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

FORM 10-K

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

For the fiscal year ended December 31, 2019

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

For the transition period from ______ to _____

Commission File No. 001-31332

LIQUIDMETAL TECHNOLOGIES, INC.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

33-0264467 (I.R.S. Employer Identification No.)

20321 Valencia Circle Lake Forest, CA 92630

(Address of principal executive offices, zip code) Registrant's telephone number, including area code: (949) 635-2100 Securities registered pursuant to Section 12(b) of the Act: None Securities registered pursuant to Section 12(g) of the Act:

Title of each classTrading Symbol(s)Name of each exchange on which registeredCommon stock, \$0.001 par value per shareLQMTOTCQB

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes \Box No \boxtimes Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes \Box No \boxtimes Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes \boxtimes No \Box

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

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

 Large accelerated filer □
 Accelerated filer ⊠
 Non-accelerated filer □
 Smaller reporting company ⊠

 Emerging growth company □

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

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of June 28, 2019 was approximately \$64,126,577. For purposes of this calculation only, (i) shares of common stock are deemed to have a market value of \$0.13 per share, the closing price of the common stock as reported on the "OTCQB Venture Marketplace" on June 28, 2019 and (ii) each of the executive officers, directors and persons holding more than 10% of the outstanding common stock as of June 28, 2019 is deemed to be an affiliate. The number of shares of common stock outstanding as of March 6, 2020 was 914,449,957.

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PART I

Forward-Looking Statements

This Annual Report on Form 10-K of Liquidmetal Technologies, Inc. contains "forward-looking statements" that may state our management's plans, future events, objectives, current expectations, estimates, forecasts, assumptions or projections about the company and its business. Any statement in this report that is not a statement of historical fact is a forward-looking statement, and in some cases, words such as "believes," "estimates," "projects," "expects," "intends," "may," "anticipate," "plans," "seeks," and similar expressions identify forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual outcomes and results to differ materially from the anticipated outcomes or results. These statements are not guarantees of future performance, and undue reliance should not be placed on these statements. It is important to note that our actual results could differ materially from what is expressed in our forward-looking statements due to the risk factors described in the section of this report entitled "Risk Factors" (Item 1A of this report) as well as the following risks and uncertainties:

- Our ability to fund our operations in the long-term through financing transactions on terms acceptable to us, or at all;
- Our history of operating losses and the uncertainty surrounding our ability to achieve or sustain profitability;
- Our limited history of developing and selling products made from our bulk amorphous alloys;
- Challenges associated with having products manufactured from our alloys and the use of third parties for manufacturing;
- Our limited history of licensing our technology to third parties;
- Lengthy customer adoption cycles and unpredictable customer adoption practices;
- Our ability to identify, develop, and commercialize new product applications for our technology;
- Competition from current suppliers of incumbent materials or producers of competing products;
- Our ability to identify, consummate, and/or integrate strategic partnerships;
- The potential for manufacturing problems or delays; and
- Potential difficulties associated with protecting or expanding our intellectual property position.

We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Item 1. Business

In this Annual Report on Form 10-K, unless the context indicates otherwise, references to "the Company", "Liquidmetal Technologies", "our Company", "we", "us", and similar references refer to Liquidmetal Technologies, Inc. and its subsidiaries.

Overview

We are a materials technology company that develops and commercializes products made from amorphous alloys. Our Liquidmetal® family of alloys consists of a variety of proprietary bulk alloys and composites that utilize the advantages offered by amorphous alloy technology. We design, develop and sell custom products and parts from bulk amorphous alloys to customers in various industries. We also partner with third-party manufacturers and licensees to develop and commercialize Liquidmetal alloy products.

Amorphous alloys are, in general, unique materials that are distinguished by their ability to retain a random atomic structure when they solidify, in contrast to the crystalline atomic structure that forms in other metals and alloys when they solidify. Liquidmetal alloys are proprietary amorphous alloys that possess a combination of performance, processing, and potential cost advantages that we believe will make them preferable to other materials in a variety of applications. The amorphous atomic structure of bulk alloys enables them to overcome certain performance limitations caused by inherent weaknesses in crystalline atomic structures, thus facilitating performance and processing characteristics superior in many ways to those of their crystalline counterparts. We believe our alloys and the molding technologies we employ can result in components for many applications that exhibit exceptional dimensional control and repeatability that rivals precision machining, excellent corrosion resistance, brilliant surface finish, high strength, high hardness, high elastic limit, alloys that are non-magnetic, and the ability to form complex shapes common to the injection molding of plastics. All of these characteristics are achievable from the molding process, so design engineers often do not have to select specific alloys to achieve one or more of the characteristics as is the case with crystalline materials. We believe these advantages could result in Liquidmetal alloys supplanting high-performance alloys, such as titanium and stainless steel, and other incumbent materials in a wide variety of applications. Moreover, we believe these advantages could enable the introduction of entirely new products and applications that are not possible or commercially viable with other materials.



General Corporate Information

We were originally incorporated in California in 1987, and we reincorporated in Delaware in May 2003. Our principal executive office is located at 20321 Valencia Circle, Lake Forest, California 92630. Our telephone number at that address is (949) 635-2100. Our Internet website address is www.liquidmetal.com and all of our filings with the Securities and Exchange Commission ("SEC") are available free of charge on our website.

Our Technology

The performance, processing, and potential cost advantages of Liquidmetal alloys are a function of their unique atomic structure and their proprietary material composition.

Unique Atomic Structure

The atomic structure of Liquidmetal alloys is the fundamental feature that differentiates them from other alloys and metals. In the molten state, the atomic particles of all alloys and metals have an amorphous atomic structure, which means that the atomic particles appear in a completely random structure with no discernible patterns. However, when non-amorphous alloys and metals are cooled to a solid state, their atoms bond together in a repeating pattern of regular and predictable shapes or crystalline grains. This process is analogous to the way ice forms when water freezes and crystallizes. In non-amorphous metals and alloys, the individual crystalline grains contain naturally occurring structural defects that limit the potential strength and performance characteristics of the material. These defects, known as dislocations, consist of discontinuities or inconsistencies in the patterned atomic structure of each grain. Unlike other alloys and metals, bulk Liquidmetal alloys can retain their amorphous atomic structure throughout the solidification process and therefore do not develop crystalline grains and the associated dislocations. Consequently, bulk Liquidmetal alloys exhibit superior strength and other superior performance characteristics compared to their crystalline counterparts.

Prior to 1993, commercially viable amorphous alloys could be created only in thin forms, such as coatings, films, or ribbons. However, in 1993, researchers at the California Institute of Technology ("Caltech") developed the first commercially viable amorphous alloy in a bulk form. We obtained the exclusive right to commercialize the bulk amorphous alloy through a license agreement with Caltech and have developed the technology to enable the commercialization of bulk amorphous alloys.

Proprietary Material Composition

The constituent elements and percentage composition of Liquidmetal alloys are critical to their ability to solidify into an amorphous atomic structure. We have several different alloy compositions that have different constituent elements in varying percentages. The raw materials that we use in Liquidmetal alloys are readily available and can be purchased from multiple suppliers.

Advantages of Liquidmetal Alloys

Liquidmetal alloys possess a unique combination of performance, processing, and potential cost advantages that we believe makes them superior in many ways to other commercially available materials for a variety of existing and potential future product applications. The unique combined process results of precise dimensional control and repeatability, surface finish, strength, hardness, elasticity, and corrosion resistance are uncommon in crystalline material alternatives. Additionally, the ability to leverage various molding processes and related tooling technologies provides the ability to deliver a broad range of material characteristics in a complex shaped component.

Performance Advantages

Our bulk Liquidmetal alloys provide several distinct performance advantages over other materials, and we believe that these advantages make the alloys desirable in applications that require high precision and repeatability, high yield strength, strength-to-weight ratio, elasticity, corrosion resistance and hardness.



Processing Advantages

The processing of a material generally refers to how a material is shaped, formed, or combined with other materials to create a finished product. Bulk Liquidmetal alloys possess processing characteristics that we believe make them preferable to other materials in a wide variety of applications. In particular, our alloys are amenable to processing options that are similar in many respects to those associated with plastics. Additionally, unlike most metals and alloys, our bulk Liquidmetal alloys are capable of being thermoplastically molded in bulk form. Thermoplastic molding consists of heating a solid piece of material until it is transformed into a moldable state, although at temperatures much lower than the melting temperature, and then introducing it into a mold to form near-to-net shaped products. Accordingly, thermoplastic molding can be beneficial and economical for net-shape fabrication of high-strength products. Liquidmetal alloys also have superior net-shape casting capabilities as compared to high-strength crystalline metals and alloys. "Net-shape casting" is a type of casting that permits the creation of near-to-net shaped products that reduce costly post-cast processing or machining.

Cost Advantages

Liquidmetal alloys have the potential to provide cost advantages over other high-strength metals and alloys in certain applications. Because bulk Liquidmetal alloys have processing characteristics similar in some respects to plastics, which lend themselves to near-to-net shape molding, Liquidmetal alloys can in many cases be shaped efficiently into intricate, engineered products. This capability can eliminate or reduce certain post-molding steps, such as machining and re-forming, and therefore has the potential to significantly reduce processing costs associated with making parts in high volume.

Our Strategy

In July 2019, we adopted a restructuring plan pursuant to which we elected to wind down our manufacturing operations at our Lake Forest, CA facility and proceeded to outsource the manufacture of parts utilizing our technology through domestic and international manufacturing partners (the "2019 Restructuring Plan"). In connection with the 2019 Restructuring Plan, we have shifted our business strategy from internal manufacture of parts and products for customers toward the use and reliance of outsourced manufacturers, which will initially be Dongguan Yihao Metals Materials Technology Co., Ltd. ("Yihao"), a China-based company that is an affiliate of our largest beneficial stockholder, CEO and Chairman, Professor Lugee Li.

The key elements of our strategy include:

- Focusing Our Marketing Activities on Select Products with Optimized Gross-Margins. We have focused and continue to focus our marketing activities on select products with optimized gross margins for the long term. This strategy is designed to align our product development initiatives with our processes and cost structure, and to reduce our exposure to more commodity-type product applications that are prone to unpredictable demand and fluctuating pricing. Our focus is primarily on products that possess design features that take advantage of our physical properties and manufacturing advantages of our technology and that command a price commensurate with the performance advantages of our alloys. In addition, we will continue to engage in prototype manufacturing for products that will ultimately be licensed to or manufactured by third-parties.
- Pursuing Strategic Partnerships in Order to More Rapidly Develop and Commercialize Products. We have and continue to actively pursue and support strategic partnerships that will enable us to leverage the resources, strength, and technologies of other companies in order to more rapidly develop and commercialize products. These partnerships may include licensing transactions in which we license full commercial rights to our technology in a specific application area, or they may include transactions of a more limited scope in which, for example, we outsource manufacturing activities or grant limited licensing rights. We believe that utilizing such a partnering strategy will enable us to reduce our working capital burden, better fund product development efforts, better understand customer adoption practices, leverage the technical and financial resources of our partners, and more effectively handle product design and process challenges.
- Advancing the Liquidmetal® Brand. We believe that building our corporate brand will foster continued adoption of our technology. Our goal is to
 position Liquidmetal alloys as a superior substitute for materials currently used in a variety of products across a range of industries. Furthermore,
 we seek to establish Liquidmetal alloys as an enabling technology that will facilitate the creation of a broad range of commercially viable new
 products. To enhance industry awareness of our company and increase demand for Liquidmetal alloys, we are engaged in various brand
 development strategies that could include collaborative advertising and promotional campaigns with select customers, industry conference and
 trade show appearances, public relations, and other means.

Applications for Liquidmetal Alloys

There are a very broad number of markets where Liquidmetal alloys have application opportunities. Some of the more prominent markets include: medical/ dental, automotive, non-consumer electronics, and sporting equipment. We believe that these areas are consistent with our strategy in terms of market size, building brand recognition, and providing an opportunity to develop and refine our processing capabilities. Although we believe that strategic partnership transactions could also create valuable opportunities beyond the parameters of these target markets, we anticipate continuing to pursue these markets both internally and in conjunction with partners.



Medical Devices

We are engaged in product development efforts relating to various medical devices that could be made from bulk Liquidmetal alloys. We believe that the unique properties of bulk Liquidmetal alloys provide a combination of performance and cost benefits that could make them a desirable replacement for incumbent materials, such as machined stainless steel and titanium, or components made from other more traditional metalworking technologies currently used in various medical device applications. Our ongoing emphasis has been on minimally invasive surgical instrument applications for Liquidmetal alloys. These include, but are not limited to, specialized blades, clamps, tissue suturing components, tissue manipulation devices and orthopedic instruments utilized for implant surgery procedures, dental devices, and general surgery devices. The potential value offered by our alloys is higher performance in some cases and cost reduction in others, the latter stemming from the ability of Liquidmetal alloys to be net shape molded into components, thus reducing costs of secondary processing common with other metalworking processes. The status of most components in the prototyping phase is subject to non-disclosure agreements with our customers.

Automotive Components

We are engaged in product development efforts relating to various automotive components that could be made from bulk Liquidmetal alloys. We believe that the unique properties of bulk Liquidmetal alloys provide the combination of long-lasting surface finish, corrosion resistance, strength, and precision required by most automotive applications. The potential value offered by our alloys is higher performance in some cases and cost reduction in others, the latter stemming from the ability of Liquidmetal alloys to be net shape molded into components, thus reducing costs of secondary processing common with existing processes.

Components for Non-Consumer Electronic Products

We design, develop and supply components for non-consumer electronic devices utilizing our bulk Liquidmetal alloys and believe that our alloys offer enhanced performance and design benefits for these components in certain applications. Our strategic focus is primarily on parts that command a price commensurate with the performance advantages of our alloys. These product categories in the non-consumer electronics field include, but are not limited to, aerospace components, leisure products, and industrial machines. We believe that there are multiple applications and opportunities in the non-consumer electronics product category for us to produce parts that command the higher margin and premium prices consistent with our core business strategy.

We believe that the continued miniaturization of, and the introduction of advanced features to non-consumer electronic devices is a primary driver of growth, market share, and profits in our industry. The high strength-to-weight ratio and elastic limit, along with the processing advantages of bulk Liquidmetal alloys enable the production of smaller, thinner, but stronger electronic parts. We also believe that the strength characteristics of our alloys could facilitate the creation of a new generation of non-consumer electronic devices which currently may not be viable because of strength limitations of conventional metal parts in the marketplace today. Lastly, we believe that our alloys offer style and design flexibility, such as shiny metallic finishes, to accommodate the changing tastes of our customers.

On August 5, 2010, we entered into a license transaction with Apple Inc. ("Apple") pursuant to which, for a one-time license fee, we granted to Apple a perpetual, worldwide, fully-paid, exclusive license to commercialize our intellectual property in the field of "consumer electronic" products, as defined in the license agreement. As a result, we will not pursue application of our bulk Liquidmetal alloys in the consumer electronics field. However, we continue to work with Apple to develop and advance research and development in the amorphous alloy space to benefit both consumer and non-consumer electronics fields. For more information regarding our transaction with Apple, see " – Licensing Transactions" below.

Sporting Goods and Leisure Products

We are developing a variety of applications for Liquidmetal alloys in the sporting goods and leisure products area.

In the sporting goods industry, we believe that the high strength, hardness, corrosion resistance, and elasticity of our bulk alloys have the potential to enhance performance in a variety of products including, but not limited to, golf clubs, tennis rackets, archery, sporting arms and scuba equipment. We further believe that many sporting goods products are conducive to our strategy of focusing on high-margin products that meet our design criteria.

In the leisure products category, we believe that bulk Liquidmetal alloys can be used to efficiently produce intricately engineered designs with high-quality finishes, such as premium watchcases and knives. We further believe that Liquidmetal technology can be used to make high-quality, high-strength jewelry from precious metals.

Licensing Transactions

Eontec License Agreement

On March 10, 2016, in connection with the 2016 Purchase Agreement, we entered into a Parallel License Agreement (the "License Agreement") with DongGuan Eontec Co., Ltd., a Hong Kong corporation ("Eontec") pursuant to which we each entered into a cross-license of our respective technologies.

The License Agreement provides for the cross-license of certain patents, technical information, and trademarks between us and Eontec. In particular, we granted to Eontec a paid-up, royalty-free, perpetual license to our patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe, and Eontec granted to us a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe, and Eontec granted to us a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of specified countries in Asia. The license granted by us to Eontec is exclusive (including to the exclusion of us) in the countries of Brunei, Cambodia, China (P.R.C and R.O.C.), East Timor, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Singapore, South Korea, Thailand, and Vietnam. The license granted by Eontec to us is exclusive (including to the exclusion of Eontec) in North America and Europe. The cross-licenses are non-exclusive in geographic areas outside of the foregoing exclusive territories.

Beyond the License Agreement, we collaborate with Eontec to accelerate the commercialization of amorphous alloy technology. This includes but is not limited to developing technologies to reduce the cost of amorphous alloys, working on die cast machine technology platforms to pursue broader markets, sharing knowledge to broaden our intellectual property portfolio, and utilizing Eontec's volume production capabilities as a third party contract manufacturer.

In March 2017, we signed contracts with Eontec to purchase two hot-crucible amorphous metal molding machines ("Machines") at a total purchase price of \$780,000. The Machines were delivered to our new manufacturing facility located in Lake Forest, CA in April 2017 and were operational during the fourth quarter of 2017.

Eutectix Business Development Agreement

On January 31, 2020, we entered into a Business Development Agreement (the "Agreement") with Eutectix, LLC, a Delaware limited liability company ("Eutectix"), which provides for collaboration, joint development efforts, and the manufacturing of products based on our proprietary amorphous metal alloys. Under the Agreement, we have agreed to license to Eutectix specified equipment owned by us, including two injection molding machines, the Machines, and other machines and equipment, all of which will be used to make products for our customers and Eutectix customers. The licensed machines and equipment represent substantially all of the machinery and equipment currently held by us. We have also licensed to Eutectix various patents and technical information related to our proprietary technology. Under the Agreement, Eutectix will pay us a royalty of six percent (6%) of the net sales price of licensed products sold by Eutectix, and Eutectix will also manufacture products for us. The Agreement has a term of five years, subject to renewal provisions and the ability of either party to terminate earlier upon specified circumstances.

Apple License Transaction

On August 5, 2010, we entered into a license transaction with Apple pursuant to which (i) we contributed substantially all of our intellectual property assets to a newly organized special-purpose, wholly-owned subsidiary, called Crucible Intellectual Property, LLC ("CIP"), (ii) CIP granted to Apple a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in the field of consumer electronic products, as defined in the license agreement, in exchange for a license fee, and (iii) CIP granted back to us a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in all other fields of use.

Under the agreements relating to the license transaction with Apple, we were obligated to contribute, to CIP, all intellectual property developed by us through February 2016. We are also obligated to maintain certain limited liability company formalities with respect to CIP at all times after the closing of the license transaction.

Other License Transactions

On January 31, 2012, we entered into a Supply and License Agreement for a five year term with Engel Austria Gmbh ("Engel") whereby Engel was granted a non-exclusive license to manufacture and sell injection molding machines to our licensees. On December 6, 2013, we and Engel entered into an Exclusivity Agreement for a 10 year term whereby we agreed, with certain exceptions and limitations, that we and our licensees would purchase amorphous alloy injection molding machines exclusively from Engel.

Our Liquidmetal Golf subsidiary has the exclusive right and license to utilize our Liquidmetal alloy technology for purposes of golf equipment applications. This right and license is set forth in an intercompany license agreement between Liquidmetal Technologies and Liquidmetal Golf. This license agreement provides that Liquidmetal Golf has a perpetual and exclusive license to use Liquidmetal alloy technology for the purpose of manufacturing, marketing, and selling golf club components and other products used in the sport of golf. We own 79% of the outstanding common stock in Liquidmetal Golf.

In March 2009, we entered into a license agreement with Swatch Group, Ltd. ("Swatch") under which Swatch was granted a non-exclusive license to our technology to produce and market watches and certain other luxury products. In March 2011, this license agreement was amended to grant Swatch exclusive rights as to watches as against all third parties (including us), but non-exclusive as to Apple. We will receive royalty payments over the life of the contract on all Liquidmetal products produced and sold by Swatch. The license agreement with Swatch will expire on the expiration date of the last licensed patent.

Our Intellectual Property

Our intellectual property consists of patents, trade secrets, know-how, and trademarks. Protection of our intellectual property is a strategic priority for our business, and we intend to vigorously protect our patents and other intellectual property. Our intellectual property portfolio includes more than 20 owned or licensed U.S. patents relating to the composition, processing, and application of our alloys, as well as more than 40 foreign counterpart patents and patent applications.

Our initial bulk amorphous alloy technology was developed by researchers at the Caltech. We have acquired patent rights that provide us with the exclusive right to commercialize the amorphous alloys and other amorphous alloy technology developed at Caltech through a license agreement ("Caltech License Agreement") with Caltech. In addition to the patents and patent applications that we license from Caltech, we are building a portfolio of our own patents to expand and enhance our technology position. These patents and patent applications primarily relate to various applications of our bulk amorphous alloys and the processing of our alloys. The patents expire on various dates between 2020 and 2036. Our policy is to seek patent protection for all technology, inventions, and improvements that are of commercial importance to the development of our business, except to the extent that we believe it is advisable to maintain such technology or invention as a trade secret.

In order to protect the confidentiality of our technology, including trade secrets, know-how, and other proprietary technical and business information, we require that all of our employees, consultants, advisors and collaborators enter into confidentiality agreements that prohibit the use or disclosure of information that is deemed confidential. The agreements also obligate our employees, consultants, advisors and collaborators to assign to us developments, discoveries and inventions made by such persons in connection with their work with us.

Research and Development

Through the year-ended December 31, 2019, we have engaged in ongoing research and development programs that were driven by the following key objectives:

- *Enhance Material Processing and Manufacturing Efficiencies.* We are working with our strategic partners to enhance material processing and manufacturing efficiencies. We plan to continue research and development of processes and compositions that will decrease our cost of making products from Liquidmetal alloys.
- Optimize Existing Alloys and Develop New Compositions. We believe that one of the key technology drivers of our business will continue to be
 our proprietary alloy compositions. We plan to continue research and development on new alloy compositions to reduce the cost of our proprietary
 alloy compositions, as well as to generate a broader class of amorphous alloys with a wider range of specialized performance characteristics. We
 believe that our ability to optimize our existing alloy compositions, and reduce their costs, will enable us to better tailor our alloys to our
 customers' specific application requirements. Current efforts also include collaboration with Eontec, under the terms of the License Agreement, in
 developing alternative, low-cost, alloy compositions.
- *Develop New Applications*. We will continue the research and development of new applications for Liquidmetal alloys. We believe the range of potential applications will broaden as we expand the forms, compositions, and methods of processing of our alloys.

In addition to our internal research and development efforts, we enter into cooperative research and development relationships with leading academic institutions. We have entered into development relationships with other companies for the purpose of identifying new applications for our alloys and establishing customer relationships with such companies. Some of our product development programs are partially funded by our customers. We are also engaged in negotiations with other potential customers regarding possible product development relationships. Our research and development expenses for the years ended December 31, 2019 and 2018 were \$1.3 million and \$2.4 million, respectively.



As a result of the 2019 Restructuring Plan, and associated reductions in employee headcount, we expect that research and development efforts will be significantly reduced in prospective periods.

Raw Materials

Liquidmetal alloy compositions are comprised of many elements, many of which are generally available commodity products. While we believe that each of these raw materials is readily available in sufficient quantities from multiple sources on commercially acceptable terms, we continue to seek opportunities to secure stocks of essential elements in advance to manage lead-times and cost. Due to our inherent dependency on these alloy compositions for the manufacture of Liquidmetal products, any substantial increase in the price or interruption in the supply of these materials could have an adverse effect on our business.

Manufacturing

During 2017, we purchased and relocated to a new manufacturing facility, with a plan for the expansion of our ability to (i) provide on-site manufacturing of customer products, (ii) provide our customers and strategic partners a venue to inspect, collaborate, and demonstrate the latest developments of our alloy composition development and manufacturing processes, and (iii) provide multiple platforms for manufacturing customer products. As a result of the 2019 Restructuring Plan, the Company will discontinue manufacturing operations in this facility.

Going forward, our current manufacturing strategy is to partner with global companies that are contract manufacturers and alloy producers. We seek third party companies with proven track records of success who can gain specialized skills and knowledge of our alloys through close collaborations with our team of engineers. We believe that partnering with these global companies will allow us to forgo the capital intensive requirements of maintaining our own large scale manufacturing facilities and allow us to grow the number of applications for the technology much faster than could be accomplished on our own.

Customers

During 2019, there were five major customers, who together accounted for 83% of our revenue. During 2018, there were three major customers, who together accounted for 66% of our revenue. As of December 31, 2019, two customers represented 90%, or \$280,000, of the total outstanding trade accounts receivable. As of December 31, 2018, three customers represented 90%, or \$108,000, of the total outstanding trade accounts receivable. In the future, we expect that a significant portion of our revenue may continue to be concentrated in a limited number of customers, even if our bulk alloys business grows.

Competition

Our bulk Liquidmetal alloys face competition from other materials, including metals, alloys, plastics and composites, which are currently used in the commercial applications that we pursue. For example, we face significant competition from plastics, zinc and stainless steel in our non-consumer electronics components business, and titanium and composites will continue to be used widely in medical devices and sporting goods. Many of these competitive materials are produced by domestic and international companies that have substantially greater financial and other resources than we do. Based on our experience developing products for a variety of customers, we believe that the selection of materials by potential customers will continue to be product-specific in nature, with the decision for each product being driven primarily by the performance needs of the application and, secondarily, by cost considerations and design flexibility. Because of the relatively high strength of our alloys, dimensional precision, and the design flexibility of our process, we are most competitive when the customer is seeking a higher strength, as well as greater design flexibility, than currently available with other materials. However, if currently available materials, such as plastics, are strong enough for the application, our alloys are often not competitive in those applications with respect to price. We also believe that our alloys are generally not competitive with the cost of some of the basic metals, such as steel, aluminum or copper, when such basic metals can be processed by simple traditional metalworking processes into shapes and components that are satisfactory for their intended applications. Our alloys are generally more competitive with respect to price compared to components machined from various metals, such as titanium, stainless steel and other higher performance crystalline metals. Our alloys could also face competition from new materials that may be developed in the future, including new materials that could rende

We experience and will continue to experience indirect competition from the competitors of our customers. Because we rely on our customers to market and sell finished goods that incorporate our components or products, our success will depend in part on the ability of our customers to effectively market and sell their own products and compete in their respective markets.



<u>Backlog</u>

Because of the minimal lead-time associated with orders of bulk alloy parts, we generally do not carry a significant backlog. The backlog as of any particular date gives no indication of actual sales for any succeeding period.

Sales and Marketing

We direct our marketing efforts towards customers that will incorporate our components and products into their finished goods. Our goal is to educate customers on the benefits of our technology and help them gain adequate knowledge to apply the technology to their upcoming product application designs. To that end, we have business development personnel who, in conjunction with engineers and scientists, will actively identify potential customers that may be able to benefit from the introduction of Liquidmetal alloys to their products. We currently have one full-time employee engaged in sales and marketing activities. Additionally, we have expanded our outside sales forces to complement our internal team, as evidenced through the continued partnering with territorial market sales representatives.

Employees

As of December 31, 2019, we had 9 full-time employees and no part time employees. As of that date, none of our employees were represented by a labor union. We have not experienced any work stoppages and we consider our employee relations to be favorable.

Governmental Regulation

Government regulation of our products will depend on the nature and type of product and the jurisdictions in which the products are sold. For example, medical instruments incorporating our Liquidmetal alloys will be subject to regulation in the United States by the Food and Drug Administration ("FDA") and corresponding state and foreign regulatory agencies. Medical device manufacturers to whom we intend to sell our products may need to obtain FDA approval before marketing their medical devices that incorporate our products and may need to obtain similar approvals before marketing these medical device products in foreign countries.

Environmental Law Compliance

Our operations are subject to national, state, and local environmental laws in the United States. We believe that we are in material compliance with all applicable environmental regulations. While we continue to incur costs to comply with environmental regulations, we do not believe that such costs will have a material effect on our capital expenditures, earnings, or competitive position.

Golf Subsidiary

From 1997 until September 2001, we were engaged in the retail marketing and sale of golf clubs through a majority-owned subsidiary, Liquidmetal Golf. The retail business of Liquidmetal Golf was discontinued in September 2001. However, in December 2012, we recommenced activities and discussions with potential partners regarding the development of golf club components for golf equipment manufacturers that will integrate these components into their own clubs and then sell them under their respective brand names. Such activities continued, on a limited basis, through 2018. Liquidmetal Technologies owns 79% of the outstanding common stock in Liquidmetal Golf.

Our Liquidmetal Golf subsidiary has the exclusive right and license to utilize our Liquidmetal alloy technology for purposes of golf equipment applications. This right and license is set forth in an intercompany license agreement between Liquidmetal Technologies and Liquidmetal Golf. This license agreement provides that Liquidmetal Golf has a perpetual and exclusive license to use Liquidmetal alloy technology for the purpose of manufacturing, marketing, and selling golf club components and other products used in the sport of golf. In consideration of this license, Liquidmetal Golf has issued 4,500,000 shares of Liquidmetal Golf common stock to Liquidmetal Technologies, which comprises Liquidmetal Technologies' 79% ownership interest in Liquidmetal Golf.

Item 1A. Risk Factors

Investing in our securities involves a high degree of risk. The risks described below are not the only ones facing us. Additional risks not currently known to us or that we currently believe are immaterial also may impair our business, operations, liquidity and stock price materially and adversely. You should carefully consider the risks and uncertainties described below in addition to the other information included or incorporated by reference in this Annual Report on Form 10-K. If any of the following risks actually occur, our business, financial condition or results of operations would likely suffer. In that case, the trading price of our common stock could fall and you could lose all or part of your investment.



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We have incurred significant operating losses in the past and may not be able to achieve or sustain profitability in the future.

We have experienced significant cumulative operating losses since our inception. Our operating loss for the fiscal years ended December 31, 2019 and 2018 were \$7.9 million and \$9.0 million, respectively. We had an accumulated deficit of approximately \$266.3 million at December 31, 2019, and approximately \$258.9 million at December 31, 2018. We anticipate that we may continue to incur operating losses for the foreseeable future. Consequently, it is possible that we may never achieve positive earnings and, if we do achieve positive earnings, we may not be able to achieve them on a sustainable basis.

We have a limited history of developing and selling products made from our bulk amorphous alloys.

We have a relatively limited history of producing bulk amorphous alloy components and products on a mass-production scale. Furthermore, our suppliers' ability to produce our products in desired quantities and at commercially reasonable prices is uncertain and is dependent on a variety of factors that are outside of its control, including the nature and design of the component, the customer's specifications, and required delivery timelines.

We rely on assumptions about the markets for our products and components that, if incorrect, may adversely affect our profitability.

We have made assumptions regarding the market size for, and the manufacturing requirements of, our products and components based in part on information we received from third parties and also from our limited history. If these assumptions prove to be incorrect, we may not achieve anticipated market penetration, revenue targets or profitability.

Our historical results of operations may not be indicative of our future results.

As a result of our limited history of developing and marketing bulk amorphous alloy components and products, as well as our new manufacturing strategy of partnering with contract manufacturers and alloy producers, our historical results of operations may not be indicative of our future results.

We primarily rely on limited suppliers for mold making, manufacturing and alloying of our bulk amorphous alloys and parts.

We currently have two suppliers who fulfill the mold making and manufacturing of our bulk amorphous alloy parts. Our suppliers may allocate their limited capacity to fulfill the production requirements of their other customers. In the event of a disruption of the operations of our suppliers, we may not have other manufacturing sources immediately available. Such an event could cause significant delays in shipments and may adversely affect our revenue, cost of goods sold and results of operations.

We currently have two suppliers who fulfill our alloying/manufacturing of bulk amorphous alloys. In the event of a disruption of the operations of our alloy suppliers, we may not have other alloying sources immediately available. Such an event could cause significant delays in shipments and may adversely affect our revenue, cost of goods sold and results of operations.

If we cannot establish and maintain relationships with customers that incorporate our components and products into their finished goods, we will not be able to increase our revenue and commercialize our products.

Our business is based upon the commercialization of a new and unique materials technology. Our ability to increase our revenues will depend on our ability to successfully maintain and establish relationships with customers who are willing to incorporate our proprietary alloys and technology into their finished products. However, we believe that the size of our company and the novel nature of our technology and manufacturing process may continue to make it challenging to maintain and establish such relationships. In addition, we rely and will continue to rely to a large extent on the manufacturing, research, and development capabilities, as well as the marketing and distribution capabilities, of our customers in order to commercialize our products. Our future growth and success will depend in large part on our ability to enter into these relationships and the subsequent success of these relationships. Even if our products are selected for use in a customer's products, we still may not realize significant revenue from that customer if that customer's products are not commercially successful.



The restructuring plan that we adopted in July 2019 and the associated shift in business strategy may not result in the anticipated benefits.

In July 2019, the Company adopted the 2019 Restructuring Plan pursuant to which the Company elected to wind down its prior manufacturing operations at the Company's Lake Forest, CA facility and seek to outsource the manufacture of parts utilizing the Company's technology through its domestic and international manufacturing partners. In connection with the 2019 Restructuring Plan, the Company has shifted its business strategy from internal manufacture of parts and products for customers toward the use and reliance of outsourced manufactures, which will initially be Yihao, a China-based company that is an affiliate of our largest beneficial stockholder, our CEO and Chairman, Professor Lugee Li. The purpose of this shift was to preserve and maximize the value of the Company's assets by reducing the infrastructure and cost associated with maintaining and building manufacturing capabilities of Yihao and potentially other manufacturers. There is no assurance, however, that this strategy will enable the Company to more rapidly and successfully commercialize its products.

It may take significant time and cost for us to develop new customer relationships, which may delay our ability to generate additional revenue or achieve profitability.

Our ability to generate revenue from new customers is generally affected by the amount of time it takes for us to, among other things:

- identify a potential customer and introduce the customer to Liquidmetal alloys;
- work with the customer to select and design the parts to be fabricated from Liquidmetal alloys;
- make the molds and tooling to be used to produce the selected part;
- make prototypes and samples for customer testing;
- work with our customers to test and analyze prototypes and samples; and
- with respect to some types of products, such as medical devices, obtain regulatory approvals.

We believe that our average sales cycle (the time we deliver a proposal to a customer until the time our customer fully integrates our Liquidmetal alloys into its product) could be a significant period of time. Our history to date has demonstrated that the sales cycle could extend beyond one year. The time it takes to transition a customer from limited production to full-scale production runs will depend upon the nature of the processes and products into which our Liquidmetal alloys are integrated. Moreover, we have found that customers often proceed very cautiously and slowly before incorporating a fundamentally new and unique type of material into their products.

After we develop a customer relationship, it may take a significant amount of time for that customer to develop, manufacture, and sell finished goods that incorporate our components and products.

Our experience has shown that our customers will perform numerous tests and extensively evaluate our components and products before incorporating them into their finished products. The time required for testing, evaluating, and designing our components and products into a customer's products, and in some cases, obtaining regulatory approval, can be significant, with an additional period of time before a customer commences volume production of products incorporating our components and products, if ever. Moreover, because of this lengthy development cycle, we may experience a delay between the time we accrue expenses for research and development and sales and marketing efforts and the time when we generate revenue, if any. We may incur substantial costs in an attempt to transition a customer from initial testing to prototype and from prototype to final product. If we are unable to minimize these transition costs, or to recover the costs of these transitions from our customers, our operating results will be adversely affected.

A limited number of our customers generate a significant portion of our revenue.

For the near future, we expect that a significant portion of our revenue may be concentrated in a limited number of customers. A reduction, delay, or cancellation of orders from one or more of these customers or the loss of one or more customer relationships could significantly reduce our revenue and harm our business. Unless we establish long-term sales arrangements with these customers, they will have the ability to reduce or discontinue their purchases of our products on short notice.

We expect to rely on our customers and licensees to market and sell finished goods that incorporate our products and components, a process over which we will have little control.

Our future revenue growth and ultimate profitability will depend in part on the ability of our customers and licensees to successfully market and sell their finished goods that incorporate our products. We may have little control over our customers' and licensees' marketing and sales efforts. These marketing and sales efforts may be unsuccessful for various reasons, any of which could hinder our ability to increase revenue or achieve profitability. For example, our customers may not have or devote sufficient resources to develop, market, and sell their finished goods that incorporate our products. Because we typically will not have exclusive sales arrangements with our customers, they will not be precluded from exploring and adopting competing technologies. Also, products incorporating competing technologies may be more successful for reasons unrelated to the performance of Liquidmetal products or the marketing efforts of our customers and licensees.

Our growth depends on our ability to identify, develop, and commercialize new applications for our technology.

Our future growth and success will depend in part on our ability to identify, develop, and commercialize, either alone or in conjunction with our customers and partners, new applications and uses for Liquidmetal alloys. If we are unable to identify and develop new applications, we may be unable to develop new products or generate additional revenue. Successful development of new applications for our products may require additional investment, including costs associated with research and development and the identification of new customers. In addition, difficulties in developing and achieving market acceptance of new products would harm our business.

We may not be able to effectively compete with current suppliers of incumbent materials or producers of competing products.

The future growth and success of our Liquidmetal alloy business will depend in part on our ability to establish and retain a technological advantage over other materials for our targeted applications. For many of our targeted applications, we will compete with manufacturers of similar products that use different materials many of which have substantially greater financial and other resources than we do. These different materials may include plastics, zinc, titanium alloys, metal injection molding, or stainless steel, among others, and we will compete directly with suppliers of the incumbent material. In addition, in each of our targeted markets, our success will depend in part on the ability of our customers to compete successfully in their respective markets. Thus, even if we are successful in replacing an incumbent material in a finished product, we will remain subject to the risk that our customer will not compete successfully in its own market.

Our bulk amorphous alloy technology is still at an early stage of commercialization relative to many other materials.

Our bulk amorphous alloy technology is a relatively new technology as compared to many other material technologies, such as plastics and widely-used high-performance crystalline alloys. Historically, the successful commercialization of a new material technology has required the persistent improvement and refining of the technology over a sometimes lengthy period of time. Accordingly, we believe that our company's future success will be dependent on our ability to continue expanding and improving our technology platform by, among other things, constantly refining and improving our processes, optimizing our existing amorphous alloy compositions for various applications, and developing and improving new bulk amorphous alloy compositions. Our failure to further expand our technology base could limit our growth opportunities and hamper our commercialization efforts.

Future advances in materials science could render Liquidmetal alloys obsolete.

Academic institutions and business enterprises frequently engage in the research and testing of new materials, including alloys and plastics. Advances in materials science could lead to new materials that have a more favorable combination of performance, processing, and cost characteristics than our alloys. The future development of any such new materials could render our alloys obsolete and unmarketable or may impair our ability to compete effectively.

Our growth depends upon our ability to retain and attract a sufficient number of qualified employees.

Our business is based upon the commercialization of a new and unique materials technology. Our future growth and success will depend in part on our ability to retain key members of our management and engineering staff, who are familiar with this technology and the potential applications and markets for it. We do not have "key man" or similar insurance on any of the key members of our management and engineering staff. If we lose their services or the services of other key personnel, our financial results or business prospects may be harmed. Additionally, our future growth and success will depend in part on our ability to attract, train, and retain scientific engineering, manufacturing, sales, marketing, and management personnel. We cannot be certain that we will be able to attract and retain the personnel necessary to manage our operations effectively. Competition for experienced executives and engineers from numerous companies and academic and other research institutions may limit our ability to hire or retain personnel on acceptable terms. In addition, many of the companies with which we compete for experienced personnel have greater financial and other resources than we do. Moreover, the employment of otherwise highly qualified non-U.S. citizens may be restricted by applicable immigration laws.

We may not be able to successfully identify, consummate, integrate, or derive benefit from strategic partnerships.

As part of our business strategy, we intend to pursue strategic partnering transactions that provide access to new technologies, products, markets, and manufacturing capabilities. These transactions could include licensing agreements, joint ventures, or business combinations. We believe that these transactions will be particularly important to our future growth and success due to the size and resources of our company and the novel nature of our technology. For example, we may determine that we may need to license our technologies that are useful in connection with the composition, processing, or application of Liquidmetal alloys. We may not be able to successfully identify any potential strategic partnerships. Even if we do identify one or more potentially beneficial strategic partners, we may not be able to consummate transactions with these strategic partners on favorable terms or obtain the benefits we anticipate from such a transaction.

We may derive some portion of our revenue from sales outside the United States, which may expose the Company to foreign commerce risks.

We may sell a portion of our products to customers outside of the United States, and our operations and revenue may be subject to risks associated with foreign commerce, including transportation delays and foreign tax and legal compliance. Moreover, customers may sell finished goods that incorporate our components and products outside of the United States, which indirectly expose us to additional foreign commerce risks.

A substantial increase in the price or interruption in the supply of raw materials for our alloys could have an adverse effect on our profitability.

Our proprietary alloy compositions are comprised of many elements, all of which are generally available commodity products. Although we believe that each of these raw materials is currently readily available in sufficient quantities from multiple sources on commercially acceptable terms, if the prices of these materials substantially increase or there is an interruption in the supply of these materials, such increase or interruption could adversely affect our profitability. For example, if the price of one of the elements included in our alloys substantially increases, we may not be able to pass the price increase on to our customers.

Our business could be subject to the potentially adverse consequences of exchange rate fluctuations.

We expect to conduct business in various foreign currencies and will be exposed to market risk from changes in foreign currency exchange rates and interest rates. Fluctuations in exchange rates between the U.S. dollar and such foreign currencies may have a material adverse effect on our business, results of operations, and financial condition and could specifically result in foreign exchange gains and losses. The impact of future exchange rate fluctuations on our operations cannot be accurately predicted. To the extent that the percentage of our non-U.S. dollar revenue derived from international sales increases in the future, our exposure to risks associated with fluctuations in foreign exchange rates will increase further.

Our inability to protect our licenses, patents, trademarks, and proprietary rights in the United States and foreign countries could harm our business.

We own several patents relating to amorphous alloy technology, and we have other rights to amorphous alloy patents through an exclusive license from Caltech. Our success depends in part on our ability to obtain and maintain patent and other proprietary right protection for our technologies and products in the United States and other countries. If we are unable to obtain or maintain these protections, we may not be able to prevent third parties from using our proprietary rights. Specifically, we must:

- protect and enforce our owned and licensed patents and intellectual property;
- exploit our owned and licensed patented technology; and
- operate our business without infringing on the intellectual property rights of third parties.

Our licensed technology is comprised of several issued United States patents covering the composition, method of manufacturing, and application and use of the family of Liquidmetal alloys. We also hold several United States and corresponding foreign patents covering the manufacturing processes of Liquidmetal alloys and their use. Those patents have expiration dates between 2020 and 2036. The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and we may encounter significant problems and costs in protecting our proprietary rights in these foreign countries.

In August 2010, we entered into a license transaction with Apple pursuant to which (i) we contributed substantially all of our intellectual property assets to a newly organized special-purpose, wholly-owned subsidiary, called CIP, (ii) CIP granted to Apple a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in the field of consumer electronic products, as defined in the license agreement, and (iii) CIP granted back to us a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in all other fields of use.

Patent law is still evolving relative to the scope and enforceability of claims in the fields in which we operate. Our patent protection involves complex legal and technical questions. Our patents and those patents for which we have license rights may be challenged, narrowed, invalidated, or circumvented. We may be able to protect our proprietary rights from infringement by third parties only to the extent that our proprietary technologies are covered by valid and enforceable patents or are effectively maintained as trade secrets. Furthermore, others may independently develop similar or alternative technologies or design around our patented technologies. Litigation or other proceedings to defend or enforce our intellectual property rights could require us to spend significant time and money and could otherwise adversely affect our business.

Other companies or individuals may claim that we infringe their intellectual property rights, which could cause us to incur significant expenses or prevent us from selling our products.

Our success depends, in part, on our ability to operate without infringing on valid, enforceable patents or proprietary rights of third parties and without breaching any licenses that may relate to our technologies and products. Future patents issued to third parties may contain claims that conflict with our patents and that compete with our products and technologies, and third parties could assert infringement claims against us. Any litigation or interference proceedings, regardless of their outcome, may be costly and may require significant time and attention from our management and technical personnel. Litigation or interference proceedings could also force us to:

- stop or delay using our technology;
- stop or delay our customers from selling, manufacturing or using products that incorporate the challenged intellectual property;
- pay damages; or
- enter into licensing or royalty agreements that may be unavailable on acceptable terms.

Evolving regulation of corporate governance and public disclosure may result in additional expenses and continuing uncertainty.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the SEC XBRL mandate, new SEC regulations and International Financial Reporting Standards ("IFRS"), are creating uncertainty for public companies. As a result of these new rules and the size and limited resources of our company, we will incur additional costs associated with our public company reporting requirements, and we may not be able to comply with some of these new rules. In addition, these new rules could make it more difficult or more costly for us to obtain certain types of insurance, including director and officer liability insurance, and this could make it difficult for us to attract and retain qualified persons to serve on our board of directors.

We are presently evaluating and monitoring developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional costs we may incur or the timing of such costs. These new or changed laws, regulations, and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

We are committed to maintaining high standards of corporate governance and public disclosure. As a result, we intend to invest resources to comply with evolving laws, regulations, and standards, and this investment may result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new or changed laws, regulations, and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

The time and cost associated with complying with government regulations to which we could become subject could have a material adverse effect on our business.

Some of the applications for our Liquidmetal alloys that we have identified or may identify in the future may be subject to government regulations. For example, any medical devices made from our alloys likely will be subject to extensive government regulation in the United States by the FDA. Any medical device manufacturers to whom we sell Liquidmetal alloy products may need to comply with FDA requirements, including premarket approval or clearance under Section 510(k) of the Food Drug and Cosmetic Act,2 before marketing Liquidmetal alloy medical devices in foreign countries. Any medical device manufacturers may be required to obtain similar approvals before marketing these medical devices in foreign countries. Any medical device manufacturers with which we jointly develop and sell medical device products may not provide significant assistance to us in obtaining required regulatory approvals. The process of obtaining and maintaining required FDA and foreign regulatory approvals could be lengthy, expensive, and uncertain. Additionally, regulatory agencies can delay or prevent product introductions. The failure to comply with applicable regulatory requirements can result in substantial fines, civil and criminal penalties, stop sale orders, loss or denial of approvals, recalls of products, and product seizures.

To the extent that our products have the potential for dual use, such as military and non-military applications, they may be subject to import and export restrictions of the U.S. government, as well as other countries. The process of obtaining any required U.S. or foreign licenses or approvals could be time-consuming, costly, and uncertain. Failure to comply with import and export regulatory requirements can lead to substantial fines, civil and criminal penalties, and the loss of government contracting and export privileges.

The existence of minority shareholders in our Liquidmetal Golf subsidiary creates potential for conflicts of interest.

We directly own 79% of the outstanding capital stock of Liquidmetal Golf, our subsidiary that has the exclusive right to commercialize our technology in the golf market. The remaining 21% of the Liquidmetal Golf stock is owned by approximately 95 shareholders of record. As a result, conflicts of interest may develop between us and the minority shareholders of Liquidmetal Golf. To the extent that our officers and directors are also officers or directors of Liquidmetal Golf, matters may arise that place the fiduciary duties of these individuals in conflicting positions.

Our executive officers, directors and insiders and entities affiliated with them hold a significant percentage of our common stock, and these shareholders may take actions that may be adverse to your interests.

As of December 31, 2019, our executive officers, directors and insiders and entities affiliated with them, in the aggregate, beneficially owned approximately 47.3% of our common stock. As a result, these shareholders, acting together, will be able to significantly influence all matters requiring shareholder approval, including the election and removal of directors and approval of significant corporate transactions such as mergers, consolidations and sales of assets. They also could dictate the management of our business and affairs. This concentration of ownership could have the effect of delaying, deferring or preventing a change in control or impeding a merger or consolidation, takeover or other business combination, which could cause the market price of our common stock to fall or prevent you from receiving a premium in such a transaction.

Our stock price has experienced volatility and may continue to experience volatility.

During 2019, the highest bid price for our common stock was \$0.19 per share, while the lowest bid price during that period was \$0.09 per share. The trading price of our common stock could continue to fluctuate widely due to:

- limited current liquidity and the possible need to raise additional capital;
- quarter-to-quarter variations in results of operations;
- announcements of technological innovations by us or our potential competitors;
- changes in or our failure to meet the expectations of securities analysts;
- new products offered by us or our competitors;
- announcements of strategic relationships or strategic partnerships;
- future sales of common stock, or securities convertible into or exercisable for common stock;
- adverse judgments or settlements obligating us to pay damages;
- future issuances of common stock in connection with acquisitions or other transactions;
- acts of war, terrorism, or natural disasters;
- low trading volume in our stock;
- developments relating to patents or property rights;
- government regulatory changes; or
- other events or factors that may be beyond our control.

In addition, the securities markets in general have experienced extreme price and trading volume volatility in the past. The trading prices of securities of many companies at our stage of growth have fluctuated broadly, often for reasons unrelated to the operating performance of the specific companies. These general market and industry factors may adversely affect the trading price of our common stock, regardless of our actual operating performance. If our stock price is volatile, we could face securities class action litigation, which could result in substantial costs and a diversion of management's attention and resources and could cause our stock price to fall.

Future sales of our common stock could depress our stock price.

Sales of a large number of shares of our common stock, or the availability of a large number of shares for sale, could adversely affect the market price of our common stock and could impair our ability to raise funds in additional stock offerings. In the event that we propose to register additional shares of common stock under the Securities Act of 1933 for our own account, certain shareholders are entitled to receive notice of that registration and to include their shares in the registration, subject to limitations described in the agreements granting these rights.



A limited public trading market exists for our common stock, which makes it more difficult for our shareholders to sell their common stock in the public markets.

Our common stock is currently traded under the symbol "LQMT" and currently trades at a low volume, based on quotations on the "Over-the-Counter" exchanges, meaning that the number of persons interested in purchasing our common stock at or near bid prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company which is still relatively unknown to stock analysts, stock brokers, institutional investors, and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and might be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our stock until such time as we became more viable. Additionally, many brokerage firms may not be willing to effect transactions in our securities. As a consequence, there may be periods of several days or more when trading activity in our stock is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common stock will develop or be sustained, or that trading levels will be sustained.

We have never paid dividends on our common stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on our common stock to date. We currently intend to retain our future earnings, if any, to fund the development and growth of our businesses, and we do not anticipate paying any cash dividends on our capital stock for the foreseeable future. In addition, the terms of existing or any future debts may preclude us from paying dividends on our stock. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for the foreseeable future for our common shareholders.

FINRA sales practice requirements may also limit a shareholder's ability to buy and sell our stock.

The Financial Industry Regulatory Authority ("FINRA") has adopted rules that require a broker-dealer to have reasonable grounds for believing that an investment is suitable for a customer prior to recommending the investment to such customer. Prior to recommending speculative low priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low priced securities will not be suitable for at least some customers. The FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our common stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares.

Antitakeover provisions of our certificate of incorporation and bylaws and provisions of applicable corporate law could delay or prevent a change of control that you may favor.

Provisions in our certificate of incorporation, our bylaws, and Delaware law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our shareholders. These provisions could discourage potential takeover attempts and could adversely affect the market price of our shares. Because of these provisions, you might not be able to receive a premium on your investment in such a transaction. These provisions:

- authorize our board of directors, without shareholder approval, to issue up to 10,000,000 shares of "blank check" preferred stock that could be issued by our board of directors to increase the number of outstanding shares and prevent a takeover attempt;
- limit shareholders' ability to call a special meeting of our shareholders; and
- establish advance notice requirements to nominate directors for election to our board of directors or to propose matters that can be acted on by shareholders at shareholder meetings.

The provisions described above, as well as other provisions in our certificate of incorporation, our bylaws, and Delaware law could delay or make more difficult transactions involving a change in control of us or our management.



We rely extensively on information technology in our operations, and any material failure, inadequacy, interruption, or security breach of that technology could have a material adverse impact on our business.

We rely extensively on information technology systems across our operations, including reporting results of operations, collection and storage of personal data of customers, employees and other stakeholders, and various other processes and transactions. Some of these systems are managed by third-party service providers. We use third-party technology and systems for a variety of reasons, including, without limitation, encryption and authentication technology, employee email, content delivery to customers, back-office support, and other functions. Failure to follow applicable regulations related to those activities, or to prevent or mitigate data loss or other security breaches, including breaches of our business partners' technology and systems could expose us and/or our customers and vendors to a risk of loss or misuse of such information, which could adversely affect our operating results, result in regulatory enforcement, other litigation and potential liability, and otherwise harm our business. Our ability to effectively manage our business and coordinate the production, distribution, and sale of our products depends significantly on the reliability and capacity of these systems and third-party service providers. Although we have developed systems and processes that are designed to protect customer information and prevent data loss and other security breaches, including systems and processes designed to reduce the impact of a security breach at a third-party service provider, such measures cannot provide absolute security.

We have exposure to similar security risks faced by other companies that have data stored on their information technology systems. To our knowledge, we have not experienced any material breach of our cybersecurity systems. If we or our third-party service providers systems fail to operate effectively or are damaged, destroyed, or shut down, or there are problems with transitioning to upgraded or replacement systems, or there are security breaches in these systems, we could experience delays or decreases in product sales, and reduced efficiency of our operations. Any of the aforementioned could occur as a result of natural disasters, software or equipment failures, telecommunications failures, loss or theft of equipment, acts of terrorism, circumvention of security systems, or other cyber-attacks, including denial-of-service attacks. Additionally, any of these events could lead to violations of privacy laws, loss of customers, or loss, misappropriation or corruption of confidential information, trade secrets or data, which could expose us to potential litigation, regulatory actions, sanctions or other statutory penalties, any or all of which could adversely affect its business, and cause it to incur significant losses and remediation costs.

We will rely on the manufacturing operations of a third party controlled by our largest stockholder, CEO and Chairman, which presents potential conflicts of interest.

As a result of the 2019 Restructuring Plan, we will rely, at least initially, on Yihao to manufacture our products. Yihao is an affiliate of Professor Li and is indirectly controlled by Professor Li. Professor Li, through his affiliates, is the largest beneficial owner of our common stock and owns approximately 45.1% of our common stock and is able to exercise significant influence over all matters affecting us, including the election of directors, formation and execution of business strategy and approval of mergers, acquisitions and other significant corporate transactions, which may have an adverse effect on our stock price and ability to execute our strategic initiatives. As a result of this significant ownership and his affiliation with Yihao, as well as the future importance of Yihao as a manufacturer of the Company's products, Professor Li may have conflicts of interest and interests that are not aligned with those of other stockholders of the Company

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal executive office and principal research and development offices are located in Lake Forest, California and consist of approximately 41,000 square feet. We purchased the facility in February of 2017.

On January 23, 2020, we entered into a lease agreement pursuant to which we leased an approximately 32,534 square foot portion of the facility to a commercial tenant. The lease term is for 5 years and 2 months commencing on March 1, 2020. The base rent payable under the Lease Agreement is \$32,534 per month initially and is subject to periodic increases up to a maximum of approximately \$54,000 per month. The tenant will pay approximately 79% of common operating expresses.

Item 3. Legal Proceedings

None.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

Our common stock is currently quoted on the "OTCQB Venture Marketplace" under the symbol "LQMT." On March 6, 2020, the last reported sales price of our common stock was \$0.10 per share. As of March 6, 2020, we had 210 active record holders of our common stock.

The following table sets forth, on a per share basis, the range of high and low bid information for the shares of our common stock for each full quarterly period within the two most recent fiscal years and any subsequent interim period for which financial statements are included, as reported by the "OTCQB Venture Marketplace." These quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

201	.9	High	Low	
Fourth Quarter	\$	0.13	\$	0.09
Third Quarter	\$	0.13	\$	0.09
Second Quarter	\$	0.15	\$	0.09
First Quarter	\$	0.19	\$	0.11
20	18	High	Low	
20. Fourth Quarter	18 \$	High 0.20		0.10
		0.20		0.10 0.16
Fourth Quarter	\$	0.20 0.26	\$	

We have never paid a cash dividend on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future, and we plan to retain our earnings to finance our operations and future growth.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

This management's discussion and analysis should be read in conjunction with the consolidated financial statements and notes included elsewhere in this report on Form 10-K. All amounts described in this section are in thousands, except percentages, periods of time, and share and per share data.

This management's discussion and analysis, as well as other sections of this report on Form 10-K, may contain "forward-looking statements" that involve risks and uncertainties, including statements regarding our plans, future events, objectives, expectations, estimates, forecasts, assumptions or projections. Any statement that is not a statement of historical fact is a forward-looking statement, and in some cases, words such as "believe," "estimate," "project," "expect," "intend," "may," "anticipate," "plan," "seek," and similar expressions identify forward-looking statements. These statements involve risks and uncertainties that could cause actual outcomes and results to differ materially from the anticipated outcomes or results, and undue reliance should not be placed on these statements. These risks and uncertainties include, but are not limited to, the matters discussed under the caption "Risk Factors" in Item 1A of this report and other risks and uncertainties discussed in filings made with the Securities and Exchange Commission (including risks described in subsequent reports on Form 10-Q, Form 10-K, Form 8-K, and other filings). Liquidmetal Technologies, Inc. disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise.

OVERVIEW

We are a materials technology company that develops and commercializes products made from amorphous alloys. Our Liquidmetal® family of alloys consists of a variety of proprietary bulk alloys and composites that utilize the advantages offered by amorphous alloy technology. We design, develop and sell custom products and parts from bulk amorphous alloys to customers in various industries. We also partner with third-party manufacturers and licensees to develop and commercialize Liquidmetal alloy products.

Amorphous alloys are, in general, unique materials that are distinguished by their ability to retain a random atomic structure when they solidify, in contrast to the crystalline atomic structure that forms in other metals and alloys when they solidify. Liquidmetal alloys are proprietary amorphous alloys that possess a combination of performance, processing, and potential cost advantages that we believe will make them preferable to other materials in a variety of applications. The amorphous atomic structure of bulk alloys enables them to overcome certain performance limitations caused by inherent weaknesses in crystalline atomic structures, thus facilitating performance and processing characteristics superior in many ways to those of their crystalline counterparts. We believe our alloys and the molding technologies we employ can result in components for many applications that exhibit exceptional dimensional control and repeatability that rivals precision machining, excellent corrosion resistance, brilliant surface finish, high strength, high hardness, high elastic limit, alloys that are non-magnetic, and the ability to form complex shapes common to the injection molding of plastics. All of these characteristics are achievable from the molding process, so design engineers often do not have to select specific alloys to achieve one or more of the characteristics as is the case with crystalline materials. We believe these advantages could result in Liquidmetal alloys supplanting high-performance alloys, such as titanium and stainless steel, and other incumbent materials in a wide variety of applications. Moreover, we believe these advantages could enable the introduction of entirely new products and applications that are not possible or commercially viable with other materials.

Our revenues are derived from i) selling our bulk amorphous alloy custom products and parts for applications which include, but are not limited to, nonconsumer electronic devices, medical products, automotive components, and sports and leisure goods; ii) selling tooling and prototype parts such as demonstration parts and test samples for customers with products in development; and iii) product licensing and royalty revenue.

Our cost of sales consists primarily of the costs of manufacturing, which include raw alloy and direct labor costs. Selling, general, and administrative expenses currently consist primarily of salaries and related benefits, travel, consulting and professional fees, depreciation and amortization, insurance, office and administrative expenses, and other expenses related to our operations.

Research and development expenses represent salaries, related benefits expenses, consulting and contract services, expenses incurred for the design and testing of new processing methods, expenses for the development of sample and prototype products, and other expenses related to the research and development of Liquidmetal bulk alloys. Costs associated with research and development activities are expensed as incurred. We plan to enhance our competitive position by improving our existing technologies and developing advances in amorphous alloy technologies. We believe that our research and development efforts will focus on the discovery of new alloy compositions, the development of improved processing technology, and the identification of new applications for our alloys.

In July 2019, the Company adopted the 2019 Restructuring Plan pursuant to which the Company elected to wind down its prior manufacturing operations at the Company's Lake Forest, CA facility and seek to outsource the manufacture of parts utilizing the Company's technology through domestic and international manufacturing partners. In connection with the 2019 Restructuring Plan, the Company shifted its business strategy from internal manufacture of parts and products for customers toward the use and reliance of outsourced manufactures, which will initially be Yihao, a China-based company that is an affiliate of our largest beneficial stockholder our CEO and Chairman, Professor Lugee Li.



SIGNIFICANT TRANSACTIONS

Manufacturing Facility Purchase

On February 16, 2017, we purchased a 41,000 square foot manufacturing facility located in Lake Forest, CA, where operations commenced during July 2017. The purchase price for the property was \$7,818. As a result of the 2019 Restructuring Plan, we will discontinue manufacturing operations in this facility and, during January 2020, we executed a lease agreement with a commercial tenant of approximately 80% of the facility.

2016 Purchase Agreement

On March 10, 2016, we entered into a Securities Purchase Agreement (the "2016 Purchase Agreement") with Liquidmetal Technology Limited, a Hong Kong company (the "Investor"), which is controlled by our Chairman and CEO, Professor Lugee Li ("Professor Li"). The 2016 Purchase Agreement provided for the purchase by the Investor of a total of 405,000,000 shares of our common stock for an aggregate purchase price of \$63,400. The transaction occurred in multiple closings, with the Investor having purchased 105,000,000 shares at a purchase price of \$8,400 (or \$0.08 per share) at the initial closing on March 10, 2016 and the remaining 200,000,000 shares at \$0.15 per share and 100,000,000 shares at \$0.25 per share for an aggregate purchase price of \$55,000 on October 26, 2016.

In addition to the shares issuable under the 2016 Purchase Agreement, we issued to the Investor a warrant to acquire 10,066,809 shares of common stock (of which the right to exercise 2,609,913 of the warrant shares vested on March 10, 2016 and the right to exercise the remaining 7,456,896 warrant shares vested on October 26, 2016, all at an exercise price of \$0.07 per share). The warrant will expire on the tenth anniversary of its issuance date.

Further, the 2016 Purchase Agreement provided that the Investor would have the right to designate three members of our board of directors, with one such member serving as Chairman. The 2016 Purchase Agreement also provided that, with certain limited exceptions, if we issue any shares of common stock at any time through the fifth anniversary of the 2016 Purchase Agreement, the Investor will have a preemptive right to subscribe for and to purchase at the same price per share (or at market price, in the case of issuance of shares pursuant to stock options) the number of shares necessary to maintain its ownership percentage of our issued shares of common stock.

Eontec License Agreement

On March 10, 2016, in connection with the 2016 Purchase Agreement, we and DongGuan Eontec Co., Ltd., a Hong Kong corporation ("Eontec"), entered into a Parallel License Agreement (the "License Agreement") pursuant to which we and Eontec agreed to cross-license their respective technologies. Our Chairman and CEO, Professor Li, is also a major shareholder and Chairman of Eontec.

The License Agreement provides for the cross-license of certain patents, technical information, and trademarks between us and Eontec. In particular, we granted to Eontec a paid-up, royalty-free, perpetual license to our patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe. In turn, Eontec granted to us a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe. In turn, Eontec granted to us a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of specified countries in Asia. The license granted by us to Eontec is exclusive (including to the exclusion of us) in the countries of Brunei, Cambodia, China (P.R.C and R.O.C.), East Timor, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Singapore, South Korea, Thailand, and Vietnam. The license granted by Eontec to us is exclusive (including to the exclusion of Eontec) in North America and Europe. The cross-licenses are non-exclusive in geographic areas outside of the foregoing exclusive territories.

Beyond the License Agreement, we collaborate with Eontec to accelerate the commercialization of amorphous alloy technology. This includes but is not limited to developing technologies to reduce the cost of amorphous alloys, working on die cast machine technology platforms to pursue broader markets, sharing knowledge to broaden our intellectual property portfolio, and utilizing Eontec's volume production capabilities as a third party contract manufacturer.

In March 2017, we signed contracts with Eontec to purchase two hot-crucible amorphous metal molding machines ("Machines") at a total purchase price of \$780. The Machines were delivered to our new manufacturing facility located in Lake Forest, CA in April 2017 and were operational during the fourth quarter of 2017.



Eutectix Business Development Agreement

On January 31, 2020, we entered into a Business Development Agreement (the "Agreement") with Eutectix, LLC, a Delaware limited liability company ("Eutectix"), which provides for collaboration, joint development efforts, and the manufacturing of products based on our proprietary amorphous metal alloys. Under the Agreement, we have agreed to license to Eutectix specified equipment owned by us, including two injection molding machines, the Machines, and other machines and equipment, all of which will be used to make products for our customers and Eutectix customers. The licensed machines and equipment represent substantially all of the machinery and equipment currently held by us. We have also licensed to Eutectix various patents and technical information related to our proprietary technology. Under the Agreement, Eutectix will pay us a royalty of six percent (6%) of the net sales price of licensed products sold by Eutectix, and Eutectix will also manufacture products for us. The Agreement has a term of five years, subject to renewal provisions and the ability of either party to terminate earlier upon specified circumstances.

Apple License Transaction

On August 5, 2010, we entered into a license transaction with Apple Inc. ("Apple") pursuant to which (i) we contributed substantially all of its intellectual property assets to a newly organized special-purpose, wholly-owned subsidiary, called Crucible Intellectual Property, LLC ("CIP"), (ii) CIP granted to Apple a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in the field of consumer electronic products, as defined in the license agreement, in exchange for a license fee, and (iii) CIP granted back to the us a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in all other fields of use.

Under the agreements relating to the license transaction with Apple, we were obligated to contribute, to CIP, all intellectual property developed through February 2016. We are also obligated to maintain certain limited liability company formalities with respect to CIP at all times after the closing of the license transaction.

Other License Transactions

On January 31, 2012, we entered into a Supply and License Agreement for a five year term with Engel Austria Gmbh ("Engel") whereby Engel was granted a non-exclusive license to manufacture and sell injection molding machines to our licensees. On December 6, 2013, we and Engel entered into an Exclusivity Agreement for a ten year term whereby we agreed, with certain exceptions and limitations, that we and our licensees would purchase amorphous alloy injection molding machines exclusively from Engel.

Our majority-owned Liquidmetal Golf subsidiary has the exclusive right and license to utilize our Liquidmetal alloy technology for purposes of golf equipment applications. This right and license is set forth in an intercompany license agreement between Liquidmetal Technologies and Liquidmetal Golf. This license agreement provides that Liquidmetal Golf has a perpetual and exclusive license to use Liquidmetal alloy technology for the purpose of manufacturing, marketing, and selling golf club parts and other products used in the sport of golf. We own 79% of the outstanding common stock of Liquidmetal Golf.

In March 2009, we entered into a license agreement with Swatch Group, Ltd. ("Swatch") under which Swatch was granted a non-exclusive license to our technology to produce and market watches and certain other luxury products. In March 2011, this license agreement was amended to grant Swatch exclusive rights as to watches, but non-exclusive as to Apple. We will receive royalty payments over the life of the contract on all Liquidmetal products produced and sold by Swatch. The license agreement with Swatch will expire on the expiration date of the last licensed patent.

RESULTS OF OPERATIONS

For the years ended December 31,						
2019		0	2018			
i	in 000's	% of Revenue	in 000's		% of Revenue	
\$	1,325		\$	484		
	48			48		
	1,373			532		
	832	61%		1,164	219%	
	541	39%		(632)	-119%	
	5,424	395%		5,899	1109%	
	1,342	98%		2,429	457%	
	1,676	122%		-	0%	
	(11)	-1%		-	0%	
	8,431			8,328		
	(7,890)			(8,960)		
	459			259		
\$	(7,431)		\$	(8,701)		
	\$	2019 in 000's \$ 1,325 48 1,373 832 541 5,424 1,342 1,676 (11) 8,431 (7,890) 459	2019 in 000's % of Revenue \$ 1,325 48 1,373 832 61% 541 39% 5,424 395% 1,342 98% 1,676 122% (11) -1% 8,431 -1% 459	2019 % of Revenue in in 000's % of Revenue in \$ 1,325 \$ 48 1,373 332 61% 541 39% 5,424 395% 1,342 98% 1,676 122% (11) -1% 8,431	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	

(a) Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Revenue and operating expenses

Revenue. Total revenue increased by \$841 to \$1,373 for the year ended December 31, 2019 from \$532 for the year ended December 31, 2018. The increase was attributable to the completion of higher volume orders to provide current customers with buffer inventories while manufacturing capabilities are transitioned to outsourced manufacturing. As a result, product revenues during 2019 will likely not be indicative of short-term, prospective volumes.

Cost of sales. Cost of sales was \$832, or 61% of total revenue, for the year ended December 31, 2019, a decrease from \$1,164, or 219% of total revenue, for the year ended December 31, 2019 was primarily attributable to lower raw material costs as a result of \$642 in market write-downs taken during 2018, higher volume production during 2019, and improvements in production throughput during 2019. The cost to manufacture products and components from our bulk amorphous alloys is variable and differs based on the unique design of each product. Following the transition of manufacturing operations, if we begin increasing our products revenues with shipments of routine, commercial products and components through our third party contract manufacturers, we expect to lower raw material and consumable costs through volume purchases, reduced labor and fixed overhead burdens on end products, and have more stable and predictable cost of sales percentages on product sales.

Gross profit (loss). Our gross profit (loss) increased by \$1,173 from \$(632) as of December 31, 2018 to \$541 as of December 31, 2019. Our gross margin percentage increased from (119)% as of December 31, 2018 to 39% as of December 31, 2019. Early prototype and pre-production orders generally result in a higher cost mix, relative to revenue, than would otherwise be incurred in an on-site production environment, with higher volumes and more established operating processes, or through contract manufacturers. As such, our gross profit percentages have fluctuated and may continue to fluctuate based on volume and quoted production prices per unit and may not be representative of our future business. If we begin increasing our products revenues with shipments of routine, commercial products and parts through future orders to our third party contract manufacturers, we expect our gross profit percentages to stabilize, increase, and be more predictable.

Selling, marketing, general, and administrative expenses. Selling, marketing, general, and administrative expenses decreased by \$475 to \$5,424, or 395% of revenue, for the year ended December 31, 2019 from \$5,899, or 1109% of revenue, for the year ended December 31, 2018. The decrease in expenses was due to overall lower costs associated with employee compensation as a result of headcount reductions. This decrease was partially offset by \$273 in additional severance expense during the year ended December 31, 2019, as a result of the 2019 Restructuring Plan.

Research and development expenses. Research and development expenses decreased by \$1,087 to \$1,342, or 98% of revenue, for the year ended December 31, 2019, from \$2,429, or 457% of revenue, for the year ended December 31, 2018. The decrease in expense was mainly due to reduction in mold, tooling, and alloy development initiatives. Through the year ended December 31, 2019, research and development activities have been focused on (i) research and development of new Liquidmetal alloys and related processing capabilities, (ii) the development of new manufacturing techniques, and (iii) contracting with consultants to advance the development of Liquidmetal alloys and related production processes. Such research and development activities will be significantly reduced following completion of the 2019 Restructuring Plan.

Impairment of long-lived assets. In connection with the 2019 Restructuring Plan, non-cash impairment charges of \$1,676 were recorded during the year ended December 31, 2019, as a result of changed assumptions regarding the asset grouping and future use of the Company's manufacturing assets. Similar charges were not recorded during the year ended December 31, 2018.

Gain on disposal of fixed assets. During the year ended December 31, 2019, the Company recorded gains on the disposal of fixed assets of \$11, in connection with the 2019 Restructuring Plan. Similar charges were not recorded during the year ended December 31, 2018.

Operating loss. Operating loss decreased by \$1,070 from \$8,960 for the year ended December 31, 2018 to \$7,890 for the year ended December 31, 2019. Fluctuations in our operating loss are primarily attributable to variations in operating expenses, as discussed above.

We continue to invest in our technology infrastructure to expedite the adoption of our technology, but we have experienced long sales lead times for customer adoption of our technology. Until that time when we can either (i) increase our revenues with shipments of routine, commercial products and parts through third party contract manufacturers or (ii) obtain significant licensing revenues, we expect to continue to have operating losses for the foreseeable future.

Non-operational income and expenses

Interest and investment income. Interest and investment income relates to interest earned from our cash deposits and investments in debt securities for the respective periods. Interest and investment income was \$459 and \$259 for the years ended December 31, 2019 and 2018, respectively. The increase during 2019 is due to a higher invested base and overall change in investment strategy to provide increased yields, while preserving liquidity.

Net loss. Our annual net losses of \$7,431 as of December 31, 2019 and \$8,701 as of December 31, 2018 are primarily reflective of operating expenses associated with our on-going business as well as non-operational income, discussed above.

LIQUIDITY AND CAPITAL RESOURCES

Cash used in operating activities

Cash used in operating activities totaled \$3,872 for the year ended December 31, 2019 and \$6,251 for the year ended December 31, 2018. The cash was primarily used to fund operating expenses related to our business and product development efforts.

Cash used in investing activities

Cash used in investing activities totaled \$11,835 for the year ended December 31, 2019 and \$292 for the year ended December 31, 2018. Cash used in investing activities during 2019 primarily consist of purchases of debt securities in line with our investment strategy. Cash used in investing activities during 2018 primarily consist of capital expenditures to support our previous manufacturing efforts, including the purchase of our facility and additional production equipment.

Cash provided by financing activities

Cash provided by financing activities totaled \$21 for the year ended December 31, 2019 and \$463 for the year ended December 31, 2018. Annual amounts primarily consist of proceeds received from the exercise of stock options and warrants.



Financing arrangements and outlook

During 2016, we raised a total of \$62,700 through the issuance of 405,000,000 shares of our common stock in multiple closings under the 2016 Purchase Agreement. The Company has a relatively limited history of selling bulk amorphous alloy products and components on a mass-production scale. Furthermore, the ability of future contract manufacturers to produce the Company's products in desired quantities and at commercially reasonable prices is uncertain and is dependent on a variety of factors that are outside of the Company's control, including the nature and design of the component, the customer's specifications, and required delivery timelines. These factors have previously required that the Company engage in equity sales under various stock purchase agreements to support its operations and strategic initiatives. As a result of the funding under the 2016 Purchase Agreement, the Company anticipates that its current capital resources, when considering expected losses from operations, will be sufficient to fund the Company's operations for the foreseeable future.

OFF-BALANCE SHEET ARRANGEMENTS

An off-balance sheet arrangement is any transaction, agreement or other contractual arrangement involving an unconsolidated entity under which a company has (1) made guarantees, (2) a retained or a contingent interest in transferred assets, (3) an obligation under derivative instruments classified as equity, or (4) any obligation arising out of a material variable interest in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to our company, or that engages in leasing, hedging, or research and development arrangements with our company. As of December 31, 2019, the Company did not have any off-balance sheet arrangements.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions that affect reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates and assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances. Actual results could differ materially from these estimates under different assumptions or conditions.

We believe that the following accounting policies are the most critical to our consolidated financial statements since these policies require significant judgment or involve complex estimates that are important to the portrayal of our financial condition and operating results:

• We recognize revenue pursuant to applicable accounting standards including FASB ASC Topic 606 ("ASC 606"), Revenue from Contracts with Customers. ASC 606 summarizes certain points in applying generally accepted accounting principles to revenue recognition in financial statements and provides guidance on revenue recognition issues in the absence of authoritative literature addressing a specific arrangement or a specific industry.

Our revenue recognition policy complies with the requirements of ASC 606. As a majority of our sales revenue continues to be recognized when products are shipped, and there was no change in the recognition model historically applied to active license and royalty contracts under the new revenue standard, there was no adjustment to the opening balance of retained earnings. The impact to our results of operations is not material, on an on-going basis, because the analysis of our contracts under the new revenue standard supports a recognizion model consistent with our previous revenue recognition model. Revenue on the majority of our contracts will continue to be recognized over time because of the continuous transfer of control to the customer.

Products- Product revenues are primarily generated from the sale and prototyping of molds and bulk alloy products. Revenue is recognized when i) persuasive evidence of an arrangement exists, ii) delivery has occurred, iii) the sales price is fixed or determinable, iv) collection is probable and v) all obligations have been substantially performed pursuant to the terms of the arrangement. When we receive consideration, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a sales contract, we record deferred revenue, which represents a contract liability. We will recognize deferred revenue as products revenue after it has transferred control of the goods or services to the customer and all revenue recognition criteria are met. Such amounts are not expected to be material on an ongoing basis.

Licensing and royalties- License revenue arrangements in general provide for the grant of an exclusive or non-exclusive right to manufacture and/or sell products covered by patented technologies owned or controlled by us. The intellectual property rights granted may be perpetual in nature, extending until the expiration of the related patents, or can be granted for a defined period of time. Licensing revenues that are one-time fees upon the granting of the license are recognized when i) the license term begins in a manner consistent with the nature of the transaction and the earnings process is complete, ii) when collectability is reasonably assured or upon receipt of an upfront fee, and iii) when all other revenue recognition criteria have been met. Pursuant to the terms of these agreements, we have no further obligation with respect to the grant of the license. Licensing revenues that are related to royalties are recognized as the royalties are earned over the related period.

Practical Expedients and Exemptions- We generally expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling, marketing, general and administrative expenses. We do not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which we recognize revenue at the amount for which it has the right to invoice for services performed.

- Our investments in debt securities are carried at fair value and consist primarily of investments in obligations of the United States Treasury, various U.S. and foreign corporations, and certificates of deposits. We classify investments in debt securities as available-for-sale with all unrealized gains or losses included as part of other comprehensive income. We evaluate investments in debt securities with unrealized losses on a quarterly basis for potential other-than-temporary impairments in value. As a result of this assessment, we did not recognize any other-than-temporary impairment losses considered to be credit related for the years ended December 31, 2019 and 2018.
- We value our long-lived assets at the lower of cost or fair market value. We review long-lived assets to be held and used in operations for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may be impaired. These evaluations may result from significant decreases in the overall market outlook for our technology or the market price of an asset, a significant adverse change in the extent or manner in which an asset is being used in its physical condition, a significant adverse change in legal factors or in the business climate that could affect the value of an asset, as well as economic or operational analyses. If we concludes that the carrying value of certain assets will not be recovered based on expected undiscounted future cash flows, an impairment write-down is recorded to reduce the assets to their estimated fair value. Fair value is determined via market, cost and income based valuation techniques, as appropriate. The fair value is measured on a nonrecurring basis using a combination of quoted prices for similar assets in active markets and other unobservable adjustments to historical cost (Level 3) inputs. Based on the results of this analysis, we recorded non-cash impairment charges of \$1,676 for the year ended December 31, 2019, primarily related to the carrying value of our manufacturing assets that will not be utilized prospectively as a result of the July 2019 Restructuring Plan. No such charges were recorded for the years ended December 31, 2018 or December 31, 2017.
- We record valuation allowances to reduce our deferred tax assets to the amounts deemed more likely than not of being realized. While we consider taxable income in assessing the need for a valuation allowance, in the event we determine we would be able to realize our deferred tax assets in the future in excess of the net recorded amount, an adjustment would be made and income increased in the period of such determination. Likewise, in the event we determine we would not be able to realize all or part of our deferred tax assets in the future, an adjustment would be made and charged to income in the period of such determination.
- We account for share-based compensation in accordance with the fair value recognition provisions of FASB ASC Topic 718, *Share-based Payment*, which requires all share-based payments to employees, including grants of employee stock options, to be recognized in the consolidated financial statements based on their fair values. The fair value of stock options is calculated by using the Black-Scholes option pricing formula that requires estimates for expected volatility, expected dividends, the risk-free interest rate and the term of the option. If any of the assumptions used in the Black-Scholes model change significantly, share-based compensation expense may differ materially in the future from that recorded in the current period.
- Our inventory is stated at the lower of cost or estimated net realizable value. The cost of inventories is determined on the basis of weightedaverage cost. We perform an analysis of our inventory balances at least quarterly to determine if the carrying amount of inventories exceeds their net realizable value. The analysis of estimated net realizable value is based on customer orders, market trends and historical pricing. If the carrying amount exceeds the estimated net realizable value, the carrying amount is reduced to the estimated net realizable value.

RECENT ACCOUNTING PRONOUNCEMENTS

Liability Classified Warrants

In July 2017, the FASB issued an accounting standards update which modifies the requirements for the classification of certain financial instruments with down round features as equity versus liabilities. The guidance will allow for financial instruments previously required to be presented as liabilities due to the presence of down round features to be presented as equity upon meeting other criteria. We adopted the requirements of this update effective as of January 1, 2019, utilizing the full retrospective transition option. Accordingly, we reclassified the warrant liability to additional paid in capital on our December 31, 2018 consolidated balance sheets, which increased additional paid-in capital by \$6,970, increased accumulated deficit by \$4,778, and decreased warrant liability by \$2,192. In addition, because of the retrospective adoption, we credited change in fair value of warrant liability on our consolidated statements of operations by \$1,267 for year ended December 31, 2018. The adoption of this guidance had no impact on the Company's consolidated statement of cash flows in the current or previous annual reporting periods.



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Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force), the AICPA and the SEC did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

None.

Item 8. Financial Statements

The financial statements required by this item can be found beginning on page 50 of this Annual Report on Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosures

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. Under the supervision and with the participation of our management, including our Chief Executive Officer (Principal Executive Officer) and Vice President of Finance (Principal Financial Officer), we conducted an evaluation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15(d)-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Based on this evaluation, our Chief Executive Officer (Principal Executive Officer) and Vice President of Finance (Principal Financial Officer) concluded that our disclosure controls and procedures were effective as of December 31, 2019 (the end of the period covered by this report).

<u>Changes in Internal Controls.</u> There were no changes in our internal control over financial reporting (as that term is defined in Rules 13a-15(f) or 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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

As required by Section 404 of the Sarbanes-Oxley Act of 2002 and the related rule of the SEC, management assessed the effectiveness of the Company's internal control over financial reporting using the *Internal Control-Integrated Framework (2013)* developed by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, management concluded that the company's internal control over financial reporting was effective as of December 31, 2019. Management has not identified any material weaknesses in the Company's internal control over financial reporting as of December 31, 2019. The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by SingerLewak LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Liquidmetal Technologies, Inc.

Opinion on the Internal Control Over Financial Reporting

We have audited Liquidmetal Technologies, Inc. and its subsidiaries' (collectively, the "Company") internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, shareholders' equity and cash flows for the years then ended and the related notes to the consolidated financial statements (collectively, the "financial statements") of the Company and our report dated March 10, 2020 expressed an unqualified opinion.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ SingerLewak LLP

Los Angeles, California March 10, 2020

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Set forth below is a table identifying our directors and executive officers as of March 6, 2020:

Name	Age	Position
Lugee Li	59	Chairman of the Board, President and Chief Executive Officer
Bruce Bromage	66	Chief Operating Officer
Bryce Van	36	Vice President- Finance
Isaac Bresnick	35	Executive Administrator and Director
Abdi Mahamedi	56	Vice Chairman of the Board
Vincent Carrubba	59	Director
Tony Chung	50	Director

Professor Lugee Li ("Professor Li") was elected by our board of directors to serve as our Chief Executive Officer in December 2016. Pursuant to the terms of the 2016 Purchase Agreement, Professor Li was appointed as a member of our board of directors in March 2016 and became Chairman of our board of directors in October 2016. Professor Li is the founder, Chairman, and majority shareholder of DongGuan Eontec Co. Ltd. ("Eontec"), a Hong Kong company listed on the Shenzen Stock Exchange engaged in the production of precision die-cast products and the research and development of new materials. Professor Li founded Eontec in 1993 and has served as its Chairman since that date. At Eontec, Professor Li is responsible for strategic development and research and development. Professor Li is also the founder and sole shareholder of Leader Biomedical Limited, a Hong Kong company engaged in the supply of biomaterials and surgical implants. Professor Li serves as an analyst for the Institute of Metal Research at the Chinese Academy of Sciences and serves part-time as a professor at several universities in China. Professor Li owns Liquidmetal Technology Limited, a Hong Kong company and the investor in our 2016 Purchase Agreement.

Bruce Bromage was elected by our board of directors to serve as Chief Operating Officer in October 2017 after serving as Executive Vice President of Business Development and Operations with our Company since November 2012. From April 2002 to August 2010, Dr. Bromage served as Executive Vice President and General Manager of Symmetricom, a publicly traded provider of products for communications infrastructure and systems and was an officer of the company. Responsibilities during his eight years with Symmetricom included Corporate Strategy, M&A Integration, Information Technology, and General Management of the Timing, Test and Measurement Division and the Technology Realization Center. Prior to Symmetricom, Dr. Bromage held senior executive positions with two high-technology startups and managed Strategic Business Development with Hewlett Packard. Dr. Bromage received his Ph.D. in Cognitive Psychology from the University of California, Santa Barbara in 1981 and has completed executive programs with the Stanford Graduate School of Business.

Bryce Van was appointed by our board of directors to serve as our Vice President of Finance and Principal Financial and Accounting Officer in August 2017. Previously, Mr. Van served as our Corporate Controller since joining the Company in August 2013. Mr. Van is a Certified Public Accountant and served seven years at PwC as an Audit Manager for a mix of large and small-cap SEC registrants. He received his B.A. degree in Business Economics from University of California Santa Barbara in 2006.

Isaac Bresnick began serving on our board of directors in October 2016 and was appointed to the role of Executive Administrator within the Company in November 2016. From October 2014 to November 2016, Mr. Bresnick served as Legal and Regulatory Affairs Director for the Leader Biomedical Group, a private company based in Hong Kong and operating from Amsterdam, the Netherlands. At Leader Biomedical, Mr. Bresnick was responsible for the direction and management of legal affairs, regulatory affairs, quality control and quality assurance, as well as for advising executive management of affiliated companies. From July 2013 to October 2017, Mr. Bresnick served as Director of aap Joints GmbH, a private company in Berlin, Germany. From January 2013 through June 2013, Mr. Bresnick provided full-time consulting services to AAP Orthopedics Ltd., a BVI company. Mr. Bresnick received his J.D. from the University of Connecticut School of Law in 2013, and his B.S. in Industrial Design from the University of Bridgeport in 2008. After completion of his undergraduate studies and continuing through his enrollment at the University of Connecticut, Mr. Bresnick worked as Senior Arrangements Designer for Electric Boat Corporation, a subsidiary of General Dynamics, from June 2008 to December 2012.

Abdi Mahamedi has served as a director since May 2009 and served as Chairman of the board of directors from March 2010 through October 2016. Since 1987, Mr. Mahamedi has served as the President and Chief Executive Officer of Carlyle Development Group of Companies ("CDG"), which develops and manages residential and commercial properties in the United States on behalf of investors worldwide. In his role as President and Chief Executive Officer, Mr. Mahamedi evaluates and supervises all of the investment activities and management personnel of CDG. Prior to joining CDG, Mr. Mahamedi founded Emanuel Land Company, a subsidiary of Emanuel & Company, a Wall Street investment banking firm, and served as a managing director for Emanuel Land Company from 1986 to 1987. In 1983, Mr. Mahamedi received his B.S.E. degree in Civil and Structural Engineering from the University of Pennsylvania, and in 1984 he received his M.S.E. degree in Civil and Structural Engineering from the University of Pennsylvania.

Vincent Carrubba began serving on our board of directors in October 2016. From September 2014 through the present, Mr. Carrubba has served as the CEO of Admiral Composite Technologies Inc. ("Admiral"). During his time at Admiral, Mr. Carrubba has helped to develop new technologies for environmentally responsible and innovative building materials which represent Admiral's product lines. Mr. Carrubba has also served as Admiral's Chairman since its inception in 2009. From September 2014 through the present, Mr. Carrubba has served as the CEO of Asia Sourcing & Communications USA Inc. and he has served as its Chairman since its inception in 2013. From 2002 through August 2014, Mr. Carrubba served as the Director of research and development for Interdynamics Inc. and IDQ Holdings, where he was responsible for all research and development and quality control matters, including the management of engineering, legal, patenting, regulatory, insurance and consumer relations matters. From 1989 through 1992, Mr. Carrubba designed and installed the New York Stock Exchange telecommunications and information technology systems. Mr. Carrubba has held engineering and executive positions with Xerox, General Electric, Bristol-Meyers Squibb and AT&T and he is the inventor of several patents related to telecommunications, professional tools and consumer products. Mr. Carrubba received a Bachelor of Arts degree in Engineering Science and a Bachelor of Science Degree in Mechanical Engineering from Columbia University's School of Engineering and Applied Science (SEAS) in 1982.

Tony Chung was appointed to our board of directors in August 2017. Mr. Chung had previously served as the Company's Chief Financial Officer from December 2008 to August 2017. Prior to joining the Company, he was the Chief Financial Officer of Solarcity, currently a division of Tesla Inc., that provides advanced solar technology solutions. Mr. Chung currently serves as the Managing Director of Baypoint Ventures, a technology investment fund. Mr. Chung is an Attorney at Law and received a B.S. degree in business from UC Berkeley and a J.D. Degree from PCU Law School.

Audit Committee

We have a separately-designated standing Audit Committee of our board of directors (the "Audit Committee") established in accordance with Section 3(a) (58)(A) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Mr. Carrubba serves as the chairman, and Mr. Mahamedi and Mr. Chung serve as the other members of, the Audit Committee. Our board of directors has determined that Mr. Carrubba, Mr. Mahamedi are "independent directors" as defined by the rules of The NASDAQ Stock Market, Inc. applicable to members of an audit committee and Rule 10A-3(b)(i) under the Exchange Act. Our board of directors has deemed Mr. Chung to be qualified as an "audit committee financial expert" as defined in Item 407(d)(5) of Regulation S-K and also demonstrates "financial sophistication" as defined by the rules of The NASDAQ Stock Market,

The Audit Committee is appointed by our board of directors to assist our board of directors in monitoring the integrity of our financial statements, our compliance with legal and regulatory requirements, and the independence and performance of our internal and external auditors. The Audit Committee carries out these responsibilities through regular meetings with (1) our management team, (2) our internal auditors, with formal approval of fees and scope of services, and (3) our external auditors, with formal approval of the scope of services, fees, and quarterly independence assessments. The Audit Committee maintains open, direct, lines of communication with both the internal and external audit functions to further support them in their corporate governance efforts. The results of services performed by both our internal and external audit functions are reported directly to the Audit Committee.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of Exchange Act requires the Company's directors and officers, and persons who own more than 10% of a registered class of the Company's equity securities, to file initial reports of ownership and reports of changes in ownership with the SEC. Such persons also are required to furnish the Company with copies of all Section 16(a) reports they file.

Based solely on its review of the copies of such reports received by it with respect to fiscal year 2019 or written representations from certain reporting persons, the Company believes that all filing requirements applicable to its directors and officers and persons who own more than 10% of a registered class of the Company's equity securities have been complied with, on a timely basis, for fiscal year 2019.

Code of Ethics

Our board of directors has adopted a written Code of Ethics for Chief Executive Officer and Senior Financial and Accounting Officers that applies to our Principal Executive Officer, Principal Financial Officer, Principal Accounting Officer or Controller, or persons performing similar functions. A current copy of the code is filed as an exhibit to this report on Form 10-K and is also available on our website, <u>www.liquidmetal.com</u>, in the "Investors" section. In addition, we intend to post on our website, <u>www.liquidmetal.com</u>, all disclosures that are required by law concerning any amendments to, or waivers from, any provision of the Code of Ethics for Chief Executive Officer and Senior Financial and Accounting Officers.

Item 11. Executive Compensation

Executive Benefits and Perquisites

Set forth below is information regarding compensation earned by or paid or awarded to the following executive officers of the Company during the year ended December 31, 2019: (i) Professor Li, our Chairman, President and Chief Executive Officer; (ii) Bruce Bromage, our Chief Operating Officer; (iii) Bryce Van, our Vice President of Finance, and (iv) Isaac Bresnick, our Executive Administrator. These persons are hereafter referred to as our "named executive officers." The identification of such named executive officers is determined based on the individual's total compensation for the year ended December 31, 2019, as reported below in the Summary Compensation Table.

Summary Compensation Table

The following table sets forth for each of the named executive officers: (i) the dollar value of base salary and bonus earned during the years ended December 31, 2019 and 2018 (ii) the aggregate grant date fair value of stock and option awards granted during 2019 and 2018, computed in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 718 (R); (iii) the dollar value of earnings for services pursuant to awards granted during 2019 and 2018 under non-equity incentive plans; (iv) non-qualified deferred compensation earnings during 2019 and 2018; (v) all other compensation for 2019 and 2018; and, finally, (vi) the dollar value of total compensation for 2019 and 2018.

Name and Principal Position	Year	Salary	Bonus	Sto	ck Awards	Op	tion Awards (1)	Total
Lugee Li,	2019	\$ -	\$ -	\$	-	\$	-	\$ -
Chairman, President and Chief Executive Officer	2018	\$ -	\$ -	\$	-	\$	-	\$ -
Bruce Bromage,	2019	\$ 291,000	\$ 98,000	\$	-	\$	- (2)	\$ 389,000
Chief Operating Officer	2018	\$ 291,000	\$ 97,758	\$	-	\$	444,820 (2)	\$ 833,577
Bryce Van,	2019	\$ 245,000	\$ 78,000	\$	-	\$	- (3)	\$ 323,000
Vice President- Finance	2018	\$ 216,693	\$ 23,956	\$	-	\$	212,454 (3)	\$ 453,103
Isaac Bresnick,	2019	\$ 154,000	\$ 64,000	\$	-	\$	-	\$ 218,000
Executive Administrator	2018	\$ 154,000	\$ 64,410	\$	-	\$	-	\$ 218,410

(1) Please refer to Note 13 in the accompanying footnotes to the financial statements for discussion of the assumptions used in the valuation of option awards.

(2) Options to purchase 4,050,000 shares of our common stock were awarded to Mr. Bromage on November 15, 2018.

(3) Options to purchase 1,130,000 shares of our common stock were awarded to Mr. Van on May 10, 2018.

Outstanding Equity Awards at 2019 Fiscal Year-End

The following table sets forth information on outstanding option and stock awards held by the named executive officers at December 31, 2019, including the number of shares underlying both exercisable and un-exercisable portions of each stock option as well as the exercise price and expiration date of each outstanding option.

	Option Awards								
Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options		Option Exercise Price	Option Expiration Date			
Lugee Li	501,667	198,333 (1)	-	\$	0.13	5/4/2026			
Bruce Bromage	1,335,192	- (2)	-	\$	0.08	2/5/2023			
	1,704,500	- (3)	-	\$	0.29	2/5/2024			
	1,475,000	25,000 (4)	-	\$	0.14	1/28/2025			
	1,150,000	350,000 (5)	-	\$	0.07	2/17/2026			
	226,667	13,333 (6)	-	\$	0.23	2/7/2027			
	810,000	3,240,000 (10)	-	\$	0.14	11/15/2028			
Bryce Van	90,000	- (7)	-	\$	0.15	10/23/2023			
	300,000	- (3)	-	\$	0.29	2/5/2024			
	160,000	5,000 (4)	-	\$	0.14	1/28/2025			
	168,000	73,500 (5)	-	\$	0.07	2/17/2026			
	113,333	6,667 (6)	-	\$	0.23	2/7/2027			
	596,389	533,611 (9)	-	\$	0.24	5/10/2028			
Isaac Bresnick	420,000	280,000 (8)	-	\$	0.25	12/13/2026			
	226,667	13,333 (6)	-	\$	0.23	2/7/2027			

(1) The shares underlying these grants vest 20% following the first anniversary of the grant date of May 4, 2016, and on a monthly basis following such date for the remaining four years thereof.

- (2) The shares underlying these grants vest 20% following the first anniversary of the grant date of February 6, 2013, and on a monthly basis following such date for the remaining four years thereof.
- (3) The shares underlying these grants vest 20% following the first anniversary of the grant date of February 5, 2014, and on a monthly basis following such date for the remaining four years thereof.
- (4) The shares underlying these grants vest 20% following the first anniversary of the grant date of January 27, 2015, and on a monthly basis following such date for the remaining four years thereof.
- (5) The shares underlying these grants vest 20% following the first anniversary of the grant date of February 17, 2016, and on a monthly basis following such date for the remaining four years thereof.
- (6) The shares underlying these grants vest 33.33% following the first anniversary of the grant date of February 7, 2017, and on a monthly basis following such date for the remaining two years thereof.
- (7) The shares underlying these grants vest 20% following the first anniversary of the grant date of October 23, 2013, and on a monthly basis following such date for the remaining four years thereof.
- (8) The shares underlying these grants vest 20% following the first anniversary of the grant date of December 13, 2016, and on a monthly basis following such date for the remaining four years thereof.
- (9) The shares underlying these grants vest 33.33% following the first anniversary of the grant date of May 10, 2018, and on a monthly basis following such date for the remaining two years thereof.
- (10) The shares underlying these grants vest 20% following the first anniversary of the grant date of November 15, 2018, 20% on the second anniversary of the grant date, and 60% on the third anniversary of the grant date.

Employment Agreements and Change of Control Agreement

On March 10, 2016, the Company amended its Change of Control Agreements with named executive officers. As so amended, the Change of Control Agreements provide that if the executive officer's employment with the Company is terminated without cause during the one-year period after a change of control of the Company, then the terminated officer will receive a lump sum severance compensation in an amount equal to twelve months of his thencurrent base salary. The named executive officers will each also be entitled to the above-described severance compensation or a required move of more than 25 miles. In addition to the above-described severance compensation, upon any termination described in this paragraph, all unvested stock options related to these officers will automatically and immediately vest and shall thereafter be exercisable in accordance with the terms and provisions of the applicable award agreements. "Change of control" is defined in the Change of Control Agreements, with certain exceptions, as a merger of the Company with a third-party, the sale of all or substantially all of the Company's assets, the acquisition by a single person or group of more than 50% of the combined voting power of the Company's outstanding securities. "Cause" is defined in the Change of Control Agreements to include fraud, embezzlement, dishonesty, material harm to the Company, or an uncured failure to adequately perform job duties, among other things.

On November 15, 2018, the Company entered into an Employment Agreement with Bruce Bromage, the Company's Chief Operating Officer (the "Bromage Employment Agreement"). The Bromage Employment Agreement has a term of three years and will continue thereafter on an "at-will" basis until terminated by either the Company or Mr. Bromage upon 30 days' prior written notice. The Bromage Employment Agreement provides for an annual base salary of \$291,000 plus bonuses at the discretion of the Company's board of directors. The agreement provides that the Company can terminate Mr. Bromage's employment at any time and for any reason, provided that if his employment is terminated without "Cause" (as specifically defined in the agreement), then he will continue to be entitled to his base salary and health and welfare benefits for a period of twelve months after termination, and his unvested equity awards (to the extent they would have vested during the twelve-month period after termination)will immediately vest and become exercisable until the earlier of two years after vesting or the scheduled expiration date of the award. In the event that Mr. Bromage terminates his own employment within two years after a change in control of the Company for various "Good Reason Events" (as specifically defined in the agreement), including a material change in compensation or duties, the Company will also be obligated to pay him the same severance compensation that would be applicable to a termination without "Cause". The Bromage Employment Agreement provides that Mr. Bromage will not be entitled to any severance compensation if he voluntarily leaves the employment of the Company or is terminated for "Cause", and severance payments will cease if he violates certain restrictive covenants in the agreement.

On November 15, 2018, the Company entered into an Employment Agreement with Bryce Van, the Company's Vice President of Finance (the "Van Employment Agreement"). The Van Employment Agreement has a term of three years, subject to automatic extension on a month-to-month after the expiration of the initial three-year term. The Van Employment Agreement provides for an annual base salary of \$245,000 plus bonuses at the discretion of the Company's Board of Directors. The agreement provides that the Company can terminate Mr. Van's employment at any time and for any reason, provided that if his employment is terminated without "Cause" (as specifically defined in the agreement), then he will continue to be entitled to his base salary and health and welfare benefits for a period of twelve months after termination, and his unvested equity awards (to the extent they would have vested during the twelve-month period after termination) will immediately vest and become exercisable until the earlier of two years after vesting or the scheduled expiration date of the award. In the event that Mr. Van terminates his own employment within two years after a change in control of the Company for various "Good Reason Events" (as specifically defined in the agreement), including a material change in compensation or duties, the Company will also be obligated to pay him the same severance compensation that would be applicable to a termination without "Cause". The Van Employment Agreement provides that Mr. Van will not be entitled to any severance compensation if he voluntarily leaves the employment of the Company or is terminated for "Cause", and severance payments will cease if he violates certain restrictive covenants in the agreement.

Professor Li does not have an employment agreement or change of control agreement with the Company.

Potential Payments Upon Termination or Change in Control

The following table and summary set forth estimated potential payments the Company would be required to make to our named executive officers upon termination of employment or change in control of the Company, pursuant to each executive's employment agreement or change of control agreement in effect at year end. Except as otherwise indicated, the table assumes that the triggering event occurred on December 31, 2019.

Name	Benefit	Termination without Cause (\$)	Death (\$)	Termination Following Change of Control (\$)
Lugee Li (1)	Salary	-	-	-
	Bonus	-	-	-
	Equity Acceleration	-	-	-
	Benefits Continuation	-	-	-
	Total Value		-	-
Bruce Bromage	Salary	291,000	-	291,000
	Bonus	98,000	-	98,000
	Equity Acceleration	246,775	-	246,775
	Benefits Continuation	16,951	-	16,951
	Total Value	652,726	-	652,726
Bryce Van	Salary	245,000	-	245,000
	Bonus	78,000	-	78,000
	Equity Acceleration	85,086	-	85,086
	Benefits Continuation	8,147	-	8,147
	Total Value	416,233	-	416,233
Isaac Bresnick (2)	Salary	-	-	154,000
	Bonus	-	-	64,000
	Equity Acceleration	-	-	55,104
	Benefits Continuation		-	21,464
	Total Value	-	-	294,568

(1) Professor Li does not have an employment agreement, nor is he currently receiving any form of compensation from the Company.

(2) Severance amounts also apply if Mr. Bresnick terminates his own employment within one year after a change of control because of a salary decrease, assignment to a lower-level position or a required move of more than 25 miles.

401(k) Savings Plan

We have adopted a tax-qualified employee savings and retirement plan, or 401(k) plan that covers all of our employees. Pursuant to our 401(k) plan, participants may elect to reduce their current compensation, on a pre-tax basis, by an amount up to the statutorily prescribed annual limit and have the amount of the reduction contributed to the 401(k) plan. The 401(k) plan permits us, in our sole discretion, to make additional employer contributions to the 401(k) plan. However, we do not currently make employer contributions to the 401(k) plan and may not do so in the future. As such, contributions by employees or by us to the 401(k) plan, and the income earned on plan contributions, are not taxable to employees until withdrawn from the 401(k) plan, and we can deduct our contributions, if any, at the time they are made.

Director Compensation

The following table sets forth information regarding the compensation received by each of our non-employee directors serving during the year ended December 31, 2019:

Name	Fees Earned or Paid in Cash (\$)	Stock Awards(\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
Abdi Mahamedi	\$ 15,000	-	\$-	-	-	-	\$ 15,000
Walter Weyler (1)	\$ 10,000	-	\$-	-	-	-	\$ 10,000
Vincent Carrubba	\$ 40,000	-	\$-	-	-	-	\$ 40,000
Tony Chung	\$ 15,000	-	\$-	-	-	-	\$ 15,000

(1) Mr. Weyler resigned as a director of the Company on June 1, 2019.

Our non-employee directors receive certain compensation for their services and are reimbursed for expenses incurred in attending board and committee meetings, as determined by the board of directors. Mr. Currubba received a base fee of \$40,000 during 2019. Mr. Mahamedi and Mr. Chung each received an annual base fee of \$15,000 during 2019. All fees are paid quarterly in arrears.

We have a 2012 Equity Incentive Plan and a 2015 Equity Incentive Plan pursuant to which our non-employee directors are entitled to receive stock options. Each non-employee directors may be entitled to receive options on a case by case basis, in an amount determined by our board of directors or its compensation committee in its respective discretion, to purchase shares of common stock upon initial election to the board of directors. In determining the number of options granted to a director upon initial election, the compensation committee uses its judgment and, consistent with our compensation objectives, maintains the flexibility necessary to recruit qualified and experienced directors. All options granted under the plans have an exercise price equal to the fair market value of our common stock on the date of the grant. These stock options have a 10-year term and are exercisable pursuant to an equal 3-year vesting schedule, and remain exercisable for certain periods of time after a person is no longer a director.

No director who is an employee will receive separate compensation for services rendered as a director. However, our employee directors are eligible to participate in our 2012 and 2015 Equity Incentive Plans.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters

The following table sets forth certain information regarding the beneficial ownership of our common stock as of March 6, 2020 by:

- each person known by us to be a beneficial owner of more than 5.0% of our outstanding common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

The number and percentage of shares beneficially owned is determined under the rules of the SEC and is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership for each individual includes any shares as to which the individual has sole or shared voting power or investment power and also any shares which the individual has the right to acquire beneficial ownership of within 60 days of March 6, 2020 through the exercise of any stock option or other right. Unless otherwise indicated in the footnotes, each person has sole voting and investment power with respect to the shares shown as beneficially owned.

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A total of 914,449,957 shares of our common stock were issued and outstanding as of March 6, 2020. Unless otherwise indicated, the address of all directors and named executive officers is 20321 Valencia Circle, Lake Forest, California 92630.

	Common Stock				
Name of Beneficial Owner	Number of Shares(1)		Percent of Class(1)		
Directors and Named Executive Officers					
Lugee Li	416,986,959	(2)	45.1%		
Abdi Mahamedi	16,095,002	(3)	1.8%		
Vincent Carruba	846,667	(4)			
Tony Chung	261,083	(5)	*		
Bruce Bromage	6,853,722	(6)	*		
Bryce Van	1,585,944	(7)	*		
Isaac Bresnick	706,667	(8)	*		
Walter Weyler	-	(9)	*		
All directors and executive officers as a group (11 persons)	443,336,044		47.3%		
5% Shareholders					
Liquidmetal Technology Limited Room 906, Tai Tung Building, 8 Fleming Rd Wanchai, Hong Kong	415,066,809	(10)	44.9%		

*Less than one percent

- (1) Shares of common stock beneficially owned and the respective percentages of beneficial ownership of common stock assumes the exercise or conversion of all options, warrants and other securities convertible into common stock, beneficially owned by such person or entity currently exercisable or exercisable within 60 days of March 6, 2020. Shares issuable pursuant to the exercise of stock options and warrants exercisable within 60 days of March 6, 2020, or securities convertible into common stock within 60 days of March 6, 2020, are deemed outstanding and held by the holder of such shares of common stock, options, warrants, or other convertible securities, for purposes of computing the percentage of outstanding common stock beneficially owned by such person, but are not deemed outstanding for computing the percentage of outstanding common stock beneficially owned by any other person. The percentage of common stock beneficially owned is based on 914,449,957 shares of common stock outstanding as of March 6, 2020.
- (2) Includes:
 - (a) 405,000,000 shares of common stock held of record by Liquidmetal Technology Limited. Professor Li is the majority owner, officer, and director of Liquidmetal Technology Limited and has sole power to direct the voting and disposition of such shares;
 - (b) 10,066,809 shares issuable pursuant to a Warrant held by Liquidmetal Technology Limited which is exercisable currently or within 60 days of March 6, 2020. Professor Li is the sole owner, officer, and director of Liquidmetal Technology Limited and has sole power to direct the voting and disposition of such shares;
 - (c) 1,360,150 shares of common stock held of record by Professor Li; and

- (d) 560,000 shares issuable pursuant to outstanding stock options which are exercisable currently or within 60 days of March 6, 2020.Does not include 140,000 shares that are issuable pursuant to outstanding stock options, held by Professor Li, that are not exercisable currently or within 60 days of March 6, 2020.
- (3) Includes:
 - (a) 13,858,908 shares of common stock held of record by Carlyle Holdings, LLC. Mr. Mahamedi has the power to direct the voting and disposition of such shares as the president and sole shareholder of Carlyle Development Group, Inc., which is a managing member of Carlyle Holdings, LLC;
 - (b) 759,428 shares of common stock held of record by Mr. Mahamedi; and
 - (c) 1,476,666 shares issuable pursuant to outstanding stock options which are exercisable currently or within 60 days of March 6, 2020. Does not include 193,334 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (4) Includes 846,667 shares issuable pursuant to outstanding stock options, held of record by Mr. Carrubba, which are exercisable currently or within 60 days of March 6, 2020. Does not include 360,000 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (5) Includes:
 - (a) 85,250 shares of common stock held of record by Mr. Chung; and
 - (b) 175,833 shares issuable pursuant to outstanding stock options which are exercisable currently or within 60 days of March 6, 2020. Does not include 139,167 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (6) Includes:
 - (a) 14,030 shares of common stock held of record by Mr. Bromage; and
 - (b) 6,839,692 shares issuable pursuant to outstanding stock options which are exercisable currently or within 60 days of March 6, 2020. Does not include 3,490,000 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (7) Includes 1,585,944 shares issuable pursuant to outstanding stock options, held of record by Mr. Van, which are exercisable currently or within 60 days of March 6, 2020. Does not include 460,556 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (8) Includes 706,667 shares issuable pursuant to outstanding stock options, held of record by Mr. Bresnick, which are exercisable currently or within 60 days of March 6, 2020. Does not include 233,333 shares that are issuable pursuant to outstanding stock options that are not exercisable currently or within 60 days of March 6, 2020.
- (9) Mr. Weyler resigned as a director of the Company on June 1, 2019.
- (10) Includes:
 - (a) 405,000,000 shares of common stock held of record by Liquidmetal Technology Limited; and
 - (b) 10,066,809 shares issuable pursuant to a Warrant held by Liquidmetal Technology Limited which is exercisable currently or within 60 days of March 6, 2020.

Equity Compensation Plan Information

Our executive officers, directors, and all of our employees are allowed to participate in our equity incentive plans. We believe that providing them with the ability to participate in such plans provides them with a further incentive towards ensuring our success and accomplishing our corporate goals.

The following table provides information regarding the securities authorized for issuance under our equity compensation plans as of December 31, 2019:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights [a]	Weighted-average exercise price of outstanding options, warrants, and rights [b]	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column [a]) [c]	
Equity compensation plans approved by stockholders	6,999,445	\$ 0.20	13,177,302	
Equity compensation plans not approved by stockholders	12,341,667	0.16	17,336,202	
Total	19,341,112	\$ 0.17	30,513,504	

The number of securities, and types of plans available for future issuances of stock options, as of December 31, 2019 was as follows:

Plan Name	Options and Warrants for Common Shares				
	Authorized	Exercised	Outstanding	Available	
2002 Equity Incentive Plan (1)	10,000,000	2,112,000	69,000	-	
2012 Equity Incentive Plan	30,000,000	9,892,253	6,930,445	13,177,302	
2015 Equity Incentive Plan	40,000,000	10,322,131	12,341,667	17,336,202	
Total Stock Options	80,000,000	22,326,384	19,341,112	30,513,504	

(1) The 2002 Equity Incentive Plan expired by its terms in April 2012, resulting in no additional incentive stock option grants being available under this plan.

2002 Equity Incentive Plan

Our 2002 Equity Incentive Plan (the "2002 Plan"), which was adopted by our board of directors and approved by our shareholders in April 2002, provides for the grant of stock options to officers, employees, consultants, and directors of our company and its subsidiaries. The 2002 Plan provides for the granting to employees of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and for the granting to employees and consultants of non-statutory stock options. In addition, the 2002 Plan permits the granting of stock appreciation rights, or SARs, with or independently of options, as well as stock bonuses and rights to purchase restricted stock. A total of 10 million shares of our common stock may be granted under the 2002 Plan.

There were 69,000 outstanding options or stock awards at a weighted average price of \$0.12 under the 2002 Plan as of December 31, 2019. There were 69,000 options exercisable and 2,112,000 shares had been issued upon exercise of options under the 2002 Plan as of December 31, 2019.

The 2002 Plan expired by its terms in April 2012. The 2002 Plan will remain in effect only with respect to the equity awards that have been granted under the 2002 Plan prior to its expiration.

2012 Equity Incentive Plan

On June 28, 2012, the Company adopted the 2012 Equity Incentive Plan ("2012 Plan"), with the approval of the shareholders, which provided for the grant of stock options to officers, employees, consultants and directors of the Company and its subsidiaries. The purpose of the 2012 Plan is to advance the interests of our shareholders by enhancing our ability to attract, retain, and motivate persons who make or are expected to make important contributions to the Company and its subsidiaries by providing such persons with equity ownership opportunities and performance-based incentives, thereby better aligning their interests with those of our shareholders.

The 2012 Plan provides for the granting to employees of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and for the granting to employees and consultants of non-statutory stock options. In addition, it permits the granting of stock appreciation rights, or SARs, with or independently of options, as well as stock bonuses and rights to purchase restricted stock. A total of 30 million shares of our common stock may be granted under the 2012 Plan, and all options granted under this plan had exercise prices that were equal to the fair market value on the date of grant.

There were 6,930,445 outstanding options or stock awards at a weighted average price of \$0.20 under the 2012 Plan as of December 31, 2019. There were 6,564,029 options exercisable and 9,892,253 shares had been issued upon exercise of options under the 2012 Plan as of December 31, 2019.

2015 Equity Incentive Plan

On January 27, 2015, the Company adopted the 2015 Equity Incentive Plan ("2015 Plan"), which provided for the grant of stock options to officers, employees, consultants and directors of the Company and its subsidiaries. The purpose of the 2015 Plan is to advance the interests of our shareholders by enhancing our ability to attract, retain, and motivate persons who make or are expected to make important contributions to the Company and its subsidiaries by providing such persons with equity ownership opportunities and performance-based incentives, thereby better aligning their interests with those of our shareholders.

The 2015 Plan provides for the granting to employees and consultants of non-statutory stock options. In addition, it permits the granting of stock appreciation rights, or SARs, with or independently of options, as well as stock bonuses and rights to purchase restricted stock. A total of 40 million shares of our common stock may be granted under the 2015 Plan, and all options granted under this plan had exercise prices that were equal to the fair market value on the date of grant.

There were 12,341,667 outstanding options or stock awards at a weighted average price of \$0.16 under the 2015 Plan as of December 31, 2019. There were 6,822,410 options exercisable and 10,322,131 shares had been issued upon exercise of options under the 2015 Plan as of December 31, 2019.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Transactions with Related Persons

On March 10, 2016, the Company entered into the 2016 Purchase Agreement with Liquidmetal Technology Limited, providing for the purchase of 405,000,000 shares of the Company's common stock for an aggregate purchase price of \$63,400,000. Liquidmetal Technology Limited is a company owned by Professor Li that was formed in 2016 in contemplation of the 2016 Purchase Agreement. In connection with the 2016 Purchase Agreement and also on March 10, 2016, the Company and Eontec, entered into a license agreement pursuant to which the Company and Eontec entered into a cross-license of their respective technologies. Eontec is a publicly held Hong Kong corporation of which Professor Li is the Chairman and major shareholder. As of December 31, 2019, Professor Li is a greater-than 5% beneficial owner of the Company's common stock and served (and currently serves) as the Company's Chairman, President, and Chief Executive Officer. Equipment and services procured from Eontec were \$31 thousand and \$213 thousand during the years ended December 31, 2019 and 2018, respectively.

Review, Approval or Ratification of Transactions with Related Persons

Our policy is to require that any transaction with a related party required to be reported under applicable SEC rules, other than compensation-related matters, be reviewed and approved or ratified by the Audit Committee. The Audit Committee has not adopted specific procedures for review of, or standards for approval of, these transactions, but instead reviews such transactions on a case by case basis. Our policy is to require that all compensation-related matters be recommended for board of directors approval by the Compensation Committee. During the last fiscal year no transactions with a related party occurred that required a waiver of this policy and no transactions with a related party occurred in which we did not follow this policy.

Director Independence

Our board of directors currently has five members – Lugee Li, Isaac Bresnick, Abdi Mahamedi, Vincent Carrubba, and Tony Chung. Our board of directors has determined that Mr. Mahamedi and Mr. Carrubba are "independent directors" as such term is defined by the rules of the NASDAQ Stock Market, Inc. Prior to his resignation on June 1, 2019, the board of directors had determined that Walter Weyler was also an "independent director" as such term is defined by the rules of the NASDAQ Stock Market, Inc. In addition, all of the members of our Compensation Committee, Corporate Governance and Nominating Committee, and Audit Committee are "independent directors" under the rules of the NASDAQ Stock Market, Inc. and the SEC applicable to members of such committees.

Item 14. Principal Accountant Fees and Services

Audit Fees for 2019 and 2018

The following table summarizes the aggregate fees billed to us by SingerLewak LLP, our principal accountants, for professional services during the years ended December 31, 2019 and December 31, 2018:

Fees	2019		2018	
Audit Fees (1)	\$	194,039	\$	160,913
All Other Fees		-		-
Total Fees	\$	194,039	\$	160,913

(1) Audit Fees.

Fees for audit services billed in 2019 consisted of:

- Progress billings for the audits of the Company's financial statements for 2018 and 2019; and
- Review of the Company's quarterly financial statements for 2019.

Fees for audit services billed in 2018 consisted of:

- Progress billings for the audits of the Company's financial statements for 2017 and 2018; and
- Review of the Company's quarterly financial statements for 2018.

Audit Committee Pre-Approval Policies

Our Audit Committee pre-approves all audit and permissible non-audit services provided by our independent public accountants on a case-by-case basis. Our Audit Committee approved 100% of the services performed by SingerLewak LLP in 2019 and 2018 and no non-audit related services were provided by SingerLewak LLP in either of 2019 or 2018.

PART IV

Item 15. Exhibits, Financial Statement Schedules

- (a) The following documents are filed as a part of this report:
 - 1. *Financial Statements*. See the Index to Consolidated Financial Statements on page 52.
 - 2. Exhibits. See Item 15(b) below.
- (b) *Exhibits*. The exhibits listed on the Exhibit Index, which appears at the end of this Item 15, are filed as part of, or are incorporated by reference into, this report.
- (c) *Financial Statement Schedule*. See Item 15(a)(1) above.

EXHIBIT INDEX

Exhibit Number	Document Description
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to the Form 8-K filed on May 20, 2016).
3.2	Amended and Restated ByLaws of Liquidmetal Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed on October 5, 2015).
4.1	Reference is made to Exhibits 3.1 and 3.2.
4.2	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.2 to the Form 10-Q filed on August 14, 2003).
4.3	Description of Securities Registered Under Section 12 of the Securities Exchange Act of 1934, as amended.
10.1	Amended and Restated License Agreement, dated September 1, 2001, between Liquidmetal Technologies, Inc. and California Institute of <u>Technology (incorporated by reference to Exhibit 10.1 to the Registration Statement on Form S-1 filed on November 20, 2001 (Registration No. 333-73716)).</u>
10.2*	2002 Equity Incentive Plan (incorporated by reference to Exhibit 10.23 to the Registration Statement on Form S-1 (Amendment No. 2) filed on April 5, 2002 (Registration No. 333-73716)).
10.3*	2002 Non-Employee Director Stock Option Plan (incorporated by reference to Exhibit 10.24 to the Registration Statement on Form S-1 (Amendment No. 2) filed on April 5, 2002 (Registration No. 333-73716)).
10.4	Form of Indemnity Agreement between Liquidmetal Technologies, Inc. and directors and executive officers (<i>incorporated by reference from Exhibit 10.59 to the Form 10-K filed on March 16, 2006</i>).
10.5	Form of Common Stock Purchase Warrant issued in connection with the 8% Senior Secured Convertible Subordinated Notes (<i>incorporated by reference from Exhibit 10.3 to the Form 8-K filed on May 7, 2009</i>).
10.6*	Employment Agreement, dated August 3, 2010, between Thomas Steipp and Liquidmetal Technologies, Inc. (<i>incorporated by reference from Exhibit 10.1 to the Form 10-Q filed on November 4, 2010</i>).
10.7**	Master Transaction Agreement, dated August 5, 2010, among Apple Inc., Liquidmetal Technologies, Inc., Liquidmetal Coatings, LLC and Crucible Intellectual Property, LLC (incorporated by reference from Exhibit 10.3 to the Form 10-Q filed on November 4, 2010).
10.8*	Liquidmetal Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference from Exhibit 10.1 to the Form 8-K filed on July 2, 2012).
10.9	Form of Warrant to Purchase Common Stock (incorporated by reference from Exhibit 10.4 to the Form 8-K filed on July 2, 2012).
10.10	<u>Common Stock Purchase Warrant, dated June 1, 2012, issued to Visser Precision Cast, LLC. (incorporated by reference from Exhibit 10.39 to</u> the Registration Statement on Form S-1 filed July 18, 2012)

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- 10.11 Common Stock Purchase Warrant, dated June 28, 2012, issued to Visser Precision Cast, LLC. (incorporated by reference from Exhibit 10.40 to the Registration Statement on Form S-1 filed July 18, 2012)
- 10.12
 Amendment Number One to Master Transaction Agreement and Other Transaction Documents, dated June 15, 2012, among Apple Inc., Liquidmetal Technologies, Inc., Liquidmetal Coatings, LLC and Crucible Intellectual Property, LLC. (incorporated by reference from Exhibit 10.41 to the Registration Statement on Form S-1 (Amendment No. 1) filed on August 3, 2012).
- 10.13
 Amendment Number Two to Master Transaction Agreement and Other Transaction Documents, dated May 19, 2014, among Apple Inc., Liquidmetal Technologies, Inc., Liquidmetal Coatings, LLC and Crucible Intellectual Property, LLC. (incorporated by reference from Exhibit 10.1 on the Form 10-Q filed on August 12, 2014).
- 10.14
 Settlement Agreement and Mutual General Release, dated May 20, 2014, between Liquidmetal Technologies, Inc. and Visser Precision Cast, LLC. (incorporated by reference from Exhibit 10.1 to the Form 8-K filed on May 20, 2014).
- 10.15 Amended and Restated VPC Sublicense Agreement, dated May 20, 2014, between Liquidmetal Technologies, Inc. and Visser Precision Cast, LLC. (*incorporated by reference from Exhibit 10.2 to the Form 8-K filed on May 20, 2014*).
- 10.16 Amended and Restated Registration Rights Agreement, dated May 20, 2014, between Liquidmetal Technologies, Inc. and Visser Precision Cast, LLC. (*incorporated by reference from Exhibit 10.3 to the Form 8-K filed on May 20, 2014*).
- 10.17
 Amended and Restated Mutual Nondisclosure Agreement, dated May 20, 2014, between Liquidmetal Technologies, Inc. and Visser Precision

 Cast, LLC. (incorporated by reference from Exhibit 10.4 to the Form 8-K filed on May 20, 2014).
- 10.18 Amended and Restated Common Stock Purchase Warrant, dated May 20, 2014, issued to Visser Precision Cast, LLC. (incorporated by reference from Exhibit 10.5 to the Form 8-K filed on May 20, 2014).
- 10.19 Liquidmetal Technologies, Inc. 2015 Equity Incentive Plan (*incorporated by reference from Exhibit 10.1 to the Form 8-K filed on February 9*, 2015).
- 10.20
 Amendment Number Three to Master Transaction Agreement and Other Transaction Documents, dated June 17, 2015, among Apple Inc., Liquidmetal Technologies, Inc., Liquidmetal Coatings, LLC and Crucible Intellectual Property, LLC (incorporated by reference from Exhibit 10.1 on the Form 10-Q filed on August 6, 2015).
- 10.21 Form of Director and Officer Indemnification Agreement (incorporated by reference from Exhibit 10.1 to the Form 8-K filed on October 5, 2015).
- 10.22 Form of Amended and Restated Director and Officer Indemnification Agreement (*incorporated by reference from Exhibit 10.2 to the Form 8-K filed on October 5, 2015*).
- 10.23 Form of Amendment to Change of Control Agreement (*incorporated by reference from Exhibit 10.3 to the Form 8-K filed on February 9*, 2016).
- 10.24 <u>Stock Purchase Warrant, dated March 10, 2016, issued to Liquidmetal Technology Limited by Liquidmetal Technologies, Inc. (incorporated by reference from Exhibit 4.1 to the Form 8-K filed on March 14, 2016).</u>
- 10.25 <u>Securities Purchase Agreement, dated March 10, 2016, between Liquidmetal Technologies, Inc. and Liquidmetal Technology Limited</u> (incorporated by reference from Exhibit 10.1 to the Form 8-K filed on March 14, 2016).

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10.26	Parallel License Agreement, d	lated March 10, 2016	<u>, between Liquidmetal</u>	Technologies, Inc	<u>c. and DongGuan Eon</u>	<u>tec Co., Ltd. (</u>	(incorporated by
	reference from Exhibit 10.2 to	<u>the Form 8-K filed c</u>	<u>n March 14, 2016).</u>				

- 10.27*
 Amended and Restated Employment Agreement, dated March 10, 2016, between Thomas Steipp and Liquidmetal Technologies, Inc. (incorporated by reference from Exhibit 10.3 to the Form 8-K filed on March 14, 2016).
- 10.28 Form of Amendment of Change of Control Agreement (incorporated by reference from Exhibit 10.4 to the Form 8-K filed on March 14, 2016).
- 10.29 Amendment to Securities Purchase Agreement, dated August 17, 2016, between Liquidmetal Technologies, Inc. and Liquidmetal Technology Limited (*incorporated by reference from Exhibit 10.1 to the Form 8-K filed on August 17, 2016*).
- 10.30 <u>Separation and Mutual Release Agreement, dated November 17, 2016, between Liquidmetal Technologies, Inc. and Thomas Steipp</u> (*incorporated by reference from Exhibit 10.1 to the Form 8-K filed on November 21, 2016*).
- 10.31 Separation Agreement and General Release, dated August 16, 2017, between Liquidmetal Technologies, Inc., and Tony Chung (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on August 22, 2017).
- 10.32* Employment agreement, dated November 15, 2018, between Liquidmetal Technologies, Inc. and Bruce Bromage (*incorporated by reference from Exhibit 10.1 to the Form 8-K filed on November 21, 2018*).
- 10.33* <u>Employment agreement, dated November 15, 2018, between Liquidmetal Technologies, Inc. and Bryce Van (incorporated by reference from Exhibit 10.2 to the Form 8-K filed on November 21, 2018).</u>
- 10.34 <u>Standard Industrial/Commercial Multi-Tenant Lease Net, dated January 23, 2020, between 20321 Valencia, LLC and MatterHackers, Inc. (incorporated by reference from Exhibit 10.1 to the Form 8-K filed on January 29, 2020).</u>
- 10.35 Business Development Agreement, dated January 31, 2020, between Liquidmetal Technologies, Inc. and Eutectix, LLC. (*incorporated by reference from Exhibit 10.1 to the Form 8-K filed on February 5, 2020*).
- 21.1 Subsidiaries of the Registrant (incorporated by reference from Exhibit 21.1 to the Registration Statement on S-1 filed July 18, 2012).
- 24.1 Power of Attorney relating to subsequent amendments (included on the signature page(s) of this report).
- 31.1 Certification of Principal Executive Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 31.2 Certification of Principal Financial Officer pursuant to Rule 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as amended.
- 32.1 Certification pursuant to 18 U.S.C. Section 1350.
- 101 The following financial statements from Liquidmetal Technologies, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2019, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Other Comprehensive Loss, (iv) Consolidated Statements of Shareholder's Equity, (v) Consolidated Statements of Cash Flows, and (vi) Notes to Consolidated Financial Statements.
 - * Denotes a management contract or compensatory plan or arrangement.
 - ** Portions of this exhibit have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the Securities and Exchange Commission.

Item 16. Form 10-K Summary

None.

SIGNATURES

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

Liquidmetal Technologies, Inc.

By: /s/ Lugee Li

Lugee Li President and Chief Executive Officer (Principal Executive Officer)

Date: March 10, 2020

KNOW ALL THESE PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Lugee Li and Bryce Van and each of them, jointly and severally, his attorneys-in-fact, each with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each said attorneys-in-fact or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report on Form 10-K has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Lugee Li		
Lugee Li	President, Chief Executive Officer and Director (Principal Executive Officer)	March 10, 2020
/s/ Bryce Van		
Bryce Van	Vice President of Finance (Principal Financial Officer and Principal Accounting Officer)	March 10, 2020
/s/ Abdi Mahamedi		
Abdi Mahamedi	Director	March 10, 2020
/s/ Isaac Bresnick		
Isaac Bresnick	Director	March 10, 2020
/s/ Vincent Carrubba		
Vincent Carrubba	Director	March 10, 2020
/s/ Tony Chung		
Tony Chung	Director	March 10, 2020
Certifications provided as Exhibits.		
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Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Liquidmetal Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Liquidmetal Technologies, Inc. and its subsidiaries (collectively, the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated March 10, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

We have served as the Company's auditor since 2011.

/s/ SingerLewak LLP

Los Angeles, California March 10, 2020



LIQUIDMETAL TECHNOLOGIES, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS (in thousands, except share and per share data)

	December 31, 2019		December 31, 2018	
ASSETS				
Comment accedes				
Current assets: Cash and cash equivalents	\$	19,543	\$	35,229
Restricted cash	J	19,343	φ	55,229
Investments in debt securities- short term		4,415		J
Trade accounts receivable, net of allowance for doubtful accounts		303		120
Inventory		12		31
Prepaid expenses and other current assets		322		363
Total current assets	\$	24,600	\$	35,748
Investments in debt securities- long term	*	7,074	+	-
Property and equipment, net		8,819		11,767
Patents and trademarks, net		239		322
Equipment held for sale		585		-
Other assets		14		14
Total assets	\$	41,331	\$	47,851
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities:				
Accounts payable		132		253
Accrued liabilities		775		270
Deferred revenue		-		31
Total current liabilities	\$	907	\$	554
Long-term liabilities				
Other long-term liabilities		856		856
Total liabilities	\$	1,763	\$	1,410
Shareholders' equity:				
Preferred Stock, \$0.001 par value; 10,000,000 shares authorized; 0 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively		-		-
Common stock, \$0.001 par value; 1,100,000,000 shares authorized; 914,449,957 and 914,206,832 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively		914		914
Warrants		18,179		18,179
Additional paid-in capital		286,832		286,276
Accumulated deficit		(266,284)		(258,854
Accumulated other comprehensive income		2		-
Non-controlling interest in subsidiary		(75)		(74)
Total shareholders' equity	\$	39,568	\$	46,441
Total liabilities and shareholders' equity	\$	41,331	\$	47,851
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The accompanying notes are an integral part of the consolidated financial statements.

LIQUIDMETAL TECHNOLOGIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS (in thousands, except share and per share data)

	 Years Ended D			
	 2019	201	8	
Revenue				
Products	\$ 1,325	\$	484	
Licensing and royalties	 48		48	
Total revenue	1,373		532	
Cost of sales	832		1,164	
Gross profit (loss)	541		(632	
Operating expenses				
Selling, marketing, general and administrative	5,424		5,899	
Research and development	1,342		2,429	
Impairment of long-lived assets	1,676		-	
Gain on disposal of long-lived assets	 (11)		-	
Total operating expenses	 8,431		8,328	
Operating loss	(7,890)		(8,960	
Interest and investment income	 459		259	
Loss before income taxes	(7,431)		(8,701	
Income taxes	 -		-	
Net loss	(7,431)		(8,701	
Net loss attributable to non-controlling interest	1		1	
Net loss attributable to Liquidmetal Technologies shareholders	\$	\$	(8,700	
Per common share basic and diluted:				
Net loss per common share attributable to Liquidmetal Technologies shareholders, basic	\$ (0.01)	\$	(0.01	
Net loss per common share attributable to Liquidmetal Technologies shareholders, diluted	\$ (0.01)	\$	(0.01	
Number of weighted average shares - basic	 914,352,127	910	,546,059	
Number of weighted average shares - diluted	 914,352,127	910	,546,059	

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

LIQUIDMETAL TECHNOLOGIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (in thousands, except share and per share data)

	Years Ended December 31,				
		2019	2018		
Net loss	\$	(7,431)	\$	(8,701)	
Other comprehensive income, net of tax	Ψ	(7,101)	Ψ	(0,701)	
Net unrealized gains on available-for-sale securities		2		-	
Other comprehensive income, net of tax		2		-	
Comprehensive loss	\$	(7,429)	\$	(8,701)	
Less: Comprehensive loss attributable to noncontrolling interests		1		1	
Comprehenisve income attributable to Liquidmetal Technologies shareholders	\$	(7,428)	\$	(8,700)	

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

LIQUIDMETAL TECHNOLOGIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (in thousands, except share and per share data)

Balance, December 31, 2017	Preferred Shares -	Common Shares 908,768,116	Common Stock \$ 909	Warrants part of Additional Paid-in Capital \$ 18,179	Additional Paid-in Capital \$ 284,894	Accumulated Deficit \$ (250,154)	Accumulated other comprehensive income	Non- controlling Interest \$ (73)	Total \$53,755
Stock option exercises	-	5,438,716	5		458	-	-	-	463
Stock-based compensation	-	-	-	-	924	-	-	-	924
Net loss	-	-	-	-	-	(8,700)	-	(1)	(8,701)
Balance, December 31, 2018	<u> </u>	914,206,832	914	18,179	286,276	(258,854)		(74)	46,441
Stock option exercises	-	243,125	-		21	-		-	21
Stock-based compensation	-	-	-	-	535	-		-	535
Net loss Other comprehensive income	-	-	-	-	-	(7,430)	2	(1)	(7,431) 2
Balance, December 31, 2019		914,449,957	\$ 914	\$ 18,179	\$ 286,832	\$ (266,284)	<u>\$2</u>	<u>\$ (75</u>)	\$ 39,568

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

LIQUIDMETAL TECHNOLOGIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS (in thousands, except share and per share data)

	 Years Ended Dece	cember 31,	
	 2019	2018	
Operating activities:			
Net loss	\$ (7,431) \$	(8,701	
Adjustments to reconcile net loss to net cash used in operating activities:			
Mark-down of inventory	-	641	
Depreciation and amortization	1,129	1,078	
Stock-based compensation	535	924	
Impairment of long-lived assets	1,676	-	
Gain on disposal of long-lived assets	(11)	-	
Changes in operating assets and liabilities:			
Trade accounts receivable	(183)	37	
Inventory	19	(281	
Prepaid expenses and other current assets	41	(37	
Accounts payable and accrued liabilities	384	64	
Deferred revenue	(31)	24	
Net cash used in operating activities	 (3,872)	(6,251	
Investing Activities:			
Purchases of property and equipment	(630)	(292	
Proceeds from disposal of fixed assets	282	-	
Purchases of debt securities	(11,692)	-	
Proceeds from sales of debt securities	205	-	
Net cash used in investing activities	(11,835)	(292	
Financing Activities:			
Proceeds from exercise of stock options	21	463	
Net cash provided by financing activities	 21	463	
Net decrease in cash, cash equivalents, and restricted cash	(15,686)	(6,080	
Cash, cash equivalents, and restricted cash at beginning of period	 35,234	41,314	
Cash, cash equivalents, and restricted cash at end of period	\$ 19,548 \$	35,234	
Supplemental Schedule of Non-Cash Financing Activities:			
Accrued capital expenditures	-	2	

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

1. Description of Business

Liquidmetal Technologies, Inc. (the "Company") is a materials technology company that develops and commercializes products made from amorphous alloys. The Company's family of alloys consists of a variety of bulk alloys and composites that utilize the advantages offered by amorphous alloys technology. The Company designs, develops and sells products and custom parts from bulk amorphous alloys to customers in a wide range of industries. The Company also partners with third-party manufacturers and licensees to develop and commercialize Liquidmetal alloy products.

Amorphous alloys are, in general, unique materials that are distinguished by their ability to retain a random atomic structure when they solidify, in contrast to the crystalline atomic structure that forms in other metals and alloys when they solidify. Liquidmetal alloys are proprietary amorphous alloys that possess a combination of performance, processing, and potential cost advantages that the Company believes will make them preferable to other materials in a variety of applications. The amorphous atomic structure of bulk alloys enables them to overcome certain performance limitations caused by inherent weaknesses in crystalline atomic structures, thus facilitating performance and processing characteristics superior in many ways to those of their crystalline counterparts. The Company believes that the alloys and the molding technologies it employs may result in components, for many applications, that exhibit: exceptional dimensional control and repeatability that rivals precision machining, excellent corrosion resistance, brilliant surface finish, high strength, high hardness, high elastic limit, alloys that are non-magnetic, and the ability to form complex shapes common to the injection molding of plastics. Interestingly, all of these characteristics are achievable from the molding process, so design engineers often do not have to select specific alloys to achieve one or more of the characteristics as is the case with crystalline materials. The Company believes these advantages could result in Liquidmetal alloys supplanting high-performance alloys, such as titanium and stainless steel, and other incumbent materials in a wide variety of applications. Moreover, the Company believes these advantages could enable the introduction of entirely new products and applications that are not possible or commercially viable with other materials.

The Company's revenues are derived from i) selling bulk Liquidmetal alloy products to customers who produce medical devices, automotive assemblies, sports and leisure goods, and non-consumer electronic devices, ii) selling tooling and prototype parts such as demonstration parts and test samples for customers with products in development, iii) product licensing and royalty revenue, and iv) research and development revenue. The Company expects that these sources of revenue will continue to significantly change the character of the Company's revenue mix.

2. Summary of Significant Accounting Policies

Principles of Consolidation. The consolidated financial statements include the accounts of Liquidmetal Technologies, Inc., its special-purpose whollyowned subsidiary, Crucible Intellectual Property LLC, 20321 Valencia LLC, and Liquidmetal Golf. All intercompany balances and transactions have been eliminated.

Non-Controlling Interest. The results of operations attributable to the non-controlling interest of Liquidmetal Golf are presented within equity and are shown separately from the Company's equity.

Revenue Recognition. Revenue is recognized pursuant to applicable accounting standards including FASB ASC Topic 606 ("ASC 605"), Revenue from Contracts with Customers. ASC 606 summarizes certain points in applying generally accepted accounting principles to revenue recognition in financial statements and provides guidance on revenue recognition issues in the absence of authoritative literature addressing a specific arrangement or a specific industry.

The Company's revenue recognition policy complies with the requirements of ASC 606. As a majority of the Company's sales revenue continues to be recognized when products are shipped, and there was no change in the recognition model historically applied to active license and royalty contracts under the new revenue standard, there was no adjustment to the opening balance of retained earnings. The impact to the Company's results of operations is not material, on an on-going basis, because the analysis of the Company's contracts under the new revenue standard supports a recognition model. Revenue on the majority of the Company's contracts will continue to be recognized over time because of the continuous transfer of control to the customer.

Products. Product revenues are primarily generated from the sale and prototyping of molds and bulk alloy products. Revenue is recognized when i) persuasive evidence of an arrangement exists, ii) delivery has occurred, iii) the sales price is fixed or determinable, iv) collection is probable and v) all obligations have been substantially performed pursuant to the terms of the arrangement. When the Company receives consideration, or such consideration is unconditionally due, from a customer prior to transferring goods or services to the customer under the terms of a sales contract, it records deferred revenue, which represents a contract liability. The Company will recognize deferred revenue as products revenue after it has transferred control of the goods or services to the customer and all revenue recognition criteria are met. Such amounts are not expected to be material on an ongoing basis.

Licensing and royalties. License revenue arrangements in general provide for the grant of an exclusive or non-exclusive right to manufacture and/or sell products covered by patented technologies owned or controlled by the Company. The intellectual property rights granted may be perpetual in nature, extending until the expiration of the related patents, or can be granted for a defined period of time. Licensing revenues that are one-time fees upon the granting of the license are recognized when i) the license term begins in a manner consistent with the nature of the transaction and the earnings process is complete, ii) when collectability is reasonably assured or upon receipt of an upfront fee, and iii) when all other revenue recognition criteria have been met. Pursuant to the terms of these agreements, the Company has no further obligation with respect to the grant of the license. Licensing revenues that are related to royalties are recognized as the royalties are earned over the related period.

Practical Expedients and Exemptions. The Company generally expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling, marketing, general and administrative expenses. The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with an original expected length of one year or less and (ii) contracts for which the Company recognizes revenue at the amount for which it has the right to invoice for services performed.

Cash and cash equivalents. The Company considers all highly-liquid investments with maturity dates of three months or less when purchased to be cash equivalents. The Company limits the amount of credit exposure to each individual financial institution and places its temporary cash into investments of high credit quality with a financial institution that exceeds federally insured limits. The Company has not experienced any losses related to these balances and believes its credit risk to be minimal. As of December 31, 2019 and 2018, the Company held deposits of \$18,399 and \$15,187, respectively, in such highly-liquid investments.

Investments in debt securities. The Company will invest excess funds to maximize investment yield, while maintaining liquidity and minimizing credit risk. Debt securities are carried at fair value and consist primarily of investments in obligations of the United States Treasury, various U.S. and foreign corporations, and certificates of deposits. The Company classifies its investments in debt securities as available-for-sale with all unrealized gains or losses included as part of other comprehensive income. The Company evaluates its debt securities with unrealized losses on a quarterly basis for potential other-than-temporary impairments in value. As a result of this assessment, the Company did not recognize any other-than-temporary impairment losses considered to be credit related for the years ended December 31, 2019 and 2018.

Trade Accounts Receivable. The Company grants credit to its customers generally in the form of short-term trade accounts receivable. The creditworthiness of customers is evaluated prior to signing a contract with the customer. As of December 31, 2019, two customers represented 90%, or \$280, of the total outstanding trade accounts receivable. As of December 31, 2018, three customers represented 90%, or \$108, of the total outstanding trade accounts receivable. During 2019, there were five major customers, who together accounted for 83% of total revenue. During 2018, there were three major customers, who together accounted for 66% of total revenue. In the future, the Company expects that a significant portion of the revenue may continue to be concentrated in a limited number of customers, even if the bulk alloys business grows.

The allowance for doubtful accounts reflects management's best estimate of probable losses inherent in the trade accounts receivable. Management primarily determines the allowance based on the aging of accounts receivable balances, historical write-off experience, customer concentrations, customer creditworthiness and current industry and economic trends. The Company's provisions for uncollectible receivables are included in selling, marketing, general and administrative expense in the consolidated statements of operations and comprehensive loss. At December 31, 2019 and 2018, the Company had recorded an allowance for doubtful accounts of \$8 and \$0, respectively.

Inventory. Inventory is stated at the lower of weighted-average cost or net realizable value. Inventory is recorded at actual cost when purchased and then expensed at weighted-average cost as used in production and/or shipped to satisfy customer orders. We perform an analysis of our inventory balances at least quarterly to determine if the carrying amount of inventories exceeds their net realizable value. The analysis of estimated net realizable value is based on customer orders, market trends and historical pricing. If the carrying amount exceeds the estimated net realizable value, the carrying amount is reduced to the estimated net realizable value.

Property and Equipment. Property and equipment are stated at cost less accumulated depreciation and amortization. Additions and major renewals are capitalized. Repairs and maintenance are charged to expense as incurred. Upon disposal, the related cost and accumulated depreciation are removed from the accounts, with the resulting gain or loss included in operating income. Depreciation is provided principally on the straight-line method over the estimated useful lives of the assets, which range from one to five years.

Intangible Assets. Intangible assets consist of the costs incurred to purchase patent rights and costs incurred to register and maintain patents and trademarks. Intangible assets are reported at cost, net of accumulated amortization. Patents and trademarks are amortized using the straight-line method over a period based on their contractual lives ranging from ten to seventeen years.



Impairment of Long-lived Assets. The Company reviews long-lived assets to be held and used in operations for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may be impaired. These evaluations may result from significant decreases in the overall market outlook for the Company's technology or the market price of an asset, a significant adverse change in the extent or manner in which an asset is being used in its physical condition, a significant adverse change in legal factors or in the business climate that could affect the value of an asset, as well as economic or operational analyses. If the Company concludes that the carrying value of certain assets will not be recovered based on expected undiscounted future cash flows, an impairment write-down is recorded to reduce the assets to their estimated fair value. Fair value is determined via market, cost and income based valuation techniques, as appropriate. The fair value is measured on a nonrecurring basis using a combination of quoted prices for similar assets in active markets and other unobservable adjustments to historical cost (Level 3) inputs. Based on the results of this analysis, the Company recorded non-cash impairment charges of \$1,676 for the year ended December 31, 2019, primarily related to the carrying value of the Company's manufacturing assets that will not be utilized prospectively as a result of the 2019 Restructuring Plan. No such charges were recorded for the year ended December 31, 2018.

Fair Value Measurements. The estimated fair values of financial instruments reported in the consolidated financial statements have been determined using available market information and valuation methodologies, as applicable. The fair value of cash and restricted cash approximate their carrying value due to their short maturities and are classified as Level 1 instruments within the fair value hierarchy.

Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Entities are required to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value based upon the following fair value hierarchy:

- Level 1 Quoted prices in active markets for identical assets or liabilities;
- Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and
- Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

As of December 31, 2019, the following table represents the Company's fair value hierarchy for items that are required to be measured at fair value on a recurring basis:

	Fai	Fair Value		Level 1	 Level 2	 Level 3
Investments in debt securities (short-term)	\$	4,415	\$	705	\$ 3,710	\$ -
Investments in debt securities (long-term)		7,074		908	6,166	-

There were no items requiring measurement at fair value on a recurring basis as of December 31, 2018.

Non-recurring fair value measurements. Certain assets and liabilities are measured at fair value on a nonrecurring basis. In other words, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment). As a result of the Company's periodic assessment of impairment of long-lived assets, the Company recorded an impairment loss of \$1,676 during the year ended December 31, 2019.

Research and Development Expenses. Research and development expenses represent salaries, related benefits expense, expenses incurred for the design and testing of new processing methods and other expenses related to the research and development of Liquidmetal alloys. Development costs incurred in research and development activities are expensed as incurred.

Advertising and Promotion Expenses. Advertising and promotion expenses are expensed when incurred. Advertising and promotion expenses were \$68 and \$125, for the years ended December 31, 2019 and 2018, respectively.

Legal Costs. Legal costs are expensed as incurred.

Stock-Based Compensation. The Company accounts for share-based compensation in accordance with the fair value recognition provisions of FASB ASC Topic 718, *Share-based Payment*, which requires all share-based payments to employees, including grants of employee stock options, to be recognized in the consolidated financial statements based on their fair values. The fair value of stock options is calculated by using the Black-Scholes option pricing formula that requires estimates for expected volatility, expected dividends, the risk-free interest rate and the term of the option. If any of the assumptions used in the Black-Scholes model change significantly, share-based compensation expense may differ materially in the future from that recorded in the current period.

Income Taxes. Income taxes are provided under the asset and liability method as required by FASB ASC Topic 740, *Accounting for Income Taxes.* Under this method, deferred income taxes are recognized for the tax consequences of "temporary differences" by applying enacted statutory tax rates applicable to future years to differences between the financial statement carrying amounts and the tax basis of existing assets and liabilities. The effect of a tax rate change on deferred taxes is recognized in operations in the period that the change in the rate is enacted. Valuation allowances are established when necessary to reduce net deferred tax assets to the amount expected to be realized. Under the provisions of FASB ASC Topic 740, the Company had no material unrecognized tax positions and no adjustments to liabilities or operations were required. The Company, when applicable, will recognize interest and penalties related to uncertain tax positions in income tax expense. There was no expense related to interest and penalties for the years ended December 31, 2019 and 2018, respectively.

Earnings Per Share. Basic earnings per share ("EPS") is computed by dividing earnings (losses) attributable to common shareholders by the weighted average number of common shares outstanding for the periods. Diluted EPS reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reported periods. Actual results could differ from those estimates. These management estimates are primarily related to impairment of long-lived assets, allowance for bad debt, warrant valuations, and inventory valuation.

Subsequent Events. The Company evaluated subsequent events through the filing of its Annual Report on Form 10-K with the SEC.

Supplemental Cash Flow Information. Cash payments for interest were \$0 for each of the years ended December 31, 2019 and 2018.

Recent Accounting Pronouncements.

Liability Classified Warrants

In July 2017, the FASB issued an accounting standards update which modifies the requirements for the classification of certain financial instruments with down round features as equity versus liabilities. The guidance will allow for financial instruments previously required to be presented as liabilities due to the presence of down round features to be presented as equity upon meeting other criteria. The Company adopted the requirements of this update effective as of January 1, 2019, utilizing the full retrospective transition option. Accordingly, the Company reclassified the warrant liability to additional paid in capital on its December 31, 2018 consolidated balance sheets, which increased additional paid-in capital by \$6,970, increased accumulated deficit by \$4,778, and decreased warrant liability by \$2,192. In addition, because of the retrospective adoption, the Company credited change in fair value of warrant liability on its consolidated statements of operations by \$1,267 for year ended December 31, 2018. The adoption of this guidance had no impact on the Company's consolidated statement of cash flows in the current or previous annual reporting periods. The following table provides a reconciliation of warrant liability, additional paid-in capital, accumulated deficit, and change in fair value of warrant liability on the consolidated balance sheets for the year ended December 31, 2018 and the consolidated statements of operations for the year ended December 31, 2018.

		Balance Sheet							
	Warrant	Warrant Liability				Accum Def.			
Balance as of 12/31/2018 (Prior to Adoption of ASU 2017-11)	\$	925	\$	279,306	\$	(252,809)			
Reverse beginning balance as of January 1, 2018		(2,192)		6,970		(4,778)			
Change in fair value of warrant liability		1,267		-		(1,267)			
Balance as of 12/31/2018 (After Adoption of ASU 2017-11)	\$	-	\$	286,276	\$	(258,854)			
	60								

		Statement of Operations			
	For th	For the year ended December 31			
				Loss and prehensive Loss	
Balance as of 12/31/2018 (Prior to Adoption of ASU 2017-11)	\$	1,267	\$	(7,434)	
Reverse beginning balance as of January 1, 2018		-		-	
Change in fair value of warrant liability		(1,267)		(1,267)	
Balance as of 12/31/2018 (After Adoption of ASU 2017-11)	\$	-	\$	(8,701)	

Other recent accounting pronouncements issued by the FASB (including its Emerging Issues Task Force), the AICPA and the SEC did not or are not believed by management to have a material impact on the Company's present or future consolidated financial statements.

3. Significant Transactions

2019 Restructuring Plan

In July 2019, the Company adopted a restructuring plan pursuant to which the Company elected to wind down its prior manufacturing operations at the Company's Lake Forest, CA facility and proceeded to outsource the manufacture of parts utilizing the Company's technology through its domestic and international manufacturing partners (the "2019 Restructuring Plan"). In connection with the 2019 Restructuring Plan, the Company shifted its business strategy from internal manufacture of parts and products for customers toward the use and reliance of outsourced manufacturers, which will initially be Dongguan Yihao Metals Materials Technology Co., Ltd. ("Yihao"), a China-based company that is an affiliate of our largest beneficial stockholder, CEO and Chairman, Professor Lugee Li.

Also as part of the 2019 Restructuring Plan, the Company will seek opportunities to maximize the value of the Company's assets, inclusive of leasing the Company's manufacturing facility, while retaining ownership, more actively investing excess capital to increase investment returns, and pursuing other strategic transactions to preserve the Company's intellectual property.

Manufacturing Facility Purchase

On February 16, 2017, the Company purchased a 41,000 square foot manufacturing facility located in Lake Forest, CA, where operations commenced during July 2017. The purchase price for the property was \$7,818. As a result of the 2019 Restructuring Plan, the Company will discontinue manufacturing operations in this facility and, during January 2020, executed a lease agreement with a commercial tenant for approximately 80% of the facility.

2016 Purchase Agreement

On March 10, 2016, the Company entered into a Securities Purchase Agreement (the "2016 Purchase Agreement") with Liquidmetal Technology Limited, a Hong Kong company (the "Investor"), which is controlled by the Company's Chairman and CEO, Professor Lugee Li ("Professor Li"). The 2016 Purchase Agreement provided for the purchase by the Investor of a total of 405,000,000 shares of the Company's common stock for an aggregate purchase price of \$63,400. The transaction occurred in multiple closings, with the Investor having purchased 105,000,000 shares at a purchase price of \$8,400 (or \$0.08 per share) at the initial closing on March 10, 2016 and the remaining 200,000,000 shares at \$0.15 per share and 100,000,000 shares at \$0.25 per share for an aggregate purchase price of \$55,000 on October 26, 2016.

In addition to the shares issuable under the 2016 Purchase Agreement, the Company issued to the Investor a warrant to acquire 10,066,809 shares of common stock (of which the right to exercise 2,609,913 of the warrant shares vested on March 10, 2016 and the right to exercise the remaining 7,456,896 warrant shares vested on October 26, 2016 at an exercise price of \$0.07 per share). The warrant will expire on the tenth anniversary of its issuance date.

Further, the 2016 Purchase Agreement provided that the Investor would have the right to designate three members of the Company's board of directors, with one such member serving as Chairman. The 2016 Purchase Agreement also provided that, with certain limited exceptions, if the Company issues any shares of common stock at any time through the fifth anniversary of the 2016 Purchase Agreement, the Investor will have a preemptive right to subscribe for and to purchase at the same price per share (or at market price, in the case of issuance of shares pursuant to stock options) the number of shares necessary to maintain its ownership percentage of Company-issued shares of common stock.



Eontec License Agreement

On March 10, 2016, in connection with the 2016 Purchase Agreement, the Company and DongGuan Eontec Co., Ltd., a Hong Kong corporation ("Eontec"), entered into a Parallel License Agreement (the "License Agreement") pursuant to which the Company and Eontec agreed to cross-license their respective technologies. The Company's Chairman and CEO, Professor Li, is also a major shareholder and Chairman of Eontec.

The License Agreement provides for the cross-license of certain patents, technical information, and trademarks between the Company and Eontec. In particular, the Company granted to Eontec a paid-up, royalty-free, perpetual license to the Company's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe. In turn, Eontec granted to the Company a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of North America and Europe. In turn, Eontec granted to the Company a paid-up, royalty-free, perpetual license to Eontec's patents and related technical information to make, have made, use, offer to sell, sell, export, and import products in certain geographic areas outside of specified countries in Asia. The license granted by the Company to Eontec is exclusive (including to the exclusion of the Company) in the countries of Brunei, Cambodia, China (P.R.C and R.O.C.), East Timor, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Singapore, South Korea, Thailand, and Vietnam. The license granted by Eontec to the Company is exclusive (including to the exclusion of Eontec) in North America and Europe. The cross-licenses are non-exclusive in geographic areas outside of the foregoing exclusive territories.

Beyond the License Agreement, the Company collaborates with Eontec to accelerate the commercialization of amorphous alloy technology. This includes but is not limited to developing technologies to reduce the cost of amorphous alloys, working on die cast machine technology platforms to pursue broader markets, sharing knowledge to broaden our intellectual property portfolio, and utilizing Eontec's volume production capabilities as a third party contract manufacturer.

In March 2017, the Company signed contracts with Eontec to purchase two hot-crucible amorphous metal molding machines ("Machines") at a total purchase price of \$780. The Machines were delivered to the Company's new manufacturing facility located in Lake Forest, CA in April 2017 and were operational during the fourth quarter of 2017.

Eutectix Business Development Agreement

On January 31, 2020, the Company entered into a Business Development Agreement (the "Agreement") with Eutectix, LLC, a Delaware limited liability company ("Eutectix"), which provides for collaboration, joint development efforts, and the manufacturing of products based on the Company's proprietary amorphous metal alloys. Under the Agreement, the Company has agreed to license to Eutectix specified equipment owned by the Company, including two injection molding machines, the Machines, and other machines and equipment, all of which will be used to make product for Company customers and Eutectix customers. The licensed machines and equipment represent substantially all of the machinery and equipment currently held by the Company. The Company has also licensed to Eutectix various patents and technical information related to the Company's proprietary technology. Under the Agreement, Eutectix will pay the Company a royalty of six percent (6%) of the net sales price of licensed products sold by Eutectix, and Eutectix will also manufacture for the Company product ordered by the Company. The Agreement has a term of five years, subject to renewal provisions and the ability of either party to terminate earlier upon specified circumstances.

Apple License Transaction

On August 5, 2010, the Company entered into a license transaction with Apple Inc. ("Apple") pursuant to which (i) the Company contributed substantially all of its intellectual property assets to a newly organized special-purpose, wholly-owned subsidiary, called Crucible Intellectual Property, LLC ("CIP"), (ii) CIP granted to Apple a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in the field of consumer electronic products, as defined in the license agreement, in exchange for a license fee, and (iii) CIP granted back to the Company a perpetual, worldwide, fully-paid, exclusive license to commercialize such intellectual property in the field of consumer sectors in the license to commercialize such intellectual property in all other fields of use.

Under the agreements relating to the license transaction with Apple, the Company was obligated to contribute, to CIP, all intellectual property developed through February 2016. The Company is also obligated to maintain certain limited liability company formalities with respect to CIP at all times after the closing of the license transaction.

Other License Transactions

On January 31, 2012, the Company entered into a Supply and License Agreement for a five year term with Engel Austria Gmbh ("Engel") whereby Engel was granted a non-exclusive license to manufacture and sell injection molding machines to the Company's licensees. On December 6, 2013, the Company and Engel entered into an Exclusivity Agreement for a ten year term whereby the Company agreed, with certain exceptions and limitations, that the Company and its licensees would purchase amorphous alloy injection molding machines exclusively from Engel.

The Company's majority-owned Liquidmetal Golf subsidiary has the exclusive right and license to utilize the Company's Liquidmetal alloy technology for purposes of golf equipment applications. This right and license is set forth in an intercompany license agreement between Liquidmetal Technologies and Liquidmetal Golf. This license agreement provides that Liquidmetal Golf has a perpetual and exclusive license to use Liquidmetal alloy technology for the purpose of manufacturing, marketing, and selling golf club parts and other products used in the sport of golf. The Company owns 79% of the outstanding common stock of Liquidmetal Golf.

In March 2009, the Company entered into a license agreement with Swatch Group, Ltd. ("Swatch") under which Swatch was granted a non-exclusive license to the Company's technology to produce and market watches and certain other luxury products. In March 2011, this license agreement was amended to grant Swatch exclusive rights as to watches as against all third parties (including the Company), but non-exclusive as to Apple. The Company will receive royalty payments over the life of the contract on all Liquidmetal products produced and sold by Swatch. The license agreement with Swatch will expire on the expiration date of the last licensed patent.

4. Investments in debt securities

The following table sets forth amortized cost and fair value of investments in debt securities (short-term and long-term):

		Amortized Cost		Fair Value			ıe		
				Decem	ber 3	31,			
	Longest								_
	Maturity Date	 2019		2018		2019		2018	
U.S. government and agency securities	2022	\$ 1,612	\$	-	\$	1,612	\$		-
Corporate bonds	2022	7,475		-		7,477			-
Certificates of deposit	One-year	 2,400		-		2,400			-
		\$ 11,487	\$	-	\$	11,489	\$		-

Income from these investments totaled \$24 and \$0 during the years ended December 31, 2019 and 2018, respectively, and was included as a portion of interest and investment income on the Company's consolidated statements of operations.

Based on the Company's review of its debt securities in an unrealized loss position at December 31, 2019, it determined that the losses were primarily the result of changes in interest rates, which were considered to be temporary, rather than a deterioration in credit quality. The Company does not intend to sell and it is not more likely than not that the Company will be required to sell these securities prior to recovering their amortized cost. As such, the Company does not consider these securities to be other-than-temporarily impaired at December 31, 2019.

5. Trade accounts receivable

Trade accounts receivable were comprised of the following:

	December 31,					
	 2019	2018				
Trade accounts receivable	\$ 311	\$	120			
Less: Allowance for doubtful accounts	 (8)		-			
Trade accounts receivable	\$ 303	\$	120			

6. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets totaled \$322 and \$363 as of December 31, 2019 and December 31, 2018, respectively. Included within these totals are the following:

		December 31,				
	2	2018				
Prepaid service invoices	\$	42	\$ 79			
Prepaid manufacturing and mold costs		-	91			
Prepaid insurance premiums		198	193			
Interest and other receivables		82	-			
Total	\$	322	\$ 363			

7. Inventory

Inventory totaled \$12 and \$31 as of December 31, 2019 and December 31, 2018, respectively. Included within these totals are the following:

	December 31,						
	2019	2018					
Raw materials	\$ -	\$	-				
Work in progress	12		31				
Total	\$ 12	\$	31				

8. Property and Equipment

Property and equipment consist of the following:

		December 31,				
		2019		2019		2018
Land, building, and improvements	\$	9,495	\$	9,039		
Machinery and equipment		1,482		5,745		
Computer equipment		272		282		
Office equipment, furnishings, and improvements		63		181		
Total		11,312		15,247		
Accumulated depreciation		(2,493)		(3,480)		
Total property and equipment, net	\$	8,819	\$	11,767		

Depreciation expense for the years ended December 31, 2019 and 2018 was \$1,046 and \$992, respectively. For the year ended December 31, 2019, \$82 of depreciation expense was included in cost of sales and \$964 was included in selling, marketing, general and administrative expenses. For the year ended December 31, 2018, \$76 of depreciation expense was included in cost of sales and \$916 was included in selling, marketing, general and administrative expenses.

The 2019 Restructuring Plan involves, among other actions, the disposal and/ or cessation of use of the Company's manufacturing equipment. The implications of the 2019 Restructuring Plan, including asset groupings and future use, were incorporated into the Company's periodic review of its long-lived assets for impairment and the Company recorded non-cash impairment charges of \$1,676, during the three months ended June 30, 2019. Additionally, the remaining useful life, for depreciation purposes, of the Company's machinery and equipment was adjusted to align with the cessation of use contemplated under the 2019 Restructuring Plan.

During the year ended December 31, 2019, the Company disposed of certain equipment that it was not expecting to utilize prospectively, as part of the 2019 Restructuring Plan, for gross proceeds of \$282. This resulted in a gain on disposal of \$11 during the year ended December 31, 2019.

9. Patents and trademarks, net

Patents and trademarks consist of the following:

		December 31,						
	2019		2019		2019			2018
Purchased and licensed patent rights	\$	566	\$	566				
Internally developed patents	Ψ	1,686	Ψ	1,686				
Trademarks		148		148				
Total		2,400		2,400				
Accumulated amortization		(2,161)		(2,078)				
Total intangible assets, net	\$	239	\$	322				

Amortization expense was \$83 and \$86 for the years ended December 31, 2019 and 2018, respectively, and is included in research and development expense in the consolidated statements of operations and comprehensive loss. The estimated aggregate amortization expense for each of the five succeeding years is as follows:

December 31,		Aggregate Amortiza	tion Expense
	2020	\$	81
	2021		56
	2022		29
	2023		20
	2024		17
	Thereafter		36
		\$	239

Accumulated amortization for the years ended December 31, 2019 and 2018 is as follows:

		December 31,					
	2019			2018			
Purchased and licensed patent rights	\$	(555)	\$	(548)			
Internally developed patents		(1,471)		(1,400)			
Trademarks		(135)		(130)			
Total	\$	(2,161)	\$	(2,078)			

The weighted average amortization periods (in years) for the years ended December 31, 2019 and 2018 are as follows:

	Decembe	er 31,
	2019	2018
Purchased and licensed patent rights	17	17
Internally developed patents	17	17
Trademarks	10	10

Purchased patent rights represent the exclusive right to commercialize the bulk amorphous alloy and other amorphous alloy technology acquired from California Institute of Technology ("Caltech"), through a license agreement with Caltech and other institutions. All fees and other amounts payable by the Company for these rights and licenses have been paid or accrued in full, and no further royalties, license fees or other amounts will be payable in the future under the license agreements.

In addition to the purchased and licensed patents, the Company has capitalized legal and registration costs incurred to obtain and maintain the respective patents. The Company currently holds various patents and numerous pending patent applications in the United States, as well as numerous foreign counterparts to these patents outside of the United States.

10. Equipment held for sale

As of December 31, 2019, the Company reclassified \$585 in equipment, planned to be disposed of under the 2019 Restructuring Plan, from property and equipment to equipment held for sale on its consolidated balance sheet. As of December 31, 2019, the Company had executed a purchase agreement for the equipment, with a negotiated sales price of \$600. The sale will be finalized during the first half of 2020, following delivery and other title transfer of equipment to the buyer. No additional adjustments to asset carrying value were recorded as a result of this reclassification. As of December 31, 2019, the Company had received \$420 in proceeds from the sale of this equipment, which has been included within accrued liabilities until such time the sale is finalized.

11. Accrued Liabilities

Accrued liabilities totaled \$775 and \$270 as of December 31, 2019 and December 31, 2018, respectively. Included within these totals are the following:

		December 31,						
	2019			2018				
Accrued payroll, vacation, and bonuses	\$	169	\$	178				
Accrued severance		67		10				
Accrued audit fees		119		82				
Contract liability		420		-				
Total	\$	775	\$	270				

In connection with the 2019 Restructuring Plan, the Company recorded severance expenses related to employees whose positions would be eliminated. The elements and impact of the 2019 Restructuring Plan were communicated to all impacted employees during July 2019, inclusive of outlining the severance elements that Company had adopted. As a result, total expense of \$273 was recorded as a component of sales, general, and administrative expenses within the consolidated statement of operations for the year ended December 31, 2019. As of December 31, 2019, payments totaling \$206 had been made, resulting in a remaining liability under the 2019 restructuring plan of \$67 as of December 31, 2019.

12. Other Long-Term Liabilities

Other long-term liabilities balance of \$856 and \$856 as of December 31, 2019 and 2018, respectively, consists of long term, aged payables to vendors, individuals, and other third parties that have been outstanding for more than 5 years. The Company is in the process of researching and resolving the balances for settlement and/or write-off in accordance with applicable accounting rules.

13. Stock Compensation Plan

On April 4, 2002, our shareholders and Board of Directors adopted the 2002 Equity Incentive Plan ("2002 Plan"). The 2002 Plan provides for the grant of stock options to officers, employees, consultants and directors of the Company and its subsidiaries. A total of 10,000,000 shares of our common stock may be granted under the 2002 Plan. The 2002 Plan expired by its terms in April 2012, but it will remain in effect only with respect to the equity awards that have been granted prior to its expiration. As of December 31, 2019, there were 69,000 options outstanding under the 2002 Plan.

On June 28, 2012, the Company adopted the 2012 Equity Incentive Plan ("2012 Plan"), with the approval of the shareholders, which provided for the grant of stock options to officers, employees, consultants and directors of the Company and its subsidiaries. The 2012 Plan provides for the granting to employees of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, and for the granting to employees and consultants of non-statutory stock options. In addition, the Plan permits the granting of stock appreciation rights, or SARs, with or independently of options, as well as stock bonuses and rights to purchase restricted stock. A total of 30,000,000 shares of the Company's common stock may be granted under the 2012 Equity Incentive Plan, and all options granted under this plan had exercise prices that were equal to the fair market value on the date of grant. During 2019, the Company did not grant any option awards under the 2012 Plan, with total options outstanding of 6,930,445 as of December 31, 2019.

On January 27, 2015, the Company adopted its 2015 Equity Incentive Plan ("2015 Plan"), which provided for the grant of stock options to officers, employees, consultants and directors of the Company and its subsidiaries. A total of 40,000,000 shares of the Company's common stock are available for issuance under the 2015 Plan. All options granted under the 2015 Plan had exercise prices that were equal to the fair market value on the dates of grant. During 2019, the Company did not grant any option awards under the 2015 Plan, with total options outstanding of 12,341,667 as of December 31, 2019.

FASB ASC 718, *Compensation – Stock Compensation*, requires all share-based payments to employees, including grants of employee stock options, to be recognized in the financial statements based on their fair values. Under ASC 718, the Company is required to measure the cost of employee services received in exchange for stock options and similar awards based on the grant-date fair value of the award and recognize this cost in the income statement over the period during which an employee is required to provide service in exchange for the award. The Company recorded \$535 and \$924 for the years ended December 31, 2019 and 2018, respectively, of non-cash charges for stock compensation related to amortization of the fair value of restricted stock and unvested stock options. The total compensation costs related to non-vested awards not yet recognized were \$559 and \$1,278 for the years ended December 31, 2019 and 2018, respectively.

The fair value of each option grant is estimated on the date of the grant using the Black-Scholes option-pricing model with the assumptions noted in the following table.

	December 31,					
	2019	2	18			
Expected volatility		-	64.92%	-	99.30%	
Expected dividends				-		
Expected term (in years)		-	0.50	-	6.20	
Risk-free rate		-	2.07%	-	2.97%	

Expected volatilities are based on historical volatility expected over the expected life of the options. The Company uses historical data to estimate option exercise and employee termination within the valuation model. The expected term of options granted represents the period of time that options granted are expected to be outstanding. A forfeiture rate of 23.43% was used for options granted during the year ended December 31, 2018. No options were granted during the year ended December 31, 2019. The risk free rate used for the period within the expected life of the options is based on U.S. Treasury rates in effect at the time of grant.

The following table summarizes the Company's stock option transactions for the years ended December 31, 2019 and 2018:

	Number of Shares	Veighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregato Intrinsic Value (in thousand	
Options outstanding at December 31, 2017	34,434,994	\$ 0.17			
Granted	9,127,175	0.17			
Exercised	(5,438,716)	0.09			
Forfeited	(8,479,583)	0.21			
Expired	(812,700)	 0.29			
Options outstanding at December 31, 2018	28,831,170	0.17			
Granted	-	-			
Exercised	(243,125)	0.09			
Forfeited	(8,796,775)	0.18			
Expired	(450,158)	 0.20			
Options outstanding at December 31, 2019	19,341,112	\$ 0.17	6.4	<u>\$</u> 1	118
Options exercisable at December 31, 2019	13,455,439	\$ 0.18	5.6	\$ 1	100
Options unvested at December 31, 2019	5,885,673	\$ 0.16	8.2	\$	18
Options vested or expected to vest at December 31, 2019	17,919,954	\$ 0.17	6.2	<u>\$ 1</u>	117



The following table provides supplemental data on stock options for the years ended December 31, 2019 and 2018:

		December 31,					
	201	19	2018				
Weighted average grant date fair value per option granted	\$	- \$	0.13				
Fair value of options vested		644	911				
Cash from participants to exercise stock options		21	463				
Intrinsic value of options exercised		13	537				

The following table summarizes the Company's stock options outstanding and exercisable by ranges of option prices as of December 31, 2019:

	Options Exercisable							
	Weighted							
		Average				Average		
Range of Exercise Prices	Numbers of Options Outstanding	Remaining Contractual Life (Years)	Weighted Average Exercise Price		Number ofRemainingOptionsContractualExercisableLife (Years)		Weighted Average Exercise Price	
\$0.00 - 0.10	4,093,777	4.86	\$	0.07	3,550,111	4.66	\$ 0.07	
\$0.11 - 0.38	15,247,335	6.83	Φ	0.07	9,905,328	5.98	0.21	
Total	19,341,112				13,455,439			

The Company's non-vested options at the beginning and ending of fiscal year 2019 had weighted-average grant-date fair values of \$0.14 and \$0.13 per option, respectively.

In connection with the separation of former executives and directors, the Company has modified previously granted equity awards to allow for the acceleration of vesting of equity awards, and the extension of the timing to exercise vested awards, following the respective separation dates. The Company incurred incremental stock-based compensation expense of \$0 and \$66 during the years ended December 31, 2019 and 2018, respectively.

14. Income Taxes

Significant components of deferred tax assets are as follows:

		Years Ended December 31,					
			2019		2018		
Loss carry forwards		\$	36,093	\$	33,733		
Derivative valuations			-		259		
NQSO			2,060		1,964		
Tax credits and other			116		438		
	Total deferred tax asset		38,269		36,394		
Valuation allowance			(38,269)		(36,394)		
	Total deferred tax asset, net	\$	-	\$	-		

The valuation allowance increased \$1,875 in 2019. On December 22, 2017, the Tax Cuts and Jobs Act ("Tax Reform") was signed into law. This comprehensive reform of tax law reduces the federal corporate income tax rate from 34% to 21% and was generally effective beginning January 1, 2018. US GAAP requires deferred tax assets and liabilities to be measured at the enacted tax rate expected to apply when temporary differences are to be realized or settled. At the date of enactment, the Company's deferred taxes were remeasured based upon the new tax rate, with a corresponding adjustment to the valuation allowance. Changes in the valuation allowance are also impacted by the expiration of net operating loss ("NOL") carryforwards, current year net operating losses, and changes to future tax deductions resulting from derivative valuations, the terms of stock compensation plans, and accrued liabilities.

The following table accounts for the differences between the expected federal tax benefit (based on the statutory 2019 U.S. federal income tax rate of 21%) and the actual tax provision:

		Years Ended Dece	ember 31,
		2019	2018
Expected federal tax benefit		-21.0%	-21.0%
Permanent items		0.6%	0.9%
Net operating loss utilized or expired		0.0%	0.0%
Increase in valuation allowance and others		20.4%	20.1%
	Effective tax rate	0%	0%

As of December 31, 2019, the Company had approximately \$139.5 million of NOL carryforwards for U.S. federal income tax purposes expiring in 2020 through 2039. As a result of Tax Reform, the Company's federal net operating losses continue to be-measured at 21%. The reduction in the federal corporate income tax rate does not change the gross dollar value of taxable income that may be offset by NOLs, however that taxable income will only be taxable at 21% in future periods, thus reducing the value of NOLs utilized after 2018. As of December 31, 2019, the Company had approximately \$97.3 million of NOL carryforwards for California income tax purposes expiring in 2020 through 2039, respectively. The Company and Liquidmetal Golf, Inc. file on a separate company basis for federal income tax purposes. Accordingly, the federal NOL carryforwards of one legal entity are not available to offset federal taxable income of the other. Liquidmetal Golf, Inc. had approximately \$29.4 million in federal NOL carryforwards, expiring in 2020 through 2039.

We recognize excess tax benefits associated with the exercise of stock options directly to shareholders' equity only when realized. Accordingly, deferred tax assets are not recognized for NOL carryforwards resulting from excess tax benefits. As of December 31, 2019, deferred tax assets do not include approximately \$437 of these tax effected excess tax benefits from employee stock option exercise that are a component of our NOL carryforwards. Accordingly, additional paid-in capital will increase up to an additional \$437 if and when such excess tax benefits are realized.

As of December 31, 2019, the Company had approximately \$87 of Research & Development ("R&D") credit carryforwards for U.S. federal income tax purposes expiring in 2020 through 2030. In addition, the Company has California R&D credit carryforwards of approximately \$243, which do not expire under current California law. Tax Reform did not impact the valuation of tax credit carryforwards, which directly offset taxes due.

Section 382 of the Internal Revenue Code ("IRC") imposes limitations on the use of NOL's and credits following changes in ownership as defined in the IRC. The limitation could reduce the amount of benefits that would be available to offset future taxable income each year, starting with the year of an ownership change. As a result of the completion of the complex analysis required by the IRC to determine if an ownership change has occurred, the Company has determined that its annual NOL carryforward limitation under Section 382 of the IRC is \$764 per year.

The ability to realize the tax benefits associated with deferred tax assets, which includes benefits related to NOL's, is principally dependent upon the Company's ability to generate future taxable income from operations. The Company has provided a full valuation allowance for its net deferred tax assets due to the Company's net operating losses.

The Company adopted the provisions of FASB ASC Topic 470 – Income Taxes. At the adoption date and as of December 31, 2019, the Company had no material unrecognized tax benefits and no adjustments to liabilities or operations were required. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense which were \$0 for the years ended December 31, 2019 and 2018.

As of December 31, 2019, the tax years 2014 through 2019, and 2013 through 2019 are subject to examination by the federal and California taxing authorities, respectively.

15. Accumulated Other Comprehensive Income ("AOCI"):

The following table presents a summary of the changes in each component of AOCI for the years ended December 31, 2019 and 2018:

Unrealized gains or available-for-sale securities	1	Total	
\$	- \$		-
	-		-
			-
	-		-
	-		-
	2		2
	-		-
	2		2
\$ 2	2 \$		2
	available-for-sale securities \$	securities \$ - \$ - - - -	available-for-sale securities Total \$ - \$ - - -<

16. Loss Per Common Share

Basic earnings per share ("EPS") is computed by dividing earnings (loss) attributable to common shareholders by the weighted average number of common shares outstanding for the periods. Diluted EPS reflects the potential dilution of securities that could share in the earnings.

Options to purchase 19,341,112 shares of common stock at prices ranging from \$0.07 to \$0.38 per share were outstanding at December 31, 2019, but were not included in the computation of diluted EPS for the same period as the inclusion would have been antidilutive, given the Company's net loss. Options to purchase 28,831,170 shares of common stock at prices ranging from \$0.07 to \$0.38 per share were outstanding at December 31, 2018, but were not included in the computation of diluted EPS for the same period as the inclusion would have been antidilutive, given the Company's net loss.

Warrants to purchase 10,066,809 shares of common stock, priced at \$0.07 per share, outstanding at each of December 31, 2019 and 2018 were not included in the computation of diluted EPS for the same period as the inclusion would have been antidilutive, given the Company's net loss.

17. Segment Information

The primary business of the Company is to develop and manufacture products and applications from amorphous alloys. As a result, the Company's financial results are reported in a single segment.



18. 401(k) Savings Plan

The Company has a tax-qualified employee savings and retirement plan, or 401(k) plan. Under the 401 (k) plan, participants may elect to reduce their current compensation, on a pre-tax basis, by up to 15% of their taxable compensation or of the statutorily prescribed annual limit, whichever is lower, and have the amount of the reduction contributed to the 401(k) plan. The 401(k) plan permits the Company, in its sole discretion, to make additional employer contributions to the 401(k) plan. However, the Company did not make employer contributions to the 401(k) plan during any of the periods presented in the accompanying consolidated financial statements.

19. Related Party Transactions

On August 16, 2017, the Company and Tony Chung, the Company's former Chief Financial Officer, entered into a Separation Agreement and General Release pursuant to which Mr. Chung resigned as an officer and employee of the Company (the "Chung Separation Agreement"). Concurrently, Mr. Chung was elected to serve as a director of the Company. The Chung Separation Agreement provided for the payment of severance compensation to Mr. Chung in the form of a continuation of his base annual salary of \$240 (subject to tax withholdings) for a period of 12 months and reimbursement for COBRA healthcare coverage for a period of 12 months. In addition, it provided for the accelerated vesting of 247,650 of the unvested stock options held by Mr. Chung as of the separation date and the extension of the exercise period of his options until the first anniversary of the date of the Chung Separation Agreement. This resulted in a total of 2,889,749 stock options being exercisable by Mr. Chung as of the separation Agreement, Mr. Chung and the Company granted each other mutual general releases subject to customary exceptions. Subsequently, the Company extended the exercise period of Mr. Chung's options to the second anniversary of the date of the Chung Separation Agreement. This resulted in an additional \$89 of stock-based compensation expense during the year ended December 31, 2017. In connection with the Chung Separation Agreement, Mr. Chung and the Company granted each other mutual general releases subject to customary exceptions. Subsequently, the Company extended the exercise period of Mr. Chung's options to the second anniversary of the date of the Chung Separation Agreement. This resulted in an additional \$48 of stock-based compensation expense during the year ended December 31, 2019 and December 31, 2018, the Company had no accrued liabilities relating to the Chung Separation Agreement.

On March 10, 2016, the Company entered into the 2016 Purchase Agreement with Liquidmetal Technology Limited, providing for the purchase of 405,000,000 shares of the Company's common stock for an aggregate purchase price of \$63,400. Liquidmetal Technology Limited was a newly formed company owned by Professor Li. In connection with the 2016 Purchase Agreement and also on March 10, 2016, the Company and Eontec, entered into a license agreement pursuant to which the Company and Eontec entered into a cross-license of their respective technologies. Eontec is a publicly held Hong Kong corporation of which Professor Li is the Chairman and major shareholder. As of December 31, 2019, Professor Li is a greater-than 5% beneficial owner of the Company and serves as the Company's Chairman, President, and Chief Executive Officer. Equipment and services procured from Eontec were \$31 and \$213 during the years ended December 31, 2019 and 2018, respectively.

Total

(0.00) \$

1,373

(7, 890)

(7, 431)

(0.01)

541

Quarter Ended June 30, March 31, 2019 2019 September 30, 2019 December 31, 2019 \$ Revenue \$ 223 \$ 132 \$ 421 \$ 597 Gross profit 44 29 137 331 \$ **Operating** loss (1,878)(3, 333)(1,520)(1,159) \$ Net loss (1,768)(3, 224)(1, 395)(1,044) \$

(0.00) \$

\$

20. Quarterly Financial Information (Unaudited)

Basic and diluted net loss per common share

	Quarter Ended									
	Marc	h 31, 2018		June 30, 2018	Sep	tember 30, 2018	De	cember 31, 2018		Total
Revenue	\$	80	\$	55	\$	253	\$	144	\$	532
Gross profit (loss)		(1)		(6)		(631)		6	\$	(632)
Operating loss		(2,196)		(2,177)		(2,613)		(1,974)	\$	(8,960)
Net loss and comprehensive loss		(2,163)		(2,142)		(2,524)		(1,872)	\$	(8,701)
Basic and diluted net loss per common share	\$	(0.00)	\$	(0.00)	\$	(0.00)	\$	(0.00)	\$	(0.01)

(0.00) \$

(0.00) \$

DESCRIPTION OF CAPITAL STOCK OF LIQUIDMETAL TECHNOLOGIES, INC.

References to "we," "us" and "our" refer to Liquidmetal Technologies, Inc.

The following is a summary of the rights and preferences of our capital stock and preferred stock, related provisions of our certificate of incorporation and bylaws, and certain applicable provisions of Delaware law. While we believe that the following description covers the material terms of our capital stock, the description may not contain all of the information that is important to you. The following description is qualified by reference to our certificate of incorporation and our bylaws, which are filed as exhibits to our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the Securities and Exchange Commission.

General

Our authorized capital stock consists of 1,100,000,000 shares of common stock, par value \$0.01 per share, and 10,000,000 shares of preferred stock, par value \$0.01 per share. As of March 6, 2020, we had 914,449,957 shares of common stock outstanding, and no shares of preferred stock outstanding.

Common Stock

Under our certificate of incorporation, each outstanding share of common stock is entitled to one vote on all matters submitted to a vote of stockholders. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in all assets remaining after payment of liabilities and any amounts due to the holders of preferred stock. Holders of our common stock have no preemptive, conversion or subscription rights. No redemption or sinking fund provisions apply to our common stock. Holders of our common stock do not have the right of cumulative voting in elections of directors, which means that holders of a majority of the outstanding shares of our common stock can elect all of the directors standing for election at any annual meeting of stockholders.

Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of our common stock are entitled to receive ratably such dividends as may be declared from time to time by our board of directors out of legally available funds.

Preferred Stock

Our certificate of incorporation authorizes our board of directors, without stockholder approval, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions granted to or imposed upon each such series of preferred stock, including voting rights, dividend rights, conversion rights, terms of redemption, liquidation preference, sinking fund terms, subscription rights and the number of shares constituting any series or the designation of a series.

Our board of directors is able to issue, without stockholder approval, preferred stock with voting and conversion rights that could adversely affect the voting power of the holders of common stock and reduce the likelihood that such holders will receive dividend payments or payments upon liquidation. Such issuance could have the effect of decreasing the market price of the common stock.

Anti-Takeover Provisions of Delaware Law and Certain Charter and Bylaw Provisions

The following is a summary of certain provisions of the Delaware General Corporation Law (the "DGCL"), and our certificate of incorporation and bylaws that may be deemed to have an anti-takeover effect and may delay, deter or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interest, including those attempts that might result in a premium over the market price for the shares held by stockholders.

Number of Directors; Vacancies

Our certificate of incorporation provides that the number of directors on our board of directors is to be fixed exclusively pursuant to resolution adopted by our board of directors. The exact number of members on our board of directors is to be determined from time to time by resolution of a majority of our full board of directors.

Pursuant to our certificate of incorporation, each director is to serve until his or her successor is duly elected and qualified, unless he or she resigns, dies, becomes disqualified or is removed. Our certificate of incorporation further provides that, generally, vacancies or newly created directorships in our board of directors may only be filled by a resolution approved by a majority of our board of directors and any director so chosen will hold office until the next election of the class for which such director was chosen.

Stockholder Meetings

Our certificate of incorporation and bylaws provide that special meetings of stockholders will be able to be called only by (i) the Chairman of our board of directors or (ii) our Secretary at the written request of a majority of the number of directors that we would have were there no vacancies on our board of directors.

Action by Stockholders Without a Meeting

The DGCL permits stockholder action by written consent unless otherwise provided by a corporation's certificate of incorporation.

No Cumulative Voting

The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our certificate of incorporation does not provide for cumulative voting in the election of directors.

Stockholder Proposals and Nominations

Our bylaws provide that stockholders seeking to bring business before an annual meeting of stockholders or to nominate candidates for election as directors at an annual meeting of stockholders must provide timely notice of such proposed business in writing. To be timely, a stockholder's notice generally must be delivered to or mailed and received at our principal executive office not less than 90 days or more than 120 days prior to the first anniversary of the preceding year's annual meeting.

Our bylaws also provide certain requirements as to the form and content of a stockholder's notice. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual meeting of stockholders. A stockholder's notice must set forth, among other things, as to each business matter or nomination the stockholder proposes to bring before the meeting:

- the name and address of the stockholder and the beneficial owner, if any, on whose behalf the proposal or nomination is made;
- the class and number of shares that are owned of record and beneficially by the stockholder proposing the business or nominating the nominee;
- a representation that the stockholder giving the notice is a holder of record of shares of our voting stock entitled to vote at such annual meeting and intends to appear in person or by proxy at the annual meeting to propose the business or nominate the person or persons specified in the notice, as applicable; and
- whether such stockholder or beneficial owner intends to deliver a proxy statement and forms of proxy to holders of at least the percentage of shares of our voting stock required to approve such proposal or nominate such nominee or nominees.

If the stockholder is nominating a candidate for director, the stockholder's notice must also include the name, age, business address, residence address and occupation of the nominee proposed by the stockholder and the signed consent of the nominee to serve as a director on our board of directors if so elected. The candidate may also be required to present certain information and make certain representations and agreements at our request.

In addition, a stockholder must also comply with all applicable requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations under the Exchange Act with respect to matters relating to nomination of candidates for directors.

Supermajority provisions

The DGCL generally provides that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless the corporation's certificate of incorporation or bylaws require a greater percentage. Our amended and restated certificate of incorporation and bylaws do not contain any such requirements.

Delaware Anti-Takeover Statute

Section 203 of the DGCL, subject to certain exceptions, prohibits a publicly-held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that such person or entity became an interested stockholder, unless:

- prior to such date, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding specified shares; or
- at or subsequent to such date of the transaction that resulted in a person or entity becoming an interested stockholder, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines an "interested stockholder" as any person that is:

- owner of 15% or more of the outstanding voting stock of the corporation;
- an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; or
- an affiliate or associate of the above.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting stock.

Limitations on Liability and Indemnification of Directors and Officers

Section 145 of the DGCL provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal.

A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses that such officer or director has actually and reasonably incurred. Our certificate of incorporation provides for the indemnification of our directors and officers to the fullest extent permitted under the DGCL.

Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by us upon delivery to us of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by us.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- transaction from which the director derives an improper personal benefit;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

Our certificate of incorporation includes such a provision.

Section 174 of the DGCL provides, among other things, that a director who willfully or negligently approves of an unlawful payment of dividends or an unlawful stock purchase or redemption may be held liable for such actions. A director who was either absent when the unlawful actions were approved, or dissented at the time, may avoid liability by causing his or her dissent to such actions to be entered in the books containing minutes of the meetings of the board of directors at the time such action occurred or immediately after such absent director receives notice of the unlawful acts.

Indemnification Agreements

We have entered into indemnification agreements with each of our current directors and executive officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and executive officers.

Transfer Agent

The registrar and transfer agent for our common stock is American Stock Transfer & Trust Company, LLC.

Listing

Our common stock trades on The OTCQB under the symbol "LQMT."

CERTIFICATIONS

I, Lugee Li, certify that:

1. I have reviewed this annual report on Form 10-K of Liquidmetal Technologies, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2020

/s/ Lugee Li Lugee Li President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATIONS

I, Bryce Van, certify that:

1. I have reviewed this annual report on Form 10-K of Liquidmetal Technologies, Inc.;

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

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

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

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

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

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

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

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

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

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

Date: March 10, 2020

/s/ Bryce Van Bryce Van Vice President of Finance (Principal Financial and Accounting Officer)

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

In connection with the Annual Report of Liquidmetal Technologies, Inc. (the "company") on Form 10-K for the year ending December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Lugee Li, President and Chief Executive Officer of the company, and Bryce Van, Vice President of Finance, of the company, certify, pursuant to and for purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

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

Date: March 10, 2020

Date: March 10, 2020

By: /s/ Lugee Li Lugee Li

President and Chief Executive Officer

By: /s/ Bryce Van

Bryce Van Vice President of Finance

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