent No. 2373816	Methods for Screening, Predicting and Monitoring Prostate Cancer	12/04/2029
European Patent No. 2252889	Method and System for Analysis of Flow Cytometry Data Using Support Vector Machines	02/08/2029
European Patent No. 2862113	Computer-Assisted Karyotyping	06/19/2033

We also own intellectual property rights in U.S. patents covering Fractal Genomic Modeling ("FGM") technology. The FGM portfolio includes one issued patent:

Patent/Application No.	Title	Expiration Date
U.S. Patent No. 7,366,719	Method for the Manipulation, Storage, Modeling, Visualization and Quantification of Datasets	01/19/2021

Intel Matter

As previously disclosed in September 2016, the USPTO had declared an Interference between the Company's SVM-RFE Patent application and Intel Corporation's Patent No. 7,685,077, entitled "Recursive Feature Eliminating Method based on a Support Vector Machine". The Interference was an administrative proceeding within the USPTO used to determine which party was the first to invent an invention that was claimed in two (or more) independently owned patent applications. Subsequently, on February 27, 2019, the USPTO ruled in favor of the Company on the SVM-RFE Patent application. The Patent Trial and Appeal Board ("PTAB") of the USPTO issued its decision, finding that the Company is entitled to claim exclusive ownership rights to the SVM-RFE technology as set forth in the SVM-RFE Patent application that was filed to provoke the Interference. The decision ordered Intel Corporation's Patent No. 7,685,077 to be cancelled. The decision also dismissed Intel Corporation's motions challenging the validity of Health Discovery Corporation's pending claims and issued patents covering SVM-RFE.

In September 2019, the USPTO issued U.S. Patent No. 10,402,685 ("SVM-RFE Patent") for Health Discovery Corporation's patent application covering SVM-RFE. Health Discovery Corporation now owns four patents in the United States and five international patents related to SVM-RFE and is the sole owner of all patents related to SVM-RFE. Furthermore, the USPTO, granted a Patent Term Adjustment ("PTA") to the SVM-RFE Patent. The PTA is 1,785 days (almost 5 years), which is added to the normal 20-year-from-filing patent term. The USPTO granted this adjustment to offset delays that occurred within the USPTO during the examination process and interference proceedings. This means the SVM-RFE Patent term has been extended from August 7, 2020 to June 7, 2025.

As a result of the issuance of the SVM-RFE Patent, the Company now has the right to exclude others from developing, commercializing or licensing this patented technology without the uncertainty of the Interference or concerns over the ownership of the SVM-RFE patents. On July 23, 2020, the Company filed a patent infringement lawsuit against Intel. This infringement suit pertains to our SVM-RFE. The lawsuit was filed in the United States District Court for the Western District of Texas, Waco Division.

Our Competition

We conduct our business principally in the diagnostics industry in the field of biomarker discovery and image analysis. The diagnostics industry is highly fragmented, competitive and evolving. There is intense competition among countless healthcare, biotechnology and diagnostics companies attempting to discover potential new diagnostic products. These companies may:

- develop new diagnostic products before we or our collaborators are able to;
- develop diagnostic products that are more effective or cost-effective than those developed by us or our collaborators; or
- patent protect other intellectual property rights that would limit our ability to develop and commercialize our technology by limiting the ability to use, ours, or our collaborators', diagnostic products.

We compete with companies in the United States and abroad that are engaged in the development and commercialization of diagnostic tests that utilize biomarker discovery and image analysis techniques. These companies may develop products that are competitive with and/or perform the same or similar to the products offered by our collaborators or us.

Also, clinical laboratories may offer testing services that are competitive with the products sold by our collaborators or us. The testing services offered by clinical laboratories may be easier to develop and market than test kits developed by us or our collaborators because the testing services are not subject to the same clinical validation requirements that are applicable to FDA-cleared or approved diagnostic test kits.

While a number of companies perform biomarker discovery, we believe that our SVM and SVM-RFE technologies give us a distinct advantage over competing technologies. Neither classical statistical analysis nor neural networks (the competing technologies) can effectively handle the large amounts of inputs necessary to produce fully validated biomarkers and image analysis like our technology.

Governmental Regulation

Our business plan involves discovery in the field of molecular diagnostics. This early discovery process does not involve any governmental regulations or approvals. If we are successful in licensing our discoveries to other companies, FDA approvals may be required before the ultimate product may be sold to consumers. Our current plan is to require the companies licensing our discoveries or technologies to be responsible for the costs involved in such approvals. If we are not successful in licensing these discoveries on these terms or choose to take these discoveries to market ourselves, we may then be subject to applicable FDA regulations and would then bear the costs of such approvals.

We know of no current governmental regulations that will materially affect the Company’s current operations or products. However, if the FDA changes its current position, and decides to regulate laboratory-developed tests (LDT's) currently regulated by CLIA certification, this could materially affect the development costs and commercialization timelines for our products.

Employees

On December 31, 2020, we had three employees, two of which serve as executive officers.

Corporate Information

Our principal executive office is located at 2002 Summit Blvd, NE, Suite 300, Atlanta, Georgia, and the telephone number is (404) 566-4865. Our corporate website address is www.healthdiscoverycorp.com.

At our investor relations website, www.healthdiscoverycorp.com/news, we make available free of charge a direct link to our filings with the SEC, including but not limited to our Annual Report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to these reports. These reports are accessible soon after we file them with the SEC.

The information contained in, or that can be accessed through, our website is not a part of, and is not incorporated into, this or any other report we file with or furnish to the Securities and Exchange Commission (“SEC”).

ITEM 1A. RISK FACTORS

Forward-Looking Statements

This annual report on Form 10-K ("Report") contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 12E of the Securities Exchange Act of 1934, including or related to our future results, certain projections and business trends. Assumptions relating to forward-looking statements involve judgments with respect to, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond our control. When used in this Report, the words "estimate," "project," "intend," "believe," "expect" and similar expressions are intended to identify forward-looking statements. Although we believe that assumptions underlying the forward-looking statements are reasonable, any of the assumptions could prove inaccurate, and we may not realize the results contemplated by the forward-looking statement. Management decisions are subjective in many respects and susceptible to interpretations and periodic revisions based on actual experience and business developments, the impact of which may cause us to alter our business strategy or capital expenditure plans that may, in turn, affect our results of operations. In light of the significant uncertainties inherent in the forward-looking information included in this Report, you should not regard the inclusion of such information as our representation that we will achieve any strategy, objective or other plans. The forward-looking statements contained in this Report speak only as of the date of this Report as stated on the front cover, and we have no obligation to update publicly or revise any of these forward-looking statements. These and other statements which are not historical facts are based largely on management's current expectations and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those contemplated by such forward-looking statements. These risks and uncertainties include, among others, the failure to successfully develop a profitable business, delays in identifying customers, and the inability to retain a significant number of customers, as well as the risks and uncertainties described in "Risk Factors" section below.

Risks Related to Our Business

Our financial statements have been prepared on a going concern basis.

We have prepared our financial statements on a "going concern" basis, which presumes that we will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future.

Our ability to continue as a going concern is dependent upon our licensing arrangements with third parties, achieving profitable operations, obtaining additional financing and successfully bringing our technologies to the market. The outcome of these matters cannot be predicted at this time. Our financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should we be unable to continue in business.

If the going concern assumption was not appropriate for our financial statements then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used. Such adjustments may be material.

At December 31, 2020, we had approximately $917,000 cash on hand. The Company estimates cash will be depleted by the first quarter of 2022 unless the Company is able to generate sufficient revenue from operations. See Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations for additional disclosure regarding our liquidity and capital resources.

We are likely to incur future losses, and we may never sustain profitability.

Our expenses are expected to exceed our income until we successfully complete transactions resulting in significant revenue. Accordingly, our capital will be decreased to pay these operating expenses. If we ever become profitable, of which there is no assurance that we can, from time to time our operating expenses could exceed our income and thus our capital will be decreased to pay these operating expenses. Even if we do achieve profitability, we may not be able to sustain or increase profitability.

We will need additional financing.

We will be required to raise additional capital to finance our activities. We cannot assure prospective investors that we will not need to raise additional capital or that we would be able to raise sufficient additional capital on favorable terms, if at all. There can be no assurance that additional financing will be available, if required, on terms acceptable to us. If we fail to raise sufficient funds or do not increase our revenues from licensing our technology or performing services, we may have to cease operations or materially curtail our business operations. If we raise additional capital by issuing equity securities, our stockholders may experience dilution. If we raise additional funds through collaboration and licensing arrangements, we may be required to relinquish some rights to our technologies or product candidates or grant licenses on terms that are not favorable to us.

Our operating results are unpredictable and may fluctuate significantly from period to period, which may cause our stock price to decline and result in losses to investors.

Our operating results may vary from period to period due to numerous factors, many of which are outside our control, including the number, timing and acceptance of our services. Factors that may cause our results to vary by period include:

- payments of milestones, license fees or research payments under the terms of external alliances;
- changes in the demand for our products and services;
- the nature, pricing and timing of products and services provided to our collaborators;
- acquisition, licensing and other costs related to the expansion of our operations;
- reduced capital investment for extended periods;
- losses and expenses related to our investments in joint ventures and businesses;
- regulatory developments or changes in public perceptions relating to the use of genetic information and the diagnosis and treatment of disease based on genetic information; and
- changes in intellectual property laws that affect our rights in genetic information that we sell and license.

Advisory and personnel costs and legal fees account for a substantial portion of our operating expenses. Some of these expenses cannot be adjusted quickly in the short term. If revenues of the business decline or do not grow as anticipated, we may not be able to reduce our operating expenses accordingly. Failure to achieve anticipated levels of revenue could therefore significantly harm our operating results for a particular period.

Even if our computational technologies are effective as research tools, our customers or we may be unable to develop or commercialize new drugs, therapies or other products based on them.

Even if our computational technologies perform their intended functions as research tools, our customers may be unable to use the discoveries resulting from them to produce new drugs, therapies, diagnostic products or other life science products. Despite recent scientific advances in the life sciences and our improved understanding of biology, the roles of genes and proteins and their involvement in diseases and in other life processes is not well understood. Only a few therapeutic products based on the study of and discoveries relating to genes or proteins have been developed and commercialized. If our customers are unable to use our discoveries to make new drugs or other life science products, our business may fail, or we may never become profitable.

If our business does not keep up with rapid technological change or continue to introduce new products, we may be unable to recover investments in our technologies.

Technologies in the biomarker industry have undergone, and are expected to continue to undergo, rapid and significant change. We may not be able to keep pace with the rapid rate of change and introduce new products that will adequately meet the requirements of the marketplace or achieve market acceptance. If we fail to introduce new and innovative products, we could limit our growth and damage our reputation and business.

The future success of our business will depend in large part on our ability to maintain a competitive position with respect to these technologies. We believe that successful new product introductions provide a significant competitive advantage because customers make an investment of time in selecting and learning to use a new product and are reluctant to switch to a competing product after making their initial selection. However, our business or others may make rapid technological developments, which could result in our technologies, products or services becoming obsolete before we are able to recover the expenses incurred to develop them.

If our business cannot enter into strategic alliances or licensing agreements, we may be unable to develop and commercialize our technologies into new products and services or continue to commercialize existing products or services.

We may be unable to enter into strategic alliances or licensing arrangements necessary to continue to develop and commercialize products, and any of those arrangements may not be on terms favorable to the business. In addition, current or any future arrangements may be unsuccessful. If we are unable to obtain or maintain any third-party license required to sell or develop our products or product enhancements, we may choose to obtain substitute technology either through licensing from another third party or by developing the necessary technology ourselves. Any substitute technology may be of lower quality or may involve increased cost, either of which could adversely affect our ability to provide our products competitively and harm our business.

We also depend on collaborators for the development and manufacture of complex instrument systems and chemicals and other materials that are used in laboratory experiments. We cannot control the amount and timing of resources our collaborators devote to our products. We may not be able to enter into or satisfactorily retain these research, development and manufacturing collaborations and licensing agreements, which could reduce our growth and harm our competitive position.

Our strategy for the development and commercialization of diagnostic biomarkers and therapeutic proteins depends on the formation of collaborations or licensing relationships with third parties that have complementary capabilities in relevant fields. Potential third parties include pharmaceutical and biotechnology companies, diagnostic companies, academic institutions and other entities. We cannot assure you that we will be able to form these collaborations or license our discoveries or that these collaborations and licenses will be successful.

Our dependence on licensing and other collaboration agreements makes us heavily dependent on our collaborators.

We may not be able to enter into licensing or other collaboration agreements on terms favorable to us. Even if we do enter into an acceptable agreement, collaborators typically may be afforded significant discretion in electing whether to pursue any of the planned activities. In most cases, our collaborators will have responsibility for formulating and implementing key strategic or operational plans. Decisions by our collaborators on these key plans, which may include development, clinical, regulatory, marketing (including pricing), inventory management and other issues, may prevent successful commercialization of the product or otherwise affect our profitability.

In addition, we may not be able to control the amount and timing of resources our collaborators devote to the product candidates and collaborators may not perform their obligations as expected. Additionally, business combinations or changes in a collaborator’s business strategy may negatively affect its willingness or ability to complete its obligations under the arrangement with us. Furthermore, our rights in any intellectual property or products that may result from our collaborations may depend on additional investment of money that we may not be able or willing to make.

Potential or future collaborators may also pursue alternative technologies, including those of our competitors. Disputes may arise with respect to the ownership of rights to any technology or product developed with any future collaborator. Lengthy negotiations with potential collaborators or disagreements between us and our collaborators may lead to delays or termination in the research, development or commercialization of product candidates or result in time-consuming and expensive litigation or arbitration. If our collaborators pursue alternative technologies or fail to develop or commercialize successfully any product candidate to which they have obtained rights from us, our business, financial condition and results of operations may be significantly harmed.

Our approach of incorporating ideas and methods from mathematics, computer science and physics into the disciplines of biology, organic chemistry and medicine is relatively new and may not be accepted by our potential customers or collaborators.

We intend to create a fully integrated biomarker discovery company to provide pharmaceutical and diagnostic companies worldwide with new, clinically relevant and economically significant biomarkers. Our potential customers and collaborators may be reluctant to accept our new, unproven technologies, and our customers may prefer to use traditional services. In addition, our approach may prove to be ineffective or not as effective as other methods. For example, our products and technologies may prove to be ineffective if, for instance, they fail to account for the complexity of the life processes that we are now attempting to model. If our customers or collaborators do not accept our products or technologies and/or if our technologies prove to be ineffective, our business may fail, or we may never become profitable.

If we are unable to hire or retain key personnel or sufficient qualified employees, we may be unable to successfully operate our business.

Our business is highly dependent upon the continued services of our executive team and board of directors. Members of our senior management are not covered by employment, consulting agreements, or non-competition agreements, and we cannot assure you that these key personnel and others will not leave us or compete with us, which could materially harm our financial results and our ability to compete. The loss, incapacity or unavailability for any reason of any of these individuals could have a material adverse effect upon our business, as well as our relationships with our potential customers. We do not carry key person life insurance on any member of our senior management. Furthermore, competition for highly qualified personnel in our industry and geographic locations is intense. Our business would be seriously harmed if we were unable to retain our key employees, or to attract, integrate or retain other highly qualified personnel in the future.

We may not be able to employ and retain experienced scientists, mathematicians and management.

Technologies in our industry have undergone, and are expected to continue to undergo, rapid and significant change. A highly skilled staff is integral to developing, marketing and supporting new products that will meet or exceed the expectations of the marketplace and achieve market acceptance. Without experienced staff, our business may be unable to maintain or grow market share, which could result in lower-than-expected revenues and earnings.

The sales cycle for some of our products and services is lengthy. We expend substantial funds and management effort with no assurance of successfully selling our products or services.

Our ability to obtain customers for our platforms, tools and services depends in large part upon the perception that our technologies can help accelerate their efforts in drug and diagnostics discovery. Our ability to obtain customers for our therapeutic or diagnostic product candidates significantly depends on our ability to validate and prove that each such product candidate is suitable for our claimed therapeutic or diagnostic purposes. Our ability to obtain customers will also depend on our ability to successfully negotiate terms and conditions for such arrangements. The sales cycle for our therapeutic and diagnostic product candidates is typically lengthy and may take more than 12 months.

We may be subject to product liability claims if products derived from our products or services harm people.

We may be held liable if any product that is made with the use, or incorporation of, any of our technologies or data causes harm or is found otherwise unsuitable. These risks are inherent in the development of genomics, functional genomics and pharmaceutical products. If we are sued for any harm or injury caused by products derived from our services or products, our liability could exceed our total assets. In addition, such claims could cause us to incur substantial costs, divert management's attention from executing the Company's business plan and subject us to negative publicity even if we prevail in our defense of such claims.

Recent litigation from shareholders and others may have a material adverse effect on the Company.

We are subject to a variety of claims and lawsuits. Adverse outcomes in some or all of these claims may result in significant monetary damages or injunctive relief that could adversely affect our ability to conduct our business. The litigation and other claims are subject to inherent uncertainties and management's view of these matters may change in the future. A material adverse impact in our financial statements could occur in the period in which the effect of an unfavorable outcome becomes probable and reasonably estimable.

Our business may be adversely affected by the ongoing coronavirus pandemic.

The outbreak of COVID-19 has evolved into a global pandemic. The coronavirus has spread to many regions of the world, including the areas of the United States where we operate. At this time, the United States and certain other countries are the subject of lockdowns and self-isolation procedures, which have significantly limited business operations and restricted internal and external meetings. Further, the outbreak and any preventative or protective actions that we or our customers may take in respect of COVID-19 may result in a period of disruption to our work in progress. The extent to which the coronavirus impacts our business and operating results will depend on future developments that are highly uncertain and cannot be accurately predicted, including new information that may emerge concerning the coronavirus and the actions to contain the coronavirus or treat its impact, among others.

Should the coronavirus pandemic continue, our business operations could be delayed or interrupted. For instance, our executive officers or directors may become infected with the virus and become unable to fulfill their duties. We are taking precautionary steps to protect our executive officers consistent with White House guidance and state and local orders.

The intense focus on COVID-19 also has led to the suspension of some research projects, which may impact our ability to form new contractual arrangements to exploit our technology. While the full potential economic impact brought by and the duration of the pandemic may be difficult to assess or predict, it has already caused, and is likely to result in further, significant disruption of our business. In addition, a recession, depression or other sustained adverse market event resulting from the coronavirus could materially and adversely affect our business and the value of our common stock.

The ultimate impact of the current pandemic, or any other health epidemic, is highly uncertain and subject to change. We do not yet know the full extent of potential delays or impacts on our business, or the economy as a whole. However, these effects could have a material impact on our operations, and we continue to monitor the situation closely.

Any resulting financial impact cannot be reasonably estimated at this time but may materially affect our business and financial condition. The extent to which COVID-19 impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others.

Risks Related to Our Intellectual Property

An inability to protect our proprietary data, technology or products may harm our competitive position.

If we do not adequately protect the intellectual property underlying our products and services, competitors may be able to develop and market the same or similar products and services. This would erode our competitive advantage. In addition, the laws of some countries do not protect or enable the enforcement of intellectual property to the same extent as the laws of the United States. Furthermore, should we be unsuccessful in regard to our recent patent infringement litigation against Intel, it may have a material impact on our ability to continue operations.

We use contractual obligations to protect a significant portion of our confidential and proprietary information and know-how. This includes a substantial portion of the knowledge base from which we develop a large portion of our proprietary products and services. However, these measures may not provide adequate protection for our trade secrets or other proprietary information and know-how. Customers, employees, scientific advisors, collaborators or consultants may still disclose our proprietary information in violation of their agreements with us, and we may not be able to meaningfully protect our trade secrets against this disclosure.

In addition, we have applied for patents covering some aspects of some of our technologies and biomarker subsets of genes and proteins we have discovered using these technologies. We plan to continue to apply for patents covering parts of our technologies and discoveries, as we deem appropriate, but cannot assure you that we will be able to obtain any patents or that the patents will be upheld if challenged. The patent positions of biotechnology related companies are generally uncertain and involve complex legal and factual questions. Legislative changes and/or changes in the examination guidelines of governmental patents offices may negatively affect our ability to obtain patent protection for certain aspects of our intellectual property, especially with respect to genetic discoveries, and may negatively impact the enforceability of one or more of our patents. In contrast to recent court decisions invalidating claims directed to individual human genes and proteins, our focus has been directed to identifying relationships between small groups of genes and proteins that are useful for diagnosing and treating diseases and other conditions.

Our success depends in large part on our ability to patent our discoveries.

Our success depends, in large part, on our ability to obtain patents on biomarkers and pathways that we have discovered and are attempting to commercialize. We face intense competition from other biotechnology and pharmaceutical companies. These include customers who use our products and technologies and are pursuing patent protection for discoveries, which may be similar or identical to our discoveries. We cannot assure you that other parties have not sought patent protection relating to the biomarkers and pathways that we discovered or may discover in the future. Our patent applications may conflict with prior applications of third parties or with prior publications. They may not result in issued patents and, even if issued, our patents could be invalidated or may not be sufficiently broad to provide us with any competitive advantages. U.S. and other patent applications ordinarily remain confidential for 18 months from the date of filing. As a result, patent applications that we file which we believe are novel at the time of filing may be determined at a later stage to be inconsistent with earlier applications. Additionally, the scope of patents we receive may not provide us with adequate protection of our intellectual property, which would harm our competitive position. Any issued patents that cover our proprietary technologies may not provide us with substantial protection or be commercially beneficial to the business. The issuance of a patent is not conclusive as to its validity or its enforceability. Federal courts may invalidate these patents or find them unenforceable. Competitors may also be able to design around our patents. If we are unable to protect our patented technologies, we may not be able to commercialize our technologies, products or services and our competitors could commercialize our technologies. Any of these events could materially harm our business or financial results.

Litigation or other proceedings or third-party claims of intellectual property infringement could prevent us, or our customers or collaborators, from using our discoveries or require us to spend time and money to modify our operations.

The technology that we use to develop our products, and the technology that we incorporate in our products, may be subject to claims that they infringe the patents or proprietary rights of others. The risk of this occurring will tend to increase as the genomics, biotechnology and software industries expand, more patents are issued, and other companies engage in other genomic-related businesses. If we infringe patents or proprietary rights of third parties, or breach licenses that we have entered into with regard to our technologies and products, we could experience serious harm. If litigation is commenced against us alleging intellectual property rights infringement or if we initiate a lawsuit to assert claims of infringement, protect our trade secrets or know-how or to determine the enforceability, scope and validity of the proprietary rights of others, we may incur significant costs in litigating, whether or not we prevail in such litigation. Regardless of the outcome, litigation can be very costly. These costs would also include diversion of management and technical personnel to defend us against third parties or to enforce our patents (once issued) or other rights against others. In addition, parties making claims against us may be able to obtain injunctive or other equitable relief that could prevent us from being able to further develop or commercialize. Further, these lawsuits could result in the invalidation or limitation of the scope of our patents or the forfeiture of the rights associated with these patents. This could also result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties. If we are not able to obtain these licenses at a reasonable cost, if at all, we could encounter delays in product introductions while we attempt to develop alternative methods or products. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing available products, all of which could negatively impact our business, financial condition or results of operations. Moreover, during the course of these suits, there may be public announcements of the results of hearings, motions and other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of our common stock to decline.

Many of our services will be based on complex, rapidly developing technologies. Although we will try to identify all relevant third-party patents, these products could be developed by the business without knowledge of published or unpublished patent applications that cover some aspect of these technologies. The biomarker industry has experienced intensive enforcement of intellectual property rights by litigation and licensing. If we are found to be infringing the intellectual property of others, we could be required to stop the infringing activity, or we may be required to design around or license the intellectual property in question. If we are unable to obtain a required license on acceptable terms or are unable to design around any third-party patent, we may be unable to sell some of our services, which could result in reduced revenue.

Breaches of our internal computer systems, or those of our contractors, vendors, or consultants, may place our patents or proprietary rights at risk.

The loss of clinical or preclinical data or data from any future clinical trial involving our technology, including therapeutic candidates and products, could result in delays in our development and regulatory filing efforts and significantly increase our costs. In addition, theft or other exposure of data may interfere with our ability to protect our intellectual property, including trade secrets, and other information critical to our operations. Although to-date we have not experienced unauthorized intrusions into our internal computer systems, including portions of our internal computer systems storing information related to our platform technology, therapeutic candidates and products, in the past, we may experience such unauthorized intrusions in the future, and we can provide no assurances that certain sensitive and proprietary information relating to one or more of our therapeutic candidates or products has not been, or will not in the future be, compromised. There can be no assurances we will not experience unauthorized intrusions into our computer systems, or those of our vendors, contractors, and consultants, that we will successfully detect future unauthorized intrusions in a timely manner, or that future unauthorized intrusions will not result in material adverse effects on our financial condition, reputation, or business prospects. Payments related to the elimination of ransomware may materially affect our financial condition and results of operations.

Risks Related to Our Industry

There are many risks of failure in the development of drugs, therapies, diagnostic products and other life science products. These risks are inherent to the development and commercialization of these types of products.

Risks of failure are inseparable from the process of developing and commercializing drugs, therapies, diagnostic products and other life science products. These risks include the possibility that any of these products will:

- be found to be toxic or ineffective;
- fail to receive necessary regulatory approvals;
- be difficult or impossible to manufacture on a large scale;
- be uneconomical to market;
- fail to be developed prior to the successful marketing of similar products by competitors; or
- be impossible to market because they infringe on the proprietary rights of third parties or compete with superior products marketed by third parties.

We are dependent on our customers' commercialization of our discoveries. Any of these risks could materially harm our business and financial results.

The trend towards consolidation in the pharmaceutical and biotechnology industries may adversely affect us.

The trend towards consolidation in the pharmaceutical and biotechnology industries may negatively affect us in several ways. These consolidations usually involve larger companies acquiring smaller companies, which results in the remaining companies having greater financial resources and technological capabilities, thus strengthening competition in the industry. In addition, continued consolidation may result in fewer customers for our products and services.

If ethical and other concerns surrounding the use of genetic information become widespread, there may be less demand for our products and services.

Genetic testing has raised ethical issues regarding confidentiality and the appropriate uses of the resulting information. For these reasons, governmental authorities may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to various conditions, particularly for those that have no known cure. Any of these scenarios could reduce the potential markets for our technologies in the field of predictive drug response, which could materially harm our business and financial results.

The industries in which we are active are evolving rapidly, and we may be unable to keep pace with changes in technology.

The pharmaceutical and biotechnology industries are characterized by rapid technological change. This is especially true of the data-intensive areas of such technologies. Our future success will largely depend on maintaining a competitive position in the field of drug, therapeutics and diagnostic products discovery. If we fail to keep pace with changes in technology, our business will be materially harmed. Rapid technological development may result in our products or technologies becoming obsolete. This may occur even before we recover the expenses that we incurred in connection with developing those products and technologies. Products or services offered by us could become obsolete due to the development of less expensive or more effective drug or diagnostics discovery technologies. We may not be able to make the necessary enhancements to our technologies to compete successfully with newly emerging technologies.

We face intense competition, and if we are unable to compete successfully, we may never achieve profitability.

The markets for our products and services are very competitive, and we expect our competition to increase in the future. Although we have not identified specific companies that provide the full suite of services that we do, we compete with entities in the U.S. and worldwide that provide products and services for the analysis of genomic information and information relating to the study of proteins (proteomic information) or that commercializes novel genes and proteins. These include genomics, pharmaceutical and biotechnology companies, academic and research institutions and government and other publicly funded agencies. We may not be able to successfully compete with current and future competitors. Many of our competitors have substantially greater capital resources, research and development staff, facilities, manufacturing and marketing experience, distribution channels and human resources than we do. This may allow these competitors to discover or to develop products in advance of us or of our customers.

Some of our competitors, especially academic and research institutions and government and other publicly funded agencies, may provide for free services or data similar to the services and data that we provide for a fee. Moreover, our competitors may obtain patent and other intellectual property protection that would limit our rights or our customers' and partners' ability to use or commercialize our discoveries, products and services. If we are unable to compete successfully against existing or potential competitors, we may never achieve profitability.

Risks Related to Our Common Stock

As an issuer of "penny stock," the protection provided by the federal securities laws relating to forward looking statements does not apply to the Company.

Although federal securities laws provide a safe harbor for forward-looking statements made by a public company that files reports under the federal securities laws, this safe harbor is not available to issuers of penny stocks. As a result, the Company will not have the benefit of this safe harbor protection in the event of any legal action based upon a claim that the material provided by the Company contained a material misstatement of fact or was misleading in any material respect because of the Company's failure to include any statements necessary to make the statements not misleading. Such an action could hurt our financial condition.

Because we do not intend to pay dividends on our common stock, holders of our common stock will benefit from an investment in our Company only if it appreciates in value.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain the Company's future earnings, if any, to finance the expansion of the Company's business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which its investors purchased their shares.

Our stock price has been, and is likely to continue to be, highly volatile.

Our stock price could fluctuate significantly due to a number of factors beyond our control, including:

- variations in our actual or anticipated operating results;
- sales of substantial amounts of our stock;
- announcements about us or about our competitors, including technological innovation or new products or services;
- litigation and other developments related to our patents or other proprietary rights or those of our competitors;
- conditions in the life sciences, pharmaceuticals or genomics industries; and
- Governmental regulation and legislation.

In addition, the stock market in general, and the market for life sciences and technology companies in particular, have experienced extreme price and volume fluctuations historically. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. These broad market and industry factors may decrease the market price of our common stock, regardless of our actual operating performance.

In the past, companies that have experienced volatility in the market prices of their stock have been the objects of securities class action litigation. If we became the object of securities class action litigation, it could result in substantial costs and a diversion of management's attention and resources, which could affect our profitability.

We have identified a material weakness in our internal accounting control over financial reporting.

Management has concluded that our internal control over financial reporting was not effective as of December 31, 2020. Our Chief Executive Officer, who is also serving as our Principal Executive Officer and our President who is also serving as our Principal Financial Officer, concluded that we have material weakness in our internal control over financial reporting because we do not have an adequate segregation of duties due to a limited number of employees among whom duties can be allocated. The lack of segregation of duties is due to the limited nature and resources of the Company.

All internal control systems no matter how well designed have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, 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.

Risks Related to Governmental Regulation

The law applicable to us may change in a manner that negatively affects our prospects.

We must comply with various legal requirements, including requirements imposed by federal and state securities and tax laws. Should any of those laws change over the term of our existence, the legal requirements to which we may be subject could differ materially from current requirements, which could increase the cost of doing business or preclude us from undertaking certain parts of our business plan, which in turn would result in adverse consequences.

Our business and the products developed by our collaborators may be subject to governmental regulation.

New therapeutic or diagnostic products that may be developed by our collaborators will have to undergo a lengthy and expensive regulatory review process in the United States and other countries before it can be marketed. It may be several years, or longer, before any therapy or diagnostic product that is developed by using our technologies, will be sold or will provide us with any revenues. This may delay or prevent us from becoming profitable. Changes in policies of regulatory bodies in the United States and in other countries could increase the delay for each new therapy and diagnostic products. Even if regulatory approval is obtained, a product on the market and its manufacturer are subject to continuing review. Discovery of previously unknown problems with a product may result in withdrawal of the product from the market.

Although we intend to become involved in the clinical phases in the future, we still expect to rely mainly on collaborators of our discovery activities to file regulatory approval applications and generally direct the regulatory review process. We cannot be certain whether they will be able to obtain marketing clearance for any product that may be developed on a timely basis, if at all. If they fail to obtain required governmental clearances, it will prevent them from marketing therapeutic or diagnostic products until clearance can be obtained, if at all. This will in turn reduce our chances of receiving various forms of payments, including those relating to sales of marketed therapeutic or diagnostic products by them.

If our access to tissue samples or to genomic data or other information is restricted, or if this data is faulty, our business may suffer.

To continue to build our technologies and related products and services, we need access to third parties' scientific and other data and information. We also need access to normal and diseased human and other tissue samples and biological materials. We may not be able to obtain or maintain such access on commercially acceptable terms. Some of our suppliers could become our competitors and discontinue selling supplies to us. Information and data from these suppliers could contain errors or defects that could corrupt our databases or the results of our analysis of the information and data. In addition, government regulation in the United States and other countries could result in restricted access to, or use of, human and other tissue samples. Although currently we do not face significant problems in obtaining access to tissues, if we lose access to sufficient numbers or sources of tissue samples, or if tighter restrictions are imposed on our use of the information generated from tissue samples, our business may suffer.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company does not own any real property. We currently lease approximately 300 square feet of office space in Atlanta, Georgia, pursuant to a short-term lease as of January 2021. We currently pay base rent in the amount of $636 per month.

Through December 31, 2020, we leased approximately 600 square feet of office space in Atlanta, Georgia, for $2,539 per month, pursuant to a short-term lease as of August 1, 2019. In 2020, we also leased an office in Philadelphia, Pennsylvania for $1,078 per month until June 30, 2020, pursuant to a short-term lease as of November 1, 2019. The lease for the office in Philadelphia, Pennsylvania was renewed for a six-month period from July 1, 2020 through December 31, 2020 at a rate of $1,540 per month. That lease has expired and not been renewed.

ITEM 3. LEGAL PROCEEDINGS

Refer to Note 10 – Commitments and Contingencies to the financial statements for discussion about current and ongoing legal proceedings.

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 not traded on an exchange but on the Pink Sheets under the symbol HDVY. As of December 31, 2020, there were approximately 310 holders of record of shares of our common stock.

Dividends

We have not paid any cash dividends for common shares since inception, and we do not anticipate paying any in the foreseeable future on common shares. Accrued dividends from 2014 related to the Series B preferred stock are recorded as a current liability on our balance sheets. We intend to retain future earnings, if any, to support the development and growth of our business. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion. Under the Georgia Business Corporation Act, a company is prohibited from paying a dividend if, after giving effect to that dividend, either the company would not be able to pay its debts as they become due in the usual course of business or the company's total assets would be less than the sum of its total liabilities plus the amount that would be needed if the company were to be dissolved at the time of the dividend to satisfy the preferential rights upon dissolution of shareholders whose preferential rights are superior to those receiving the dividends. If the Company were to pay dividends, the holders of the shares of the Series D convertible preferred stock have a right to receive dividends pari passu on each outstanding share of Series D convertible preferred stock on an as if converted to common stock basis.

The Company has had limited revenue since inception, has incurred recurring losses from operations, and has had to continually seek additional capital investment in order to fund operations. Accordingly, depending on the Company's financial condition, it may not be able to pay any dividends on any shares of its Capital Stock. For further discussion of the Company's liquidity and capital resources, see Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations.

Sales of Unregistered Securities

None.

ITEM 6. SELECTED FINANCIAL DATA

As a "smaller reporting company," as defined by Rule 12b-2 of the Exchange Act, and pursuant to Item 301(c) of Regulation S-K, we are not required to provide selected financial data.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes appearing elsewhere in this Annual Report on Form 10-K. In addition to historical information, some of the information contained in this discussion and analysis or set forth elsewhere in this report, including information with respect to our plans and strategy for our business, future financial performance, expense levels and liquidity sources, includes forward-looking statements that involve risks and uncertainties. You should read Risk Factors in Part I, Item 1A of this report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Objective

The objective of our Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is to provide users of our financial statements with the following:

- A narrative explanation from the perspective of management of our financial condition, results of operations, cash flows, liquidity and certain other factors that may affect future results;
- Useful context to the financial statements; and
- Information that allows assessment of the likelihood that past performance is indicative of future performance.

Overview

Health Discovery Corporation (the "Company") is a pattern recognition company that uses advanced mathematical techniques to analyze large amounts of data to uncover patterns that might otherwise be undetectable. We operate primarily in the field of molecular diagnostics where such tools are critical to scientific discovery. The terms artificial intelligence ("AI") and machine learning are sometimes used to describe pattern recognition tools.

Our principal asset is our intellectual property, which includes advanced mathematical algorithms called Support Vector Machines ("SVM"), as well as biomarkers that we discovered by applying our SVM techniques to complex genetic and proteomic data. Biomarkers are biological indicators or genetic expression signatures of certain disease states. While our historical foundation lies in the molecular diagnostics field, where we have made a number of discoveries that play a role in developing more personalized approaches to the diagnosis and treatment of certain diseases, our SVM assets in particular have broad applicability in many other fields. Intelligently applied, our pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our business model has evolved over time to respond to business trends that intersect with our technological expertise and our capacity to professionally manage these opportunities. Today, our commercialization efforts include utilization of our discoveries and knowledge to help develop diagnostic and prognostic predictive tests; licensing of the SVM technologies directly to diagnostic companies; and the potential formation of new ventures with domain experts in other fields where our pattern recognition technology holds commercial promise.

The Company markets its technology and related developmental expertise to prospects in the healthcare, biotech, and life sciences industries. Given the scope of some of these prospects, the sales cycle can be quite long, but management believes that these marketing efforts may produce favorable results in the future.

RESULTS OF OPERATIONS

Year ended December 31, 2020 Compared with Year ended December 31, 2019

Revenue for the year ended December 31, 2020 was $1,000. The revenue earned during the year ended December 31, 2019 was primarily related to the NeoGenomics arbitration award in April 2019.

In April 2019, we were awarded $1.5 million from NeoGenomics, related to the decision by the arbitration panel for its conclusion that NeoGenomics' SmartFlow infringes a Valid Patent Claim and internal use by NeoGenomics is subject to Milestone and Royalty payments (as defined under the Master License Agreement, or MLA).

We were awarded an additional $5.1 million based on the Panel's conclusion that NeoGenomics failed to use its best efforts with respect to the development and commercialization of SVM-CYTO, and the Panel further held that the MLA was terminated with the exception of certain obligations including NeoGenomics' obligations to make payment of any sum due to the Company pursuant to Article 3 of the MLA, license fees and royalty payments. The $5.1 million payment was received in the second quarter of 2019 and recorded to other income as further discussed below.

Operating and Other Expenses

Amortization expense was zero for the year ended December 31, 2020 compared to $153,000 for the year ended December 31, 2019. Our patent assets were fully amortized as of December 31, 2020 and 2019, and as a result, no further amortization is expected.

Professional and consulting fees were $266,000 for the year ended December 31, 2020 compared with $84,000 for the year ended December 31, 2019. The increase was due to higher accounting fees related to bringing the Company's filings with the Securities and Exchange Commission current.

Legal fees were $425,000 for the year ended December 31, 2020 compared to $87,000 for the year ended December 31, 2019. Legal fees in the 2020 related primarily to the lawsuit brought by Quirk and Bear and our litigation against Intel. In the year ended December 31, 2020, we incurred $216,000 and $139,000 related to the Quirk and Bear and Intel matters, respectively. These increases were partially offset by a $66,000 decrease in corporate legal fees in the current year.

Compensation expense was $456,000 for the year ended December 31, 2020, compared to $371,000 for the year ended December 31, 2019, due to additional personnel and increased salaries.

Other general and administrative expense decreased to $596,000 for the year ended December 31, 2020 compared to $745,000 for the year ended December 31, 2019, due to lower directors' stock-based compensation, partially offset by expenses related to our annual shareholder meeting and higher rent. Through December 31, 2020, we leased approximately 600 square feet of office space in Atlanta, Georgia, for $2,539 per month, pursuant to a short-term lease as of August 1, 2019. In 2020, we also leased an office in Philadelphia, Pennsylvania for $1,078 per month until June 30, 2020, pursuant to a short-term lease as of November 1, 2019. The lease for the office in Philadelphia, Pennsylvania was renewed for a six-month period from July 1, 2020 through December 31, 2020 at a rate of $1,540 per month. Prior to August 2019, we leased approximately 200 square feet of office space in Atlanta, Georgia, for $600 per month.

Loss from Operations for the year ended December 31, 2020 was $1.7 million compared to income from operations of $79,000 in the year ended December 31, 2019. The significant decrease in the year-to-date period was primarily due to a reduction in revenue from arbitration.

Other Income and Expense. As previously disclosed, the Company was awarded $5.1 million in a litigation settlement related to the NeoGenomics litigation in the second quarter of 2019, and recorded net of $3.6 million in related expenses.

The Company recorded a decrease in the common stock warrants liability of $992,000 during the year ended December 31, 2020 and reclassified the common stock warrants liability to equity, as our shareholders approved the necessary increase in authorized share capital at our annual shareholder meeting held in May 2020.

Net loss for the year ended December 31, 2020 was $759,000 compared to net income of $1.6 million for the year ended December 31, 2019. The decrease was due primarily to the decrease in proceeds from arbitration, partially offset by the decrease in the fair value of common stock warrants liability.

Diluted loss per share was $0.002 in the year ended December 31, 2020 compared to diluted earnings per share of $0.004 in the year ended December 31, 2019. See discussion regarding net loss and earnings, above.

Liquidity and Capital Resources

Introduction

We have relied primarily on equity and debt financing for liquidity, and most recently, proceeds from intellectual property litigation or arbitration. The Company produced sales, licensing, and developmental revenue starting in late 2005 and must increase revenues in order to generate sufficient cash to continue operations. Our plan to have sufficient cash to support operations is comprised of:

- generating revenue through licensing our patent portfolio;
- providing services related to those patents;
- protecting our proprietary technology against infringers; and
- obtaining additional equity or debt financing.

We are pursuing licensing activity and collaborations to increase revenue. Additionally, we are evaluating options to secure funding for infringement activities to protect our proprietary technology or other forms of fund-raising either in the debt or equity markets. None of these options are definitive and there is no guarantee we will be successful in these fund-raising efforts. In addition, while the potential economic impact brought by and the duration of the COVID-19 pandemic may be difficult to assess or predict, it has already caused, and is likely to result in further, significant disruption of global financial markets, which may reduce our ability to access capital either at all or on favorable terms. At December 31, 2020, we had approximately $917,000 in cash and total current liabilities of $557,000. We estimate cash will be depleted by the first quarter of 2022 unless we are able to increase revenues or raise additional capital.

Short-term borrowings

Our principal commitments consist of our obligations under our operating leases which are short-term in nature. In addition, in June 2020, we settled accrued wages in the amount of $212,000 through the issuance of a convertible promissory note in the same amount with our chief executive officer. The note bears interest at an 8% annual interest rate and is convertible at the option of the holder into shares of our common stock at a conversion price of $0.0138 per share of common stock. See further discussion in Note 8 – Convertible Debt.

Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements that provide financing, liquidity, market or credit risk support or involve leasing, hedging or research and development services for our business or other similar arrangements that may expose us to liability that is not expressly reflected in the financial statements.

Critical Accounting Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our financial statements, which we have prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We evaluate these estimates and judgements on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 – Significant Accounting Policies to the financial statements, we believe the following accounting policies and estimates are the most critical.

Common Stock Warrants Liability

The Company has, from time to time beginning in 2014, issued convertible preferred stock, preferred stock warrants, common stock, common stock warrants, and fully vested options to purchase shares of common stock in excess of its available shares of underlying stock to be issued.

In the event the number of shares or warrants of common stock granted exceeds the number of shares available if the holders exercised all of the previously issued outstanding options and warrants, the Company accounts for this excess as a common stock warrants liability, which is adjusted to fair value at the end of each reporting period. If and when the Company authorizes sufficient shares of common stock and preferred stock, the common stock warrants liability is reclassified to equity at the fair value of the liability at the date of reclassification. The Company accounts for the reclassification from equity to liability (or vice versa) similar to a modification of a share-based payment award.

See further discussion in Note 6 – Statement of Stockholders' Equity (Deficit) and Note 7– Common Stock Warrants Liability.

Stock-based Compensation

Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as expense over the requisite service period using the straight-line method.

Valuation and Amortization Method – The fair value of stock awards that do not contain a market condition target are estimated on the grant date using the Black-Scholes option-pricing model. The fair value of options that contain a market condition, such as a specified hurdle price, is estimated on the grant date using a probability weighted fair value model similar to a lattice valuation model. Both the Black-Scholes and the probability weighted valuation models require assumptions and estimates of expected volatility, expected life, expected dividend yield and expected risk-free interest rates.

Expected Term – The expected term of the award represents the period that the Company's stock-based awards are expected to be outstanding and was determined based on historical experience, giving consideration to the contractual terms of the stock-based awards, vesting schedules, and forfeitures due to departure prior to the end of the vesting schedule.

Expected Volatility – Volatility is a measure of the amounts by which a financial variable such as stock price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company uses the historical volatility, employing a prior period equivalent to the expected term to estimate expected volatility

Risk-Free Interest Rate – The Company bases the risk-free interest rate used in the Black-Scholes valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equivalent to the expected term of a stock award.

We base our estimates and judgments on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results could differ materially from these estimates.

Recent Accounting Pronouncements

Refer to Note 11 – Recent Accounting Pronouncements to the financial statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not Applicable.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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

As of the end of the period covered by this report (the "Evaluation Date"), we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer, who is also serving as our Principal Executive Officer and our President who is also serving as our Principal Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon this evaluation, our Chief Executive Officer and President concluded that, as of the Evaluation Date, because of the Company's internal control weakness, our disclosure controls and procedures were not effective to provide reasonable assurance that information required to be disclosed in the reports that are filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified by the Securities and Exchange Commission's rules and forms and that our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management including our Chief Executive Officer and President, as appropriate to allow timely decisions regarding required disclosure.

Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that the Company's disclosure controls and procedures will detect or uncover every situation involving the failure of persons within the Company to disclose material information otherwise required to be set forth in the Company's periodic reports.

The Company's management is also responsible for establishing and maintaining adequate internal control over financial reporting 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. As of the Evaluation Date, no changes in the Company's internal control over financial reporting occurred that have materially affected or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Our Annual Report on Form 10-K contains information regarding a material weakness in our internal control over financial reporting as of December 31, 2020. The Company lacked adequate segregation of duties which led to situations where an individual had access to both initiate and approve transactions with no additional formal review process. This also led to inadequate review of reconciliations.

In light of the conclusion that our internal disclosure controls were ineffective as of December 31, 2020, we have applied procedures and processes as necessary to ensure the reliability of our financial reporting in regard to this annual report. These include the fact that the Company's board of directors reviews the results of the Company quarterly and provides oversight concerning its results and that the Company has hired an independent consultant which provides the Company an additional layer of review and oversight as well as subject matter expertise regarding its external reporting and technical accounting matters. Accordingly, the Company believes, based on its knowledge, that: (i) this annual 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 they were made, not misleading with respect to the period covered by this report; and (ii) the financial statements, and other financial information included in this annual report, fairly present in all material respects our financial condition, results of operations and cash flows as of and for the periods presented.

Management's Annual Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting 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. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect our transactions and dispositions of our assets; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, 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.

Management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework in Internal Control—Integrated Framework ("2017 Framework") issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this evaluation, management has concluded that our internal control over financial reporting was not effective as of December 31, 2020.

Our Chief Executive Officer, who is also serving as our Principal Executive Officer and our President who is also serving as our Principal Financial Officer, concluded that we have material weakness in our internal control over financial reporting resulting from a lack of adequate segregation of duties which led to situations where an individual had access to both initiate and approve transactions with no additional formal review process. This also led to inadequate review of reconciliations

This annual report does not include an attestation report of the Company's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit the Company to provide only management's report in this annual report.

Changes in Internal Controls over Financial Reporting

No changes were made in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act) during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

Our executive officers and directors are:

Name	Age	Position
Executive Officers		
George H. McGovern, III	74	Chairman and Chief Executive Officer
Hong Zhang, Ph.D.	57	Chief Science Officer
Marty Delmonte	53	President, Chief Operating Officer and Director
Non-Employee Directors		
William F. Fromholzer	75	Director
Colleen M. Hutchinson	46	Director
Edward Morrison	48	Director
James Murphy	65	Director

The following sets forth the biographical information for our executive officers and directors:

George H. McGovern, III has been a shareholder of Health Discovery Corporation since 2008. He is currently our Chairman and Chief Executive Officer. He has leadership experience in various industries including Internet services, health care, real estate, cellular communications and casino hotels and gaming. He was co-founder and CEO of Laser Link.Net, Inc. until its acquisition by Covad, Inc. He was president and CEO of Block B Cellular Corp. until its acquisition by Telephone and Data Services, Inc. He was financial adviser and board member of American Cellular Network Corp. until its acquisition by Comcast. He has been a member of the CFA Society Philadelphia since 1975.

Hong Zhang, Ph.D., has been our Senior Vice President, Computational Medicine since 2004 and currently serves as our Chief Science Officer. As visiting faculty at Johns Hopkins University, Dr. Zhang lectured at the Center for Biomarker Discovery on Bioinformatics: Peak Detection Methods for Mass Spectral Data. Currently a Professor at Georgia Southern University, Dr. Zhang was the Vice President and CIO for a neural network and computer assisted medical diagnostic systems company that employs neural network and mathematical/statistical preprocessing techniques. In this position, Dr. Zhang was involved in digital image processing and pattern recognition for medical image processing as well as software design and programming for support vector machine applications. Dr. Zhang was a professor in the Department of Mathematical Sciences at Purdue University from 1989 to 1996. He has held numerous academic positions, including Adjunct Associate Professor, Associate Professor with Tenure, and Assistant Professor. He was a visiting Associate Professor in 1995 in the Department of Biometry at the Medical University of South Carolina.

Throughout his academic career, Dr. Zhang has consulted on many software and analytical development projects for Union Switch and Signal, Inc., General Electric Company, and the Department of Pharmacology at the University of Pittsburgh. Dr. Zhang has published numerous articles on the use of neural networks in the detection of cancers. He has been published in more than twenty medical and technical journals. Dr. Zhang received a Ph.D., Mathematics at the University of Pittsburgh, 1989, M.A., Mathematics, University of Pittsburgh, 1986, M.S.E.E., Electrical Engineering, University of Pittsburgh, 1984, B.S., Computer Science, Fudan University, 1982. Dr. Zhang's numerous awards and honors include: National Cancer Institute SBIR Grant, 1999, 2000; Purdue Research Foundation Summer Faculty Grant, 1993; IPFW Summer Research Grant, 1992; Andrew Mellon Fellowship, 1986-1987; Andrew Mellon Fellowship, 1985-1986; First Place, Fudan University Mathematics Competition, 1979.

Marty Delmonte has been involved with the Company since July 2010. On April 6, 2020, Mr. Delmonte was appointed President and Chief Operating Officer of the Company. Mr. Delmonte has served in various capacities in his work with the Company, most recently as a member of the Board since February 2017. He will continue to serve as a member of the Board in addition to his new position. Mr. Delmonte is an accomplished senior financial executive with over 25 years of comprehensive experience in multiple aspects of finance, accounting and treasury. Prior to joining Health Discovery Corporation, he worked in strategic financial advisory and operational roles at several companies and served as an executive at several major financial institutions including Bank of America, JP Morgan Chase, and SunTrust Capital Markets. His functional areas include accounting, treasury, risk management, investments, international, compliance, tax, investor relations, capital planning, mergers & acquisitions, debt management and financial strategies.

Mr. Delmonte has successfully passed the National Association for Securities Dealers' Series 7, 6, and 63 exams. In addition, the Association for Financial Professionals recognized him as a Certified Cash Manager. He is also a frequent and highly regarded advisor on industry related topics. Mr. Delmonte holds a Bachelor of Science degree from the Georgia Institute of Technology with a focus in Finance along with a certificate in Economics.

William F. Fromholzer is a retired executive with global work experience with both public and private companies. Among his positions he served as Senior Vice President and Corporate officer of Indium Corporation of America (ICA). His primary responsibility was to expand the national footprint to a global sales, marketing, distribution and manufacturing company serving the electronics industry. Today ICA is recognized as a global leader in its space. Also, he was Vice President of Sales for DUSA Pharmaceuticals, a public dermatology company, whose main drug Levulan is used to treat precancerous Actinic Keratosis. In addition, he served as a director of LaserLink.Net, an Internet services company that was acquired by Covad Communications.

Colleen M. Hutchinson is founder and CEO of CMH Media, LLC, a full-service medical media company that provides turn-key publishing, writing, editing, and project management services, as well as overall communications strategies to medical associations, medical education companies, healthcare products companies, and medical institutions. Her work includes publication management, clinical reviews, educational enduring materials, meeting reports and summit guidelines/recommendations, consensus panel statements, and association strategic initiatives development. Ms. Hutchinson is the daughter of George McGovern.

Recognized as a medical publishing expert, Ms. Hutchinson has presented at national and international meetings on the subjects of medical writing and publication. Ms. Hutchinson also produces her *On the Spot* columns in *General Surgery News, Clinical Oncology News,* and *Gastroenterology & Endoscopy News*.

Edward Morrison has been a shareholder of Health Discovery Corporation since 2009. Mr. Morrison has over twenty years' experience as an attorney, senior executive, and owner in privately held companies in the legal and healthcare industries. Mr. Morrison is an owner of MDA Management, Inc. which provides management services to Morrison Dental Associates, P.C. which serves tens of thousands of patients through locations in Georgia and South Carolina. Mr. Morrison oversees the operations of MDA Management, Inc. and Morrison Dental Associates, P.C.

Mr. Morrison earned his undergraduate degree in History from Boston College and his JD from Emory University School of Law. Mr. Morrison was admitted to the state bar of Georgia in 1998, where he remains a member in good standing.

James Murphy has over 25 years' experience as a senior financial executive in public and privately held companies in the life sciences and the media and technology industries. Mr. Murphy holds a Bachelor of Science in Accounting with Honors from Villanova University and is a Certified Public Accountant (active in Pennsylvania).

The directors named above will serve until the next annual meeting of our stockholders. As there are no employment agreements with anyone at the Company, officers hold their positions at the pleasure of the Board of Directors.

Code of Ethics

The Company has adopted a Code of Ethics applicable to our Chief Executive Officer and President. The Code of Ethics is available without charge upon request directed to Investor Relations, Health Discovery Corporation, 2002 Summit Blvd, NE, Suite 300, Atlanta, Georgia 30319. The Company intends to disclose amendments or waivers of the Code of Ethics required to be disclosed by posting such information on its website.

ITEM 11. EXECUTIVE COMPENSATION

Summary Compensation Table

The following table sets forth various elements of compensation for our Named Executive Officers:

Name and Principal Position	Year	Salary (1) ($)	Option Awards (3) ($)	Non-equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total
George H. McGovern, III	2020	$ 150,000	$ 62,500	$ –	$ –	$ 232,500
Chairman & Chief Executive Officer	2019	$ 150,000	$ –	$ –	$ –	$ 150,000
Hong Zhang, Ph.D.	2020	$ 25,500	$ –	$ –	$ –	$ 25,500
Chief Science Officer	2019	$ 25,500	$ –	$ 25,000	$ –	$ 50,500
Marty Delmonte	2020	$ 150,000(2)	$ 56,250	$ –	$ –	$ 206,250
President, Chief Operating Officer & Director	2019	$ 125,000	$ –	$ –	$ –	$ 125,000

(1) Includes accrued wages.

(2) On April 6, 2020, Mr. Delmonte was appointed President and Chief Operating Officer of the Company, and the Company agreed to increase Mr. Delmonte's salary by $25,000 to $150,000, retroactive to January 1, 2020.

(3) Amounts shown for Mr. McGovern and Mr. Delmonte are compensation for their service as members of the Company's board of directors. On June 1, 2020, the Company granted to Mr. McGovern and Mr. Delmonte each an option to purchase 5,000,000 shares and 4,500,000, respectively, of the Company's common stock.

Amounts shown in this column do not reflect dollar amounts actually received by our named executive officers. Instead, these amounts reflect the aggregate grant-date fair value of the stock options granted, computed in accordance with the provisions of FAB ASC Topic 719. For additional details regarding the assumptions and methodologies used to calculate the amounts reported, please see the discussion of equity awards contained in the financial statements included elsewhere in this Annual Report on Form 10-K.

Employment Agreements

There are no Employment Agreements with any officer or employee of the Company. All officers, employees, and consultants serve at the discretion of the Board of Directors.

Outstanding Equity Awards at Year End

The following table provides information regarding the equity awards outstanding at December 31, 2020 held by each of our named executive officers:

Name	Vesting Commencement Date	Grant Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options (1) (#)	Option Exercise Price ($)	Option Expiration Date
George H. McGovern, III	05/17/2016	05/17/2016	1,500,000	–	–	$ 0.035	10/23/2027
	10/23/2017	10/23/2017	3,500,000	–	–	$ 0.003	05/17/2026
	06/01/2020	06/01/2020	5,000,000	–	–	$ 0.014	06/01/2030
Marty Delmonte	10/21/2013	10/21/2013	2,000,000	–	–	$ 0.036	10/21/2023
	10/23/2017	10/23/2017	3,500,000	–	–	$ 0.003	10/23/2017
	06/01/2020	06/01/2020	4,500,000	–	–	$ 0.014	06/01/2030
Hong Zhang	10/21/2013	10/21/2013	750,000	–	–	$ 0.036	10/21/2023
	02/08/2016	02/08/2016	1,250,000	–	–	$ 0.030	02/08/2026

(1) Amounts shown in this column do not reflect dollar amounts actually received by our named executive officers. Instead, these amounts reflect the aggregate grant-date fair value of the stock options granted, computed in accordance with the provisions of FAB ASC Topic 719. For additional details regarding the assumptions and methodologies used to calculate the amounts reported, please see the discussion of equity awards contained in the financial statements included elsewhere in this Annual Report on Form 10-K.

Director Compensation

In connection with their election to the Company's Board of Directors at the Shareholder Meeting and in recognition of their continuing contributions to the Company, on June 1, 2020, the Company granted to Mr. William Fromholzer, Ms. Colleen Hutchinson, Mr. Ed Morrison, and Mr. James Murphy each a one-time cash payment of $20,000 as well as an option to purchase 3,000,000 shares of the Company's common stock. These option grants are consistent with what has been granted to other board members and management of the Company. The options immediately vest, have an exercise price of $0.0138 and expire on June 1, 2030. The exercise price is based upon the closing price of the Company's common stock on the date of the option grant. The fair value of each option granted is $0.0125 and was estimated on the date of grant using the Black-Scholes pricing model with the following assumptions: dividend yield at 0%, risk-free interest rate of 1.84%, an expected life of 5 years, and volatility of 147%.

Outside directors each received a one-time bonus of $20,000 in June of 2019 for their efforts in the success of the NeoGenomics and Intel matters. Additionally, each outside director was awarded 2,000,000 options in June 2019 to purchase shares of the Company's common stock. The options fully vested on the grant date, have an exercise price of $0.07, and expire on June 10, 2029. The fair value of each option granted is $0.0636 and was estimated on the date of grant using the Black-Scholes pricing model with the following assumptions: dividend yield at 0%, risk-free interest rate of 1.84%, an expected life of 5 years, and volatility of 149%.

Nominees for Directors

In filling vacancies and otherwise identifying candidates for our Board of Directors, we seek individuals who will be able to guide our operations based on their business experience, both past and present, or their education. Responsibility for our operations is centralized within management.

Nominations of persons for election to the Board of Directors may be made by any shareholder who complies with the notice provisions set forth in the Bylaws, which provides that a shareholder's notice must be delivered or mailed and received at the principal executive office of the Company not less than thirty days before the date of the meeting; provided, however, that in the event that less than forty days' notice or prior public disclosure of the date is given, notice by the shareholder to be timely must be so received not later than the close of business on the tenth day following the day on which the public announcement of the meeting date was made. Such shareholder's notice shall set forth (i) as to each person whom the shareholder proposes to nominate for election or reelection as a Director, all information relating to such person as required to be disclosed in solicitation of proxies for election of Directors made in compliance with Regulation 14A under the Securities and Exchange Act of 1934, as amended (including such person's written consent to being named in a proxy statement as a nominee and to serving as a Director if elected); and (ii) as to the shareholder giving the notice (A) the name and address, as they appear on the books of the Company, of such shareholder and (B) the class and number of shares of the Company's capital stock that are beneficially owned by such shareholder. At the request of the Board of Directors, any person nominated by the Board of Directors for election as a Director shall furnish to the Chief Executive Officer of the Company that information required to be set forth in a shareholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a Director of the Company unless nominated in accordance with the applicable provisions of the Company's Bylaws.

2020 Director Compensation Table

The following table shows certain information with respect to the compensation of our non-employee directors who served on our board during any part of 2020:

Name	Fees Earned or Paid in Cash ($)	Option Awards ($) (1)	Total
William Fromholzer (2)	$ 20,000	$ 37,500	$ 57,500
Colleen Hutchinson (3)	$ 20,000	$ 37,500	$ 57,500
Edward Morrison (4)	$ 20,000	$ 37,500	$ 57,500
James Murphy (5)	$ 20,000	$ 37,500	$ 57,500

(1) Amounts shown in this column do not reflect dollar amounts actually received by our non-employee directors. Instead, these amounts reflect the aggregate grant date fair value of the stock options granted, computed in accordance with the provisions of FASB ASC Topic 718.
(2) As of December 31, 2020, Mr. Fromholzer held outstanding options to purchase 7,000,000 shares of our common stock.
(3) As of December 31, 2020, Ms. Hutchinson held outstanding options to purchase 7,000,000 shares of our common stock.
(4) As of December 31, 2020, Mr. Morrison held outstanding options to purchase 7,000,000 shares of our common stock.
(5) As of December 31, 2020, Mr. Murphy held outstanding options to purchase 7,000,000 shares of our common stock.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The Company does not have a stock incentive plan but rather grants stock-based awards on an ad hoc basis as approved by the Company's board of directors and management. These grants are consistent with what has been granted to other board members and management of the Company.

Principal Stockholders

The following table sets forth information concerning the beneficial ownership of our common stock as of March 19, 2021 for:

(i) each person who is known to us to be the beneficial owner of more than five percent of our common stock;
(ii) each of our directors;
(iii) each of our executive officers;
(iv) all of our executive officers and directors as a group.

The percentage of beneficial ownership shown in the table is based upon 404,044,937 shares of common stock outstanding as of March 19, 2021. We have determined beneficial ownership in accordance with the rules of the Securities and Exchange Commission. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we take into account shares of common stock issuable pursuant to stock options or warrants that may be exercised or that are subject to vest on or before the 60th day after March 19, 2021. These shares are deemed to be outstanding and beneficially owned by the person holding those options or warrants for purposes of computing the percentage ownership of that person, but they are not treated as outstanding for the purpose of computing the percentage ownership of any other person.

Except as otherwise noted below, the address for each person or entity listed in the table is c/o Health Discovery Corporation, 2002 Summit Blvd, NE, Suite 300, Atlanta, Georgia.

Name of Beneficial Owner	Shares	Percentage
George McGovern, III [(1)]	111,975,086	25.3%
James Dengler [(2)]	86,576,535	19.6%
Edward Morrison [(3)]	13,500,000	3.3%
Marty Delmonte [(4)]	10,000,000	2.4%
William F. Fromholzer [(3)]	7,000,000	1.7%
Colleen M. Hutchinson [(3)]	7,000,000	1.7%
James Murphy [(3)]	7,000,000	1.7%
Hong Zhang [(5)]	2,000,000	*
All current executive officers and directors as a group (7 persons)	158,475,086	32.2%

(*) Less than 1%

(1) Includes 63,487,250 shares of the Company's common stock; 10,495,946 shares of common stock issuable pursuant to conversion rights of the Company's Series D convertible preferred stock; 27,991,891 shares of common stock issuable pursuant to warrants; and 10,000,000 shares of common stock issuable subject to options.
(2) Includes 48,088,699 shares of the Company's common stock; 10,495,946 shares of common stock issuable pursuant to conversion rights of the Company's Series D convertible preferred stock; and 27,991,891 shares of common stock issuable pursuant to warrants.
(3) Includes 7,000,000 shares of the Company's common stock issuable subject to options.
(4) Includes 10,000,000 shares of the Company's common stock issuable subject to options.
(5) Includes 2,000,000 shares of the Company's common stock issuable subject to options.

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

The Company has adopted the independence standards promulgated by the New York Stock Exchange and has made a determination that, as of December 31, 2020, the following directors are independent according to those standards: Mr. William Fromholzer, Mr. Edward Morrison, and Mr. James Murphy. Mr. George McGovern, Mr. Marty Delmonte and Ms. Colleen Hutchinson were not independent according to the New York Stock Exchange independence standards.

On June 1, 2020, the Chairman of the Board and the Company entered into an agreed upon settlement whereby accrued wages of $212,500 were immediately converted into 15,398,551 shares of the Company's common stock at a conversion price of $0.0138.

Indemnification Agreements

The Articles of Incorporation of the Company (the "Articles") require the Company to indemnify its directors and officers. Therefore, we have entered into indemnification agreements with each of our directors and with each of our executive officers. Pursuant to the indemnification agreements, we have agreed to indemnify and hold harmless these directors and officers to the fullest extent permitted by applicable law. The agreements generally cover expenses that a director or officer incurs or amounts that a director or officer becomes obligated to pay because of any proceeding to which he or she is made or threatened to be made a party or participant by reason of his or her service as a current or former director, officer, employee or agent of the Company. The agreements also provide for the advancement of expenses to the directors and executive officers subject to specified conditions. There are certain exceptions to our obligation to indemnify the directors and officers, including any intentional misconduct or act where the director or officer did not in good faith believe he or she was acting in our best interests, with respect to "short-swing" profit claims under Section 16(b) of the 1934 Act and, with certain exceptions, with respect to proceedings that he or she initiates.

Other Transactions

We have granted stock options and/or warrants to our named executive officers and our directors.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table sets forth the fees billed by Frazier & Deeter, LLC in 2020 and 2019:

Category	2020	2019
Audit fees [1]	$ 179,500	$ –
Audit-related fees [2]	–	–
Tax fees [3]	3,000	–
All other fees [4]	–	–
Total fees	$ 182,500	$ –

Audit Fees. This category includes aggregate fees billed for professional services rendered for the audit of the Company's annual financial statements, review for the annual report on Form 10-K and for the limited reviews of quarterly condensed financial statements included in periodic reports filed with the Securities and Exchange Commission, including out of pocket expenses.

Audit-Related Fees. This category includes fees billed for professional services associated with consultation concerning financial accounting and reporting standards.

Tax Fees. This category includes the aggregate fees billed or to be billed for tax services, including tax compliance, tax advice and tax planning fees.

All Other Fees. This category includes the aggregate fees billed for all other services, exclusive of the fees disclosed above, rendered to the Company.

The services provided by the independent auditors were pre-approved by the Board of Directors of the Company to the extent required under applicable law. The Board of Directors of the Company requires pre-approval of all audit and allowable non-audit services.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this Report:

(1) Financial Statements - all financial statements of the Company as set forth under Item 8 of this Report.

(2) Financial Statement Schedules - As a smaller reporting company we are not required to provide the information required by this item.

(3) Exhibits

(b) The following exhibits are attached hereto or incorporated by reference herein (numbered to correspond to Item 601(b) of Regulation S-K, as promulgated by the Securities and Exchange Commission) and are filed as part of this Form 10-K:

Exhibit Number	Description	Filed Herewith	Incorporated by Reference Form	Exhibit	Filing Date
3.1	Articles of Incorporation of the Registrant		8-K	3.1	7/18/2007
3.1 (a)	Articles of Amendment to Articles of Incorporation of the Registrant		8-K	99.1	10/10/2007
3.1 (b)	Articles of Amendment to Articles of Incorporation of the Registrant		10-K	3.1(b)	3/31/2009
3.1 (c)	Amended and Restated Articles of Amendment to Articles of Incorporation of the Registrant		10-Q	3.1	11/16/2009
3.1 (d)	Amended and Restated Articles of Amendment to Articles of Incorporation of the Registrant	X			
3.1 (e)	Articles of Amendment to Articles of Incorporation of the Registrant	X			
3.2	Bylaws of the Registrant		8-K	3.2	7/18/2007
3.2 (a)	Amended and Restated Bylaws of the Registrant		8-K	3.2	5/14/2020
4.1	Copy of Specimen Certificate for shares of Common Stock		SB-2	4.1	6/4/2001
4.1 (a)	Copy of Specimen Certificate for shares of Common Stock		10-KSB	4.1(b)	3/30/2004
4.1 (b)	Copy of Specimen Certificate for shares of Series A Preferred Stock		10-K	4.1(b)	3/31/2008
4.1 (c)	Copy of Specimen Certificate for shares of Series B Preferred Stock		10-K	4.1(c)	3/31/2009
4.3	Description of the Company's Capital Stock	X			
31.1	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Office and Principal Executive Officer.	X			
31.2	Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Office and Principal Financial Officer.	X			
32.1	Section 1350 Certification of Principal Executive Officer.	X			
32.2	Section 1350 Certification of Principal Financial Officer.	X			

101.INS	XBRL Instance Document	X
101.SCH	XBRL Taxonomy Extension Schema	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase	X
101.LAB	XBRL Taxonomy Extension Label Linkbase	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase	X

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

HEALTH DISCOVERY CORPORATION
Registrant

Date: March 19, 2021

By: */s/ George H. McGovern, III*
George H. McGovern, III
Chairman, Chief Executive Officer, Principal Executive Officer

Date: March 19, 2021

By: */s/ Marty Delmonte*
Marty Delmonte
President, Chief Operating Officer, Principal Financial Officer

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
Health Discovery Corporation

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Health Discovery Corporation (the "Company") as of December 31, 2020 and 2019, and the related statements of operations, changes in stockholders' equity, and cash flows for the years then ended, 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 cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company estimates cash will be depleted in a period less than one year from the date of these financial statements if the Company does not generate sufficient cash to support operations. These factors raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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 consolidated 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.

We have served as the Company's auditor since 2020, and we previously served as the Company’s auditor from 2014 through 2016.

/s/ Frazier & Deeter, LLC

Tampa, Florida
March 19, 2021

HEALTH DISCOVERY CORPORATION

BALANCE SHEETS
(In thousands, except share amounts)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash	$ 917	$ 2,296
Prepaid expenses	15	17
Total current assets	932	2,313
Patents, net of accumulated amortization of $3,986	–	–
Total assets	$ 932	$ 2,313
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	$ 128	$ 21
Accrued wages	–	440
Dividends payable	207	207
Accrued interest	10	17
Common stock warrants liability	–	1,898
Convertible debt	212	200
Total current liabilities	557	2,783
Total liabilities	557	2,783
Commitments		
Stockholders' equity (deficit):		
Convertible preferred stock, no par value, 90,000,000 and 45,000,000 shares authorized: 20,991,891 and 0 issued and outstanding as of December 31, 2020 and 2019, respectively	217	–
Common stock, no par value, 900,000,000 and 450,000,000 shares authorized: 404,044,937 and 388,646,386 shares issued and outstanding as December 31, 2020 and 2019, respectively	30,297	28,910
Accumulated deficit	(30,139)	(29,380)
Total stockholders' equity (deficit)	375	(470)
Total liabilities and stockholders' equity (deficit)	$ 932	$ 2,313

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

STATEMENTS OF OPERATIONS
(In thousands, except per share and share amounts)

	Years Ended December 31,	
	2020	**2019**
Revenue:		
Licensing and development	$ 1	$ 19
Licensing revenue from arbitration	–	1,500
Total revenue	1	1,519
Operating expenses:		
Amortization	–	153
Professional and consulting fees	266	84
Legal fees	425	87
Compensation	456	371
Other general and administrative expenses	596	745
Total operating expenses	1,743	1,440
(Loss) income from operations	(1,742)	79
Other (expense) income, net:		
Interest income	1	–
Interest expense	(10)	(37)
Proceeds from arbitration, net	–	1,519
Change in fair value of common stock warrants liability	992	–
Other income, net	983	1,482
Net (loss) income	$ (759)	$ 1,561
Net (loss) income per share:		
Basic	$ (0.002)	$ 0.005
Diluted	(0.002)	0.004
Weighted average shares outstanding:		
Basic	397,632,390	294,642,078
Diluted	397,632,390	369,916,661

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
(In thousands, except share amounts)

	Series D Convertible Preferred Stock		Common Stock		Accumulated	Total Stockholders' Equity
For the year ended December 31, 2020	**Shares**	**Amount**	**Shares**	**Amount**	**Deficit**	**(Deficit)**
Balance, December 31, 2019	–	$ –	388,646,386	$ 28,910	$ (29,380)	$ (470)
Promissory note and accrued interest converted to Series D convertible preferred stock	20,991,891	217	–	–	–	217
Issuance of common stock in settlement of accrued wages	–	–	15,398,551	213	–	213
Reclassification of common stock warrants liability	–	–	–	906	–	906
Stock-based compensation expense	–	–	–	268	–	268
Net loss	–	–	–	–	(759)	(759)
Balance, December 31, 2020	20,991,891	$ 217	404,044,937	$ 30,297	$ (30,139)	$ 375

	Series C Convertible Preferred Stock		Common Stock		Accumulated	Total Stockholders' Equity
For the year ended December 31, 2019	**Shares**	**Amount**	**Shares**	**Amount**	**Deficit**	**(Deficit)**
Balance, December 31, 2018	30,000,000	$ 900	271,718,989	$ 29,047	$ (30,941)	$ (994)
Series C preferred stock converted to common stock	(30,000,000)	(900)	30,000,000	900	–	–
$300,000 convertible debt converted to common stock			86,927,397	348	–	348
Reclassification of common stock warrants	–	–	–	(1,898)	–	(1,898)
Stock-based compensation expense	–	–	–	513	–	513
Net income	–	–	–	–	1,561	1,561
Balance, December 31, 2019	–	$ –	388,646,386	$ 28,910	$ (29,380)	$ (470)

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION

STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2020	**2019**
Cash flows from operating activities		
Net (loss) income	$ (759)	$ 1,561
Adjustments to reconcile net (loss) income to net cash (used in) provided by operating activities:		
Amortization	–	153
Stock-based compensation expense	268	513
Change in fair value of common stock warrants liability	(992)	–
Changes in operating assets and liabilities:		
Prepaid expenses	2	(17)
Accounts payable	107	(127)
Accrued wages	(15)	100
Accrued interest	10	38
Deferred revenue	–	(18)
Net cash (used in) provided by operating activities	(1,379)	2,203
Cash flows from financing activities		
Proceeds from convertible debt	–	93
Net cash provided by financing activities	–	93
Net (decrease) increase in cash	(1,379)	2,296
Cash, beginning of year	2,296	–
Cash, end of year	$ 917	$ 2,296

Non-cash Financing and Investing Activities	Year Ended December 31,	
	2020	**2019**
Conversion of accrued wages to common stock	$ 213	$ –
Conversion of accrued wages to convertible debt	$ 212	$ –
Conversion of Series C convertible preferred stock to common stock	$ –	$ 900
Conversion of debt to Series D convertible preferred stock	$ 217	$ –
Conversion of debt to common stock	$ –	$ 348
Reclassification of common stock warrants liability	$ 906	$ 1,898

See accompanying notes to financial statements.

HEALTH DISCOVERY CORPORATION
Notes to Financial Statements

Note 1 - BASIS OF PRESENTATION

Health Discovery Corporation (the "Company") is a machine learning company that uses advanced mathematical techniques to analyze large amounts of data to uncover patterns that might otherwise be undetectable. The Company operates primarily in the field of molecular diagnostics where such tools are critical to scientific discovery. The terms artificial intelligence and machine learning are sometimes used to describe pattern recognition tools. Our mission is to use our patents and clinical partnerships principally to identify patterns that can advance the science of medicine, as well as to advance the effective use of our technology in other diverse business disciplines, including the high-tech, financial, and healthcare technology markets.

Our historical foundation lies in the molecular diagnostics field where we have made a number of discoveries that may play a role in developing more personalized approaches to the diagnosis and treatment of certain diseases. However, our Support Vector Machines ("SVM") assets in particular have broad applicability in many other fields. Intelligently applied, our pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our principal asset is our intellectual property, which includes advanced mathematical algorithms called SVM, as well as biomarkers that we discovered by applying our SVM techniques to complex genetic and proteomic data. Biomarkers are biological indicators or genetic expression signatures of certain disease states. Our intellectual property is protected by 22 patents that have been issued or are currently pending around the world. During the year ended December 31, 2020, nine patents expired per the terms of the original issuance.

Our business model has evolved over time to respond to business trends that intersect with our technological expertise and our capacity to professionally manage these opportunities. In the beginning, we sought only to use our SVMs internally in order to discover and license our biomarker signatures to various diagnostic and pharmaceutical companies. Today, our commercialization efforts include: utilization of our discoveries and knowledge to help develop diagnostic and prognostic predictive tests; licensing of the SVM technologies directly to diagnostic companies; and, the potential formation of new ventures with domain experts in other fields where our pattern recognition technology holds commercial promise.

The accounting principles followed by the Company and the methods of applying these principles conform with accounting principles generally accepted in the United States of America ("GAAP").

Liquidity and Going Concern

The Company has prepared its financial statements on a "going concern" basis, which presumes that it will be able to realize our assets and discharge our liabilities in the normal course of business for the foreseeable future.

The Company's ability to continue as a going concern is dependent upon our licensing arrangements with third parties, achieving profitable operations, obtaining additional financing, successfully bringing the Company's technologies to the market and successfully pursuing infringement opportunities. The outcome of these matters cannot be predicted at this time. The Company's financial statements have been prepared on a going concern basis and do not include any adjustments to the amounts and classifications of the assets and liabilities that might be necessary should the Company be unable to continue in business.

If the going concern assumption was not appropriate for the Company's financial statements then adjustments would be necessary in the carrying value of assets and liabilities, the reported expenses and the balance sheet classifications used. Such adjustments may be material.

At December 31, 2020, the Company had approximately $917,000 and on March 19, 2021, the Company had approximately $750,000 cash on hand. As a result, the Company estimates cash will be depleted in less than one year from the date that these financial statements are available to be issued, if the Company does not generate sufficient cash to support operations.

The Company's plan to have sufficient cash to support operations is comprised of generating revenue through providing services related to those patents, pursuing infringement opportunities and obtaining additional equity or debt financing. While the Company believes these efforts may increase the value of the Company, there is no guarantee the Company will be successful in these efforts.

Estimates and assumptions

In preparing financial statements in conformity with GAAP, management is required to make estimates and assumptions that affect the reported amounts in the financial statements. Actual results could differ significantly from those estimates due to risks and uncertainties, including uncertainty in the current economic environment due to the outbreak of a novel strain of the coronavirus ("COVID-19").

Segments

Our chief executive officer and president, in making decisions regarding resource allocation and assessing performance, views our operations and manages our business as one operating segment.

Note 2 – SIGNIFICANT ACCOUNTING POLICIES

Patents

Initial costs paid to purchase patents are capitalized and amortized using the straight-line method over the remaining life of the patent, generally 17 years, beginning on the date the patent is issued. Annual patent maintenance costs and annual license and renewal registration fees are expensed as period costs. If the applied for patents are abandoned or are not issued, the Company will expense the costs capitalized to date in the period of abandonment or earlier if abandonment appears probable. The carrying value of patents is reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

There was no amortization charged to operations for the year ended December 31, 2020. As of December 31, 2020, and 2019, there were no impairments to the Company's patent assets, which are fully amortized. The Company has analyzed the respective carrying value of our patent portfolio at December 31, 2020 and 2019 and has concluded that the portfolio was properly valued during these periods.

Common Stock Warrants Liability

The Company has, from time to time beginning in 2014, issued convertible preferred stock, preferred stock warrants, common stock, common stock warrants, and fully vested options to purchase shares of common stock in excess of its available shares of underlying stock to be issued.

In the event the number of shares or warrants of common stock granted exceeds the number of shares available if the holders exercised all of the previously issued outstanding options and warrants, the Company accounts for this excess as a derivative which is recorded as a common stock warrants liability, which is adjusted to fair value at the end of each reporting period. If and when the Company authorizes sufficient shares of common stock and preferred stock, the common stock warrants liability is reclassified to equity at the fair value of the liability at the date of reclassification. The Company accounts for the reclassification from equity to liability (or vice versa) similar to a modification of a share-based payment award.

See further discussion in Note 6 – Statement of Stockholders' Equity (Deficit) and Note 7– Common Stock Warrants Liability.

Stock-based Compensation

Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as expense over the requisite service period using the straight-line method.

Valuation and Amortization Method – The fair value of stock awards that do not contain a market condition target are estimated on the grant date using the Black-Scholes option-pricing model. The fair value of options that contain a market condition, such as a specified hurdle price, is estimated on the grant date using a probability weighted fair value model similar to a lattice valuation model. Both the Black-Scholes and the probability weighted valuation models require assumptions and estimates of expected volatility, expected life, expected dividend yield and expected risk-free interest rates.

Expected Term – The expected term of the award represents the period that the Company's stock-based awards are expected to be outstanding and was determined based on historical experience, giving consideration to the contractual terms of the stock-based awards, vesting schedules, and forfeitures due to departure prior to the end of the vesting schedule.

Expected Volatility – Volatility is a measure of the amounts by which a financial variable such as stock price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company uses the historical volatility, employing a prior period equivalent to the expected term to estimate expected volatility

Risk-Free Interest Rate – The Company bases the risk-free interest rate used in the Black-Scholes valuation method on the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equivalent to the expected term of a stock award.

Cash

Cash includes cash deposited with financial institutions. Periodically, we maintain deposits in financial institutions in excess of government-insured limits. We believe we are not exposed to significant credit risk and to date, we have not realized any losses on these deposits.

Fair value measurement

The carrying values of our prepaid expenses, accounts payable, accrued wages, and accrued liabilities approximate their recorded values due to the short-term nature of these instruments.

The common stock warrants liability is recorded based upon the number of warrants which exceed the number of common shares available to meet the exercised options and warrants using the Black-Scholes option-pricing model.

Income Taxes

The Company accounts for income taxes using the asset and liability method. Deferred tax assets and liabilities are recognized for future tax benefits and expenses or consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income for the years in which those temporary differences are expected to be recovered or settled.

In the event the future tax consequences of differences between the financial reporting bases and tax bases of the Company's assets and liabilities result in deferred tax assets, an evaluation is made of the probability of being able to realize the future benefits indicated by such assets. A valuation allowance is provided for the portion of the deferred tax asset when it is more likely than not that some portion or all of the deferred tax asset will not be realized. In assessing the probability of realizing the deferred tax assets, management considers the scheduled reversals of deferred tax liabilities, projected future taxable income, and tax planning strategies.

Revenue

Revenue is generated through the sale or license of patented technology and processes and from services provided through development agreements. These arrangements are generally governed by contracts that dictate responsibilities and payment terms. The Company recognizes revenues as they are earned over the duration of a license agreement once all contractual obligations have been fulfilled. If a license agreement has an undetermined or unlimited life, the revenue is recognized over the remaining expected life of the patents. Revenue is recognized under development agreements in the period the services are performed.

Under ASC 606, the Company recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five-step analysis: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation. The Company only applies the five-step analysis to contracts when it is probable that the entity will collect the consideration to which it is entitled in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract, determines those that are performance obligations, and assesses whether each promised good or service is distinct. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Note 3 – NET INCOME (LOSS) PER SHARE

Basic earnings per share ("EPS") is computed by dividing income or loss available to common stockholders by the weighted average number of common shares outstanding for the period. Diluted EPS is computed based on the weighted average number of shares of common stock plus the effect of dilutive potential common shares outstanding during the period using the treasury stock method. Dilutive potential common shares include outstanding stock options, convertible promissory notes payable, convertible preferred stock, and warrants.

The computation of basic and diluted earnings per share was as follows:

	Year Ended December 31,	
	2020	2019
Net (loss) income, in thousands	$ (759)	$ 1,561
Weighted average shares outstanding - basic	397,632,390	294,642,078
Effect of dilutive securities:		
Options and warrants	–	55,968,330
Convertible debt	–	19,306,253
Series D convertible preferred stock	–	–
Weighted average shares outstanding - diluted	397,632,390	369,916,661
(Loss) earnings per share:		
Basic	$ (0.002)	$ 0.005
Diluted	$ (0.002)	$ 0.004
Anti-dilutive shares excluded:		
Shares issuable on conversion of options and warrants	47,192,095	–
Shares issuable on conversion of convertible debt	16,117,431	–
Shares issuable on conversion of Series D convertible preferred stock	20,991,891	–

The dilutive effect of 21,300,683 and 1,382,545 options and warrants were excluded from diluted weighted average shares during years ended December 31, 2020 and 2019, respectively, because the strike or conversion price was below the average share price during the related period.

Note 4 – STOCK-BASED COMPENSATION AND OTHER EQUITY BASED PAYMENTS

In connection with their election to the Company's Board of Directors at the Annual Shareholder Meeting and in recognition of their continuing contributions to the Company, in June 2020, the Company granted to certain of the directors each a one-time cash payment of $20,000 as well as an option to purchase 3,000,000 shares of the Company's common stock. Additionally, the Chairman of the Board and the President and Chief Operating Officer were each granted an option to purchase 5,000,000 shares and 4,500,000, respectively, of the Company's common stock. The option grants are consistent with what has been granted to other board members and management of the Company. The options immediately vested, have an exercise price of $0.0138 and expire on June 1, 2030. The exercise price was based upon the closing price of the Company's common stock on the date of the option grant. The fair value of each option granted was $0.0125 and was estimated on the date of grant using the Black-Scholes pricing model with the following assumptions: dividend yield at 0%, risk-free interest rate of 1.84%, an expected life of 5 years, and volatility of 147%. The aggregate value of $268,000 related to the options granted was charged to stock-based compensation expense during the second quarter of 2020.

As of December 31, 2020, there was no unrecognized cost related to stock option grants because the outstanding option awards either completed their vesting schedule or the option awards immediately vested. As the market closing price was $0.0452 on December 31, 2020, there was $4.0 million aggregate intrinsic value of all options and warrants outstanding and exercisable as of that date.

Stock-based compensation expense recorded in the financial statements was the following (in thousands):

	Year Ended December 31,	
	2020	2019
Stock-based compensation	$ 268	$ 513

The following schedule summarizes stock option information as of December 31, 2020 and 2019:

	Shares	Weighted-Average Exercise Price
Outstanding, December 31, 2018	34,375,000	$ 0.0300
Granted	8,000,000	0.0700
Exercised	–	–
Forfeited	–	–
Outstanding, December 31, 2019	42,375,000	$ 0.0308
Granted	21,500,000	0.0138
Exercised	–	–
Forfeited	–	–
Outstanding and exercisable, December 31, 2020	63,875,000	$ 0.0245

The Company has outstanding the following common stock warrants:

	Shares	Weighted-Average Exercise Price
Outstanding, December 31, 2018	74,000,000	$ 0.0328
Granted	–	–
Exercised	–	–
Forfeited	–	–
Outstanding, December 31, 2019	74,000,000	$ 0.0328
Granted	41,983,781	0.0103
Exercised	–	–
Forfeited	–	–
Outstanding, December 31, 2020	115,983,781	$ 0.0247

Note 5 – PATENTS

The Company's principal asset is its intellectual property, which includes advanced mathematical algorithms called Support Vector Machines ("SVM"), as well as biomarkers that we discovered by applying its SVM techniques to complex genetic and proteomic data. Biomarkers are biological indicators or genetic expression signatures of certain disease states. The Company's intellectual property is protected by 22 patents that have been issued or are currently pending around the world. During the year ended December 31, 2020, nine patents expired per the terms of the original issuance. The remaining 22 patents have expirations ranging from 2021 to 2032.

Initial costs paid to purchase patents are capitalized and amortized using the straight-line method over the remaining life of the patent. Amortization charged to operations for the year ended December 31, 2019 totaled $153,000. There was no amortization charged to operations for the year ended December 31, 2020. Annual patent maintenance costs and annual license and renewal registration fees are expensed as period costs.

Note 6 – STOCKHOLDERS' EQUITY (DEFICIT)

Authorized capital

At December 31, 2020, the Company's authorized capital consisted of 450,000,000 shares of common stock and 45,000,000 shares of preferred stock. In May 2020, the Company's Articles of Incorporation were amended to increase the number of authorized shares of common stock to 900,000,000 and to increase the number of authorized shares of preferred stock to 90,000,000.

Series B Preferred Stock

The Company sold to individual investors a total of 19,402,675 shares of Series B preferred stock for $1,490,015, net of associated expenses, in 2009. The Series B preferred stock was converted into common stock of the Company in the fourth quarter of 2014, which was the fifth anniversary of the date of issuance as outlined in the original purchase agreement.

Dividends have been accrued for the Series B preferred stock in the amount of $373,346 as of December 31, 2014. The Company gave the Series B holders the choice of either (1) common stock for the amount of the dividend accrued based upon the price of $0.05 per share or (2) to defer payment of the dividend in cash until the Company is able to pay, at the sole discretion of the Company. During the first quarter of 2015, $166,709 in dividends were paid with the issuance of 3,334,179 shares of common stock. The remaining accrued dividend is recorded as a current liability in the amount of $206,637 as of December 31, 2020.

Series C Preferred Stock

In the fourth quarter of 2013, the Board of Directors authorized the issuance of Series C preferred shares in private placement transactions. As of December 31, 2014, and 2015, the Company had issued a total of 6,640,000 and 30,000,000 preferred shares, respectively. The Series C preferred shares were fully subscribed in the third quarter 2015. The Company received total net proceeds of $900,000, of which $568,000 was received during the year ended December 31, 2015. The Series C preferred shares were accompanied by $0.03 warrants and $0.03 contingency warrants. The contingency warrants were to be issued only if the Company had not attained profitability by the end of the first quarter 2016. Because the Company did not attain profitability by the end of first quarter 2016, the contingency warrants were issued. The warrant holders must exercise fifty percent of the warrants if the market price for the Company's common stock is $0.20 for a period of thirty consecutive calendar days. The holders must also exercise fifty percent of the warrants if the market price for the Company's common stock is $0.30 for a period of thirty consecutive calendar days. The warrants were valued at $0.022 each using the Black Scholes Method.

The Series C preferred stock were to be converted into common stock of the Company at the option of the holder, without the payment of additional consideration by the holder. The shares of Series C preferred stock must be converted into common stock of the Company either by the demand by the shareholder or at the fifth anniversary of the date of issuance. During the first quarter of 2019, the Series C preferred stock was converted to common stock.

Series D Preferred Stock

The Company's Series D preferred stock has the following rights and preferences:

Dividend rights: The holders of Series D preferred stock shares *pari passu* with the holders of common stock in dividends payable to stockholders.

Voting rights: Each share of Series D preferred stock is entitled to vote on all matters submitted to stockholder vote and each share has a number of votes equal to ten votes for the same number of shares of common stock into which it is then convertible.

Conversion rights: Each share of Series D preferred stock is convertible into shares of the Company's common stock at a 1:1 ratio at the option of the holder or on the ten-year anniversary of issuance, whichever occurs first.

Liquidation rights: In the event of voluntary or involuntary liquidation, dissolution or winding up of the Company, the Series D holders receive distribution on a *pari passu* basis with the holders of other preferred stockholders after payment of the preferred stock dividends payable to the Series A preferred stockholders and before any payments to common stockholders.

In February 2020, the Company effected the conversion of its $200,000 outstanding promissory note, plus accrued interest of $16,688, into shares of its Series D convertible preferred stock. The note holders retain their outstanding warrants to purchase an aggregate of 41,983,781 shares of the Company's common stock at a weighted average price of $0.0103. Each warrant expires on July 31, 2029.

Common Stock

In June 2020, the Chairman of the Board and the Company entered into an agreed upon settlement whereby accrued wages of $212,500 were immediately converted into 15,398,551 shares of the Company's common stock at a conversion price of $0.0138.

All of these issuances of equity securities were made in reliance upon exemptions from registration pursuant to Section 4(2) under the Securities Act of 1933, as amended.

As of December 31, 2020, the Company had 179,858,781 options and warrants outstanding with exercise prices ranging from $0.003 to $0.070. In comparison, as of December 31, 2019, the Company had 116,375,000 options and warrants outstanding with exercise prices ranging from $0.003 to $0.070.

Note 7 – COMMON STOCK WARRANTS LIABILITY

The common stock warrants liability is recorded based upon the vested number of warrants or other equity-linked instruments outstanding which exceed the number of authorized shares available to meet the assumed exercise or conversion of such instruments at each reporting period.

The common stock warrants liability is recorded based upon the number of warrants which exceed the number of common shares available to meet the exercised options and warrants using the Black-Scholes option-pricing model.

In the year ended December 31, 2020, the Company recorded other income of $992,000 related to the change in fair value of the common stock warrants liability. At December 31, 2020, the common stock warrants liability is zero as the Company has adequate authorized shares available to meet the assumed exercise or conversion of its issued options, warrants, convertible debt and convertible preferred stock.

The following table presents a reconciliation of the Company's common stock warrants liability for the year ended December 31, 2020 (in thousands):

	Common Stock Warrants Liability
Balance, December 31, 2018	$ –
Common stock warrants liability	1,898
Balance, December 31, 2019	$ 1,898
Change in fair value of common stock warrants liability	(992)
Reclassification of common stock warrants liability to equity	(906)
Balance, December 31, 2020	$ –

The Company has determined that the common stock warrants liability is a Level 3 measurement within the fair value hierarchy.

Note 8 – CONVERTIBLE DEBT

In October 2017, the Company issued a convertible promissory note to Mr. George McGovern, the Chairman and CEO of the Company, and Mr. James Dengler, a Company shareholder (the "Note Holders"), for $300,000. The promissory note contained an 8% annual interest rate, and the Note Holders had the right to convert the principal and unpaid accrued interest of the promissory note into shares of the Company's common stock at a conversion price of $0.004 ("the 2017 Convertible Promissory Notes").

In April 2019, the Company issued an additional convertible promissory note in the amount of $200,000 to the same Note Holders for funds advanced to the Company. The promissory note was approved by the Company's board of directors in 2018, for funds were advanced to the Company from August 2018 through March 2019 and the promissory note was executed in April 2019 by the Company. The additional promissory note contained an 8% annual interest rate, and the Note Holders had the right to convert the principal and unpaid accrued interest of the promissory note (the "2019 Convertible Promissory Note") into shares of the Company's Series D convertible preferred stock at a conversion price based upon the price of the Company's common stock on the date of advancement of the loan amount (the "Conversion Price"). Because the loan proceeds were advanced on multiple dates, the Conversion Price varies depending upon the price of the Company's common stock on the date of advancement of the loan amount. The right of conversion (optional) was solely at the Note Holders' discretion.

On December 31, 2019, the Note Holders notified the Company of their election to convert both the 2017 8% Convertible Promissory Note and the 2019 Convertible Promissory Note into shares of the Company's common stock and Series D convertible preferred stock, respectively. As a result, the Note Holders received 86,927,397 shares of the Company's common stock on December 31, 2019 and 20,991,891 shares of Series D convertible preferred stock in February 2020.

In June 2020, an additional $212,000 in accrued wages was converted into a convertible promissory note in the same amount with our chief executive officer. The promissory note and accrued interest are convertible into common stock of the Company at a conversion price of $0.0138. The conversion price is based upon the closing price of the Company's common stock on June 1, 2020. The promissory note bears interest at an annual rate of 8%.

Note 9 – INCOME TAXES

The Company has incurred net losses since inception leading to significant net operating loss ("NOL") carryforwards. Because we have determined that it is more likely than not we will be unable to realize the benefit of any deferred tax assets ("DTAs"), we have recorded a full valuation allowance against those DTA's. Consequently, we have not recorded income tax expense or benefit for the years ending December 31, 2020 and 2019.

The Company has unused net operating loss carryforwards of approximately $26.6 million as of December 31, 2020 that are available to offset future income tax expense. The net operating losses will begin to expire in 2021.

Based on our evaluation of tax positions, we have concluded that there are no significant uncertain tax positions requiring recognition in its financial statements. The Company's evaluation was performed for all tax years, which remain subject to examination and adjustment, by major tax jurisdictions as of December 31, 2020. The Company is generally no longer subject to U.S. federal, state, and local, or non-US income tax examinations for the years before 2013.

Note 10 – COMMITMENTS AND CONTINGENCIES

Operating Leases

The Company does not own any real property. The Company leases approximately 300 square feet of office space in Atlanta, Georgia, pursuant to a short-term lease as of January 2021. The Company currently pays base rent in the amount of $636 per month.

Through December 31, 2020, we leased approximately 600 square feet of office space in Atlanta, Georgia, for $2,539 per month, pursuant to a short-term lease as of August 1, 2019. In 2020, we also leased an office in Philadelphia, Pennsylvania for $1,078 per month until June 30, 2020, pursuant to a short-term lease as of November 1, 2019. The lease for the office in Philadelphia, Pennsylvania was renewed for a six-month period from July 1, 2020 through December 31, 2020 at a rate of $1,540 per month. That lease has expired and not been renewed.

Legal Proceedings

Intel Matter

In September 2016, the Company initiated an Interference proceeding between the Company and Intel Corporation ("Intel") with United States Patent and Trademark Office ("USPTO") for Interference between the Company's pending patent application covering SVM-Recursive Feature Elimination ("SVM-RFE") and Intel's Patent No. 7,685,077, entitled "Recursive Feature Eliminating Method based on a Support Vector Machine".

On February 27, 2019, the USPTO ruled in favor of the Company on the SVM-RFE Patents. The Patent Trial and Appeal Board of the USPTO issued its decision, finding that the Company is entitled to claim exclusive rights to the SVM-RFE technology. The decision, issued by Administrative Patent Judge James Moore, ordered Intel's patent to be cancelled. The decision also dismissed Intel's motions challenging the validity of the Company's pending claims and issued patents covering SVM-RFE.

On July 23, 2020, the Company filed an infringement lawsuit against Intel. This infringement suit pertains to the Company's SVM-RFE. The lawsuit was filed in the United States District Court for the Western District of Texas, Waco Division. On February 27, 2021, Intel filed a Petition for *Inter Partes* Review ("IPR") of HDC's SVM-RFE with The Patent Trial and Appeal Board of the USPTO. The Company is currently in the process of evaluating the IPR and formulating a response.

The Company recorded $139,000 in legal costs related to this matter in 2020 and none in 2019.

Quirk and Bear Matter

On February 7, 2020, two shareholders of the Company, William Quirk ("Quirk") and Cindy Bear ("Bear"), filed a motion for a temporary restraining order and preliminary injunction in DeKalb County Superior Court. Among the items in the motion, Quirk and Bear requested to have a special meeting of the shareholders and Quirk and Bear alleged misconduct by the Company and its directors.

On March 2, 2020, Quirk and Bear filed a notice of dismissal in DeKalb County. Quirk and Bear subsequently filed a new lawsuit in Fulton County Superior Court based on substantially similar allegations and seeking similar relief. On March 4, 2020, the Fulton County court ordered a hearing on the emergency motion for a temporary restraining order against the Company for the following day.

At the hearing on March 5, 2020, Quirk and Bear presented their version of the facts through affidavits submitted by both Quirk and Bear, arguing that the affidavits supported the emergency relief they sought. The judge denied the motion and did not enter a temporary restraining order. The court set an evidentiary hearing on Quirk and Bear's motion for a preliminary injunction for March 27, 2020. Due to the COVID-19 pandemic and multiple requests by Quirk and Bear, the scheduling of the hearing was cancelled and has never taken place.

On September 2, 2020, the Company moved to dismiss the complaint on the grounds that Quirk and Bear lacked standing and failed to state claims for relief. Facing the Company's motion to dismiss, on September 23, 2020, Quirk voluntarily dismissed the Fulton County case—his second dismissal of these claims.

On September 25, 2020, the Company filed, among other documents, a Motion for Attorney's Fees and Expenses. The Company's motion is made pursuant to O.C.G.A. § 9-11-41(a)(3), which states "the filing of a second notice of dismissal operates as an adjudication upon the merits." Additionally, the Company noted in its motion that Mr. Quirk's claims lacked substantial justification, were commenced and maintained without reasonable cause or for an improper purpose, and the Company's 2020 attorneys' fees and expenses of litigation in the amount of $216,000 are reasonable. For strategic purposes, in November 2020, the Company elected to withdraw this motion against Quirk, without prejudice to renew as may be appropriate.

Bear remains a plaintiff in the case. The Company firmly denies Bear's claims and will continue to vigorously defend itself against these unsubstantiated and unjustified claims. Additionally, Bear has been notified of the Company's intent to pursue abusive litigation claims against Bear as a result of these claims.

Due to Bear's non-compliance with court-ordered discovery, the Company filed a Motion for Involuntary Dismissal of Plaintiff's Complaint with Prejudice and Incorporated Memorandum of Law on March 2, 2021. Among the requests in the motion, the Company asked the court to award HDC its attorneys' fees and costs against Bear as a result of what the Company believes is a wasteful, baseless lawsuit that is a clear example of abusive litigation.

The Company denies all allegations of improper conduct in the complaint and will continue to defend itself against all allegations. Although the Company believes that it will ultimately be successful in its defense, there can be no assurance that the Company will be successful in its defense. Should Bear be successful, the outcome could have a material adverse effect on the Company.

The Company recorded $216,000 in legal costs related to this matter in 2020 and none in 2019. The Company has not recorded a liability for this matter as of December 31, 2020.

Venning Matter

On September 24, 2020, the Company accepted service of a lawsuit filed by Laurie Venning ("Venning") and one of his companies, Vennwest Global Technologies, Inc. ("Vennwest") from Alberta, Canada. According to recent publications, Venning is involved in additional lawsuits, one of which is against his formal legal counsel, Dentons, who has countersued Venning.

The Vennwest lawsuit contains virtually identical claims against the Company that Quirk and Bear have alleged. In addition, Vennwest is represented by the same law firm that previously withdrew its representation of Bear and Quirk in their lawsuits. As Quirk's dismissal reflects, the Company believes these claims are without merit and serve only to deplete the Company's resources to the detriment of its shareholders. Similar to the Bear matter, the Company will vigorously defend itself against these baseless claims and evaluate all options against the plaintiffs including, but not limited to, pursuing counterclaims.

On November 2, 2020, HDC moved to dismiss the complaint or stay the action pending the conclusion of the Quirk and Bear case, on the grounds that the first-filed derivative case would serve as res judicata to preclude the later-filed case. On November 30, Vennwest filed its response and on December 15, HDC filed its reply. The motion remains pending.

The Company denies all allegations of improper conduct in the complaint and will continue to defend itself against all allegations. Although the Company believes that it will ultimately be successful in its defense, there can be no assurance that the Company will be successful in its defense. Should Venning and Vennwest be successful, the outcome could have a material adverse effect on the Company.

The Company recorded $20,000 in legal costs related to this matter in 2020 and none in 2019.

Note 11 – RECENT ACCOUNTING PRONOUNCEMENTS

Financial Instruments – Credit Losses

In November 2019, the FASB issued ASU No. 2019-10 which provides a framework to stagger effective dates for future major accounting standards and amends the effective dates for certain new accounting standards, including ASU No. 2016-13, "Credit Losses," to give implementation relief. The new standard, as amended, will replace the incurred loss impairment methodology under current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The Company will be required to use a forward-looking expected credit loss model for accounts receivable, loans, and other financial instruments. Credit losses relating to available-for-sale debt securities will also be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. The standard will be adopted upon the effective date for the Company beginning January 1, 2023. Adoption of the standard will be applied using a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the effective date to align the Company's credit loss methodology with the new standard. The Company is currently evaluating the effects this standard will have, if any, on its financial position, results of operations, and cash flows.

Income Taxes

On December 18, 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." This new guidance simplifies the accounting for income taxes by removing certain exceptions such as the exception to the incremental approach for intra period tax allocation when there is a loss from continuing operations and income/gain from other items; and the exception to the general methodology for calculating income taxes in an interim period when a year-to-date loss exceeds the anticipated loss for the year. The new guidance also simplifies the accounting for income taxes under certain circumstances such as requiring that an entity recognize a franchise tax that is partially based on income as an income-based tax and account for any incremental amount incurred as a non-income-based tax; requiring that an entity evaluate when a step up in the tax basis of goodwill should be considered part of a business combination in which the book goodwill was originally recognized and when it should be considered a separate transaction; and requiring that an entity reflect the effect of an enacted change in tax laws or rates in the annual effective tax rate computation in the interim period that includes the enactment date. This standard will be effective for the Company on January 1, 2021. Based on the Company's evaluation, this standard will not have a material impact on its financial position, results of operations, and cash flows.

Note 12 – SUBSEQUENT EVENTS AND COVID-19

The Company has evaluated subsequent events occurring through the date that the financial statements were available to be issued, for events requiring recording or disclosure in the December 31, 2020 financial statements. Other than disclosed earlier in this Annual Report on Form 10-K, there were no material events or transactions occurring during this period requiring recognition or disclosure.

In March 2020, the World Health Organization declared the novel coronavirus (COVID-19) outbreak a pandemic and the President of the United States declared it a national emergency. The COVID-19 pandemic remains a rapidly evolving situation. The extent of the impact of COVID-19 on our business and financial results will depend on future developments, including the duration and spread of the outbreak within the markets in which we operate, government actions and programs, and the related impact on consumer confidence and spending, all of which are highly uncertain.