HEALTH DISCOVERY CORPORATION

*2002 Summit Blvd, Suite 300*
*Atlanta, Georgia 30319*
*(404) 566-4865*

May 12, 2020

Dear Shareholder:

I invite you to attend our Annual Meeting of Shareholders, which will be held on Wednesday, May 27, 2020, at 1:00 pm ET via videoconference by joining the website: https://viewproxy.com/HealthDiscoveryCorp/2020/VM.

The purposes of this shareholders meeting are to vote for the board of directors, increase the authorized shares of Health Discovery Corporation, ratify the independent registered public accounting firm and, if necessary, approve an adjournment of the Annual Meeting of Shareholders as described in the accompanying Notice of Annual Meeting of Shareholders and Proxy Statement. Also, the Company will briefly update our shareholders on Company activities and related progress made, and to conduct such other business as may properly come before the Annual Meeting prior to adjournment.

We hope that you are able to attend the meeting. Whether or not you plan to attend, it is important that your shares be represented and voted at the meeting. Therefore, I urge you to promptly vote and submit your proxy by signing, dating and returning the enclosed proxy card in the enclosed envelope. If you are a shareholder of record and you decide to attend the Annual Meeting, you will be able to vote in person, even if you previously have submitted your proxy.

Thank you for your ongoing support of Health Discovery Corporation.

Sincerely,

George H. McGovern, III
Chairman and Chief Executive Officer

**2020 ANNUAL MEETING OF SHAREHOLDERS**

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**HEALTH DISCOVERY CORPORATION**
**2002 Summit Blvd, Suite 300, Atlanta, Georgia 30319**

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**NOTICE OF**
**ANNUAL MEETING OF SHAREHOLDERS**

| | |
|---|---|
| **TIME AND DATE** | 1:00 pm ET on Wednesday, May 27, 2020 |
| **PLACE** | Via videoconference – You must pre-register at https://viewproxy.com/HealthDiscoveryCorp/2020/ |
| **ITEMS OF BUSINESS** | (1) To elect as directors the six (6) nominees named in the attached proxy statement for a one-year term.<br>(2) To approve an amendment to our Articles of Incorporation to increase the number of authorized shares of our common stock from 450,000,000 to 900,000,000 and increase the number of authorized shares of our preferred stock from 45,000,000 to 90,000,000 (the "Authorized Share Increase").<br>(3) To ratify the Board of Directors' selection of the independent registered public accounting firm.<br>(4) To authorize an adjournment of the Annual Meeting of Shareholders ("Annual Meeting") to allow time for further solicitation of proxies in the event there are insufficient votes present at the Annual Meeting, in person or by proxy, to approve the amendments to our Articles of Incorporation to effect the Authorized Share Increase.<br>(5) To transact such other business as may properly come before the meeting prior to adjournment, if any. |
| **RECORD DATE** | You are entitled to vote if you were a shareholder of record at the close of business on **Friday March 27, 2020**. |
| **ANNUAL REPORT** | Our 2019 Annual Report on Form 10-K, which is not part of the proxy soliciting material, is enclosed. |
| **PROXY VOTING** | Please submit a proxy as soon as possible so that your shares can be voted at the meeting in accordance with your instructions. If you are a shareholder of record and you attend the meeting, you may withdraw your proxy and vote in person. |

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON MAY 27, 2020: This Notice of Annual Meeting and Proxy Statement, together with our 2019 Annual Report on Form 10-K, are available on our website at www.healthdiscoverycorp.com.**

George H. McGovern, III
Chairman and Chief Executive Officer

This Proxy Statement and Proxy Card are being distributed on or about May 12, 2020.

## PROXY STATEMENT

The Board of Directors (the "Board") of Health Discovery Corporation ("HDC", "we", "us", "our" or the "Company") is soliciting proxies for the Annual Meeting of Shareholders ("Annual Meeting"). You are receiving a proxy statement because you own shares of HDC common stock or preferred stock that entitle you to vote at the meeting. By use of a proxy, you can vote whether or not you attend the meeting. The proxy statement describes the matters we would like you to vote on and provides information on those matters so you can make an informed decision.

The information included in this proxy statement relates to proposals to be voted on at the meeting, voting process, and other information.

### Purpose of the Annual Meeting

The purpose of the Annual Meeting is to elect as directors the six (6) nominees named in this proxy statement, to increase the authorized shares of the Company, ratify the Board of Directors' selection of the independent registered public accounting firm, authorize an adjournment of the Annual Meeting and conduct such other business as may properly come before the Annual Meeting prior to adjournment, if any.

### Annual Meeting Admission

You are invited to attend the meeting via videoconference. The meeting will be held on Wednesday, May 27, 2020 at 1:00 pm ET by visiting the website https://viewproxy.com/HealthDiscoveryCorp/2020/VM.

In order to attend the virtual meeting you must pre-register at https://viewproxy.com/HealthDiscoveryCorp/2020/. Upon registration, you will receive an invite to the virtual meeting along with an event passcode.

We reserve the right to require proof of ownership of HDC stock, as well as a form of personal photo identification, in order for you to vote or ask questions the meeting.

We reserve the right to adopt other rules of conduct for the meeting.

### Quorum

A quorum is the minimum number of shares required to hold a meeting. Shares entitled to vote as a separate voting group may take action on a matter at a meeting of shareholders only if a quorum of those shares exists with respect to that matter. A majority of the votes entitled to be cast on the matter by the voting group constitutes a quorum of that voting group for action on that matter. A majority of the voting group must be represented in person or by proxy at the meeting to establish a quorum. Both abstentions and broker non-votes are counted as present for determining the presence of a quorum. Broker non-votes, however, are not counted as shares present and entitled to be voted with respect to the matter on which the broker has not voted. Thus, broker non-votes will not affect the outcome of any of the matters to be voted on at the Annual Meeting. Generally, broker non-votes occur when shares held by a broker for a beneficial owner are not voted with respect to a particular proposal because (1) the broker has not received voting instructions from the beneficial owner and (2) the broker lacks discretionary voting power to vote such shares.

### Shareholders Entitled to Vote

Each share of our common stock outstanding as of the close of business on Friday, March 27, 2020, the record date, is entitled to one vote at the Annual Meeting on each matter properly brought before the meeting. As of that date, there were 388,646,386 shares of common stock outstanding. Each share of our Series D Preferred Stock outstanding as of the close of business on Friday, March 27, 2020, the record date, is entitled to ten votes at the Annual Meeting on each matter properly brought before the meeting. As of that date, there were 20,991,891 shares of Series D Preferred Stock outstanding.

Many HDC shareholders hold their shares through a stockbroker, bank, trustee, or other nominee rather than directly in their own name. As summarized below, there are some distinctions between shares held of record and those owned beneficially:

- SHAREHOLDER OF RECORD – If your shares are registered directly in your name with HDC's Transfer Agent, Corporate Stock Transfer, you are considered the shareholder of record of those shares and these proxy materials are being sent directly to you by HDC. As the shareholder of record, you have the right to grant your voting proxy directly to HDC or to vote at the meeting.

- BENEFICIAL OWNER – If your shares are held in a stock brokerage account, by a bank, trustee, or other nominee, you are considered the beneficial owner of shares held in street name and these proxy materials are being forwarded to you by your broker, trustee, or nominee who is considered the shareholder of record of those shares. As the beneficial owner, you have the right to direct your broker, trustee or nominee on how to vote and are also invited to attend the meeting. However, since you are not the shareholder of record, you may not vote these shares at the meeting. Your broker, trustee, or nominee is obligated to provide you with a voting instruction card for you to use.

**Proposals You Are Asked to Vote On and the Board's Voting Recommendations**

At the Annual Meeting, the shareholders will vote on whether to elect the six director nominees named in this proxy statement to serve as directors for a one-year term. Our Board recommends that you vote "FOR" each nominee of the Board.

At the Annual Meeting, the shareholders also will vote on the proposal to increase the authorized shares of the Company. Our Board recommends that you vote "FOR" the proposal.

At the Annual Meeting, the shareholders also will vote on the ratification of the Independent Auditors. Our Board recommends that you vote "FOR" ratification.

At the Annual Meeting, the shareholders also will vote on authorization to adjourn the Annual Meeting, if necessary. Our Board recommends that you vote "FOR" authorization to adjourn the Annual Meeting.

Other than the proposals described in this proxy statement, the Board is not aware of any other matters to be presented for a vote at the Annual Meeting. If you grant a proxy, any of the persons named as proxy holders will have the discretion to vote your shares on any additional matters properly presented for a vote at the meeting including without limitation, to vote to adjourn the meeting. If any of our nominees are unavailable as a candidate for director, the persons named as proxy holders will vote your proxy for another candidate or candidates as may be nominated by the Board of Directors. We do not anticipate any other business to be conducted at this meeting.

**Required Vote**

The nominees for election as directors at the Annual Meeting will be elected by a plurality of the votes cast at the meeting. This means that the director nominee with the most votes for a particular slot is elected for that slot. Votes withheld from one or more director nominees will have no effect on the election of any director from whom votes are withheld.

Approval of the Authorized Share Increase requires the affirmative vote of a majority of the shares of common stock and preferred stock (voting as separate voting groups) outstanding on the Record Date. Abstentions and broker non-votes will have the same effect as a vote "against" this proposal.

All other proposals will be approved if the number of votes cast in favor of the proposal exceeds the number of votes cast against the proposal.

If you are a beneficial owner and do not provide the shareholder of record with voting instructions, your shares may constitute "broker non-votes." A "broker non-vote" occurs when a bank, broker or other holder of record holding shares for a beneficial owner does not vote on a particular proposal because that holder does not have discretionary voting power under New York Stock Exchange ("NYSE") rules and has not received instructions from the beneficial owner. If you are a beneficial owner, your bank, broker or other holder of record is permitted under NYSE rules to vote your shares on the ratification of our independent registered public accounting firm even if the record holder does not receive voting instructions from you. The record holder may not vote on the election of directors or the Authorized Share Increase without voting instructions from you, however. Without your voting instructions on the election of directors, a broker non-vote will occur. In tabulating the voting result for any particular proposal, shares that constitute broker non-votes will not be included in vote totals and will have no effect on the outcome of any vote.

**Voting Methods**

If you hold shares directly as the shareholder of record, you may vote by granting a proxy or, if you hold shares beneficially in street name, by submitting voting instructions to your broker or nominee. Please refer to the summary instructions included on your proxy card or, for shares held in street name, the voting instructions card included by your broker or nominee.

You may vote your shares by Internet on the voting website. If you hold shares directly as the shareholder of record, you may vote your shares by Internet on the following voting website, www.FCRvote.com/HDVY.

If you hold your shares beneficially in street name, you should instruct your broker on how to vote your shares or obtain a proxy from your broker permitting you to vote shares held in street name directly. Internet voting is available 24 hours a day, seven days a week until 12:00 p.m. Eastern Time on May 26, 2020. You will have the opportunity to confirm that your instructions have been properly recorded. Have your proxy card available when you access the Internet website. If you received a proxy card in the mail but choose to vote by the Internet, you do not need to return your proxy card.

**Changing Your Vote**

You may change your proxy instructions at any time prior to the vote at the Annual Meeting. For shares held directly in your name, you may accomplish this by granting a new proxy or by voting at the Annual Meeting. For shares held beneficially by you, you may change your vote by submitting new voting instructions to your broker or nominee.

**Counting the Vote**

In the election of directors, you may vote "FOR" all of the nominees or your vote may be "WITHHELD" from one or more of the nominees. For the other proposals, you may vote "FOR," "AGAINST," or "ABSTAIN." If you are a shareholder of record and you sign your proxy card with no further instructions, your shares will be voted in accordance with the recommendations of the Board.

**Results of the Vote**

We will announce preliminary voting results at the meeting and publish final results in a report on Securities and Exchange Commission and available at www.sec.gov.

**Delivery of Proxy Materials**

This Notice of Annual Meeting and Proxy Statement is available on our website at www.healthdiscoverycorp.com under *Investor Relations*. Instead of receiving future copies of our Proxy Statement and accompanying materials by mail, beneficial owners may be able to receive copies of these documents electronically. Please check the information provided in the proxy materials sent to you by your bank or other holder of record regarding the availability of this service.

**Householding**

We are delivering a single copy of this proxy statement to any household at which two or more shareholders reside, if we believe the shareholders are members of the same family. This is beneficial to both you and the Company. We believe it eliminates duplicate mailings that shareholders living at the same address receive and it reduces our printing and mailing costs. This will apply to any annual reports, proxy statements, proxy statements combined with a prospectus, or information statements. Each shareholder will continue to receive a separate proxy card or voting instruction card.

Your household may have received a single set of proxy materials this year. If you prefer to receive your own copy now or in future years, please request a duplicate set by contacting the Chief Executive Officer at (404) 566-4865 or by mail at 2002 Summit Blvd, Suite 300, Atlanta, Georgia 30319.

If a broker or other nominee holds your shares, you may continue to receive some duplicate mailings. Certain brokers will eliminate duplicate account mailings by allowing shareholders to consent to such elimination, or through implied consent if a shareholder does not request continuation of duplicate mailings. Since not all brokers and nominees may offer shareholders the opportunity this year to eliminate duplicate mailings, you may need to contact your broker or nominee directly to discontinue duplicate mailings from your broker to your household.

**List of Shareholders**

The names of shareholders of record entitled to vote at the Annual Meeting will be available at the Annual Meeting and for ten days prior to the meeting for any purpose germane to the meeting, between the hours of 9:00 a.m. and 4:30 p.m., at our principal executive offices at 2002 Summit Blvd, Suite 300, Atlanta, Georgia 30319, by contacting the Chief Executive Officer of the Company.

**Cost of Proxy Solicitation**

HDC will pay for the cost of preparing, assembling, printing, mailing, and distributing these proxy materials. In addition to mailing these proxy materials, the solicitation of proxies or votes may be made in person, by telephone, or by electronic communication by our directors, officers, and employees, who do not receive any additional compensation for these solicitation activities. We will reimburse brokerage houses and other custodians, nominees, and fiduciaries for their reasonable out-of-pocket expenses for forwarding proxy and solicitation materials to beneficial owners of stock.

**Transfer Agent**

Our Transfer Agent is Corporate Stock Transfer. All communications concerning shareholders of record accounts, including address changes, name changes, common stock transfer requirements, and similar matters can be handled by contacting Corporate Stock Transfer at (303) 282-4800, or in writing at Corporate Stock Transfer, 3200 Cherry Creek Drive South, Suite 430, Denver, CO 80209.

## CORPORATE GOVERNANCE

**Director Independence**

The Board of Directors is committed to good business practices, transparency in financial reporting and the highest level of corporate governance. The number of Directors has been fixed at six. Management believes that three of the persons nominated to serve on the Board of Directors are independent of management in accordance with the listing standards of The New York Stock Exchange: William Fromholzer, Edward Morrison, and James Murphy. George McGovern is our Chief Executive Officer, Marty Delmonte is our President and Colleen Hutchinson is related to George McGovern and therefore they not considered independent according to the New York Stock Exchange independence standards.

**Director Compensation**

Each director is awarded options to purchase shares of the Company's common stock upon election to the Board. Mr. McGovern, Mr. Delmonte, Mr. Morrison and Mr. Murphy were each granted an option to purchase 2,000,000 shares of the Company's common stock on October 23, 2017 at an exercise price of $0.003 per share. Mr. Fromholzer and Ms. Hutchinson were each granted an option to purchase 2,000,000 shares of the Company's common stock on May 9, 2018 at an exercise price of $0.017 per share. Additionally, Mr. Fromholzer, Ms. Hutchinson, Mr. Morrison, and Mr. Murphy 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, Mr. Fromholzer, Ms. Hutchinson, Mr. Morrison, and Mr. Murphy were awarded 2,000,000 options on June 10, 2019 to purchase shares of the Company's common stock at an exercise price of $0.07 per share.

**Communication with Directors**

The Board of Directors has adopted the following process for shareholders to send communications to members of the Board. Shareholders may communicate by sending a letter to the following address: Board of Directors, Health Discovery Corporation, c/o Chief Executive Officer, 2002 Summit Blvd, Suite 300, Atlanta, Georgia 30319 or sending an email to investor@healthdiscoverycorp.com.

**Director Attendance at Annual Meeting of Shareholders**

The Company's policy is that our directors are encouraged to attend the Annual Meeting of Shareholders unless extenuating circumstances prevent them from attending.

**Code of Ethics**

The Company has adopted a Code of Ethics applicable to our Chief Executive Officer and our President who also serves as our Principal Financial Officer. The Code of Ethics is also available without charge upon request directed to Investor Relations, Health Discovery Corporation, 2002 Summit Blvd, 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.

**Audit Committee and Compensation Committee**

The entire Board of Directors serves as the Audit Committee and also serves as the Compensation Committee.

**Audit Report**

The Board of Directors oversees the Company's accounting and reporting practices, financial reports, internal controls and audit functions.

Management is responsible for the preparation and integrity of the Company's consolidated financial statements, accounting and financial reporting principles, disclosure controls and procedures, internal control over financial reporting, and procedures designed to assure compliance with accounting standards and applicable laws and regulations. The Company's independent registered public accounting firm (the "independent auditors") is responsible for performing an independent audit of the consolidated financial statements and expressing an opinion on the conformity of those consolidated financial statements with generally accepted accounting principles, as well as performing an independent audit and expressing an opinion on the effectiveness of internal control over financial reporting.

The Board, in overseeing the audit function, provides advice, counsel and direction to management and the Company's independent auditors on the basis of the information it received, through discussions with management and the independent auditors, and the experience of the Board in business, financial and accounting matters. The Board's audit functions were not intended to duplicate or certify the activities of management or the independent auditors. The Board meets with management and the independent auditors to review the Company's financial statements and discuss various topics and events, including, but not limited to, items related to the Company's internal control over financial reporting, critical accounting policies and the adequacy of disclosure in the Company's consolidated financial statements.

**Nominating Process**

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.

**Nominees Proposed by Shareholders for Consideration by the Board**

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.

The Board will consider properly submitted shareholder nominees for candidates for membership on the Board of Directors. Shareholders proposing individuals for consideration by the Board must include the following information about the proposed nominee: the proposed nominee's name, age, business or residence address, principal occupation or employment, and whether such person has given written consent to being named in the proxy statement as a nominee and to serving as a director if elected. Shareholders should send the required information about the nominee to:

Chief Executive Officer
Health Discovery Corporation
2002 Summit Blvd, Suite 300
Atlanta, Georgia 30319

The Chief Executive Officer will send properly submitted shareholder proposed nominations to the Board for consideration at a future Board meeting. Individuals proposed by shareholders in accordance with these procedures will receive the same consideration that individuals identified to the Board through other means receive.

## PROPOSAL NO. 1
## ELECTION OF DIRECTORS

If you are a shareholder of record, your proxy will be voted for the election of the persons nominated unless you indicate otherwise. If any of the nominees named should become unavailable for election for any presently unforeseen reason, the persons named in the proxy shall have the right to vote for a substitute as may be designated by the Board of Directors to replace such nominee, or the Board may reduce the number of directors accordingly.

The Board unanimously recommends a vote FOR the election of these nominees as directors.

The following table sets forth information with respect to each nominee for election as a director. Reference is made to the sections entitled and "Common Stock Ownership by Directors and Executive Officers" for information concerning stock ownership of the nominees and directors.

**Director Nominees**

| Name and Principal Occupation | Age | Director Since |
|---|---|---|
| **George H. McGovern, III**<br>Chairman and CEO | 73 | 2016 |
| **Marty Delmonte**<br>President and COO | 52 | 2017 |
| **William F. Fromholzer**<br>Retired Executive | 74 | 2018 |
| **Colleen M. Hutchinson**<br>CEO, CMH Media, LLC | 45 | 2018 |
| **Edward Morrison**<br>Owner, MDA Management, Inc. | 47 | 2017 |
| **James Murphy**<br>Retired Executive | 64 | 2017 |

***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.

***Marty Delmonte*** is currently our President and Chief Operating Officer and has been involved with the Company since July 2010. 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, and SunTrust. 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 dental 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.

## PROPOSAL NO. 2
## AMENDMENT TO ARTICLES OF INCORPORATION TO INCREASE THE NUMBER OF AUTHORIZED SHARES OF COMMON STOCK FROM 450,000,000 TO 900,000,000 AND INCREASE THE NUMBER OF AUTHORIZED SHARES OF PREFERRED STOCK FROM 45,000,000 TO 90,000,000

The Board of Directors has adopted resolutions (1) recommending that an amendment to our Articles of Incorporation to increase the number of authorized shares of our common stock from 450,000,000 to 900,000,000 and increase the number of authorized shares of our preferred stock from 45,000,000 to 90,000,000 was advisable, and (2) directing that a proposal to approve the Authorized Share Increase be submitted to the holders of our Company stock for their approval at the Annual Meeting.

### Background and Reasons for the Authorized Share Increase

Our Articles of Incorporation currently authorize the issuance of 450,000,000 shares of common stock and 45,000,000 shares of preferred stock. As of March 27, 2020, there were 388,646,386 shares of common stock and 20,991,891 shares of preferred stock issued and outstanding. Of the remaining 61,353,614 authorized but unissued shares of common stock, 42,375,000 shares were reserved for issuance upon conversion of outstanding options, 115,983,781 shares were reserved for issuance upon conversion of outstanding warrants and 20,991,891 shares were reserved for issuance upon conversion of outstanding preferred shares to common shares. There are currently 24,008,109 authorized but unissued shares of preferred stock available. As a result, if all outstanding options and warrants were exercised and all preferred shares were converted to common shares, the Company would not have sufficient shares of common stock to meet the exercised options and warrants and preferred share conversions.

We continue to identify and evaluate a range of strategic alternatives to further strengthen our capital base and enhance shareholder value. Among the alternatives under consideration are offerings of common and preferred stock. While we have no definitive plans, undertakings, arrangements or agreements for issuing additional shares of common or preferred stock, the Board believes that it is advisable to increase the number of authorized shares of common and preferred stock to ensure that we will have a sufficient number of available shares to undertake a potential common or preferred stock offering and to assure flexibility in the future. This increase would avoid the possible delay and expense of holding a special meeting of shareholders at a later date.

In addition to providing the shares necessary for a common or preferred stock offering, we may also use the additional shares in connection with certain merger and acquisition opportunities, the issuance of shares under current or future equity incentive plans for our directors, officers and employees, the issuance of stock dividends or stock splits, and other corporate purposes.

**Procedure for Implementing the Authorized Share Increase**

The Authorized Share Increase, if approved by our shareholders, would become effective upon the filing of a certificate of amendment to our Articles of Incorporation with the Secretary of State of the State of Georgia. If our shareholders approve the Authorized Share Increase, we expect to file the certificate of amendment effecting the Authorized Share Increase promptly upon such approval.

**Authority of the Board of Directors to Issue Additional Shares of Common Stock**

If this amendment is approved and we are authorized to issue additional shares of common stock, the Board will determine whether, when, and on what terms to issue the additional shares of common and preferred stock without further action by our shareholders, unless shareholder approval is required by applicable law or securities exchange listing requirements in connection with a particular transaction.

The Board unanimously recommends a vote FOR the Authorized Share Increase.

## PROPOSAL NO. 3
## RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board has selected Frazier & Deeter, LLC ("Frazier Deeter") as the Company's independent registered public accounting firm (auditors) to examine the consolidated financial statements of the Company, subject to satisfactory negotiation of an annual fee agreement for fiscal year 2020. The Board seeks an indication from shareholders of their approval or disapproval of the appointment of Frazier Deeter as the Company's auditors.

Frazier Deeter has been our independent auditor since December 19, 2014, and no relationship exists other than the usual relationship between auditor and client.

If the shareholders do not approve the appointment of Frazier Deeter as auditor for fiscal year 2020, the adverse vote will be considered a direction to the Board to consider other auditors for next year. However, because of the difficulty in making any substitution of auditors so long after the beginning of the current year, Frazier Deeter will remain the Company's Independent Registered Public Accounting Firm for fiscal year 2020, unless the Board finds other good reason for making a change.

The Board unanimously recommends a vote FOR the ratification of independent registered public accounting firm.

## PROPOSAL NO. 4
## AUTHORIZATION TO ADJOURN THE ANNUAL MEETING

If the Annual Meeting is convened and a quorum is present, but there are not sufficient votes to approve the amendments to our Articles of Incorporation to affect the Authorized Share Increase, we may move to adjourn the Annual Meeting at that time to solicit additional proxies. In order to allow proxies that we have received by the time of the Annual Meeting to be voted for an adjournment, if necessary, we have submitted the question of adjournment to our shareholders as a separate matter for their consideration. If it is necessary to adjourn the Annual Meeting, no notice of the adjourned meeting is required to be given to shareholders, other than an announcement at the Annual Meeting of the time and place to which the Annual Meeting is adjourned, so long as the meeting is adjourned for 45 days or less and no new record date is fixed for the adjourned meeting. At the adjourned meeting we may transact any business that might have been transacted at the original meeting.

The Board unanimously recommends a vote FOR the Authorization to Adjourn the Annual Meeting.

## COMMON STOCK OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND BY DIRECTORS AND EXECUTIVE OFFICERS

The following table sets forth information concerning the beneficial ownership of our Common Stock and Series D Preferred Stock as of March 27, 2020 by (i) each of our directors, (ii) each of our executive officers, (iii) each person who is known to us to be the beneficial owner of more than five percent of our Common Stock or Series D Preferred Stock, and (iv) all of our executive officers and directors as a group. At March 27, 2020, there were 388,646,386 shares of Common Stock outstanding, no shares of Series A Preferred Stock outstanding, no shares of Series B Preferred Stock, no shares of Series C Preferred Stock outstanding and 20,991,891 shares of Series D Preferred Stock outstanding. Unless otherwise noted, the address of each beneficial owner below is 2002 Summit Blvd, Suite 300, Atlanta, Georgia 30319. Percentage calculations are based on the outstanding shares of the Company's common stock on March 27, 2020.

| Name of Beneficial Owner | Series D Preferred Stock Shares held by Beneficial Owner | Percent of Class | Common Stock Shares held by Beneficial Owner | Percent of Class (1) | Total Shares held by Beneficial Owner | Percent of All Share Class (1) |
|---|---|---|---|---|---|---|
| George McGovern, III, Chairman and CEO | 10,495,946 | 50% | 81,080,590 | 19.5% | 91,576,536 | 22.4% |
| Hong Zhang, PhD, Chief Science Officer | - | - | 2,000,000 | 0.5% | 2,000,000 | 0.5% |
| Marty Delmonte, President, COO and Director | - | - | 5,500,000 | 1.3% | 5,500,000 | 1.3% |
| William F. Fromholzer, Director | - | - | 4,000,000 | 1.0% | 4,000,000 | 1.0% |
| Colleen M. Hutchinson, Director | - | - | 4,000,000 | 1.0% | 4,000,000 | 1.0% |
| Edward Morrison, Director | - | - | 10,500,000 | 2.6% | 10,500,000 | 2.6% |
| James Murphy, Director | - | - | 4,000,000 | 1.0% | 4,000,000 | 1.0% |
| All executive officers and directors as a group (7 persons) | 10,495,946 | 50% | 111,080,590 | 26.8% | 121,576,536 | 29.7% |
| James Dengler, Investor | 10,495,946 | 50% | - | - | - | - |

(1) The percentage assumes the exercise by the stockholder or group named in each row of all options or warrants for the purchase of our Common Stock held by such stockholder or group and exercisable within 60 days as of March 27, 2020.

## ADDITIONAL INFORMATION

### 2019 Annual Report on Form 10-K

HDC's 2019 annual report to the Securities and Exchange Commission on Form 10-K, including the financial statements, are attached as an exhibit to this Proxy Statement and incorporated by reference herein.

**BY ORDER OF THE BOARD OF DIRECTORS**

May 12, 2020

George H. McGovern, III
Chairman & Chief Executive Officer

**PLEASE RETURN, IMMEDIATELY, THE ENCLOSED FORM OF PROXY, DATED AND SIGNED, IN THE ENCLOSED ADDRESSED ENVELOPE, WHICH REQUIRES NO POSTAGE**

# HEALTH DISCOVERY CORPORATION
## Annual Meeting of Stockholders
## May 27, 2020 at 1:00 PM EDT
## This Proxy is solicited on behalf of the Board of Directors of Health Discovery Corporation

The stockholder(s) hereby appoint(s) George H. McGovern, III and Marty Delmonte, or any of them, as proxies, each with the power to appoint his or her substitute, and hereby authorize(s) them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of Health Discovery Corporation that the stockholder(s) is/are entitled to vote at the Annual Meeting of Stockholders to be held at 1:00 PM EDT on May 27, 2020 and any adjournment or postponement thereof. The Annual Meeting of Stockholders will be held virtually. In order to attend the meeting, you must register at http://www.viewproxy.com/HealthDiscoveryCorp/2020 by 11:59 PM EDT on May 24, 2020. On the day of the Annual Meeting of Stockholders, if you have properly registered, you may enter the meeting at http://www.viewproxy.com/HealthDiscoveryCorp/2020/VM by logging in using the password you received via email in your registration confirmation. Further instructions on how to attend and vote at the Annual Meeting of Stockholders are contained in the Proxy Statement in the section titled “Voting Methods”.

**This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors’ recommendations.**

**CONTINUED AND TO BE MARKED, DATED AND SIGNED ON THE OTHER SIDE**

▲ **PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED.** ▲

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Stockholders to be held on May 27, 2020.**

**The Company’s Proxy Statement for the 2020 Annual Meeting of Stockholders and the Company’s Annual Report to Stockholders for the fiscal year ended December 31, 2019 are available at: http://www.viewproxy.com/HealthDiscoveryCorp/2020**

Please mark your votes like this ☒

**The Board of Directors Recommends a Vote FOR the Election of all Director Nominees and FOR Proposals 2, 3, and 4**

(1) To elect as directors the six (6) nominees named in the attached proxy statement for a one-year term

| Nominees: | FOR | WITHHELD |
|---|---|---|
| 01. George H. McGovern, III | ☐ | ☐ |
| 02. Marty Delmonte | ☐ | ☐ |
| 03. William F. Fromholzer | ☐ | ☐ |
| 04. Colleen M. Hutchinson | ☐ | ☐ |
| 05. Edward Morrison | ☐ | ☐ |
| 06. James Murphy | ☐ | ☐ |

(2) To approve an amendment to our Articles of Incorporation to increase the number of authorized shares of our common stock from 450,000,000 to 900,000,000 and increase the number of authorized shares of our preferred stock from 45,000,000 to 90,000,000 (the "Authorized Share Increase").

☐ **FOR** ☐ **AGAINST** ☐ **ABSTAIN**

(3) To ratify the Board of Directors' selection of the independent registered public accounting firm Frazier & Deeter, LLC for their fiscal year ending 2020.

☐ **FOR** ☐ **AGAINST** ☐ **ABSTAIN**

(4) To authorize an adjournment of the Annual Meeting of Shareholders ("Annual Meeting") to allow time for further solicitation of proxies in the event there are insufficient votes present at the Annual Meeting, in person or by proxy, to approve the amendments to our Articles of Incorporation to effect the Authorized Share Increase.

☐ **FOR** ☐ **AGAINST** ☐ **ABSTAIN**

(5) To transact such other business as may properly come before the meeting prior to adjournment, if any.

I plan to attend the meeting ☐

Date:_____

_____
Signature

_____
Signature (if held jointly)

NOTE: This proxy should be marked, dated and signed by each stockholder exactly as such stockholder's name appears hereon, and returned promptly in the enclosed envelope. When shares are held jointly, each holder should sign. When signing as an executor, administrator, attorney, trustee or guardian please give full title as such. If the signatory is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If the signatory is a partnership, please sign in the partnership name by authorized person.

☐ Change of Address — Please print new address below

_____

_____

**VIRTUAL CONTROL NUMBER**

→ [ ]

▲ **PLEASE DETACH ALONG PERFORATED LINE AND MAIL IN THE ENVELOPE PROVIDED.** ▲

As a stockholder of Health Discovery Corporation you have the option of voting your shares electronically through the Internet or by telephone, eliminating the need to return the proxy card. Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated and returned the proxy card. Votes submitted electronically over the Internet or by telephone must be received by 11:59 PM EDT on May 26, 2020.

As a Registered Holder, you may vote your shares at the Annual Meeting by first registering at http://www.viewproxy.com/HealthDiscoveryCorp/2020 using your Virtual Control Number below. Your registration must be received by 11:59 PM EDT on May 24, 2020. On the day of the meeting, you may log in to the meeting at http://www.viewproxy.com/HealthDiscoveryCorp/2020/VM using the password you received via email in your registration confirmation and follow instructions to vote your shares. Please have your Virtual Control Number with you during the meeting in order to vote. Further instructions on how to attend and vote at the Annual Meeting are contained in the Proxy Statement in the section titled "Questions and Answers About the Proxy Materials and Our Annual Meeting - What do I need to do to attend the Annual Meeting virtually?".

**VIRTUAL CONTROL NUMBER**

→ [ ]

# PROXY VOTING INSTRUCTIONS

Please have your 11-digit Virtual Control Number ready when voting by Internet or telephone

**INTERNET**

**Vote Your Shares on the Internet:**

**Go to www.FCRvote.com/HDVY**

Have your proxy card available when you access the above website. Follow the prompts to vote your shares.

**TELEPHONE**

**Vote Your Shares by Phone:**

**Call 1-866-804-9616**

Use any touch-tone telephone to vote your shares. Have your proxy card available when you call. Follow the voting instructions to vote your shares.

**MAIL**

**Vote Your Shares by Mail:**

Mark, sign, and date your proxy card, then detach it, and return it in the postage-paid envelope provided.

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

# FORM 10-K

**(Mark One)**

☒ **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**For the fiscal year ended December 31, 2019**
**OR**
☐ **TRANSITION REPORT UNDER TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
**For the transition period from to**
**Commission File No. 333-62216**

# HEALTH DISCOVERY CORPORATION

*(Name of Registrant as Specified in its charter)*

| **Georgia** | **74-3002154** |
|---|---|
| *(State or other jurisdiction of incorporation or organization)* | *(I.R.S. Employer Identification No.)* |
| **2002 Summit Blvd, NE**<br>**Suite 300**<br>**Atlanta, Georgia** | **30319** |
| *(Address of principal executive offices)* | *(Zip Code)* |

**(404) 566-4865**
*(Registrant's telephone number, including area code)*

**Securities Registered Pursuant to Section 12(b) of the Act:**
**None**

**Securities Registered Pursuant to Section 12(g) of the Act:**
**None**

| Title of each class | Trading Symbol(s) | Name of each exchange on which registered |
|---|---|---|
| Common | HDVY | NA |

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 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 Exchange Act of 1934 during the past 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 and posted on its Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained in this form, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

The aggregate market value of the voting common stock held by non-affiliates as of June 30, 2019 was $19,020,329.

As of May 12, 2020, there were 388,646,386 shares of common stock outstanding, no shares of Series A Preferred Stock outstanding, no shares of Series B Preferred Stock outstanding, no shares of Series C Preferred Stock outstanding and 20,991,891 shares of Series D Preferred Stock outstanding.

**HEALTH DISCOVERY CORPORATION**

**FORM 10-K**

**For the Fiscal Year Ended December 31, 2019**

**Table of Contents**

## SPECIAL NOTE ABOUT THIS ANNUAL REPORT

This annual report contains forward-looking statements. These forward-looking statements are based largely on our expectations and are subject to a number of risks and uncertainties, many of which are beyond our control. Actual results could differ materially from these forward-looking statements as a result of, among other factors, our history of net losses and accumulated deficits, dependence on third parties to commercialize our technology, future capital requirements, competition, dependence on key personnel, disruptions due to the COVID-19 pandemic and other risks.

This annual report is the Company's first regular periodic report since filing its Form 10-Q for the fiscal quarter ended September 30, 2016. Readers should be aware that several aspects of this annual report differ from previous annual reports. This report is for the annual reporting periods as of and for the years ended December 31, 2019, 2018, 2017 and 2016. Because of the gap in the Company's public reporting and the significant changes to its business in the interim, much of the information relating to the Company's business and related matters as detailed below in Item 1. *Business* and Item 1A. *Risk Factors* is for the period between December 31, 2019 and the date of this filing.

## PART I

### ITEM 1. BUSINESS

#### Our Company Overview

Health Discovery Corporation ("HDC" or 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.

HDC's mission is to use its patents, intellectual prowess, 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, HDC's pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our Company's principal asset is its 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 31 patents that have been issued or are currently pending around the world.

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.

#### Our Technology

HDC owns a patent portfolio of machine learning technology, including certain pioneer patents on SVM. We also have consulting arrangements with specialists and mathematicians responsible for developing our SVM patents for the analysis of data.

The Company's SVM technology is commonly considered within the context of artificial intelligence. This is a branch of computer science concerned with giving computers the ability to perform functions normally associated with human intelligence, such as reasoning and optimization through experience. Machine learning is a type of artificial intelligence that enables the development of algorithms and techniques that allow computers to learn. Pattern recognition is machine learning with a wide spectrum of applications including medical diagnosis, bioinformatics, classifying DNA sequences, detecting credit card fraud, stock market analysis, object recognition in computer vision, and robotics.

***Support Vector Machines Overview***

SVMs are mathematical algorithms that allow computers to sift through large, complex datasets to identify patterns. SVMs are known for their ability to discover hidden relationships in these complex datasets. With the ability to handle what is known as infinite dimensional space, SVMs are broadly considered to be an improvement to neural networks and other mathematical techniques. SVM is a core machine learning technology with strong theoretical foundations and excellent empirical successes.

With their introduction in 1992, SVMs marked the beginning of a new era in the learning from examples paradigm in artificial intelligence. Rooted in the Statistical Learning Theory developed by Professor Vladimir Vapnik, SVMs quickly gained attention from the math and science communities due to a number of theoretical and computational merits. This development advanced a new framework for modeling learning algorithms. Within this framework, the fields of machine learning and statistics were merged introducing powerful algorithms designed to handle the difficulties of prior computational techniques.

The generation of learning algorithms that were developed based on this theory have proved to be resistant to the problems imposed by noisy data and high dimensionality. They are computationally efficient, have an inherent modular design that simplifies their implementation and analysis and allows the insertion of domain knowledge, and, more importantly, they have theoretical guarantees about their generalization ability. SVMs have been validated in numerous independent academic publications and presentations.

SVMs have become widely established as one of the leading approaches to pattern recognition and machine learning worldwide and have replaced other technologies in a variety of fields, including engineering, information retrieval and bioinformatics. This technology has been incorporated into product and research applications by many biomedical, pharmaceutical, software, computer and financial companies. Educational and research institutions throughout the world have applied SVMs to a wide array of applications, including gene and protein expression analysis, medical image analysis, flow cytometry, cytogenetics and mass spectrometry.

***Support Vector Machine — Recursive Feature Elimination — Overview***

Support Vector Machine — Recursive Feature Elimination ("SVM-RFE") is an application of SVM that was created by members of HDC's science team to find discriminate relationships within clinical datasets, as well as within gene expression and proteomic datasets created from micro-arrays of tumor versus normal tissues. In general, SVMs identify patterns — for instance, a biomarker/genetic expression signature of a disease. The SVM-RFE utilizes this pattern recognition capability to identify and rank order the data points that contribute most to the desired results. The Company's SVM-RFE patents are currently the only properly issued RFE patents in the world.

Using SVM-RFE, we have been able to access information in micro-array datasets that the most advanced bioinformatics techniques missed. In one micro-array experiment, SVM-RFEs were able to filter irrelevant tissue-specific genes from those related to the malignancy. SVM-RFE has also been used to determine gene expression patterns that correlate to the severity of a disease, not just its existence. It has been shown to improve both diagnosis and prognosis by providing physicians with an enhanced decision tool. The Company believes that these analytic methods are effective for finding genes and proteins implicated in several cancers, as well as in assisting with the pharmacogenetic and toxicological profiling of patients. The SVM-RFE method is also capable of finding those specific genes and proteins that are unhindered by ever-increasing patent protection.

***Fractal Genomic Modeling Overview***

On September 30, 2003, we acquired the assets of Fractal Genomics, LLC, a company with patented Fractal Genomic Modeling ("FGM") software. The fractal technology is used to find discriminate relationships within clinical datasets as well as within gene expression datasets created from micro-arrays of disease versus normal tissues.

The FGM data analysis technique has been shown to improve the mapping of genetic pathways involved in the diagnosis and prevention of certain diseases. HDC scientists believe that these analytic methods are effective for finding genes implicated in several cancers, HIV infection, lymphedema, Down's syndrome, and a host of other diseases, as well as the pharmacogenetic profiling of patients.

FGM technology is designed to study complex networks. A complex network can be made up of genes inside a living organism, web pages on the Internet, stocks within a financial market, or any group of objects or processes that appear to be connected together in some intricate way. FGM uses an approach toward modeling network behavior to rapidly generate diagrams and software simulations that facilitate prediction and analysis of the process, which is the particular object of a study.

**Our Business Activity**

***NeoGenomics License***

As previously disclosed in January 2017, HDC notified NeoGenomics Laboratories, Inc. ("NeoGenomics" or "NEO") of HDC's election to terminate all licenses that are subject to the Master License Agreement (the "MLA") dated January 6, 2012, between the Company and NeoGenomics. The MLA was filed with the Securities and Exchange Commission ("SEC") on January 11, 2012 as an exhibit to a Current Report on Form 8-K. Subsequently, HDC and NeoGenomics attempted to resolve the matter through alternative dispute resolution, including but not limited to, mediation. While these efforts were unsuccessful, the Company ultimately filed a Demand for Arbitration ("Arbitration") with the American Arbitration Association's Panel of Arbitrators (the "Panel" or "Arbitrators").

On April 25, 2019, the Panel issued their ruling (the "Final Award"). Section XXI, the Conclusion of the Final Award, states:

Based on the foregoing, the Panel concludes as follows:

1. Effective immediately, the MLA is terminated.
2. HDC is awarded $1,500,000 based on the Panel's conclusion that SmartFlow infringes a Valid Patent Claim and internal use by NEO is subject to Milestone and Royalty payments.
3. HDC is awarded $5,100,000 based on the Panel's conclusion that NEO failed to use its best efforts with respect to the development and commercialization of SVM-CYTO.
4. Pursuant to Section 12.2 of the MLA, NEO shall reimburse HDC $8,694.
5. As discussed in this Final Award, all other claims by HDC are hereby denied.
6. NEO's request for a Declaratory Judgment is denied.
7. All of NEO's counterclaims are denied.
8. All other claims, counterclaims, defenses, requests for relief, to the extent not specifically addressed in this Final Award are hereby denied.

Therefore, the sum award for HDC is $6,608,694 plus interest accrued from date of the Final Award to date of payment. Additionally, the Panel holds that the MLA is terminated with the exception of the obligations expressly stated in Section 8.2. Section 8.2 of the MLA requires NeoGenomics to, among other things; continue its obligations to make payment of any sum due to HDC pursuant to Article 3 of the MLA, License Fees and Royalty Payments.

All NeoGenomics stock held by Health Discovery Corporation was sold during the period of 2013 through August 2017.

***Intel Matter***

As previously disclosed in September 2016, the United States Patent and Trademark Office ("USPTO") had declared an Interference between Health Discovery Corporation'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 Health Discovery Corporation on the SVM-RFE Patent application. The Patent Trial and Appeal Board ("PTAB") of the USPTO issued its decision, finding that Health Discovery Corporation 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 methods. 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, Health Discovery Corporation 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 all SVM-RFE patents. Additionally, Health Discovery Corporation is taking the necessary steps to protect its sole ownership of SVM-RFE patents against infringement.

***Intellectual Property Developments***

As previously disclosed, the Company submitted Patent Application Number 14/754,434 (the "Patent") to the USPTO.

The Company subsequently announced that the USPTO has issued a Notice of Allowance of this Patent covering the four-gene prostate cancer test developed using its 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 Patent complements the Company's already issued European Patent that covers similar claims.

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

The Company now holds the exclusive rights to 31 issued U.S. patents covering uses of SVM and FGM 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 reduction in the total number of issued and pending patents since 2015 resulted from the Company's decision to allow certain foreign patents issued and/or filed in countries that were deemed

to have lower strategic value to lapse. In addition, a few U.S. patents that were either near the ends of their terms and/or had parallel applications with broader claims in force were allowed to expire. In addition, significant changes in the U.S. Patent Laws relating to the eligibility of certain subject matter for patent protection influenced the Company's decision to abandon a few of its pending U.S. applications. This in turn reduced the Company's total expenses for patent maintenance.

***SVM Capital, LLC***

In January 2007, SVM Capital, LLC ("SVM Capital") was formed as a joint venture between HDC and Atlantic Alpha Strategies, LLC ("Atlantic Alpha") to explore and exploit the potential applicability of our SVM technology to quantitative investment management techniques.

On June 16, 2015, SVM Capital joined Manifold Partners, LLC ("Manifold Partners") as a partner. Manifold Partners is a San Francisco-based multi-strategy portfolio management firm specializing in quantitative investment methodologies. As a part of the partnership, SVM Capital was to contribute their proprietary service to the collaboration with Manifold Partners. This technology is an outgrowth of the machine learning techniques created by the Company.

The management of SVM Capital, LLC has not provided Health Discovery Corporation with any updates since September 2016. Health Discovery Corporation is evaluating its rights regarding the license agreement with SVM Capital, LLC

**Employees**

On December 31, 2019, we had three employees, two of which serve as executive officers.

**Website Address**

Our corporate website address is www.HealthDiscoveryCorp.com. To view our public filings from the home page, select the "Investor Relations" tab followed by "SEC Filings." This is 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.

**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.

**Research and Development**

Research and development fees were $0 during 2019, 2018, 2017 and $27,000 during 2016. The research and development fees were related primarily to fees paid to consultants relating to the development work completed as a part of our NeoGenomics License.

**Intellectual Property**

In connection with the SVM Acquisition, we obtained rights to the intellectual property within the "SVM portfolio" that currently consists of thirty (30) patents which were or have since issued as well as one (1) patent

application that is pending in the U.S. The issued patents and pending application in the SVM portfolio to date, including new applications that we have filed since acquiring the original intellectual property are:

| 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 | 08/07/2020 |
| U.S. Patent No. 7,475,048 | Pre-Processed Feature Ranking for a Support Vector Machine | 08/07/2020 |
| U.S. Patent No. 7,542,947 | Data Mining Platform for Bioinformatics and Other Knowledge Discovery | 08/07/2020 |
| U.S. Patent No. 7,617,163 | Kernels and Kernel Methods for Spectral Data | 11/09/2021 |
| U.S. Patent No. 7,624,074 | Methods for Feature Selection in a Learning Machine | 08/07/2020 |
| U.S. Patent No. 7,970,718 | Feature Selection and for Evaluating Features Identified as Significant for Classifying Data | 08/07/2020 |
| U.S. Patent No. 8,008,012 | Biomarkers Downregulated in Prostate Cancer | 01/24/2022 |
| U.S. Patent No. 8,095,483 | Support Vector Machine-Recursive Feature Elimination (SVM-RFE) | 08/07/2020 |
| 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. 8,293,461 | Biomarkers Downregulated in Prostate Cancer | 01/24/2022 |
| U.S. Patent No. 8,489,531 | Identification of Co-Regulation Patterns by Unsupervised Cluster Analysis of Gene Expression Data | 05/17/2022 |
| U.S. Patent No. 8,543,519 | System and Method for Remote Melanoma Screening | 12/19/2020 |
| 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 Publication No. 2018/0321245 | Methods for Screening, Predicting and Monitoring Prostate Cancer | 01/24/2022 |
| Australian Patent No. 779635 | Method of Identifying Patterns in Biological Systems and Method of Uses. | 10/27/2020 |
| Canadian Patent No. 2,388,595 | Method of Identifying Patterns in Biological Systems and Method of Uses | 10/27/2020 |
| Japanese Patent No. 506462 | Method of Identifying Patterns in Biological Systems and Methods of Uses | 10/27/2020 |
| European Patent No.1356421 | Computer Aided Image Analysis | 01/23/2022 |

| Patent/Application No. | Title | Expiration Date |
|---|---|---|
| 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 |

**HDC also owns intellectual property rights in U.S. patents covering the 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 |

**Our Competition**

HDC conducts its 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.

The Company competes 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 the Company's technology.

## ITEM 1A. RISK FACTORS

This annual report on Form 10-K contains certain forward-looking statements including, without limitation, all statements, other than statements of historical facts, that address activities, events or developments that we expect or anticipate will or may occur in the future, including but not limited to statements regarding the successful implementation of our services, business strategies and measures to implement such strategies, competitive strengths, expansion and growth of our business and operations, references to future success, the ability of the Company to utilize its SVM, SVM-RFE and FGM assets and

other intellectual property to identify biomarkers which can be used in diagnostic tests, the ability to enter into agreements with strategic partners for the development and commercialization of diagnostic tests, the ability of the Company to develop a product line, the ability to achieve profitability, about anticipated size of the market for diagnostic tests, the capabilities of molecular diagnostic tests, regarding working with our collaborators resulting in revenue for the Company, the sufficiency of our liquidity and capital resources, and other such matters. All such statements are forward-looking statements and are based on the beliefs of, assumptions made by and information currently available to our management. The words "expect," "estimate," "anticipate," "believe," "intend," "plan" and similar expressions and variations thereof are intended to identify forward-looking statements. Such forward-looking statements may involve uncertainties and other factors that may cause the actual results and performance of our company to be materially different from future results or performance expressed or implied by such statements.

The cautionary statements set forth in this "Risk Factors" section and elsewhere in this annual report identify important factors with respect to such forward-looking statements, including certain risks and uncertainties, which could cause actual results to differ materially from those expressed in or implied by such forward-looking statements. Among others, factors that could adversely affect actual results and performance include failure to successfully develop a profitable business, delays in identifying and enrolling customers, the inability to retain a significant number of customers, effectiveness and execution of licensing efforts, our ability to employ and retain key employees and experienced scientists, our access to tissue samples, loss of the ability to use certain patent rights, the inability to continue to protect our proprietary information, competitive conditions, our ability to remain competitive in a rapidly changing technological environment, acceptance of our products by the market, volatility in U.S. and global stock markets generally and in our stock price specifically, potential shareholder claims which could result in substantial dilution to our shareholders, adverse economic conditions in the United States and globally; the effect of current difficulties in the credit markets on our business, factors beyond our control, including, but not limited to, catastrophes (both natural and man-made), health epidemics, pandemics and similar outbreaks, including the COVID-19 pandemic; earthquakes, floods, fires, explosions, acts of terrorism or war, and the risks identified elsewhere in this report. All written or oral forward-looking statements attributable to us are expressly qualified in their entirety by the foregoing cautionary statement. All forward-looking statements and cautionary statements included in this report are made as of the date hereof based on information available to us, and we assume no obligation to update any forward looking statement or cautionary statement.

**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, 2019, we had $2.3 million cash on hand. The Company estimates cash will be depleted by the second quarter of 2023 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 a developing business and a high-risk company.***

We are a high-risk company in a volatile industry. Investors should recognize that an investment in our company is risky and highly speculative. We are a developing business, and our prospects must be considered in light of the risks, uncertainties, expenses and difficulties frequently encountered by companies in their early stages of development. Failure to implement and execute our business and marketing strategy successfully, to provide superior customer service, to respond to competitive developments and to integrate, retain and motivate qualified personnel could have a material adverse effect on our business, results of operations and financial condition. We must successfully overcome these and other business risks.

***We may 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, marketing programs and overhead 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.

***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.

***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.

***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.

***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.

***Our management may be unable to address future growth.***

We anticipate that if we experience a period of growth in our customer base and market opportunities, a period of significant expansion of the Company will be required. This expansion will place a significant strain on our management, operational and financial resources. To manage future growth of our operations, if any, we will be required to improve existing and implement new operational systems, procedures and controls, and to expand, train and manage our employee base. There can be no assurance that our current and planned personnel, systems, procedures

and controls will be adequate to support our future operations, that management will be able to hire, train, retain, motivate and manage the required personnel or that we will be able to identify, manage and exploit existing and potential strategic relationships and market opportunities. Our failure to manage growth effectively could have a material adverse effect on our business, results of operations and financial condition.

***If our business does not keep up with rapid technological change or continue to introduce new products, we may be unable to maintain market share or 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 lose market share to our competitors, 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 maintain or expand existing strategic alliances or establish additional 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.

***We may not be able to find business partners to develop and commercialize product candidates derived from our discovery activities.***

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.

***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. While certain members of our senior management are parties to employment or consulting agreements and non-competition and non-disclosure agreements, 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.

***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.

***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.

***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.

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, treating and prognosing 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.

***We may acquire or make strategic investments in other businesses and technologies in the future, and these could prove difficult to integrate, disrupt our business, dilute stockholder value and adversely affect our operating results.***

If opportunities arise, we may consider making acquisitions of or investments in businesses, technologies, services or products. These activities may involve significant cash expenditures, debt incurrence, additional operating losses and expenses that may have a material adverse effect on the operating results of our business. Moreover, even if we acquire complementary businesses or technologies, we may be unable to successfully integrate any additional personnel, operations or acquired technologies into our business.

Difficulties in integrating an acquired business or managing an investment could disrupt our business, distract our management and employees and increase our expenses. Future acquisitions could expose us to unforeseen liabilities and result in significant charges relating to intangible assets. Sizable acquisitions or investments may also divert senior management from focusing on our existing business plan. Finally, if we make acquisitions using convertible debt or equity securities, existing stockholders may be diluted, which could affect the market price of our stock.

***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, 2019. 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 weaknesses 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.

***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.

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

As previously disclosed, on February 7, 2020 two shareholders of HDC, William F. Quirk, Jr. ("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 Quick and Bear alleged misconduct by the Company and its directors.

On March 2, 2020, having received no relief, Quirk and Bear dismissed their action in DeKalb County and 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. This hearing was postponed due to the COVID-19 pandemic and has not been rescheduled.

Quirk and Bear filed this suit after attempting to call a special meeting of shareholders and making a demand for inspection of certain books and records. The demand for a special meeting was defective for a number of reasons, but as HDC announced in December, HDC will hold an annual meeting after the Company files its annual report on Form 10-K. The Company has provided counsel for Quirk and Bear with the records to which Quirk and Bear were legally entitled.

The Company denies all allegations of improper conduct in the complaint and will continue to defend itself against all allegations. Unfortunately, this litigation by Quirk and Bear will continue to unnecessarily deplete the Company's scarce resources. As a result, the Company will recognize expenses totaling $350,000 during the first quarter of 2020 related to this litigation.

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 Quirk and Bear be successful, the outcome could have a material adverse effect on the Company.

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

In December 2019, a novel strain of coronavirus, COVID-19, was reported to have surfaced in Wuhan, China. In January 2020, this coronavirus spread to other countries, including the United States, and efforts to contain the spread of COVID-19 have intensified. 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 continue to spread, 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 clinical trials and research projects relating to other conditions, which may impact our ability to form new contractual arrangements to exploit

our technology. While the 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 global financial markets, which may reduce our ability to access capital either at all or on favorable terms. In addition, a recession, depression or other sustained adverse market event resulting from the spread of 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 will 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 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.

***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.

***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.

***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.

***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.

## ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

## ITEM 2. PROPERTIES

The Company does not own any real property. The Company leases approximately 600 square feet of office space in Atlanta, Georgia, pursuant to a short-term lease as of August 2019. The Company currently pays base rent in the amount of $2,539 per month. The Company also leases approximately 400 square feet of office space in Berwyn, Pennsylvania, pursuant to a short-term lease as of November 2019. The Company currently pays base rent in the amount of $1,078 per month. The Company's principal executive office is located at 2002 Summit Blvd, NE, Suite 300, Atlanta, Georgia, and the telephone number is (404) 566-4865.

## ITEM 3. LEGAL PROCEEDINGS

As previously disclosed in September 2016, Health Discovery Corporation received notification that the USPTO had declared an Interference between the Company's pending patent application covering SVM-RFE and Intel Corporation's Patent No. 7,685,077, entitled "Recursive Feature Eliminating Method based on a Support Vector Machine". Prior to 2013, when the America Invents Act (AIA) was enacted, a patent would be awarded to the "first to invent" a claimed invention. An Interference is an administrative proceeding within the USPTO that is used to determine which party was the first to invent an invention that is claimed in two (or more) independently owned patent applications.

On February 27, 2019, the USPTO ruled in favor of Health Discovery Corporation on the SVM-RFE Patents in the Interference proceeding between Health Discovery Corporation and Intel Corporation. The PTAB of the USPTO issued its decision, finding that Health Discovery Corporation is entitled to claim

exclusive rights to the SVM-RFE technology as set forth in the pending patent application that was filed to provoke the Interference. 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 Health Discovery Corporation's pending claims and issued patents covering SVM-RFE. Health Discovery Corporation is currently evaluating its options for further action regarding this matter.

As previously disclosed, on February 7, 2020 two shareholders of HDC, William F. Quirk, Jr. ("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 Quick and Bear alleged misconduct by the Company and its directors.

On March 2, 2020, having received no relief, Quirk and Bear dismissed their action in DeKalb County and 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. This hearing was postponed due to the COVID-19 pandemic and has not been rescheduled.

Quirk and Bear filed this suit after attempting to call a special meeting of shareholders and making a demand for inspection of certain books and records. The demand for a special meeting was defective for a number of reasons, but as HDC announced in December, HDC will hold an annual meeting after the Company files its annual report on Form 10-K. The Company has provided counsel for Quirk and Bear with the records to which Quirk and Bear were legally entitled.

The Company denies all allegations of improper conduct in the complaint and will continue to defend itself against all allegations. Unfortunately, this litigation by Quirk and Bear will continue to unnecessarily deplete the Company's scarce resources. As a result, the Company will recognize expenses totaling $350,000 during the first quarter of 2020 related to this litigation.

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 Quirk and Bear be successful, the outcome could have a material adverse effect on the Company.

## 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. The range of closing prices for our common stock, as reported on Bloomberg.com during each quarter for the last four fiscal years was as follows. These quotations reflect inter-dealer prices, without retail mark-up, markdown or commission and may not represent actual transactions.

| | High | Low |
|---|---|---|
| First Quarter 2019 | $0.0867 | $0.0300 |
| Second Quarter 2019 | $0.0700 | $0.0600 |
| Third Quarter 2019 | $0.1100 | $0.0751 |
| Fourth Quarter 2019 | $0.0500 | $0.0310 |
| First Quarter 2018 | $0.0190 | $0.0150 |
| Second Quarter 2018 | $0.0260 | $0.0110 |
| Third Quarter 2018 | $0.0126 | $0.0053 |
| Fourth Quarter 2018 | $0.0089 | $0.0032 |
| First Quarter 2017 | $0.0090 | $0.0051 |
| Second Quarter 2017 | $0.0089 | $0.0058 |
| Third Quarter 2017 | $0.0085 | $0.0030 |
| Fourth Quarter 2017 | $0.0224 | $0.0049 |
| First Quarter 2016 | $0.0390 | $0.0255 |
| Second Quarter 2016 | $0.0410 | $0.0295 |
| Third Quarter 2016 | $0.0380 | $0.0250 |
| Fourth Quarter 2016 | $0.0197 | $0.0070 |

**Holders of Record**

As of December 31, 2019, there were approximately 310 holders of record 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. 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 Preferred Stock have a right to receive dividends pari passu on each outstanding share of Series D 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**

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 are 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.

During the third quarter of 2015, the Board of Directors authorized the issuance of Common Stock in a private placement of 7,000,000 Common Shares with certain warrant features. As of December 31, 2015, 4,000,000 Shares of this offering were sold, and the Company received proceeds of $120,000. The Common Shares are accompanied by $0.03 warrants and $0.06 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.

On October 23, 2017, the Company issued a convertible promissory note (the "Promissory Note") to George H. McGovern, III, the Chairman and CEO of the Company, and 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 Common Stock ("Common Stock") of the Company at a conversion price of $0.004.

Additionally, on April 22, 2019 the Company issued a convertible promissory note (the "Additional Promissory Note") in the amount of $200,000 to the Note Holders for funds advanced to the Company. The Additional Promissory Note was approved by the Board on August 1, 2018. Funds were advanced to the Company from August 1, 2018 through March 13, 2019. The Additional Promissory Note was executed on April 22, 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 Additional Promissory Note into Series D Preferred Stock ("Preferred Stock") of the Company 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 Conversion") is solely at the Note Holders' discretion.

On December 31, 2019, the Note Holders notified the Company of their election to convert both the Promissory Note and Additional Promissory Note into Common Stock and Series D Preferred Stock, respectively. As a result, the Note Holders received 86,927,397 shares of Common Stock on December 31, 2019 and 21,158,953 shares of Series D Preferred Stock on February 10, 2020.

Additionally, on April 22, 2019, the Note Holders retain two warrants to purchase Common Stock of the Company for each share of Preferred Stock held and the price of each warrant is equal to the Conversion Price. Each warrant shall expire on July 31, 2029. These additional warrants account for 41,983,781 shares at an average weighted price of $0.02.

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.

## ITEM 6. SELECTED FINANCIAL DATA

Selected financial data is provided in Note O to the financial statements.

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

### Corporate Overview

Our 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. 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.

HDC's mission is to use its patents, intellectual prowess, 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 play a role in developing more personalized approaches to the diagnosis and treatment of certain diseases. However, our SVM assets in particular have broad applicability in many other fields. Intelligently applied, HDC's pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our 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 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 32 patents that have been issued or are currently pending around the world.

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.

### Operational Activities

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.

#### *NeoGenomics License*

As previously disclosed in January 2017, the Company notified NeoGenomics of HDC's election to terminate all licenses that are subject to the MLA dated January 6, 2012, between the Company and NeoGenomics. The MLA was filed with the SEC on January 11, 2012 as an exhibit to a Current Report on Form 8-K. Subsequently, HDC and NeoGenomics attempted to resolve the matter through alternative dispute resolution, including but not limited to, mediation. While these efforts were unsuccessful, the Company ultimately filed an Arbitration with the American Arbitration Association's Panel. On April 25, 2019, the Panel issued their Final Award. Section XXI, the Conclusion of the Final Award, states:

Based on the foregoing, the Panel concludes as follows:

1. Effective immediately, the MLA is terminated.

2. HDC is awarded $1,500,000 based on the Panel's conclusion that SmartFlow infringes a Valid Patent Claim and internal use by NEO is subject to Milestone and Royalty payments.

3. HDC is awarded $5,100,000 based on the Panel's conclusion that NEO failed to use its best efforts with respect to the development and commercialization of SVM-CYTO.

4. Pursuant to Section 12.2 of the MLA, NEO shall reimburse HDC $8,694.

5. As discussed in this Final Award, all other claims by HDC are hereby denied.

6. NEO's request for a Declaratory Judgment is denied.

7. All of NEO's counterclaims are denied.

8. All other claims, counterclaims, defenses, requests for relief, to the extent not specifically addressed in this Final Award are hereby denied.

Therefore, the sum award for HDC is $6,608,694 plus interest accrued from date of the Final Award to date of payment. Additionally, the Panel holds that the MLA is terminated with the exception of the obligations expressly stated in Section 8.2. Section 8.2 of the MLA requires NeoGenomics to, among other things; continue its obligations to make payment of any sum due to HDC pursuant to Article 3 of the MLA, License Fees and Royalty Payments.

All NeoGenomics stock held by Health Discovery Corporation was sold during the period of 2013 through August 2017.

***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 Health Discovery Corporation on the SVM-RFE Patent application. The PTAB of the USPTO issued its decision, finding that Health Discovery Corporation 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, Health Discovery Corporation 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 all SVM-RFE patents. Additionally, Health Discovery Corporation is taking the necessary steps to protect its sole ownership of SVM-RFE patents against infringement.

***Intellectual Property Developments***

As previously disclosed, the Company submitted Patent Application Number 14/754,434 (the "Patent") to the United States Patent and Trademark Office ("USPTO").

The Company subsequently announced that the USPTO has issued a Notice of Allowance of this Patent covering the four-gene prostate cancer test developed using its 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 Patent complements the Company's already issued European Patent that covers similar claims.

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

The Company now holds the exclusive rights to 31 issued U.S. patents covering uses of SVM and FGM 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 reduction in the total number of issued and pending patents since 2015 resulted from the Company's decision to allow certain foreign patents issued and/or filed in countries that were deemed to have lower strategic value to lapse. In addition, a few U.S. patents that were either near the ends of their terms and/or had parallel applications with broader claims in force were allowed to expire. In addition, significant changes in the U.S. Patent Laws relating to the eligibility of certain subject matter for patent protection influenced the Company's decision to abandon a few of its pending U.S. applications. This in turn reduced the Company's total expenses for patent maintenance.

***SVM Capital, LLC***

In January 2007, SVM Capital, LLC ("SVM Capital") was formed as a joint venture between HDC and Atlantic Alpha Strategies, LLC ("Atlantic Alpha") to explore and exploit the potential applicability of our SVM technology to quantitative investment management techniques.

On June 16, 2015, SVM Capital joined Manifold Partners, LLC ("Manifold Partners") as a partner. Manifold Partners is a San Francisco-based multi-strategy portfolio management firm specializing in quantitative investment methodologies. As a part of the partnership, SVM Capital was to contribute their proprietary service to the collaboration with Manifold Partners. This technology is an outgrowth of the machine learning techniques created by the Company.

The management of SVM Capital, LLC has not provided Health Discovery Corporation with any updates since September 2016. Health Discovery Corporation is evaluating its rights regarding the license agreement with SVM Capital, LLC

**Inflation**

The Company does not expect that inflation or changing prices will have a material effect on revenues or income.

**Year Ended December 31, 2019 Compared with Years Ended December 31, 2018, 2017 and 2016**

**Revenue**

For the year ended December 31, 2019, revenue was approximately $1.5 million compared with $44,300, $44,951 and $43,512 for the years ended December 2018, 2017 and 2016, respectively. Revenue is recognized for licensing and development fees over the period earned, which in most cases is the length of the license. The

revenue recognized in 2019 was primarily the recognition of proceeds from the NeoGenomics arbitration. As of December 31, 2019, the Company had no deferred revenue. Total deferred revenue was $18,077, $61,465 and $104,853 at December 31, 2018, 2017 and 2016, respectively.

**Operating and Other Expenses**

Amortization expense, which is the amortization of costs of acquiring or filing of patents over their estimated useful lives, was $262,719 for each of the years ended December 31, 2018, 2017 and 2016. For the year ended December 31, 2019 amortization expense was $152,908.

Professional and consulting fees totaled $83,735 for 2019 compared with $59,456 for 2018, $126,799 for 2017 and $213,977 for 2016. These fees consist primarily of patent filing and maintenance costs, consulting fees, and accounting fees.

Legal fees totaled $86,997 during the year ended December 31, 2019, compared with $10,359 during the same period 2018, $72,020 in 2017 and $32,458 in 2016. The increase in legal fees in 2019 was a result of costs associated with the Company's response to the patent interference proceedings.

Research and development fees were $0 during 2019, 2018 and 2017 and $27,000 during 2016. The research and development fees were related primarily to fees paid to consultants relating to the development work completed as a part of our NeoGenomics License.

Compensation expense totaled $371,690 for the year ended December 31, 2019, $285,421 in 2018, $308,631 for 2017 and $282,195 for 2016. The increase in 2019 was due to a one-time compensation paid to directors for their efforts in the success of the NeoGenomics and Intel matters.

Other general and administrative expenses totaled $754,024 in 2019, $195,965 in 2018, $134,382 in 2017, and $179,308 in 2016. The 2019 increase in other general and administrative expense was due to the non-cash expense of option awards.

**Other Income and Expense**

The Company received a total payment of $6.6 million as a result of the NeoGenomics arbitration ruling. $1.5 million of the arbitration award was attributed to "milestone and royalty payments", with the remaining $5.1 million attributed to punitive damages. Hence, the Company reported $5.1 million as other income for the period ending December 31, 2019.

Other income was immaterial for the year ended December 31, 2018. For the year ended December 31, 2017, the unrealized loss on NeoGenomics stock held at the end of the reporting period was $13,077. For the period ending December 31, 2016, the company recorded other income of $82,138 as a result of realizing a gain on NeoGenomics stock in the amount of $12,395 along with a $69,743 gain on payables restructuring.

Other expense for the year ended December 31, 2019 totaled $3.7 million, primarily as a result of litigation related fees. Other expense totaled $25,854 for 2018 and $1,210 for 2017 as a result of interest expense. For the year ended December 31, 2016 other expense totaled $1.2 million resulting from a change in warrants liability. As previously disclosed, the Company had issued options and warrants which exceeded the amount of common shares available if the holders exercised all of the previously issued outstanding options and warrants. This created a common stock warrant liability for the Company. During the first quarter of 2016, based upon the trading price of the Company's common stock, this liability increased to $940,812 and during the second quarter of 2016 increased to $1,196,612. At the Annual Shareholder Meeting of the Company held on May 17, 2016, the shareholders approved an increase to the authorized shares of common and preferred stock. As a result, on May 17, 2016 common stock warrant liability for the Company was eliminated.

**Liquidity and Capital Resources**

At December 31, 2019, the Company had $2.3 million in cash and total current liabilities of $884,897. The primary amount of current liabilities relates to $206,637 in dividends payable, $440,089 in accrued wages and $200,000 in convertible debt. As a result, we will have sufficient resources to meet all of our current obligations. The Company is pursuing licensing activity and collaborations to increase revenue. Additionally,

the Company is evaluating options to secure funding for infringement activities to protect its 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 the Company will be successful in these fund-raising efforts. The Company estimates cash will be depleted by the second quarter of 2023 unless the Company is able to increase revenues or raise additional capital.

At December 31, 2019, the Company had no contractual obligations that require disclosure.

The Company has relied primarily on equity and debt financing for liquidity. 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. The Company's plan to have sufficient cash to support operations is comprised of generating revenue through licensing its patent portfolio, providing services related to those patents, protecting its proprietary technology against infringers and obtaining additional equity or debt financing. Previous leadership was never able to generate significant revenue, as further described above. The current leadership created the largest revenue in 2019 and is utilizing that revenue to explore future opportunities for the Company. Additionally, proceeds from arbitration in 2019 increased cash balances and are being utilized.

*Cash Flow from Operating, Investing and Financing Activities*

For the year ended December 31, 2019, the Company had net income of $1.56 million with $2.2 million of cash being generated by operating activities. During 2019 a total of $92,940 was provided by financing activities resulting from proceeds received from convertible debt. As a result, the Company realized a net increase of cash of $2.3 million during the year ended December 31, 2019.

*Cash Flow from Financing Activities*

The Company has relied primarily on equity funding plus debt financing for liquidity. With the exception of the success of the current leadership team in 2019, the Company has produced limited revenue. The Company must continue to increase revenue in order to generate sufficient cash to continue operations. The Company does have sufficient cash to support operations until it is able to generate revenue through royalty payments from licensing deals from its patent portfolio and development fees for providing services related to those patents. There can be no assurance that the Company will be able generate sufficient revenues that would permit funding of ongoing operations. In such event, the Company may also consider such alternatives as raising additional equity through private placements and/or debt offerings. There can be no assurance that the Company will be able to secure such funding.

**Critical Accounting Policies, Estimates and Assumptions**

We consider our accounting policies related to revenue recognition, impairment of intangible assets and stock-based compensation to be critical accounting policies. A number of significant estimates, assumptions, and judgments are inherent in our determination of when to recognize revenue, how to evaluate our intangible assets, and stock-based compensation expense. These estimates, assumptions and judgments include deciding whether the elements required to recognize revenue from a particular arrangement are present, estimating the fair value of an intangible asset, which can be estimated from the future discounted cash flows expected to be derived from the intangible asset, and estimating the useful life and volatility of stock awards granted. 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.

*Valuation of intangible and other long-lived assets*

We assess the carrying value of intangible and other long-lived assets at least annually, which requires us to make assumptions and judgments regarding the future cash flows related to these assets. The assets are considered to be impaired if we determine that the carrying value may not be recoverable based upon our assessment of events or changes in circumstances such as:

- the asset's ability to continue to generate income from operations and positive cash flow in future periods;

- loss of legal ownership or title to the asset;
- significant changes in our strategic business objectives and utilization of the asset(s); and
- the impact of significant negative industry or economic trends.

If the assets are considered to be impaired, the impairment we recognize is the amount by which the carrying value of the assets exceeds the fair value of the assets. In addition, we base the useful lives and related amortization or depreciation expense on our estimate of the period that the assets will generate revenues or otherwise be used by us. We also periodically review the lives assigned to our intangible assets to ensure that our initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

*Revenue Recognition*

The preparation of financial statements in conformity with GAAP requires us to make certain estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the balance sheet date, as well as reported amounts of revenue and expenses during the reporting period. Our most significant estimates and judgments involve revenue recognition, capitalized internal-use software, income taxes, and valuation of our stock-based compensation, including the underlying deemed estimated fair value of our preferred and common stock. Actual results may differ from these estimates. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

On January 1, 2016, we adopted the requirements of Accounting Standards Update, or ASU, No. 2014-09, Revenue from Contracts with Customers, or Topic 606. Topic 606 establishes a principle for recognizing revenue upon the transfer of promised goods or services to customers, in an amount that reflects the expected consideration received in exchange for those goods or services. Topic 606 also includes Subtopic 340-40, Other Assets and Deferred Costs — Contracts with Customers, which requires the deferral of incremental costs of obtaining a contract with a customer. Collectively, references to Topic 606 used herein refer to both Topic 606 and Subtopic 340-40. We adopted Topic 606 with retrospective application to the beginning of the earliest period presented. The adoption of Topic 606 resulted in changes to our accounting policies for revenue recognition.

Under ASC 606, an entity 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.

The Company has entered into collaboration agreements for research, development, and commercial services, under which the Company licenses certain rights to its product candidates to third parties. The terms of these arrangements typically include payment to the Company of one or more of the following: non-refundable, upfront license fees; reimbursement of certain costs; customer option exercise fees; development, regulatory and commercial milestone payments; and royalties on net sales of licensed products. Any variable consideration is constrained, and therefore, the cumulative revenue associated with this consideration is not recognized until it is deemed not to be at significant risk of reversal.

In determining the appropriate amount of revenue to be recognized as the Company fulfills its obligations under each of its agreements for which the collaboration partner is also a customer, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation. As part of the accounting for these arrangements, the Company must use significant judgment to determine: (a) the number of performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; and (c) the timing of satisfaction of performance obligations as a measure of progress in step (v) above. The Company uses significant judgment to determine whether milestones or other variable consideration, except for royalties, should be included in the transaction price as described further below. The transaction price is allocated to the optional goods and services the Company expects to provide. The Company uses estimates to determine the timing of satisfaction of performance obligations.

Amounts received prior to revenue recognition are recorded as deferred revenue. Amounts expected to be recognized as revenue within the 12 months following the balance sheet date are classified as current portion of deferred revenue in the accompanying consolidated balance sheets. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as deferred revenue, net of current portion.

*Share-Based Compensation*

Share-based compensation expense is significant to our financial position and results of operations, even though no cash is used for such expense. In determining the period expense associated with unvested options, we estimate the fair value of each option at the date of grant. We believe it is important for investors to be aware of the high degree of subjectivity involved when using option-pricing models to estimate share-based compensation. The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our valuation methodology, the expected term, expected stock price volatility over the term of the awards, the risk-free interest rate, expected dividends and pre-vesting forfeitures. If any one of these factors changes and we employ different assumptions in future periods, the compensation expense that we record could differ significantly from what we have recorded in the current period.

For share-based awards, we estimated the expected term by considering various factors including the vesting period of options granted, employees' historical exercise, and post-employment termination behavior; however, due to the limited history of our Company, such data is limited. We estimated the expected life will be longer than the vesting period given the early stage nature of our operations and accordingly have used the expected life as the expected term. Our estimated volatility was derived using our historical stock price volatility. We have never declared or paid any cash dividends on our Common Stock and currently do not anticipate paying such cash dividends. The risk-free interest rate is based upon U.S. Treasury securities with remaining terms similar to the expected term of the share-based awards.

**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.

## ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

## ITEM 8. FINANCIAL STATEMENTS

The following financial statements are included beginning on page F-1 of this report:



## 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.

### Management's Annual Report on Internal Control over Financial Reporting

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. The Company's 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.

In connection with the preparation of our annual financial statements, management has undertaken an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2019 based on the framework in Internal Control — Integrated Framework ("2017 Framework") issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management's assessment included an evaluation of the design of our internal control over financial reporting and testing of the operational effectiveness of those controls.

Based on this evaluation, under that framework, management has concluded that our internal control over financial reporting was not effective as of December 31, 2019. 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 weaknesses 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.

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, directors are:

| Name | Age | Position |
|---|---|---|
| George H. McGovern, III | 73 | Chairman and CEO |
| Hong Zhang, Ph.D. | 56 | Chief Science Officer |
| Marty Delmonte | 52 | President, COO and Director |
| William F. Fromholzer | 74 | Director |
| Colleen M. Hutchinson | 45 | Director |
| Edward Morrison | 47 | Director |
| James Murphy | 64 | 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 Yamacraw Associate Professor at Armstrong Atlantic 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*** is currently our President and Chief Operating Officer and has been involved with the Company since July 2010. 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, and SunTrust. 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 dental 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.

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.

**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.

**Shareholder Nomination of Candidates for Board of Directors**

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.

**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 and Directors for each of the last four fiscal years:

| Name and Principal Position | Year | Salary ($) | Bonus ($) | All Other Compensation ($) | Total |
|---|---|---|---|---|---|
| George H. McGovern, III | 2019 | $150,000[1] | $ — | $ 4,410[2] | $154,410 |
| Chairman & Chief Executive Officer | 2018 | $150,000[1] | $ — | $ 17,415[2] | $167,415 |
| | 2017 | $125,000[1] | $ — | $ 17,415[2] | $142,415 |
| | 2016 | $ — | $ — | $ 8,820[2] | $ 8,820 |
| Hong Zhang, Ph.D. | 2019 | $ 25,500 | $25,000 | $ — | $ 50,500 |
| Chief Science Officer | 2018 | $ — | $ — | $ 2,286[2] | $ 2,286 |
| | 2017 | $ 27,000 | $ — | $ 13,712[2] | $ 40,712 |
| | 2016 | $ 52,000 | $ — | $ 16,911[2] | $ 68,911 |
| Marty Delmonte | 2019 | $125,000[1] | $ — | $ — | $125,000 |
| President, Chief Operating Officer & Director | 2018 | $125,000[1] | $ — | $ 4,185[2] | $129,185 |
| | 2017 | $125,000[1] | $ — | $ 4,185[2] | $129,185 |
| | 2016 | $ 96,300 | $ — | $ 14,619[2] | $110,919 |
| William Fromholzer | 2019 | $ — | $20,000 | $127,136[2] | $147,136 |
| Director | 2018 | $ — | $ — | $ 28,031[2] | $ 28,031 |
| | 2017 | $ — | $ — | $ — | $ — |
| | 2016 | $ — | $ — | $ — | — |
| Colleen Hutchinson | 2019 | $ — | $20,000 | $127,136[2] | $147,136 |
| Director | 2018 | $ — | $ — | $ 28,031[2] | $ 28,031 |
| | 2017 | $ — | $ — | $ — | $ — |
| | 2016 | $ — | $ — | $ — | $ — |
| Edward Morrison | 2019 | $ — | $20,000 | $127,136[2] | $147,136 |
| Director | 2018 | $ — | $ — | $ 2,391[2] | $ 2,391 |
| | 2017 | $ — | $ — | $ 2,391[2] | $ 2,391 |
| | 2016 | $ — | $ — | $ — | $ — |
| James Murphy | 2019 | $ — | $20,000 | $127,136[2] | $147,136 |
| Director | 2018 | $ — | $ — | $ 2,391[2] | $ 2,391 |
| | 2017 | $ — | $ — | $ 2,391[2] | $ 2,391 |
| | 2016 | $ — | $ — | $ — | $ — |

(1) Includes accrued wages not paid

(2) Represents costs associated with stock options

### 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.

**Director Compensation**

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.

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

The following table sets forth information concerning the beneficial ownership of our Common Stock as of December 31, 2019 by (i) each of our directors, (ii) each of our executive officers, (iii) each person who is known to us to be the beneficial owner of more than five percent of our Common Stock, and (iv) all of our executive officers and directors as a group. As of December 31, 2019, there were 388,646,386 shares of common stock outstanding, no shares of Series A Preferred Stock outstanding, no shares of Series B Preferred Stock outstanding no shares of Series C Preferred Stock outstanding and no shares of Series D Preferred Stock outstanding.

| Name of Beneficial Owner | Shares held by Beneficial Owner | Percent of Class[(1)] |
|---|---|---|
| George McGovern, III, Chairman and CEO | 81,080,590 | 20.86% |
| Hong Zhang, PhD, Chief Science Officer | 2,000,000 | 0.51% |
| Marty Delmonte, President, COO and Director | 5,500,000 | 1.42% |
| William F. Fromholzer, Director | 4,000,000 | 1.03% |
| Colleen M. Hutchinson, Director | 4,000,000 | 1.03% |
| Edward Morrison, Director | 10,500,000 | 2.70% |
| James Murphy, Director | 4,000,000 | 1.03% |
| All executive officers and directors as a group (7 persons) | 111,080,590 | 28.58% |

(1) The percentage assumes the exercise by the stockholder or group named in each row of all options or warrants for the purchase of our Common Stock held by such stockholder or group and exercisable within 60 days as of December 31, 2019.

**Securities Authorized for Issuance Under Equity Compensation Plans**

The following table sets forth the equity securities of the Company which are authorized for issuance to employees, directors and consultants in consideration for services as of December 31, 2019:

**Equity Compensation Plan Information**

| ***Common Shares Authorized*** | ***450,000,000*** | **Outstanding Common Shares** | **Option and Warrant Shares** | **Total Shares Diluted** |
|---|---|---|---|---|
| ***Preferred Shares Authorized*** | ***45,000,000*** | | | |
| **Outstanding December 31, 2019** | | 388,646,386 | 116,375,000 | 505,021,386 |
| | | | Common Shares Authorized and Not Issued | (55,021,386) |
| | | | Preferred Outstanding | — |
| | | | Preferred Shares Authorized and Not Issued | 45,000,000 |
| | | | Total Shares Available within CAP Table | (55,021,386) |

## 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, 2019, the following directors are independent according to those standards: William Fromholzer, Edward Morrison, and James Murphy. George McGovern, Marty Delmonte and Colleen Hutchinson were not independent according to the New York Stock Exchange independence standards.

After exhausting our funding search, we reached out to former and current Directors and shareholders seeking additional operating funds. George McGovern (Chairman, CEO and Principal Executive Officer) loaned money to the Company in two tranches: the first in October, 2017 in the amount of $300,000 and the second in August, 2018 in the amount of $200,000. These loans were originated at interest rate of 8% APR. The entirety of both tranches of the loans was requested to be converted to equity on December 31, 2019, thus relieving the company of this obligation.

## ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The following table sets forth the fees billed by Frazier & Deeter, LLC in 2019, 2018, 2017 and 2016:

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| Audit Fees | $— | — | — | 82,777 |
| Audit-Related Fees | — | — | — | — |
| Tax Fees | — | — | — | — |
| Sub-Total | — | — | — | 82,777 |
| All Other Fees | — | — | — | — |
| Total Fees | $— | — | — | 82,777 |

**Audit Fees.** This category includes aggregate fees billed for professional services rendered for the audit of the Company's annual financial statements for the year ended December 31, 2015, review for the annual report on Form 10-K and for the limited reviews of quarterly condensed financial statements (Forms 10-Q) included in periodic reports filed with the Securities and Exchange Commission during 2019, 2018, 2017 and 2016, 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 for the years ended December 31, 2019, 2018, 2017 and 2016.

**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:

| | |
|---|---|
| 3.1 | Articles of Incorporation. Registrant incorporates by reference Exhibit 3.1 to Form 8-K filed July 18, 2007. |
| 3.1(a) | Articles of Amendment to Articles of Incorporation. Registrant incorporates by reference Exhibit 99.1 to Form 8-K filed October 10, 2007. |
| 3.1(b) | Articles of Amendment to Articles of Incorporation. Registrant incorporates by reference Exhibit 3.1(b) to Form 10-K filed March 31, 2009. |
| 3.1(c) | Amended and Restated Articles of Amendment to Articles of Incorporation. Registrant incorporates by reference Exhibit 3.1 to Form 10-Q filed November 16, 2009. |
| 3.2 | By-Laws. Registrant incorporates by reference Exhibit 3.2 to Form 8-K filed July 18, 2007. |
| 4.1 | Copy of Specimen Certificate for shares of Common Stock. Registrant incorporates by reference Exhibit 4.1 to Registration Statement on Form SB-2, filed June 4, 2001. |
| 4.1(a) | Copy of Specimen Certificate for shares of Common Stock. Registrant incorporates by reference Exhibit 4.1(b) to Form 10-KSB, filed March 30, 2004. |
| 4.1(b) | Copy of Specimen Certificate for shares of Series A Preferred Stock. Registrant incorporates by reference Exhibit 4.1(b) to Form 10-K filed March 31, 2008. |
| 4.1(c) | Copy of Specimen Certificate for shares of Series B Preferred Stock. Registrant incorporates by reference Exhibit 4.1(c) to Form 10-K filed March 31, 2009. |
| 10.1 | License Agreement, dated January 6, 2012, between Health Discovery Corporation and NeoGenomics Laboratories, Inc. Registrant incorporates by reference Exhibit 10.27 to Form 8-K filed on January 12, 2012. |
| 31.1 | Rule 13a-14(a)/15(d)-14(a) Certification of Chief Executive Office and Principal Executive Officer. Filed herewith. |
| 32.1 | Section 1350 Certification of President and Principal Financial Officer. Filed herewith. |

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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**

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

Date: May 12, 2020

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

Date: May 12, 2020

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

| Name | Title | Date |
|---|---|---|
| */s/ George H. McGovern, III* | Chairman, Chief Executive Officer, Principal Executive Officer | May 12, 2020 |
| */s/ Marty Delmonte* | President, Chief Operating Officer, Principal Financial Officer | May 12, 2020 |

## 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, 2019, 2018, 2017 and 2016, 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, 2019, 2018, 2017 and 2016, 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.

**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.

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

Atlanta, Georgia
May 12, 2020

**HEALTH DISCOVERY CORPORATION**

**Balance Sheets**
**For the Years Ended December 31, 2019, 2018, 2017 and 2016**

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| **Assets** | | | | |
| *Current Assets* | | | | |
| Cash | $ 2,295,720 | $ 67 | $ 43,543 | $ 41,251 |
| Investment in Available For Sale Securities *(Note L)* | — | — | — | 154,374 |
| Legal fee retainer | 16,796 | — | — | — |
| Total Current Assets | 2,312,516 | 67 | 43,543 | 195,625 |
| Patents, Less Accumulated Amortization of $3,985,794, $3,832,887, $3,570,167 and $3,307,448 as of December 31, 2019, 2018, 2017 and 2016 respectively | — | 152,908 | 415,627 | 678,346 |
| Total Assets | $ 2,312,516 | $ 152,975 | $ 459,170 | $ 873,971 |
| **Liabilities and Stockholders' Equity** | | | | |
| *Current Liabilities* | | | | |
| Accounts Payable | $ 21,483 | $ 148,208 | $ 152,648 | $ 39,823 |
| Accrued Wages | 440,089 | 339,677 | 147,500 | — |
| Dividends Payable | 206,637 | 206,637 | 206,637 | 206,637 |
| Accrued Interest | 16,688 | 27,064 | 1,210 | — |
| Deferred Revenue | — | 18,077 | 43,388 | 43,388 |
| Common Stock Warrants Liability | 1,898,126 | — | — | — |
| Convertible Debt | 200,000 | 407,060 | | |
| Total Current Liabilities | 2,783,023 | 1,146,723 | 551,383 | 289,848 |
| *Long Term Liabilities* | | | | |
| Deferred Revenue | — | — | 18,077 | 61,465 |
| Convertible Debt | — | — | 175,000 | — |
| Total Liabilities | 2,783,023 | 1,146,723 | 744,460 | 351,313 |
| *Stockholders' Equity* | | | | |
| Preferred Stock, Convertible, 45,000,000 Shares Authorized; No Par Value, 0 Issued and Outstanding December 31, 2019; 30,000,000 Issued and Outstanding December 31, 2018, 2017 and 2016 | — | 900,000 | 900,000 | 900,000 |
| Common Stock, No Par Value, 450,000,000 Shares Authorized; | — | — | — | — |
| 388,648,386 Shares Issued and Outstanding December 31, 2019; 268,718,989 Shares Issued and Outstanding December 31, 2018, 2017 and 2016 | 28,909,761 | 29,047,226 | 28,960,210 | 28,894,271 |
| Accumulated Deficit | (29,380,268) | (30,940,974) | (30,145,500) | (29,271,613) |
| Total Stockholders' Equity (Deficit) | (470,507) | (993,748) | (285,290) | 522,658 |
| Total Liabilities and Stockholders' Equity (Deficit) | $ 2,312,516 | $ 152,975 | $ 459,170 | $ 873,971 |

See accompanying notes to financial statements.

**HEALTH DISCOVERY CORPORATION**

**Statements of Operations**
**For the Years Ended December 31, 2019, 2018, 2017 and 2016**

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| *Revenues:* | | | | |
| Licensing and Development | $ 18,806 | $ 44,300 | $ 44,951 | $ 43,512 |
| Licensing Revenue from Arbitration | 1,500,000 | — | — | — |
| Total Revenue | 1,518,806 | 44,300 | 44,951 | 43,512 |
| *Operating Expenses:* | | | | |
| Depreciation and Amortization | 152,908 | 262,719 | 262,719 | 262,914 |
| Professional and Consulting Fees | 83,735 | 59,456 | 126,799 | 213,977 |
| Legal Fees | 86,997 | 10,359 | 72,020 | 32,458 |
| Research and Development Fees | — | — | — | 27,000 |
| Compensation | 371,690 | 285,421 | 308,631 | 282,195 |
| Other General and Administrative Expenses | 745,023 | 195,965 | 134,382 | 179,093 |
| Total Operating Expenses | 1,440,353 | 813,920 | 904,551 | 997,657 |
| Income (Loss) From Operations | 78,453 | (769,620) | (859,600) | (954,145) |
| *Other Income (Expense)* | | | | |
| Proceeds from Arbitration | 5,161,035 | — | — | — |
| Interest Income | 721 | — | — | — |
| Arbitration related fee | (3,642,170) | — | — | — |
| Interest Expense | (37,333) | (25,854) | (1,210) | — |
| Change in Fair Value of Warrants Liability | — | — | — | (1,196,612) |
| Unrealized Gain on Available for Sale Securities *(Note L)* | — | — | — | 12,395 |
| Realized Loss on Available for Sale Securities *(Note L)* | — | — | (13,077) | — |
| Gain on Payables Restructuring | | | | 69,743 |
| Total Other Income (Expense) | 1,482,253 | (25,854) | (14,287) | (1,114,474) |
| Net Income (Loss) | 1,560,706 | (795,474) | (873,887) | (2,068,619) |
| Preferred Stock Dividends | — | — | — | — |
| Income (Loss) Attributable to Common Stockholders | $ 1,560,706 | $ (795,474) | $ (873,887) | $ (2,068,619) |
| Weighted Average Outstanding Shares | 388,646,386 | 271,718,989 | 271,718,989 | 271,718,989 |
| (Loss) Income Per Share Attributable to Common Stockholders | $ 0.00 | $ 0.00 | $ 0.00 | $ 0.00 |

See accompanying notes to financial statements.

## HEALTH DISCOVERY CORPORATION

### Statements of Changes in Stockholders' Equity
### For the Years Ended December 31, 2019, 2018, 2017 and 2016

| | Issued and Outstanding | | | | | |
|---|---|---|---|---|---|---|
| | Series C Preferred Stock | Common Stock | Series C Preferred Amount | Common Stock Amount | Accumulated Deficit | Total Stockholders' Equity (Deficit) |
| Balance – December 31, 2015 | 30,000,000 | 268,718,989 | $ 560,732 | $27,410,930 | $(27,202,994) | $ 768,668 |
| Stock-based Compensation Expense for Directors and Consultants | — | — | — | 88,418 | — | 88,418 |
| Stock-based Compensation Expense for Employees | — | — | — | 108,311 | — | 108,311 |
| Common Stock Warrants Liability | — | — | 339,268 | 1,196,612 | — | 1,535,880 |
| Common Stock Issued | — | 3,000,000 | — | 90,000 | — | 90,000 |
| Net Income (Loss) | — | — | — | — | (2,068,619) | (2,068,619) |
| Balance – December 31, 2016 | 30,000,000 | 271,718,989 | $ 900,000 | $28,894,271 | $(29,271,613) | $ 522,658 |
| Stock-based Compensation Expense for Directors and Consultants | — | — | — | 46,738 | — | 46,738 |
| Stock-based Compensation Expense for Employees | — | — | — | 19,201 | — | 19,201 |
| Net Income (Loss) | — | — | — | — | (873,887) | (873,887) |
| Balance – December 31, 2017 | 30,000,000 | 271,718,989 | $ 900,000 | $28,960,210 | $(30,145,500) | $ (285,290) |
| Stock-based Compensation Expense for Directors and Consultants | — | — | — | 83,816 | — | 83,816 |
| Stock-based Compensation Expense for Employees | — | — | — | 3,200 | — | 3,200 |
| Net Income (Loss) | — | — | — | — | (795,474) | (795,474) |
| Balance – December 31, 2018 | 30,000,000 | 271,718,989 | $ 900,000 | $29,047,226 | $(30,940,974) | $ (993,748) |
| Series C Preferred Stock Converted to Common Stock | (30,000,000) | 30,000,000 | (900,000) | 900,000 | — | — |
| Stock-based Compensation Expense for Directors and Consultants | — | — | — | 512,952 | — | 512,952 |
| $300,000 Convertible Debt Converted to Common | — | 86,927,397 | | 347,709 | — | 347,709 |
| Reclassification of Common Stock Warrants | — | — | — | (1,898,126) | — | (1,898,126) |
| Net Income (Loss) | — | — | — | — | 1,560,706 | 1,560,706 |
| Balance – December 31, 2019 | — | 388,646,386 | $ — | $28,909,761 | $(29,380,268) | $ (407,507) |

See accompanying notes to financial statements.

**HEALTH DISCOVERY CORPORATION**

**Statements of Cash Flows**
**For the Years Ended December 31, 2019, 2018, 2017 and 2016**

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| Cash Flows From Operating Activities | | | | |
| Net Income (Loss) | $1,560,706 | $(795,474) | $(873,887) | $(2,068,619) |
| Adjustments to Reconcile Net Income (Loss) to Net Cash | | | | |
| Used in Operating Activities: | | | | |
| Stock-based Compensation for Employees | — | 3,200 | 19,201 | 108,311 |
| Stock-based Compensation for Directors and Consultants | 512,952 | 83,816 | 46,738 | 88,418 |
| Gain on Payables Restructuring | — | — | — | (69,743) |
| Realized Loss on Investments in Available for Sale Securities Measured in Accordance with the Fair Value Option (Note L) | — | — | 13,077 | — |
| Unrealized Gain on Investments in Available for Sale Securities Measured in Accordance with the Fair Value Option (Note L) | — | — | — | (12,395) |
| Increase in Warrants Liability | — | — | — | 1,196,612 |
| Depreciation and Amortization | 152,908 | 262,719 | 262,719 | 262,914 |
| (Increase) Decrease in Accounts Payable | (126,725) | (4,440) | 112,825 | 71,933 |
| Increase in Accrued Wages | 100,412 | 192,177 | 147,500 | — |
| Accrued Interest | 37,333 | 25,854 | 1,210 | — |
| (Decrease) in Deferred Revenue | (18,077) | (43,388) | (43,388) | (43,388) |
| Increase in Legal Fee Retainer | (16,796) | — | — | — |
| Net Cash Provided by (Used in) Operating Activity | 2,202,713 | (275,536) | (314,005) | (465,957) |
| Cash Flows From Investing Activities: | | | | |
| Investing Activity – Purchase of Securities | — | — | — | — |
| Proceeds from Sale of Available for Sale Securities (Note L) | — | — | 141,297 | — |
| Net Cash Provided by Investing Activity | — | — | 141,297 | — |
| Cash Flows From Financing Activities: | | | | |
| Proceeds from Common Stock Issuance | — | — | — | 90,000 |
| Proceeds from Short Term Notes | 122,000 | — | — | — |
| Proceeds from Convertible Debt | 92,940 | 232,060 | 175,000 | — |
| Repayment of Short Term Notes | (122,000) | — | — | — |
| Net Cash Provided by Financing Activity | 92,940 | 232,060 | 175,000 | 90,000 |
| Net Increase (Decrease) in Cash | 2,295,652 | (43,476) | 2,292 | (375,957) |
| Cash, at Beginning of Year | 67 | 43,543 | 41,251 | 417,208 |
| Cash, at End of Year | $2,295,720 | $ 67 | $ 43,543 | $ 41,251 |

| Non-cash Financing and Investing Activities | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| Series C Preferred Stock Issuance | — | — | — | $339,268 |
| Conversion of Series C Preferred Stock to Common Stock | $ 900,000 | — | — | — |
| Conversion of debt to Common Stock | $ 347,709 | — | — | — |
| Reclassification of Common Stock Warrants Liability | $1,898,126 | | | |

See accompanying notes to financial statements.

## Note A — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### DESCRIPTION OF BUSINESS

Health Discovery Corporation ("HDC" or 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. HDC's mission is to use its patents, intellectual prowess, 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, HDC's pattern recognition technology can be a portal between enormous amounts of otherwise undecipherable data and truly meaningful discovery.

Our Company's principal asset is its 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 31 patents that have been issued or are currently pending around the world.

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.

### USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the period. Accordingly, actual results could differ from those estimates. Significant estimates that are particularly susceptible to change in the near-term include the valuation of share-based compensation and consideration for services and the patent impairment.

### REVENUE RECOGNITION

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

**Note A — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued**

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.

**CASH**

Cash includes cash deposited with financial institutions.

**PATENTS**

Initial costs paid to purchase patents are capitalized and amortized using the straight-line method over the remaining life of the patent. The Company capitalizes the external costs and filing fees associated with obtaining patents on its new discoveries and amortizes these costs using the straight-line method over the shorter of the legal life of the patent or its economic life, 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. As of December 31, 2019, the Company does not believe there has been any impairment of its patents. The Company has analyzed the respective carrying value of our patent portfolio at December 31, 2016, 2017, 2018 and 2019 and has concluded that the portfolio was not impaired during this period.

**INVESTMENTS**

The Company uses the equity method to account for its equity investments in ventures for which it has 50% or less ownership and the ability to exercise significant influence over operating and financial policies but does not control. The Company uses the cost method to account for its investments in companies that it does not control and for which it does not have the ability to exercise significant influence over operating and financial policies.

**COMMON STOCK WARRANT LIABILITY**

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 Warrant 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 Warrant Liability is reclassified to equity at the fair value of the liability at the date of reclassification.

**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

**Note A — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued**

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.

**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.

*Valuation and Amortization Method* — The fair value awards of stock 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.

**RESEARCH AND DEVELOPMENT EXPENSE**

The Company's research and development costs are expensed as incurred and consist of expenses paid to consultants and external laboratories and related primarily to the costs of co-development studies, clinical trials, and projects undertaken. The research and development costs were $0 for 2019, 2018 and 2017 and $27,000 in 2016.

**FAIR VALUE OF FINANCIAL INSTRUMENTS**

The Company's financial instruments consist of cash, available for sale securities, and accounts payable. The Company considers the carrying values of its financial instruments in the financial statements to approximate their fair value due to the short-term nature of such items. Refer to Note L for discussion regarding the valuation of the Company's investment in available for sale securities.

**NET INCOME (LOSS) PER SHARE**

Basic Earnings Per Share ("EPS") includes no dilution and 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 reflects the potential dilution of securities that could share in the earnings or losses of the entity.

**Note A — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES, continued**

Due to the net loss for the years ended December 31, 2018, 2017 and 2016, the calculation of diluted per share amounts would create an anti-dilutive result and therefore are not presented in the following table. Potentially dilutive shares at December 31, 2019, 2018, 2017 and 2016 include options and warrants outstanding of 116,375,000, 108,375,000, 106,125,000 and 97,375,000 respectively.

The following is an analysis of the basic and diluted earnings per common share computations for the year ended December 31, 2019:

| | Year ended December 31, 2019 |
|---|---|
| Basic: | |
| Net income attributable to common stockholders | $ 1,560,706 |
| Basic weighted average common shares outstanding | 388,646,386 |
| Net income per share attributable to common stockholders – basic | $ 0.00 |
| Diluted: | |
| Net income attributable to common stockholders | $ 1,560,706 |
| Basic weighted average common shares outstanding | 345,742,711 |
| Effect of dilutive securities: | |
| Conversion of options and warrants | 86,927,397 |
| Conversion of preferred shares to common shares | 30,000,000 |
| Diluted weighted average common shares outstanding | 462,670,108 |
| Net income per share attributable to common stockholders – diluted | $ 0.00 |

Please refer to Note L regarding detail for outstanding stock options.

**CONCENTRATIONS OF CREDIT RISK**

The Company maintains its cash balances at financial institutions that are insured by the Federal Deposit Insurance Corporation ("FDIC") up to $250,000 per account. From time-to-time, the Company's cash balances exceed the amount insured by the FDIC. Management believes the risk of loss of cash balances in excess of the insured limit to be low.

**Note B — ARBITRATION**

In January 2017, the Company notified NeoGenomics Laboratories, Inc. ("NeoGenomics" or "NEO") of the Company's election to terminate all licenses that are subject to the Master License Agreement (the "MLA") dated January 6, 2012, between the Company and NeoGenomics. The MLA was filed with the Securities and Exchange Commission ("SEC") on January 11, 2012 as an exhibit to a Current Report on Form 8-K. Subsequently, the Company and NeoGenomics attempted to resolve the matter through alternative dispute resolution, including but not limited to, mediation. While these efforts were unsuccessful, the Company ultimately filed a Demand for Arbitration ("Arbitration") with the American Arbitration Association's Panel of Arbitrators (the "Panel" or "Arbitrators"). On April 25, 2019, the Panel issued their ruling (the "Final Award"). Section XXI, the Conclusion of the Final Award, states:

Based on the foregoing, the Panel concludes as follows:

1. Effective immediately, the MLA is terminated.

2. The Company is awarded $1,500,000 based on the Panel's conclusion that SmartFlow infringes a Valid Patent Claim and internal use by NEO is subject to Milestone and Royalty payments.

**Note B — ARBITRATION, continued**

3. The Company is awarded $5,100,000 based on the Panel's conclusion that NEO failed to use its best efforts with respect to the development and commercialization of SVM-CYTO.
4. Pursuant to Section 12.2 of the MLA, NEO shall reimburse the Company $8,694.
5. As discussed in this Final Award, all other claims by the Company are hereby denied.
6. NEO's request for a Declaratory Judgment is denied.
7. All of NEO's counterclaims are denied.
8. All other claims, counterclaims, defenses, requests for relief, to the extent not specifically addressed in this Final Award are hereby denied.

Therefore, the sum award for the Company is $6,608,694 plus interest accrued from date of the Final Award to date of payment. Additionally, the Panel holds that the MLA is terminated with the exception of the obligations expressly stated in Section 8.2. Section 8.2 of the MLA requires NeoGenomics to, among other things; continue its obligations to make payment of any sum due to the Company pursuant to Article 3 of the MLA, License Fees and Royalty Payments.

In 2019, the Company received a total payment of $6.6 million as a result of the NeoGenomics arbitration ruling. $1.5 million of the arbitration award was attributed to "milestone and royalty payments", with the remaining $5.1 million attributed to punitive damages. Hence, the Company reported $1.5 million as revenues and $5.1 million as other income for the year ending December 31, 2019.

The company also incurred arbitration related fees of $3,642,170 in 2019. These fees were related to the expense of contingency financing that was required in order to successfully resolve the Arbitration.

**Note C — DEFERRED REVENUE**

Deferred revenue represents the unearned portion of payments received in advance for licensing or service agreements.

The deferred revenue relates to the Company's settlement with Vermillion. The entire amount has been amortized over the life of the related patents.

The Company had no unearned revenue as of December 31, 2019. Deferred revenue was $18,077 at December 31, 2018, $61,465 at December 31, 2017 and $104,853 at December 31, 2016. The long-term portion of unearned revenue represents the remaining term of the agreements or the remaining lives of the underlying patents, as appropriate, and ranges from one to seven years.

**Note D — PATENTS**

The Company has acquired a group of patents related to biotechnology and certain machine learning tools used for diagnostic and drug discovery.

The cost and accumulated amortization as of December 31, 2019, 2018, 2017 and 2016 are as follows:

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| Cost of Patents | $ 3,985,794 | $ 3,985,794 | $ 3,985,794 | $ 3,985,794 |
| Accumulated Amortization | (3,985,794) | (3,832,887) | (3,570,167) | (3,307,448) |
| Patents, Net of Amortization | $ — | $ 152,908 | $ 415,627 | $ 678,346 |

## Note E — INVESTMENTS

On March 27, 2007, the Company and an investment partner formed SVM Capital, LLC ("SVM Capital") as an equity investment for purposes of utilizing SVM as a quantitative investment management technique. The Company owns 45% of the membership interest but does not have control over the entity. The Company does not have any obligation to fund or provide support to SVM Capital. Accordingly, the investment is accounted for using the equity method of accounting. The Company's initial investment was $5,000 and the license to use the SVM technology applied to financial markets. The carrying value of this investment was zero as of December 31, 2019, 2018, 2017 and 2016.

## Note F — COMMON STOCK WARRANTS LIABILITY

In September 2015, the Company completed a private placement of 30,000,000 shares of preferred stock as well as a private placement of 4,000,000 shares of common stock and issued warrants to purchase an additional 34,000,000 shares of common stock. Due to the warrant features that accompany the sale of the Company's preferred and common shares, if all outstanding options and warrants were exercised, the Company would not have sufficient shares of common stock to meet the exercised options and warrants. As a result, these warrants were required to be classified as a liability as of December 31, 2015. The Company increased its authorized shares during the year ending December 31, 2016 and reclassified the liability to stockholders' equity in the amount of $1,196,612

On December 31, 2019, as more fully disclosed in Note I, the Note Holders converted the Promissory Notes into 86,927,397 shares of Common Stock, thereby causing the Company to again exceed its authorized number of shares of Common Stock to be issued. Accordingly, the Company reclassified $1,898,126 from stockholders' equity to common stock warrants liability as of December 31, 2019.

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.

## Note G — INCOME TAXES

The Company has incurred net losses since inception, and we have determined that it is more likely than not we will be unable to benefit in the future from the accumulated net operating loss ("NOL"). Consequently, we have not recorded any U.S. federal or state income tax expense or benefit. We have not recorded income tax expense or benefit for the fiscal years ending December 31, 2019, 2018, 2017 and 2016, due to a full valuation allowance for any NOL's that would have been generated or used.

The Company has unused net operating loss carryforwards of approximately $25.9 million as of December 31, 2019 that are available to offset future income tax expense. The net operating losses will begin to expire in 2021.

Based on its evaluation of tax positions, the Company has 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, 2019. The Company is generally no longer subject to U.S. federal, state, and local, or non-US income tax examinations for the years before 2012.

## Note H — COMMITMENTS AND CONTINGENCIES

*Operating Lease*

The Company does not own any real property. The Company leases approximately 600 square feet of office space in Atlanta, Georgia, pursuant to a short-term lease as of August 2019. The Company currently pays base rent in the amount of $2,539 per month. The Company also leases approximately 400 square feet of

**Note H — COMMITMENTS AND CONTINGENCIES, continued**

office space in Berwyn, Pennsylvania, pursuant to a short-term lease as of November 2019. The Company currently pays base rent in the amount of $1,078 per month.

*Legal Issues*

The Company received notification that the United States Patent and Trademark Office ("USPTO") had declared an Interference between Health Discovery Corporation's pending patent application covering SVM-Recursive Feature Elimination ("SVM-RFE") and Intel Corporation's Patent No. 7,685,077, entitled "Recursive Feature Eliminating Method based on a Support Vector Machine". Prior to 2013, when the America Invents Act (AIA) was enacted, a patent would be awarded to the "first to invent" a claimed invention. An Interference is an administrative proceeding within the USPTO that is used to determine which party was the first to invent an invention that is claimed in two (or more) independently owned patent applications.

On February 27, 2019, the USPTO ruled in favor of the Company on the SVM-RFE Patents in the Interference proceeding between the Company and Intel Corporation. The Patent Trial and Appeal Board ("PTAB") of the USPTO issued its decision, finding that the Company is entitled to claim exclusive rights to the SVM-RFE technology as set forth in the pending patent application that was filed to provoke the Interference. 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. The Company is currently evaluating its options for further action regarding this matter.

The Company is subject to various claims primarily arising in the normal course of business. Although the outcome of these matters cannot be determined, the Company does not believe it is probable that any such claims will result in material costs and expenses.

**Note I — CONVERTIBLE DEBT**

On October 23, 2017, the Company issued a convertible promissory note (the "Promissory Note") to George H. McGovern, III, the Chairman and CEO of the Company, and James Dengler, a Company shareholder (the "Note Holders"), for $300,000 that was drawn during 2017 and 2018. 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 Common Stock ("Common Stock") of the Company at a conversion price of $0.004

On April 22, 2019, the Note Holders waived the event of default and extended the terms of the note until July 31, 2019. In consideration for the waiver and extension, the Note Holders received a 5% share of any potential recovery from the Arbitration. Such share was limited to $1 million. In connection with the announcement of the Award, the Company recorded an additional expense of $333,052, which is included in the arbitration related fees in the statement of operations for the year ended December 31, 2019.

Additionally, on April 22, 2019 the Company issued a convertible promissory note (the "Additional Promissory Note") in the amount of $200,000 to the Note Holders for funds advanced to the Company. The Additional Promissory Note was approved by the Board on August 1, 2018. Funds were advanced to the Company from August 1, 2018 through March 13, 2019. The Additional Promissory Note was executed on April 22, 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 Additional Promissory Note into Series D Preferred Stock ("Preferred Stock") of the Company 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 Conversion") is solely at the Note Holders' discretion.

**Note I — CONVERTIBLE DEBT, continued**

On December 31, 2019, the Note Holders notified the Company of their election to convert both the Promissory Note and Additional Promissory Note into Common Stock and Series D Preferred Stock, respectively. As a result, the Note Holders received 86,927,397 shares of Common Stock on December 31, 2019 and 21,158,953 shares of Series D Preferred Stock on February 10, 2020.

Additionally, on April 22, 2019, the Note Holders retain two warrants to purchase Common Stock of the Company for each share of Preferred Stock held and the price of each warrant is equal to the Conversion Price. Each warrant shall expire on July 31, 2029. These additional warrants account for 41,983,781 shares at an average weighted Conversion Price of $0.02.

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.

**Note J — STOCK COMPENSATION AND EQUITY BASED PAYMENTS**

The following schedule summarizes combined stock option and warrant information as of December 31, 2019.

| Number of Warrants and Options Issued | 2016 | Weighted Average Exercise Price | 2017 | Weighted Average Exercise Price | 2018 | Weighted Average Exercise Price | 2019 | Weighted Average Exercise Price |
|---|---|---|---|---|---|---|---|---|
| Outstanding beginning of year | 46,750,000 | $0.032 | 97,375,000 | $ — | 106,125,000 | $ — | — | $ — |
| Granted | 54,000,000 | $0.033 | 11,000,000 | $0.003 | 4,000,000 | $ — | 8,000,000 | $0.070 |
| Exercised | — | $ — | — | $ — | — | $ — | — | $ — |
| Forfeited | (3,375,000) | $ — | (2,250,000) | $0.050 | (1,750,000) | $0.040 | — | $ — |
| Expired un-exercised | — | $ — | — | $ — | — | $ — | — | $ — |
| Outstanding end of the year | 97,375,000 | | 106,125,000 | | 108,375,000 | | 8,000,000 | |

The following table reflects stock-based compensation and expense recorded in 2019, 2018, 2017 and 2016:

| | 2019 | 2018 | 2017 | 2016 |
|---|---|---|---|---|
| Director and consultant option expenses | $512,952 | $83,816 | $46,738 | $ 88,418 |
| Employee option expenses | — | 3,200 | 19,201 | 108,311 |
| Total stock compensation expenses | $512,952 | $87,016 | $65,939 | $196,729 |

In conjunction with their appointment to the Board of Directors, the Company granted to Directors an option to purchase a total of 3,125,000 shares of the Company's common stock in February 2016; 5,500,000 in May 2016; 11,000,000 in October 2017; 4,000,000 in May 2018 and 8,000,000 in June 2019. This activity is included in the preceding schedules within Note L summarizing stock and warrant information.

In recognition of their successful efforts and continuing contributions to the Company, on June 10, 2019, the Board of Directors of the Company granted to Directors Mr. William Fromholzer, Ms. Colleen Hutchinson, Mr. Edward Morrison and Mr. James Murphy each a $20,000 bonus and an option to purchase 2,000,000 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%. The aggregate computed value of these options is $508,542, and this amount was charged as an expense during the second quarter of 2019.

## Note K — STOCKHOLDERS' EQUITY

***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, 2019.

***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 are 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***

As previously disclosed, the Company issued the Additional Promissory Note in the amount of $200,000 to the Note Holders for funds advanced to 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 Additional Promissory Note into Series D Preferred Stock of the Company at the Conversion Price. The Optional Conversion is solely at the Note Holders' discretion.

On December 31, 2019, the Note Holders notified the Company of their election to convert the Additional Promissory Note into Series D Preferred Stock. As a result, the Note Holders received 20,991,891 shares of Series D Preferred Stock on February 10, 2020.

Additionally, the Note Holders retain two warrants to purchase Common Stock of the Company for each share of Preferred Stock held and the price of each warrant is equal to the Conversion Price. Each warrant shall expire on July 31, 2029.

**Note K — STOCKHOLDERS' EQUITY, continued**

***Common Stock***

During the third quarter of 2015, the Board of Directors authorized the issuance of Common Stock in a private placement of 7,000,000 Common Shares with certain warrant features. As of December 31, 2015, 4,000,000 shares of this offering were sold, and the Company received proceeds of $120,000. The Common Shares are accompanied by $0.03 warrants and $0.06 contingency warrants. The contingency warrants were issued since the Company had not attained profitability at the end of the first quarter 2016. The 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.

On October 23, 2017, the Company issued a convertible promissory note (the "Promissory Note") to George H. McGovern, III, the Chairman and CEO of the Company, and 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 Common Stock ("Common Stock") of the Company at a conversion price of $0.004.

Additionally, on April 22, 2019 the Company issued a convertible promissory note (the "Additional Promissory Note") in the amount of $200,000 to the Note Holders for funds advanced to the Company. The Additional Promissory Note was approved by the Board on August 1, 2018. Funds were advanced to the Company from August 1, 2018 through March 13, 2019. The Additional Promissory Note was executed on April 22, 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 Additional Promissory Note into Series D Preferred Stock ("Preferred Stock") of the Company 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 Conversion") is solely at the Note Holders' discretion.

On December 31, 2019, the Note Holders notified the Company of their election to convert both the Promissory Note and Additional Promissory Note into Common Stock and Series D Preferred Stock, respectively. As a result, the Note Holders received 86,927,397 shares of Common Stock on December 31, 2019 and 21,158,953 shares of Series D Preferred Stock on February 10, 2020.

Additionally, on April 22, 2019, the Note Holders retain two warrants to purchase Common Stock of the Company for each share of Preferred Stock held and the price of each warrant is equal to the Conversion Price. Each warrant shall expire on July 31, 2029. These additional warrants account for 41,983,781 shares at an average weighted price of $0.02.

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.

Due to the warrant features that accompany the sale of the Company's preferred and common shares, if all outstanding options and warrants were exercised, the Company would not have sufficient shares of common stock to meet the exercised options. The aggregate intrinsic value of all options and warrants outstanding and exercisable prices. The Company will need to increase the authorized shares of common stock in order to satisfy the options and warrants if the holders exercise the outstanding options and warrants.

**Note L — INVESTMENT IN AVAILABLE FOR SALE SECURITIES**

The Company has elected the fair value option in accordance with ASC 825, *Financial Instruments,* as it relates to its shares held in NeoGenomics' common stock that were acquired resulting from the NeoGenomics

**Note L — INVESTMENT IN AVAILABLE FOR SALE SECURITIES, continued**

Master License Agreement executed on January 6, 2012. Management made the election for the fair value option related to this investment because it believes the fair value option for the NeoGenomics common stock provides a better measurement from which to compare financial statements from reporting period to reporting period. No other financial assets or liabilities are fair valued using the fair value option.

As of December 31, 2017, the Company divested of all shares of NeoGenomics stock.

**Note M — SUBSEQUENT EVENTS**

On February 7, 2020 two shareholders of the Company, William F. Quirk, Jr. ("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 Quick and Bear alleged misconduct by the Company and its directors.

On March 2, 2020, having received no relief, Quirk and Bear dismissed their action in DeKalb County and 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. This hearing was postponed due to the COVID-19 pandemic and has not been rescheduled.

Quirk and Bear filed this suit after attempting to call a special meeting of shareholders and making a demand for inspection of certain books and records. The Company determined the demand for a special meeting was defective for a number of reasons, but as the Company announced in December, the Company will hold an annual meeting after the Company files its annual report on Form 10-K. The Company has provided counsel for Quirk and Bear with the records to which Quirk and Bear were legally entitled.

The Company denies all allegations of improper conduct in the complaint and will continue to defend itself against all allegations. As a result, the Company will recognize expenses totaling $350,000 during the first quarter of 2020 related to legal fees associated with this litigation. 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 Quirk and Bear be successful, the outcome could have a material adverse effect on the Company.

In December 2019, a novel strain of coronavirus, COVID-19, was reported to have surfaced in Wuhan, China. In January 2020, this coronavirus spread to other countries, including the United States, and efforts to contain the spread of COVID-19 have intensified. 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 continue to spread, 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

**Note M — SUBSEQUENT EVENTS, continued**

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 clinical trials and research projects relating to other conditions, which may impact our ability to form new contractual arrangements to exploit our technology. While the 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 global financial markets, which may reduce our ability to access capital either at all or on favorable terms. In addition, a recession, depression or other sustained adverse market event resulting from the spread of 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 will 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.

**Note N — FINANCIAL CONDITION AND LIQUIDITY**

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 and successfully bringing the Company's technologies to the market. 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, 2019 the Company had $2.3 million cash on hand. As a result; the Company estimates cash will be depleted by the second quarter of 2023 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.

The Company believes the funds received from the NeoGenomics arbitration award will allow the Company to maintain operations until second quarter 2023. While the Company believes these efforts will create a profitable future, there is no guarantee the Company will be successful in these efforts.

**Note O — SELECTED QUARTERLY FINANCIAL INFORMATION**

The following table sets forth certain unaudited quarterly data for each of the first three quarters for the years ended December 31, 2019, and 2018, respectively. The data has been derived from the Company's

**Note O — SELECTED QUARTERLY FINANCIAL INFORMATION, continued**

unaudited consolidated financial statements that, in management's opinion, include all adjustments (consisting of normal recurring adjustments) necessary for a fair presentation of such information when read in conjunction with the Consolidated Financial Statements and Notes thereto. The results of operations for any quarter are not necessarily indicative of the results of operations for any future period.

## CONDENSED BALANCE SHEETS (UNAUDITED)

| | As of | | |
|---|---|---|---|
| | March 31, 2018 | June 30, 2018 | September 30, 2018 |
| **Assets** | | | |
| *Current Assets* | | | |
| Cash | $ 96,766 | $ 21,658 | $ 4,539 |
| Total Current Assets | 96,766 | 21,658 | 4.,539 |
| Patents, Less Accumulated Amortization of $3.635.847, $3,701,527 and $3,767,207 as of March 31, June 30 and September 30, 2018, respectively | 349,947 | 284,267 | 218,588 |
| Total Assets | $ 446,713 | $ 305,925 | $ 223,127 |
| **Liabilities and Stockholders' Equity** | | | |
| *Current Liabilities* | | | |
| Accounts Payable | $ 144,823 | $ 143,719 | $ 151,190 |
| Accrued Wages | 191,.750 | 236,000 | 280,250 |
| Dividends Payable | 206,637 | 206,637 | 206,637 |
| Deferred Revenue | 43,388 | 39,771 | 28,924 |
| Total Current Liabilities | 586,598 | 626,127 | 667,001 |
| *Long Term Liabilities* | | | |
| Deferred Revenue | 7,230 | — | — |
| Convertible Debt | 305,710 | 311,710 | 359,354 |
| Total Liabilities | $ 899,538 | $ 937,837 | $ 1,026,355 |
| Stockholders' Equity (Deficit) | | | |
| Series C Preferred Stock, Convertible, 30,000,000 Shares Authorized; | | | |
| 30,000,000 Issued and Outstanding March 31, June 30 and September 30, 2018 | 900,000 | 900,000 | 900,000 |
| Common Stock, No Par Value, 450,000,000 Shares Authorized; | | | |
| 268,718,989 Shares Issued and Outstanding March 31, June 30 and September 30, 2018 | 28,981,241 | 28,993,892 | 29,025,231 |
| Accumulated Deficit | (30,334,066) | (30,525,804) | (30,728,459) |
| Total Stockholders' Equity (Deficit) | (452,825) | (631,912) | (803,228) |
| Total Liabilities and Stockholders' Equity (Deficit) | $ 446,713 | $ 305,925 | $ 223,127 |

## CONDENSED BALANCE SHEETS (UNAUDITED)

| | As of | | |
|---|---|---|---|
| | March 31, 2019 | June 30, 2019 | September 30, 2019 |
| **Assets** | | | |
| *Current Assets* | | | |
| Cash | $ 27,282 | $ 2,681,669 | $ 2,523,707 |
| Legal fee retainer | — | 17,349 | 17,285 |
| Total Current Assets | 27,282 | 2,669,018 | 2,540,992 |
| Patents, Less Accumulated Amortization of $3,898,566, $3,964,246 and $3,985,794 as of March 31, June 30 and September 30, 2019 | 87,227 | 21,548 | — |
| Total Assets | $ 114,509 | $ 2,720,566 | $ 2,540,992 |
| **Liabilities and Stockholders' Equity** | | | |
| *Current Liabilities* | | | |
| Accounts Payable – Trade | $ 148,759 | $ 73,638 | $ 76,193 |
| Accrued Wages | 382,138 | 427,738 | 473,338 |
| Dividends Payable | 206,637 | 206,637 | 206,637 |
| Deferred Revenue | 7,231 | — | — |
| Convertible Debt | | | 554,397 |
| Total Current Liabilities | 744,765 | 708,013 | 1,310,565 |
| *Long Term Liabilities* | | | |
| Convertible Debt | 537,064 | 545,731 | — |
| Total Liabilities | $ 1,281,829 | $ 1,253,744 | $ 1,310,565 |
| Stockholders' Equity (Deficit) | | | |
| Common Stock, No Par Value, 450,000,000 Shares Authorized; | | | |
| 268,718,989 Shares Issued and Outstanding March 31, June 30, 2019 and September 30, 2019 | 29,950,534 | 30,460,178 | 30,460,178 |
| Accumulated Deficit | (31,117,854) | (29,993,356) | (29,229,751) |
| Total Stockholders' Equity (Deficit) | (1,167,320) | 1,466,822 | 1,230,427 |
| Total Liabilities and Stockholders' Equity (Deficit) | $ 114,509 | $ 2,720,566 | $ 2,540,992 |

## CONDENSED STATEMENT OF OPERATIONS (UNAUDITED)

| | For the Quarter Ended | | |
|---|---|---|---|
| | March 31, 2018 | June 30, 2018 | September 30, 2018 |
| *Revenues:* | | | |
| Licensing and Development | $ 11,427 | $ 10,847 | $ 11,178 |
| Total Revenue | 11,427 | 10,847 | 11,178 |
| *Operating Expenses:* | | | |
| Amortization | 65,680 | 65,680 | 65,680 |
| Professional and Consulting Fees | 16,872 | 17,859 | 9,807 |
| Legal Fees | 4,249 | — | 6,110 |
| Compensation | 75,292 | 66,985 | 67,741 |
| Other General and Administrative Expenses | 33,401 | 46,061 | 58,352 |
| Total Operating Expenses | 195,494 | 196,585 | 207,690 |
| (Loss) Income From Operations | (184,067) | (185,738) | (196,512) |
| *Other Income (Expense)* | | | |
| Interest Expense | (4,500) | (6,000) | (6,144) |
| Total Other Expense | $ (4,500) | $ (6,000) | $ (6,144) |
| Net (Loss) Income | $(188,567) | $(191,738) | $(202,656) |
| Preferred Stock Dividends | $ — | $ — | $ — |
| (Loss) Income Attributable to Common Stockholders | $(188,567) | $(191,738) | $(202,656) |

## CONDENSED STATEMENT OF OPERATIONS (UNAUDITED)

| | For the Quarter Ended | | |
|---|---|---|---|
| | March 31, 2019 | June 30, 2019 | September 30, 2019 |
| *Revenues:* | | | |
| Licensing and Development | $ 10,847 | $ 7,590 | $ 370 |
| Licensing Revenue from Arbitration | — | 1,500,000 | — |
| Total Revenue | 10,847 | 1,507,590 | 370 |
| *Operating Expenses:* | | | |
| Amortization | 65,680 | 65,680 | 21,548 |
| Professional and Consulting Fees | 2,133 | 40,646 | 13,963 |
| Legal Fees | 6,474 | 65,013 | 6,597 |
| Compensation | 73,318 | 93,049 | 145,367 |
| Other General and Administrative Expenses | 30,121 | 628,903 | 40,859 |
| Total Operating Expenses | 177,726 | 893,291 | 228,334 |
| (Loss) Income From Operations | (166,879) | 614,299 | (227,964) |
| *Other Income (Expense)* | | | |
| Proceeds from Arbitration | — | 5,161,035 | — |
| Interest Income | — | — | 236 |
| Arbitration related fee | — | (3,642,169) | — |
| Interest Expense | (10,000) | (8,667) | (8,667) |
| Total Other Expense | $ (10,000) | $ 1,510,199 | $ (8,431) |
| Net (Loss) Income | $(176,879) | $ 2,124,498 | $(236,395) |
| Preferred Stock Dividends | $ — | $ — | $ — |
| (Loss) Income Attributable to Common Stockholders | $(176,879) | $ 2,124,498 | $(236,395) |

**EXHIBIT 31.1**

CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, George H. McGovern, III, certify that:

1. I have reviewed this annual report on Form 10-K of Health Discovery Corporation (the "Registrant");

2. Based on my knowledge, 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 such statements were made, not misleading with respect to the period covered by this report;

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

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

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

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

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

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

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

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

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

Date: May 12, 2020

*/s/ George H. McGovern, III*

George H. McGovern, III
Chairman, Chief Executive Officer, and Principal Executive Officer

**EXHIBIT 32.1**

**CERTIFICATION PURSUANT TO**
**18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Health Discovery Corporation (the "Company") on Form 10-K for the Fiscal Year Ended December 31, 2019 (the "Report"), I, Marty Delmonte, President, Chief Operating Officer and Principal Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, based on my knowledge, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: May 12, 2020

*/s/ Marty Delmonte*

Marty Delmonte
President, Chief Operating Officer, and Principal Financial Officer