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

FORM 1-K

REGULATION A OFFERING STATEMENT
UNDER THE SECURITIES ACT OF 1933

This Form 1-K is to provide an [X] Annual Report OR [ ] Special Financial Report for the fiscal year ended 12/31/2021

Exact name of issuer as specified in the issuer's charter: Quadrant Biosciences Inc

Jurisdiction of incorporation/organization: Delaware

I.R.S. Employer Identification Number: 47-3417864

Address of Principal Executive Offices: 505 IRVING AVENUE, SUITE 3100 A-B, SYRACUSE, NEW YORK 13210

Phone: 315-614-2325

Title of each class of securities issued pursuant to Regulation A: Common Stock

Summary Information Regarding Prior Offerings and Proceeds

The following information must be provided for any Regulation A offering that has terminated or completed prior to the filing of this Form 1-K, unless such information has been previously reported in a manner permissible under Rule 257. If such information has been previously reported, check this box [X] and leave the rest of Part I blank.

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

FORM 1-K

ANNUAL REPORT PURSUANT TO
REGULATION A OF THE SECURITIES ACT OF 1933

For the fiscal year ended December 31, 2021

Quadrant Biosciences Inc.

(Exact name of issuer as specified in its charter)

Delaware	**47-3417864**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
505 Irving Avenue, Suite 3100AB **Syracuse, New York**	**13210**
(Address of principal executive offices)	(Zip code)

(315) 614-2325
(Registrant's telephone number, including area code)

Common Stock
(Title of each class of securities issued pursuant to Regulation A)

In this report, the terms "Quadrant," "the company," "we," "us" and "our" refer to Quadrant Biosciences Inc. and its consolidated subsidiaries. The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the related notes included in this semi-annual report. The following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements.

Forward-Looking Statements

The following information contains certain forward-looking statements. Forward-looking statements are statements that estimate the happening of future events and are not based on historical fact. Forward-looking statements may be identified by the use of forward-looking terminology, such as "may," "could," "expect," "estimate," "anticipate," "plan," "predict," "probable," "possible," "should," "continue," or similar terms, variations of those terms or the negative of those terms. The forward-looking statements specified in the following information have been compiled by our management on the basis of assumptions made by management and considered by management to be reasonable. Our future operating results, however, are impossible to predict and no representation, guaranty, or warranty is to be inferred from those forward-looking statements.

Item 1. Business

SUMMARY

Overview

Quadrant Biosciences Inc. is a medical technology company focused on the research and development of molecular diagnostics, virtual care solutions, and therapeutic products and services.

The company was founded to improve lives through the development of more accurate and timely medical solutions for large-scale health issues; these include Autism Spectrum Disorder ("ASD"), Parkinson's disease ("PD"), mild traumatic brain injuries ("mTBI" or "concussion injuries"), and most recently SARS-CoV-2 infections ("COVID-19"). In addition to developing solutions for these conditions, the company is actively engaged in proprietary research and development efforts related to molecular diagnostics for other chronic, degenerative and developmental diseases and disorders.

The company has research relationships with more than 100 academic medical or clinical sites in North America, Central America and Europe; these sites recruit research study participants and collect biological specimens, medical histories, phenotypic characteristics and demographic data.

For its development of novel molecular diagnostics, the company has accumulated biological specimens and data related to hundreds of thousands of patients, ranging in age from new-born to over 90 years and including nearly every racial and ethnic background. The company analyzes these biological samples using next-generation sequencing technology for epigenetic and genetic content and further analyzes the results of this sequencing, along with medical histories, phenotypic characteristics and demographic data of the patients, using proprietary artificial intelligence and machine learning tools developed by the company to identify molecular profiles which accurately differentiate patients with the subject disorder or disease from those without it.

For each disorder or disease, these newly discovered molecular profiles are the foundation of the company's molecular diagnostic development pipeline. In certain cases, the company believes the molecular profiles discovered through this process may yield appropriate targets for the development of new therapeutics.

The company has developed proprietary epigenetic and genetic research systems which align and quantify certain human and microbial molecules which may play a significant role in gene expression and observed phenotypic characteristics. The company extensively utilizes cloud-computing and database storage facilities offered by Amazon Web Services.

The technology pioneered by Quadrant has translated into the development of clinical diagnostic tools which are based on identifying certain profiles of biomarkers in biological samples, such as blood and saliva, that are highly correlated with medical conditions and can be used as part of the diagnostic workup of patients who may be affected by the conditions. The most important biomarkers used in the Quadrant tests consist of certain nucleic acid transcript sequences for microRNA and other small non-coding RNAs produced by the patient (human transcripts) and by the microbes present in the patient's mouth (microbial transcripts). The technology consists of:

- Methods for determining sets of biomarker human transcripts and microbial transcripts that are present in different amounts in patients with certain conditions as compared to patients who do not have the condition, and;
- Specific ways of implementing the methods to identify the set of biomarker human transcripts and microbial transcripts that are most highly correlated with a particular condition.

To better serve its molecular diagnostics clients, the company now operates two high-throughput, CLIA high-complexity laboratories located in Syracuse and Buffalo New York. The company markets its molecular tests under the brand name "Clarifi".

In response to the global COVID-19 pandemic, the company has been working in conjunction with SUNY Upstate Medical University and other State University of New York ("SUNY") researchers, to develop testing for the detection of SARS-CoV-2. This work began in March 2020, and on September 22, 2020, the company was granted an emergency use authorization ("EUA") for its COVID-19 test "Clarifi COVID-19 Test" from the U.S. Food and Drug Administration ("FDA"). The Clarifi COVID-19 Test is a saliva-based, quantitative polymerase chain reaction ("qPCR") test for the presence of the SARS-CoV-2 virus. The company believes that the Clarifi COVID-19 Test presently is the most sensitive saliva test available in the United States, based on its limits of detection on the standard reference panel provided by FDA. Currently, the company receives revenues from the three methods of COVID-19 testing:

- A test for individuals - a saliva-based test to facilitate the diagnosis of individuals infected with the SARS-CoV-2 virus;
- A test for pooled specimens - a cost-effective and time-efficient means of testing up to 12 saliva specimens at one time (if the pool tests negative for the SARS-CoV-2 virus, all 12 specimens are considered negative; if a pool test positive for the SARS-CoV-2 virus, all 12 specimens are retested on an individual basis to determine which are positive); and
- A test to analyze wastewater – a method that allows for the monitoring of wastewater produced by the residents of a defined geography or congregate living facility, for the purpose of detecting the SARS-CoV-2 virus and measuring any changes in the amount of SARS-COV-2 virus present in the wastewater over time.

For the individual saliva test, pooled saliva testing and wastewater surveillance testing, the company has entered into exclusive global license agreements with the Research Foundation for the State University of New York.

In April 2022, the New York State Department of Health approved use of Quadrant's Clarifi COVID AB Test, a semi-quantitative, saliva-based assay which identifies and quantifies the presence of human antibodies specific to the SARS-CoV-2 virus in individuals who have received a vaccine to SARS-CoV-2, had a previous SARS-CoV-2 infection, or both. A CPT code and CMS reimbursement rate for this type of test has already been established; the Company is developing a commercialization plan for this test.

In addition to sales of its COVID testing products and services, the company has sold Clarifi ASD and the ClearEdge® Brain Health Toolkit ("ClearEdge" or "ClearEdge Toolkit"), both developed and validated in cooperation with the SUNY Upstate Medical University and the Penn State College of Medicine:

- Clarifi ASD is a molecular diagnostic test that provides clinicians with objective support for an earlier diagnosis of Autism Spectrum Disorder, when treatment is most effective. While regulators approved Clarifi ASD as a Laboratory Developed Test ("LDT") pursuant to the Clinical Laboratory Improvement Amendments ("CLIA") in November 2019, many of the company's resources were subsequently diverted toward COVID-19 initiatives; as expected, sales of Clarifi ASD were limited. During the pandemic, the company continued to pursue several strategic initiatives related to Clarifi ASD, including (i) application to the FDA for "Breakthrough Device" designation (granted in April 2021) and (ii) ongoing implementation of the company's insurance reimbursement strategy. Recent milestones for our insurance reimbursement strategy include: issuance of a unique CPT® PLA code for Clarifi ASD by the American Medical Association, and; establishment of a payment rate of $1,755 for Clarifi ASD by the Centers for Medicare and Medicaid Services ("CMS"). The company is now pursuing state and federal health insurance coverage for Clarifi ASD.
- The ClearEdge Toolkit is a suite of tests and assessments healthcare providers use to measure and track a patient's balance and cognitive reaction time. The ClearEdge Toolkit initially consisted of a cognitive reaction time assessment module, which was a Class II medical device licensed from Anthrotronix and a balance module developed by the company, which was a Class I medical device. An improved version of the balance module was subsequently cleared by the FDA as a Class II medical device in October 2019. Due to limited clinical demand for the product and the company's increased focus on molecular diagnostics, sales of the ClearEdge Toolkit were discontinued in late 2020.

The intellectual property associated with our molecular diagnostics technology includes:

- Two patents issued in 2022, in the US and South Korea respectively, with claims covering an epigenetic test to aid in the diagnosis of Autism Spectrum Disorder and potential patent rights (in the form of patent applications which have been filed) in the methods of using the key biomarkers that are associated with a particular condition, such as Autism Spectrum Disorder, Parkinson's Disease, or concussion injuries, together with the associated know-how necessary to implement the methods;

- Trade secret rights in the specific algorithms that use the human and microbial RNA biomarker transcripts as inputs, and produce the best correlation with the target condition; and
- Trade secret rights together with the associated know-how necessary to implement our COVID-19 tests, and how to implement those tests on a high-throughput basis.

In addition to its molecular diagnostics platform, in 2020 the company began development of virtual care solutions to better serve its communities. Since that time, the company implemented a virtual care solution to facilitate patient access to its saliva-based PCR test for SARS-CoV-2 infections and is now finalizing development of pediatric virtual care clinics specializing in the early diagnosis of Autism Spectrum Disorder. These virtual care clinics will employ evidence-based medicine technologies and are expected to launch in the Northeast US in mid-2022 with the intent of providing services on a national basis by late-2023.

The company intends to further expand its clinical offerings related to Autism Spectrum Disorder through the provision of evidence-based therapeutic services. In March 2022, the company acquired Frazier Behavioral Health LLC, an Ohio-based provider of behavioral health services with the intent to expand this business throughout Ohio and the Northeast.

The company was incorporated in Delaware on March 13, 2015 as Motion Intelligence Inc. On August 6, 2015, Motion Intelligence LLC, a New York limited liability company merged into Motion Intelligence Inc. The company changed its name to Quadrant Biosciences Inc. on September 7, 2017. The company is principally located at the Institute for Human Performance at the State University of New York Upstate Medical University and is a participant in the New York State START-UP NY economic development program, which provides the company and its employees with substantial tax and other benefits under New York law.

Quadrant has been recognized for numerous awards and accolades, including:

- In 2019, the company was selected as the Technology Business of the Year by the New York State Small Business Development Center and was selected by the National Institutes of Health for inclusion in their Commercialization Accelerator Program (“CAP”).
- In 2020, the company was selected as the Small Business of the Year by the CenterState Corporation for Economic Opportunity.
- In 2021, the company’s COVID-19 test development and deployment efforts were selected as the Project of the Year by MedTech for its “singular and demonstrable positive impact on public health”. Further, the company was selected as the Large Business of the Year by the CenterState Corporation for Economic Opportunity and the company’s CEO Richard Uhlig was recognized as one of the top 50 Healthcare Technology CEOs by the Healthcare Technology Report. Finally, official proclamations were presented to Quadrant Biosciences by County Commissioners from Erie and Onondaga counties, as well as the NYS Assembly, for our significant contribution in combating the COVID-19 pandemic.

As of December 31, 2021 the company has seven wholly owned subsidiaries:

- Motion Intelligence LLC sold ClearEdge toolkits to end users utilizing distributors and agents.
- Quadrant Epigenetics LLC records the revenue from epigenetic activities.
- Quadrant IP Holdings LLC houses the company’s patents.
- Quadrant Vision Technologies LLC was created to partner with a health provider, but has not yet engaged in any business activities.
- Quadrant Viral Testing LLC sells the wastewater testing services and the Clarifi COVID-19 Test kit to CLIA approved laboratories.
- Quadrant Biosciences Canada Ltd was created to facilitate the company’s expansion into Canada, but has not yet engaged in any material business activities.
- Quadrant Laboratories LLC operates and administers two CLIA high-complexity clinical laboratories in which diagnostic medical testing and related commercial activities are conducted.

Principal Products and Services

COVID-19 Testing

Since March 2020, the company has been focusing on ways to utilize its technology to develop a comprehensive approach to detecting and diagnosing COVID-19, in coordination with local, state and regional health care policies and directives. The company currently has three COVID-19 products:

- A test for individuals - a test facilitating the diagnosis of individuals infected with the SARS-CoV-2 virus;

- A test for pooled specimens - a cost-effective and time-efficient means of testing up to 12 specimens at one time (if the pool tests negative, all 12 specimens are considered negative; if a pool test positive, all 12 specimens are retested on an individual basis to determine which are positive); and
- A test to analyze wastewater – a method that allows for the monitoring of wastewater produced by the residents of a defined geography or congregate living facility, for the purpose of detecting SARS-CoV-2 and measuring any changes in the amount of SARS-COV-2 present in the wastewater over time.

For individual testing, pooled saliva testing and wastewater surveillance testing, the company has entered into exclusive global license agreements with the Research Foundation for the State University of New York.

Individual Tests

On September 22, 2020, the company received an FDA EUA for its individual COVID-19 diagnostic test. This is the culmination of work started in March 2020, where the company, in conjunction with SUNY Upstate Medical University and other SUNY researchers, started to develop a diagnostic test for COVID-19. The Clarifi COVID-19 Test kit is a non-invasive and easy to administer saliva swab, and a kit of reagents for extraction of viral RNA and performing qPCR testing to determine the presence or absence of SARS-CoV-2 viral RNA. The Clarifi COVID-19 Test kit contains the saliva collection device and the reagents needed to run the analysis, together with detailed instructions regarding performing the testing method / procedure. The Clarifi COVID-19 Test kit is available for use by high-complexity clinical laboratories serving patients through physicians' offices, urgent care clinics and hospitals. The company's FDA EUA for this test was amended on May 6, 2021, to allow for pooling of up to 12 specimens, multiple saliva collection devices, an array of different PCR systems, and self-collection of a saliva specimen. An additional amendment is under review by the FDA to add at-home saliva specimen collection and updated variant analysis. The company believes that the Clarifi COVID-19 Test is presently the most sensitive saliva test available in the United States (as measured using the FDA SARS-CoV-2 Reference Panel).

Pooling of Specimens

The company's FDA EUA has been amended to allow for the pooling of saliva specimens, a cost-effective and time-efficient method of screening large populations of people for the presence of SARS-CoV-2 viral RNA. The company has contracts with SUNY Upstate Medical University to facilitate pooled saliva specimen testing for nearly all State University of New York (SUNY) campuses as well as many other colleges/universities, K-12 schools, nursing homes, municipalities and other clients. In addition to these services, the company opened and operated as many as 43 community test sites throughout New York State in late 2021 and early 2022; these sites were established in response to the proliferation of the Omicron variant of SARS-CoV-2 and at the request of the New York State Commissioner of Health Dr. Mary Bassett. The company is supplying SUNY with test components as well as consulting services, inclusive of the staffing, management and oversight of two CLIA high-complexity clinical laboratories. This pooled testing approach involves collecting saliva samples from a small group of individuals (for example 12) and combining them into one test. A negative test means that all individuals in the pooled group are presumed to be coronavirus-free. A positive test result for the pool would mean every person in that group would need to be individually tested. Screening groups of twelve individuals at a time greatly reduces the cost of supplies, staffing and time required to perform tests.

Wastewater Surveillance

In mid-2020, the company's environmental laboratory was selected by the New York State Department of Health to work in collaboration with SUNY ESF, SUNY Upstate Medical University, Syracuse University and global civil engineering firm Arcadis, to collect and analyze wastewater from county and municipal sewer systems for the presence of the SARS-CoV-2 virus. Results from the wastewater tests are used by local and state authorities to modify public health policies and allocate resources to areas as the virus appears in wastewater several days before infected individuals enter the healthcare system for diagnosis. The company has executed contracts with New York State and other municipalities, colleges, and universities to perform wastewater tests at more than 330 sites throughout New York, Pennsylvania and Vermont.

Clarifi ASD

Clarifi ASD has been designed and developed to assist clinicians in providing a diagnosis as to whether children aged 18-83 months have ASD. Clarifi ASD is an easy to administer, non-invasive, molecular test that improves the specificity of tests that are used to screen for ASD. Such screening tests generate many false positive results and Clarifi ASD aids in distinguishing between the true positive and false positive results. This facilitates earlier diagnosis of ASD, when treatment is most effective.

ASD is one of the most commonly diagnosed developmental disabilities in the United States; however, the current clinical diagnostic workup takes time to identify and address ASD. The average child waits well over a year for a diagnostic evaluation. The inadequacy of existing screening tools is causing pediatricians to over-refer patients for ASD evaluations. The availability of developmental specialists is limited (both by number and geography); this causes wait times for evaluation to exceed 12 months on average and may exceed 18 months in some locations. Autism is being diagnosed on average in the fourth year of life, but it should be reliably diagnosed earlier to expedite access to intervention services to maximize their effectiveness.

Early diagnosis leads to early intervention. It is imperative to initiate early intensive behavioral intervention ("EIBI") therapy as early as the second year of life, a dynamic period of brain growth and neuroplasticity. As has been demonstrated in hundreds of clinical research studies since 1987, between 45% and 50% of children on the autism spectrum who have the benefit of EIBI therapy are functionally and cognitively indistinguishable from their peers by the first grade. This outcome dramatically improves the quality of life for ASD children and their families.

Clarifi ASD may be utilized by pediatricians, family physicians, and other clinicians with patients (18 months through 83 months of age) with a positive screening test or a clinical suspicion of ASD. The goal of Clarifi ASD is to accelerate the autism diagnostic process, with results available in 3 to 6 weeks, and thereby assist medical professionals in identifying the likelihood of an ASD diagnosis. This will ultimately help provide children earlier access to important services.

During the pandemic, the company has taken steps in developing a strategy for Clarifi ASD insurance reimbursement. Attaining a unique CPT® PLA code in 2020 was a major step toward reimbursement for Clarifi ASD. On Sept 21, 2020, CMS (Centers for Medicare and Medicaid Services) released a payment rate determination of $1,755. With these now established, the company is pursuing state and federal health insurance coverage for Clarifi ASD.

More recently (April 2021), the FDA designated Clarifi ASD a "Breakthrough Device"; the FDA Breakthrough Device Program is intended to help patients and health care providers receive more timely access to breakthrough technologies that have the potential to provide more effective treatment or diagnosis for life-threatening or irreversibly debilitating diseases or conditions. As part of the FDA regulatory approval process for Clarifi ASD, in November 2021 the company entered into a $6.2 million Research Support Agreement with Autism Speaks Inc. This agreement utilizes the Autism Care Network and facilitates the collection of one or more biological specimens from over 6,600 children at risk of an autism spectrum disorder diagnosis along with their demographic and phenotypic information from 17 clinical research sites located throughout the United States.

Laboratories

On July 1, 2021, the company's subsidiary received CLIA Accreditation and NY State Department of Health CLEP permits for its two laboratories located in Syracuse and Buffalo, New York, see "—Regulation -- New York State Department of Health - Clinical Laboratory Evaluation Program and CLIA" below. These laboratories have performed all of the company's COVID-19 testing and it is anticipated that they will also perform future tests that the company develops or other third-party tests that are consistent with the business and operations of such laboratories.

Clinical Diagnostic Products Under Development

The company believes its molecular diagnostic solutions that are currently under development will help accelerate advances in healthcare. Market trends which have facilitated the company's development efforts include:

- Reduced cost of genetic sequencing technology,
- Increasing availability and access to data through cloud computing, and
- Ongoing developments in artificial intelligence and machine learning.

The company is currently developing certain tests, products and services and other assets relating to the measurement and interpretation of epigenetic control of biochemical and metabolic pathways that are altered in patients with certain medical conditions. Biochemical and metabolic pathways are directly controlled by proteins, such as enzymes. These proteins are made by translation of messenger RNA, which is in turn made by transcription of genetic DNA. MicroRNAs are involved in controlling, via epigenetic mechanisms, the making of proteins by translation of messenger RNA. MicroRNAs therefore can be used as biomarkers to derive information about how epigenetic control mechanisms are altered in patients with a particular medical condition. In addition to Clarifi ASD, epigenetic diagnostic aids currently in development by the company include tests to evaluate the human and microbial transcripts associated with Parkinson's Disease and the microRNA profiles associated with concussion injuries. These tests are needed to provide clinicians with objective support in the diagnosis and management of these health conditions.

In addition to its self-funded research, the company has been awarded National Institutes of Health ("NIH") grants in excess of $4.8 million to facilitate the company's research and development of molecular diagnostics for Autism Spectrum Disorder and concussion injuries:

- In June of 2016, the company was awarded a Phase I Small Business Technology Transfer ("STTR") grant from the NIH for $225,000 to develop an objective, saliva-based diagnostic tool to facilitate the early diagnosis of Autism Spectrum Disorder. The grant supports research to further refine a saliva-based diagnostic test previously developed by the company, Penn State Medical Center and SUNY Upstate Medical University, with the objective of improving timely access to therapeutic services for children on the autism spectrum.

- In September of 2018, the company was awarded a Phase II STTR grant from the NIH for $2.0 million to validate an objective, saliva-based diagnostic tool to facilitate the early diagnosis of Autism Spectrum Disorder. The company is partnering with Penn State College of Medicine, SUNY Upstate Medical University, Nationwide Children's Hospital, Cincinnati Children's Hospital, University of Missouri School of Medicine and Baylor University College of Medicine in this study.
- In June of 2019, the company was awarded a Supplemental STTR grant from the NIH for $330,000 to validate an objective, saliva-based diagnostic tool to facilitate the early diagnosis of Autism Spectrum Disorder; this supplemental award is for whole-exome sequencing of study participants in the company's Phase II ASD study.
- In September of 2020, the company was awarded a Fast Track (Phase I/II combined) STTR grant from the NIH for $2.3 million to develop an objective, saliva-based diagnostic tool for detecting concussions in children and adolescents. The grant supports research to further refine a saliva-based diagnostic test previously developed by the company, Penn State Medical Center and SUNY Upstate Medical University, with the objective of improving care for school-aged children and young adults who are particularly vulnerable to head injuries and their potential lasting effects. The company will be partnering with Penn State, SUNY Buffalo, SUNY Upstate, Arkansas Children's, and Children's Hospital of Michigan in this study.

Intellectual Property

The company's epigenetic technology is based on research originally conducted at SUNY Upstate Medical University and the Penn State College of Medicine and is licensed from the Research Foundation for the State University of New York and the Pennsylvania State Research Foundation ("Foundations"). The intellectual property associated with the technology includes:

- Two patents issued in 2022, in the US and South Korea respectively, with claims covering an epigenetic test to aid in the diagnosis of Autism Spectrum Disorder
- Potential patent rights that may be obtained through the patent applications (together with associated know how) that are invented and owned by the Foundations, and
- Trade secrets that are created and owned by the company.

The patent applications presently consist of non-provisional patent applications in a number of jurisdictions, and the non-provisional applications must then be prosecuted at the USPTO, as well as select international patent offices, to attempt to obtain issued patent rights.

The company has entered into License Agreements with the Foundations, which grant the company the exclusive right to practice certain existing joint patent rights and Foundation-owned patent rights in fields of use consisting of products and services for the evaluation of ASD, Parkinson's Disease, and TBI. The company's ASD, Parkinson's, and TBI License Agreements have the same terms and conditions regarding the earned royalties payable, the term, and early termination by the Foundations.

Under the License Agreements, earned royalties are payable at the rate of 4% of revenue from licensed products if the licensed technology includes an issued patent, and at the rate of 2% of revenue if no patents are issued and the licensed technology includes only the know-how created in development of the technology covered by the License Agreement.

Further, each agreement requires Quadrant to pay a minimum amount of royalties per year, and if earned royalties are less than the minimum amount for a particular year, a minimum royalty payment is required so that the minimum amount is paid to the Foundations. The minimum royalties are:

Year	ASD License Agreement	Parkinson's License Agreement	TBI License Agreement
2021	$ 25,000	$ 10,000	$ 5,000
2022	$ 50,000	$ 25,000	$ 10,000
2023	$ 50,000	$ 25,000	$ 10,000
2024	$ 50,000	$ 25,000	$ 10,000
2025 through expiration (estimated to be 2038)	$ 50,000	$ 25,000	$ 25,000

The total estimated payments, assuming the company pays the minimum royalty payment through expiration (estimated to be 2038), for the ASD, Parkinson's and TBI Licenses are $875,000, $443,000 and $385,000, respectively.

Further, each License Agreement requires Quadrant to begin selling licensed products by the following agreed upon commercialization deadlines: Parkinson's licensed product, December 31, 2020 and TBI licensed product, December 31, 2022. Both Quadrant and the Foundations acknowledge the difficulties associated with conducting clinical research during the COVID-19 pandemic and have agreed in principle to a two-year extension of these commercialization deadlines; a definitive agreement is expected. Quadrant has already begun commercialization of the ASD licensed product. Quadrant has the option to extend the commercialization deadlines by a maximum of three six-month extensions, for the following fees: $25,000 for the first extension; $50,000 for the second extension, and $100,000 for the third extension.

The term of the License Agreements, which include one or more issued patents, extends until expiration of the last issued patent. Issued patents expire 20 years after the earliest filing date, and most of Quadrant's patent applications have effective filing dates in 2018. The term of any License Agreement that covers only know-how is 10 years after the first commercial sale of the licensed product that embodies the know-how.

The Foundations can terminate the License Agreements early if the company fails to commercialize licensed products by agreed upon deadlines or the company fails to make required payments. The License Agreements presently are in good standing.

Quadrant has also entered into two license agreements with the SUNY Research Foundation ("SUNY RF") in relation to its COVID-19 testing technology, one for testing saliva samples and one for testing wastewater. The technologies embodied in the Clarifi COVID-19 Test for saliva and the test for wastewater were both jointly developed by Quadrant and SUNY Upstate Medical University personnel, and are therefore co-owned by Quadrant and SUNY RF.

The saliva testing technology consists of inventions and know-how related to the method of testing saliva samples for the presence of the SARS-CoV-2 virus, and the test kit of materials and reagents that are used in the testing method. The testing method involves extraction of the SARS-CoV-2 viral RNA and amplification and detection of the viral RNA using a qualitative polymerase chain reaction. SUNY RF has granted Quadrant an exclusive worldwide license of SUNY RF's ownership interest in the COVID-19 Test technology in consideration for Quadrant's payment of a royalty in the amount of the following percentages of the net revenue realized on sales of products or services that embody the COVID-19 Test technology for the associated time periods: 10% until December 31,2021, 8% from January 1, 2022 through June 30, 2022, and 6% for the remainder of the term of the license. The wastewater technology consists of inventions (covered by a US patent application) and know-how related to a method of identifying the SARS-CoV-2 virus in wastewater and estimating the quantity of SARS virus present in relation to the amount of other viral RNA typically present in wastewater. SUNY-RF has granted Quadrant an exclusive worldwide license of this technology in consideration or a royalty of 10% of net revenue. The terms of both of these licenses extend for the entire time period during which Quadrant sells any product or service that embodies the COVID-19 Test technology, and wastewater technology, respectively. . SUNY RF has the right to terminate the licenses if Quadrant defaults in performance of its obligations under the license, for example failing to pay royalties when due, and if Quadrant declares bankruptcy or becomes insolvent.

In 2021 and 2020, the company incurred royalty expense due to SUNY RF of $7,833,833 and $858,614, respectively, with respect to the COVID-19 testing technology, and these license agreements with SUNY RF presently are in good standing.

The company has filed patent applications with the United States Patent and Trademark Office ("USPTO") in relation to intellectual property related to some significant epigenetic diagnostic tools it is developing based on the research conducted at one or both of the Foundations. The company believes it is a leader in the development of intellectual property, products and services and other diagnostic-related assets relating to human and microbial transcripts.

Quadrant has two granted and 22 pending patent applications. Issued patents are US 11,242,563 B2, issued February 8, 2022, and KR 10-2359013 issued January 28,2022 both entitled Analysis of Autism Spectrum Disorder. The pending patent applications as of April, 2022, are grouped below in the following 8 patent families:

- Methods of determining the probability that a child is affected by ASD, using RNA biomarkers obtained from a sample of saliva; 5 applications: Japan, Australia, European Patent Convention, Canada, and New Zealand
- Methods of determining the probability that a patient is affected by mild traumatic brain injury, using RNA biomarkers obtained from saliva; 7 national applications, in the same jurisdictions identified above
- Methods of determining the probability that a patient is affected by Parkinson's Disease, using RNA biomarkers obtained from saliva, 1 PCT application, to be nationalized subsequently
- Methods of determining the probability that a patient is affected by Anorexia Nervosa, using RNA biomarkers obtained from saliva, 1 US application

- Methods of applying machine learning techniques to develop a system that classifies a set of RNA biomarkers according to patterns of relative abundance that are associated with a target medical condition, and methods of using the classification system to test samples of the biomarkers; 1 PCT application, to be nationalized subsequently
- Methods of normalizing micro RNA (miRNA) biomarkers to account for circadian variations in any testing process based on differentially expressed miRNAs; 5 national application: US, Australia, New Zealand, European Patent Convention, and Canada
- Methods of normalizing miRNA biomarkers to account for variations caused by exercise in any testing process based on differentially expressed miRNAs; 1 US application
- Methods of quantifying virus from wastewater; 1 US application

Quadrant has actively pursued the registration of the "Clarifi" mark, filing 34 applications in the U.S. and numerous countries. The current status of these efforts (and a brief, general, description of the terms "registered", "filed and pending", and "approved") follows:

- Registered – i.e. the certificate of registration has been issued and is in force: Australia, Canada, China, Brazil, European Union, Great Britain, Hong Kong, Indonesia, India, Japan, Korea, Norway, New Zealand, Saudi Arabia, Singapore, Switzerland, Taiwan, Thailand, United Arab Emirates, United States, and Vietnam.
- Filed and pending/allowed – i.e., in this context the term "pending" means the application is in the examination process but has not yet been approved or allowed, and "allowed" means the examiner has approved/allowed the application but it has not yet been registered (it could be waiting for the opposition period to pass or for a Statement of Use to be filed (as in the U.S.): China (1 Registered, 1 Pending), Malaysia (pending).

  An amended filing with the USPTO was made to include the Clarifi word mark, as well as expand the scope of the defined services.

Every country conducts trademark examinations differently; some are limited to a formalities exam only (i.e., they do not look for conflicts).

Market - COVID-19

Due to the scope, nature and severity of the ongoing pandemic, there is ongoing need for fast, efficient, non-invasive individual COVID-19 diagnostic tests. We anticipate the need for these tests will persist as SARS-CoV-2 variants continue to infect large portions of populations around the world.

Despite current reductions in US cases from peaks experienced in January 2022, the risk of (i) a resurgence of infections, and (ii) an increase in mortality rates, persist. For the next 6-12 months, the company believes that laboratory testing will remain a critically important tool for limiting individual transmission of the virus to others and tracking geographic migration of the virus.

The company's view is informed by a growing body of published research and its own observations and analysis of data derived from its COVID-19 testing platform, including ongoing variant analysis. There are several risks associated with a potential resurgence of SARS-CoV-2 viral transmissions in the US, including but not limited to the following:

- Immunity May be Temporal. The percentage of a community with natural immunity from infection (resulting from prior infection) or acquired immunity (resulting from vaccination) is dependent on (i) the durability of each individual's immune response, and (ii) the applicability of derived antibodies to new variations of the virus. The latter of these is believed to be a material risk, particularly given the ongoing emergence of SARS-CoV-2 Variants of Concern (as defined by the US Centers for Disease Control and Prevention ("CDC")) in the US and elsewhere. Further, while US vaccination efforts may ultimately be successful in reducing infections in the near-term, the virus continues to spread widely in many other countries; for this reason the risk of mutations which enhance transmissibility and allow the virus to evade natural or acquired immunity is high.
- Recently Observed Declines in US Cases may be Predominantly Seasonal. The 7-day moving average of US cases has declined significantly from a peak of approximately 800,000 cases/day (January 2022). While vaccinations and prior infections are believed to play a role in this reduction, a majority of the decline remains unexplained. There is growing evidence that SARS-CoV-2 infections may be seasonal, similar to infections observed from other coronaviruses. A seasonal resurgence of US cases in the Fall of 2022 is possible.

Market - Epigenetics

The global epigenetics market is a new and developing market. According to Grand View Research, Inc., the global epigenetics diagnostic market size was $5.5 billion in 2018 and is expected to reach $21.7 billion by 2026.

The target market for our different products will depend on the specific focus of the product, as outlined below:

Autism Spectrum Disorder

For Clarifi ASD, we believe our target market is the subsection of children who, based on clinical observations, are at risk to have an Autism Spectrum Disorder diagnosis. Of the nearly 4 million children born in the United States every year, nearly 1 in 6 will have a developmental delay. Currently, children with a wide range of developmental delays are referred for an ASD diagnosis; these children represent the target market for Clarifi ASD.

ASD is a developmental disability that can cause significant social, communication and behavioral challenges. According to the US CDC:

- As of 2021, approximately 1 in 44 children has been identified with Autism Spectrum Disorder according to the most recent estimates from CDC's Autism and Developmental Disabilities Monitoring ("ADDM") Network (2020).
- The reported prevalence of ASD has increased significantly: in 2002, this statistic was 1 in 150; in 2006, prevalence was 1 in 110; in 2010, prevalence was 1 in 68; and in 2020 the prevalence was 1 in 54.
- ASD is reported to occur in all racial, ethnic, and socioeconomic groups.
- ASD is about 4 times more common among boys than among girls.
- Studies in Asia, Europe, and North America have identified individuals with ASD with an average prevalence of between 1% and 2%.

Parkinson's Disease

For our early-stage Parkinson's Disease diagnostic (in development), we believe our target market is those adults who, based on clinical observations, are at risk to have a PD diagnosis. In clinical research, movement disorders such as tremor and parkinsonism are observed in approximately 21% of adults aged 50 or more; these adults represent the target market for our PD diagnostic. For the US population of nearly 330 million, approximately 115 million are aged 50 or older.

According to the CDC, PD is the second most common neurodegenerative disease after Alzheimer's disease. Population prevalence of PD increases from about 1% at age 60 to 4% by age 80. Early symptoms of PD include tremor, rigidity, and difficulty walking; cognitive decline is common at later stages. The underlying pathology of PD is selective death of dopamine-generating cells in the substantia nigra, a part of the brain involved in movement, reward, and addiction. Treatment of PD with levodopa temporarily controls motor symptoms but does not slow disease progression. Like other common diseases, PD is thought to arise from complex interactions between genetic and environmental factors.

Concussion Injuries (Mild Traumatic Brain Injuries)

For our acute concussion injury diagnostic (in development), we believe our target market is children and adults who have experienced some form of trauma and, as a result, are at risk to have a concussion (or mild traumatic brain injury) diagnosis. In 2014, there were approximately 2.87 million traumatic brain injury-related emergency department visits, hospitalizations, and deaths in the US, including over 837,000 of these health events among children.

A concussion is a type of traumatic brain injury caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move rapidly back and forth. This sudden movement can cause the brain to bounce around or twist in the skull, creating chemical changes in the brain and sometimes stretching and damaging brain cells.

According to the CDC, traumatic brain injury is a serious public health problem in the United States. Each year, traumatic brain injuries contribute to a substantial number of deaths and cases of permanent disability. Further information about the causes of TBIs:

- In 2014, falls were the leading cause of TBI. Falls accounted for almost half (48%) of all TBI-related emergency department ("ED") visits. Falls disproportionately affect children and older adults:
    - Almost half (49%) of TBI-related ED visits among children 0 to 17 years were caused by falls.
    - Four in five (81%) TBI-related ED visits in older adults aged 65 years and older were caused by falls.
- Being struck by or against an object was the second leading cause of TBI-related ED visits, accounting for about 17% of all TBI-related ED visits in the United States in 2014.
- Over 1 in 4 (28%) TBI-related ED visits in children less than 17 years of age or less were caused by being struck by or against an object.

Competition

There is a deep market need for improved diagnostic tools across a wide range of human health conditions and diseases and the company expects competition to increase, especially with respect to diagnostic tests related to ASD, Parkinson's Disease and traumatic brain injury. Further, due to the exigent nature of the COVID-19 pandemic, there is a significant need for fast, effective, and non-invasive diagnostic tools. The company expects to face significant competition from both emerging medical device, biotechnology and healthcare companies, and established market participants, some of whom may be larger and have more resources than the company.

Suppliers

The company purchases the reagents and materials used in the chemical reactions incorporated into our processes, as well as the sequencers and equipment that we use in our laboratory operations from a variety of suppliers. Currently, several reagents and materials are sourced from sole suppliers. For instance, DNA Genotek is the sole supplier of saliva swabs used in our Clarifi COVID-19 and Clarifi ASD test kits and Illumina is the sole supplier of sequencers and various associated reagents used in testing the saliva collected, and is the sole provider of maintenance and repair services for these sequencers.

Customers

The company has received predominantly all of its revenue from COVID-19 products from state and local entities of New York State.

Research and Development

The amount expensed for research and development for the year ended December 31, 2021 was $206,092 and for the year ended December 31, 2020 was $521,875.

Employees

As of December 31, 2021, the company has 126 full-time employees. All company employees are "at will"; however, the company has employment agreements with basic confidentiality, proprietary rights and non-compete provisions with all employees.

Regulation

Medical products and devices are regulated by the FDA in the United States and can be regulated by foreign governments for devices sold internationally. The Federal Food, Drug and Cosmetic Act and regulations issued by the FDA regulate development, manufacturing, packaging, and marketing of medical devices.

Unless an exemption applies, each medical device or product we wish to distribute commercially in the United States will require marketing authorization from the FDA prior to distribution. These devices may require premarket notification, also called 510(k) clearance, or in cases where that is not available, premarket approval ("PMA"). However due to the exigent nature of the COVID-19 pandemic in the US, on February 4, 2020, the Secretary of the Department of Health and Human Services (HHS) upon determining that there is a public health emergency that has a significant potential to affect national security or the health and security of United States citizens living abroad, declared that circumstances exist justifying the authorization of emergency use of in vitro diagnostics for the detection and/or diagnosis of COVID-19. This emergency use authorization ("EUA") approval is needed to distribute and/or use in vitro diagnostic tests for COVID-19 in the United States.

Since our epigenetic diagnostic tests are developed and performed in a single laboratory, we believe that these tests are LDTs that are subject to FDA's enforcement discretion for LDTs and do not require FDA notification or authorization. Notification requirements and the related exemptions are discussed in more detail below.

Our manufacturing processes and facilities are also subject to regulations, including the FDA's Quality System Regulation ("QSR") requirements. These regulations govern the way we manufacture our products and maintain documentation for our manufacturing, testing and control activities. Although the FDA has waived compliance with some parts of the QSR for COVID-19 tests that are granted EUA, other parts of the QSR do apply to the assembly, packaging, and tracking of COVID-19 diagnostic assays that are distributed to purchasers. In addition, to the extent we manufacture and sell products abroad, those products are subject to the relevant laws and regulations of those countries.

Finally, the labeling of our products and devices, our promotional activities and marketing materials are regulated by the FDA and various state agencies. Violations of regulations promulgated by these agencies may result in administrative, civil or criminal actions against us or our manufacturers by the FDA or governing state agencies.

Pre-market clearance

To obtain 510(k) clearance for a medical device, an applicant must submit a premarket notification to the FDA demonstrating that the device is "substantially equivalent" to a device legally marketed in the United States that is not subject to PMA approval, commonly known as the "predicate device." A device is substantially equivalent if, with respect to the predicate device, it has the same intended use and has either (i) the same technological characteristics or (ii) different technological characteristics and the information submitted demonstrates that the device is as safe and effective as a legally marketed device and does not raise different questions of safety or effectiveness. A showing of substantial equivalence sometimes, but not always, requires clinical data. Generally, the 510(k) clearance process can exceed 90 days and may extend to a year or more.

510(k) Clearance

On October 22, 2019, ClearEdge Balance was cleared by the FDA as a Class II medical device under product code LXV (K18366). ClearEdge Balance assesses changes in balance using our proprietary Edge™ Sensor, a wireless inertial measurement unit worn on the patient's lower back, at the approximate center of mass. On November 1, 2021, the ClearEdge Toolkit containing ClearEdge Balance was discontinued from use.

FDA EUA Application for COVID-19 Test Kit

The FDA has prescribed templates to be used for submissions to obtain EUAs for COVID-19 test kits, which enumerate the detailed information that FDA requires to issue the EUA. The information required includes the intended use of the test kit, the materials and reagents comprising the test kit, the step-by-step testing procedure in which the test kit is used, including laboratory equipment required to perform each step, and all laboratory and clinical testing that is required to demonstrate the accuracy of the test. The process to obtain an EUA typically consists of two phases, an initial Pre-EUA submission that is used to identify and resolve any significant problems that would preclude issuance of an EUA and a final EUA submission. The final EUA submission addresses the details that the FDA will require to demonstrate that the COVID-19 test kit will have acceptable sensitivity (to detect a high percentage of people who are infected) and specificity (to not generate a positive test result for someone who is not infected; i.e. limit false positive results). The company obtained an EUA from the FDA for its Clarifi COVID-19 Test Kit on September 22, 2020. Subsequently an amendment to this EUA was granted on May 6, 2021 to further expand the product's clinical use. As of April 22, 2021, an additional amendment was under review by the FDA

Laboratory-Developed Tests

Laboratory developed tests (LDTs) are clinical laboratory tests that are developed, validated and manufactured, and used by a single laboratory and then only performed in that laboratory (the test is not shipped to other laboratories). Historically, the FDA has exercised enforcement discretion with respect to most LDTs, and not required the CLIA-certified laboratories that perform such tests to comply with the agency's requirements for medical devices (e.g., establishment registration, device listing, QSR, premarket clearance or approval, adverse event reporting).

On April 13, 2022, Quadrant Laboratories received approval from NYSDOH CLEP for the LDT submission of an ELISA-based method for SARS-CoV-2 total antibody (IgM, IgG, IgA) detection in saliva collected samples. Although the approval is granted for an indefinite period, it is subject to demonstration of ongoing compliance with NYSDOH CLEP regulations and standards.

In recent years, the FDA has indicated that it intends to end its policy of enforcement discretion and begin regulating LDTs as medical devices. In October 2014, the FDA published two draft guidance documents describing a proposed risk-based framework under which it might regulate LDTs. The FDA's draft framework proposed, among other things, premarket review for higher-risk LDTs, such as those that have the same intended use as FDA-approved or cleared diagnostics currently on the market. Subsequently, on January 13, 2017, the FDA published a "discussion paper" in which the agency outlined a substantially revised "possible approach" to the oversight of LDTs. The discussion paper explicitly states that it is not a final version of the 2014 draft guidance and that it does not represent the agency's "formal position"; rather, the discussion paper represents the latest iteration of the agency's thinking on LDTs, which the agency posted to "spur further dialogue". In August 2020 the Department of Health and Human Services announced that FDA would no longer require premarket review of LDTs unless and until it went through the notice and comment rulemaking procedure required by the Administrative Procedure Act. However, on November 15, 2021, HHS reversed its course once again and provided that the FDA may begin oversight of LDTs. It is unclear at this time when, and how, the FDA will provide oversight over LDTs. We believe that the epigenetic tests that we initially intend to offer are considered LDTs.

Further, a relatively new type of LDT consists of tests that use software algorithms to analyze the results of next generation sequencing of nucleic acids, known as bioinformatics analysis. The Clarifi ASD test is an example of this new type of bioinformatics LDT. It is often the case that the bioinformatics and next gen sequencing parts of LDTs are performed at separate facilities, because of the inherent differences in the equipment and personnel who process specimens to extract the nucleic acids and sequence them and the equipment and personnel who design and implement the analytic software algorithms. FDA's regulation of bioinformatics LDTs is in its infancy, and there are not well-defined requirements regarding the joint control of the distributed sequencing and bioinformatics parts of these LDTs. There is therefore uncertainty about the risk that FDA may seek to regulate bioinformatics LDTs, such as Clarifi ASD, as medical devices.

If the FDA withdraws its enforcement discretion with respect to the Clarifi ASD test, it is likely that the Clarifi ASD test would be considered an In Vitro Diagnostic Device ("IVD"). IVDs are typically Class II devices, and there does not appear to be any existing IVD classification that would fit the Clarifi ASD test. While there is a device class for pediatric autism spectrum disorder diagnosis aids, the technology used in this class is not an in vitro diagnostic test, and it is not clear whether this class would be deemed to cover the Clarifi ASD test. If Clarifi ASD is not covered by the existing pediatric autism spectrum disorder diagnosis aids, there is no predicate device which could be used to obtain 510(k) clearance for the Clarifi ASD product, by demonstrating that Clarifi ASD was substantially equivalent to the predicate. Based on information gathering communications with the FDA, we believe that it would be possible to use what is known as the de novo regulatory pathway to seek and obtain classification of the Clarifi ASD test as a Class II IVD medical device and obtain clearance to market and sell the Clarifi ASD test based on requirements very similar to the 510(k) process. If the de novo regulatory pathway is undertaken, it is not certain how long it will take to obtain de novo clearance to market the Clarifi ASD test.

In the unlikely scenario in which the de novo regulatory pathway cannot be used to obtain clearance to market Clarifi ASD, the Clarifi ASD test would be a Class III medical device, and it would be necessary to use the PMA process to obtain authorization to market the Clarifi ASD test. The PMA process is much more costly and time consuming than the 510(k) clearance pathway, because while 510(k) clearance requires demonstrating substantial equivalence to an existing predicate device by comparison to the predicate, the PMA process requires demonstrating the safety and efficacy of the candidate device by valid scientific evidence regarding its technology and clinical utility. If the PMA process were required for Clarifi ASD, it is uncertain whether we have the resources necessary to obtain approval or whether approval could be obtained within a feasible time frame for our business.

Legislation has been introduced in previous Congresses, and is being drafted in the current Congress, that would clarify FDA's role in the oversight of LDTs. For example, a congressional bill entitled the Verifying Accurate Leading-Edge In Vitro Clinical Tests Development (VALID) act, would create a new type of regulated product, called In Vitro Clinical Tests, which would be subject to regulation by the FDA. We expect that new legislative proposals will be officially introduced from time-to-time. That being said, the likelihood that Congress will pass any such legislation – and the extent to which such legislation would give the FDA authority to regulate our LDTs – is unclear at this time.

New York State Department of Health - Clinical Laboratory Evaluation Program and CLIA

All clinical laboratories located in New York State, and laboratories conducting clinical or forensic testing on specimens originating in New York State, regardless of location, must hold a New York State Department of Health ("NYSDOH") clinical laboratory permit pursuant to Title V, Section 574 of the New York State Public Health Law.

The Clinical Laboratory Reference System ("CLRS") was established by the NYSDOH to assist clinical laboratories and blood banks applying for licensure with the New York State Department of Health and to serve as a reference and a resource to all participants. CLRS is administered by the Clinical Laboratory Evaluation Program ("CLEP"), a function of the NYSDOH public health laboratory the Wadsworth Center. Mandated activities include collaborative research, method development and test approval, laboratory inspection, and monitoring of proficiency testing participation to ensure that laboratory services provided to health care providers in the state meet performance standards for good patient care. CLRS outlines the policies and procedures by which the Clinical Laboratory Reference System meets the following objectives: (i) to monitor, improve, and broaden the clinical capabilities of participating laboratories and blood banks, (ii) to provide guidelines, quality control standards and procedures to be used by permit-holding clinical facilities, and (iii) to provide continuing education opportunities for technical personnel involved in the operation of clinical laboratories through training and remediation programs.

In recognition of the fact that CLRS has requirements that are equal to or more stringent than the Clinical Laboratory Improvement Amendments of 1988 ("CLIA"), the program was granted exempt status by the federal Centers for Medicare and Medicaid Services ("CMS") in 1995. As a result, laboratories located in New York State meet CLIA accreditation requirements, as documented by a valid New York State permit, which includes a CLIA number. Laboratories must enroll in a CMS-approved proficiency testing program to meet CLIA proficiency test requirements. Laboratories located in New York State are still subject to validation inspections performed by CMS staff and all records maintained by New York State regarding a laboratory are subject to disclosure to CMS. Eligibility for CLIA certification for laboratories located outside New York remains the responsibility of each state's regional CMS office.

The two clinical laboratories operated by the company each hold a NYSDOH clinical laboratory permit, meet CLIA accreditation requirements and have been assigned a CLIA number. The laboratories have demonstrated 100% scores in proficiency testing performance over the last four required testing cycles. The laboratories also conduct periodic internal audits to further review and refine processes consistent with applicable standards. The laboratories are permitted to accept clinical specimens for testing in all 50 states.

Litigation

From time to time, the company may be involved in legal proceedings. The results of such legal proceedings and claims cannot be predicted with certainty, and regardless of the outcome, legal proceedings could have an adverse impact on the company's business because of defense and settlement costs, diversion of resources and other factors.

As a result of the company's novel discoveries in medical diagnostics, the company and its advisors have been, and remain involved in, ongoing discussions with regulatory authorities. While the company considers these continuing inquiries to be ordinary course in light of the nature of the company's projects, any failure by the company to satisfy regulatory authorities that it is in compliance with all applicable rules and regulations could have a material adverse effect on the company. At this time, the company is not aware of any proceedings against it which are expected to have a material adverse effect on its financial position or operations.

THE COMPANY'S PROPERTY

The company does not currently own real property. We lease office and lab space in (i) Syracuse, New York at SUNY Upstate Medical Center and at a local biotech accelerator affiliated with SUNY, (ii) Buffalo, New York at the University at Buffalo (SUNY), and (iii) San Antonio, Texas in a commercial office building. The lease for laboratory and office space at the University of Buffalo expires in February 2022. All other office and laboratory space rentals are on a month-to-month basis. Additionally, a finance lease has been entered into for laboratory equipment in Syracuse, New York, with payments through October 2025. We expect our month-to-month lease contracts for our office space in Syracuse and San Antonio to continue with similar terms. During the years ended December 31, 2021 and 2020, rent expenses were recognized associated with operating and finance leases as fixed rent expense of $147,797 and $87,583 respectively.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the related notes included in this report. The following discussion contains forward-looking statements that reflect our plans, estimates, and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Unless otherwise indicated, the latest results discussed below are as of December 31, 2021.

Overview

The company was incorporated in Delaware on March 13, 2015 as Motion Intelligence Inc. On August 6, 2015, Motion Intelligence LLC, a New York limited liability company merged into Motion Intelligence Inc. The company changed its name to Quadrant Biosciences Inc. on September 7, 2017.

Quadrant is a biotechnology company focused on the research, development and commercialization of molecular diagnostics, therapeutics and related products and services.

The company was founded to improve lives through the development of more accurate and timely diagnostics for large-scale health issues; these include Autism Spectrum Disorder, Parkinson's disease, mild traumatic brain injuries (or concussion injuries), and most recently SARS-CoV-2 infections. In addition to these conditions, the company is actively engaged in proprietary research and development efforts related to other chronic, degenerative and developmental diseases and disorders.

The company operates primarily in the United States. Markets served include the healthcare, educational institution, laboratory services and sports management fields. The company's commercial technology results from the translation of basic science developed by the company and in conjunction with academic partners.

Due to the pandemic in 2020, the company pivoted from its principal focus on the development and commercialization of epigenetic diagnostic tests and developed COVID-19 diagnostic products, including an individual diagnostic test for which it obtained a Food and Drug Administration ("FDA") emergency use authorization ("EUA") in September 2020. The company's 2020 and 2021 financial revenues are primarily derived from its COVID-19 products and services.

In addition to its commercialized products, the company is also developing a molecular analysis platform for mild traumatic brain injury ("mTBI") called Clarifi mTBI. Clarifi mTBI provides both diagnostic capabilities for mTBI, as well as a prognostic indicator for persistent post-concussion symptoms ("PPCS"). In September of 2020, the company received a $2.3 million Small Business Technology Transfer ("STTR") grant from the National Institute of Health ("NIH") to develop a saliva-based diagnostic for concussions. Five research sites around the country are funded by this grant to collect additional data for Clarifi mTBI which will support future regulatory submissions. In addition to the company's NIH funding, Clarifi mTBI was also selected by the Technical and Business Assistance ("TABA") Needs Assessment Program. The TABA Program evaluates a product's go-to-market potential and is exclusive to NIH grant recipients. The company received a final report detailing an optimal commercialization strategy in July of 2021. Currently, the company is pursuing additional research sites, and well as gathering clinical utility data to help influence payor coverage and clinical adoption.

The company's COVID-19 related work includes as follows:

- Test Kits for CLIA Laboratory Use: Producing the "Clarifi COVID-19 Test Kit" a non-invasive and easy to administer saliva swab that determines the presence or absence of SARS-CoV-2 viral RNA. For the Clarifi COVID-19 Test Kit the company receives revenue both from the sale of the kits as well as product assembly services as such services are requested by its customers;
- Community/Municipal Wastewater Surveillance: Performing tests on municipal wastewater samples for SARS-CoV-2, principally in New York State;
- Clinical COVID-19 Screening and Diagnostic Testing: Through its two CLIA/CLEP laboratories (described below), the company processes saliva specimens to identify individuals infected with the SARS-CoV-2 virus; the company's clients include colleges/universities, K-12 schools, municipal and private employers. For individuals who are symptomatic or otherwise at risk of being infected, the company offers individual diagnostic testing services. For organizations, the company offers clinical screening services, generally utilizing a proprietary specimen pooling technology to reduce costs and minimize in-laboratory processing times. All specimens in a pool which screens "negative" are presumed negative; all specimens in a pool which screens "positive" are further tested on an individual diagnostic basis. Clinical results are available electronically for tested individuals and their respective organizations. To date, the company has processed over 4 million individual clinical specimens for its clients.

The Clarifi COVID-19 tests were all developed and validated in cooperation with SUNY Upstate Medical University, and each of Clarifi ASD and ClearEdge were developed and validated in cooperation with the SUNY Upstate Medical University and the Penn State College of Medicine. In the second quarter of 2021, the company became the sole owners of two laboratories, one located on the SUNY Upstate Syracuse campus and the other on SUNY Buffalo campus. On July 1, 2021, these two laboratories were certified under the Clinical Laboratory Improvement Amendment (Federal) / Clinic Laboratory Evaluation Program (New York State) ("CLIA/CLEP").

The company has received predominantly all of its revenue from COVID-19 products from state and local entities of New York State.

Results of Operations

Year ended December 31, 2021 Compared to Year ended December 31, 2020

Net Revenues

The company's revenues consist of revenue derived from product sales, product assembly, testing services, grant revenues and licensing and maintenance services. The company's total revenues for the year ended December 31, 2021 ("Fiscal 2021") were $60,519,179, an increase of $48,718,056 from total revenues of $11,801,123 in the year ended December 31, 2020 ("Fiscal 2020"). This increase is attributable to the company's COVID initiatives, which accounted for $60,370,952 in Fiscal 2021 compared to $11,477,679 in Fiscal 2020. The revenues for the COVID initiatives in 2021 included revenues from lab testing in addition to sales from the company's prior COVID products; wastewater testing and Clarifi COVID-19 Test kit sales product assembly services. Cost of products sold increased to $33,466,238 in Fiscal 2021, an increase of $24,856,478 from $8,609,760 in Fiscal 2020, primarily attributable to the sale of the COVID products, including royalty expense of $7,833,833 in Fiscal 2021 and $858,614 in Fiscal 2020. Accordingly, the company had gross profit of $27,052,941 in Fiscal 2021 compared with $3,191,363 in Fiscal 2020.

Operating Expenses

Operating expenses consist of sales and marketing expenses, research and development costs, and selling and administrative expenses. Operating expenses in Fiscal 2021 were $10,398,558, compared to $7,676,398 in Fiscal 2020, an increase of $2,722,160. The increase primarily relates to the $2,111,164 increase in employment related expenses, which includes employee benefits and taxes, salaries and wages and stock option compensation, as well as increases in office expenses of $563,488 and professional fees of $553,849. The company had 126 employees at December 31, 2021 compared with 42 employees at December 31, 2020 and in 2021 the company began operations in its two laboratories. The increase in operating expenses was partially offset by a $394,879 decrease in sales and marketing expense and a $315,783 decrease in research and development costs due to the company reducing spend on non-COVID-19 related expenses and capitalizing certain research and development expenditures.

Net Income

The company had other expenses in Fiscal 2021 of $10,853 compared to other income of $397,656 in Fiscal 2020. The company's other income/(expense) primarily consists of $242,746 of noncash grant income related to an equipment use agreement with The Research Foundation for The State University of New York under which rent payments are forgiven for meeting certain performance milestones, offset by $309,842 of interest expense accrued related to the company's long-term debt obligations. For Fiscal 2021 the company's other income increased to $298,989 from other expenses of $76,402 in Fiscal 2020 due to the equipment use agreement with The Research Foundation for The State University of New York. The total other income in 2020 is primarily attributable to an EIDL advance grant and forgiveness of the company's PPP loan, which totaled $765,600 in 2020. See "Liquidity and Capital Resources."

The company had deferred income tax and income tax expenses in Fiscal 2021 of $ 4,395,723 compared with deferred income tax and income tax benefit in Fiscal 2020 of $5,819,431.

As a result of the foregoing factors, the company's net income was $12,247,807 in Fiscal 2021 compared with $1,732,052 in 2020.

Liquidity and Capital Resources

As of December 31, 2021, the company's cash and cash equivalents were $8,116,233. Historically, we had financed our operations primarily through the issuance of preferred stock, common stock, notes, debt, and research grants. In 2018, we converted our preferred stock into common stock. Beginning in September 2020, we began receiving revenues for our COVID testing and products.

We have devoted substantially all of our financial resources and efforts to (i) developing our molecular diagnostic technologies, identifying potential product candidates and conducting verification and validation testing and (ii) the development of diagnostic testing, screening and surveillance techniques for COVID-19 in individuals and wastewater. On February 18, 2021, the company completed its most recent raise that started in September 2020. The company issued $416,628 in 6% Convertible Notes that mature on August 25, 2025; as of December 31, 2021 the outstanding balance was $437,237.

The company has a line of credit with the borrowing capacity of $1,000,000 from Pathfinder Bank, at an interest rate of the greater of 5.375% or Bank Prime plus 1.125%. The line of credit had a balance of $0 and $403,996 at December 31, 2021 and December 31, 2020, respectively. The line is secured by all the business assets of the company. The company also has a loan from VEP Biotech Ltd, with a maturity date of October 2023, an interest rate of 5%, and no required payment of principal or interest until maturity. The outstanding balance as of December 31, 2021 and December 31, 2020 (including principal and interest) were $5,837,124 and $5,555,858, respectively. The company also obtained an SBA loan in May 2020, which had an outstanding balance as of December 31, 2021 and December 31, 2020 of $159,046 and $153,421, respectively.

Trends

Quadrant started 2020 with sales of Clarifi ASD, having recently achieved regulatory approval for this test in 49 states as an LDT offered through a third-party laboratory. However, not long after the company began to introduce Clarifi ASD to pediatric healthcare providers, the world was besieged by the COVID-19 pandemic. Starting in early 2020, the company's ability to access healthcare providers was greatly restricted by social distancing mandates which, in turn limited its ability to introduce Clarifi ASD to potential customers. In light of these impediments and in deference to the company's concentration in COVID-19 testing products and services, the company temporarily removed the Clarifi ASD test from the market. The company intends to re-validate Clarifi ASD in one of its own laboratories in 2022 and seek regulatory approval from the NYSDOH to re-launch the test as an LDT in all 50 states.

During the pandemic, the company continued to implement its strategy to obtain broad insurance reimbursement for Clarifi ASD. Attaining a unique CPT® PLA code in 2020 was a major step toward this outcome. On Sept 21, 2020, the Centers for Medicare and Medicaid Services ("CMS") released a preliminary payment rate determination of $1,755 for Clarifi ASD; this rate was finalized and became effective in January 2021. With these now established, the company is pursuing state and federal health insurance coverage for Clarifi ASD.

More recently (April 2021), the FDA designated Clarifi ASD a "Breakthrough Device"; the FDA Breakthrough Device Program is intended to help patients and health care providers receive more timely access to breakthrough technologies that have the potential to provide more effective treatment or diagnosis for life-threatening or irreversibly debilitating diseases or conditions.

With an aim to grow its domestic sales of Clarifi ASD, the company is refocusing and adapting its sales efforts to new market conditions, continuing to implement its insurance reimbursement strategy, and progressing toward In-Vitro Diagnostic ("IVD") approval through the FDA's Breakthrough Device Program.

In March 2020, Quadrant made a decision to devote a majority of its resources to address the global COVID-19 pandemic in partnership with SUNY Upstate Medical University. We held a strong belief that our combined skills would benefit families and communities in a time of great uncertainty; at the time, the transmissibility, mortality and other health risks posed by the SARS-CoV-2 virus were largely unknown as was the true breadth of the pandemic.

Researchers at Quadrant and SUNY Upstate Medical University leveraged our collective expertise to develop non-invasive, highly accurate and scalable diagnostic solutions for individuals, organizations and policy makers. As a result, today we are involved in three significant COVID-19 projects addressing different ways to assess the presence and prevalence of COVID-19. We anticipate that we will be involved in COVID-19 diagnostics, screening and surveillance activities through 2022, as COVID-19 remains a significant threat to national and worldwide health.

To better serve our clients, in August 2020 Quadrant and SUNY Upstate Medical University built and have continuously operated a CLIA high-complexity laboratory (Syracuse, NY) for high-throughput testing using the Clarifi COVID-19 Test and its pooled-saliva complement. In early 2021, Quadrant built and now operates a second CLIA high-complexity laboratory (Buffalo, NY) for high-throughput COVID-19 testing. Since September 2020, these laboratories have seen significant increases in production volume: in March 2021 alone, these two labs processed saliva specimens for over 380,000 individuals. While a significant portion of the available capacity for each of these labs is expected to be utilized for ongoing COVID-19 testing through 2021 and likely most of 2022, the company is developing plans to add additional molecular tests which best utilize the company's genetic and epigenetic expertise or which complement our product pipeline.

Quadrant continues to devote significant resources to the ongoing implementation of our COVID-19 business; we anticipate that these products and services will be a significant part of our 2022 revenues.

Item 3. Directors and Officers

Directors, Executive Officers and Significant Employees

The company's executive officers, directors and significant employees as of April 1, 2021 are listed below. The executive officers and significant employees are full-time employees.

Name	Current Position	Age	Date Appointed to Current Position
Executive Officers			
Richard Uhlig	Chief Executive Officer	56	August 2015
Rita Romano	President - Quadrant Laboratories	56	February 2021
Kayla Wagner, MS	President - ASD Diagnostic Products	29	April 2021
Benjamin Perry, MS	President - mTBI Diagnostics	31	November 2019
Richard Bongo	Chief Financial Officer	60	April 2018
Andrew Brindle	Executive Vice President Research & Development	40	April 2016
Ira Fedder, MD	Executive Vice President Corporate Strategy	68	December 2021
Thomas Frazier, PhD	Executive Vice President Virtual and Clinical Care	46	May 2020
Nicholas Gianadda	Chief Technology Officer	40	April 2021
Bryan Greene	Chief Operating Officer	40	July 2019
David MacLean, JD	Chief Marketing Officer	61	August 2015
Rita Marble	Executive Vice President Human Resources	51	June, 2021
Wakaba Tessier, JD	General Counsel	42	October 2021
Kortney West, MD	Executive Vice President Virtual Medicine	35	January 2022
Directors			
Richard Uhlig	Chairman	56	August 2015
Richard Bongo	Director	60	October 2017
Peter Cohen	Director	76	April 2018
James Croke, JD	Director	63	April 2018
Ira Fedder, MD	Director	68	October 2017
Andrew Rock	Director	58	August 2015
Mary Ann Tyzsko	Director	64	August 2015

Biographies of Executive Officers and Directors

Richard Uhlig

Chairman & Chief Executive Officer

Richard has been our Chairman and CEO since 2015. He has more than 30 years of business experience focused on the design and development of innovative products across various industries, Richard's management capabilities range from ownership of regional retail businesses to the start-up and management of major corporate divisions with domestic and international product sourcing and sales experience. Prior to serving as Chairman and CEO of Quadrant Biosciences, he was the Sole Member of Motion Intelligence LLC, a biotechnology company he founded in 2012 and which was merged into Quadrant in 2015. Previously, he was the Chairman and Chief Executive Officer of Morgan Stanley Bank, the principal banking subsidiary of Morgan Stanley, and was the Chief Investment Officer at Merrill Lynch Bank. He held other significant posts in the financial industry and served as an Executive in Residence at Cornell University's Johnson Graduate School of Management. Richard received a Bachelor of Science degree from Cornell University.

Rita Romano

President - Laboratory Services

Rita has more than 30 years of clinical laboratory experience. Prior to joining Quadrant in February 2021, she was Director of the Operations Center for Laboratory Alliance of CNY, a locally owned, independent reference laboratory, a position she held since 2011. In this role, she had technical and regulatory oversight of clinical laboratory services performing over 10 million tests/year. She developed strategic partnerships with both larger and smaller institutions to improve the delivery of laboratory testing for a clinically integrated network of health care providers in a cost-effective manner.Rita earned her Bachelor of Science in Medical Technology and her Masters of Arts in Strategic Leadership from St. Bonaventure University. She is certified by the American Society of Clinical Pathologists. Rita serves as the President of the Central New York Chapter of Clinical Laboratory Management Association and chair of the membership committee.

Kayla Wagner

President - ASD Diagnostic Products

Kayla's career originates from a research background in clinical psychology, where she conducted research investigating many areas of child psychopathology, including autism spectrum disorder, ADHD and 22q11.2 deletion syndrome. More specifically, Kayla's published research has a translational focus, with her interests surrounding early identification of autism, management of the comorbidity between autism and ADHD, and targets for intervention aimed at improving social outcomes for individuals with neurodevelopmental disorders. Kayla joined Quadrant in May 2017. Until her promotion to President of ASD Diagnostic Products in April 2021, Kayla led the development and commercialization of Clarifi ASD as VP of Product Management. This followed her role as VP of Research where she developed and led the Clinical Research Department, overseeing Quadrant's research portfolio and grants in excess of $5 million. Prior to Quadrant, Kayla worked in academic medical settings for over 5 years conducting and managing grant funded research, including most recently at Syracuse University and SUNY Upstate Medical University (August 2014 - May 2017). In her clinical work, she provided diagnostic and psychological counseling services as a therapist focused on improving functioning and well-being for children and adolescents with autism and other psychiatric disorders. Kayla earned a BS in neuroscience and psychology and an MS in Clinical Psychology at Syracuse University.

Benjamin Perry

President - mTBI Diagnostic Products

Benjamin's career originates from a technical background, where he spent over ten years in the software development industry. During that time, he both led and contributed to several successful projects in the public, private, and academic sectors. Benjamin's expertise revolves around a wide breadth of disciplines including cloud computing architecture, blockchain technology, and agile project management, where his experience spans all facets of the product development lifecycle. He strives to build both human and technical systems that are accessible to all, and scale rapidly with demand. Ben has been with Quadrant Biosciences since April 2016. Until his recent promotion to President of the company in November 2019, he served as the Chief Technology Officer for both Quadrant and our subsidiary Motion Intelligence LLC. Prior to 2018, he was the Vice President of Technology at both organizations. Prior to Quadrant Biosciences, Benjamin led projects for the federal statistical system and public opinion domain. More specifically, he was a software developer for the Cornell Institute for Social and Economic Research from June 2013 – April 2016, where his metadata management software was installed within the US Census Bureau as part of an NSF grant. In addition, Benjamin ran a consulting business that provided data management expertise, and software development services. He received his master's degree in Information Science from Cornell University.

Richard Bongo

Chief Financial Officer & Director

Richard has over 30 years of finance experience while working at many major Wall Street firms. Richard has been our Chief Financial Officer since May 2018. He most recently was a Managing Director at BNP Paribas (April 2006 through April 2018), one of Europe's largest banks, and has also worked at such firms as Lehman Brothers, Credit Suisse, Merrill Lynch and Bank of America. Richard's experience spans several different disciplines in structured finance including structuring, trading and sales at the institutional level, where he helped to usher in several cutting-edge financial investment products such as Collateralized Mortgage Obligations and Commercial Mortgage Backed Securities and Collateralized Loan Obligations. Richard began his career at Coopers & Lybrand (PricewaterhouseCoopers) where he received his CPA. He holds degrees in both Computer Information Systems and Accounting from Kings College.

Andrew Brindle

Executive Vice President - Research and Development

Andrew brings a strong background in hardware design and development to the Quadrant Biosciences team, where he has been since April 2016. Prior to that, he ran his own engineering consulting business with a focus on commercial manufacturing and medical devices (August 2013 – April 2016), where he had many clients, including Quadrant. His career has included over 12 years in the defense industry working on sophisticated radar systems such as the DARPA FORESTER, the Army's AN/TPQ-49, and radar antennas for drone helicopters. Andrew developed and holds patents on new technologies involving efficient heat transfer, and has a strong background in algorithm development having created algorithms for deep-sea underwater sensors and sports performance technologies. Andrew received a BS in Mechanical Engineering with a minor in Mathematics from Clarkson University.

Ira Fedder, MD

EVP Corporate Strategy & Director

Ira is a fellowship trained orthopedic spine surgeon practicing at the University of Maryland, St. Joseph Medical Center in Towson, Maryland. Ira is Board Certified by the ABOS as well as the ABSS and an active member of a number of professional organizations. Ira has participated in a number of clinical trials, has published widely in both the orthopedic and pharmacology literature, and has been an active lecturer speaking about the current and future use of stem cells and other biologics in orthopedics. Dr Fedder received his Doctor of Pharmacy degree from the U of Maryland School of Pharmacy in 1979. Subsequently, Ira completed a fellowship in Clinical Pharmacology at Thomas Jefferson University School of Medicine. After teaching at Northeastern University College of Pharmacy and the Veterans Administration in Boston, Ira then returned to the University of Maryland where he graduated from the School of Medicine in 1986. After completing his residency in Orthopedic Surgery at the University of Maryland he completed a fellowship at St Joseph Medical Center in Towson. He has practiced as an orthopedic spine surgeon since 1992.

Thomas Frazier

Executive Vice President - Virtual and Clinical Care

Dr. Frazier is a licensed clinical psychologist who received his Ph.D. from Case Western Reserve University in 2004. He joined Cleveland Clinic in 2006 and from 2013-2017 was the director of the Cleveland Clinic Center for Autism. In 2017, he was hired as the Chief Science Officer at Autism Speaks, overseeing all science and service programs before joining John Carroll University in January 2020 as a Professor of Psychology. Over the last decade, Dr. Frazier has maintained an active clinical practice and research programs focused on the evaluation and treatment of autism, ADHD, and related conditions. He has published more than 120 scientific papers and has ongoing collaborations across the US and internationally.

Nicholas Gianadda

Chief Technology Officer

Nick has 20 years of experience in the software development, Information Technology, and security fields. Prior to joining Quadrant in April 2021, he held leadership roles managing diverse teams of project managers, developers, quality assurance testers, and support personnel. His experience includes serving as the Director of HIT Solutions at HealtheConnections where he oversaw the technical operations of the organization related to grant work and value based billing products and applications (September 2017 - March 2021) and as CTO at FieldNimble, a software startup focused on the small to medium sized contractor market, where he lead all technical operations for the organization (September 2016 - September 2017). Nick's experience in developing software in the healthcare industry includes applications for single sign-on, patient data access for providers, referral & case management tools, and quality measure calculation. Nick has a long history of building highly performant teams and coordinating successful product launches. He received a BS in Computer Science from Canisius College.

Bryan Greene

Chief Operating Officer

Bryan brings more than 15 years of experience in medical device operations, manufacturing, validation and new-product introduction at both large multinational and start-up corporations. He has been in charge of our operations since October 2015. He has a proven track record of successfully introducing Class I, II and III products at Life Technologies (Thermo Fisher Scientific), Pall Corporation and ImClone System (Eli Lilly). Most recently, Bryan was the manufacturing and operations leader during establishment and implementation of an FDA 21CFR820 compliant system at Rheonix, a medical device start-up (January 2013 – July 2015) and production and operations quality manager (July 2015 –October 2015) at Unilife Corporation. He received a BS in Chemical Engineering from Clarkson University.

David MacLean

Chief Marketing Officer

David has more than 25 years of business, research and legal experience. He recently produced two award-winning feature and documentary films and founded an MMA website and clothing company. David was the co-owner of a mixed-martial arts promotion company and co-owner of a medical-device sales distribution company, MacLean Surgical Instruments, which he managed for over 20 years prior to joining us as our chief marketing officer in August 2015. Previously, he was a litigator at the firms of LeBoeuf, Lamb, Lieby & MacRae, and Nixon Hargrave Devans & Doyle. Earlier, he was a research biologist for the Cornell University Lab of Ornithology. David earned a BS from Cornell University and a JD from the University of Buffalo Law School, where he was a member of the Law Review.

Rita Marble

Executive Vice President - Human Resources

Rita has more than 20 years of leadership experience in the field of Human Resource Management. Her areas of expertise include: recruitment & training, labor cost management, benefits design and administration and staff development. Prior to joining Quadrant Biosciences, she was most recently Director of Employer Solutions with a high growth PEO. In this role, Rita led in Business Development, HR Infrastructure design, onboarding and implementation of HR service plans for local and national organizations. She says she is most energized by making a meaningful impact for the organization and team she serves. Rita holds the certification of Senior Certified Professional from the Society for Human Resource Management and channels her knowledge and enthusiasm inter her community as a New Venture Mentor for the Tech Garden and subject matter resource for companies affiliated with the WISE Women's Business Center for the SBDC. .

Wakaba Tessier

General Counsel

Throughout her career, Wakaba has focused on regulatory compliance and privacy issues facing healthcare providers. Prior to joining Quadrant Biosciences, Wakaba was a Partner at Husch Blackwell LLP, an AmLaw 100 law firm. While there, Wakaba focused her practice on state and federal health privacy law, federal fraud and abuse issues related to the Stark Law, the False Claims Act and the Anti-Kickback Statute, and complex issues facing pharmacies and laboratories. She also led various business development initiatives and Associate recruiting activities on behalf of Husch Blackwell. Wakaba obtained her B.A. from Wellesley College and her J.D. from Washington University in St. Louis School of Law.

Kortney West

Executive Vice President - Virtual Medicine

Dr. West is a board-certified pediatrician. Prior to joining Quadrant, she worked for a pediatric clinic in Gonzales, LA, opened a concierge pediatric medical practice serving the greater Baton Rouge Area, and practiced at Reading Pediatrics. After noting the sizable gaps in mental healthcare for youth in the US, Dr West later founded Clear Water Health, which focuses on management of behavioral and mental health disorders. She has long been an advocate for early autism diagnosis and intervention - she received training to utilize STAT MD while in residency and continued to offer autism diagnostic appointments at each of the aforementioned practices. Additionally, she served on the board of The Emerge Center, an autism center located in Baton Rouge where she was vice-chairwoman. Dr. West received her undergraduate degree with Honors from Louisiana State University, her medical degree from LSU Medical School in Shreveport, and completed her pediatric residency at the University of Texas -Southwest in Dallas.

Peter Cohen

Director

Peter was Chairman of the Board of Cowen Inc., a well-known diversified financial services firm and its predecessor Ramius Capital from 1994 to 2017. From November 1992 to May 1994, Peter was Vice Chairman and director of Republic New York Corporation, as well as Chairman of Republic's subsidiary, Republic New York Securities Corporation. He was Chairman of the Board and Chief Executive Officer of Shearson Lehman Brothers from 1983 to 1990. From 1970 to 1983 he held various management roles within the company. Over his career, Mr. Cohen has served on a number of corporate, industry and philanthropic boards, including the New York Stock Exchange, The Federal Reserve International Capital Markets Advisory Committee, The Depository Trust Company, The American Express Company, Olivetti SpA, Telecom Italia SpA, and Kroll Inc. He was a Trustee of Mount Sinai Medical Center for 30 years and is currently Vice Chairman and Lead Director of the Board of Directors of Scientific Games Corporation, Chairman of PolarityTE Inc, Chairman of Andover National Corporation, Chairman of Peter Cohen LLC, Chairman of the Museum of American Finance, and Director of Gift of Life Marrow Registry. Mr. Cohen received a Bachelor of Science from The Ohio State University in 1968 and his Master of Business Administration from Columbia University in 1969.

James Croke

Secretary and Director

Jim was our General Counsel from January 2018 through early November 2021 (when Wakaba Tessier assumed that role). Jim continues to serve the company as its Secretary and as a Director. He is currently a principal at The Law Office of James Croke, LLC where he has been since April 2014. Jim was previously a structured finance/banking partner at Chapman & Cutler, Orrick Herrington, Cadwalader Wickersham & Taft, and Hunton & Williams. Throughout his career, he served as counsel to underwriters and issuers in U.S. and global public offerings and private placements. Jim has been a member of the board of directors of the American Securitization Forum and a faculty member of the Practicing Law Institute. He has written and lectured on a variety of topics regarding legal and regulatory issues and annually served as a guest lecturer regarding U.S. corporate and finance law at The Universidad Panamericana in Guadalajara, Mexico. Jim practiced U.S. law in London from 1999 - 2004, as the head of Cadwalader, Wickersham & Taft LLP's London capital markets department. Jim earned his undergraduate degree in Mathematics from the University of Kentucky (in three years) and his J.D. degree from the University of Notre Dame Law School.

Andrew Rock

Director

Andrew earned a reputation as a successful serial entrepreneur in the global medical technology industry. He is co-founder of K2M Group, a medical device developer based in Leesburg, Va., which became listed as a publicly traded company on NASDAQ on May 5, 2014. While at K2M, Andrew developed over 18 utility and method patents for the treatment of complex spine pathologies including scoliosis, tumor and trauma, as well as for minimally invasive implants. Before his involvement in K2M, Andrew was a member of the executive management team at American Osteomedix, where he co-developed a minimally invasive approach to access and treat osteoporotic compression fractures and tumors in the thoracic spine. From 1993 to 2003, he was Chairman and CEO of Rock Surgical Associates, Inc., a distributor of Orthopedic and Neurosurgical Products in the Mid-Atlantic region. Currently, Andrew is the Chairman and CEO of Minneapolis-based St Teresa Medical Inc., a developer of nanotechnology-based hemostatic and dural sealants; he is also the founder and managing partner of Neuro Spine Ventures LLC, an 82-member global angel investor group. Andrew is also a Co-Founder and Executive Director of DP Enterprises Group Inc., which provides product development and global marketing services for med-tech companies. Andrew also serves as the Chairman of Woven Orthopedics, LLC, which specializes in fixation and osteoporotic and osteopenic, and of Virtual Healthcare partners, a wellness focused digital healthcare company. Andrew serves on the Board of Directors for several corporations, including St. Teresa Medical, Woven Orthopedics, 7D Surgical, Inc., a machine vision surgical navigation company, and Quadrant Biosciences, Inc., which focuses on brain health and epigenetics diagnostics. He is on the board of advisors for Indianapolis-based Recovery Force, LLC, and a pioneer in wearable technology for the medical, sports and defense industry sectors. Andrew graduated from Linsly and West Virginia University.

Mary Ann Tyszko

Director

Mary Ann has over 30 years of experience in leadership, strategy development, business development, program execution and management. She served as Chief Executive Officer and President of SRCTec Inc. from its inception until August 2010. Prior to that, she served as an Executive Vice President, Operations for SRC, responsible for the day-to-day management and financial results of SRC's four business centers. Mary Ann also served as Vice President for Strategic Business Development and Innovation for Syracuse University. Her office integrated the activities of technology transfer, corporate relations and technology incubation to facilitate the commercialization of university technologies and support faculty entrepreneurship. She served on the board of Excell Partners, Inc., a VC fund investing in seed and early stage high-tech startups in New York State. Currently, Mary Ann is chair of the board of Symphoria, Central New York's professional orchestra. Formerly Mary Ann was Chair of the Greater Syracuse Chamber of Commerce Board of Directors, and a Member of Le Moyne College Management Division Advisory Board. She is a National Director of the Association of Old Crows (AOC) and a Member of the Armed Forces Communications and Electronics Association (AFCEA), the Association of the United States Army (AUSA), the United States Field Artillery Association (USFAA), and the National Association of Corporate Directors (NACD). Mary Ann also has been Corporate Chair of Go Red for Women, American Heart Association, as well as a Board Member of Manufacturers Association of Central New York (MACNY). She received her MBA and MS in Computer Science from Syracuse University and a BS in Biology from Le Moyne College.

Compensation of Directors and Executive Officers

For the fiscal year ended December 31, 2021, we compensated our three highest-paid directors and executive officers as follows:

Name	Capacities in which compensation was received	Cash compensation ($)	Other compensation ($)(1)	Total compensation ($)(2)
Rita Romano	President - Quadrant Laboratories	$ 165,385	$ 354,400	$ 519,785
Nicholas Gianadda	CTO	$ 146,154	$ 354,400	$ 500,554
Bryan Greene	COO	$ 200,000	$ 177,200	$ 377,200

(1) Other compensation is limited to stock options; the Black-Scholes formula was used to determine the value of the options at the date of grant. 200,000 stock options were granted to Rita Romano and Nicholas Gianadda and 100,000 stock options were granted to Bryan Greene for their services as President - Laboratory Services, CTO and COO, respectively.

(2) Total compensation is the sum of cash compensation and other compensation.

Item 4. Security Ownership of Management and Certain Securityholders

Our authorized capital stock consists of 125,000,000 shares, all of which are Common Stock with a $0.0001 par value per share. As of December 31, 2021, there were 88,992,860 shares of our Common Stock issued and outstanding, all of which were fully paid, non-assessable and entitled to vote. Each share of our Common Stock entitles its holder to one vote on each matter submitted to the stockholders.

The following table sets forth information as of December 31, 2021, with respect to the beneficial ownership of our Common Stock (represented as the sum of Common Stock owned plus Common Stock acquirable through the exercise of options) by (i) each person or entity which holds a beneficial ownership of 5% or more of our Common Stock, (ii) the beneficial ownership held by our Executive Officers and Directors (as listed above), and (iii) the beneficial ownership held by our Directors (which includes four Executive Officers as noted above):

Name and address of beneficial owner (1)	Number of Common Shares Owned	Number of Common Shares Acquirable (2)	Percent of ownership (3)
Richard Uhlig, Chairman and CEO	32,779,154	6,847,350	41.35%
Research Foundation for the State University of New York	5,959,241	--	6.70%
James Croke, Secretary and Director	2,020,398	3,469,775	5.94%
Richard Bongo, CFO and Director	1,184,266	3,559,380	5.13%
All Directors and Executive Officers (18 total)	43,242,4383	18,972,555	57.62%
All Directors (8 total)	38,997,772	15,871,911	52.32%

(1) The address of each beneficial owner is in the care of Quadrant Biosciences Inc, 505 Irving Ave., Suite 3100 AB, Syracuse, New York 13210.

(2) Represents shares of Common Stock acquirable upon exercise of options which are vested or which vest on or before March 1, 2022.

(3) Percent of ownership includes a calculation of the amount the person (or group) owns now, plus the amount that person (or group) is entitled to acquire. That amount is then shown as a percentage of the outstanding amount of securities in that class if no other people exercised their rights to acquire those securities. The result is a calculation of the maximum amount that person could ever own based on their current and acquirable ownership, which is why the amounts in this column will not add up to 100%.

Item 5. Interest of Management and Others in Certain Transactions

None

Item 6. Other Information

None.

Item 7. Financial Statements

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

Years Ended
December 31, 2021 and 2020

DANNIBLE & McKEE, LLP
Certified Public Accountants and Consultants
Financial Plaza, 221 S. Warren St., Syracuse, New York 13202-1628
(315) 472-9127 Fax (315) 472-0026

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of
Quadrant Biosciences, Inc. and Subsidiaries

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Quadrant Biosciences, Inc. and Subsidiaries as of December 31, 2021 and 2020, and the related consolidated statements of operations, stockholders' e+quity, and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Quadrant Biosciences, Inc. and Subsidiaries as of December 31, 2021 and 2020, and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of Quadrant Biosciences, Inc. and Subsidiaries' management. Our responsibility is to express an opinion on these consolidated 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 Quadrant Biosciences, Inc. and Subsidiaries 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. Quadrant Biosciences, Inc. and Subsidiaries 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 entity'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 consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

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INDEPENDENT MEMBER
Member of Geneva Group International, a worldwide alliance of independent professional firms.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Capitalized internal-use software development costs (Software as a Service)

As discussed in Notes A (22) and E to the consolidated financial statements, Quadrant Biosciences, Inc. and Subsidiaries capitalizes certain internal-use software costs related to new products, as well as existing products when those costs will result in significant additional functionality. Quadrant Biosciences, Inc. and Subsidiaries capitalized internal-use software asset, net of accumulated amortization, was $7,993,342 and $6,434,639, as of December 31, 2021 and 2020, respectively.

We identified the determination of capitalized internal-use software development costs as a critical audit matter because of the degree of subjectivity involved in assessing which projects met the capitalization criteria.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of an internal control related to the critical audit matter. This control related to the determination of which software development projects met the capitalization criteria. For a selection of current year capitalized software costs, we evaluated Quadrant Biosciences, Inc. and Subsidiaries' determination to capitalize the costs by reading their analysis and discussing the objective and status of the projects with appropriate members of management. We also assessed consistency with the objectives by testing samples of the most significant categories of capitalized costs.

Dannible & McKee, LLP
We have served as Quadrant Biosciences, Inc.'s auditor since 2019.
Syracuse, New York
April 1, 2022

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
December 31,

ASSETS	2021	2020
Current Assets:		
Cash and cash equivalents	$ 8,116,233	$ 9,743,455
Accounts receivable, net	13,651,979	1,354,350
Prepaid expenses	3,367,754	23,975
Other current assets	1,211,193	-
R&D tax credit receivables	-	188,117
NY tax credit receivable	-	34,550
Inventories	472,128	1,463,855
Total Current Assets	26,819,287	12,808,302
Furniture and Equipment:		
Furniture & equipment	1,056,661	71,788
Less: accumulated depreciation	82,133	32,630
Total Furniture and Equipment, net	974,528	39,158
Other Assets:		
Deferred tax asset	1,564,598	5,801,031
Right-of-use lease asset	875,950	56,703
Line of credit origination fees	-	17,099
Software as service	10,187,392	8,523,769
Less: accumulated amortization	2,194,050	2,106,229
Total Other Assets	10,433,890	12,292,373
Total Assets	$ 38,227,705	$ 25,139,833

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

LIABILITIES AND STOCKHOLDERS' EQUITY

	2021	2020
Current Liabilities:		
Accounts payable	$ 809,495	$ 1,207,732
Royalty payable	3,533,378	858,614
Contract liabilities	1,910,078	7,642,227
Pathfinder line of credit	-	403,996
Current portion lease liability	289,756	60,918
Accrued payroll and related liabilities	229,911	789,561
Federal tax payable	131,518	-
Accrued liabilities	483,040	21,026
Current portion of long-term debt	5,848	1,708
Total Current Liabilities	7,393,024	10,985,782
Long-Term Liabilities:		
Lease liability, net of current portion	588,963	-
Convertible debt	437,237	-
Notes payable	5,990,322	5,707,571
Total Long Term Liabilities	7,016,522	5,707,571
Stockholders' Equity:		
Common stock, par value $0.0001 per share, 125,000,000 shares authorized, 88,992,860 and 88,955,194 issued and outstanding, respectively	8,900	8,896
Additional paid in capital	29,932,108	26,808,240
Accumulated deficit	(6,122,849)	(18,370,656)
Total Stockholders' Equity	23,818,159	8,446,480
Total Liabilities and Stockholders' Equity	$ 38,227,705	$ 25,139,833

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
For the Years Ended December 31,

	2021	2020
Revenues:		
Product sales, net	$ 44,136,077	$ 10,602,171
Product assembly	2,608,994	891,574
Testing services, net	13,641,262	48,218
Other revenue	132,846	259,160
Total Revenues	60,519,179	11,801,123
Cost of Products Sold	33,466,238	8,609,760
Gross Profit	27,052,941	3,191,363
Sales and Marketing Expenses	156,918	551,797
Research and Development Costs	206,092	521,875
Selling and Administrative Expenses:		
Charitable contributions	24,475	152,836
Depreciation and amortization	49,504	8,336
Employee benefits and taxes	832,622	557,420
Office expenses	760,454	196,966
Other expenses	653,382	361,868
Professional fees	948,310	394,461
Salaries and wages	3,624,093	3,303,932
Stock option compensation	3,142,708	1,626,907
Total Selling and Administrative Expenses	10,035,548	6,602,726
Income (Loss) from Operations	16,654,383	(4,485,035)
Other (Expenses) Income:		
Other income (expenses)	298,989	(76,402)
EIDL advance grant and PPP forgiveness	-	765,600
Interest expense	(309,842)	(291,542)
Total Other (Expenses) Income	(10,853)	397,656
Net Income (Loss) Before Income Tax	16,643,530	(4,087,379)
Deferred Income Tax (Expense) Benefit	(4,236,433)	5,801,031
Income Tax (Expense) Benefit	(159,290)	18,400
Net Income	$ 12,247,807	$ 1,732,052
Per share data:		
Basic income, per common share	$ 0.14	$ 0.02
Diluted income, per common share	0.12	0.02
Shares used in computing net income per common share:		
Basic	88,974,967	88,725,387
Diluted	105,832,846	105,547,196

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

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years ended December 31, 2021 and 2020

	Common Shares	Common Stock Par Value	Additional Paid-in Capital	(Accumulated Deficit)	Total
Balance, December 31, 2019	87,932,825	$ 8,793	$ 22,680,362	$ (20,102,708)	$ 2,586,447
Exercised stock options ($0.003 per share)	12,500	2	38	-	40
Issuance of common stock, at $2.50 per share	702,100	70	1,755,180	-	1,755,250
Issuance of common stock, at $3.00 per share	307,769	31	923,276	-	923,307
Stock option compensation	-	-	1,626,907	-	1,626,907
Stock issuance costs	-	-	(177,523)	-	(177,523)
Net income	-	-	-	1,732,052	1,732,052
Balance, December 31, 2020	88,955,194	8,896	26,808,240	(18,370,656)	8,446,480
Exercised stock options ($0.003 per share)	37,000	4	110	-	114
Exercised stock options ($3.00 per share)	666	-	1,998	-	1,998
Stock option compensation	-	-	3,142,708	-	3,142,708
Stock issuance costs	-	-	(20,948)	-	(20,948)
Net income	-	-	-	12,247,807	12,247,807
Balance, December 31, 2021	88,992,860	$ 8,900	$ 29,932,108	$ (6,122,849)	$ 23,818,159

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

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years ended December 31,

	2021	2020
Cash Flows from Operating Activities:		
Net income	$ 12,247,807	$ 1,732,052
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	393,060	1,494,317
Employee stock option compensation	3,142,708	1,626,907
Deferred tax expense (benefit)	4,236,433	(5,801,031)
Forgiveness of loan	(196,345)	(755,600)
Changes in income tax credit receivable	222,667	207,324
Changes in accounts receivable	(12,297,629)	(1,341,697)
Changes in accounts payable	(398,237)	969,002
Changes in royalty payable	2,674,764	858,614
Changes in contract liabilities	(5,732,149)	7,572,571
Changes in accrued interest	307,500	272,814
Changes in inventories	991,727	(1,156,855)
Changes in operating right-of-use lease asset	(833,260)	79,163
Changes in income taxes payable	131,518	-
Changes in pledges payable	-	(225,000)
Changes in operating lease liability	830,347	(80,567)
Changes in prepaid expenses and other current assets	(4,554,972)	15,572
Changes in accrued payroll and related liabilities	(559,650)	743,231
Changes in accrued liabilities	166,239	(55,413)
Cash Provided by Operating Activities	772,528	6,155,404
Cash Flows from Investing Activities:		
Cash paid for purchases of fixed assets	(492,753)	(33,496)
Payments of software development costs	(1,888,247)	(1,476,916)
Cash Used in Investing Activities	(2,381,000)	(1,510,412)
Cash Flows from Financing Activities:		
Payments on financing lease	(12,546)	-
Proceeds from SBA EIDL loan	-	150,000
Proceeds from PPP loan	-	755,600
Proceeds from line of credit	-	500,000
Repayment of line of credit	(403,996)	(97,685)
Proceeds from convertible debt	416,628	-
Proceeds from sale of stock and exercise of options, net of issuance costs	(18,836)	2,501,074
Cash (Used in) Provided by Financing Activities	(18,750)	3,808,989
Net Change in Cash	(1,627,222)	8,453,981

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

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)
Years ended December 31,

	2021	2020
Net Change in Cash	(1,627,222)	8,453,981
Cash, beginning of year	9,743,455	1,289,474
Cash, end of year	$ 8,116,233	$ 9,743,455
Supplemental Disclosures of Cash Flow Information:		
Cash paid during the year for:		
Interest	$ 2,342	$ 20,409
Income taxes	14,345	1,143

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

QUADRANT BIOSCIENCES INC.
AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years ended December 31, 2021 and 2020

A. Summary of Significant Accounting Policies:

1. Quadrant Biosciences Inc. ("the Company","Quadrant") is an epigenetic diagnostic company with a focus on the early detection of neurological disorders and other large-scale health issues. The Company operates primarily in the United States. Markets served include the healthcare, educational institution, and sports management fields.

   The Company's commercial technology results from the translation of basic science developed by the company and in conjunction with academic partners.

   Quadrant Biosciences Inc. is the parent company and owns 100% of its subsidiaries, Motion Intelligence LLC, Quadrant Epigenetics LLC, Quadrant IP Holdings LLC, Quadrant Vision Technologies LLC, Quadrant Viral Testing LLC, Quadrant Biosciences Canada Ltd, and Quadrant Laboratories LLC.

   Motion Intelligence LLC is a wholly owned subsidiary which sold ClearEdge toolkits to end users utilizing distributors and agents.

   Quadrant Epigenetics LLC is a wholly owned subsidiary which will record revenue from epigenetic activities.

   Quadrant IP Holdings LLC is a wholly owned subsidiary which houses the Company's patents.

   Quadrant Vision Technologies LLC is a wholly owned subsidiary created to partner with a health provider.

   Quadrant Viral Testing LLC is a wholly owned subsidiary created to sell the wastewater testing services and the Clarifi COVID-19 individual test kit to CLIA approved laboratories.

   Quadrant Biosciences Canada Ltd is a wholly owned subsidiary created to pay an employee residing in Canada.

   Quadrant Laboratories LLC is a wholly owned subsidiary, which, operates and administers clinical laboratories in which diagnostic medical testing and related commercial activities are conducted. On July 1, 2021, Quadrant Laboratories, LLC received CLIA Accreditation and NY State Department of Health CLEP permits for its two laboratories located in Syracuse and Buffalo, New York. These laboratories will be performing all of the Company's COVID-19 testing going forward along with any future tests that the Company develops or other third-party tests it decides to perform.

2. Principles of Consolidation – The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Motion Intelligence LLC, Quadrant Epigenetics LLC, Quadrant IP Holdings LLC, Quadrant Vision Technologies LLC, Quadrant Viral Testing LLC, Quadrant Biosciences Canada Ltd, and Quadrant Laboratories LLC. All intercompany balances and transactions have been eliminated in consolidation.

3. Cash – For the purposes of cash flow disclosures, cash is defined as cash deposited in financial institutions and any investments that mature within three months or less from the initial purchase date.

4. Furniture and Equipment – Furniture and equipment acquisitions are recorded at cost. Depreciation is computed using the straight-line method based on the expected useful lives of the assets, which range from 5 to 7 years. The Company has $538,475 in laboratory equipment received, but not in service as of December 31, 2021. Expenditures for repairs and maintenance are charged to expense as incurred, whereas major betterments are capitalized. Depreciation expense is included in selling and administrative expenses. Depreciation expense for the years ended December 31, 2021 and 2020 was $49,503 and $8,336, respectively.

5. Inventories – Inventories consist of raw materials and supplies, and are stated at the lower of cost or market using the average cost method or net realizable value. Net realizable value is determined as the estimated selling price in the normal course of business minus the cost of completion, disposal and transportation.

6. Accrued Vacation – Employees are eligible to receive paid vacation time based on years of service. The vacation policy is a use it or lose it policy.

7. Royalty Payable – The Company has an exclusive license with The Research Foundation for The State University of New York (the Foundation) for a COVID-19 Saliva Diagnostic. The Company paid to the Foundation a royalty of 50% of all net income as defined in the agreement through June 30, 2021. Under this agreement income is defined as COVID-19 related gross revenue received by the Company and its affiliates from third party customers, less, sales tax or duties actually paid, transportation costs actually paid, amounts credited or returned, cost of goods sold, commissions paid to sales representatives, patent costs paid by the Company, and product liability insurance premiums covering the licensed product. Effective July 1, 2021, the Company shall pay to the Foundation a royalty on COVID-19 related net sales at 10% for the quarter beginning July 1, 2021, through December 31, 2021 and decreasing by 2% each quarter until it reaches 6% for the period beginning July 1, 2022 through termination of the agreement, with certain specific exclusions. As of December 31, 2021, and 2020 the amount owed for royalty payments was $3,533,378 and $858,614, respectively. Royalty expense is included in cost of products sold. For the year ended December 31, 2021 and 2020 the expense was $7,833,833 and $858,614, respectively.

8. Income Taxes – The Company accounts for income taxes under FASB ASC 740-10. Deferred tax assets and liabilities are based on the difference between the financial statement and tax basis of assets and liabilities as measured by the enacted tax rates which are anticipated to be in effect when these differences reverse. The deferred tax provision is the result of the net change in the deferred tax assets and liabilities. A valuation allowance is established when it is necessary to reduce deferred tax assets to amounts expected to be realized. See Note G.

The Company follows FASB ASC 740-10, which clarifies the accounting for uncertainty in income taxes recognized in an entity's financial statements and prescribes a recognition threshold and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Additionally, it provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company will include interest on income tax liabilities in interest expense and penalties in operations if such amounts arise. The Company determined it has no uncertain tax positions and therefore no amounts are recorded.

Commencing on July 24, 2015, the Company is a certified Start-Up New York business. As such the Company is exempt from New York franchise tax for 10 years due to their Start-Up New York locations.

9. Research and Development Expenditures – Research and development expenditures of $206,092 and $521,875 for the years ended December 31, 2021 and 2020, respectively, were expensed as incurred.

10. Accounts Receivable – Accounts receivable are recorded at the invoiced amount less certain price concessions and do not bear interest. The Company's accounts receivable is bifurcated between direct customers and third-party payers.

Direct customers represent the portion of the Company's revenue and accounts receivable related to employers, schools and other entities where payment is received directly from the entity ordering the product or service. Accounts receivable for customers are recorded at the invoiced amount. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable. The Company reviews its allowance for doubtful accounts on an ongoing basis. Past due balances for client payers are reviewed individually for collectability. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. There has been no allowance established for potential losses on direct customer accounts receivable.

Third-party payers represent the portion of the Company's revenue and accounts receivable related to Medicare, Medicaid, and commercial insurance companies. Third-party payer revenue and accounts receivable is recorded net of explicit and implicit price concessions which are based on healthcare industry trends and regulations, current economic conditions, and aging of accounts. The Company reviews its allowances for the explicit and implicit price concessions on an ongoing basis. The Company has contracted with a medical billing company that provides billing services for the laboratories.

The Company does not have any off-balance-sheet credit exposure related to its customers.

11. Prepaid Expenses – Prepaid expenses primarily consist of prepaid expenses related to various insurances and agreements over a period of time. In 2021 the Company entered into a research support agreement under which the contracting entity will use its best efforts to recruit and coordinate participation in a study for the Company. In exchange the Company provided prepaid research funding of $3,100,000 during the fourth quarter of 2021 and will provide up to an additional $3,097,000 through October 31, 2023, based on certain participation milestones being met.

12. Other Current Assets – Other current assets represent the capitalization of potentially useful scrap materials.

13. Concentration of Business Risk – In 2021 and 2020, all of the Company's Clarifi ASD inventory was purchased by two vendors. There is no Clarifi ASD inventory recorded at December 31, 2021. For the year ended December 31, 2021 and 2020 94% and 78%, respectively, of inventory related to the Clarifi COVID-19 and wastewater services were purchases from a single vendor.

    For the year ended December 31, 2021 80% of test kit sales, 100% of product assembly services and 100% of lab testing revenue were to one customer. For the year ended December 31, 2020 95% of test kit sales and 100% of product assembly services were to one customer.

14. Advertising and Promotion – The Company expenses all advertising costs. Advertising expenses totaled $95,946 and $535,567 for the years ended December 31, 2021 and 2020, respectively.

15. Sales Tax – Certain states impose a sales tax on the Company's sales to nonexempt customers. The Company collects the required sales tax from customers and remits the entire amount to the respective states. The Company's policy is to exclude the tax collected and remitted from revenues and expenses and record a liability for the tax at the time of invoicing.

16. Stock-Based Compensation – The Company accounts for stock options under the provisions of ASC 718 Stock Compensation. For options granted in 2021 and 2020, compensation expense is recognized over the requisite service periods of the option agreements based on their fair value computed under Black-Scholes option-pricing model. See Note F.

17. Estimates and Assumptions – Management of the Company uses estimates and assumptions in preparing consolidated financial statements in accordance with generally accepted accounting principles. Those estimates and assumptions affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities, and the reported revenues and expenses. Actual results could vary from the estimates that management uses.

18. Shipping Costs – Shipping costs that are non-reimbursable are included in cost of goods sold.

19. Grant Revenue – The Company evaluates terms and conditions of individual grants to determine whether they meet the characteristics of an exchange transaction or a nonexchange transaction. Revenue from grants that are determined to be exchange transactions are recognized according to ASC 606. Revenue from grants that are nonexchange transactions are recognized over the period of performance, to match the revenue with the related expenses in a systematic manner. In 2021 and 2020, the Company recognized revenue within other revenue on a grant from National Institute of Mental Health (NIH), which was classified as a nonexchange transaction, of $132,846 and $241,646, respectively.

    During 2021, the Company entered an equipment use agreement with The Foundation, acting on behalf of the University at Buffalo. This equipment use agreement provides that the Foundation will contribute resources to the Company valued at up to $500,000 by way of a grant with ownership of the equipment transferring to the Company at the end of the agreement period, provided the Company meets certain performance milestones. The monthly payments due under the agreement will be deferred and forgiven annually for meeting performance milestones. Under the agreement, $492,120 of equipment was recorded in furniture and equipment at December 31, 2021. $196,345 pro-rata forgiveness of the accrued liability was recorded in other income (expenses) for the year ended December 31, 2021, with the remaining liability of $295,775 recorded in accrued liabilities in the consolidated balance sheet at December 31, 2021. As neither the acquisition of the equipment nor the corresponding liability represented a source or use of cash, these activities have been excluded from the consolidated statements of cash flows.

20. Earnings Per Share – The Company presents basic earnings per share (“EPS”), computed based on the weighted average number of common shares outstanding for the period, and when applicable diluted EPS, which gives the effect to all dilutive potential shares outstanding (i.e. options, convertible debt) during the period after restatement for any stock dividends. Income or loss used in the EPS calculation is net income or loss for each year. There are outstanding dilutive stock options and convertible debt for the year ended December 31, 2021 and 2020, of 16,857,879 and 16,821,809, respectively.

The following table illustrates the computation of basic and diluted EPS for the year ended December 31, 2021, and 2020.

	For the Year Ended December 31, 2020		
	Income (Numerator)	Shares (Denominator)	Per-Share Amount
Income from continuing operations	$ 1,732,052		
Basic EPS			
Income available to common stockholders	1,732,052	88,725,387	$ 0.02
Effect of Dilutive Securities			
Common Stock Options		16,821,809	
Diluted EPS			
Income available to common stockholders and assumed conversions	$ 1,732,052	105,547,196	$ 0.02

	For the Year Ended December 31, 2021		
	Income (Numerator)	Shares (Denominator)	Per-Share Amount
Income from continuing operations	$ 12,247,807		
Basic EPS			
Income available to common stockholders	12,247,807	88,974,967	$ 0.14
Effect of Dilutive Securities			
Common Stock Options		16,821,443	
Convertible Debt		36,436	
Diluted EPS			
Income available to common stockholders and assumed conversions	$ 12,247,807	105,832,846	$ 0.12

21. Impairment of Long-Lived Assets – The carrying values of long-lived assets other than goodwill are generally evaluated for impairment only if events or changes in facts and circumstances indicate that carrying values may not be recoverable. Any impairment determined would be recorded in the current period and would be measured by comparing the fair value of the related asset to its carrying value. Fair value is generally determined by identifying estimated undiscounted cash flows to be generated by those assets.

An impairment charge related to capitalized software development costs for ClearEdge of $98,646 was recorded in other income (expenses) for the year ending December 31, 2020. No impairment was recorded for the year ended December 31, 2021.

22. Software – In accordance with authoritative accounting guidance, costs related to the development of internal use software are evaluated based upon the development stage of the software and expensed or capitalized based upon this evaluation.

    Expenses are reviewed on a quarterly basis for inclusion in the software as service capitalization and include but are not limited to software, software subscriptions, consultants, testing materials, sponsored research, legal fees, and salaries for employees based on estimations of time spent in development, design, testing, or otherwise supporting the software as service projects. The capitalized costs are amortized over the estimated lives of the products, which is generally three years. See Note E.

23. Leases – The Company has recognized right-of-use assets and lease liabilities resulting from operating and finance leases where the Company is the lessee, as described in Note C. The Company has made an accounting policy election to not recognize lease assets and lease liabilities for leases with a term of 12 months or less unless the company has the ability and intent to extend the lease beyond a 12-month term.

24. Revenue from Contracts with Customers – All of the Company's revenue from contracts with customers are in the scope of ASC 606 and are included in revenues on the Consolidated Statements of Income. Revenue is measured based on consideration specified in a contract with a customer, less any explicit or implicit price concessions. The Company recognizes revenue when it satisfies a performance obligation by transferring control of a product or service to a customer. No incremental contract costs are incurred in obtaining contracts.

    Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transactions, that are collected by the Company from a customer, are excluded from revenue. See Note B.

25. Related Party Transactions – The Company did not have any significant related party transactions for the years ended December 31, 2021 and 2020.

B. Revenue from Contracts with Customers:

Performance Obligations and Significant Judgments

The following is a description of the Company's performance obligations from contracts with customers accounted for under ASC 606:

Testing services – Testing services consist of diagnostic tests and assessments performed by the Company using its Clarifi COVID-19 Saliva Test in its CLIA and CLEP laboratories and its ClearEdge technology. The Company recognizes revenue at the time the service is provided. Third-party payers being billed for certain COVID-19 tests are billed once the testing service is complete. Other customers at times prepay for testing services. ClearEdge customers prepay for testing services by purchasing credits to be redeemed for future testing services. The revenues are deferred in contract liabilities on the Consolidated Balance Sheet and recognized as testing services revenue at the time of performance.

Clarifi ASD tests – In 2019, the Company launched Clarifi, a new clinically-validated saliva test aiding in the diagnosis of autism spectrum disorder. The Company recognizes revenue at the time the test results are delivered to the customer. Customers prepay for the test upon submitting the saliva sample. The payments are deferred in contract liabilities on the Consolidated Balance Sheet and recognized in net product sales at the time of performance. In 2021, Clarifi ASD tests were temporarily removed from the market due to the Company's concentration in COVID-19 testing products and services.

Wastewater testing – In 2020, the Company began offering testing services to analyze wastewater across New York State for the COVID-19 virus. The Company recognizes revenue in net product sales at the time the test results are delivered to the customer. Customers are invoiced for these services upon delivery of test results and recorded in accounts receivable until payment is received.

Clarifi COVID-19 test kit sales – In 2020, the Company, along with SUNY Upstate, developed a saliva test to detect the COVID-19 virus. The Company recognizes revenue at the time the test kits are shipped to the customer. Customers pay for the test kits at the time of order. The payments are deferred in contract liabilities on the Consolidated Balance Sheet and recognized in net product sales at the time of performance. For test kits sold to camps, counties, and private businesses a portion of revenue is recognized when the swabs are shipped with the remaining revenue being recognized as test results are delivered.

Third-party COVID testing revenue - In 2021, the Company began performing certain COVID-19 laboratory testing services that in accordance with the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) are billed to third party insurers. Under the CARES Act if an individual is uninsured Quadrant will bill and receive reimbursement as administered through Health Resources and Services Administration (HRSA). The third-party payers are billed at the Company's established list price and revenue is recorded net of contractual discounts. The Company's sales are recorded based upon reimbursement amounts as required under the CARES Act and historical reimbursement experience. In addition to contractual discounts, other adjustments including anticipated payer denials are considered when determining revenue. Any remaining adjustments to revenue are recorded at the time of final collection and settlement. These adjustments are not material to the Company's results of operations in the year ending December 31, 2021.

Product assembly services – At times, the Company provides assembly services for Clarifi COVID-19 test kits for a separate fee. The Company recognizes revenue in product assembly revenue at the time the test kits are shipped to the customer. Customers are invoiced for these services upon shipment of test kits and recorded in accounts receivable until payment is received.

Disaggregation of Revenues

The following table presents the Company's sources of net revenues, disaggregated by major product and service lines, and timing of revenue recognition for the year ended December 31,

Major products/service lines	2021	2020
Lab testing revenue	$ 2,625,456	$ -
ClearEdge and ASD	15,381	64,284
Licensing and maintenance services	-	17,514
Third-party COVID testing revenue	11,001,414	-
Wastewater testing	698,784	769,440
Clarifi COVID-19 test kit sales	43,436,304	9,816,665
Product assembly services	2,608,994	891,574
	$ 60,386,333	$ 11,559,477

Other than licensing and maintenance services, revenue is recognized at a point in time.

Contract Balances

The following table provides information about receivables and contract liabilities from contracts with customers as of December 31,

	2021	2020
Receivables, which are included in "Accounts receivable"	$ 13,651,979	$ 1,354,350
Contract liabilities	1,910,078	7,642,227

Full payment on test kits is due at the time of shipment, unless specified within the contract, full payment on wastewater tests is due at the time of delivery of test results, and full payment on product assembly services is due at the time of shipment of test kits. Receivables represent the Company's unconditional rights to such consideration.

Contract liabilities represent advance consideration received from customers related to Clarifi COVID-19 test kit sales. Certain lab testing is typically included with the sale of COVID-19 test kits and the revenue allocated to the lab testing performance obligation is recognized by the Company when the testing is completed. Additionally, at times customers prepay for return shipping of the Clarifi COVID-19 tests and the Company recognizes the related revenue when shipping occurs.

Significant changes in the contract liabilities balances during the period are as follows:

	2021	2020
Revenue recognized that was included in the contract liability balance at the beginning of the period	$ (7,642,227)	$ (66,656)
Increases due to cash received, excluded amounts recognized as revenue during the period	1,910,078	7,639,227

Allocation of Transaction Price to Remaining Performance Obligations

Estimated revenues expected to be recognized in the future relating to performance obligations that are unsatisfied (or partially satisfied) as of December 31, 2021 and 2020 are $1,910,078 and $7,642,227, respectively. Unsatisfied (or partially satisfied) performance obligations mainly consist of prepayments for Clarifi COVID-19 test kits. The Company recognized all the revenue from the remaining performance obligations as of December 31, 2020 in 2021, and expects to recognize all revenue from remaining performance obligations as of December 31, 2021 in 2022.

C. Lease Commitments:

The Company has entered into a number of lease arrangements. Specifically, operating leases for office space have been entered into in Syracuse and Buffalo, NY and San Antonio, TX during the periods. A finance lease has been entered into for equipment in Syracuse, NY.

The Company has elected the practical expedient related to short term leases for office space rentals. One of the Company's office space leases include optional renewal periods. The Company considers the renewal reasonably certain of being exercised.

The provisions of the Company's leases include both fixed rental payments and lease payments that increase at pre-determined dates. The Company has elected the practical expedient not to separate lease and non-lease components for all leases.

During the years ended December 31, 2021 and 2020, rent expenses were recognized associated with operating and finance leases as fixed rent expense of $147,797 and $87,583 respectively.

Amounts recognized as right-of-use assets related to operating and finance leases are included in other assets, while related lease liabilities are shown as current liabilities and long-term liabilities. As of December 31, 2021 and 2020, right-of-use assets and lease liabilities relating to leases were as follows:

	2021	2020
Operating lease right-of-use assets	$ 560,667	$ 56,703
Finance lease right-of-use assets	315,283	-
Operating and finance lease liabilities:		
Current portion of operating lease	211,944	60,918
Current portion of finance lease	77,812	-
Operating lease liability, net of current	343,019	-
Finance lease liability, net of current	245,944	-

During the years ended December 31, 2021 and 2020, the Company had the following cash and non-cash activities associated with operating and finance leases:

	2021	2020
Cash paid for amounts included in the measurement of lease liabilities-		
Operating cash flows:		
from operating leases	$ 141,811	$ 88,987
from finance leases	15,694	-
Additions to right-of-use assets obtained from:		
New operating lease liabilities	630,742	-
New finance lease liabilities	336,302	-

The future minimum annual payments due under operating and finance leases as of December 31, 2021 are as follows:

	Operating	Financing
2022	$ 225,579	$ 94,164
2023	150,589	94,164
2024	135,591	94,164
2025	79,094	78,470
	$ 590,853	$ 360,962

Amortization of finance lease right-of-use assets was $14,013 and $0 for the years ended December 31, 2021 and 2020, respectively.

As of December 31, 2021, and 2020, the weighted-average remaining lease term for all operating leases is 3.39 and .75 years, respectively.

When the Company does not have access to the rate implicit in the lease, the incremental borrowing rate is utilized as the discount rate. The weighted average discount rate associated with operating leases as of December 31, 2021 and 2020 is 4.14% and 4.51%, respectively.

D. Inventories:

Inventories consisted of the following:

	2021	2020
Clarifi ASD		
Testing supplies	$ -	$ 124,985
Clarifi COVID-19		
Testing supplies	457,441	925,448
Inventory in transit	-	302,368
Wastewater		
Testing supplies	14,687	111,054
	$ 472,128	$ 1,463,855

E. Software as Service:

The Company capitalized software costs of $1,888,247 and $1,849,840 for the years ended December 31, 2021 and 2020, respectively.

The Company amortized $329,544 and $1,485,981 of capitalized costs for the years ended December 31, 2021 and 2020, respectively. The Company has software development costs of $5,887,489 for which amortization has not started as the software has not yet been placed in service for the year ended December 31, 2021. Amortization expense is included in cost of goods sold. Future amortization for assets placed in service will be $0 for 2022, and in subsequent years, until software is placed into service or back into service.

F. Stock Option Plan:

Under the Company's 2016 Equity Incentive Plan (the Plan), the Company, at the discretion of the board of directors, may issue stock awards for shares of the Company's common stock. The board may, in its discretion, determine restrictions and conditions on the exercisability of the stock options and stock purchase rights. No option shall be exercisable after expiration of ten years from the date it was granted. Shares issued for exercised options are newly-issued from shares authorized. 34,000,000 common stock options have been authorized for the Plan.

The price of common stock covered by any option granted under the Plan shall be determined by the board at the time such option is granted, provided, however, that in the case of incentive stock options the option price shall not be less than the fair market value of the common stock on the date granted. No options have been granted for less than 100% of the fair market value of common shares at the date of option grant. Vesting periods for these awards generally range from under one year to three years. The fair value of the awards is determined and fixed on the grant date based on the Company's most recent stock valuation report. The stock valuation report is a IRS Code Section 409A estimation of fair value report prepared by a qualified outside party. The traditional valuation techniques and methodologies used in determining the fair market value include market, income and cost valuation approaches. Changes in the assumptions made in the valuation may contribute to significant changes in the fair market value of the underlying stock during the period. This estimation of fair value is considered highly complex and subjective.

The Company's calculation for the stock awards under its stock-based compensation arrangements was made using the Black-Scholes model with the following assumptions:

	2021	2020
Dividend yield	0%	0%
Volatility	60.00%	50.00%
Discount rate	0.27%	1.64%
Expected life	5.77	5.77
Fair value of common stock per share	$ 3.00	$ 3.00
Expected rate of forfeitures	0.00%	0.00%

Management's policy is to account for forfeitures as they occur.

A summary of the status of the Company's stock option plan as of December 31, 2021 and 2020 is presented below:

Fixed Options	Shares	Weighted Average Exercise Price
January 1, 2020	26,322,690	$ 0.456
Granted	4,210,568	3.000
Forfeited	(1,431,158)	0.466
Exercised	(12,500)	0.003
December 31, 2020	29,089,600	0.824
Granted	1,665,000	3.000
Forfeited	(3,329,883)	1.520
Exercised	(37,666)	0.056
December 31, 2021	27,387,051	0.873
Exerciseable:		
December 31, 2021	22,469,673	

The weighted-average grant-date fair value of options granted during the years ended December 31, 2021 and 2020, was $1.60 and $1.43.

A summary of the status of the Company's nonvested shares as of December 31, 2021 and the changes during the year then ended is presented below.

Nonvested shares	Shares	Weighted Average Grant-Date Fair Value
Nonvested at January 1, 2021	7,181,901	$ 1.09
Granted	1,665,000	1.60
Vested	(2,755,188)	1.00
Forfeited	(1,174,334)	1.25
Nonvested at December 31, 2021	4,917,379	$ 1.26

Total compensation cost related to nonvested awards not yet recognized is $4,299,548 as of December 31, 2021. It is expected to be recognized over the weighted-average period of .91 years. Stock option compensation of $3,142,708 and $1,626,907 was recognized for the years ending December 31, 2021 and 2020, respectively.

G. Income Taxes:

The components of the (expense)/benefit for income taxes in the accompanying Consolidated Statements of Income are as follows:

	2021	2020
Current:		
Federal	$ (128,795)	$ -
State	(30,495)	18,400
	(159,290)	18,400
Deferred:		
Federal	(3,186,135)	4,363,049
State	(1,050,298)	1,437,982
	(4,236,433)	5,801,031
Tax (expense) benefit	$ (4,395,723)	$ 5,819,431

The components of the expense (benefit) for income taxes differs from the amount that would result from applying the federal statutory rate for the years ended December 31, 2021 and 2020 as follows:

	2021		2020	
	Amount	%	Amount	%
Statutory tax rate	$ 4,210,813	25.3%	$ (1,034,107)	25.3%
Valuation allowance change	-	0.0%	(5,016,348)	122.7%
Permanent differences	184,910	1.1%	231,024	-5.7%
	$ 4,395,723	26.4%	$ (5,819,431)	142.4%

The temporary differences which give rise to deferred tax assets and (liabilities) at December 31 are as follows:

	2021	2020
Accelerated depreciation	$ (112,353)	$ (2,694)
Other assets	(2,241,065)	(1,802,164)
Charitable contribution carryovers	91,556	168,464
Stock option compensation	895,468	550,146
Research and development tax credit carryforward	20,103	243,367
NOL carryforward	2,910,889	6,643,912
Net deferred tax asset	$ 1,564,598	$ 5,801,031

The decrease in the valuation allowance was approximately $0 and $5,016,000 for the years ended December 31, 2021 and 2020, respectively.

As required by FASB ASC 740 the Company has evaluated the positive and negative evidence bearing upon the realization of its net deferred tax assets. The Company has determined that, at this time, it is more likely than not that the Company will realize all of the benefits of federal and state net deferred tax assets, and, as a result, the established valuation allowance was removed in 2020. The research and development tax credit carryforwards and NOL carryforwards generated through December 31, 2021, of approximately $20,000 and $10,650,000, respectively, expire at various time through 2038. Pursuant to the Tax Cuts and Jobs Act, any of the Company's newly generated Federal NOL carryforwards can be carried forward indefinitely, while being limited to 80% of taxable income (determined without regard to the deduction). The Company had a change of control during 2015, which limits the amount of Federal NOL that can be used per year going forward from the NOLs created prior to the change in control. The Company is currently open to audit under the statute of limitations by the Internal Revenue Service for the years ended December 31, 2018 through December 31, 2021. The Company has no uncertain tax positions. As of December 31, 2021, and 2020 there is no accrual for interest or penalties related to uncertain tax positions.

H. Pension Plan:

The Company partners with a professional employer organization to offer a defined contribution retirement plan. All employees are eligible to participate and receive a 3% non-elective company contribution beginning after 90 days of employment on the first day of the subsequent quarter. Company contributions totaled $120,377 and $110,258 for the years ended December 31, 2021 and 2020, respectively.

I. Line of Credit:

The Company has a line of credit with a borrowing capacity of $1,000,000 at an interest rate of greater of 5.375% or Bank Prime plus 1.125%. The interest rate at December 31, 2021 and 2020 was 5.375%. The line of credit had a balance of $0 and $403,996 at December 31, 2021 and 2020.

This line of credit was secured by all the business assets of the Company and certain of the personal assets of Richard Uhlig, the Company's Chairman and CEO. As compensation, Richard Uhlig received 6,480,683 stock options in 2018 with a value of $1,555,364 based on the Black-Scholes model calculation.

J. Paycheck Protection Plan Loan:

During April 2020, the Company applied for and received a Paycheck Protection Program Loan of $755,600 as created by the C.A.R.E.S Act and a EIDL advance grant of $10,000. The loan is eligible for forgiveness which the company applied for and received in January 2021.

The AICPA has issued TQA 3200.18 outlining treatment options of the PPP loan by non-governmental entities, and the Staff of the Office of the Chief Accountant of the SEC have indicated they would not object to an SEC registrant accounting for a PPP loan under either option. These options include treating the amount as a loan in accordance with FASB ASC 470 and accruing interest in accordance with FASB ASC 835-30, or as a government grant by analogy to International Accounting Standard (IAS) 20, Accounting for Government Grants and Disclosure of Government Assistance.

The Company has elected to treat the PPP loan as a government grant under IAS 20 utilizing the option provided by AICPA TQA 3200.18. Under this treatment, income is recognized as the funds are spent. All funds from the PPP loan were spent as of June 30, 2020.

K. Long-Term Debt:

Long-term debt including accrued interest consists of the following as of December 31:

	2021	2020
Loan from VEP Biotech Ltd, with a maturity date of October 2023, an interest rate of 5%, and no required payment of principal or interest until maturity.	$ 5,837,124	$ 5,555,858
Convertible debt, with a maturity of August 2025, an interest rate of 6% and no required payment of principal or interest until maturity or conversion.	437,237	-
SBA Economic Injury Disaster loan, with a maturity date of May 2050, an interest rate of 3.75%, and payments of $731 beginning in May 2022	159,046	153,421
	6,433,407	5,709,279
Less: current portion	5,848	1,708
	$ 6,427,559	$ 5,707,571

Future minimum annual debt payments subsequent to 2022 are as follows:

2023	$ 5,845,896
2024	8,772
2025	446,009
2026	8,772
2027 and after	118,110
	$ 6,427,559

Accrued interest included in the outstanding loan balance due to VEP Biotech, Ltd. was $837,124 and $555,858 for the years ending December 31, 2021 and 2020, respectively.

Accrued interest included in the outstanding loan balance due to the SBA was $9,046 and $3,421 for the years ending December 31, 2021 and 2020, respectively.

Accrued interest included in the outstanding loan balance due convertible debt holders was $20,609 for the year ended December 31, 2021.

Convertible debt is convertible to common stock upon qualified financing, maturity or change in control the conversion is based upon the most recent price per share multiplied by 0.8.

L. Concentration of Credit Risk:

The Company may, at times, have cash on deposit in financial institutions in excess of FDIC or NCUA insured amounts.

M. Reclassification:

Certain accounts in the prior-year financial statements have been reclassified for comparative purposes in order to conform with the presentation in the current year consolidated financial statements.

N. Industry Segment Data:

The Company's primary business segments involve the operation of Quadrant Biosciences Inc, Quadrant Laboratories LLC, and Quadrant Viral Testing LLC. Quadrant Biosciences Inc researches, designs, and develops technological tools to identify epigenetic and functional disorders resulting from neurodegeneration and brain trauma, and pooled saliva detection services for the coronavirus disease. Quadrant Laboratories LLC operates and administers clinical laboratories which process COVID-19 testing kits. Quadrant Viral Testing LLC sells COVID-19 testing kits to certified laboratories and sells and operates wastewater detection services for coronavirus disease.

O. Legal Matters:

None.

P. Coronavirus (COVID-19):

During 2020 due to the onset of the COVID-19 pandemic, the Company took actions to limit and mitigate any potential negative financial impact. Additionally, during 2020 the Company applied for and received relief from Federal stimulus programs, including the Paycheck Protection Program and the Economic Injury Disaster Loan Program.

Throughout 2021 and into 2022 there continues to be uncertainty related to COVID-19 for the Company, particularly as it relates to the Company's Clarifi COVID-19 business line. Globally, the continued uncertainty is caused by new COVID-19 variants, public health policy and regulations, and supply chain constraints.

Q. Subsequent Events:

The Company has evaluated subsequent events through April 1, 2022, the date which the financial statements were available for issue.

Item 8. Exhibits

The documents listed in the Exhibit Index of this report are incorporated by reference or are filed with this report, in each case as indicated below.

2.1 Second Amended and Restated Certificate of Incorporation, as amended (1)

2.2 Bylaws (1)

4 Form of subscription agreement (1)

6.1 2016 Equity Incentive Plan (1)

6.2 Amended and Restated Stockholders' Agreement (1)

6.3 Laboratory Services Agreement between Admera Health LLC and the company dated July 13, 2018 (1)

6.4 Exclusive License Agreement between the Research Foundation for the State University of New York, the Penn State Research Foundation, and the company (Autism Spectrum Disorder) dated April 5, 2018 (1)

6.5 Exclusive License Agreement between the Research Foundation for the State University of New York, the Penn State Research Foundation, and the company (Traumatic Brain Injury) dated April 5, 2018 (1)

6.6 Exclusive License Agreement between the Research Foundation for the State University of New York, the Penn State Research Foundation, and the company (Parkinson's Disease) dated April 5, 2018 (1)

6.7 Exclusive License Agreement between the Research Foundation for The State University of New York and Quadrant Biosciences Inc. (COVID-19 Saliva Diagnostic) dated August 7, 2020 (2)

6.8 First Amendment to the Exclusive License Agreement between the Research Foundation for The State University of New York and Quadrant Biosciences Inc. (COVID-19 Saliva Diagnostic)

6.9 Research Support Agreement between Autism Speaks Inc. and the company dated November 12, 2021

(1) Filed as an exhibit to the Quadrant Biosciences Inc. Regulation A Offering Statement on Form 1-A (Commission File No. 024-11155)

(2) Filed as an exhibit to the Quadrant Biosciences Inc. Annual Report on Form 1-K filed on April 29, 2021

SIGNATURE

Pursuant to the requirements of Regulation A, the issuer has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Syracuse, New York, on April 29, 2022.

QUADRANT BIOSCIENCES INC.

By /s/ Richard Uhlig
Name: Richard Uhlig
Title: Chief Executive Officer

Pursuant to the requirements of Regulation A, this report has been signed below by the following persons on behalf of the issuer and in the capacities and on the dates indicated.

/s/ Richard Uhlig — Date: April 29, 2022
Richard Uhlig
Chief Executive Officer, Chairman

/s/ Richard Bongo — Date: April 29, 2022
Richard Bongo
Chief Financial Officer, Principal Accounting Officer, Director

/s/ James Croke — Date: April 29, 2022
James Croke
General Counsel, Director

/s/ Peter Cohen — Date: April 29, 2022
Peter Cohen
Director

/s/ Ira Fedder — Date: April 29, 2022
Ira Fedder MD
Director

/s/ Andrew Rock — Date: April 29, 2022
Andrew Rock
Director

/s/ Mary Ann Tyszko — Date: April 29, 2022
Mary Ann Tyszko
Director

Exhibit 6.8

FIRST AMENDMENT TO LICENSE AGREEMENT
BETWEEN
THE RESEARCH FOUNDATION FOR THE STATE UNIVERSITY OF NEW
AND
QUADRANT BIOSCIENCES, INC.

This First Amendment to License Agreement (hereinafter, "**First Amendment**") is effective as of the date of last signature below (hereinafter, "**First Amendment Effective Date**") and is made by The Research Foundation for The State University of New York (hereinafter, "**Foundation**" or "**Licensor**"), a New York non-profit educational corporation having a primary address at 35 State St. Albany, NY 12207, acting on behalf of Upstate Medical University and Quadrant Biosciences, Inc., a Delaware corporation, having a primary address at 505 Irving Ave., Suite 3100AB, Syracuse, NY 13210 (hereinafter, "**Licensee**"). Foundation and Licensee may each individually be called "Party" and collectively called "Parties." Capitalized terms not defined in this Fourth Amendment shall have the meaning set forth in the Agreement (hereinafter defined).

WHEREAS, Foundation and Licensee entered into an Exclusive License Agreement on August 7, 2020 (the "Agreement") wherein Foundation granted to Licensee a licensee to certain Technology subject to the terms and conditions therein;

WHEREAS, as of the First Amendment Effective Date, the Licensee desires to amend Agreement to clarify and add certain definitions, and to include certain provisions enabling Licensee to sublicense Technology; and

WHEREAS, as of the First Amendment Effective Date, Foundation accepts Licensee request to amend; and

WHEREAS, in consideration of the foregoing, the Parties desire to amend the Agreement in certain respects as set forth in this First Amendment;

NOW THEREFORE, in consideration of the premises and promises set forth herein and for other good and valuable consideration, the Parties agree as follows:

1. Section 1 of the Agreement shall be, and hereby is, amended to include the following definitions:

    a. **"Licensed Service(s)"** means: (i) any method, process, procedure or service that utilizes Technology or (ii) any method, process, procedure, or service that results in the manufacture of a Patented Product**.**

    b. **"NTD 110-2196"** means Foundation New Technology Disclosure 110- 2196 entitled "Method of Quantitative Saliva Antibody Measurement to SARS-CoV-2 Spike Protein"

c. **"Net Sales"** means the gross revenues received by Licensee, Sublicensees, and Affiliates of any of the foregoing from Third Party customers for the manufacture, use, sale, lease, or other transfer of any Licensed Products, including without limitation, the provision of any Licensed Service, less (i) sales and/or use taxes and import or export duties actually paid, (ii) outbound and inbound transportation actually paid, and (iii) amounts allowed or credited, and actually refunded, due to returns (as reflected on the invoice, and not to exceed the original billing amount).

In this context, gross revenues will also include the fair market value of any non-cash consideration received from Third Party customers for the import, export manufacture, use, sale, lease, or other transfer of Licensed Product. The intent of this definition of Net Sales is to allow Foundation to derive a Royalty on the end sale of a Licensed Product to the first Third Party.

In the case of transfers of Licensed Product between any of Licensee and its Affiliates for subsequent sale, rental, lease or other transfer of such Licensed Product to Third Parties, gross revenue shall be the greater of (i) the actual amount charged for the transfer of the Licensed Product between any of Licensee and its Affiliates, and (ii) the gross invoice or contract price charged to the Third Party customer for that License Product in an arms-length transaction.

In the case of transfers of Licensed Product between any of Licensee its Affiliates for use by Licensee and its Affiliates such that the Licensed Product is consumed or used, and is not incorporated into a product or service subsequently sold to a Third Party customer, gross revenue shall mean the greater of: (1) the actual amount charged for the transfer of the Licensed Product between any of Licensee and its Affiliates , and (2) what the fair market value of the Licensed Product would be in an arm's length transaction.

d. **"Selling and General Administrative Expenses"** means those expenses not included in Cost of Goods Sold and including only the following: employee salaries and stock option compensation, legal fees, marketing expenses, accounting fees, charitable contributions, insurance premiums, office supplies, computer expenses, travel and meal expenses, and rent) that are attributable to the Licensed Product, either directly or via prorating expenses that are not directly attributable, as provided in the line items of the spreadsheet attached as Exhibit 1.

e. "**Sublicense Agreement**" (or "**Sublicense**") means an agreement under which Licensee grants to an authorized Sublicensee any or all of the rights granted to Licensee under this Agreement.

f. "**Sublicensee**" means any non-Affiliate third party to whom Licensee grants a sublicense of any or all of the rights granted to Licensee under this Agreement.

g. "**Sublicensing Revenue**" means any payments that Licensee or an Affiliate receives from a Sublicensee in consideration of the rights granted in a Sublicense Agreement, including without limitation, earned royalties and all types of license fees, but specifically excluding Royalty.

2. Section 1.15 of the Agreement shall be, and hereby is, revised and restated as follows:

a. **"Know-How"** means all know-how, technical information and data developed by Foundation under the direction of Dr. Frank Middleton related to Inventions or disclosed in NTD 110-2124 or NTD 110-2196, and provided to or received by Licensee from Foundation before the Effective Date, whether or not confidential in nature, and which are necessary or useful to commercialize a Licensed Product or Licensed Service. For the avoidance of doubt this includes any information included in any regulatory filings with the Food and Drug Administration, any state or local department of health or regulatory body, and any foreign regulatory body.

3. Section 1.20 of the Agreement shall be, and hereby is, revised and restated as follows:

a. **"Net Income"** means gross revenues received by Licensee, Sublicensees, and Affiliates from Third Party customers for the import, export, manufacture, use, sale, lease, or other transfer of any Licensed Product, less
(i) Cost of Goods Sold, (ii) shipping costs directly attributable to Licensed Product and not included in Cost of Goods Sold, and (iii) Selling and General Administrative Expenses.

In this context, gross revenues will also include the fair market value of any non-cash consideration received from Third Party customers for the import, export manufacture, use, sale, lease, or other transfer of Licensed Product. The intent of this definition of Net Income is to allow Foundation to derive a Royalty on the end sale of a Licensed Product to the first Third Party.

In the case of transfers of Licensed Product between any of Licensee and its Affiliates for subsequent sale, rental, lease or other transfer of such Licensed Product to Third Parties, gross revenue shall be the greater of (i) the actual amount charged for the transfer of the Licensed Product between any of Licensee and its Affiliates, and (ii) the gross invoice or contract price charged to the Third Party customer for that License Product in an arms-length transaction.

In the case of transfers of Licensed Product between any of Licensee its Affiliates for use by Licensee and its Affiliates such that the Licensed Product is consumed or used, and is not incorporated into a product or service subsequently sold to a Third Party customer, gross revenue shall mean the greater of: (1) the actual amount charged for the transfer of the Licensed Product between any of Licensee and its Affiliates , and (2) what the fair market value of the Licensed Product would be in an arm's length transaction.

4. Section 1.27 of the Agreement shall be, and hereby is, revised and restated as follows:
   a. "**Royalty**" means the share of all Net Income or Net Sales (whichever applicable) of Licensee and its Affiliates that is due Foundation on all Net Income or Net Sales (whichever applicable) pursuant to this Agreement (see Section 3.1 and Section 3.5), which is calculated by multiplying Net Income or Net Sales (whichever applicable) by the Royalty Rate specified. The Royalty due Foundation is [Royalty Rate * Net Income or Net Sales].

5. Section 1.28 of the Agreement shall be, and hereby is, revised and restated as follows:
   a. **"Royalty Rate"** means any royalty rate specified in Section 3 of this Agreement for use in calculating Royalties due to Foundation.

6. Section 1.29 of the Agreement shall be, and hereby is, revised and restated as follows:
   a. **"Technology"** means any Inventions, Know-How, the information and data provided in NTD 110-2124 and NTD 110-2196, and anything claimed or described in Licensed Patent(s) or patent applications abandoned after the Effective Date of Agreement.

7. Section 1.32 of the Agreement shall be, and hereby is, revised and restated as follows:
   a. "**Third Party**" means any entity or person other than Licensee or its Affiliates and includes the SUNY, any SUNY campus, Upstate, and Foundation.

8. Section 2.1 of the Agreement shall be, and hereby is, revised and restated as follows:
   a. **Licenses.** Subject to the terms of this Agreement, including without limitation the rights retained by Licensor under Section 2.2, and the timely payment of all Payments Due, Licensee shall, in the Field, in the Territory and during the Term, have an EXCLUSIVE license to use Technology to make, manufacture, use, sell, have sold, lease, have leased, and offer for sale Licensed Products and Licensed Services. The aforementioned exclusive license shall also grant Licensee the right to enter into Sublicenses so long as any such sublicense is negotiated in accordance with the provisions of Section 5 below.

      This license shall include the right to have Licensed Product made, manufactured or imported by Third Parties solely and exclusively for sale or use by Licensee, Designees, and Affiliates of any of the foregoing. This license may be subject to the overriding obligations to the U.S. Government set forth in 35 U.S.C. §§ 200-212 and any future amendments thereto, and applicable governmental implementing regulations, including but not limited to those described in Section 12.2 herein.

9. Section 3.1 of the Agreement shall be, and hereby is, revised and restated as follows:

Royalties.

(a) Royalties on Net Income. Notwithstanding anything to the contrary in this Agreement, for all Net Income generated prior to July 1, 2021 Licensee shall pay to Foundation a Royalty of fifty percent (50%) of all Net Income.

(b) Royalties on Net Sales. Notwithstanding anything to the contrary in this Agreement, for all Net Sales on or after July 1, 2021 Licensee shall pay to Foundation a Royalty Rate for the corresponding designated periods of time: a) for the period July 1, 2021 through December 31, 2021, the Royalty Rate will be 10% of Net Sales, b) for the period January 1, 2022 through June 30, 2022, the Royalty Rate will be 8% of Net Sales, and c) for the period July 1, 2022 through the remainder of the Term of this Agreement, the Royalty rate will be 6% of Net Sales.

(c) Royalties on SUNY Sales. Notwithstanding anything to the contrary in this Agreement, for all Net SUNY Sales (defined as Net Sales to any of the sixty-four (64) colleges or universities which are part of the State University of New York system) on or after July 1, 2021, Licensee shall pay to Foundation a Royalty Rate of fifty cents ($0.50) per test up to one million (1,000,000) tests.

(d) Duration of Royalties. Royalties on Licensed Products or Licensed Services will be payable on a country-by-country basis and product-by- product or service-by-service basis for as long as Licensee is generating Net Income or Net Sales from Licensed Products or Licensed Services.

(e) For the avoidance of doubt, any and all references to or obligations of Licensee related to Net Income shall also extend to Net Sales even if not explicitly state.

10. Section 3 of the Agreement shall be, and hereby is, amended to include the following subsection:
    a. Sublicensing Consideration. Licensee will pay Foundation fifty percent (50%) of all Sublicensing Revenues.

11. The Agreement shall be, and hereby is, amended to include the following section:

SUBLICENSING

a. The license granted by this Agreement includes the right of Licensee to grant Sublicenses. With respect to Sublicenses granted pursuant to this Agreement, Licensee will:
    i. seek and secure Foundation's prior written consent prior to finalizing any Sublicense Agreement, which consent will not be unreasonably withheld;
    ii. include in any Sublicense Agreement all of the rights of, and obligations due to, Foundation and contained in this Agreement;
    iii. promptly provide to Foundation a copy of each executed Sublicense Agreement;
    iv. not receive, or agree to receive, anything of value in lieu of cash as consideration from a third party under a Sublicense without the express written consent of Foundation;
    v. make all Payments Due and deliver all reports due to Foundation whether owed by Licensee, Affiliates, or Sublicensees, and use commercially reasonable efforts to collect all payments due, directly or indirectly, to Foundation from Sublicensees.

b. Upon termination of this Agreement for any reason, Foundation, at its sole discretion, will determine whether Licensee will cancel or assign to Foundation any and all Sublicense Agreements. Licensee will include a provision in each Sublicense Agreement which allows Foundation to assume the Sublicense Agreement if: (i) this Agreement is terminated; and
    (i) Foundation chooses to assume the Sublicense Agreement.

c. Licensee shall be directly responsible and liable for the full compliance of each of their Affiliate(s) and Sublicensee(s) with the terms and conditions of this Agreement.

12. Section 4.3 of the Agreement shall be, and hereby is, amended and restated as follows:
    a. **First Sale of Licensed Product.** Licensee shall, either itself or through Affiliates or Sublicensees, use Commercially Reasonable Efforts to achieve a first sale in the United States of Licensed Product as soon as possible after the Effective Date, but in no event later than September 30, 2020.

13. Section 6.1 of the Agreement shall be, and hereby is, revised and restated as follows:

a. **Full and Accurate Records**. Licensee will keep, and will cause its Affiliates and Sublicensees to keep, full and accurate books and records in sufficient detail so that Licensee's compliance with its obligations under this Agreement can be properly determined without undue delay or difficulty. Such books and records will be maintained for at least five (5) years after the Reporting Period(s) to which they relate. Books and records will include but not be limited to: accounting general ledgers; invoice/sales registers; original invoice and shipping documents; federal and state business tax returns; itemized deductions of Cost of Goods Sold; itemized deductions of Licensed Product Development Costs; itemized deductions of Selling and General Administrative Expenses; and all other deduction from Net Income and Net Sales; company financial statements; sales analysis reports; inventory and manufacturing records; distributor agreements; price lists, product catalogs, and other marketing materials; agreements with third parties (including Designees, Affiliates of Licensee, Sublicensees, and customers); and laboratory notebooks.

14. Section 6.3 of the Agreement shall be, and hereby is, revised and restated as follows:

a. **Reporting Period Reports and Payment of Payments Due**. Licensee will make the first report of sales of Licensed Products and Licensed Services and Royalties payable on such sales for the period ending December 31, 2020 on or before April 15, 2021, 2021, and for the period ending March 31, 2021 on or before August 15, 2021. Thereafter, on or before the 15th business day after each June 30, September 30, December 31, and March 31 of each calendar year, Licensee will provide to Foundation written reports of sales of Licensed Products or Licensed Services. All reports will contain the following information for the immediately preceding Reporting Period: (i) the number and type of Licensed Products made by or for Licensee and its Affiliates; (ii) the number and type of Licensed Products and Licensed Services sold by Licensee, Sublicensee, or an Affiliate of the foregoing; (iii) the Net Income or Net Sales (and the calculation of Net Income or Net Sales) received by Licensee, Sublicensee, or an Affiliate of the foregoing; (iv) for each Reporting Period beginning on July 1, 2021, the number of tests which are attributable to Net SUNY Sales; (v) the Royalties due under Section 3.1 (and the itemized calculation thereof, including without limitation any deductions for Cost of Goods Sold and/or Selling and General Administrative Expenses); (vi) the total amount of Payments Due; (vii) projection of the Royalties due under Section 3.1 for the next Reporting Period (and calculation thereof); and (viii) other information necessary to document the Royalties due Licensed Services. Licensee will submit these reports to Foundation even if there are no Payments Due for a particular Reporting Period. The foregoing will be provided on a country-by-country basis. The items in this Section 6.3(i)-(viii) will be reported separately for Licensee, Sublicensee, and for each Affiliate of Licensee and Sublicensee. Each report will provide year-to-date totals. Licensee shall remit Payments Due for the applicable Reporting Period to Foundation together with its submission of the subject report.

15. This First Amendment may be executed in counterparts, each of which shall be deemed an original, and all of which when taken together shall constitute but one and the same First Amendment. Any one (1) signed copy of this First Amendment made by reliable means (e.g., photocopy, facsimile, or PDF Adobe format) is considered an original.

16. Unless otherwise expressly amended by this First Amendment, the terms and provisions of the Agreement shall remain the same and are in full force and effect as of the First Amendment Effective Date.

IN WITNESS WHEREOF, the Parties have caused this First Amendment to be executed by their duly authorized representatives.

The Research Foundation for The State University of New York

BY: /s/ David Amberg
David Amberg
Title: RF Operations Manager
Date: 11/15/2021

-and-

Quadrant Biosciences, Inc.

BY: /s/ Richard Uhlig
Richard Uhlig
Title: CEO
Date: 11/15/2021

Exhibit 6.9

RESEARCH SUPPORT AGREEMENT

This Research Support Agreement (hereinafter the "Agreement") is entered into as of the twelfth day of November 2021 by and between Autism Speaks Inc. (hereinafter, "Autism Speaks"), a Delaware nonprofit corporation with its principal place of business at 1060 State Road, Princeton, NJ 08540 and Quadrant Biosciences Inc. (hereinafter "Quadrant"), a Delaware C corporation, whose principal place of business is 505 Irving Avenue, Suite 3100AB, Syracuse, NY 13610. Autism Speaks and Quadrant are referred to herein individually as a "Party" and collectively as the "Parties".

WHEREAS, the mission of Autism Speaks (the "Autism Speaks Mission") is to promote solutions, across the autism disorder spectrum and throughout the life span, for the needs of individuals with autism and their families, and Autism Speaks requires support in order to carry out its mission; and

WHEREAS, Autism Speaks has developed the Autism Care Network, an Autism Learning Health Network ("ACNet") focused in part on building a strong infrastructure of engaged families, scientists, and clinicians to support intervention trials that will provide evidence to inform care and improve outcomes for persons with Autism Spectrum Disorder ("ASD"); and

WHEREAS, Autism Speaks has a contractual arrangement with the 20 (twenty) sites listed on Exhibit A attached hereto and made a part hereof which are members of the ACNet (the "Sites"); and

WHEREAS, Quadrant has received FDA Breakthrough Device Designation for a saliva test to aid in diagnosis of autism (the "Test") and wishes to arrange for the administration of the Test on 6,604 (six thousand, six hundred and four) children for collection of clinical datasets to be used for the purpose of developing an epigenetic diagnostic aid for the evaluation of children who screen positive for ASD and for the purpose of further developing and improving the Test and obtaining FDA authorization to market the Test; (the "Study"); and

WHEREAS, Quadrant wishes for Autism Speaks to undertake a project (the "Project") whereby Autism Speaks will use its best efforts to recruit Sites to participate in the Study and will coordinating the Sites' participation in the Study; and

WHEREAS, Autism Speaks is willing to undertake the Project on the terms and conditions set forth herein.

NOW THEREFORE, in consideration of the mutual promises contained herein, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows

1. Term: This Agreement shall be effective as of November 1, 2021 (hereinafter, the "Effective Date") and shall continue through October 31, 2023.

2. The Project: During the Term, Autism Speaks agrees to make its best efforts to arrange for the Sites to participate in the Study and shall coordinate the efforts of those of the Sites willing participate in accordance with the Statement of Work described on Exhibit B attached hereto and made a part hereof. Autism Speaks has already or will enter into a separate agreement with each of the Sites that are willing to participate in the Study which separate agreement will set forth the specific activities to be undertaken by each Site and the amount, if any, which Autism Speaks will compensate the Site for doing so. .

3. Quadrant Support of Autism Speaks:

a. In consideration of Autism Speaks undertaking of the Project, Quadrant will provide Autism Speaks with research funding (the "Research Support Funds") in an amount up to US$6,197,000 (six million, one hundred ninety-seven thousand US dollars) payable as set forth on Exhibit C attached hereto and made a part hereof.

b. The Research Support Funds, and any income earned thereon, shall be used by Autism Speaks exclusively for the Project, including but not limited to compensating the Sites for the research and further developing the ACNet. Autism Speaks will promptly return, without the necessity of a request from Quadrant, any portion of the Research Support Funds not used for such purposes.

c. Before receiving any portion of the Research Support Funds, Autism Speaks must (a) return a fully-executed copy of this Agreement to the Quadrant; (b) provide evidence (Internal Revenue Service determination letter), if not already provided, that Autism Speaks is an organization described in section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"); and (c) provide any other specific documentation reasonably requested in writing by Quadrant and related to the Project during the Term of this Agreement or for a period of twenty-four (24) months thereafter.

4. Exclusive use of Research Support Funds for Charitable Purposes:

a. All Research Support Funds must be used exclusively for charitable purposes in accordance with all applicable federal and state laws, rulings and regulations. If any law, ruling or regulation now or hereafter in effect shall render any provision of this Agreement void, unenforceable or unlawful, either party may terminate this Agreement immediately by providing written notice to the other party. Immediately upon such termination, all disbursements or expenditures of the Research Support Funds shall cease and Autism Speaks shall return any unexpended portion of the Research Support Funds to Quadrant.

b. Autism Speaks shall not use and Autism Speaks shall cause the ACNet to not use and shall refrain from compensating any Site that uses any Research Support Funds and any interest thereon to:

i. carry on propaganda, or otherwise to attempt to influence legislation (within the meaning of section 4945(d)(1) of the Code);

ii. participate or intervene in any political campaign on behalf of (or in opposition to) any candidate for public office (within the meaning of section 4945(d)(2) of the Code);

iii. undertake any activity for any purpose other than a charitable, educational, scientific or literary purpose (as such terms are defined in section 170(c)(2)(B) of the Code);

iv. make any grant, loan, compensation, or similar payment constituting an "excess benefit transaction" described in section 4958 of the Code;

v. make any grants to individuals or organizations (unless approved in writing by the Quadrant);

vi. make payments to cover debts, liabilities, or expenses unrelated to the proposed Project;

vii. conduct transactions that involve conflicts of interest, self-dealing, and/or private inurement; or

viii. finance past or potential future litigation.

5. Disbursement of Research Support Funds:

a. Autism Speaks shall maintain separate records of receipts and expenditures of Research Support Funds and make books, records and personnel available to Quadrant and its agents at reasonable times. During the Term and for twenty-four (24) months thereafter, Quadrant may, at its own expense, monitor or evaluate the use of Research Support Funds through various methods, including but not limited to Site visits, conferences with Autism Staff, third party evaluations, examination of books and records, etc. Autism Speaks agrees to cooperate with Quadrant with regard to any such monitoring or evaluation.

b. This Agreement shall terminate immediately, and Quadrant shall have no obligation to disburse any additional amounts payable under this agreement, all further disbursements or expenditures of the Research Support funds by Autism Speaks shall cease, and Autism Speaks shall immediately return any unexpended portion of the Research Support Funds to Quadrant, if Autism Speaks ceases to be recognized by the Internal Revenue Service as an organization exempt from taxation under section 501(c)(3) of the Code. Any organizational or operational changes by Autism Speaks that reasonably could be expected to affect the exempt status of Autism Speaks under section 501(c)(3) of the Code must be reported to Quadrant in writing immediately, and Quadrant, in its sole discretion, shall have the right to terminate this Agreement immediately upon such notice and shall thereafter have no further obligations to Autism Speaks hereunder.

c. Notwithstanding anything stated herein, this Agreement shall terminate and all further disbursements or expenditures of the Research Support Funds by Autism Speaks shall cease if any of the facts contained in this Agreement cease to be correct and accurate or if Autism Speaks fails to perform any of the requirements of this Agreement. In such event, Autism Speaks shall immediately return any unexpended portion of the Research Support Funds to Quadrant, and Quadrant shall have no obligation to disburse any additional Research Support Funds payable hereunder, regardless of any claimed adverse effect on the Project or the Autism Speaks Mission.

d. Autism Speaks will notify the Quadrant immediately in the event that any of the following occur:

i. Autism Speaks is unable to use any portion of the Research Support Funds for the Project;

ii. Autism Speaks is unable to comply with any of the terms of this Agreement; or

iii. Any Research Support Funds are used in a manner inconsistent with the terms of this Agreement.

e. Quadrant reserves the right, in its sole discretion, to:

i. withhold any payments provided for under this Agreement, to recover from Autism Speaks any unexpended Research Support Funds, and, if the terms of this Agreement are violated by Autism Speaks, to require restitution by Autism Speaks of any previously expended Research Support Funds; and

ii. require Autism Speaks to take reasonable precautions to prevent any diversion of Research Support funds.

f. In the event Quadrant terminates this Agreement, any obligation Quadrant otherwise has under this Agreement shall cease immediately, except that Quadrant shall be obligated to pay to Autism Speaks all fees and expenses it has incurred through the date of termination, including but not limited to amounts that Autism Speaks has become irrevocably committed to pay up to and including the date of termination. In the event Autism Speaks is in possession of any unexpended Research Support Funds or funds for services not performed or expenses not incurred by Autism Speaks prior to the date of termination, Autism Speaks shall immediately return such funds to Quadrant.

6. Intellectual Property:

Quadrant shall own all of the intellectual property related to the Test. Autism Speaks, through ACNet, and Quadrant shall jointly own all the biometric data generated by the Sites in their participation in the Study (the "Study Data") which Study Data shall include all ACNet information entered onto patient case report forms, but shall not include underlying patient medical records. Quadrant shall have the sole right to use such Study Data for all commercial purposes, and ACNet shall have the right to use such Study Data for non-commercial purposes, including but not limited to patient care and treatment, academic uses, and publication. Quadrant shall have sole ownership of the original copies of all patient case report forms; however, ACNet shall have the right to retain one copy of each form for documentation purposes. Quadrant makes no claim regarding the ownership of all original medical records of persons to whom the Test was administered under this Agreement. ACNet

7. Public Announcements: Public Announcements of the Study may be made by Autism Speaks and Quadrant upon mutual consent and approval of the announcement/communication. Any materials referencing the Research Support Funds should acknowledge the support of Quadrant. Quadrant may distribute approved materials describing the Study and the Project with Autism Speaks Quadrant will not reference individual Sites in such materials without the prior written consent of Autism Speaks and without also having received the separate prior written consent of any individual Site(s) referenced in such announcement, a copy of which Site(s) consent will be provided to Autism Speaks.

8. Reports: Autism Speaks shall submit a full and complete written report to Quadrant, in the format outlined by Quadrant on the report due dates specifically set forth on Exhibit C attached hereto and made a part hereof. Autism Speaks agrees that Quadrant shall have no obligation to make a disbursement of any Research Support Funds so long as a written report due pursuant to this Agreement has not been received by Quadrant in a form acceptable to Quadrant in its sole discretion. Autism Speaks' reporting obligation to Quadrant shall survive for twenty-four (24) months after the termination or expiration of this Agreement, regardless of the reason therefor.

9. Compliance with Applicable Law: Autism Speaks agrees to comply with all applicable requirements of the USA Patriot Act and Executive Order 13224, and all subsequently enacted legislation, executive orders, or regulations, designed to prevent any Research Support funds from being used in support of terrorism or a terrorist organization. Autism Speaks may not expend any Research Support Funds for any activity conducted in a country, or in a manner, that is banned by the United States government, including, without limitation, any support of terrorist organizations or individuals identified as such by the United State government, including, but not limited to, any parties listed on the United States Office of Foreign Assets Control master list of Specially Designated Nationals and Blocked Persons.

10. No Gifts Rendered: Autism Speaks acknowledges and agrees that no gifts or services were or will be rendered to Quadrant, or any affiliate thereof, or any official of any of these organizations in exchange for the Research Support Funds.

11. No Assignment of this Agreement: This Agreement is personal among the parties hereto and shall not be assignable by any party or transferable by operation of law or otherwise without the prior written consent of the Parties.

12. Autism Speaks' Tax Exempt Status: Autism Speaks certifies that, on the date this Agreement is executed, its tax-exempt status and classification (evidence of which was provided pursuant to paragraph 3(c) above) remains in full force and effect. Autism Speaks agrees to inform Quadrant immediately of any change in, or IRS proposed or actual revocation (whether or not appealed) of, its tax status and classification described above in paragraph 3(c).

13. Representations and Warranties: Each Party represents and warrants:

a. The Party's execution, delivery and performance of this Agreement: (i) has been authorized by all necessary corporate action, (ii) does not violate the terms of any law, regulation, industry standards or codes, or court order to which such Party is subject or the terms of any agreement to which the Party or any of its assets may be subject (iii) does not violate any third part rights, including intellectual property rights, and (iv) is not subject to the consent or approval of any third Party;

b. this Agreement is the valid and binding obligation of the Party, enforceable against such Party in accordance with its terms;

c. such Party is not subject to any pending or threatened litigation or governmental action which could interfere with such Party's performance of its obligations hereunder; and

d. it is not: (i) listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury ("OFAC") pursuant to Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001) ("Order") and all applicable provisions of Title III of the USA Patriot Act (Public Law No. 107-56 (October 26, 2001)); (ii) listed on the Denied Persons List and Entity List maintained by the United States Department of Commerce; (iii) listed on the List of Terrorists and List of Disbarred Parties maintained by the United States Department of State, (iv) listed on any list or qualification of "Designated Nationals" as defined in the Cuban Assets Control Regulations 31 C.F.R. Part 515; (v) listed on any other publicly available list of terrorists, terrorist organizations or narcotics traffickers maintained by the United States Department of State, the United States Department of Commerce or any other governmental authority or pursuant to the Order, the rules and regulations of OFAC (including without limitation the Trading with the Enemy Act, 50 U.S.C. App. 1-44; the International Emergency Economic Powers Act, 50 U.S.C. §§ 1701-06; the unrepealed provision of the Iraq Sanctions Act, Publ.L. No. 101-513; the United Nations Participation Act, 22 U.S.C. § 2349 as-9; The Cuban Democracy Act, 22 U.S.C. §§ 60¬01-10; The Cuban Liberty and Democratic Solidarity Act, 18 U.S.C. §§ 2332d and 233; and The Foreign Narcotic Kingpin Designation Act, Publ. L. No. 106-120 and 107-108, all as may be amended from time to time); or any other applicable requirements contained in any enabling legislation or other Executive Orders in respect of the Order (the Order and such other rules, regulations, legislation or orders are collectively called the "Orders"); (vi) engaged in activities prohibited in the Orders; or (vii) (and has not been) convicted, pleaded nolo contendere, indicted, arraigned or custodially detained on charges involving money laundering or predicate crimes to money laundering, drug trafficking, terrorist-related activities or other money laundering predicate crimes or in connection with the Bank Secrecy Act (31 U.S.C. §§ 5311 et. seq.).

The Parties hereby each agrees to defend, indemnify, and hold the other harmless from and against any and all claims, damages, losses, risks, liabilities, and expenses (including attorney's fees and costs) arising from or related to any breach of the foregoing representations, warranties and covenants.

14. Miscellaneous:

a. No Third-Party Beneficiaries. This Agreement is entered into for the sole benefit of Quadrant and Autism Speaks, and their respective permitted successors and assigns, and no other natural person, entity, or governmental agency or authority shall have any third-party beneficiary or other similar rights under or arising from this Agreement.

b. Relationship of Parties. Each of the Parties shall be deemed and construed as independent contractors with respect to one another for all purposes relating to the subject matter of this Agreement, and nothing contained in this Agreement is intended to constitute, nor shall it be deemed or construed as constituting, the creation of any partnership, joint venture, or principal/agent relationship between the Parties arising out of the existence or exercise by either Party of their respective rights under this Agreement.

c. Attorneys' Fees. If either Party commences an action against the other to interpret or enforce any of the terms of this Agreement or because of the breach by the other Party of any of the terms hereof, the losing Party shall pay to the prevailing Party reasonable attorneys' fees, costs and expenses incurred in connection with the prosecution or defense of such action, whether or not the action is prosecuted to a final judgment.

d. Time is of the Essence. Time is of the essence of this Agreement; it being understood that the time for performance of each obligation has been the subject of specific negotiation by the parties.

e. Successors and Assigns. The provisions of this Agreement shall be binding upon, and shall inure to the benefit of, each of the Parties hereto and to their respective successors and assigns.

f. Governing Law; Choice of Forum. This Agreement shall be construed in accordance with and governed by the internal laws of the State of New York , without giving effect to any “conflict of law” rules of such state. Each of the Parties acknowledge the State courts in and for the County of New York and the associated federal and appellate courts shall have exclusive jurisdiction to hear and decide any dispute, controversy or litigation regarding the enforceability or validity of this Agreement or any portion thereof.

g. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which shall be deemed to be one and the same instrument with the same effect as if all Parties had signed the same signature page. The signature page of this Agreement may be detached here from and attached to any counterpart of this Agreement identical in form hereto but having attached to it a signature page originally executed by another signatory to this Agreement.

h. Construction. The language in all parts of this Agreement shall be in all cases construed simply according to its fair meaning and not strictly against either Party. Section headings of this Agreement are solely for convenience of reference and shall not govern the interpretation of any of the provisions of this Agreement.

i. Severability. Every provision of this Agreement is intended to be severable. In the event any term or provision hereof is declared to be illegal or invalid for any reason whatsoever by a court of competent jurisdiction, such illegality or invalidity shall not affect the balance of the terms and provisions hereof, which terms and provisions shall remain binding and enforceable.

j. Amendment; Modification. No provision of this Agreement may be amended, modified or supplemented or added to except by an agreement in writing, expressly stating that such agreement is an amendment of this Agreement, signed by each Party to this Agreement or their respective successors in interest.

k. Waiver. No waiver shall be valid unless in writing and signed by the Party to be charged, and then only to the extent therein specified. No waiver by a Party of a right or remedy under this Agreement or under applicable law shall constitute a waiver, express or implied, of any other right or remedy of a Party, and no failure or delay on the part of either Party to exercise, assert of otherwise insist upon one or more of its rights or remedies under this Agreement or at law shall constitute a waiver by that Party of any of such rights or remedies either then or in the future, or otherwise constitute a precedent for any future conduct, actions or inaction.

l. Further Assurances. From time to time, at the sole cost and expense of the Party making such request, each Party hereto shall execute and deliver such instruments or documents as may be reasonably requested by the other Party hereto in order to carry out the purposes and intent of this Agreement or to consummate the transactions contemplated hereunder.

m. Confidentiality. Each of the Parties hereby agrees not to make or issue any press release concerning the subject matter of this Agreement, without the prior written consent of the other Party hereto; provided, however, that notwithstanding anything to the contrary contained in the foregoing, nothing contained herein shall preclude either Party from disclosing information contained in this Agreement (i) to such party's actual or prospective officers, directors, shareholders, members, employees, auditors, counsel, professional advisors, bankers or other debt underwriters or financiers, or contractors; (ii) to any governmental agencies, authorities or subdivisions; and (iii) in any statement or testimony pursuant to a subpoena or order by any court, governmental agency or authority asserting jurisdiction over such party, or as otherwise may be required by applicable Laws. The covenants set forth in this paragraph shall survive the termination of this Agreement.

n. Incorporation of Prior Agreements**.** This Agreement contains the entire understanding of the Parties with respect to the subject matter hereof, and supersedes all prior or contemporaneous written or oral agreements and understandings between the Parties hereto pertaining to any such matter.

o. Force Majeure: Neither party will be liable for failure or delay to perform obligations under this Agreement, which have become practicably impossible because of circumstances beyond the reasonable control of the applicable party. Such circumstances include without limitation natural disasters or acts of God; acts of terrorism; labor disputes or stoppages; war; government acts or orders; epidemics, pandemics or outbreak of communicable disease; quarantines; national or regional emergencies; or any other cause, whether similar in kind to the foregoing or otherwise, beyond the party’s reasonable control. Written notice of a party’s failure or delay in performance due to force majeure must be given to the other party no later than five (5) business days following the force majeure event commencing, which notice shall describe the force majeure event and the actions taken to minimize the impact thereof. All delivery dates under this Agreement affected by force majeure shall be tolled for the duration of such force majeure. The parties hereby agree, when feasible, not to cancel but reschedule the pertinent obligations and deliverables for mutually agreed dates as soon as practicable after the force majeure condition ceases to exist.

IN WITNESS WHEREOF, the Parties hereto have caused their duly authorized Representatives to execute this Agreement as of the Effective Date first above written.

AUTISM SPEAKS INC.

By: /s/ Keith Wargo
Name: Keith Wargo
Title: President & CEO

QUADRANT BIOSCIENCES INC.

By: /s/ Richard Uhlig
Name: Richard Uhlig
Title: Chief Executive Officer

List of Exhibits

- Exhibit A – List of Autism Care Network Sites
- Exhibit B – The Project Statement of Work
- Exhibit C – Research Funding Schedule

The company agrees to furnish supplementally a copy of any omitted schedule to the Commission upon request.