

# ZECOTEK PHOTONICS INC.

# MANAGEMENT DISCUSSION AND ANALYSIS

For the Quarter Ended April 30, 2011

June 29, 2011

# MANAGEMENT DISCUSSION AND ANALYSIS June 29, 2011

This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the Company's interim unaudited financial statements for the quarter ended April 30, 2011 and notes thereto. The significant accounting policies are outlined in Note 2 to the Financial Statements of the Company for the year ended July 31, 2010. All dollar amounts are expressed in Canadian dollars except where noted. The Company's accounts are maintained in Canadian dollars. The business activities of the Company, carried out through its subsidiaries in Singapore are conducted primarily in Singapore dollars. The rate of exchange on April 30, 2011 as reported by the Bank of Canada, for the conversion of one Singapore dollar into Canadian dollars was \$0.7833.

# **Company Overview**

Zecotek Photonics Inc. is a photonics technology company developing high-end and key cost and function related components for existing and future machines used in medical diagnostics, pharmaceutical research, high energy physics, homeland security, defense, engineering and industrial design. Founded in 2003, the Company has focused on building shareholder value by securing a strong IP portfolio, completing the development of unique technologies for high value markets and by identifying the optimum commercialization strategy.

Zecotek Photonics Inc. (ZPI), has three operational subsidiary companies; Zecotek Imaging Systems Pte Ltd (ZIS); Zecotek Display Systems Pte Ltd (ZDS); and Zecotek Laser Systems Pte Ltd (ZLS). All of these companies are incorporated in Singapore. Each one is autonomous, in the sense that each has its own patent portfolio and management team.

ZPI's corporate headquarters is located in Vancouver, B.C. and is a Canadian public company trading on the TSX Venture Exchange under the symbol "ZMS" and on the Frankfurt Stock Exchange under the trading symbol "W1I". The Company's website is www.zecotek.com.

#### Zecotek Imaging Systems Pte Ltd. (ZIS)

ZIS has research laboratory facilities in Singapore and Moscow, where it has developed its unique scintillation crystal, LFS, and the novel solid state photo-detector, MAPD. It also works in partnership with the University of Washington, Seattle, on the integration of PET/MRI for Imaging and Pharmaceutical research. The PET/MRI program offers an ideal diagnostic modality. The joint effort with the University of Washington is to focus on the integration of compact design for the imaging of specific organs. It will also be targeting pharmaceutical research companies.

The LFS crystal and the MAPD are central components for high resolution PET scanners for medical diagnostics and treatment. They are also key devices to High Energy Physics experiments, specifically the Large Hadron Collider at CERN, Switzerland and the Linear accelerator at Fermi Lab, USA. Fermi Lab and CERN have subcontracted ZIS to complete the development of a version of ZIS's MAPD with specific parameters for their main new particles detection programs.

#### Zecotek Display Systems Pte Ltd. (ZDS)

ZDS has a research laboratory on the campus of the University of British Columbia. It works closely with the Deutsch company Anteryon, BV, to fine tune the manufacturing process of part of its revolutionary 3D display screen. The new 3D display provides multiple viewing angles, auto-stereoscopic without glasses and resolution maintaining design configuration.

ZDS will initially target specialized markets (teaching screen for schools of medicine, biochemistry, engineering, design arts; applications in the defense industry; homeland security/airport scanning; flight control panels; desktop computer monitors; simulation; geophysics; video games; and many other high end applications). Once the 3D TV content is standardized, ZDS and its partners will focus on the consumer market.

ZDS has successfully developed and demonstrated a colour, 32 inch 3D display prototype that offers multiple viewers with true volumetric visualization while exhibiting depth and parallax. ZDS's Real-Time 3D2D Display is a novel, proprietary display system for the visualization of images and data.

Based on the auto stereoscopic principle, but with substantial patent pending innovation, it represents a new generation of 3D displays. Its design provides for multi-users, multi-views, freedom of movement, high resolution in both 3D and 2D modes, superior image dynamic range in 2D mode, 2D and 3D simultaneous displays, common brightness, compatibility with existing applications and cost competitiveness at all stages of adoption and levels of application.

On September 15, 2010, the Company announced that its auto – stereoscopic (requiring no glasses) 3D Display system has a newly developed split view capability and Air Traffic Control simulation, both of which were demonstrated to potential industry partners and licensees from the U.S., Japan, Korea and China. The introduction of the capability to render 3D multi-level presentations for Air Traffic Control positions and flight data has also been welcomed by the industry. A 3D representation promises to be an effective aid with respect to understanding air traffic situations, local tactical understanding of traffic and collection feedback on implemented course of action. The split screen feature of the 3D Display allows for two different views on the same display and has many potential applications, in particular in the gaming industry, flight simulation and as a car dashboard navigation/ entertainment screen.

#### Zecotek Laser Systems Pte Ltd. (ZLS)

ZLS has a joint laboratory with the University of Victoria, BC, for the development of thin film waveguide micro-lasers grown by the MBE deposition method. The thin film micro-laser is in the final integration phase. The finished product will be in the form of large wafers made of microlasers, capable of the high power necessary for a gamete of medical and industrial applications. This new laser design stands to displace a large number of traditional lasers.

It also has a joint laboratory with Inversion Fibers/Novolasers, for the integration of a tunable fiber laser in the visible spectrum. The tunable visible fiber laser technology is completed. The laser is specially suitable for the large Flow Cytometry machines used in pharmaceutical drug research. The machines would have a uniform Fiber Laser based platform. The present designs have a large and cumbersome number of lasers of different configurations and mode of operations. This design was endorsed by tests independently conducted by the US National Institute of Health (NIH).

ZLS has focused its efforts on those lasers that have unique commercial, technical and value added features and present less resistance to market entry.

#### Zecotek Products Focus Summary

- Patented LFS scintillation material;
- Patent-pending MAPD solid-state photon counter (Multiplixelated Avalanche Photo Diode);
- Patent-pending Integrated Detector Module, IDM for PET machine insert;
- Patented and Patent-pending Mini PET/MRI technology;
- Patented and Patent-pending 3D2D auto-stereoscopic multiple views display;
- Patented and Patent-pending Tunable Fiber Laser in the visible spectrum;
- Patent-pending Thin Film Waveguide microlaser.

# **Corporate Developments**

#### Financings

On January 18, 2011, the Company announced a non-brokered private placement (the "private placement") of 1,886,792 units of the Company at a price of \$0.53 per unit for gross proceeds of \$1,000,000. The number of units to be sold increased to 12,273,000 subsequently and the Company successfully raised \$6,504,690 by February 17, 2011.

The first tranche of the private placement mentioned above was completed on February 9, 2011, whereby, 8,900,000 were sold at a price of \$0.53 per unit for gross proceeds of \$4,717,000.

The second tranche of the private placement was completed on February 17, 2011, whereby, 3,373,000 units of the Company were sold at a price of \$0.53 per unit for gross proceeds of \$1,787,690.

Each unit consists of one common share and one-half of one share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$0.70 per share at anytime on or before the 24 month anniversary of the closing of the offering. The warrants' exercise period will automatically accelerate if the common shares of the Company trade above \$1.25 for a period of 10 consecutive trading days. Pursuant to the financing, the Company paid a finder's fee in the amount of \$282,416 and \$95,241 for the first and second tranche respectively. At the same time the Company issued 621,670 and 209,650 non-transferable finder's warrants for the first and second tranche respectively. Each finder's warrants will entitle the holder to purchase one share at \$0.70 for a period of 24 months after the date the private placement closes. All shares and warrants are subject to a four-month hold period. For the non-transferable finder's warrants issued in the first tranche the four month holding period expires on June 9, 2011 and for the non-transferable finder's warrants issued on the second tranche of the private placement the four month holding period expires on June 18, 2011.

On January 18, 2011, the Company granted 4,000,000 stock options to directors, employees and consultants for their contribution to the Company. The exercise price is set \$0.64 and the options will expire in five years.

On November 3, 2010, the Company completed a non-brokered private placement of 2,773,584 units of the Company at a price of \$0.53 per unit for gross proceeds of \$1,470,000. Each unit consists of one common share and one-half of one share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$0.70 per share at anytime on or before the 24 month anniversary of the closing of the offering. The warrants' exercise period will automatically accelerate if the common shares of the Company trade above \$1.25 for a period of 10 consecutive trading days. Pursuant to the financing, the Company will pay a finder's fee, equal to 5% of a portion of the gross proceeds of the sale of the shares and issue 124,811 non-transferable finder's warrants. Each finder's warrants will entitle the holder to purchase one share at \$0.70 for a period of 24 months after the date the private placement closes. All shares and warrants are subject to a four-month hold period expiring on March 3, 2011.

On February 4 and 23, 2010, 170,000 and 833,333 common share purchase warrants were exercised respectively at \$0.70 per share for total cash proceeds of \$702,333. On February 16 and March 5, 2010, 12,500 and 5,000 common share purchase warrants were exercised respectively at \$0.75 per share for total cash proceeds of \$13,125.

On October 23, 2009, the Company completed a non-brokered private placement of 5,925,000 units of the Company at a price of \$0.63 per unit for gross proceeds of \$3,732,750. Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$1.00 per common share at any time on or before the 24-months anniversary of the closing of the offering. The Warrant's exercise period will automatically accelerate if the common shares of the Company trade above \$1.50 for a period of 10 consecutive trading days. The Company will pay a finder's fee equal to 7% of the gross proceeds of the sale of the Shares and issue non-transferable finder's warrants to purchase common shares equal in number to 6% of the units sold under the private placement. Each finder's warrant entitles the holder to purchase one Share at \$1.00 for a period of 24 months after the date the private placement closes.

On August 5, 2009, the Company amended the terms of 1,078,150 warrants issued to subscribers of a private placement which closed on December 20, 2007. The Company will re-price the exercise price of the subscriber warrants to \$0.75 per common share from the initial exercise price of \$2.10 with no change to the expiry date of December 20, 2009. The amended warrants will contain an acceleration provision, such that, if, for a period of ten consecutive trading days (the "Premium Trading Days"), the closing price of the Company's shares is \$1.00 per share or higher, the warrant exercise period will be shortened to a period of 30 days. The 30-day period will commence seven calendar days after the tenth Premium Trading Day.

On February 26, 2009, the Company announced to amend the terms of the 781,500 warrants issued to subscribers of a private placement which closed on September 6, 2007. The Company will re-price the exercise price of the subscriber warrants to \$0.75 per common share from the initial exercise price of \$2.00 and extend the expiry date for these warrants by twelve months from March 6, 2009 to March 6, 2010. The amended warrants will contain an acceleration provision, such that, if, for a period of ten consecutive trading days, the closing price of the Company's shares is \$1.00 per share or higher, the warrant holders will have 30 days to exercise their warrants; otherwise the warrants will expire on the 31st day.

On January 13, 2009, the Company closed a non-brokered private placement of 1,003,333 units issued at \$0.60 per unit, resulting in gross proceeds of \$602,000. Each unit consists of one common share and one common share purchase warrant. Each whole warrant entitles the holder to purchase one additional common share for a period of eighteen months at an exercise price of \$0.70 per common share. The warrant's exercise period will automatically accelerate if the common shares of the Company trade above \$1.00 for a period of 10 consecutive days. The Company paid a finder's fee equal to 7% of the gross proceeds of the sale of the shares and issue non-transferable finder's warrants to purchase common shares equal in number to 6% of the units sold under the private placement

#### The Board of Directors and Management

Effective June 28, 2011, the Company made the following management appointments and staff changes:

Mr. Azman Ariffin - Executive Vice President (Operations) and General Manager of the Imaging Division;

Mr. David Wynne - Senior Vice President, Business Planning and Development;

Dr. Serge Khorev - Senior Vice President, Technology;

Mr. Nadeem Rauf - General Manager of the Display Division;

Mr. John Moore - General Manager of the Laser Division; and

Mr. Michael Minder - Interim CFO and Executive Vice President, Finance and Investor Relations;

Mr. Azim Dahya - has stepped down as CFO but continues to oversee corporate accounting of the Company.

Effective October 14, 2010, the Company appointed Dr. Jalil Ali to its Board of Directors. He will fill the role of an independent director, advising on industry trends as well as providing additional industry expertise at the Board level. Dr. Ali received his PhD in plasma physics from University Teknologi Malaysia (UTM), in 1990. At present, he is professor of photonics at the Institute of Advanced Photonics Science, Nanotechnology Research Alliance and the Physics Department, UTM. He has held several faculty and research positions since 1987, authored/coauthored more than 300 technical papers published in international journals, three books and a number of book chapters. Dr. Ali is a member of OSA, SPIE and the Malaysian Institute of Physics.

#### Award

In early March 2009, the Company received the Frost & Sullivan 2009 Enabling Technology Award in the PET (positron emission tomography) and PET/CT (computed tomography) medical imaging markets. Zecotek received this Award in recognition of the Company's research and development and clinical validation achievements for its next-generation scintillation crystals and solid-state photo detector technology. Frost & Sullivan acknowledged that Zecotek distinguished itself from its competitors through its best practices in technology developments and strategic alliances for its medical imaging products.

#### Patents

On May 17, 2011 the U.S. Patent and Trademark Office granted Zecotek patent number 7,944,465 for its glasses-free 3D auto-stereoscopic display system.

The new patent covers the use of equipment for the reproduction of static and moving 3D stereo representations with the capability of recording and transmitting stereo representations of 3D scenes. Zecotek's "patented" Real-Time 3D Display System is based on the auto-stereoscopic principle, but with substantial innovative. It has the capability of simultaneously presenting to multiple users both 3D and 2D images on the same screen with separate views and at different viewing angles. The 3D display system provides comfortable conditions for viewing a volumetric representation without eye strain. The viewing of such 3D images does not require the use of any supplementary means such as glasses, does not drastically limit the position of the viewer with respect to the display, and allows simultaneous viewing of the 3D display by many viewers from a sufficiently wide field of view.

Patents have now been granted to Zecotek for its 3D display system in the United States and Australia. Patents have been filed and are pending in Japan, China, Korea, India, Russia and major countries in Europe.

On September 29, 2008 the Canadian Patent Office issued a notice of allowance to Zecotek Imaging Systems Singapore Pte. Ltd., a wholly owned subsidiary of Zecotek Photonics Inc. for its LFS scintillation material. This application is identical to the LFS scintillation applications that have been issued or allowed in the United States, Russia, China, Europe and Japan.

On September 3, 2008, the Company received Notification of Grant of Patent Rights from the Chinese Patent Office for its LFS scintillation material. The grant of these additional Chinese patent rights further validates and strengthens Zecotek's worldwide patent position in its innovative LFS scintillation material.

#### **Government Grants**

#### Singapore Economic Development Board grants Research Incentives

During the quarter, the Company did not receive any grants under the previously announced Government of Singapore Economic Development Board's (EDB) Research Incentive Scheme for Companies. The process is ongoing and the Company may receive further grants subject to the fulfillment of EDB conditions. Under the terms of the agreement, grant details remain confidential. General details of EDB's support programs can be found on EDB's website www.edb.gov.sg.

#### Malaysian Industrial Development Authority grants Research Incentives

During the quarter, the Company did not receive grant payments from the Malaysian Industrial Development Authority. The process is ongoing and the receipt of further grants from The Malaysian Industrial Development Authority (MIDA) is uncertain currently. The MIDA incentive grants come as a product of Zecotek's relationship, established in 2007, with the Malaysian Institute for Micro-electronics Systems (MIMOS) to complete the development of the manufacturing process of Zecotek's new-generation MAPD solid-state photo detectors.

#### Investor Relations

#### Zecotek Re-Engages CHF Investor Relations

In August 2009, the company retained CHF Investor Relations (Cavalcanti Hume Funfer Inc.), ("CHF"), an investor relations firm whose management team's combined experience accounts for a full century working in brokerage, trading, financial analysis, and investment sales. The Company continues to benefit from the services provided by CHF.

# **Selected Annual Information**

The Company's fiscal year end is July 31. The following is a summary of certain selected audited consolidated financial information for the Company's three most recently completed fiscal years.

|                         | Audited Year Ending<br>July 31, 2010 | Audited Year Ending<br>July 31, 2009 | Audited Year Ending<br>July 31, 2008 |
|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
|                         |                                      |                                      |                                      |
| Revenue                 | \$ 67,848                            | \$ 350,584                           | \$ 303,859                           |
| Interest income         | \$ -                                 | \$ 6,176                             | \$ 103,054                           |
| Net loss for the year   | \$ (6,911,541)                       | \$ (4,616,950)                       | \$ (8,403,181)                       |
| Earnings/loss per share | \$ (0.13)                            | \$ (0.10)                            | \$ (0.19)                            |
| Total assets            | \$ 508,678                           | \$ 1,245,276                         | \$ 3,550,940                         |
| Long term debt          | \$ 0                                 | \$ 0                                 | \$ 0                                 |
| Share Capital           | \$ 32,702,057                        | \$ 29,410,773                        | \$ 28,985,958                        |
| Number of Shares        | 53,405,004                           | 46,459,171                           | 45,455,838                           |
| Deficit                 | \$ (41,974,510)                      | \$ (35,062,969)                      | \$ (30,446,019)                      |

# **Summary of Quarterly Results**

The following table sets out certain financial information for the past eight quarters

| Quarters ended         |                |                  |                  |               |
|------------------------|----------------|------------------|------------------|---------------|
| (unaudited)            | April 30, 2011 | January 31, 2011 | October 31, 2010 | July 31, 2010 |
| Operating Accounts     |                |                  |                  |               |
| Revenue                | 2,037          | 27,180           | Nil              | Nil           |
| Net loss               | \$952,985      | \$409,183        | \$1,015,451      | \$1,727,157   |
| Balance Sheet Accounts |                |                  |                  |               |
| Total Assets           | \$4,665,072    | \$1,483,160      | \$533,635        | \$508,678     |
| Loss per share         | \$0.01         | \$0.01           | \$0.02           | \$0.03        |
| Quarters ended         |                |                  |                  |               |
| (unaudited)            | April 30, 2010 | January 31, 2010 | October 31, 2009 | July 31, 2009 |
| Operating Accounts     |                |                  |                  |               |
| Revenue                | \$961          | \$35,177         | \$39,434         | \$96,072      |
| Net loss               | \$1,659,518    | \$2,043,393      | \$1,473,746      | \$1,198,177   |
| Balance Sheet Accounts |                |                  |                  |               |
| Total Assets           | \$1,304,077    | \$1,403,275      | \$3,278,549      | \$1,245,276   |
| Loss per share         | \$0.03         | \$0.04           | \$0.03           | \$0.03        |

# **Results of Operations**

#### Revenue

Revenues amounted to \$2,037 in the third quarter of 2011 compared to \$961 in the same period in 2010. For the nine months ended April 30, 2011, revenues decreased to \$29,217 from \$75,572 in the same period in 2010. Current year revenues are from the sale of MAPD transistor packages (imaging division) and tunable green laser (laser division) to major companies and organizations that are increasingly testing our products for potential larger scale ramp-up. In the fourth quarter of 2010, certain adjustments affected the quarterly

revenues and net loss figures previously filed in the quarterly financial statements of the Company for the year ended July 31, 2010.

#### **Gross Profit**

Gross profit amounted to \$1,650 (81%) on \$2,037 in the third quarter of 2011 compared to \$350 (36%) on \$961 revenue in the same period in 2010. For the nine months ended April 30, 2011, the gross profit amounted to \$23,665 on \$29,217 of product sales for an average gross margin of 81%; compared to 45% in the same period in 2010.

#### **Operating, General and Administrative Expenses**

Operating, General and administrative ("G&A") expenses amounted to \$747,606 in the third quarter of 2011, compared with \$599,700 in the same period of 2010, representing an increase in costs of 25%. For the nine months ended April 30, 2011 the G&A expenses amounted to \$1,052,080 as compared to \$2,205,664 for the same period in 2010, reflecting a decrease of 52%. The decrease is due to controlling of costs specifically due to the waiver of salaries, consulting fees and directors' fees as described in note 10 of the interim financial statements for the period ended April 30, 2011. In addition, cutbacks in operating expenses including office, administrative and traveling costs have resulted in the reduction of the G&A expenses. Management has worked diligently in managing the administrative and overhead costs and continues to monitor those costs.

Increases or decreases in specific categories for the third quarter of fiscal year 2011 are:

- 1. Consulting and other professional fees –increased 20% from \$214,513 to \$258,424, primarily due to the increase in the use of consultants instead of hiring salaried staff.
- 2. Insurance –increased 47% from \$16,257 to \$23,825 due to addition of insurance policies to cover risks to a greater extent.
- 3. Investor relations and filing fees increased 93% from \$15,242 to \$29,375 as a result of a increased investor relations activities.
- 4. Office and General increased 185% from \$11,186 to \$19,991 due to increased office administrative costs.
- 5. Marketing and promotion increased 240% from \$562 to \$1,908 due to increased promotional activities.
- 6. Rent decreased 33% from \$95,193 to \$63,548 due to providing a housing allowance to the CEO instead of renting a house.
- 7. Salaries and benefits –increased 21% from \$239,087 to \$289,718 due to providing a housing allowance for the CEO instead of renting a house.
- 8. Travel –increased 694% from \$7,661 to \$60.816 driven by an overall budget increase for travelling expenses. The Company is increasingly making efforts to market the technologies.

#### **Research and Development Expenses**

Research and development ("R&D") expenses amounted to \$(117,514) in the third quarter of 2011, compared with \$779,307 in the third quarter of 2010, representing a decrease in costs of 115%. For the nine months ended April 30, 2011 the R&D expenses amounted to \$33,032 compared to \$1,998,758 of the same period in 2010. As described in note 11 of the interim financial statements of the Company for the period ended April 30, 2011, the large decrease is due to the waivers of consultants' fees and employees' salaries and reversal of The University of Washington ("UOW") contract amounts. In the last quarter of 2010, UOW stopped working on the joint research project ("project"), initiated between the Company and the UOW, until payment arrangements for the prior outstanding balances to UOW were made. The Company negotiated a payment towards the old contract and paid the outstanding amounts UOW. In the third quarter of fiscal year 2011, a new contract was negotiated with UOW for \$280,000 USD. The first payment of the contract was made on May 20, 2011 for \$93,000 USD. Subsequent payments for the remaining \$187,000 USD amount will be made in fiscal year 2012. The focus of the research and development projects that are still being currently carried out in Zecotek laboratories are to meet the specifications required by the OEM and adapting and improving our technologies for different applications demanded by the market.

#### Stock-based Compensation

Stock-based compensation expenses amounted to \$286,165 in the third quarter of 2011, compared with \$200,911 in the same period of 2010. For the nine months of 2011, stock-based compensation amounted to \$1,252,715 compared to \$610,547 for the same period in 2010. The increase is due to the options granted over time to certain officers, consultants and directors.

#### **Foreign Exchange loss**

Foreign exchange loss amounted to \$18,671 in the third quarter of 2011, compared with a loss of \$10,251 in the same period of 2010 representing an increase of 82%. For the nine months ended April 30, 2011, the foreign exchange loss amounted to \$4,484 compared to a loss of \$54,061 in the same period in 2010, reflecting a decrease of 92%. The decrease is due to impact of the foreign currency fluctuations.

#### Amortization of property and equipment

Amortization expense for the third quarter of 2011 amounted to \$13,325 compared to \$62,699 in the same period of 2010 representing a decrease of 79%. For the nine months ended April 30, 2011, the amortization expense amounted to \$39,827 as compared to \$182,469 reflecting a decrease of 78%. The decrease is due to the accelerated depreciation methods used by the Company and certain manufacturing equipment being written off in the fiscal year 2010.

#### Amortization of patent costs

Amortization expense for the third quarter of 2011 amounted to \$6,382 compared to \$7,000 in the same period of 2010 representing a decrease of 9%. For the nine months ended April 30, 2011, the amortization expense amounted to \$19,146 as compared to \$23,510 reflecting a decrease of 19%. The decrease is as a result of certain patents being impaired and written off in the fiscal year 2010.

#### Net Loss

The Company recorded a net loss of \$952,985 or \$0.01 per share in the third quarter of 2011, compared with \$1,659,518 or \$0.03 per share in the same period of 2010, a decrease of 43%. For the nine months ended April 30, 2011 the net loss amounted to \$2,377,619 compared to \$5,176,657, reflecting a decrease of 54%. The decrease is due to controlling of costs through reduction of staff, rollbacks in consulting fees, cutbacks in operating expenses including office, administrative and traveling costs. Management has worked diligently in managing the administrative and overhead costs and continues to monitor those costs.

## Liquidity and Capital Resources

For the quarter ended April 30, 2011, the Company has a net loss of \$952,985 and negative cash flow from operating activities of \$1,522,142 compared to a net loss of \$1,659,518 and negative cash flow from operating activities of \$1,041,943 for the same period in fiscal year 2010. As a result of recurring losses over the Company's history, the Company has accumulated deficit of \$44,352,129 as at April 30, 2011. The accounts payable and accrued liabilities have decreased from \$1,763,322 as at April 30, 2010 to \$639,675 as at April 30, 2011.

Net cash provided by financing activities in the third quarter of fiscal year 2011 was \$4,678,039 as compared to \$1,033,915 for the same period in fiscal 2010. In the third quarter of 2011, the financing activities consisted mainly of receipt of monies from the issuance of shares through a non-brokered private placement that closed in February 2011.

Net cash provided by investing activities in the third quarter of fiscal year 2011 was (7,827) as compared to (1,754) for the same period in fiscal year 2010. The only investment activity the Company engaged in was the receipt of deposits. These deposits belong to the activities that form normal course of the business.

The Company has suffered recurring losses from operations and currently the revenues do not generate enough cash to sustain its operations. Its ability to conduct operations, including the commercialization of its technologies, development of new technologies and the acquisition of additional technologies is dependent on its ability to raise funds as needed.

At April 30, 2011 the Company had \$4,206,593 in cash and cash equivalents, an increase of \$4,148,992 over the \$57,602 cash and cash equivalents available at April 30, 2010. The consolidated working capital was \$3,663,720 at April 30, 2011, an increase of \$5,649,852 over the \$(1,986,132) of consolidated working capital at April 30, 2010. The increase in working capital mainly resulted from the increase in cash and decrease in liabilities as the Company received sufficient funding to meet its short-term liabilities.

On February 9, 2011, the Company completed the first tranche of a non-brokered private placement of 8,900,000 units of the Company at a price of \$0.53 per unit for gross proceeds of \$4,717,000. The second tranche of the private placement was completed on February 17, 2011, whereby, 3,373,000 units of the Company were sold at a price of \$0.53 per unit for gross proceeds of \$1,787,690. Each unit consists of one common share and one-half of one share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$0.70 per share at anytime on or before the 24 month anniversary of the closing of the offering. The warrants' exercise period will automatically accelerate if the common shares of the Company trade above \$1.25 for a period of 10 consecutive trading days. The estimated fair value of common share purchase warrants granted was determined to be \$647,427 and \$243,750 for the first and second tranche respectively, using the Black-Scholes option pricing model (note 5(d)). Pursuant to the financing, the Company paid a finder's fee in the amount of \$282,416 and \$95,241 for the first and second tranche respectively. At the same time the Company issued 621,670 and 209,650 non-transferable finder's warrants for the first and second tranche respectively. Each finder's warrants will entitle the holder to purchase one share at \$0.70 for a period of 24 months after the date the private placement closes. The estimated fair value of agents' warrants granted was determined to be \$163,748 and \$52,350 for the first and second tranche respectively, using the Black-Scholes option pricing model (note 5(d)). Legal and other costs amounted to \$43,414. All shares and warrants are subject to a four-month hold period. For the shares and warrants issued in the first tranche the four month holding period expires on June 9, 2011 and for those issued on the second tranche of the private placement the four month holding period expires on June 18, 2011.

# **Share Capital**

Set out below is the outstanding share data of the Company as at April 30, 2011. For additional details, see Note 5 to the interim financial statements for April 30, 2011.

| At April 30, 2011              | Number outstanding |  |  |
|--------------------------------|--------------------|--|--|
| Common shares                  | 68,451,588         |  |  |
| Stock options                  | 10,280,000         |  |  |
| Common share purchase warrants | 13,448,292         |  |  |
| Agent's warrants               | 1,311,631          |  |  |

Outstanding options represent a total of 10,280,000 common shares issuable. At April 30, 2011, 7,075,000 of these options were exercisable and would provide proceeds of \$7,166,900 to the Company if all the vested options were exercised in full. The exercise of these options is completely at the discretion of the holders and the Company has no indication that any of these options will be exercised.

At April 30, 2011 the Company had outstanding 13,448,292 common shares purchase warrants of which 5,925,000 are exercisable at \$1.00 per share expiring on October 23, 2011, 1,386,792 are exercisable at \$0.70 per share expiring on November 3, 2012, 4,450,000 are exercisable at \$0.70 per share expiring on February 9, 2013 and 1,686,500 are exercisable at \$0.70 per share expiring on February 17, 2013.

At April 30, 2011 the Company had outstanding 1,311,631 agent's warrants of which 355,500 were exercisable at \$1.00 per share expiring on October 23, 2011, 124,811 were exercisable at \$0.70 expiring on November 3, 2012, 621,670 were exercisable at \$0.70 per share expiring on February 9, 2013 and 209,650 were exercisable at \$0.70 expiring on February 17, 2013.

#### Escrow shares

As at April 30, 2011 all shares held in escrow had been released. The last 240,000 were released on January 4, 2011.

# **Contractual Obligations**

The following table summarizes the Company's contractual obligations as at April 30, 2011, and the effect such obligations are expected to have on our liquidity and cash flows in future years. The table excludes

amounts already recorded in the consolidated balance sheet as current liabilities and certain other purchase obligations discussed below:

|                    | 2012       | 2013      | 2014      | 2015      |
|--------------------|------------|-----------|-----------|-----------|
| Rental leases      | \$ 143,118 | \$ 39,630 | \$ -      | \$ -      |
| Research Contracts | \$ 635,487 | \$ 16,000 | \$ 31,000 | \$ 41,000 |

Purchase orders for third party components, finished goods and other goods and services are not included in the above table. Management is not able to determine the aggregate amount of such purchase orders that represent contractual obligations, as purchase orders may represent authorizations to purchase rather than binding agreements. For the purpose of this table, contractual obligations for purchase of goods or services are defined as agreements that are enforceable and legally binding on the Company and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction.

The Company has entered into contracts for other outsourced services. However, the obligations under these contracts are not significant and the contracts generally contain clauses allowing for cancellation without significant penalty. The expected timing of payment of the obligations discussed above is estimated based on current information. The timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services, or for some obligations, changes to agreed-upon amounts.

#### Convergence with International Financial Reporting Standards ("IFRS")

On February 23, 2008, the Canadian Accounting Standards Board ("AcSB") announced that all publicly–listed entities will be required to prepare their interim and annual financial statements relating to fiscal years commencing on or after January 1, 2011 in accordance with IFRS.

The Company will adopt IFRS for its fiscal year beginning August 1, 2011 where quarter ended October 31, 2011 being the first set of consolidated financial statements prepared in accordance with IFRS. Comparative figures for the quarter ended October 31, 2010 will be presented, including an opening balance sheet as at August 1, 2010 reconciled from current Canadian Standards ("GAAP") to IFRS. The Company will prepare its financial statements for the fiscal year ended July 31, 2011 including the comparatives as at July 31, 2010 in accordance with GAAP.

During the fiscal year 2011 and 2010, the Company extensively focused on financing and corporate development activities which resulted in a limited progress concerning the implementation of the IFRS project. Consequently, the Company has yet to determine the impact of conversion to IFRS although it is anticipated that it will result in significant increase in the disclosure requirements.

The Company's conversion project planning includes five key phases:

- 1. Project awareness In this phase the management will identify and communicate key project requirements and objectives to the areas that will be impacted by IFRS conversion, to the Board of Directors, members of the Audit Committee and senior management. The Company has started this phase recently and developments are on-ongoing.
- 2. Diagnostic This phase includes an assessment of differences between GAAP and IFRS, focusing on key areas of impact for the Company. The Company will determine the differences between IFRS and GAAP taking the line by line item approach from the financial statements including the items not included on the financial statement such as commitments, contractual obligations and contingencies and adjusting the differences by preparing a skeleton version of the IFRS financial statements. This will lead the project to the design and planning phase. Notwithstanding the increased disclosure requirement, the Company has yet to determine the impact of key differences between the existing GAAP and IFRS on different financial statements areas.
- 3. Design and planning This phase focuses on determining specific impacts to the Company based on the application of pending IFRS requirements. This includes design and development of detailed solutions and by the identified key areas of impact. Accounting policies will be finalized, first-time

adoption exemptions will be considered, draft financial statement and disclosures under IFRS will be prepared. This Company has not started this phase as of the date of the publication of this document.

- 4. Implementation This phase includes implementing the required changes necessary for IFRS compliance. The focus of this phase is the finalization of the IFRS conversion impacts, approval & implementation of new accounting policies & procedures as required, testing of new processes, systems and controls, implementation of required training courses and preparation of opening IFRS balances. We have also begun assessing the impacts of IFRS on all other areas of our business, including contractual arrangements with our employees and third party contracts. At this time, we do not anticipate that adopting IFRS reporting standards will impact our contracts or other business practices outside of financial reporting, however this assessment is still underway and our preliminary assessment may be subject to change.
- 5. Post implementation This phase deals with the after effects of the implementation of the IFRS in the Company; specifically, the assessment of efficiency and effectiveness of internal controls and processes including internal controls over financial reporting and disclosure controls and procedures, and the assessment of information systems and data technology requirements.

#### **Disclosure Controls and Procedures Related to Financial Reporting**

Disclosure controls and procedures have been designed to ensure that information required to be disclosed by the Company is accumulated and communicated to our management as appropriate to allow timely disclosure. The Company's Chief Executive Officer and the acting Chief Financial Officer have concluded, based on their evaluation as of April 30, 2011 that the Company's disclosure controls and procedures are operating effectively to provide reasonable assurance that material information related to the Company are made known to them by others within the Company. It should be noted that while the Company's Chief Executive Officer and acting Chief Financial Officer believe that the disclosure controls and procedures provide a reasonable level of assurance and that they are effective, they do not expect that the disclosure controls and procedures will prevent all errors and fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.

#### **Internal Control over Financial Reporting**

The Chief Executive Officer and acting Chief Financial Officer of the Company are responsible for designing internal controls over financial reporting or causing them to be designed under their supervision in order to provide reasonable assurance regarding the reliability of financial reporting and the presentation of financial statements for external purposes in accordance with Canadian GAAP. The Chief Executive Officer and the acting Chief Financial Officer have assessed the design of internal control over financial reporting as at April 30, 2011 and during the process, they have identified certain weaknesses in internal controls over financial reporting. The weaknesses in the Company's internal control over financial reporting, discussed below, result in a more than remote likelihood that a material misstatement may not be prevented or detected on a timely basis.

There has been no change in the Company's internal control over financial reporting that occurred during the Company's most recent interim period that has materially affected, or is reasonably likely to affect, the Company's internal control over financial reporting other than:

•The Chief Financial Officer is no longer with the Company and an interim Chief Financial Officer has been appointed temporarily until a new Chief Financial Officer is hired;

•Due to the size of the Company and limited staff it is not feasible to achieve complete segregation of incompatible duties.

Management and the Board of Directors work to mitigate the risk of a material misstatement in financial reporting. However, there can be no assurance that this risk can be reduced to less than a remote likelihood of a material misstatement.

## Audit Committee

In compliance with the TSX Venture Exchange Policy 3.1 "Directors, Officers and Corporate Governance" section 10.1; the Audit Committee is comprised of three members, David Toyoda (independent), Canada, Dr. Jalil Ali (independent), Malaysia and Dr. A.F Zerrouk (CEO). Mr. Toyoda is the Chairman of the Audit Committee.

David Toyoda is a lawyer with a Bachelor of Commerce degree with honors and serves on several Boards as Director. Dr. A.F Zerrouk has many years of experience serving on the board of high tech organizations; he is a technology developer and scientific entrepreneur and founder of various technology companies. Dr. Jalil Ali has held several faculty and research positions since 1987; he is a member of OSA, SPIE and the Malaysian Institute of Physics and was head of the technology transfer and innovation department at the University Technology Malaysia.

The Audit Committee will serve until the next Annual General Meeting at which time the new Board of Directors will appoint or re-appoint the Audit Committee.

#### **Forward-looking statements**

This discussion may contain forward-looking statements, including statements regarding the business and anticipated financial performance of the Company, which involve risks and uncertainties. These risks and uncertainties may cause the Company's actual results to differ materially from those contemplated by the forward-looking statements. Factors that might cause or contribute to such differences include, among others, Company's ability to successfully complete new product development along the timelines expected; the Company's need for funds to achieve its goals and uncertainties as to the availability and cost of funding; uncertainty as to the continued and future demand for the Company's products; the development of competing technologies and the possibility of increased competition; and other economic trends and conditions in the markets that the Company and its customers serve; and the effect of the risks associated with technical difficulties or delays in product introductions, improvements, implementation, product development, product pricing or other initiatives of the Company and its competitor. Investors are also directed to consider the other risks and uncertainties discussed in the Company's required financial statements and filings. All other companies and products listed herein may be trademarks or registered trademarks of their respective holders.

#### **Additional Information**

Additional information relating to the Company, including the audited year-end financial statements, is available on SEDAR at <u>www.sedar.com</u>.