# ZECOTEK PHOTONICS INC.

# AMENDED MANAGEMENT DISCUSSION AND ANALYSIS FOR THE YEAR ENDED JULY 31, 2007 AND 2006

## Dated at November 28, 2007

On October 23, 2007, Zecotek Medical Systems, Inc. announced that it had changed its name to Zecotek Photonics Inc. ("Zecotek" or the "Company") effective November 26, 2007. The name change better reflects the broad range of industry applications of the company's photonic product portfolio.

This MD&A should be read in conjunction with the audited financial statements for the twelve months ended July 31, 2007. The significant accounting policies are outlined in Note 2 to the Financial Statements of the Company for the year ended July 31, 2007.

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 July 31, 2007 as reported by the Bank of Canada, for the conversion of one Singapore dollar into Canadian dollars was \$0.7030.

## **Company Overview**

Zecotek Photonics Inc., formerly known as Zecotek Medical Systems Inc., is a photonics technology company developing and commercializing high-performance crystals, photo-detectors, lasers, optical imaging and 3D display technologies for applications in the medical imaging and high-tech industries. Founded in 2003, the company has focused on the research and development of novel photonic technologies and is presently moving toward commercialization of its technologies. In fiscal 2008, the Company expects to generate revenue through the sale of its imaging and laser technologies.

Zecotek's operational headquarters, pre-production, and production facilities are located in Singapore. Through its wholly owned subsidiary Zecotek Medical Systems Singapore Pte Ltd., enabling technologies for use in the medical imaging and high-performance laser industries are developed by three distinct operating divisions: Zecotek Imaging Systems Pte. Ltd., Zecotek Laser Systems Pte. Ltd. and Zecotek Display Systems Pte. Ltd. The Company's corporate headquarters is located in Vancouver, B.C. with additional research projects and laboratories in Canada, U.S.A., and Russia. The Company 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.

#### **Imaging Systems**

Zecotek's imaging strategy is to develop novel technologies that provide superior performance at a competitive price. The focus of the Company's development of important photonic technologies has concentrated on patented scintillation crystals used in scientific and medical imaging devices, new generation solid-state photo detectors used in a broad range of medical and non-medical application, and light sources and configurations used in high resolution optical imaging.

There is a recognized need for improved diagnostic imaging due in part to an aging population and technical advances which could replace previously invasive procedures. Higher resolution imaging and more detailed diagnoses provide for faster patient throughput and improved patient outcomes. Zecotek is at the forefront of innovation in next-generation imaging technologies, which promises faster patient throughput, enhanced diagnosis, lower unit costs and improved patient outcomes.

Zecotek's patented Lutetium Fine Silicate ("LFS") scintillation crystal is a crystal material which falls into a category of materials known as "scintillators". These materials emit light when exposed to sources of radiation. The light is then captured by photo-detectors and translated into digital signals for imaging purposes. Novel scintillation crystals have provided the greatest source of cost and performance improvements for positron emission tomography ("PET") scanning technology in recent years, including improvements in image quality, resolution and sensitivity. Zecotek's proprietary LFS scintillation crystal emits blue light, a key attribute in the design of whole body PET scanners. Test results indicate that the performance improvement from the patented LFS scintillation crystals allow for faster imaging times, require less radio-trace element to be injected into the patient, and therefore allows hospitals and other medical facilities to achieve a greater patient throughput, thus significantly lowering unit costs.

High performance scintillation crystals are developed principally for OEM manufacturers of PET and PET-CT (positron emission tomography – computed tomography) scanners. A single PET-CT scanner can contain up to 50,000 individual crystals. Other applications include micro-PET detectors used in drug research and gamma cameras used for specific applications such as breast and prostate examinations. Non-medical applications include gamma ray detector systems for homeland security, geological surveying, materials analysis, high energy physics and nuclear stockpile monitoring.

Concurrently Zecotek has successfully developed a new generation of silicon-based photon counters, designated Micro-pixel Avalanche Photo Diodes (MAPD). The MAPD is targeted at replacing existing photo-detection devices, known as photo-multiplier tubes (PMT's) used currently in PET and PET-CT scanners for medical imaging, as well as in a wide range of industrial and research applications.

Zecotek's new generation solid-state photon counters have been designed to offer significant performance and cost advantages over the current vacuum tube based PMT. Furthermore, MAPDs are insensitive to magnetic fields, an important consideration when combining PET and MRI technologies. PMT based photo-detection devices are currently used in PET and PET-CT scanners and represent approximately one-third of the cost of each scanner. MAPD is significantly smaller than existing PMT's, cost less to produce and in tests have performed substantially better than PMT's. In addition the MAPD offers a one-to-one relationship with individual crystals thereby increasing the overall performance of the imaging device. The market for MAPD includes components of medical inspection devices used in blood analysis and DNA sequencing. Additional non-medical applications include: gamma ray detectors for homeland security, environmental monitoring, industrial control systems, robotics, biomedical testing, navigation and guidance systems, laser radars and high energy physics.

In partnership with the University of Washington, Zecotek is developing a proprietary combined positron emission tomography / magnetic resonance imaging (PET/MRI) scanning device, which could lead to a new standard in medical imaging. The limiting factor of bringing the two imaging technologies together has been the sensitivity of the PMT's to the magnetic field generated by the MRI. By combining the patent-pending solid-state photo detectors, which are insensitive to magnetic fields, with the patented LFS scintillation crystals, Zecotek may effectively combine PET and MRI technologies into a single device, representing a dramatic medical and technological breakthrough.

In partnership with the University of British Columbia, Zecotek is developing a proprietary, broadband light source that will drive a compact and low cost non-destructive optical imaging device. The Optical Coherence Tomography device could offer the clinicians, the ability to look at tissue microstructures with depth of few millimeters, thus allowing very early disease detections.

#### **Lasers Systems**

Zecotek's laser program is targeted at meeting the needs in the biomedical, scientific and material processing industries. The Company's initial focus has been in biomedical instrumentation, ophthalmology, dentistry, cardiovascular and infectious diseases as the increasing use of lasers, for disease diagnostics and drug discovery plus the growth in patient-paid therapy for vision correction and aesthetic applications have been major contributors to the growth in the medical laser industry. However, Zecotek's laser program has expanded beyond the biomedical industry due to demand for lasers from other industrial sectors. The Company is developing the following laser technologies:

- **Diode pumped solid-state lasers** for use in medical, scientific and industrial applications;
- **Fiber lasers** for medical, inspection and measurement applications;
- Thin film lasers for surgical and diagnostic applications in cardiology, ophthalmology and dermatology.
- Special application dye lasers for high-precision laser spectroscopy
- Bio-instrumentation lasers for drug discovery and clinical diagnostics.

Zecotek has developed a Rare earth Fine Oxide (RFO) Vanadate crystal to replace the ubiquitous YAG crystal, which is used in approximately 60% of laser applications, ranging from medical lasers to high-power industrial laser systems. The Company's proprietary RFO crystal growth technology has shown to be more efficient and thus more cost effective. Furthermore, the RFO crystal provides improved performance when compared with the YAG crystal.

#### **3D Display Systems**

Zecotek has successfully developed and demonstrated a compact, colour, true 3D display prototype that offers multiple viewers with true volumetric visualization and exhibits depth and parallax over a wide viewing angle. While there are a number of competing 3D screens and displays currently available today, none fully meet the key

attributes required for true 3D display: multi-user, multi-view, real-time, high resolution viewing that is compatible with existing applications.

Zecotek'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. Meeting the requirements of both mass market and professional use, Zecotek's 3D display is particularly powerful when applied to the field of medical imaging. Its design provides for multi-user, multi-view, 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 designed to be cost competitive.

The **Real-Time 3D2D Display System** provides a new level of user interface in significant markets like medical imaging, computer-aided design, product simulation, training, virtual reality systems, scientific modeling, video games, 3D TV, etc.

## **Zecotek Product Summary**

- patented LFS scintillation material;
- patent-pending MAPD solid-state photon counters;
- proprietary RFO Vanadate crystal;
- Growing portfolio of Lasers:
  - Green Fiber Laser, Model GLF-540-0.2;
  - CW Narrow-Band Ti: Sapphire laser, Model TIS-FD-08/A-scan-WV;
  - CW Single-Frequency Ti: Sapphire Laser, Model TIS-SF-878;
  - CW Single Frequency Ring Dye Laser.

#### **Zecotek Research & Development Programs**

- new scintillation material for medical imaging to eventually serve as a successor material to the LFS;
- enabling technologies for combined PET-MRI detectors, in development with the University of Washington;
- various solid-state and fiber lasers, including a solid-state laser for bio-instrumentation;
- thin film waveguide micro laser technology, being currently in development jointly with UBC;
- real time auto-stereoscopic 3D display.

## **Recent Developments**

## **Imaging Systems**

## **New-Generation Solid-State Photon Counters**

### Malaysian Institute for Micro-electronics Systems

In July 2007 the Company selected the Malaysian Institute for Micro-electronics Systems (MIMOS), Malaysia's premier center for advanced micro-electronics technology and manufacturing based in Kuala Lumpur, to manufacture Zecotek's new-generation Micro-pixel Avalanche Photo Diodes (MAPD) solid-state photo detectors. In October 2007 MIMOS successfully completed the first commercial production run of the company's new-generation MAPDs. First-run production samples have been delivered to key OEM customers in both medical imaging and high-energy physics for final testing.

#### University of Washington Lab Tests

In May 2007 testing conducted by the University of Washington demonstrated Zecotek's MAPD superior performance versus existing photo multiplier tubes (PMT's). The conclusive test results validate that MAPD, in combination with the Company's patented LFS scintillation crystal, outperforms current PMT's in critical imaging parameters. The combination of Zecotek's MAPD and LFS crystals resulted in an equal to or greater than overall signal gain and an improved energy resolution versus PMT's and standard commercial crystals. These superior capabilities will be fully utilized in the next-generation of PET-MRI scanner systems currently being developed in the University of Washington laboratory.

#### Development of MAPD

In October 2006 the development of the MAPD and its manufacturing process was achieved in a joint collaboration with Dubna-Detectors Ltd, an R&D company based within the Institute of Nuclear Research in Dubna, Russia.

#### Lutetium Fine Silicate ("LFS") Scintillation Crystal

### Sale of LFS Scintillation Crystals

In October 2007 the Paul Scherrer Institute based in Switzerland purchased an order of Zecotek's patented Lutetium Fine Silicate (LFS) scintillation crystals for trials in its next-generation Positron Emission Tomography (PET) medical imaging program. The Paul Scherrer Institute PET program is focused on advancing improvements in sensitivity, spatial resolution and image quality in PET scanners, based on the understanding that advances in PET are driven largely by progress in instrumentation, in particular the performance of scintillation materials, photodetectors and read-out electronics. Higher resolution PET scanners would also widen PET's application in brain function analysis and diagnosis.

#### LFS Patent

In November 2006 the Company was issued U.S. patent number 7,132,060 for the LFS scintillation material. The granting of the LFS patent is a significant technical validation of the LFS material and Zecotek's expertise in developing advanced crystal materials.

#### Northrop Grumman Agreement

In March 2006 the Company licensed its proprietary Lutetium Fine Silicate ("LFS") scintillation crystal material to Northrop Grumman Corporation (NYSE:NOC) under a 20-year exclusive licensing agreement. Developed by Zecotek principally for medical imaging markets, the LFS crystal allows Northrop Grumman to expand its crystal product line in this growing market.

#### PET-MRI Collaboration Agreement with University of Washington

In July 2006 Zecotek entered into a Collaborative Research Agreement with the University of Washington to develop a proprietary PET-MRI detector as the core technology of a next generation medical imaging system. Zecotek's new crystal materials, solid-state photo detectors and advanced optical components design are key components to the successful fusion of PET and MRI into one device, as the major barrier to an operational PET-MRI has been the strong magnetic fields emitted by the MRI which destroy the photo-detection capabilities of PMT's in current PET devices.

Professor Thomas Lewellen of the University of Washington, considered a leading worldwide researcher in the field of high resolution PET system development, leads the joint research project.

## **Laser Systems**

Zecotek's laser program is aimed at meeting the needs of a growing market in scientific, biomedical research and material processing industries. The company has recently introduced and initiated sales of four important laser products and has appointed Market Tech, Inc., a privately-held corporation based in Scotts Valley, CA, as their exclusive U.S. sales representative for Zecotek's new line of fiber laser products.

### Green Fiber Laser, Model GLF-540-0.2

Zecotek completed the development of a break-through Green Fiber Laser that operates in all known wavelengths of the green spectral range. The company has filed a patent application with the U.S. Patent Office covering the unique intellectual property related to the Green Fiber Laser. With the appointment of Market Tech, Inc., Zecotek received its first order for the GLF-540-0.2 Green Fiber Laser series from a major U.S. based customer.

#### CW Narrow-Band Ti: Sapphire laser, Model TIS-FD-08/A-scan-WV

The Institute for Quantum Computing, University of Waterloo, Canada selected Zecotek's CW Narrow-Band Ti: Sapphire laser for use in the field of nano-optics (the investigation of single semiconductor quantum dots) and quantum computing.

## CW Single-Frequency Ti: Sapphire Laser, Model TIS-SF-878

Zecotek initiated commercial production of its new-generation CW Single-Frequency Ti:Sapphire laser, model TIS-SF-787. The TIS-SF-787 offers an ultra-narrow linewidth which, together with its super-wide tunable range, new level of compactness and frequency-stability, position the laser to be best-in-class in the growing laser market.

#### CW Single Frequency Ring Dye Laser

Korea's prestigious Gwangju Institute of Science and Technology (GIST) purchased Zecotek's CW Single Frequency Ring Dye laser for high-precision laser spectroscopy in its Advanced Photonics Research Institute.

#### **RFO Vanadate Crystal**

On April 10, 2006 the Company announced the introduction of the Rare earth Fine Oxide (RFO) Vanadate crystal, a significant technological breakthrough in the development of crystals for solid-state lasers. The YAG crystal is used in 60% of all laser applications, ranging from medical lasers to high-power industrial laser systems. The Company's proprietary growth technology produces a RFO crystal which is a competitive substitute to YAG and meets or exceeds laser manufacturer's performance requirements with significant cost savings.

Zecotek has initiated commercial production of its proprietary, high-performance RFO Vanadate Crystals in the Company's Singapore laboratory facilities. Cyberstar of France, the manufacturer of Czochralski crystal growing ovens, delivered Zecotek's first crystal growing oven in October 2007. This is the first of an expected four Czochralski crystal growing ovens to be installed in Zecotek's Singapore labs as the company prepares for full commercial production of crystals used in solid-state laser systems.

### Acquisition of Product and Intellectual Property Assets of Two Laser Manufacturers

On April 12, 2007 the Company's wholly owned subsidiary Zecotek Laser Systems Singapore Pte Ltd. acquired the exclusive rights to certain assets and expertise from Inversion Fiber Co. Ltd. (Inversion) and Tekhnoscan JS Company (Tekhnoscan), two Russian-based laser manufacturers, in consideration for minority interests in Zecotek Laser Systems Singapore. The new assets bring together significant production, manufacturing and marketing expertise in the laser industry and add unique product lines and global distribution. The addition of production and manufacturing expertise will accelerate market entry of Zecotek's own line of laser crystal and laser system products which are in the final stages of commercial development including: diode-pumped solid state lasers and fiber lasers for use in the bio-instrumentation, dentistry, and ophthalmology industries.

On May 3, 2007, an agency of the Government of India signed a purchase agreement to acquire over US\$800,000 worth of laser products and services. Under the agreement Tekhnoscan supplied lasers and consulting services. Tekhnoscan was selected from a group of world leading laser developers who competed for the Government of India contract. The delivery of lasers products and consulting services is expected to be concluded in the first quarter of the Company's 2008 calendar year.

## **3D Display Systems**

In November 2006 the Company announced that its 3D display has reached prototype demonstration stage. The first demonstration of its compact, full-colour display took place in early November 2006 at the Company's new Singapore facilities to a delegation of senior engineers and executives of a major Japanese electronics company. Demonstrations were also given to representatives of the Singapore Government.

In July 2007 Anteryon BV of the Netherlands was selected to produce the key screen component of Zecotek's proprietary Real-Time 3D2D Display. Anteryon will produce Zecotek's proprietary 3D lenticular display in a 32" screen format, considered the optimum size to demonstrate its potential power and user impact. The first demonstration model was delivered in October and the Company is preparing to host demonstrations for industry, media and the financial community starting in the last week of November 2007.

## Letter of Intent with Major Japanese Electronics Firm for 3D Display Technology

On March 26, 2007 Zecotek announced a letter of intent with a Japanese electronics major firm to complete development and manufacture Real-Time 3D2D Display technology. The non-binding letter of intent calls for both parties to lay the groundwork for a strategic relationship whereby Zecotek and the major Japanese electronics firm would collaborate on an ongoing basis in the development, manufacture and commercialization of the 3D display. Under terms to be negotiated, the electronics firm would contribute investment, technical support, manufacturing expertise plus marketing and distribution channels. The identity of the company remains confidential pending terms of an agreement.

## **Corporate Developments**

### Letter of Intent Signed with Fujikura Ltd. of Japan

On October 15, 2007 Zecotek signed a letter of intent with Fujikura Ltd. of Japan (Fujikura) to negotiate terms of a proposed business partnership which would feature the manufacture and distribution of certain technologies and

products, including Zecotek's new line of fiber lasers and a detector block consisting of Zecotek's proprietary solidstate photo detectors and LFS scintillation crystals.

## Singapore Economic Development Board grants Research Incentives

In July 2007, the Company's wholly owned subsidiary Zecotek Medical Systems Singapore Pte Ltd, received grant approval for the Singapore Economic Development Board's (EDB) Research Incentive Scheme for Companies program. Under the agreement the terms of the grant details remain confidential. General details of EDB's support programs can be found on EDB's website <a href="www.edb.gov.sg">www.edb.gov.sg</a>.

### Official Inauguration of Operational Headquarters in Singapore

In March 2007 Zecotek officially opened its operational headquarters in Singapore with a ceremony that was attended by His Excellency Alan Virtue, High Commissioner of Canada to Singapore, senior officials of the Government of Singapore, and senior members of Singapore's business, scientific and financial communities.

Zecotek moved its operational headquarters to Singapore after completing a thorough evaluation of competing options. In addition to Singapore's excellent infrastructure, its large pool of highly trained research personnel and its world-class high-technology manufacturing sector, a key factor in it's the Company's decision was the support of the Government of Singapore's Economic Development Board ("EDB") who welcomed Zecotek as their first biophotonics company. The EDB has approved in principle reimbursable grants of approximately 30% of total operational and capital costs.

#### Dr. Sergey Babin and Dr. Sergey Kobtsev Appointed to Lead Laser Division

On April 12, 2007, in conjunction with the asset purchase from Investion Fiber Co Ltd and Tekhnoscan JS Company, Dr. Sergey Babin, director and CEO of Inversion was appointed Zecotek Laser Systems' Executive Vice President, Development, Manufacture & Commercialization of Fiber Laser Products; and Dr. Sergey Kobtsev, president/CEO and founder of Tekhnoscan was appointed Zecotek Laser Systems' Executive Vice President, Development, Manufacture & Commercialization of Solid State Lasers.

### Professor Sadygov Appointed to Lead Commercialization of Photo-Detector Product Line

On March 6, 2007 Professor Zair Sadygov was appointed Chief Scientist in Zecotek's medical imaging division. Professor Sadygov is the inventor of the new generation of surface Micro-pixel Avalanche Photo Diodes (MAPD) and the founder of Dubna-Detectors Ltd., a research and development company working within the Institute of Nuclear Research in Dubna, Russia.

## **Changes to the Board of Directors**

In January 2007 Zecotek made changes to the composition of its Board of Directors bringing added independence and as recommended by its Corporate Governance Committee. Mr. Michel Coderre, a co-founder of the Company, has agreed to step down from the board and as an officer of ZMS. In addition, Mr. David Wynne has resigned from the board, but will remain COO of the Company's Singapore operations. Mr. Frank Ramsperger will take on the role as Chair of the Compensation Committee and the lead director in charge of administrative affairs of the board. Mr. Eric Sager will remain as a director and also will take on the role of Executive Vice President for Business Development and Corporate Affairs.

## **Financing**

On September 5 19, 2007, the Company has closed a non-brokered private placement consisting of 1,563,000 Units at a price of \$1.60 for gross proceeds of \$2,500,800. Each Unit consists of one common share and one-half of one common share purchase warrant. Each whole warrant entitles the holder to acquire one common share at an exercise price of \$2.00 per common share for a period of 18 months after the date the private placement closes. Under the terms of the private placement, 1,563,000 common shares were issued at \$1.60 per share.

## **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, 2007 | Audited Year Ending<br>July 31, 2006 | Audited Year Ending<br>July 31, 2005 |
|-------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Total revenues          | \$ 74,040                            | \$ 44,153                            | \$ 4,110                             |
| Net loss for the year   | \$ (8,241,683)                       | \$ (5,734,665)                       | \$ (1,342,601)                       |
| Earnings/loss per share | \$ (0.22)                            | \$ (0.20)                            | \$ (0.13)                            |
| Total assets            | \$ 3,156,031                         | \$ 4,275,901                         | \$ 3,197,577                         |
| Long term debt          | \$ 0                                 | \$ 0                                 | \$ 0                                 |
| Share Capital           | \$ 21,809,339                        | \$ 16,246,313                        | \$ 10,506,895                        |
| Number of Shares        | 39,813,278                           | 34,692,741                           | 15,033,341                           |
| Deficit                 | \$ (22,042,838)                      | \$ (13,801,155)                      | \$ (7,778,490)                       |

# **Summary Financial Information for the Eight Most Recently Completed Quarters**

|                        | July 31, 2007 | April 30, 2007 | January 31, 2007 | October 31, 2006 |
|------------------------|---------------|----------------|------------------|------------------|
| Operating Accounts     |               |                |                  |                  |
| Net sales              | Nil           | Nil            | Nil              | Nil              |
| Net loss               | \$3,231,748   | \$1,788,498    | \$1,674,381      | \$1,547,056      |
| Balance Sheet Accounts |               |                |                  |                  |
| Total Assets           | \$3,156,031   | \$5,694,403    | \$3,881,408      | \$2,931,039      |
| Loss per share         | \$0.08        | \$0.07         | \$0.04           | \$0.04           |
|                        |               |                |                  |                  |
|                        | July 31, 2006 | April 30, 2006 | January 31, 2006 | October 31, 2005 |
| Operating Accounts     |               |                |                  | _                |
| Net sales              | Nil           | Nil            | Nil              | Nil              |
| Net loss               | \$4,114,168   | \$743,791      | \$474,415        | \$402,291        |
| Balance Sheet Accounts |               |                |                  |                  |
| Total Assets           | \$4,275,901   | \$2,529,782    | \$3,107,112      | \$2,948,467      |
| Loss per share         | \$0.18        | \$0.05         | \$0.03           | \$0.03           |

## Results of Operations for the Fourth Quarter Ended July 31, 2007 and 2006

The following discussion and analysis of the Company's financial condition and results of operations should be read in conjunction with the Company's annual audited financial statements and related notes.

For the quarter ended July 31, 2007, the Company's consolidated net loss from operations was \$3,231,748 (2006 - \$4,114,168). This decrease is a result of the Company in 2007 consistently expensing all R&D costs throughout the year while in 2006 the company decided to adopt a conservative position under Canadian GAAP in the 4<sup>th</sup> quarter and expensed all capitalized R&D costs of technologies under development at that time.

Analysis of some of the more significant expenses for the quarter ended July 31, 2007 is as follows:

**Research and Development** expenses were \$1,457,890 (2006 – (\$260,324)). Research and development costs include:

- salaries and benefits paid to the scientists and the project managers;
- supplies and equipment to build and test the prototypes in the laboratories in Singapore, Vancouver and Russia;
- and research contracts with the scientists in Russia, University of British Columbia and University of Washington. In the 2006 fourth quarter, the Company restated research and development expenses as impairment losses resulting in a negative expense in this category.

**Amortization** expense was \$41,296 (2006 - \$17,423). The Company purchased laboratory equipment, office furniture and equipment including computers for it's offices and laboratories in Singapore and Vancouver. The Company also incurred leasehold improvements in the Singapore office.

**Consulting and professional fees** were \$761,234 (2006 - \$369,323). Consulting fees were \$707,533 (2006 - \$270,518), accounting fees were \$35,701 (2006 - \$55,104) and investor relations were \$18,000 (2006 - 43,701). Consulting fees include fees for the CFO, VP for Business Development, Directors and Consultants for corporate reorganization and financial services.

**Filing fees** was \$9,065 (2006 – (\$10,990)) for filings with the TSX and BCSC.

**Insurance** expense amounting to \$23,052 (2006 - \$0) was for the director's & officer's liability insurance, property and liability insurance for the Singapore laboratory and offices.

**Legal fees** were \$55,783 (2006 – \$68,367) for the private placement and other corporate legal matters including filings and compliance with regulatory authorities.

**Marketing and promotion** was \$13,761 (2006 - \$6,780) for meetings with potential investors and purchases of promotional materials.

**Office and miscellaneous** were \$12,531 (2006 - \$30,105) for expenses incurred at the UBC and Singapore office and laboratory facilities. This includes office supplies, postage, courier, bank charges, parking, telephone, and utilities.

**Rent and storage** expense was \$138,090 (2006 – \$54,041). This includes rent for office and research facilities at UBC, Vancouver and in Singapore, furnished company apartment used for relocating staff and traveling directors and a furnished residence for the CEO.

Salaries and benefits were \$185,856 (2006 – \$39,309) for management and administrative staff.

**Stock-based compensation** expense of \$365,589 (2006 – \$861,407). At July 31, 2007, 3,545,250 options have vested at an average weighted exercise price of \$1.17. The estimated fair value of options granted to executive officers, directors, and employees and consultants since August 1, 2004 is amortized to expense over the vesting period of the stock options.

**Travel** was \$136,604 (2006 – \$114,154) for accommodations and travel to Vancouver and Singapore by Russian scientists, for directors to attend Board meetings in Singapore and travel to meet with potential investors.

**Foreign exchange loss -** \$46,564 (2006 – (\$8,965)). The Company recorded a loss on the restatement of payments made in Singapore dollars to Canadian dollars.

#### Results of Operations for the Year Ended July 31, 2007 and 2006

The following discussion and analysis of the Company's financial condition and results of operations should be read in conjunction with the Company's annual audited financial statements and related notes.

For the year ended July 31, 2007, the Company's consolidated net loss from operations was \$8,241,683 (2006 - \$5,734,665).

Analysis of some of the more significant expenses for the year ended July 31, 2007 is as follows:

**Research and Development** expenses were \$2,919,790 (2006 – \$595,787). Research and development costs include:

- salaries and benefits paid to the scientists and the project managers;
- supplies and equipment to build and test the prototypes in the laboratories in Singapore, Vancouver and Russia;

- and research contracts with the scientists in Russia, University of British Columbia and University of Washington.

**Amortization** expense was \$112,600 (2006 - \$26,828). The Company purchased laboratory equipment, office furniture and equipment including computers for it's offices and laboratories in Singapore and Vancouver. The Company also incurred leasehold improvements in the Singapore office.

**Consulting and professional fees** were \$1,344,564 (2006 - \$515,301). Consulting fees were \$1,163,481 (2006 - \$314,218), accounting fees were \$61,717 (2006 - \$117,967) and investor relations were \$119,366 (2006 - 83,116). Consulting fees include fees for the CFO, VP for Business Development, Directors and Consultants for corporate reorganization and financial services.

**Filing fees** was \$65,318 (2006 – 45,618) for filings with the TSX and BCSC.

**Insurance** expense amounting to \$70,199 (2006 - \$0) was for the director's & officer's liability insurance, property and liability insurance for the Singapore laboratory and offices.

**Legal fees** were \$174,347 (2006 – \$123,570) for the private placements and other corporate financing and legal matters including filings and compliance with regulatory authorities.

**Marketing and promotion** was \$26,023 (2006 - \$7,680) for meetings with potential investors and purchases of promotional materials.

**Office and miscellaneous** were \$112,727 (2006 - \$53,735) for expenses incurred at the UBC and Singapore office and laboratory facilities. This includes office supplies, postage, courier, bank charges, parking, telephone, and utilities.

**Rent and storage** expense was \$332,611 (2006 – \$131,463). This includes rent for office and research facilities at UBC, Vancouver and in Singapore, furnished company apartment used for relocating staff and traveling directors and a furnished residence for the CEO.

Salaries and benefits were \$1,166,183 (2006 – \$108,421) for management and administrative staff.

**Stock-based compensation** expense of \$1,530,685 (2006 – \$1,074,620). At July 31, 2007, 3,545,250 options have vested at an average weighted exercise price of \$1.17. The estimated fair value of options granted to executive officers, directors, and employees and consultants since August 1, 2004 is amortized to expense over the vesting period of the stock options.

**Travel** was \$385,246 (2006 – \$114,154) for accommodations and travel to Vancouver and Singapore by Russian scientists, for directors to attend Board meetings in Singapore and travel to meet with potential investors.

**Foreign exchange loss -** \$75,430 (2006 – (\$8,965)) The Company recorded a loss on the restatement of payments made in Singapore dollars to Canadian dollars.

## **Financing**

Financing activities resulted in a cash increase of \$5,429,436 during the year ended July 31, 2007, due to \$3,220,000 received from the closing of private placements, \$1,322,044 received from the exercise of warrants, \$456,392 received from the exercise of agents options and \$431,000 from the exercising of stock options. This compares to a cash increase of \$5,859,337 during the same period in 2006 due to \$5,128,837 received from the closing of private placements, \$663,000 received from the exercise of warrants and \$67,500 from the exercising of stock options.

The Company continued to fund its operations during 2007 by successfully issuing common shares and through the exercise of warrants and options.

## **Liquidity and Capital Resources**

The Company has suffered recurring losses from operations and currently does not yet have any revenue producing assets. Its ability to conduct operations, including the development of its new technology and the acquisition of additional technologies is dependent on its ability to raise funds as needed.

At July 31, 2007 the Company had \$1,577,863 (2006 – \$3,769,014) in cash and cash equivalents and a consolidated working capital of \$1,264,719 (2006 - \$3,638,117) for ongoing working expenses.

At July 31, 2007 the Company had outstanding 2,178,030 warrants exercisable at \$1.30 per share, 247,264 agents' warrants exercisable at \$1.30 per share and 131,838 agents' options exercisable at \$0.90 per option expiring on November 12, 2007. There were also 213,043 outstanding agents' warrants exercisable at \$0.90 per option expiring on February 18, 2009.

Outstanding options represent a total of 4,469,000 common shares issuable. At July 31, 2007, 3,545,250 were exercisable and would provide proceeds of \$4,131,400 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.

### **Lease Agreements**

The Company has a lease agreement for the rental of office space at its UBC location. The lease expires February 23, 2008. The future minimum lease obligations are as follows:

| 2008 | 26,274 |
|------|--------|

In June 2006 ZMSS signed a lease agreement in Singapore for rental of 2,778 square feet of office space. The lease term is from January 1, 2007 to December 31, 2009 for gross monthly rent of SGD \$22,512 or approximately CDN \$16,125.

| 2008          | 270,138       |
|---------------|---------------|
| 2009          | 270,138       |
| 2010          | 112,558       |
| Total         | SGD \$652,834 |
| Or            |               |
| Approximately | CDN \$467,630 |

ZMSS signed a lease agreement for rental of a furnished apartment for its employees in Singapore. The lease term is from July 5, 2006 to June 30, 2008 for a gross monthly rent of SGD \$3,300 or approximately CDN \$2,360. Employees will stay at the apartment until they are able to secure permanent lodging as this is more cost effective than having them stay at a hotel during their transition. The apartment will also be used by scientists traveling to Singapore to work on research and development and by directors and officers traveling to Singapore for meetings.

| 2008          | SGD\$ 36,300  |
|---------------|---------------|
| Or            |               |
| Approximately | CDN \$ 26,000 |

Effective August 22, 2006, Zecotek Medical Systems Singapore Pte. Ltd. signed a lease agreement for a furnished residence for its CEO in Singapore. Monthly rent of SGD \$12,000 (approximately CDN \$9,000) is to be paid from September 1, 2006 to August 31, 2008, totalling SGD \$288,000 (approximately CDN \$216,000).

| 2008          | 144,000       |
|---------------|---------------|
| 2009          | 12,000        |
| Total         | SGD \$156,000 |
| Or            |               |
| Approximately | CDN \$117,000 |

# **Share Capital**

Authorized: Unlimited

Set out below is the outstanding share data of the Company as at July 31, 2007. For additional detail, see Note 10 to the audited financial statements for July 31, 2007.

| At July 31, 2007                  | Number outstanding |  |
|-----------------------------------|--------------------|--|
| Common Shares                     | 39,813,278         |  |
| Options to Purchase Common Shares | 4,469,000          |  |

| At July 31, 2007                                       | Number outstanding |
|--|--------------------|
| Agent's Warrants and Options to Purchase Common Shares | 592,145            |
| Warrants to Purchase Common Shares                     | 2,178,030          |

#### Escrow shares:

As at July 31, 2007 a total of 8,795,628 shares were held in escrow, their release subject to a predetermined time schedule.

# **Related Party Transactions**

#### **Asset Purchase**

On May 12, 2006 the Company completed an Asset Purchase Agreement with Zecotek Holdings Singapore Pte. Ltd. ("Holdings Singapore") pursuant to which the Company acquired all the bio-photonic technologies owned by Holdings Singapore. To acquire the various bio-photonic technologies, the Company paid to Holdings Singapore \$338,000, issued 11,750,000 common shares of the Company and issued 10% of the Class A preferred shares of any subsidiary of the Company into which the technologies were transferred. The Company's CEO is the majority shareholder of Holdings Singapore and through this company, directly and indirectly controls 11,750,000 common shares or 29.55% of the issued and outstanding common shares of the Company. In addition, he received 900,000 options exercisable at \$1.76 per share that expire on May 12, 2011.

#### Services of CEO

The services of the CEO are provided to the Company by a director who controls Zecotek Holdings and Zecotek Holdings Singapore. Fees paid to the CEO in fiscal 2007 for research & development costs were \$94,861 (2006 - \$150,837) and for consulting fees of \$228,031 (2006 - 64,644). In addition, the Company provided the CEO with a furnished apartment with an annual rent of \$96,320, the use of a vehicle with lease costs of \$8,035 and an annual schooling and transport allowance of \$132,441.

## **Management Consulting Services**

The services of the Vice-President, Business Development and Corporate Affairs is provided to the Company by a director. The fees are recorded in Consulting expense and were \$80,980 (2006 - \$3,000). During the 2007 year the company granted options to the director to acquire 100,000 shares at a price of \$1.20 until January 30, 2012.

## **Forward Looking Statements**

Certain statements contained herein that are not historical facts are forward-looking statements that involve risks and uncertainties. There can be no assurance that such statements will prove to be accurate as actual results and future events could differ materially from those anticipated in such statements.

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

Management is responsible for designing such internal controls over financial reporting, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

No changes were made in the Company's internal control over financial reporting during the year ended July 31, 2007 and the most recent interim period that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

#### **Disclosure Controls and Procedures**

Disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is gathered and reported to senior management, including the Chief Executive Officer and Chief Financial Officer, on a timely basis so that the appropriate decisions can be made regarding public disclosure.

The Chief Executive Officer and Chief Financial Officer of the Company conducted an evaluation of the disclosure controls and procedures as required by Multilateral Instrument 52-109 issued by the Canadian Securities Administrators. They concluded that as at July 31, 2007, the Company's disclosure controls and procedures were effective to provide reasonable assurance that material information regarding required disclosures was made known to them on a timely basis.

#### **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 3 members, Erich Sager of Zurich, Switzerland, Frank Ramsperger (independent) of Zurich, Switzerland and Dr. Ahmad Magad (independent) of Singapore. Mr. Sager is the Chairman of the Audit Committee.

Mr. Sager has many years experience in the private banking sector in Switzerland and serves on several Boards as Director. Dr. Magad, CPA, MBA, Doctorate in Business Administration, is a director of several Singapore companies and a Member of Parliament for Singapore's electoral area of Pasir Ris-Punggol. The Audit Committee will serve until the next Annual General Meeting at which time the new Board of Directors will appoint or reappoint the Audit Committee.

## **Additional Information**

Additional information relating to the Company, including the Annual Information Form and its audited year end financial statements is available on SEDAR at <a href="www.sedar.com">www.sedar.com</a>. Copies of this information are available either on SEDAR or upon request to the Secretary of the Company.