

POET TECHNOLOGIES INC.

ANNUAL INFORMATION FORM

For the Year Ended December 31, 2014

July 24, 2015

(amended August 4, 2015)

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INFORMATION INCORPORATED BY REFERENCE

Certain of the information contained in this Annual Information Form (“AIF”) may be found in other documents filed or to be filed at a later date by the Company with Canadian and U.S. securities regulators, including our Management Information Circular filed in connection with the Company’s Annual and Special Meeting of Shareholders held on June 12, 2015, our 2014 Management’s Discussion & Analysis (“MD&A”), our 2014 Audited Annual Financial Statements, our MD&A for the three months ended March 31, 2015 and our unaudited financial statements for the three months ended March 31, 2015, which documents were filed on SEDAR and are publicly accessed at www.sedar.com. Certain information may also be found in the Company’s Annual Report on Form-20 filed with the U.S. Securities and Exchange Commission on April 13, 2015 on the EDGAR website at www.sec.gov/. See also the section in this AIF entitled “*Additional Information*”.

Unless otherwise noted, the information contained in this AIF is given as at December 31, 2014. Unless otherwise noted or the context otherwise indicates, the “Company”, “we”, “us”, “our” and “our company” refers to POET Technologies Inc. (“POET”) and its direct and indirect subsidiaries. The Company’s direct subsidiary, OPEL Solar, Inc., shall be referred to herein as “OPEL Solar”. Unless otherwise indicated, all dollar amounts in this AIF are expressed in U.S. dollars. References to “\$”, “USD” or “US\$” are to U.S. dollars and references to “CAD” or “CA\$” are to Canadian dollars. Disclosure of information in this report has been limited to that which management has determined to be “material”, on the basis that omitting or misstating such information would influence or change a reasonable investor’s decision to purchase, hold or dispose of securities in the Company.

FORWARD-LOOKING STATEMENTS

This AIF contains forward-looking statements and information within the meaning of U.S. and Canadian securities laws. Forward-looking statements and information can generally be identified by the use of forward-looking terminology or words, such as, “continues”, “with a view to”, “is designed to”, “pending”, “predict”, “potential”, “plans”, “expects”, “anticipates”, “believes”, “intends”, “estimates”, “projects”, and similar expressions or variations thereon, or statements that events, conditions or results “can”, “might”, “will”, “shall”, “may”, “must”, “would”, “could”, or “should” occur or be achieved and similar expressions in connection with any discussion, expectation, or projection of future operating or financial performance, events or trends. Forward-looking statements and information are based on management’s current expectations and assumptions, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict.

The forward-looking statements and information in this AIF are subject to various risks and uncertainties, including those described in “Risk Factors”, many of which are difficult to predict and generally beyond the control of the Company, including without limitation:

- we have a limited operating history;
- our need for additional financing, which may not be available on acceptable terms or at all;
- the possibility that we will not be able to compete in the highly competitive semiconductor market;
- the risk that our objectives will not be met within the time lines we expect or at all;
- research and development risks;
- the risks associated with successfully protecting patents and trademarks and other intellectual property;
- the need to control costs and the possibility of unanticipated expenses;
- manufacturing and development risks;
- the risk that the price of our common stock will be volatile; and

- the risk that shareholders' interests will be diluted through future stock offerings or options and warrant exercises.

For all of the reasons set forth above, investors should not place undue reliance on forward-looking statements. Other than any obligation to disclose material information under applicable securities laws or otherwise as may be required by law, the Company undertakes no obligation to revise or update any forward-looking statements after the date hereof.

Data relevant to estimated market sizes for the Company's technologies under development are presented in this AIF. These data have been obtained from a variety of published resources including published scientific literature, websites and information generally available through publicized means. The Company attempts to source reference data from multiple sources whenever possible for confirmatory purposes. Although the Company believes the foregoing data is reliable, the Company has not independently verified the accuracy and completeness of this data.

TECHNICAL TERMS AND ABBREVIATIONS

ASICS	Application Specific Integrated Circuits
CMOS	Complementary Metal Oxide Semiconductor
DRAM	Dynamic Random Access Memory
DSP	Digital Signal Processing
GaAs	Gallium Arsenide
III-V	Periodic Table Element Groups III, IV and V
HFET	Heterostructure Field Effect Transistors
IC	Integrated Circuit
IR	Infrared
MBE	Molecular Beam Epitaxy
NAND	Not And (electronic logic gate)
PET	Planar Electrical Technology
POET	Planar Opto-Electronic Technology
SBIR	Small Business Innovation Research Contract with U.S. Government
TDK	Technology Design Kit
TSXV	TSX Venture Exchange
UConn	University of Connecticut

CORPORATE STRUCTURE

Name, Address and Incorporation

The legal and commercial name of the Company is POET Technologies Inc. The Company was originally incorporated under the *Company Act* (British Columbia) on February 9, 1972 as Tandem Resources Ltd. On November 14, 1985, Tandem Resources Ltd. amalgamated with Stanmar Resources Ltd. and Keezic Resources Ltd., to continue as one company under the name Tandem Resources Ltd. under the *Company Act* (British Columbia). By Articles of Continuance dated January 3, 1997, Tandem Resources Ltd. was continued under the *Business Corporations Act* (Ontario) ("OBCA"). By Articles of Amendment dated September 26, 2006, Tandem Resources Ltd. changed its name to OPEL International Inc. By Certificate of Continuance dated January 30, 2007, OPEL International Inc. was continued under the New Brunswick Business Corporations Act. By Articles of Continuance dated November 30, 2010, OPEL International Inc. was continued under the OBCA and changed its name to OPEL Solar International Inc. By Articles of Amendment dated August 25, 2011, OPEL Solar International Inc.

changed its name to OPEL Technologies Inc. By Articles of Amendment dated July 23, 2013, OPEL Technologies Inc. changed its name to POET Technologies Inc. Today, the Company is an Ontario corporation governed by the OBCA.

Our offices are located as follows:

Registered and head office: Suite 501, 121 Richmond Street West, Toronto, Ontario, Canada M5H 2K1. Telephone (416) 368-9411;
 Principal operations offices: Campus of the University of Connecticut (“UConn”), P.O. Box 555, Storrs-Mansfield, Connecticut 06268. Telephone (203) 612-2366;
 Silicon Valley: 2550 Zanker Road, San Jose, California 95131.

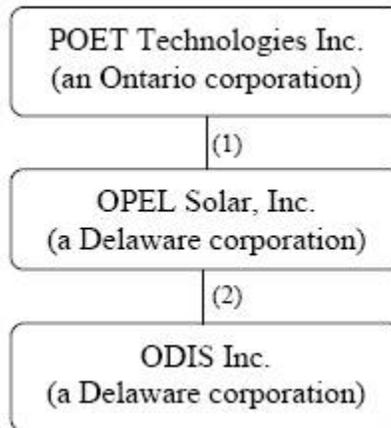
The Company is a reporting issuer in each of the provinces of Ontario, Alberta, British Columbia and Quebec.

We file reports and other information with the Securities and Exchange Commission (“SEC”) located at 100 F Street, NE, Washington, D.C. 20549. You may obtain copies of our filings with the SEC by accessing their website located at www.sec.gov/. We also file reports under Canadian regulatory requirements on SEDAR; you may access our reports filed on SEDAR by accessing the website www.sedar.com.

Intercorporate Relationships

On December 31, 2014, our principal direct subsidiary is OPEL Solar, Inc. (a Delaware corporation). The chart below sets out our direct and indirect operating subsidiaries and the location of their jurisdiction of incorporation.

The Company currently has two subsidiaries with the following corporate structure:



- (1) There are 28,374,000 Class A Common Shares of OPEL Solar, Inc. issued and outstanding, all of which are held by the Company. There are no other outstanding securities of OPEL Solar, Inc. other than the Class A Common Shares.
- (2) There are 5 Common Shares of ODIS Inc. issued and outstanding, all of which are held by OPEL Solar, Inc.

GENERAL DEVELOPMENT OF BUSINESS

The Company is a fabless semiconductor company specializing in the design and development of semiconductor technology for military, industrial and commercial applications. We are focused on our proprietary Planar Opto-Electronic Technology (“POET”), a semiconductor technology platform that enables multiple single-chip applications requiring optical and electrical functions, thereby addressing the challenges of speed, weight and power (SWaP), and cost efficiency faced by current silicon-based semiconductor technology.

The Company currently operates at a loss. We have no revenues. Our expenses, directly or indirectly, relate to the development and commercialization of the POET process or expenditures for maintaining our status as a publicly traded company. During the fiscal year ended December 31, 2014, research and development expenses were \$2,277,927 while general and administration expenses were \$9,677,705. Included in general and administrative are non-cash share based expenses of \$6,055,895 relating to the fair value of stock based compensation and the fair value of shares issued as a reduction of a license fee. We have yet to commercialize the POET technology. To date, proceeds from the issuance of its common shares have financed the Company’s continuing operations and research and development initiatives.

As of December 31, 2014, we had over \$11.5 million in current assets and approximately \$451,000 of accounts payable and accrued liabilities. As June 30, 2015, we had over \$14.5 million in net current assets. We are confident that the current level of working capital is sufficient to support the Company over the next 12 months as we work toward the goal of monetizing the POET process.

Three Year History

We achieved certain milestones in 2012, 2013 and 2014 which are significant to our development and are considered necessary foundation achievements for our future growth and success.

Significant Events and Milestones During 2012

The Company, then known as OPEL Technologies Inc. (“OPEL”), continued to make progress in 2012. Following are some significant events in the growth and development of the Company which added to the foundation for the achievement of the Company’s future success:

1. In March 2012, ODIS announced significant progress, made during the first quarter, regarding POET as it pertains to its advancements in Optical Interconnection of High Speed Circuits as outlined in a White Paper/Roadmap posted on the Company’s website. These achievements make it possible for the first time to implement an optical interface as a single chip to connect existing complementary metal oxide semiconductor (CMOS) processors. The advancements were significant and ongoing steps in the POET development made it possible to produce a well-defined roadmap for POET.
2. In April 2012, ODIS officially received a Phase II award of \$750,000 from National Aeronautics and Space Administration (“NASA”). This was a continuation of previous successful work done for NASA using the POET platform to develop RF/Optical phased arrays. POET will allow NASA to utilize both optical and RF functions on the same sensors.
3. On May 16, 2012, OPEL’s shares began trading on the OTCQX International trading system in the United States under the symbol “OPELF” in order to provide greater exposure and liquidity for the Company’s shares in the United States without the added regulatory expenses and to benefit our shareholders.

4. In June 2012, the Board of Directors of OPEL was restructured, resulting in the departure of Messrs. Lawrence Kunkel and Tristram Collins, the addition of Messrs. Mark Benadiba and Peter Copetti and the return of Dr. Samuel Peralta.
5. In June 2012, we made a core strategic directional change to exit the solar industry and to focus on our ODIS Division towards completion of the POET Platform.
6. At the Annual General Meeting of Shareholders (the 2012 AGM”) held on August 21, 2012, Chris Tsiofas was elected as a new member of the Board of Directors and was subsequently appointed as the Chairman of the Audit Committee.
7. Immediately following the 2012 AGM held in Storrs, Connecticut, shareholders were invited to tour the ODIS lab facility. Guests saw several demonstrations of POET and spoke to the ODIS development team.
8. As part of the focus, from June to September 2012, we raised approximately \$5.6 million through various private placements financings along with warrant and option exercises. We paid \$506,000 in share issue costs to raise these funds. Through these efforts, we established the financial liquidity needed to further our pivotal strategy.
9. By December 4, 2012, we successfully fabricated the first Vertical Cavity Laser, utilizing ODIS’ patented POET GaAs III-V technology. The new laser serves as the basis for chip-to-chip interconnection, and complements numerous other opto-electronic devices already demonstrated by ODIS and able to be monolithically fabricated via the POET process.

Significant Events and Milestones During 2013

We continued to make progress in 2013. Following are some significant events in the growth and development of the Company which added to the foundation for the achievement of our future success:

1. On February 14, 2013, we completed a brokered private placement financing for gross proceeds aggregating \$7,189,200 (\$7,200,000 CAD). We issued 14,400,000 units, at a price of \$0.50 CAD (\$0.499 USD) per unit. Each unit consisted of one common share and one common share purchase warrant. Each whole warrant entitled the holder to purchase one additional common share of the Company at a price of \$0.75 CAD (\$0.748 USD) per share for a period of two years. The agents received cash commissions in the aggregate of \$503,244 (\$504,000 CAD) and 1,440,000 compensation warrants in connection with the private placement. Each compensation warrant entitled the holder to purchase one common share of the Company at \$0.50 CAD (\$0.499 USD) per share for a period of three years.
2. In February 2013, we ordered approximately \$900,000 dollars of new equipment to upgrade our R&D facility capabilities. All necessary site infrastructure upgrades were completed, delivered and installed.
3. On March 4, 2013, we announced that we had achieved a key milestone for POET, being the achievement of radio frequency and microwave operation of both n-channel and p-channel transistors. By reaching this milestone, 3-inch POET wafers fabricated at BAE Systems (Nashua, New Hampshire) yielded submicron n-channel and micron-sized p-channel transistors operating at frequencies of 42 GHz and 3 GHz respectively.
4. On April 2, 2013, we announced the appointment of Dr. Adam Chowaniec and Dr. Geoff Taylor to the Board of Directors. Dr. Chowaniec was the CEO of a number of technology companies that were successfully acquired by companies such as Ericsson, Microsemi and Integrated Device Technology. (We were sad to announce that Dr. Chowaniec was forced to resign as a director due to serious health issues and subsequently passed away this year). Dr. Taylor is the Chief Scientist of the Company who has led the development of the POET platform. Dr. Taylor is also a professor of Electrical Engineering and

Photonics at the University of Connecticut. Dr. Taylor previously was a member of the technical teams at AT&T Bell Labs, Honeywell and Texas Instruments.

5. On April 5, 2013, we divested our remaining solar assets available for sale to a third party in consideration of the assumption of the related disposal group liability, thereby completing the discontinuance of our solar division.

6. On April 11, 2013, we announced that we retained Grayling Communications Limited (“Grayling”), a leading international strategic communications advisory firm to be our North American investor relations counsel. Grayling committed to assisting us in areas of investor relations, public relations and government relations. Grayling has over 1,000 staff in 70 offices in more than 40 countries across the United States, Western and Eastern Europe, Africa and Asia Pacific.

7. On June 3, 2013, we completed the refitting of our Molecular Beam Epitaxy (“MBE”) System which is used in our gallium arsenide wafer production. In addition to refitting the MBE, we also completed a redesign of the lab to allow for the installation of new research “R&D” equipment.

8. On June 10, 2013, we announced the establishment of the Special Strategic Committee (the “SSC”). Mr. Copetti was confirmed as chairman of the SSC.

9. On June 27, we announced that Adam Chowaniec had been appointed to the SSC. Members were also appointed to the advisory subcommittee of the SSC - Lee Shepherd, VP of Technology at ODIS, and two external members, Geoffrey Rogers and Dr. Martin Peisl. Mr. Rogers has held key roles with Tensilica (now Cadence Design Systems), Silicon Architects (now Synopsys), VLSI Technology (now Philips Semiconductor) and Applied Micro Circuits. Dr. Peisl has held senior positions in companies such as Siemens, Infineon, Qimonda, Ramaxel, and Netlist; he was directly responsible for product development of Dynamic Random Access Memory (DRAM) generations from 64Mbit to 1Gbit, had overseen product-line starts in Mobile Random Access Memory, Reduced Latency DRAM and DRAM based Application Specific Integrated Circuits (ASICs); on the Joint Electron Device Engineering Council (JEDEC) standardization committee, he has chaired development of the predecessor of the Double Data Rate 2 (DDR2) specification within the Advanced DRAM Technology (ADT) consortium together with technical members of Intel, Samsung, Hynix, Micron and Elpida.

10. On June 27, 2013, we announced that we had achieved a new milestone, the integration of the complementary inverter. Specifically, we successfully demonstrated complementary heterostructure field effect transistor based inverter operation using the POET process. This milestone was accelerated at the direction of the SSC and forms the basis for all on-chip logic.

11. On July 23, 2013, we changed our name to POET Technologies Inc. and trading on the TSX Venture Exchange under the new name and stock symbol (TSX-V:PTK) commenced on July 25, 2013. The purpose of the name change was to better reflect the Company’s business and highlight the POET platform.

12. On August 16, 2013, the Board of Directors approved and endorsed the SSC’s “Next Phase of Commercialization Plan” which included: establishing a POET Development Alliance (“PDA”), reduction of Feature Size from the sub-micron to the 100-nm range scale and the adoption of a shareholder rights plan (“SRP”) in order to protect the potential value of the Company for all shareholders. The SSC work having been completed, the SSC was subsequently dissolved effective December 31, 2013.

13. On October 7, 2013, we announced the appointment of Stephane Gagnon to the SSC advisory subcommittee. Mr. Gagnon was subsequently appointed as a director of the Company on November 14, 2013. Mr. Gagnon had over 20 years of experience in the semiconductor, telecommunication and processor industry. Stephane’s most recent role was Senior Director of Product Management for

Integrated device Technology (IDT) where he drove business strategy for the RapidIO® switching and IP product line. (Mr. Gagnon is no longer with the Company effective June 30, 2015.)

Significant Events and Milestones During 2014

In 2014, we continued to execute on our stated strategic plan. We achieved the following significant milestones in 2014:

1. On January 24, 2014, we submitted a registration statement on Form 20-F in connection with the registration of our common stock under the U.S. Securities Exchange Act of 1934.
2. On February 11, 2014, Peter Copetti, who previously served as Executive Director and Chair of the Special Strategic Committee, was named Executive Chairman and interim CEO.
3. On February 13, 2014, we completed a \$4,546,000 (CAD \$5,000,000) private placement financing. The financing consisted of 7,692,307 units at a price of \$0.59 (CAD \$0.65) per unit. Each unit comprised one common share and one common share purchase warrant. One warrant allowed the holder to acquire one common share of the Company at an exercise price of \$0.91 (CAD \$1.00) per share for a period of 2 years. No commission was payable with respect to this financing.
4. On February 24, 2014, we achieved the fabrication of infrared (IR) detectors, using our POET platform. Adding to its significance was the fact that the POET wafers used for the IR devices were fabricated by an independent foundry, BAE Systems' Microelectronics Center in Nashua, New Hampshire.
5. On March 4, 2014, we achieved a long-awaited milestone – the operation of our switching laser within the POET platform. This achievement has far-reaching implications for on-chip and optical communications applications. This single demonstration was a giant leap forward in the path to create a single chip optical interface for use in chip to chip, board to board and rack to rack communications systems in Cloud Datacenters.
6. On March 4, 2014, we filed new IP portfolio protection documents with the U.S. Patent and Trademark office (USPTO) and in other key jurisdictions to support strategic applications in POET-based quantum computing.
7. On March 4, 2014, we announced the addition of Mr. Daniel DeSimone to the POET team as Vice President, Product Development.
8. On April 4, 2014, we finalized an agreement with UConn to convert certain royalty rights into a significant investment in the Company. The parties agreed to restructure the payment provisions of the License Agreement by reducing royalty payments to three percent (3%) of amounts received from unaffiliated third parties in respect of the exploitation of the Intellectual Property defined in the License Agreement, in consideration for 2,000,000 common shares of the Company.
9. On April 7, 2014, we completed and made available, the POET Technology Design Kit (POET/TDK) documentation to the industry. POET/TDK provides complete documentation for the entire catalog of active electronic and electro-optical devices currently supported by the POET process.
10. On April 28, 2014, we announced Taylor Rafferty, LLC as the Company's Investor relations firm. The change in investor relations counsel followed Christopher Chu rejoining Taylor Rafferty, LLC where he previously assisted leading blue-chip companies in cross-border investor relations campaigns.
11. On June 12, 2014, we completed registration of our Form 20-F with the SEC.
12. On July 7, 2014, we announced the appointment of Mr. Ajit Manocha to the Board as Executive Vice Chairman.

13. On July 8, 2014, we reached a technological development point on the 100-nm scaling and prototype initiative where transition to BAE Systems for continuation of this work could be negotiated and an agreement was subsequently signed later in the year.

14. On August 6, 2014, we announced the completion of a new valuation model from Pellegrino and Associates LLC. The valuation model indicated a fair market value of the subject property in the markets considered at a 90% confidence level to be in between \$851 million and \$4.3 billion with a mean value of \$2.4 billion and a median value of \$2.3 billion. The Company does not intend to commission further updates of this valuation.

15. On September 2, 2014, we announced a three year collaboration with Synopsys on advanced modeling of the PET (Planar Electrical Technology) devices and the development of our first PDK (Process Design Kit). This collaboration, which combines Synopsys' TCAD modeling expertise and our innovative technologies, will provide POET technologists with the information needed to begin prototype designs.

16. On September 2, 2014, we also announced a non-exclusive collaboration agreement with BAE Systems to reproduce and enhance the repeatability of the technology by accessing superior capabilities and diagnostics at BAE's lab.

17. On November 17, 2014, we announced the appointment of Ajit Manocha as Co-Chairman of the Board.

DESCRIPTION OF BUSINESS

General

Summary

Development of the Company

The Company has two U.S. subsidiaries, OPEL Solar Inc. ("OPEL Solar") and ODIS Inc. ("ODIS"). ODIS is wholly-owned subsidiary of OPEL Solar, which in turn is wholly owned by the Company.

Through our subsidiary ODIS, we develop the technology to produce a monolithic, integrated opto-electronic microchip having several potential major market applications: infrared sensor arrays for Homeland Security monitoring and imaging along with the unique combination of optical lasers, and electronic control circuits on the same microchip for potential applications in various military programs, and potentially telecom for Fiber-to-the-home. Our technology also provides the opportunity for higher speed computing capabilities.

Capital Expenditures

Our capital expenditures for the last two years, which principally consist of purchases of research and development equipment and instrumentation, and filing for patents are as follows:

Period	Capital Expenditure	Purpose
Fiscal 2014	\$527,068	Instruments, equipment and patents
Fiscal 2013	\$1,000,783	Instruments, equipment and patents

Business Overview

Corporate Overview

The Company is a fabless semiconductor company developing a novel semiconductor technology called POET which is anticipated to allow the integrated fabrication of digital, analog and optical components on a single integrated circuit (“IC” or “die”), a capability that is not offered by the processes and materials commonly used in the industry today.

The POET platform allows the simultaneous fabrication of electronic and optical devices monolithically on a single chip, an achievement that has not yet been accomplished using the silicon-based technologies currently dominating the market. Key benefits of the ability to integrate electronic and optical devices are anticipated to include: (i) faster speeds; (ii) increased output power; (iii) decreased need for cooling; (iv) greater reliability; and (v) total system cost reductions. With POET’s materials system incorporating periodic table element groups III, IV and V (“Group III-V”), we expect to be able to pack active optical elements and high performance electronic elements in a single IC built on a GaAs wafer.

POET is being developed to be differentiated from competing semiconductor processes by its more comprehensive set of functional capabilities and its ability to integrate them. Unlike existing processes which require the use of multiple chips, circuit boards or sub-systems being linked together by either physical snap connections or multiple cable connections that (i) produce the potential for multiple points of failure, (ii) require more space, increasing the physical end product size and (iii) require greater amounts of power with the attendant production of excess heat, thus demanding additional space for cooling and ventilation, we anticipate that POET will be able to integrate lasers, modulators, photoreceivers and passive optics as well as high-speed, low-power electronics on one monolithically-fabricated die. This would allow POET ICs, when fully developed, to demonstrate a lower cost structure, increased power savings and increased reliability.

The fabrication of ICs made of GaAs, however, is a highly complex and precise process. Compared to the manufacturing of silicon ICs, GaAs technology is less mature and more difficult to design and manufacture within specifications in large volume. In addition, the more brittle nature of GaAs wafers can result in lower manufacturing yields than with silicon wafers. During manufacturing, each wafer is processed to contain numerous ICs which may also result in lower manufacturing yields.

Adopters of POET in the market could face difficulties in adapting to the larger semiconductor wafer sizes required for volume production of devices. Although GaAs has many advantages over silicon and the integration resulting from POET is expected to provide significant advantages (as previously mentioned), device manufacturers may need to reconfigure how they embed semiconductors using POET in their products. This could delay or deter semiconductor manufacturers in adopting the POET technology.

We have patents issued and patents pending for our semiconductor POET platform, which is currently being developed through ODIS. We have licensed the intellectual property portfolio, developed by our Chief Scientist and Director, Dr. Geoff Taylor, at UConn. We believe that our patent and trade secret protection on POET, together with our specific design knowledge using POET elements, will provide us with a large, defensible barrier to outside competition.

We expect to incur additional losses and require additional financial resources to complete development. The continuation of our research and development activities and the commercialization of our products are dependent upon our ability to successfully complete our research programs, protect our

intellectual property and finance our cash requirements on an ongoing basis. It is not possible to predict the outcome of future research and development activities or the financing thereof.

Research and Development Activities

We are currently conducting research and development for the POET platform, which allows for the construction of semiconductors with the potential to service a wide array of devices. We have been awarded more than a dozen U.S. Department of Defense and National Aeronautical and Space Administration's ("NASA") Small Business Innovation Research ("SBIR") grants since 2000, which have supported the initial development of the POET process, infrared sensing technology, sensor/laser development and the combination of electronic circuits and lasers on the same microchip. In 2014, we eliminated the use of SBIR grants in order to focus on developing and monetizing the technology.

We have produced working device prototypes in our development laboratories at the UConn campus to prove the functionality of the POET process. We are now transitioning the device technology into development of a completely integrated platform, utilizing funds provided from our general funds and facilities provided by a foundry development partner. Throughout the transition process, we will continue to use our UConn research and development facility, BAE's facility or other such foundry facilities, in our effort to produce scalable commercial IC prototypes. We are working to produce a functional IC, although no assurances can be given that such project will be completed on a timely basis, if at all. These prototypes are targeted to demonstrate our position as a sole source provider meeting specific product application needs and are anticipated to be used to help initiate our marketing efforts.

We conduct most of our own research and development activities through our facilities on the UConn campus in Storrs-Mansfield, Connecticut. In addition, we will contract specific projects with third-party research and development organizations, such as BAE.

Markets and Products

According to Global Industry Analysts, the overall semiconductor market has been projected to grow to \$372 billion by the end of 2015 and remains a rapidly growing segment of our economy (IC Insights 2013). Current research and development spending by the top 10 semiconductor companies has grown to a record-high \$28.0 billion, or an equivalent of 16.7% of total semiconductor sales, its highest level in 4-5 years. Electronics, with sales topping \$1,200 billion, generally require semiconductors to achieve success and competitive performance. Progress in the electronics industry over the past four decades has both driven and been driven by the industry's ability to create and serve markets with faster, cheaper and smaller monolithic ICs. Each product advance in turn becomes the driver for the next wave of IC technology. Many new generations of IC technology have increased IC capabilities and thus those of the products in which they serve. Advances in personal computers, communications and many consumer devices have been powered by this continual development in semiconductor technology. We anticipate that through 2017, the convergence of internet-capable and mobile technologies will drive the strength of the semiconductor device market.

Today however, the long established semiconductor paradigms may be falling short. Traditional silicon ICs are not well suited to serve in the arenas of opto-electronics and currently no adequate monolithic (single-chip) technology exists that combines both optics and electronics. Today's implementations in these markets are not fully benefiting from the cost savings of integrated technologies, but rather are based in part on hybrid or multi-component approaches. In the hybrid approach, multiple individual semiconductor components incorporating multiple technologies are interconnected to form circuits satisfying the needs of a particular application. This approach is used successfully to bring solutions to limited-size markets, particularly those in which performance is at a premium, despite a higher price. As

the need for high-speed services spreads and higher-volume markets continue to emerge, this hybrid approach to implementation adds size, cost and power. Hybrid technology may be able to serve the limited-size markets that are able to tolerate higher price tags or don't have form-factor limitations, but such technology cannot serve truly large, competitive markets.

Today's semiconductor industry is typically seen as dominated by silicon products, with the silicon IC industry then split into a triad of separate industries providing (i) design tools, (ii) IC designs, and (iii) IC fabrication, all operating independently but synergistically. While this is a good description of the silicon portion of the semiconductor industry, it is not a model of the whole semiconductor industry. Left unaddressed are markets for high-speed analog, radio frequency and optical products that are currently served by a combination of largely non-silicon technologies, including silicon-germanium, GaAs, indium phosphide and gallium nitride, which collectively cover a variety of applications, some of which are described below. Compared to existing technologies, POET is expected to be more versatile, meaning that POET can potentially be utilized to manufacture many more device types that could require the implementation of on-board optics and radio frequency electronics.

POET currently under development has not yet been utilized in production environments, and there are no assurances that our development and marketing efforts will ever result in POET being utilized by any manufacturer or otherwise commercialized.

Our POET platform is being developed to apply in a large portion of the developing optical communications semiconductor market as it represents a potential solution to increasing semiconductor performance in an economical and functional manner. Once developed, our GaAs-based chip design processes could have several potential major market applications, including: (i) infrared sensor arrays for military as well as Homeland Security monitoring and imaging and (ii) microchips combining optical lasers and electronic control circuits for potential use in various military programs and data communications applications, including within fiber to the home technology. In the short term, POET's current development efforts may allow future products or licensees in the following markets:

- **Pad, Tablet and Cloud OS-type PC devices** — Demand continues to surge for tablet-class devices, and the market for tablet PCs built on cloud-based services is expanding. Examples of devices key to this market are DRAM and logic circuits. These markets are projected in 2015 at \$43.6 billion and \$97.6 billion, respectively. Within such devices, POET's platform is anticipated to allow optical on-chip and chip to chip communications and other optical devices like VCSELs which are used in new sensing paradigms like gesture recognition. This is expected to reduce the power usage and increase functionality.
- **Smartphones** — 3G/4G smartphones are set to impact the future of analog, DSP, logic, and NAND flash memory IC markets. The mobile phone IC market alone is projected to be \$85.4 billion for 2015. We anticipate that the POET platform's performance and power saving boosts resulting from the incorporation of POET's functional capabilities in GaAs ICs will be attractive to manufacturers of intelligent portable devices because of the potential speed, power utilization and space advantages offered by integrating analog, mixed signal and optical functions.
- **Digital and Smart TVs** — Streaming capability via the Internet will increasingly be a must-have technology over the next few years; this points to increased revenues for LED drivers and power management ICs. Advances in Smart TV technology will require increased bandwidth to the panel technology. POET may enable low cost and small form factor implementation of high speed data links critical to meet the increased video bandwidth requirements.

- **“Internet of Things”** — The identification, monitoring, and control of objects with an addressable Internet protocol has been gaining momentum for over a decade with no abatement in sight. The sensor and actuator semiconductor market, one of the areas impacted by this sector, is projected to be an \$11.4 billion market in 2015. POET’s low power attribute and potential ability to integrate the analog front end and an energy harvester in a one-chip solution may be important in the emerging Internet of Things market.

*Data was sourced from IC Insights’ *IC Market Drivers 2014 Report* and from the 2014 edition of IC Insights’ *Opto-Sensor-Discrete (O-S-D) Report*.

We are striving to develop the POET platform to provide the following advantages to the industry:

- **Application Performance up to 10x faster** than existing technologies.
- **Up to 90% power savings improvement** over existing technologies (depending on the application).
- **Flexible and integrated application solutions** that can be applied to a broad range of technical applications, including sensor/laser and electro-optical, among many others.
- **POET process can be deployed into existing silicon fabs** - Since POET is a CMOS friendly technology fabricated using standard lithography techniques; it could be easily integrated into current semiconductor production facilities, extending the utilization of fabrication equipment and production lines.

POET is applicable in a large portion of this semiconductor market as it represents an integrated comprehensive solution to increasing semiconductor performance in an economical and functional manner. The ability to be adapted to existing fabs with a minimum of re-tooling requirements, compared to alternatives, is an important differentiator. Business indicators suggest that POET may provide significant value to ever growing markets, where it addresses a need for lower power consumption, speed, solution size, and cost efficiency.

No assurances can be given that we will be able to achieve these goals in the near future, if ever. Our strategy is to continue research towards the expansion of the IP portfolio and the aggressive development of devices for the POET platform.

The disruptive potential of POET was first recognized within the military community, and this recognition has remained strong. Despite this connection, historical military development work does not constrain the commercial application of POET. Our POET platform for opto-electronic integration is designed to exploit the opto-electronic and electronic behaviors of GaAs semiconductor material. One of the benefits of this material, from a space electronics perspective, is that GaAs is significantly less susceptible to x-ray and gamma-ray total integrated dose radiation. GaAs has been a long-standing choice for high-frequency devices and circuits, though GaAs digital devices do not provide the performance that metal oxide semiconductor field effect transistor devices provide. Currently, the POET platform is being evaluated in connection with a NASA deep space probe initiative.

Important to military applications are the electronic devices that can be integrated into the POET design architecture, including both complementary heterostructure field effect transistors and complementary HBTs. These transistors will enable both analog and digital functions in POET hybrid opto-electronic devices. The technology also provides a number of key, integrable opto-electronic devices: resonant vertical cavity lasers, detectors, amplifiers and modulators for out-of-plane operation. In addition, POET

innovation enables in-plane waveguide and traveling wave operation for lasers, detectors, modulators, amplifiers and directional coupler switches. Important to the military is POET's potential to integrate digital, radio frequency and optical technologies in a single device

Our POET architecture, which incorporates a dense mix of active optical elements and optical waveguides together with logic and mixed signal elements, is designed to enable a wide variety of space-system components. These components, when developed, could be combined to enable a number of applications including high speed transceivers for laser communications, radio frequency transceivers, radio frequency and optical phased arrays, opto-electronic interconnects, analog-to-digital and digital-to-analog converters, uncooled visible, mid-wavelength infrared and long-wave infrared imagers, optical memory, opto-electronic and radio frequency apertures, ultra-wide-band sources and receivers, low-light-level sensors, single photon counters and optical correlators.

We could have the ability to offer a low-cost monolithic solution to multi-spectral imaging. The compact array could provide: (i) detection, readout and analog-to-digital conversion on a single chip; (ii) a common axis for ultraviolet, visible and infrared imaging; (iii) wavelength scanning; and (iv) 300K operation with no cooling required. The Space Foundation has indicated that this technology satisfies Space Situational Awareness ("SSA") sensor requirements by providing required capability with significantly reduced size, weight and power. In addition, the Air Force Communications Command and Control Division ("C3") Tech Area Plan identifies mid- and long-term space communication and C3 technology challenges that require the photonic applications that POET is being developed to provide.

After testing, the Air Force Commercialization Pilot Program ("CPP") selected our ultraviolet/infrared/visible imaging technology project as their candidate for a U.S. Air Force Research Laboratory ("AFRL") grant to fund the POET transition program and Phase III effort. BAE and other military prime contractors have expressed interest in using the POET platform in systems/subsystems for their Department of Defense customers. Additionally, a qualifier for receiving CPP funding is the acknowledgement of the firm's willingness to commercialize a portion of the funded technology, thus providing commercial customers access to packaged parts, enabling the technology to be adopted for commercial and military systems.

Marketing Plan

Military Segment

Our initial fundamental business strategy is to continue our directed focus on the military market through licensing arrangements with BAE and others and by pursuing projects which meet the POET platform product design goals, which may lead to the subsequent volume production and license revenue generation. Our intent is also to foster prime contractor involvement that will lead to either a licensing or other form of partnership relationship based on long term demand for the POET platform, and to develop that demand into a potential partner's strategic plans for meeting government requirements. Training, supporting and energizing prime contractor sales teams will be a key ingredient to our success in generating military and agency revenue.

Commercial Segment

Our commercial sales and marketing activity will be based on direct contact with target corporations by senior management or industry consultants hired by the Company. Such contact will focus on developing successful relationships within the product areas. We believe that relationship leveraging is required to first gain entrance and then acceptance of a new company with new technology. Marketing and product development activity is expected to continue throughout the POET development process in order to

anticipate and adapt commercially directed devices, as well as commercial applications discovered going forward, during the development phase, thus offering well-designed, well-supported, market-focused products capitalizing on the potential advantages of POET.

The release of test or prototype devices to both market segments for testing and acceptance of the POET process is important to our marketing plan. The availability of prototypes will be necessary to solicit early design wins with the potential to lead to volume production at such time.

Competition

Our competitive environment encompasses current state of the art semiconductor device fabrication technologies, principally CMOS on silicon wafers, which has been the primary technology for developing and manufacturing ICs utilized in computers, electronics equipment, automobiles and many other applications and markets. We believe that novel technological developments proprietary to it implemented on GaAs substrates provide advantages with respect to power utilization, speed and device size compared to silicon CMOS technology, which is approaching physical barriers to increasing speed and energy efficiency. We believe that we have the opportunity to promote POET's adoption by the semiconductor industry, as POET has the potential to meet demand for increasing clock speed of ICs, demand for decreasing power consumption and increasing integration of functionality on a single chip. Any success for POET adoption will require our substantial education and marketing efforts, as the familiarity with silicon CMOS manufacturing processes and the embedded infrastructure for silicon CMOS chip-making will serve as a barrier to POET adoption. In addition, the incremental cost of utilizing GaAs substrates, the variations in processing steps and the limitations on wafer size and of wafer fragility will serve as hurdles to POET adoption. Adopters of POET in the market will face difficulties in adapting to the larger semiconductor wafer sizes required for volume production of devices. Although GaAs has many advantages over silicon and the integration resulting from POET is expected to provide advantages over current, silicon-based, CMOS technology, device manufacturers may need to reconfigure aspects of how they embed semiconductors using our technology in their products. This could delay or deter semiconductor manufacturers in adopting POET.

In POET's favor, the similarity of design and fabrication processes using POET versus CMOS reduces the disadvantage of migrating to the new technology, and we believe that the performance, power and space advantage of POET-engineered chips has the potential to aid in adoption of POET into a meaningful portion of the optical communications market. In addition to silicon CMOS, semiconductor manufacturers are exploring and utilizing other developing technologies and materials in order to address the power, speed and space issues that drive industry innovation, including alternative materials such as silicon geranium, indium phosphide and others. We believe that while such materials and technologies have capabilities for improving on the current silicon CMOS process, POET has the potential advantages of being, in some cases, (i) easier to implement in a manufacturing environment, (ii) more energy efficient, and (iii) more flexible in its potential applications. Consequently, we believe that if we are able to develop and commercialize POET, our technology should be able to compete effectively with other current technologies. As the semiconductor market is large and subject to rapid technological development, other technologies or improvements to existing technologies may emerge that could surpass our expectations for POET, in which case we would suffer competitive harm.

Some of our potential competitors have longer operating histories, significantly greater resources and name recognition, and a larger base of customers. As a result, these competitors may have greater credibility with our potential customers. They also may be able to adopt more aggressive pricing policies and devote greater resources to the development, promotion and licensing of their technologies than we would be able to do. In addition, some of our potential competitors have likely already established licensing or joint development relationships with the decision makers at our potential customers. In

addition, many of what we perceive as potential customers have the capabilities to develop technology competitive to ours internally. These competitors may be able to leverage their existing relationships to discourage their customers from licensing or otherwise utilizing our technology. These competitors may elect not to support our technology which could complicate our sales efforts. These and other competitive pressures may prevent us from competing successfully against current or future competitors, and may materially harm our business.

Our target markets are intensely competitive and characterized by rapid technological change. We cannot assure you that we will have the financial resources, technical expertise or marketing or support capabilities to compete successfully in the future. Competition is based on a variety of factors including price, performance, features, software availability, marketing, customer support, name recognition and financial strength. Further, given our contemplated reliance on semiconductor manufacturers, our competitive position is dependent on their competitive position. In addition, semiconductor manufacturers are not expected to license our architecture exclusively, and several of them also design, develop, manufacture and market semiconductor devices based on their own architectures or on other non-POET technologies.

Property and Equipment

The head office of the Company is located in a 1,400-sq. ft. leased office space in Toronto, Ontario, Canada. We also have an operational office in a 5,996-sq. ft. leased office space in Storrs-Mansfield, Connecticut, on the UConn campus. All of our research equipment is located at the UConn facilities. We also have access to office space on a month to month basis in San Jose, California to accommodate our expanding presence in the Silicon Valley, the epicenter of our focus on future industry partners and collaborators.

We believe that our existing facilities are adequate to meet our needs for the foreseeable future.

Specialized Skill and Knowledge

Our People – We believe that our future success is dependent on our ability to attract, retain and motivate highly skilled employees, including our design, engineering, support, operations, sales and marketing personnel, as well as senior corporate management. In support of our corporate objectives, and to provide opportunities for fulfilling work, career advancement and a sense of pride, we have fostered a high performance culture among our employees under which an ownership philosophy is promoted and leading contributors are recognized. We endeavour to hire top talent within our organization. We also utilize outside contracting firms to assist in certain specific tasks as required, allowing for lower permanent headcount and allowing our staff to concentrate on their field of expertise.

Research and Development - The markets in which we compete are characterized by constant and sometimes rapid technological change, evolving technical standards and declining product pricing. We believe that our future success is largely dependent upon our ability to continue to anticipate and respond to these changing industry dynamics and standards and to improve our products and develop new technologies to address the needs of our customers. Our product development efforts are focused on designing new products based on our understanding of the evolving needs of our customers in this rapidly changing marketplace. We work closely with our customers to identify their future needs and to develop products designed to fulfill such needs. We have a dedicated team of engineers who follow technology changes, developments in industry standards and the product needs of our customers, as well as the competitive products offered in the marketplace, in an effort to formulate our forward-looking “product roadmap”.

Bankruptcy and Similar Procedures

There have been no bankruptcy, receivership or similar proceedings against us or any voluntary bankruptcy, receivership or similar proceedings by us within the three most recently completed financial years or during or proposed for the current financial year.

Reorganizations

We have had no material reorganizations within the three most recently completed financial years or since the beginning of the current financial year.

Risk Factors

We are subject to a number of risks and uncertainties that could significantly affect our financial condition and performance. As we grow, continue our commitment to R&D, and enter into new markets, these risks can increase and/or change. Key risks include, among others:

Risks Related to Our Business

We have a limited operating history and we do not expect to become profitable in the near future.

We are a fabless semiconductor technology development company with a limited operating history. We are not profitable and have incurred losses. We continue to incur research and development and general and administrative expenses related to our operations. We expect to continue to incur losses for the foreseeable future, and these losses may increase as we move toward the commercialization of our technology currently under development. If our POET platform does not achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Accordingly, it is difficult to evaluate our business prospects. Moreover, our prospects must be considered in light of the risks and uncertainties encountered by an early-stage company and competitive markets, such as the semiconductor market, where market acceptance of our technology is uncertain.

We depend on the implementation of our business plan, including our ability to make future progress in the development of POET. There can be no assurance that our efforts will ultimately result in profits.

We have not yet commercialized POET and there is no certainty that we will be able to do so.

We have not yet commercialized POET, and we may never be able to do so. We do not know when or if we will complete our development efforts or successfully license our technology. Even if we are successful in developing a commercially useful POET platform, we will not be successful unless POET gains market acceptance. The degree of market acceptance of these products will depend on a number of factors, including:

- the adoption of our technology by semiconductor device designers and manufacturers;
- the competitive environment;
- the establishment and demonstration in the technology community of the efficacy of our technology and its potential advantages over existing technology; and
- the adequacy and success of sales and marketing efforts regarding licensing our technology.

We have a history of losses and expect to continue to incur additional losses for the foreseeable future.

Our primary focus is on the research and development of a specific semiconductor technology, which requires the expenditure of significant amounts of cash over a relatively long time period. As at December 31, 2014, our deficit was \$78,780,502, with net losses in fiscal years 2014, 2013 and 2012 of \$11,785,800, \$7,849,017 and \$8,564,112 respectively. The deficit includes the non-recurring losses incurred in connection with the prior solar business segment which has since been discontinued under current management. The deficit incurred up to the date of discontinuing the solar segment was \$55,295,300. Thus, the deficit as at December 31, 2014, attributable to POET development since the refocus of operations is \$23,485,202. There can be no assurance that we will ever record any earnings.

We may need to obtain additional investment capital and there can be no assurance that we will be successful in generating sufficient cash flow to continue our development.

As stated above, we expect to incur losses for the foreseeable future. As of December 31, 2014, 2013 and 2012, our working capital was \$11,079,641, \$3,272,349 and \$1,433,392 respectively. As of June 30, 2015, our working capital was approximately \$14,636,215.

The increase and maintenance of higher working capital in 2014 was due to the \$4.5 million financing completed on February 13, 2014 in addition to \$9.9 million raised through the exercise of stock options and warrants during the year ended December 31, 2014. We have raised a further \$5,818,969 through the exercise of stock options and warrants in 2015 to June 30, 2015. We have no capital commitments. We anticipate spending a minimum of \$2,500,000 over the next two years on research and development activities.

The increased working capital from 2012 to 2013 was due to CA\$7.2 million financing completed on February 14, 2013 in addition to CA\$5.4 million raised in the second half of 2012. The Company used a portion of the funds raised in 2012 to settle the high accounts payable balances and the credit facility that were carried for most of 2012. Additionally, \$900,236 has been spent in 2013 and 2012 procuring machinery and equipment.

Our balance sheet as at December 31, 2014 shows assets with a book value of \$12,850,946 (2013 - \$4,557,844, 2012 - \$2,399,827) of which 90% (2013 - 78%, 2012 - 97%) or \$11,531,365 (2013 - \$3,528,376, 2012 - \$2,297,607) is current and primarily cash of \$11,287,864 (2013 - \$3,260,967, 2012 - \$1,435,762). Our cash position has been bolstered by the exercise of warrants and stock options subsequent to the 2014 year end that resulted in additional capital of approximately \$7.3 million.

As of June 30, 2015, there are 6,712,387 warrants outstanding to purchase common shares at an average exercise price of \$0.35 expiring between July 31, 2015 and September 27, 2015. Should those warrants be exercised, there is a potential for an additional CA \$2.3 million to be raised by the Company. Whether the warrants will be exercised is dependent on a number of factors that are outside of our control, such as stock price and investor confidence.

Based on current plans and cash utilization, we believe we have sufficient liquidity to support our operations and technological programs through 2016, which include further development of the POET semiconductor process and increasing the POET intellectual property portfolio to enable us to exploit POET, through licenses and collaborative arrangements. If development were delayed, or in the event that we were unable to execute licenses of POET or otherwise exploit the technology, additional financing would be necessary. There can be no assurance that we would be able to obtain such financing or that the objectives will be achieved at all.

We have no external sources of financing such as bank lines of credit. We will likely require future additional financing to carry out our business plan. The current market for both debt and equity financings for companies such as the Company is challenging, and there can be no assurance that a financing, whether debt or equity, will be available on acceptable terms or at all. The failure to obtain financing on a timely basis may result in our having to reduce or delay one or more of our planned research, development and marketing programs and to reduce related overhead, any of which could impair our current and future value. Any additional equity financing, if obtained, may result in significant dilution to the existing shareholders at the time of such financing. We may also seek additional funding from other sources, including technology licensing, co-development collaborations and other strategic alliances, which, if obtained, may dilute our interest in our intellectual property. There can be no assurance, however, that any such alternative sources of funding will be available.

Rapid technological change could render our technology non-competitive and obsolete.

The semiconductor industry is subject to rapid and substantial technological change. Developments by others may render POET non-competitive, and we may not be able to keep pace with technological developments. Competitors have developed technologies that compete with the functionality expected of our technology. Some of these technologies have an entirely different approach or means of accomplishing the desired process and function than the POET process being developed by us and may be more effective and less costly to implement than the technologies developed by us.

Currently, the industry is dominated by silicon-based semiconductor technology that requires the fabrication of multiple chips for optical and electrical functions. As such, manufacturers of electronic devices are accustomed to designing their products around multi-chip platforms. If more advanced silicon-based technology is developed, manufacturers may determine that maintenance of the silicon platform will be less costly to implement and utilize than alternative technologies. Also, competitors may develop other IC platforms that are easier for manufacturers to adopt.

Our research and development efforts are focused on the POET platform, and any delay in the development, or the abandonment of POET, or POET's failure to achieve market acceptance, would compromise our competitive position.

We have devoted and expect to continue to devote a large amount of resources to develop new and emerging technologies and standards that can be commercialized in the future. Our POET platform is a new technology which as yet does not have an established base and may not be embraced for use by the semiconductor industry. Should we fail to develop commercially viable products based on our POET platform, our research and development efforts with respect to these technologies and standards likely would have no appreciable value. In addition, if we do not correctly anticipate new technologies and standards, or if the products that our licensees, if any, develop based on these new technologies and standards fail to achieve market acceptance, our competitors may be better able to address market demand than we would. Furthermore, if markets for these new technologies and standards develop later than we anticipate, or do not develop at all, demand for our technologies that are currently in development would suffer, resulting in reduced licensing sales of these technologies, if any.

We are a relatively small company with limited resources compared to some of our current and potential competitors and we may not be able to compete effectively and increase market share.

Some of our potential competitors have longer operating histories, significantly greater resources and name recognition and a base of customers. As a result, these competitors may have greater credibility with our potential customers. They also may be able to adopt more aggressive pricing policies and devote greater resources to the development, promotion and licensing of their technologies than we would be

able to do. In addition, some of our potential competitors have likely already established licensing or joint development relationships with the decision makers at our potential customers. In addition, many of what we perceive as potential customers have the capabilities to develop technology competitive to ours internally. These competitors may be able to leverage their existing relationships to discourage their customers from licensing or otherwise utilizing our technology. These competitors may elect not to support our technology which could complicate our sales efforts. These and other competitive pressures may prevent us from competing successfully against current or future competitors, and may materially harm our business.

We are party to an intellectual property license agreement granting a portion of all future revenues.

We have a License Agreement, as amended in 2014, with UConn whereby UConn granted us an exclusive license to the intellectual property developed by a consultant and a director of the Company, Dr. Geoffrey Taylor, who is also a member of the faculty at UConn. Such a license may reduce our profitability if and when our products reach market. We are obligated to pay up to \$1,000,000 per year when revenues reach certain milestones as well as pay an additional 3% of any revenue received in connection with the exploitation of the licensed intellectual property to third parties other than engineering expenses received from third parties.

We will be dependent on both semiconductor manufacturers and major intellectual property licensees.

We will be dependent on semiconductor manufacturers to manufacture products based on our architecture in order to receive revenues in the future. We also depend on them to add value to our technology by providing complete POET-based solutions to meet the specific application needs of systems companies. However, the semiconductor manufacturers, if any, will not be contractually obliged to manufacture, distribute or sell devices based on our technology or to market POET on an exclusive basis. Some potential semiconductor partners design, develop and/or manufacture and market devices based on different competing architectures, including their own, and others may do so in the future.

We anticipate that our revenue will depend on these major customers, although the companies considered to be major customers and the percentage of revenue represented by each major customer may vary from period to period depending on the addition of new agreements, the timing of work performed by us and the number of designs utilizing our products. In addition, we cannot be certain that any of the IC manufacturers will produce products incorporating our intellectual property components or that, if production occurs, they will generate significant royalty revenue for us.

We cannot assure you that semiconductor device manufacturers will dedicate the resources necessary to promote and develop products based on POET, that they will manufacture products based on POET in quantities sufficient to meet demand, that we will be successful in developing relationships with semiconductor manufacturers, or that we will be able to maintain relationships with semiconductor manufacturers once developed.

Our revenues will depend in some part on royalties that may be received on POET-based devices, which will likely be generated on the volumes and price of devices manufactured and sold by our semiconductor manufacturer licensees, if any. Our royalties will be therefore influenced by many of the risks faced by the semiconductor market in general. These risks include reductions in demand and reduced average selling prices. The semiconductor market is intensely competitive. It is also generally characterized by declining average selling prices over the life of a generation of devices. The effect of these price decreases is compounded by the fact that royalty rates decrease as a function of volume. We cannot assure you that delays in licensing, poor demand for services or decreases in prices or in our royalty rates will not materially adversely affect our business, results of operations and financial condition.

The enforceability of our patents and our ability to maintain trade secrets cannot be predicted and such patents or trade secrets may not provide us with a competitive advantage against competitors with similar products or technologies.

We rely on a combination of patent and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We cannot be certain that the steps we have taken will prevent unauthorized use of our intellectual property. Any failure to protect our intellectual property rights would diminish or eliminate the competitive advantages that we derive from our proprietary technology. We cannot assure you that we will be able to adequately protect our technology or other intellectual property from third-party infringement or from misappropriation in the U.S. and abroad. Any patent licensed by us or issued to us could be challenged, invalidated or circumvented or rights granted thereunder may not provide a competitive advantage to us. Furthermore, patent applications that we file may not result in issuance of a patent or, if a patent is issued, the patent may not be issued in a form that is advantageous to us. Despite our efforts to protect our intellectual property rights, others may independently develop similar products, duplicate our products or design around our patents and other rights. In addition, it is difficult to monitor compliance with, and enforce our intellectual property on a worldwide basis in a cost-effective manner. In jurisdictions where foreign laws provide less intellectual property protection than afforded in the U.S. and abroad, our technology or other intellectual property may be compromised, and our business would be materially adversely affected.

We may occasionally become involved in administrative proceedings, lawsuits or other proceedings if others allege that we infringe on their intellectual property rights. Some of these claims could subject us to significant liability for damages and invalidate our property rights. If successful, such claims could impair our ability to collect royalties or license fees or could force us or our customers to:

- stop using or exploiting the challenged intellectual property;
- obtain from the owner of the infringed intellectual property, at our expense, a license to sell the relevant technology at an additional cost, which license may not be available on reasonable terms, or at all; or
- redesign our technology to make it non-infringing.

Our failure to protect our proprietary rights, or the costs of protecting these rights, may harm our ability to compete.

Our success depends in part on our ability to obtain patents and licenses and to preserve other intellectual property rights covering our products and development and testing tools. To that end, we have obtained certain domestic and foreign patents and intend to continue to seek patents on our inventions when appropriate. The process of seeking patent protection can be time consuming and expensive. We cannot ensure the following:

- that patents will be issued from currently pending or future applications;
- that our existing patents or any new patents will be sufficient in scope or strength to provide meaningful protection or any commercial advantage to us;
- that foreign intellectual property laws will protect our foreign intellectual property rights; and
- that others will not independently develop similar products, duplicate our products or design around any patents issued to us.

Intellectual property rights are uncertain and adjudication of such rights involves complex legal and factual questions. We may be unknowingly infringing on the proprietary rights of others and may be

liable for that infringement, which could result in significant liability for us. We may receive correspondence from third parties alleging infringement of their intellectual property rights. If we are found to infringe the proprietary rights of others, we could be forced to either seek a license to the intellectual property rights of others or alter our technologies so that they no longer infringe the proprietary rights of others. A license could be very expensive to obtain or may not be available at all. Similarly, changing our processes to avoid infringing the rights of others may be costly or impractical.

We would be responsible for any patent litigation costs. Our License Agreement with UConn does not provide for indemnification of the Company by UConn. If we were to become involved in a dispute regarding intellectual property, whether ours or that of another company, we may have to participate in legal proceedings in the United States Patent and Trademark Office or in the U.S. or Canadian courts to determine any or all of the following issues: patent validity, patent infringement, patent ownership or inventorship. These types of proceedings may be costly and time consuming for us, even if we eventually prevail. If we do not prevail, we might be forced to pay significant damages, obtain a license, if available, or stop making a certain product. From time to time, we may prosecute patent litigation against others and as part of such litigation, other parties may allege that our patents are not infringed, are invalid and are unenforceable. We also rely on trade secrets, proprietary know-how and confidentiality provisions in agreements with employees and consultants to protect our intellectual property. Such parties may not comply with the terms of their agreements with us, and we may not be able to adequately enforce our rights against these parties.

Our results may fluctuate significantly and be unpredictable.

Assuming that we are able to finish development of the POET platform technology and commence its exploitation, we will likely experience in the future significant quarterly fluctuations in our results of operations. Our results may fluctuate because of a variety of factors. Such factors include:

- the timing of entering into agreements with licensees;
- the financial terms and delivery schedules of our agreements with licensees;
- the demand for products that incorporate our technology;
- the mixture of license fees, royalties, revenues from the sale of development systems and fees from services;
- the introduction of new technology by us, our licensees or our competition;
- the timing of orders from and shipments to systems companies of POET-based devices from semiconductor manufacturers;
- the sudden technological or other changes in the semiconductor industry; and
- new litigation or developments in current litigation.

In future periods, our operating results may not meet the expectations of public market analysts or investors. In such an event the market price of our shares could be materially adversely affected.

We anticipate applications and products using the POET platform will be limited to a relatively small number of customers, who will account for a significant portion of our total net revenues.

Once POET is fully developed, we expect that a relatively small number of customers will account for a significant portion of our future net revenues in any particular period. Due to this, some of the following may reduce our future revenues or adversely affect our business:

- reduction in scope, delay in completion or cancellation of licenses to one or more potentially significant customers;
- development by one or more of our potentially significant customers of other technologies for current or future products;
- loss of one or more of our potentially significant customers or a disruption in our licensing activities;
- failure of one or more of our potentially significant customers to make timely payment of our invoices; and
- failure of one or more of our customers to implement our technology in products successfully, thus limiting any potential royalty income.

We cannot be certain that any potential customer will license technology from us, or, once established as a customer, that they will generate further income to us by means of further licenses or royalties.

Our success will depend substantially on systems companies.

Our future success will depend substantially on the acceptance of our technology by systems companies, particularly those which develop and market electronic products in the defense, wireless, consumer electronics and networking markets where demand may be highly cyclical. The reason for this dependence is that sales of POET-based devices by semiconductor manufacturers to systems companies directly affect the amount of royalties we might receive. We are subject to many risks beyond our control that may influence the success or failure of a particular systems company. These risks include:

- competition faced by the systems company in its particular industry;
- the engineering and marketing capabilities of the systems company;
- market acceptance of the systems company's products;
- technical challenges unrelated to our technology faced by the systems company in developing its products; and
- the financial and other resources of the systems company.

It will likely take a long time to persuade systems companies to accept POET and, even if accepted, we cannot assure you that our technology will be used in a product that is ultimately brought to market. Furthermore, even if our technology is used in a product brought to market, we cannot assure you that such product will be commercially accepted or result in significant royalties to us. Demand for our intellectual property may also be affected by consolidation in the IC and related industries, which may reduce the aggregate level of purchases of our intellectual property components and services by the combined companies.

Competition — we may not be able to compete successfully in the future.

Our target markets are intensely competitive and characterized by rapid technological change. We cannot assure you that we will have the financial resources, technical expertise or marketing or support capabilities to compete successfully in the future. Competition is based on a variety of factors including price, performance, features, software availability, marketing, customer support, name recognition and financial strength. Further, given our contemplated reliance on semiconductor manufacturers, our competitive position is dependent on their competitive position. In addition, semiconductor manufacturers are not expected to license our architecture exclusively, and several of them also design, develop, manufacture and market semiconductor devices based on their own architectures or on other non-POET technologies.

Our future capital needs may require us to seek debt financing or additional equity funding which, if not available, could cause our business to suffer.

From time to time, we may be required to raise additional funds for our future capital needs through public or private financing, strategic relationships or other arrangements. There can be no assurance that the funding, if needed, will be available on attractive terms, or at all. Furthermore, any additional financing arrangements may be dilutive to shareholders, and debt financing, if available, may involve restrictive covenants. Strategic arrangements, if necessary to raise additional funds, may require us to relinquish our rights to certain of our technologies or products. Our failure to raise capital when needed could have a material adverse effect on our business.

We are dependent on key personnel and the loss of any of these individuals could adversely affect us.

Our ability to continue its development of potential products, and to develop a competitive edge in the marketplace, depends, in large part, on our ability to attract and maintain qualified key management and technical personnel. Competition for such personnel is intense and we may not be able to attract and retain such personnel. Our growth will depend on the efforts of our senior management, particularly, our Co-Chairmen, Ajit Manocha and Peter Copetti, our Chief Executive Officer, Suresh Venkatesan, our Chief Operating Officer, Subhash Deshmukh; our Chief Scientist, Dr. Geoffrey Taylor, and other officers and members of Dr. Taylor's team. We have entered into a consulting agreement with Dr. Taylor, who is on the faculty at UConn, and employment agreements with our senior executive officers. If we lose the services of key personnel through loss of life, impairment or resignation, we may be unable to replace them, and our business could be negatively affected.

We will be highly dependent upon collaborative partners to develop and commercialize products using POET.

A key part of our strategy is to form collaborations with semiconductor, defense and electronics companies that will assist us in developing, testing, and commercializing the POET platform. We currently have a collaborative agreement for process development with BAE Systems, Nashua, New Hampshire ("BAE"), which provides for a potential joint development program of POET and undivided 50% joint interest in process development intellectual property, only in circumstances where such intellectual property is jointly developed at BAE Systems facilities thereunder (subject to the Company's and its subsidiaries' obligations to UConn), with royalties running from each to the other in connection with revenues generated from the intellectual property. To date, we have engaged with BAE in such a manner that BAE does not participate in the development of our core POET process technology, and we intend to maintain that separation of activities in the future. We have recently entered into a supplement to our agreement with BAE which provides for incremental development work to be performed by BAE in connection with the commercial development of POET. BAE is not exclusive in this development program. If we are required to engage a new company to undertake development work due to BAE's inability to do so, we may be delayed in one or all stages of our progress, which could prove costly both operationally and strategically.

We expect to negotiate specific ownership rights with respect to the intellectual property developed as a result of the collaboration with each partner. While ownership rights will likely vary from program to program, in general we will seek to retain ownership rights to developments directly relating to POET and our partner will retain rights specific to the application under development.

Despite our existing development agreement with BAE, we cannot make any assurances that:

- we will be able to enter into additional collaborative arrangements to develop products utilizing POET;
- any existing or future collaborative arrangements will be sustainable or successful;
- the applications contemplated in collaborative arrangements will be further developed by partners in a timely fashion;
- any collaborative partner will not infringe upon our intellectual property position in violation of the terms of the collaboration contract; or
- milestones in collaborative agreements will be met and milestone payments, if any, will be received.

If we are unable to obtain development assistance and funds from other companies to fund a portion of our development costs and to commercialize our technology, we may be required to delay, curtail, or stop development of our projects.

We face risks from failures in the device manufacturing processes of our customers.

The fabrication of ICs, particularly those made of gallium arsenide (“GaAs”), is a highly complex and precise process. ICs incorporating the POET platform are primarily manufactured on wafers made of GaAs. Compared to the manufacturing of silicon ICs, GaAs technology is less mature and more difficult to design and manufacture within specifications in large volume. In addition, the more brittle nature of GaAs wafers can result in lower manufacturing yields than with silicon wafers. Further, during manufacturing, each wafer is processed to contain numerous ICs or which may also result in lower manufacturing yields. As a result, our customers utilizing POET GaAs wafers may reject or be unable to sell a substantial percentage of wafers or the die on a given wafer because of, among other factors:

- minute impurities;
- difficulties in the fabrication process, such as failure of special equipment, operator error or power outages;
- defects in the masks used to print circuits on a wafer;
- electrical and/or optical performance; or
- wafer breakage.

Our future customers may experience similar difficulty in maintaining acceptable manufacturing yields, which in turn may hinder adoption of our POET platform for cost or yield reasons.

Our POET platform incorporates technology licensed from third parties.

We incorporate technology (including software) licensed from a limited number of third parties in the deployment of our POET platform, including from UConn. We could be subjected to claims of infringement regardless of our lack of involvement in the development of the licensed technology. Although a third-party licensor may, in some cases, indemnify us if the licensed technology infringes on another party’s intellectual property rights, such indemnification is typically limited in amount and may be worthless if the licensor becomes insolvent. Our agreement with UConn does not provide for indemnification of the Company for intellectual property infringement. Furthermore, any failure of third-party technology to perform properly would adversely affect the development or exploitation of POET.

Our intellectual property indemnification practices may adversely impact our business.

We expect to be required to indemnify our customers for certain costs and damages of intellectual property rights in circumstances where one of our products is the factor creating the customer's infringement exposure. This practice may subject us to significant indemnification claims by our customers. In some instances, our technology may be utilized to manufacture devices by our customers that comply with international standards. These international standards are often covered by patent rights held by third parties, which may include our competitors. The costs of obtaining licenses from holders of patent rights essential to such international standards could be high. The cost of not obtaining such licenses could also be high if a holder of such patent rights brings a claim for patent infringement. We are not aware of any claimed violations on our part. However, we cannot assure you that claims for indemnification will not be made or that if made, such claims would not have a material adverse effect on our business, results of operations or financial condition.

We may be subject to information technology failures that could damage our reputation, business operations and financial condition.

We rely on information technology for the effective operation of our business. Our systems are subject to damage or interruption from a number of potential sources, including natural disasters, accidents, power disruptions, telecommunications failures, acts of terrorism or war, computer viruses, physical or electronic break-ins, cyber-attacks, sabotage, vandalism, or similar events or disruptions. Our security measures may not detect or prevent such security breaches. Any such compromise of our information security could result in the unauthorized publication of our confidential business or proprietary information, result in the unauthorized release of customer, supplier or employee data, result in a violation of privacy or other laws, expose us to a risk of litigation or damage our reputation.

Although safeguards exist, third parties with which we currently conduct business may have access to certain portions of our sensitive data. In the event that these third parties do not properly safeguard our data that they hold, security breaches could result and negatively impact our business. In addition, our inability to use or access these information systems at critical points in time could unfavorably impact the timely and efficient operation of our business, which could negatively affect our business and operating results, operations and financial results.

The high cost of building advanced semiconductor manufacturing facilities may limit the number of foundries as potential customers for our POET platform.

The cost of developing leading-edge manufacturing facilities and processes needed for building advanced chips is rising. Some of our potential foundry customers may delay or cancel plans for expanding current processes or developing new manufacturing processes, which, if done, may reduce our licensing opportunities. In addition, the bargaining power of the remaining foundries with advanced manufacturing facilities would be increased. This could make it harder for us to win profitable licensing deals with these foundries, further reducing both licensing and royalty revenue.

There are foreign exchange risks associated with us.

Because we have historically raised funds in both the Canadian and U.S. markets, a portion of our costs are denominated in Canadian dollars and our funding is subject to foreign exchange risks. A decrease in the value of the U.S. dollar relative to the Canadian dollar could affect our costs and potential future profitability. We do not currently hold forward exchange contracts or other hedging instruments to exchange foreign currencies for U.S. dollars to offset potential currency rate fluctuations.

Risks Related to Our Common Stock

Our stock price has been and may continue to be volatile.

The trading price for our common stock on the TSX Venture Exchange (“TSXV”) has been and is likely to continue to be highly volatile. Although we are registering our stock with the U.S. Securities Exchange Commission (“SEC”), no significant U.S. market may develop, and if such a market develops, prices on that market are also likely to be highly volatile. The market prices for securities of early stage technology companies have historically been highly volatile.

Factors that could adversely affect our stock price include:

- fluctuations in our operating results;
- failure to achieve or delays in achieving revenue;
- announcements of partnerships or technological collaborations and announcements of the results or further actions in respect of any partnerships or collaborations, including termination of same;
- innovations by us or our competitors;
- governmental regulation;
- developments in patent or other proprietary rights;
- the results of technology and product development testing by us, our partners or our competitors;
- litigation;
- general stock market and economic conditions;
- number of shares available for trading (float); and
- inclusion in or dropping from stock indexes.

As of December 31, 2014, our 52-week high and low closing market price for our common stock on the TSXV was CA\$2.87 and CA\$0.49, respectively. As of July 24, 2015, our 52-week high and low closing market price for our common stock on the TSXV was CA\$2.00 and CA\$0.65, respectively.

We have historically obtained, and expect to continue to obtain, our requisite additional financing primarily by way of sales of our equity, which may result in significant dilution to existing shareholders.

We have not earned profits, so our ability to finance operations is chiefly dependent on equity financings. Since 2012, we have raised almost CA\$36 million (US\$32 million) in equity financing through private placements or the exercise of stock options and warrants in support of the POET initiative, which has resulted in significant dilution to existing shareholders. Further equity financings will also result in dilution to existing shareholders, and such dilution could be significant.

Future sales of common stock or warrants, or the prospect of future sales, may depress our stock price.

Sales of a substantial number of shares of common stock or warrants, or the perception that sales could occur, could adversely affect the market price of our common stock. Additionally, as of June 30, 2015, there were outstanding options to purchase shares of our common stock that are currently exercisable and additional outstanding options to purchase shares of common stock that are exercisable over the next several years. As of June 30, 2015, there were outstanding warrants to purchase shares of our stock. The holders of these options and warrants have an opportunity to profit from a rise in the market price of our common stock with a resulting dilution in the interests of the other shareholders. The existence of these options and warrants may adversely affect the terms on which we may be able to obtain additional financing. The weighted average exercise price of issued and outstanding options is \$CA\$0.68 and the

weighted average exercise price of warrants is \$CA0.63, which compares to the \$CA1.58 market price at closing on June 30, 2015. (See “Description of Capital Structure” on page 29).

The risks associated with penny stock classification could affect the marketability of the Company’s common shares and shareholders could find it difficult to sell their shares.

The common shares of the Company are subject to “penny stock” rules as defined in *1934 Securities and Exchange Act* Rule 3a51-1. The SEC adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. Transaction costs associated with purchases and sales of penny stocks are likely to be higher than those for other securities. Penny stocks generally are equity securities with a price of less than \$5.00 (other than securities registered on certain national securities exchanges or quoted on the NASDAQ system, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system).

The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer’s account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer’s confirmation.

In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from such rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser’s written agreement to the transaction. These disclosure requirements may have the effect of reducing the level of trading activity in the secondary market for the Company’s common shares in the United States and shareholders may find it more difficult to sell their shares.

We have adopted a Shareholders Rights Plan, which may discourage takeover offers, and limit the price investors may be willing to pay for our stock.

In 2014, our Board of Directors adopted and our shareholders ratified a Shareholder Rights Plan, the effect of which would cause substantial dilution to acquirors of more than 20% of our outstanding Common Shares, which could have the effect of delaying, deferring or preventing a change in control of the Company even if a change in control would be beneficial to our shareholders. These provisions could limit the price that certain investors might be willing to pay in the future for shares of our Common Stock.

As a “foreign private issuer”, we are exempt from certain sections of the Exchange Act which results in shareholders having less complete and timely data than if we were a domestic U.S. issuer.

As a “foreign private issuer,” as defined under the U.S. securities laws, we are exempt from certain sections of the Exchange Act. In particular, we are exempt from Section 14 proxy rules which are applicable to domestic U.S. issuers. The submission of proxy and annual meeting of shareholder information (prepared to Canadian standards) on Form 6-K has typically been more limited than the submissions required of U.S. issuers and results in shareholders having less complete and timely data, including, among others, with respect to disclosure of: (i) personal and corporate relationships and age of directors and officers; (ii) material legal proceedings involving the Company, affiliates of the Company, and directors, officers promoters and control persons; (iii) the identity of principal shareholders and

certain significant employees; (iv) related party transactions; (v) audit fees and change of auditors; (vi) voting policies and procedures; (vii) executive compensation; and (viii) composition of the compensation committee. In addition, due to our status as a foreign private issuer, the officers, directors and principal shareholders of the Company are exempt from the short-swing insider disclosure and profit recovery provisions of Section 16 of the Exchange Act. Therefore, these officers, directors and principal shareholders are exempt from short-swing profits which apply to insiders of U.S. issuers. The foregoing exemption results in shareholders having less data in this regard than is available with respect to U.S. issuers.

If we are characterized as a passive foreign investment company, our U.S. shareholders may suffer adverse tax consequences.

If for any taxable year our passive income, or the value of our assets that produce (or are held for the production of) passive income, exceed specified levels, we may be characterized as a passive foreign investment company (“PFIC”) for U.S. federal income tax purposes. This characterization could result in adverse U.S. tax consequences to our U.S. shareholders, including gain on the disposition of our common shares being treated as ordinary income and any resulting U.S. federal income tax being increased by an interest charge. Rules similar to those applicable to dispositions generally will apply to certain “excess distributions” in respect of our common shares.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Short-term investments bear interest at fixed rates, and as such, are subject to interest rate risk resulting from changes in fair value from market fluctuations in interest rates. We do not depend on interest from its investments to fund our operations.

Exchange Rate Risk

The functional currency of the Company is the U.S. dollar. We are exposed to foreign currency risk with the Canadian dollar. For example, in 2014, a 10% change in the Canadian dollar would increase or decrease other comprehensive income by \$829,458. Since our operations predominantly transact sales and purchases in the respective domestic currencies, the exposure is reduced. Therefore, we typically do not hedge accounts receivable and accounts payable that are denominated in a foreign currency. We do hold significant cash in US dollar accounts.

Market Risk

Market risk arises from the possibility that changes in market prices will affect the value of our financial instruments. We are exposed to fair value fluctuations on its cash equivalents. Our other financial instruments (cash and accounts payable and accrued liabilities) are not subject to market risk, due to the short-term nature of these instruments.

DIVIDENDS AND DISTRIBUTIONS

We have not established a policy of declaring or paying dividends or distributions. We have never declared or paid dividends or distributions and do not expect to do so in the foreseeable future.

DESCRIPTION OF CAPITAL STRUCTURE

General Description of Capital Structure

The authorized share capital of the Company consists of an unlimited number of Common Shares and 1 Special Voting Share.

Outstanding Share Data

Common Shares - As of December 31, 2014 and June 30, 2015, there were 166,578,084 and 182,923,928 Common Shares respectively of the Company issued and outstanding.

Special Voting Share – There are no special voting shares issued and outstanding.

Warrants - As of December 31, 2014 and June 30, 2015, the Company had respectively 30,782,664 and 15,483,119 warrants outstanding for the purchase of common shares priced between CA\$0.23 and CA\$1.00. All of these warrants were priced and exercisable in Canadian dollars. Complete particulars can be found in Note 9 of our Consolidated Financial Statements for the year ended December 31, 2014 which are available for download at www.sedar.com.

Stock Options - As of December 31, 2014 and June 30, 2015, a total of 24,237,800 and 33,209,000 outstanding options respectively to purchase common shares were exercisable between CA\$0.23 and CA\$1.75 per common share and between CA\$0.23 and CA\$1.99 per common share respectively. Some of these options were priced and exercisable in Canadian dollars. Complete particulars can be found in Note 10 of our Consolidated Financial Statements for the year ended December 31, 2014 which are available for download at www.sedar.com.

Material Characteristics of Securities

a) Common Shares

Each Common Share entitles the holder thereof to dividends if, as and when declared by the directors, to one vote at all meetings of shareholders, and to participate rateably in any distribution of assets of the Company upon liquidation, dissolution, or winding-up, subject to the prior rights of holders of shares ranking in priority to the Common Shares.

b) Special Voting Shares

The Special Voting Share was created to represent the interests of a class of exchangeable common stock of OPEL Inc. (the “Exchangeable Shares”) which were exchangeable into shares of the Company. Since the Exchangeable Shares were all exchanged, the Special Voting Share was returned to treasury and cancelled on June 21, 2013.

Additional Information

Additional details regarding share data information is available in our Consolidated Financial Statements for the year ended December 31, 2014 which can be downloaded from www.sedar.com.

MARKET FOR SECURITIES

Trading Price and Volume

The Common Shares of the Company are listed and posted for trading on the TSXV under the trading symbol “PTK”. The Common Shares of the Company also trade on OTCQX as POETF. The following table sets forth the high and low trading prices and trading volumes for Common Shares during the months indicated, as reported by the TSXV.

Year	Month	High(\$)	Low(\$)	Volume
2014	January	0.85	0.49	10,172,895
	February	1.15	0.66	15,903,605
	March	1.49	0.99	25,992,331
	April	2.87	1.36	51,872,787
	May	1.98	1.26	25,980,360
	June	1.81	1.47	9,457,483
	July	2.24	1.36	21,088,725
	August	1.72	0.90	19,547,314
	September	1.81	1.26	7,569,338
	October	1.41	0.77	16,369,560
	November	1.61	0.65	19,737,979
	December	1.58	0.97	8,338,588

Year	Month	High(\$)	Low(\$)	Volume
2015	January	1.60	1.01	11,384,494
	February	1.62	1.21	6,287,621
	March	1.97	1.38	7,223,000
	April	2.00	1.48	10,542,210
	May	1.58	1.39	5,875,499
	June	1.74	1.38	8,823,280
	July 1-23	1.68	1.23	6,016,894

DIRECTORS AND OFFICERS

Name, Occupation and Security Holding

The following table and accompanying information below sets forth, for each director and senior management of the Company the name and jurisdiction of residence of such director, the principal occupation of such director during the past five years and the period of time during which such director has served as a director of the Company. Directors of the Company are elected annually at our annual meeting of shareholders.

Name, Jurisdiction of Residence and Position	Principal Occupation or employment and, if not a previously elected Director, occupation during the past 5 years	Age	Date First Elected or Appointed as a Director/ Officer	Number of Securities beneficially owned, directly or indirectly, or controlled or directed ⁽⁴⁾
Kevin Barnes Toronto, ON, Canada Treasurer and Chief Financial Officer	Chief Financial Officer and Treasurer of the Company since December 2012; Controller of the Company from May 2008 to November 2012; Corporate Controller and Business Performance Manager for EC English, from 2006 to September 2014.	43	Dec 1, 2012	7,463 common shares
Peter Copetti Toronto, ON, Canada Executive Co-Chairman and Director	Executive Co-Chairman of the Company since November 2014; Interim CEO of the Company from February 2014 to June 2015; Executive Chairman of the Company from February 2014 to November 2014; Executive Director of the Company from June 2012 to February 2014; Chief Operating Officer of Cache Metals from June 2011 to June 2012; Chief Executive Officer of Larrge Global Capital from May 2001 to May 2011.	51	Jun 8, 2012	100,000 common shares
Todd A. DeBonis ⁽²⁾ Aptos, CA, USA Director	Vice President of Global Sales and Strategic Development at TriQuint Semiconductor from April 2004 to February 2015.	50	Apr 7, 2015	Nil
Subhash Deshmukh Livermore, CA, USA Chief Operating Officer	Chief Operating Officer of the Company since June 8, 2015; Vice President of Applied Materials, Inc. from January 2012 to June 2015; Vice President and General Manager of Varian Semiconductor Equipment Associates from January 2008 to December 2011.	53	Jun 8, 2015	Nil
Daniel DeSimone Cape Elizabeth, ME, USA Chief Technical Officer	Chief Technical Officer of the Company since August 2014; Vice President of Technology of ODIS Inc. from April 2014; Senior Manager of Fairchild Semiconductor from January 2011 to September 2013; Director, Strategic Marketing and R&D of Tundra Semiconductor.	57	Aug 12, 2014	Nil
Sheldon Inwentash ⁽¹⁾ Toronto, ON, Canada Director	Chairman of Pinetree Capital Ltd. from February 1992 to February 2015; also served as President from May 1993 to February 2015 and as CEO from January 2000 to February 2015.	59	Aug 12, 2014	9,125,000 common shares
David E. Lazovsky Los Gatos, CA, USA Director	President and Chief Executive Officer of Intermolecular (NASDAQ: IMI) from September 2004 to October 2014.	43	Apr 7, 2015	Nil

Name, Jurisdiction of Residence and Position	Principal Occupation or employment and, if not a previously elected Director, occupation during the past 5 years	Age	Date First Elected or Appointed as a Director/ Officer	Number of Securities beneficially owned, directly or indirectly, or controlled or directed ⁽⁴⁾
Ajit Manocha ⁽³⁾ Los Gatos, CA, USA Executive Co-Chairman and Director	Executive Co-Chairman of the Company since November 2014; Executive Director of the Company from July to November 2014; Chief Executive Officer of GlobalFoundries from June 2011 to January 2014; from March 2009 to May 2011, he served on the boards of Maskless Lithography, SVTC Technologies and Signet Solar and was advisor to Philips Lumileds, ASE, SOITEC and ATIC.	63	Jul 7, 2014	Nil
John F. O'Donnell ⁽¹⁾⁽²⁾⁽³⁾ Toronto, ON, Canada Director	Independent lawyer practising in Toronto, Ontario since 1973.	68	Feb 14, 2012	30,000 common shares
Dr. Geoffrey Taylor Storrs-Mansfield, CT, USA Chief Scientist and Director	Chief Scientist for ODIS Inc. and OPEL Solar, Inc. since 2000; Professor of Electrical Engineering and Photonics at the University of Connecticut since 1994.	71	Apr 2, 2013	1,003,998 common shares
Chris Tsiofas ⁽¹⁾⁽²⁾⁽³⁾ Toronto, ON, Canada Director	Partner with Chartered Accountancy firm of Myers Tsiofas Norheim LLP	47	Aug 21, 2012	Nil
Dr. Suresh Venkatesan Los Gatos, CA, USA Chief Executive Officer and Director	Chief Executive Office of the Company since June 2015; Senior Vice President, Technology Department of GlobalFoundries from 2009 until June 2015.	48	Jun 11, 2015/ Jun 12, 2015	Nil
Mohandas Warrior Chicago, IL, USA Director	President and Chief Executive Officer of Alfalight Inc. since Feb 2004.	55	Jun 12, 2015	Nil

Notes:

- (1) Current Member of the Audit Committee.
- (2) Current Member of Compensation Committee.
- (3) Current Member of Corporate Governance and Nominating Committee.
- (4) Shares beneficially owned, directly or indirectly, or over which control or direction is exercised, as at July 24, 2015, based upon information filed on SEDI by the individual directors or furnished to the Company by them. Unless otherwise indicated, such shares are held directly.

Mr. Kevin Barnes has been serving as Chief Financial Officer since December of 2012 and previously served as Controller beginning in 2008. Mr. Barnes is a member of the Institute of the Certified Management Accountants of Australia and an Accredited Chartered Secretary. Mr. Barnes has served as a Corporate Controller and Business Performance Manager for EC English, one of the world's largest language training institutes between 2006 and 2014. Mr. Barnes has also served as Chief Financial Officer of VVC Exploration Corporation, a minerals exploration company, since 2006. From 2000 to

2006, he was a reporting manager with Duguay and Ringler Corporate Services, a Company specializing in financial reporting for publicly traded companies.

Mr. Peter Copetti has over 25 years of capital markets and management experience in key leadership roles. He has been the chief architect and strategist of the Company's transformation since joining the Company in June 2012. Mr. Copetti was personally responsible for the restructuring of both secured and unsecured debt, negotiated new equity infusion into the Company, and re-focused the Company on its original technical vision of monolithic opto-electronic integration. Prior to joining the Company, Mr. Copetti was COO of Cache Metal Inc., a Toronto based precious metals company and President from 2011 to 2012, and Chief Executive Officer of Larrge Global Capital Inc., a Canadian private company involved in trading securities, commodities, real estate and construction from 2008 to 2011.

Mr. Todd A. DeBonis is a veteran semiconductor executive with over 27 years of expertise in sales, marketing and corporate development. For the last decade Mr. DeBonis was the Vice President of Global Sales and Strategic Development at TriQuint Semiconductor. During his tenure TriQuint experienced dramatic growth and recognition in the industry as the technology leader in RF solutions. Mr. DeBonis played an integral part in the recent merger with RFMD and subsequent creation of Qorvo, Inc. Mr. DeBonis previously held the position of Vice President, Worldwide Sales and Marketing at Centillum Communications. Mr. DeBonis also served as the Vice President, Worldwide Sales for Ishoni Networks and Vice President, Sales & Marketing for the Communications Division of Infineon Technologies North America. Mr. DeBonis has a B.S. degree in Electrical Engineering from the University of Nevada.

Dr. Subhash Deshmukh before joining POET as Chief Operating Officer, was most recently, Vice President of Emerging Technologies and Products at Applied Materials, Inc. (Nasdaq: AMAT). Prior to rejoining Applied Materials, he served as Vice President and General Manager of the Plasma Products Business Unit as well as Vice President of Business Development for Varian Semiconductor Equipment Associates Inc. (Nasdaq: VSEA). Varian Semiconductor was acquired by Applied Materials in November 2011. Before moving to Varian Semiconductor, Dr. Deshmukh served as General Manager of the Dielectric Etch Products Division of Applied Materials. He previously served in a number of executive and management positions with increasing responsibility at Applied Materials, Lam Research, and AMI Semiconductors. Dr. Deshmukh holds a PhD in Chemical Sciences, has authored and co-authored over 55 technical articles and has been granted over 27 patents, with several patents pending.

Mr. Daniel DeSimone has been the Chief Technical Officer of the Company since August 12, 2014, prior to which he served as V.P. Technology for the Company's subsidiary, ODIS Inc., since April 1, 2014. He has a MSEE from Rensselaer Polytechnic Institute, specializing in solid state physics of electron devices. He has over 35 years of experience in semiconductor industry R&D, roadmap definition, manufacturing and management. Prior to joining the Company, Mr. DeSimone worked for Fairchild Semiconductor, primarily working to transfer processes from R&D into manufacturing and continuous improvement of yield and quality. Prior to Fairchild, he was with Tundra Semiconductor, where he managed teams developing state of the art custom SoC devices and a separate development team that developed custom BGA packages. Later, he was given responsibility for Product Management of PCI Bridge Product Lines and Strategic Marketing defining PCIe based devices targeting Storage and Server end markets, with a focus on interconnect fabrics. Prior to Tundra, Mr. DeSimone was a co-founder of Quadric Systems, Inc., a pioneering design services company which grew from the 4 founders to a highly successful team of 53 at the time of its acquisition by Tundra. During that time, in addition to management responsibilities, Mr. DeSimone developed dozens of digital, mixed signal, analog and leading edge physical synthesis and implementation flows for COT SoC implementation.

Mr. Sheldon Inwentash is the Chairman and CEO of Brownstone Energy Inc. Prior to that time, he served as President and CEO of Pinetree Capital Ltd. from 1994 until January 2015. Mr. Inwentash holds the following degrees and professional designation: B. Comm. CA., CPA., LL.D (Honorary). He brings more than 25 years of experience in the investment industry and a deep understanding of progressive investment and financial management strategies.

David E. Lazovsky is the founder of Intermolecular (NASDAQ: IMI) and served as the company's President and Chief Executive Officer and as a member of the Board of Directors from September 2004 to October 2014. Mr. Lazovsky has an in-depth knowledge of the semiconductor industry, technology and markets. Prior to founding Intermolecular, Mr. Lazovsky held several senior management positions at Applied Materials (NASDAQ: AMAT). From 1996 through August 2004, Mr. Lazovsky held management positions in the Metal Deposition and Thin Films Product Business Group where he was responsible for managing more than \$1 billion in Applied Materials' semiconductor manufacturing equipment business. From 2003 until 2004, Mr. Lazovsky managed key strategic accounts in Business Management where he worked closely with leading IC manufacturers to ensure Applied Materials was developing and providing cutting-edge technology solutions. From 2002 until 2003, Mr. Lazovsky served as the Technology Program Manager for the Endura 2 Platform, Applied Materials' flagship 300mm metal deposition platform. From 2000 until 2002, Mr. Lazovsky was based in Grenoble, France and served as Director of Business Management for the European region in the Metal Deposition Product Business Group. Previously, Mr. Lazovsky served as a Business Manager from 1997 to 2000, Account Product Manager from 1995 to 1997. Mr. Lazovsky holds a B.S. in mechanical engineering from Ohio University and, as of March 31, 2014, held 41 pending or issued U.S. patents.

Mr. Ajit Manocha has over 35 years of experience in the semiconductor industry with deep knowledge of semiconductor technology and operations. He has worked in all aspects of the business including research, applied development, manufacturing, worldwide sales, to global supply chain and IT, and his most recent role has been as CEO of GlobalFoundries from June 2011 to January 2014. He has wealth of experience by working in companies like AT&T, Bell Labs/Microelectronics, Philips Semiconductors (now known as NXP), Spansion, and GlobalFoundries. He has managed at various executive levels and successfully led very small organizations with fewer than 15 people to very large organizations with well over 25,000 people. He has also served on various boards as director and chairman. He is currently representing GlobalFoundries on the Semiconductor Industry Association Board and is also serving on the U.S. Presidential Committee for Advanced Manufacturing Partnership.

Mr. John F. O'Donnell has a BA (Economics) and an LLB, has practiced law in the City of Toronto since 1973 and has been on the Board of Directors of the Company since February of 2012. He is currently counsel to Stikeman Keeley Spiegel Pasternack LLP. His practice is primarily in the field of corporate and securities law and, as such, he is and has been counsel to several publicly traded companies. Mr. O'Donnell is currently also Chairman of the Board of Montana Gold Mining Company Inc. (MGM: CSE).

Dr. Geoff Taylor is Chief Scientist at the Company and has led development of the POET platform since 2000, directing a focused team at the ODIS subsidiary of the Company. Dr. Taylor possesses an extraordinary technical background made-up of 30 years of design and development experience in electronic and optical device physics, circuit design, opto-electronic technology, materials and applications. He is concurrently a Professor of Electrical Engineering and Photonics at the University of Connecticut, a position he has held since 1994, and is responsible for ODIS's development efforts at the GaAs growth and fabrication facility. With over 150 papers in the world's most respected journals, and dozens of patents, Dr. Taylor is widely regarded as the world's leading authority on GaAs solid-state physics, III-V opto-technology, as well as the pioneer in the development of monolithic integrated opto-

electronic circuits. Dr. Taylor has a B.Sc. from Queen's University, and an M.A.Sc. and Ph.D. from the University of Toronto.

Mr. Chris Tsiofas, CA, CPA, earned a Bachelor's of Commerce Degree from the University of Toronto in 1991 and has been a member of the Institute of Chartered Accountants of Ontario since 1993. He has been on the Board of Directors since August of 2012. He is a partner with the Toronto Chartered Accountancy firm of Myers Tsiofas Norheim LLP, a position he has held since 1994.

Dr. Suresh Venkatesan was most recently Senior Vice President, Technology Department at GlobalFoundries and was responsible for the company's Technology Research and Development. Dr. Venkatesan joined GlobalFoundries in 2009, where he led the development and ramp of the 28nm node and was instrumental in the technology transfer and qualification of 14nm. In addition, he was responsible for the qualification and ramp up of multiple mainstream value added technology nodes. Dr. Venkatesan is an industry veteran with over 22 years of experience in semiconductor technology development. Prior to joining GlobalFoundries, he held various leadership positions with Freescale Semiconductor in Austin, Texas. Dr. Venkatesan holds over 25 US patents, and has co-authored over 50 technical papers. He holds a Bachelor of Technology degree in Electrical Engineering from the Indian Institute of Technology and Master of Science and PhD degrees in Electrical Engineering from Purdue University.

Mr. Mohandas Warrior has been president and chief executive officer (CEO) of Alfalight Inc. ("Alfalight") since February 2004. Alfalight is a GaAs based high power diode laser manufacturing company with headquarters in Madison, Wisconsin. Alfalight serves military, telecom and industrial customers. Mr. Warrior restarted the company in 2004 and established Alfalight as a leading provider of high powered laser diode solutions in both commercial and defense segments. The company successfully sold the commercial business in 2013. Mr. Warrior continues to run the retained defense and security segments of Alfalight which is now focused on providing solid-state laser systems for targeting, tracking and illumination applications to the US military. Under Mr. Warrior's leadership, Alfalight has grown profitably. Prior to joining Alfalight, Mr. Warrior's career included 15 years at Motorola Semiconductors (now Freescale) where he led the test and assembly operations, a group of 3500 employees, in the US, Scotland and Korea.

The directors have served in their respective capacities since their election and/or appointment, unless otherwise noted above, and will serve until the next Company's annual general meeting or until a successor is duly elected, unless the office is vacated in accordance with the Articles of Continuance.

The Board has adopted a written Code of Business Conduct and Ethics to promote a culture of ethical business conduct and relies upon the selection of persons as directors, senior management and employees who they consider to meet the highest ethical standards. The Company's Code of Business Ethics can be found on the Company's web site at: www.poet-technologies.com.

There are no family relationships between any of our directors or senior management. There are no arrangements or understandings with major shareholders, customers, suppliers or others, pursuant to which any person referred to above was selected as a director or member of senior management, except that in connection with the entry into of a financing arrangement between the Company and IBK Capital Corporation in 2012, Messrs. Benadiba, Copetti and Peralta were appointed directors of the Company on June 8, 2012. Messrs. Benadiba and Peralta have since resigned as directors of the Company.

As at July 24, 2015, our directors and executive officers, as a group, beneficially own, or exercise control or direction over, directly or indirectly, 10,266,461 Common Shares representing approximately 5.53% of the Voting Securities. Our directors and executive officers are also entitled to receive, in the aggregate,

23,459,500 additional Common Shares upon the exercise of awards made to them pursuant to our current and former incentive stock option plans.

Cease Trade Orders, Bankruptcies, Penalties or Sanctions

To our knowledge:

1. no director or executive officer of our company is, as at the date of this AIF, or was within 10 years before the date of this AIF, a director, chief executive officer or chief financial officer of any company (including our company), that:
 - a) was subject to an order that was issued while the director or executive officer was acting in the capacity as director, chief executive officer or chief financial officer, or
 - b) was subject to an order that was issued after the director or executive officer ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer,
2. no director or executive officer of our company, or a shareholder holding a sufficient number of securities of our company to affect materially the control of the Company:
 - a) is, as at the date of this AIF, or has been within the 10 years before the date of this AIF, a director or executive officer of any company (including our company) that, while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets; or
 - b) has, within the 10 years before the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the director, executive officer or shareholder.

Conflicts of Interest

Our Code of Business Conduct and Ethics provides that all of our directors and officers must not only comply with applicable laws, rules and regulations but also must engage in and promote honest and ethical conduct and abide by the policies and procedures that govern the conduct of the business of the Company. Conflicts of interest and even the appearance of a conflict of interest may compromise the reputation of the Company and must be avoided. Actual or potential conflicts of interest involving a director or executive officer should be disclosed directly to the Chairman of the Board.

We are not aware of any existing or potential material conflicts of interest between our company or a subsidiary of our company and any of our directors or officers.

PROMOTERS

Leon M. Pierhal, Mark Benadiba and Peter Copetti were deemed to be promoters of the Company by reason of their activities on behalf of the Company or a subsidiary of the Company, during the two (2) most recently completed financial years.

Summary Compensation Table

The following table sets forth all annual and long term compensation for services in all capacities to the Company for the three most recently completed financial years of the Company in respect of the Promoters of the Company.

Promoter Name and Principal Position	Year	Salary (US\$)	Share-Based Awards ⁽¹⁾ (US\$)	Option-Based Awards ⁽¹⁾ ⁽²⁾		Non-Equity Incentive Plan Compensation (US\$) ⁽²⁾		Pension Value (US\$)	All Other Compensation (US\$) ⁽²⁾	Total Compensation (US\$) ⁽²⁾
				No. of Shares	(US\$)	Annual Incentive Plans	Long-term Incentive Plans			
Peter Copetti ⁽³⁾ ⁽⁶⁾ Interim CEO and Executive Co-Chairman	2014	247,963	N/A	600,000	511,479	Nil	Nil	Nil	339,675	1,099,117
	2013	180,782	N/A	300,000	110,996	Nil	Nil	Nil	56,495	348,273
	2012	58,800	N/A	3,000,000	663,388	75,000	Nil	Nil	Nil	797,188
Leon M. Pierhal ⁽⁴⁾ ⁽⁷⁾ President	2014	146,000	N/A	0	0	Nil	Nil	Nil	285,000	431,000
	2013	254,407	N/A	300,000	110,996	Nil	Nil	Nil	46,247	411,650
	2012	233,786	N/A	1,125,000	317,411	Nil	Nil	Nil	Nil	551,197
Mark Benadiba ⁽⁵⁾ ⁽⁷⁾ Vice Chairman	2014	27,174	N/A	Nil	Nil	Nil	Nil	Nil	Nil	27,174
	2013	94,911	N/A	300,000	110,996	Nil	Nil	Nil	Nil	205,907
	2012	58,800	N/A	3,000,000	663,388	Nil	Nil	Nil	Nil	722,188

NOTES:

- (1) The Company used the Black-Scholes model as the methodology to calculate the grant date fair value, and relied on the following key assumptions and estimates for each calculation for 2014: weighted average risk-free interest rate of 1.41%, weighted average dividend yield of 0%, weighted average volatility of 116% and weighted average estimated life of 5.75 years. The Company chose this methodology because it is the industry standard.
- (2) The exchange rate used in these calculations to convert CAD to USD was 0.860733 from 2014, 0.9416 for 2013 and 1.0078 for 2012, being the closing price at end of each year.
- (3) Mr. Copetti was appointed Executive Director on June 8, 2012 and became Interim CEO and Executive Chairman on February 10, 2014. He also serves as a director of the Company, but receives no additional compensation for services as a director.
- (4) Mr. Pierhal was the CEO in 2013 and 2012, and president in 2014. He also served as a director of the Company, but receives no additional compensation for services as a director. He resigned as director and officer on September 30, 2014.
- (5) Mr. Benadiba served as Executive Chairman of the Board from June 8, 2012 to February 10, 2014, and then as Vice-Chairman until he resigned as a director on July 1, 2014.
- (6) Mr. Copetti was paid a bonus of \$339,675. This amount is included in "All Other Compensation".
- (7) The Company is not aware of the current shareholdings of Messrs. Pierhal or Benadiba as they are no longer with the Company.

Incentive Plan Awards

(i) Incentive Plan Awards

The following table sets forth information concerning all awards outstanding under the Stock Option Plan of the Company at the end of the most recently completed financial year, including awards granted before the most recently completed financial year, to each of the Named Executive Officers:

NEO Name	Option-Based Awards			Share-Based Awards		
	No. of Shares Underlying Unexercised Options (#)	Option Exercise Price (\$/share)	Option Expiration Date	Value of Unexercised In-The Money Options ⁽¹⁾ (US\$)	Number of Shares or Units of Shares That Have Not Vested (#)	Market or Payout Value of Share-Based Awards That Have Not Vested (US\$)
Peter Copetti	2,500,000	CAS 0.235	08-June-2017	2,635,995	N/A	N/A

NEO Name	Option-Based Awards				Share-Based Awards	
	No. of Shares Underlying Unexercised Options (#)	Option Exercise Price (\$/share)	Option Expiration Date	Value of Unexercised In-The Money Options ⁽¹⁾ (US\$)	Number of Shares or Units of Shares That Have Not Vested (#)	Market or Payout Value of Share-Based Awards That Have Not Vested (US\$)
	500,000	CA\$ 0.445	15-Nov-2017	436,822	N/A	N/A
	300,000	CA\$ 0.49	13-Aug-2018	250,473	N/A	N/A
	600,000	CA\$ 1.24	12-Aug-2019	113,617	N/A	N/A
Leon M. Pierhal	571,300	CA\$ 0.23	30-Sep-2015	604,836	N/A	N/A
	75,000	CA\$ 0.28	30-Sep-2015	76,175	N/A	N/A
	800,000	CA\$ 0.345	30-Sep-2015	767,774	N/A	N/A
	500,000	CA\$ 0.445	30-Sep-2015	436,822	N/A	N/A
	300,000	CA\$ 0.49	30-Sep-2015	250,473	N/A	N/A
	500,000	CA\$ 0.51	30-Sep-2015	408,848	N/A	N/A
	75,000	CA\$ 0.76	30-Sep-2015	45,188	N/A	N/A
	200,000	CA\$ 1.21	30-Sep-2015	43,037	N/A	N/A
Mark Benadiba	2,500,000	CA\$ 0.23	08-June-2017	670,872	N/A	N/A
	500,000	CA\$ 0.445	15-Nov-2017	35,309	N/A	N/A
	300,000	CA\$ 0.49	13-Aug-2018	8,474	N/A	N/A

NOTE:

(1) This amount is calculated based on the difference between the market value of the shares underlying the vested and unvested options at the end of the most recently completed financial year, being CA\$1.46 (US\$1.257), and the exercise or base price of the option. The exchange rate used in these calculations to convert CAD to USD was 0.86073, being the rate on December 31, 2014.

(ii) Outstanding Share-Based Awards and option-Based Awards – Value Vested or Earned during the Year

The value vested or earned during the most recently completed financial year of incentive plan awards granted to Named Executive Officers are as follows:

NEO Name	Option-Based Awards - Value Vested During The Year ⁽¹⁾ (US\$)	Share-Based Awards - Value Vested During The Year ⁽²⁾ (US\$)	Non-Equity Incentive Plan Compensation - Value Earned During The Year (US\$)
Peter Copetti	71,332	N/A	Nil
Leon M. Pierhal	71,332	N/A	Nil
Mark Benadiba	28,553	N/A	Nil

NOTE:

(1) This amount is the dollar value that would have been realized computed by obtaining the difference between the market price of the underlying securities on the vesting date and the exercise or base price of the options under the option-based award. For the Promoters to have realized this value, they would have had to exercise their options and sell the shares on the day of vesting. The exchange rate used in these calculations to convert CAD to USD was 0.86073, being the rate on December 31, 2014.

(2) This amount is the dollar value realized computed by multiplying the number of shares or units by the market value of the underlying shares on the vesting date.

LEGAL PROCEEDINGS AND REGULATORY ACTIONS

Legal Proceedings

We were not party to any legal proceeding since the beginning of the last completed financial year and are not aware of any contemplated legal proceedings.

Regulatory Actions

During our financial year, no penalties or sanctions were imposed against us by a court relating to securities legislation or by a securities regulatory authority during our financial year, no other penalties or sanctions imposed by a court or regulatory body against us that would likely be considered important to a reasonable investor in making an investment decision, and no settlement agreements were entered into by us before a court relating to securities legislation or with a securities regulatory authority.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

No person who has been a director or executive officer of the Company at any time since the beginning of our last financial year, no person or company that beneficially owns, controls or directs, directly or indirectly, more than 10% of any class or series of our voting, and no associate or affiliate of the foregoing persons, has had any material interest, direct or indirect, by way of beneficial ownership or otherwise, in any material transactions which have occurred during the three (3) most recently completed financial years or during the current financial year.

TRANSFER AGENTS AND REGISTRARS

The transfer agent and registrar for our Common Shares is TMX Equity Transfer Services Inc., 200 University Avenue, Suite 300, Toronto, Ontario, Canada M5H 4H1.

The transfer agent and registrar for our Warrants is Capital Transfer Agency, Suite 401, 121 Richmond St. West, Toronto, Ontario M5H 2K1.

MATERIAL CONTRACTS

In addition to any contracts described in Related Party Transactions” or Business Overview”, we have entered into the following material contracts to which we have been a party within the two years immediately preceding the date of this document. Other than contracts entered into in the ordinary course of business, we have not been a party to any other contract within such two year period.

1. On May 21, 2008, the Company entered into an Agreement with BAE Systems Information And Electronic Systems Integration, Inc. (“BAE”), with a term of 15 years, whereby BAE and the Company initiated a joint development program of the Company’s POET technology, with royalties running from each to the other for licensed products sold. This Agreement was supplemented on February 25, 2015 to expand the scope of work to be performed through 2015.

2. On April 28, 2003, the Company entered into a License Agreement with UConn, as amended on April 15, 2014 whereby UConn granted the Company an exclusive license to the intellectual property developed under the direction of Dr. Taylor that is owned or jointly owned by UConn for the payment of \$50,000 due in the first and each subsequent year after the Company has revenue of \$100,000 from the products developed pursuant to the licensed intellectual property, such amounts of consideration subject to increase by 25% every two years, up to a maximum of \$1,000,000. In addition, the Company must pay

annually to UConn 3% of any sublicense revenue received for commercial, royalty bearing sublicenses of licensed intellectual property to third parties. By making a \$100,000 payment to UConn in April 2007, the license became irrevocable. As consideration for the amendment entered into on April 15, 2014, changing the royalty rate to 3%, the Company issued 2,000,000 common shares, subject to approval of the TSXV, which shall be restricted from trading until May 31, 2016.

3. On October 21, 2010, the Company entered into a Lease Agreement, as amended on March 20, 2013, with UConn whereby the Company leases property from UConn beginning on April 1, 2010 and extending through March 31, 2014. Monthly rent increases from \$6,130 in the first three months of year one to \$10,966 in year five. This Agreement was renewed on December 11, 2014 for a period of one year commencing April 1, 2015 and ending on March 31, 2016. The renewal provides for an annual rent of \$158,894, discounted to \$144,490 if the full amount is prepaid.

EXPERTS

Names of Experts

Marcum LLP, have been the auditors of the Company since April 19, 2010 and are independent in accordance with the auditor's Rules of Professional Conduct in Canada.

Prior to April 19, 2010, UHY LLP were the auditors of the Company and were independent in accordance with the auditor's Rules of Professional Conduct in Canada.

Prior to June 17, 2009, Smith Nixon LLP were the auditors of the Company and were independent in accordance with the auditor's Rules of Professional Conduct in Canada.

Interests of Experts

To our knowledge, there are no registered or beneficial interests, direct or indirect, in any securities or other property of the Company or of one of our associates or affiliates held or to be received by any of our experts or designated professionals of our experts.

ADDITIONAL INFORMATION

Additional information relating to the Company has been filed with the securities regulatory authorities in Canada and may be accessed on SEDAR at www.sedar.com.

Additional information with respect to the Company, including directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, securities authorized for issuance under equity compensation plans, if applicable, and our Audit Committee is contained in the Company's management information circular for our most recent annual meeting of shareholders held on June 12, 2015, which circular was filed on SEDAR on May 12, 2015. Additional financial information is provided in our audited consolidated comparative financial statements and the notes thereto and related management's discussion and analysis for the most recently completed financial year ended December 31, 2014 which were filed on SEDAR on April 9, 2015 and in the unaudited consolidated comparative financial statements and the notes thereto and related management's discussion and analysis for the three months ended March 31, 2015 which were filed on SEDAR on May 27, 2015.

Certain information may also be found in the Company's Annual Report on Form-20 filed with the U.S. Securities and Exchange Commission on April 13, 2015 on the EDGAR website at www.sec.gov/.