SPECIAL WARRANT INDENTURE

Providing for the Issue of
Special Warrants

BETWEEN

TM BIOSCIENCE CORPORATION

- and -

CIBC MELLON TRUST COMPANY

Dated as of June 24, 1998

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THIS SPECIAL WARRANT INDENTURE made as of the 24th day of June, 1998

B E T W E E N :

TM BIOSCIENCE CORPORATION, a corporation incorporated under the laws of Ontario,

(the "**Corporation**")

- and -

CIBC MELLON TRUST COMPANY, a trust company incorporated under the laws of Canada,

(the "**Special Warrant Agent**")

RECITALS

A. Pursuant to an agreement (the "Underwriting Agreement") dated as of June 24, 1998 between the Corporation and Yorkton Securities Inc. (the "Underwriter"), the Corporation agreed to issue and sell, and the Underwriter agreed to purchase and, if possible, to arrange for substituted purchasers of special warrants of the Corporation (the "Purchasers Special Warrants") at a price of $0.80 per Purchasers Special Warrant.

B. Pursuant to a subscription agreement dated as of June 24, 1998 between the Corporation and Canadian Medical Discoveries Fund Inc. ("CMDF"), the Corporation agreed to issue and sell, and CMDF agreed to purchase 5,375,000 special warrants of the Corporation (the "CMDF Special Warrants") at a price of $0.80 per CMDF Special Warrant. Collectively, the Purchasers Special Warrants and the CMDF Special Warrants are referred to herein as the Special Warrants.

C. The Corporation proposes to issue Special Warrants in the manner set forth in this Indenture.

D. The Corporation is duly authorized to create and issue the Special Warrants and complete the transactions contemplated in this Indenture.

E. Each Special Warrant will entitle the holder thereof to receive, on exercise, one Unit (as defined in this Indenture) consisting of one Common Share (as defined in this Indenture) and one-half of a Warrant (as defined in this Indenture), or, in certain circumstances, 1.1 Units (consisting of 1.1 Common Shares and 0.55 of a Warrant) in lieu of one Unit, subject to adjustment, at no additional cost, upon the terms and conditions set forth in this Indenture.

F. All acts and deeds necessary have been done and performed to make the Special Warrants, when issued as provided in this Indenture, legal, valid and binding upon the Corporation with the benefits and subject to the terms of this Indenture.

G. The foregoing recitals are made by the Corporation and not by the Special Warrant Agent.

IN CONSIDERATION of the mutual covenants contained in this Indenture, the receipt and sufficiency of which are acknowledged, the parties agree as follows.

ARTICLE 1.
INTERPRETATION

1.1. Definitions

In this Indenture, including the recitals and schedules to this Indenture and in all indentures supplemental to this Indenture:

"Applicable Legislation" means the provisions of the *Business Corporations Act*, R.S.O. 1990, c. B.16, as from time to time amended, and any statute of Canada or a province thereof, and the regulations under any such named or other statute, relating to trust indentures or to the rights, duties and obligations of trustees and of corporations under trust indentures, to the extent that such provisions are at the time in force and applicable to this Indenture;

"Auditors" means the auditors of the Corporation from time to time;

"Business Day" means a day which is not Saturday or Sunday or a day on which banks are closed in the City of Toronto, Ontario or a civic or statutory holiday in the City of Toronto, Ontario;

"Clearance Date" means the date on which a receipt has been issued by the last of the Securities Commissions in each of the Qualifying Provinces for the Final Prospectus;

"Closing Date" means June 24, 1998 or such other date upon which the Corporation and the Underwriter may agree;

"Common Shares" means, subject to paragraph 4.1(g), fully paid and non-assessable common shares of the Corporation;

"Condition Time" means the later of January 15, 1999 and the Time of Expiry;

"Conversion Rate Increase" has the meaning attributed to such term in section 2.2;

"Convertible Security" means a security of the Corporation (other than Special Warrants, Underwriter's Warrants, Underwriter's Compensation Options and Warrants, as those terms are defined in the Underwriting Agreement) convertible into or exchangeable for or otherwise carrying the right to acquire Common Shares;

"Current Market Price" in respect of a Common Share at any date, means the weighted average price per Common Share on the TSE or, in the event that the Common Shares of the Corporation are not listed and posted for trading on the TSE, the VSE, for the 20 consecutive trading days ending on the fifth trading day before such date; the weighted average price will be determined by dividing the aggregate of the sale prices of all such shares sold on the said exchange or market, as the case may be, during the said 20 consecutive trading days by the total number of such shares so sold;

"director" means a director of the Corporation for the time being and, unless otherwise specified herein, reference to action **"**by the directors**"** means action by the directors of the Corporation as a board or, whenever duly empowered, action by any committee of such board;

"Escrow Agent" means CIBC Mellon Trust Company, the escrow agent appointed under the Escrow Agreement, and its successors as such;

"Escrow Agreement" means the agreement dated the date hereof among the Corporation, the Underwriter and the Escrow Agent, providing for the deposit by the Corporation of the Principal Escrow Amount and the use of the Escrowed Funds to refund the purchase price in respect of the Refundable Special Warrants under the circumstances described in section 2.3;

"Escrowed Funds" means the Principal Escrow Amount plus any interest earned thereon;

"Exercise Date" means, with respect to any Special Warrant, the date on which the Special Warrant Certificate representing such Special Warrant is surrendered for exercise in accordance with the provisions of Article 3 and includes the date or dates upon which Special Warrants are exercised by the Special Warrant Agent on behalf of Special Warrantholders pursuant to section 3.8;

"extraordinary resolution" has the meaning attributed to such term in section 7.11;

"Final Prospectus" means the (final) prospectus of the Corporation to be approved, signed and certified in accordance with Canadian securities laws qualifying the distribution of, among other securities, the Common Shares and Warrants issuable upon the exercise of Special Warrants and includes any amendments or supplements thereto;

"person" means an individual, body corporate, partnership, trust, trustee, executor, administrator, legal representative or any unincorporated organization;

"Principal Escrow Amount" means 50% of the gross proceeds realized from the sale of the Purchasers Special Warrants which have been deposited with the Escrow Agent under the Escrow Agreement;

"Purchasers Special Warrantholder" means a holder of Purchasers Special Warrants;

"Qualification Deadline" means 5:00 p.m. (Toronto time) on September 22, 1998;

"Qualifying Provinces" means the provinces in which purchasers of the Special Warrants are resident;

"Refund Amount" means the aggregate amount owing to Special Warrantholders pursuant to the Refund Obligation;

"Refund Obligation" has the meaning attributed to such term in section 2.3;

"Refundable Special Warrants" means 50% of the Special Warrants held by each Purchasers Special Warrantholder;

"Regulation S" means Regulation S as promulgated under the U.S. Securities Act;

"Reorganization" has the meaning attributed to such term in paragraph 4.1(d);

"Rescission Notice" has the meaning attributed to such term in section 2.3;

"Revenue Milestone" means the achievement by the Corporation of aggregate consolidated revenues from its DNA product platforms and related products and services in the fiscal year ending December 31, 1998 of at least $1,000,000 as conclusively determined by the Auditors in accordance with generally accepted accounting principles;

"Right to Rescind" has the meaning attributed to such term in section 2.3;

"Securities Commission" means the securities commission or securities regulatory authority in each Qualifying Province;

"Shareholder" means a holder of record of one or more Common Shares or shares of any other class or series of the Corporation;

"Share Rate" means the number of Common Shares which are issuable upon the exercise of the Special Warrants in accordance with section 2.5, subject to adjustment in accordance with section 2.2 and Article 4;

"Special Warrant Agency" means the principal stock and bond transfer office of the Special Warrant Agent in Toronto, Ontario presently located at 199 Bay Street, Commerce Court West, Securities Level, Toronto, Ontario M5L 1G9, or such other place as may be designated by the Corporation with the approval of the Special Warrant Agent;

"Special Warrant Agent" means CIBC Mellon Trust Company or its successors from time to time in the trusts created by this Indenture;

"Special Warrant Certificate" means a certificate issued on or after the Closing Date to evidence Special Warrants, substantially in the form set out in Schedule "A" to this Indenture (except that certificates issued to evidence the CMDF Special Warrants will not include the Right to Rescind);

"Special Warrantholder" or "holder" means a registered holder of Special Warrants;

"Special Warrantholders' Request" means an instrument signed in one or more counterparts by Special Warrantholders representing in the aggregate not less than 10% of the aggregate number of outstanding Special Warrants, requesting the Special Warrant Agent to take some action or proceeding specified therein;

"Special Warrants" means up to 19,262,500 special warrants issued and certified under this Indenture, each entitling the holder to receive one Unit upon the exercise thereof;

"Subsidiary" has the meaning attributed to it in the *Securities Act* (Ontario) and includes a partnership or joint venture in respect of which control is exercised by another person or persons;

"Successor Corporation" has the meaning attributed to it in section 8.2;

"this Special Warrant Indenture", **"this Indenture"**, **"herein"**, **"hereby"** and similar expressions mean and refer to this Indenture and any indenture, deed or instrument supplemental hereto; and the expressions **"Article"**, **"section"** and **"paragraph"** followed by a number mean and refer to the specified article, section or paragraph of this Indenture;

"Time of Closing" means 10:00 (a.m.) on (i) the Closing Date, or (ii) the date of any additional Closing Date agreed upon by the Corporation and the Underwriter;

"Time of Expiry" means 5:00 p.m. (Toronto time) on the earlier of (i) the fifth Business Day after the Clearance Date; and (ii) December 24, 1999;

"TSE" means The Toronto Stock Exchange;

"Underwriter" means Yorkton Securities Inc.;

"Unit" means one Common Share and one-half of a Warrant issuable by the Corporation upon exercise of the Special Warrants pursuant to this Indenture;

"United States of America" means the United States of America, its territories and possessions, any state of the United States, and the District of Columbia;

"U.S. Person" means "U.S. Person" as that term is defined in Regulation S under the U.S. Securities Act;

"U.S. Securities Act" means the United States *Securities Act of 1933*, as amended;

"VSE" means the Vancouver Stock Exchange;

"Warrant Certificate" means a certificate issued to evidence Warrants;

"Warrant Indenture" means the warrant indenture dated as of the date hereof between the Corporation and CIBC Mellon Trust Company, as warrant agent, providing for the issuance of the Warrants;

“Warrant Shares” means the Common Shares in the capital of the Corporation issuable by the Corporation upon the exercise of the Warrants pursuant to the Warrant Indenture;

“Warrants” means the Common Share purchase warrants of the Corporation issuable by the Corporation upon the exercise of the Special Warrants pursuant to this Indenture and governed by the Warrant Indenture; and

“written order of the Corporation”, **“written request of the Corporation”**, **“written consent of the Corporation”**, **“written direction of the Corporation”** and **“certificate of the Corporation”** mean, respectively, a written order, request, consent, direction and certificate signed in the name of the Corporation by any officer or director of the Corporation, and may consist of one or more instruments so executed.

1.2. Headings

The division of this Indenture into Articles, sections, paragraphs and clauses, the provision of a table of contents and the insertion of headings are for convenience of reference only and do not affect the construction or interpretation of this Indenture or the Special Warrants.

1.3. Gender and Number

Unless otherwise expressly provided in this Indenture or unless the context otherwise requires, words importing the singular include the plural and *vice versa* and words importing gender include all genders.

1.4. Day not a Business Day

If any day on or before which any action is required to be taken under this Indenture is not a Business Day, then such action will be required to be taken at or before the requisite time on the next succeeding day that is a Business Day.

1.5. Time of the Essence

Time is of the essence of this Indenture.

1.6. Applicable Law

This Indenture, the Special Warrants and the Special Warrant Certificates will be construed in accordance with the laws of the Province of Ontario and the federal laws applicable therein and will be treated in all respects as Ontario contracts.

1.7. Choice of Language

The parties acknowledge that they have expressly required this Indenture and all notices, statements of account and other documents required or permitted to be given or entered into pursuant to this Indenture to be drawn up in the English language only. Les parties reconnaissent avoir expressment demandées que la présente convention ainsi que tout avis, tout état de compte et tout autre document à être ou pouvant être donné ou conclu en vertu des dispositions des présentes, soient rédigés en langue anglaise seulement.

1.8. Currency

Unless otherwise stated, all dollar amounts referred to in this Indenture are in Canadian dollars.

ARTICLE 2.
ISSUE OF SPECIAL WARRANTS

2.1. Issue of Special Warrants

(a) A total of 19,262,500 Special Warrants, each of which entitles the registered holder thereof, upon exercise, to acquire one Unit, each Unit consisting of one Common Share (subject to adjustment in accordance with section 2.2 and Article 4) and one-half of a Warrant (subject to adjustment in accordance with section 2.2 and the Warrant Indenture), are hereby created and authorized to be issued at a price of $0.80 per Special Warrant upon the terms and conditions set forth in this Indenture. The Special Warrants will be executed by the Corporation and certified and delivered by or on behalf of the Special Warrant Agent in accordance with the written order of the Corporation. The Special Warrant Agent has no duty to confirm that the purchase price for the Special Warrants has been paid before effecting such certification and delivery.

(b) The Special Warrant Certificates (including all replacements issued in accordance with this Indenture), will be in registered form substantially in the form set out in Schedule "A" to this Indenture (except that the Special Warrant Certificates evidencing the CMDF Special Warrants will not include the Right to Rescind), will be dated as of the Closing Date, will bear such legends, distinguishing letters and numbers as the Corporation, with the approval of the Special Warrant Agent, may prescribe, and will be issuable in any denomination excluding fractions.

2.2. Conversion Rate Increase

In the event that the Clearance Date does not occur prior to the Qualification Deadline, each Special Warrantholder will automatically be entitled, without further payment, to receive, upon exercise, in respect of each Special Warrant held by it, 1.1 Units (each consisting of 1.1 Common Shares (subject to adjustment in accordance with Article 4) and 0.55 of a Warrant (subject to adjustment in accordance with the Warrant Indenture) in lieu of one Unit, upon exercise (the "Conversion Rate Increase"). In the event of the Conversion Rate Increase, the Corporation shall deliver, or cause to be delivered, a notice to the Special Warrant Agent, the Special Warrantholders and the Underwriter stating that the Conversion Rate Increase has occurred.

2.3. Right to Rescind

If the Corporation has not achieved the Revenue Milestone, then each Purchasers Special Warrantholder will have the right to rescind (the “Right to Rescind”) the purchase of all or any part of its Refundable Special Warrants (excluding those which have previously been exercised) and the Corporation will be obligated to use the Escrowed Funds to refund the purchase price of $0.80 for each of such Refundable Special Warrants in respect of which the Right to Rescind has been exercised and to pay, on a pro rata basis, any interest earned on such amount (net of applicable withholding tax) from the Closing Date to and including January 15, 1999 in respect of each Refundable Special Warrant the purchase price of which is to be so refunded, as further described below (collectively, the “Refund Obligation”). The Right to Rescind may be exercised by the holder of Refundable Special Warrants giving notice in writing to the Special Warrant Agent in the form attached to the Special Warrant Certificate (the “Recission Notice”) of its intention to exercise the Right to Rescind, setting out the aggregate number of Special Warrants purchased by such holder and the number of Refundable Special Warrants in respect of which the Right to Rescind is exercised (which number cannot exceed 50% of the Special Warrants it purchased), accompanied by its Special Warrant Certificate or Certificates, from and after January 5, 1999, subject to delivery of the notice referred to in the following sentence, and not later than 5:00 p.m. (Toronto time) on January 15, 1999. The Recission Notice shall be duly completed and executed by the Special Warrantholder or its executors or administrators or other legal representatives or its attorney duly appointed by an instrument in writing in form and manner satisfactory to the Special Warrant Agent. A Special Warrantholder may not exercise the Right to Rescind in respect of a fraction of a Refundable Special Warrant. Upon written notice from the Corporation to the Special Warrant Agent that the Revenue Milestone was not achieved (which notice will be delivered by the Corporation before January 5, 1999 if the Revenue Milestone is not achieved), the Special Warrant Agent will forthwith notify each Special Warrantholder, the Escrow Agent and the Underwriter that the Special Warrantholders may exercise the Right to Rescind until 5:00 p.m. (Toronto time) on January 15, 1999. Such notice shall contain instructions as to how to exercise the Right to Rescind and the address of the Special Warrant Agency for delivery of Recission Notices and Special Warrant Certificates. Any Special Warrantholder which does not notify the Special Warrant Agent in writing, in accordance with section 10.1, of its intention to exercise the Right to Rescind (by delivering an executed Rescission Notice accompanied by its Special Warrant Certificate and Certificates) by 5:00 p.m. (Toronto time) on January 15, 1999 will be deemed to have waived its Right to Rescind. The Refund Obligation will be satisfied by the Corporation by no later than three Business Days after January 15, 1999 in accordance with section 2.4.

The interest which the Corporation will be obligated to pay to Special Warrantholders pursuant to the Refund Obligation will be paid in respect of each Refundable Special Warrant in respect of which the purchase price is required to be refunded by the Corporation. A Special Warrantholder will be entitled to receive such interest in an amount equal to the product obtained by multiplying the interest earned on the Principal Escrow Amount to and including January 15, 1999, by a fraction, the numerator of which is the number of Refundable Special Warrants in respect of which such holder has duly exercised the Right to Rescind and the denominator of which is the aggregate number of Refundable Special Warrants.

As soon as practicable and in any event within two Business Days following January 15, 1999, the Special Warrant Agent will deliver to the Corporation a written notice setting forth the particulars of all Special Warrants so rescinded, the names of such holders and the addresses of such holders.

2.4. Method of Refund

If the Right to Rescind has been duly exercised by any Special Warrantholder in accordance with section 2.3, the Corporation, in accordance with paragraph 5(a) of the Escrow Agreement, will, on or before the third Business Day after January 15, 1999, direct the Escrow Agent to pay the aggregate Refund Amount to the Special Warrant Agent. Upon such direction being received and such payment being made, the Corporation shall be deemed to have satisfied the Refund Obligation and all such Refundable Special Warrants shall be deemed to have been refunded. Upon receipt of the Refund Amount, the Special Warrant Agent shall, as soon as practicable and in any event within two Business Days, pay the respective portion of the Refund Amount to each holder of Refundable Special Warrants who has exercised the Right to Rescind.

2.5. Form and Terms of Special Warrants

(a) Subject to section 3.8, each Special Warrant authorized to be issued under this Indenture entitles the registered holder thereof, upon exercise, to acquire one Unit, each Unit consisting of one Common Share (subject to adjustment in accordance with section 2.2 and Article 4) and one-half of a Warrant (subject to adjustment in accordance with section 2.2) at any time on or after the Time of Closing and (i) as to 50% of the Purchasers Special Warrants and all of the CMDF Special Warrants, prior to the Time of Expiry, and (ii) as to the Refundable Special Warrants, prior to the Condition Time, in all cases at no additional cost to the Special Warrantholder.

(b) No fractional Special Warrants will be issued or otherwise provided for under this Indenture.

(c) The number of Common Shares which may be issued pursuant to the Special Warrants will be adjusted in the events and in the manner specified in section 2.2 and Article 4. The number of Warrants which may be issued pursuant to the Special Warrants will be adjusted in accordance with section 2.2 but will not be subject to adjustment by virtue of any other provisions of this Indenture. However, the exercise price for the Warrant Shares which may be issued pursuant to the Warrants or the number of Warrant Shares issuable upon exercise of the Warrants will be adjusted in the events and in the manner specified in the Warrant Indenture.

2.6. Special Warrantholder not a Shareholder

Except as provided for in paragraph 5.2(i), nothing in this Indenture or in the holding of a Special Warrant or Special Warrant Certificate, in itself, confers or will be construed as conferring upon a Special Warrantholder any right or interest whatsoever as a Shareholder, including the right to vote at, to receive notice of or to attend meetings of Shareholders or any other proceedings of the Corporation, or the right to receive dividends and other distributions.

2.7. Special Warrants to Rank *Pari Passu*

All Special Warrants will rank *pari passu*, regardless of their actual date of issue.

2.8. Signing of Special Warrant Certificates

The Special Warrant Certificates will be signed by any one officer or director of the Corporation, and may but need not be under the corporate seal of the Corporation or a reproduction thereof. The signature of such officer or director may be mechanically reproduced in facsimile and Special Warrant Certificates bearing such facsimile signature will be binding upon the Corporation as if it had been manually signed by such officer or director. Notwithstanding that any person whose manual or facsimile signature appears on any Special Warrant Certificate as an officer or director may no longer hold office at the date of such Special Warrant Certificate or at the date of certification or delivery thereof, any Special Warrant Certificate signed as aforesaid will, subject to section 2.9, be valid and binding upon the Corporation and the holder thereof will be entitled to the benefits of this Indenture.

2.9. Certification by the Special Warrant Agent

(a) The Special Warrant Agent will certify Special Warrant Certificates upon the written direction of the Corporation. No Special Warrant Certificate will be issued or, if issued, will be valid, for any purpose or entitle the holder to the benefit of this Indenture until it has been certified by manual signature by or on behalf of the Special Warrant Agent. Such certification by the Special Warrant Agent upon any Special Warrant Certificate will be conclusive evidence as against the Corporation that the Special Warrant Certificate so certified has been duly issued under, and that the holder is entitled to the benefits of, this Indenture.

(b) The certification of the Special Warrant Agent on Special Warrant Certificates issued under this Indenture will not be construed as a representation or warranty by the Special Warrant Agent as to the validity of this Indenture or the Special Warrant Certificates (except the due certification thereof) or as to the performance by the Corporation of its obligations and the Special Warrant Agent will in no respect be liable or answerable for the use made of the Special Warrant Certificates or any of them or of the consideration therefor except as otherwise specified in this Indenture.

2.10. Loss, Mutilation, Destruction or Theft

(a) In the event that any Special Warrant Certificate issued and certified under this Indenture becomes mutilated or lost, destroyed or stolen, the Corporation, subject to applicable law, will issue and thereupon the Special Warrant Agent will certify and deliver, a new Special Warrant Certificate of like tenor as the one mutilated, lost, destroyed or stolen in exchange for and in place of and upon cancellation of such mutilated Special Warrant Certificate, or in lieu of and in substitution for such lost, destroyed or stolen Special Warrant Certificate. The substituted Special Warrant Certificate will be in a form approved by the Special Warrant Agent and the Special Warrants evidenced by it will entitle the holder thereof to the benefits hereof, and will rank equally in accordance with its terms with all other Special Warrants issued or to be issued under this Indenture.

(b) The applicant for the issue of a new Special Warrant Certificate pursuant to this section 2.10 will bear the cost of the issue thereof and in case of loss, destruction or theft will, as a condition precedent to the issue thereof, furnish to the Corporation and to the Special Warrant Agent such evidence of ownership and of the loss, destruction or theft of the Special Warrant Certificate so lost, destroyed or stolen satisfactory to the Corporation and to the Special Warrant Agent in their discretion, and such applicant may also be required to furnish an indemnity or security in amount and form satisfactory to the Corporation and the Special Warrant Agent in their discretion and will pay the reasonable charges of the Corporation and the Special Warrant Agent in connection therewith.

2.11. Exchange of Special Warrant Certificates

(a) A Special Warrant Certificate representing any number of Special Warrants may, before the Time of Expiry, upon compliance with the reasonable requirements of the Special Warrant Agent, be exchanged for another Special Warrant Certificate or Special Warrant Certificates representing the same aggregate number of Special Warrants as represented under the Special Warrant Certificate or Special Warrant Certificates tendered for exchange.

(b) Special Warrant Certificates may be exchanged only at the Special Warrant Agency or at any other place that is designated by the Corporation with the approval of the Special Warrant Agent. Any Special Warrant Certificate tendered for exchange will be cancelled and surrendered to the Special Warrant Agent.

2.12. Charges for Exchange

Except as otherwise provided in this Indenture, the Special Warrant Agent may charge to the Special Warrantholder requesting an exchange of a Special Warrant Certificate or Special Warrant Certificates, a reasonable sum for each new Special Warrant Certificate issued in exchange for such Special Warrant Certificate(s), and payment of such charges and reimbursement of the Special Warrant Agent or the Corporation for any and all applicable transfer or similar stamp taxes or governmental or other charges required to be paid in respect of such exchange will be made by such holder as a condition precedent to such exchange.

2.13. Ownership and Transfer of Special Warrants

(a) Registration of Transfers. The Special Warrant Agent will maintain at the Special Warrant Agency a register of Special Warrantholders, including details as to the number of Special Warrants held by each Special Warrantholder, and will also maintain a register of transfers in which will be entered the date and other particulars of each transfer of Special Warrants. The Special Warrants may only be transferred on the register kept at the Special Warrant Agency by the holder or its legal representatives or its attorney duly appointed by an instrument in writing in form and execution satisfactory to the Special Warrant Agent, acting reasonably, and only upon surrendering to the Special Warrant Agent the Special Warrant Certificates representing the Special Warrants to be transferred together with a duly executed form of Transfer of Special Warrants and Acknowledgement and Declaration of Transferee (in the respective forms attached to the Special Warrant Certificates). Upon compliance with:

(i) the conditions of this Indenture, including, without limitation, paragraph 2.13(b),

(ii) such reasonable requirements as the Special Warrant Agent may prescribe, and

(iii) all applicable securities legislation and requirements of regulatory authorities,

such transfer will be duly noted in such register by the Special Warrant Agent. Upon compliance with such requirements, the Special Warrant Agent will issue to the transferee a Special Warrant Certificate representing the Special Warrants transferred. A copy of this Indenture is available for inspection at the offices of the Corporation and the offices of the Special Warrant Agent in Toronto.

The Corporation and the Special Warrant Agent will deem and treat the registered owner of any Special Warrant as the beneficial owner thereof for all purposes and neither the Corporation nor the Special Warrant Agent will be affected by any notice to the contrary.

(b) Refusal of Registration. The Special Warrant Agent will promptly advise the Corporation of any requested transfer of Special Warrants. The Corporation will be entitled, and may direct the Special Warrant Agent, to refuse to recognize any transfer, or enter the name of any transferee, of any Special Warrant on the registers referred to in this Article, if such transfer, or the issue of Common Shares or Warrants on exercise of such Special Warrant following such transfer, would constitute a violation of the securities laws of any jurisdiction or the rules, regulations or policies of any regulatory authority having jurisdiction. In particular, none of the Special

Warrants, Common Shares or Warrants issuable on the exercise of the Special Warrants or Warrant Shares issuable on the exercise of the Warrants, has been or will be registered under the U.S. Securities Act and such securities may not be offered, sold or transferred to a U.S. Person, to a person in the United States of America or to a person for the account or benefit of a U.S. Person or a person in the United States of America unless such Special Warrants, Common Shares or Warrants issuable upon exercise of the Special Warrants or Warrant Shares issuable upon exercise of the Warrants have been registered under the U.S. Securities Act, or an exemption from the registration requirements of the U.S. Securities Act is available.

(c) General. Subject to the provisions of this Indenture and applicable law, Special Warrantholders will be entitled to the rights and privileges attaching to the Special Warrants. The exercise of Special Warrants by any Special Warrantholder in accordance with the terms and conditions contained in this Indenture will, subject to the due performance of the obligations relating thereto, discharge all responsibilities of the Corporation and the Special Warrant Agent with respect to such Special Warrants and neither the Corporation nor the Special Warrant Agent will be bound to inquire into the title of any such holder, except where the Corporation or the Special Warrant Agent is required to take notice by statute or by order of a court of competent jurisdiction.

2.14. Additional Legend

Special Warrant Certificates will bear the following legend:

THE SPECIAL WARRANTS REPRESENTED BY THIS CERTIFICATE AND ANY COMMON SHARES AND COMMON SHARE PURCHASE WARRANTS ISSUABLE UPON EXERCISE OF THE SPECIAL WARRANTS REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO HOLD PERIODS AND RESALE RESTRICTIONS UNDER APPLICABLE SECURITIES LEGISLATION IN CANADA AND MAY NOT BE TRADED EXCEPT AS PERMITTED BY SUCH APPLICABLE SECURITIES LEGISLATION AND THE REGULATIONS THEREUNDER.

ARTICLE 3.
EXERCISE OF SPECIAL WARRANTS

3.1. Exercise of Special Warrants

(a) Upon and subject to the provisions of this Article, any Special Warrantholder may exercise the right thereby conferred on such Special Warrantholder to acquire Common Shares and Warrants, for no additional consideration, by surrendering to the Special Warrant Agent, at any time after the Time of Closing and (i) as to 50% of the Purchasers Special Warrants and all of the CMDF Special Warrants, prior to the Time of Expiry, and (ii) as to the Refundable Special Warrants, prior to the Condition Time, at the Special Warrant Agency or at any other place or places that may be designated by the Corporation with the approval of the Special Warrant Agent, a Special Warrant Certificate, together with an exercise form duly completed and executed by the Special Warrantholder or its executors or administrators or other legal representatives or its attorney duly appointed by an instrument in writing in form and manner satisfactory to the Special Warrant Agent, substantially in the form set out in the Special Warrant Certificate.

(b) The exercise form referred to in paragraph 3.1(a) will be signed as set out above and will specify:

(i) the number of Common Shares and Warrants to be issued (being not more in the aggregate than those to which the Special Warrantholder is entitled pursuant to the Special Warrant Certificate so surrendered); and

(ii) the person or persons in whose name or names the Common Shares and Warrants are to be issued, the address(es) of such person(s) and the number of Common Shares and Warrants to be issued to each such person if more than one is so specified.

(c) A Special Warrant Certificate will be deemed to be surrendered for exercise only upon delivery of a Special Warrant Certificate or, if sent by post or other means of transmission, upon actual receipt of a Special Warrant Certificate by the Special Warrant Agent at the Special Warrant Agency.

(d) No Common Shares or Warrants will be issued pursuant to the exercise of any Special Warrant if the issue of such Common Shares or Warrants would constitute a violation of the securities laws of any applicable jurisdiction. If the Exercise Date in respect of any Special Warrant occurs before the Clearance Date, the certificates representing the Common Shares and the certificates representing the Warrants thereby issued will bear such legends as may, in the opinion of counsel to the Corporation, be necessary or advisable in order to avoid a violation of any securities laws of any applicable jurisdiction or to comply with the requirements of any stock exchange on which the Common Shares are listed, provided that if, at any time, in the opinion of counsel to the Corporation, such legends are no longer necessary or advisable in order to avoid a violation of any such laws or requirements, or the holder of any such legended certificate, at its expense, provides the Corporation with evidence satisfactory in form and substance to the Corporation (which may include an opinion of counsel satisfactory to the Corporation) to the effect that such holder is entitled to sell or otherwise transfer such Common Shares or Warrants in a transaction in which such legends are not required, such legended certificate may thereafter be surrendered to the Corporation in exchange for a certificate which does not bear such legend without cost to such holder.

(e) None of the Special Warrants, Common Shares issuable upon exercise of the Special Warrants, Warrants issuable upon exercise of the Special Warrants or Warrant Shares issuable upon exercise of the Warrants have been or will be registered under the U.S. Securities Act, and Special Warrants may not be exercised by any U.S. Person, by any person in the United States of America or by any person for the account or benefit of a U.S. Person or a person in the United States of America. Accordingly, neither the Corporation nor the Special Warrant Agent shall accept subscriptions for Common Shares and Warrants issuable upon exercise of the Special Warrants from any person unless such person certifies as follows:

> The undersigned is not a U.S. Person or a person in the United States, and is not acquiring any of the Common Shares and Warrants issuable upon exercise of the Special Warrants for the account or benefit of a U.S. Person or a person in the United States.

(f) If any Common Shares and Warrants subscribed for are to be issued to a person or persons other than the Special Warrantholder, the Special Warrantholder will comply with such reasonable requirements as the Special Warrant Agent may prescribe and will pay to the Corporation or the Special Warrant Agent on behalf of the Corporation, all applicable transfer or similar taxes. The Corporation will not be required to issue or deliver certificates evidencing Common Shares or Warrants unless or until such Special Warrantholder has paid to the Corporation, or to the Special Warrant Agent on behalf of the Corporation, the amount of such tax or has established to the satisfaction of the Corporation, acting reasonably, that such tax has been paid or that no tax is due.

3.2. Effect of Exercise of Special Warrants

(a) Upon compliance by the holder of any Special Warrant Certificate with the provisions of section 3.1 or upon Special Warrants being exercised in accordance with the provisions of section 3.8, the Common Shares and Warrants in respect of which the Special Warrants are exercised will be deemed to have been issued and the person or persons to whom such Common Shares and Warrants are to be issued will be deemed to have become the holder or holders of such Common Shares and Warrants on the Exercise Date, unless the transfer registers of the Corporation are closed by law on such date, in which case the Common Shares and Warrants will be deemed to have been issued and such person or persons deemed to have become the holder or holders of such Common Shares and Warrants on the date on which such transfer registers are reopened.

(b) As soon as practicable following the exercise of a Special Warrant pursuant to section 3.1 or 3.8, the Special Warrant Agent will deliver to the Corporation a written notice setting forth the particulars of all Special Warrants exercised, if any, and the persons in whose names the Common Shares and Warrants are to be issued and the addresses of such persons.

(c) As soon as practicable and, in any event, within five Business Days after the Exercise Date of a Special Warrant, in the case of the exercise of a Special Warrant pursuant to section 3.1 or section 3.8, the Corporation will:

(i) in the case of the exercise of a Special Warrant pursuant to section 3.1, cause to be mailed to the person in whose name the Common Shares and Warrants in respect of which the Special Warrants are exercised are to be issued, as specified in the completed exercise form attached to the Special Warrant Certificate evidencing the Special Warrant, at the address specified in such exercise form or, if not so specified in such exercise form, cause to be delivered to such person at the office of the Special Warrant Agent where such Special Warrant was surrendered, certificates representing the Common Shares and Warrants to be issued as specified in such exercise form, registered in the name of such holder, or

(ii) in the case of the exercise of the Special Warrant pursuant to section 3.8, cause to be mailed to the holder of the Special Warrant Certificate at the address of such person last appearing on the register of Special Warrantholders maintained by the Special Warrant Agent pursuant to section 2.13, certificates respecting the Common Shares and Warrants to be issued pursuant to such exercise, registered in the name of such holder.

3.3. Partial Exercise of Special Warrants

The holder of any Special Warrant Certificate may exercise less than all of the Special Warrants, or exercise the Right to Rescind the purchase of less than all of the Special Warrants, evidenced by such certificate and will be entitled to receive, at no cost to such holder, a Special Warrant Certificate, signed and certified in accordance with Article 2, evidencing the balance of the number of Special Warrants held by the Special Warrantholder.

3.4. Postponement of Delivery of Certificates

Without limiting the effect of paragraph 3.2(a), the Corporation will not be required to deliver certificates for Common Shares and Warrants during the period when the stock transfer books of the Corporation are closed by law and, in the event of a surrender of a Special Warrant Certificate for the acquisition of Common Shares and Warrants during such period, the delivery of certificates may be postponed for a period not exceeding five Business Days after the date of the reopening of the stock transfer books.

3.5. Cancellation of Surrendered Special Warrant Certificates

All Special Warrant Certificates surrendered to the Special Warrant Agent pursuant to sections 2.4, 2.10, 2.11, 2.13, 3.1, 3.3, 3.8 and 5.1 will be retained by the Special Warrant Agent for cancellation and, after the expiry of any period of retention prescribed by law, destroyed by the Special Warrant Agent. Upon request by the Corporation, the Special Warrant Agent will furnish to the Corporation a certificate identifying the Special Warrant Certificates so cancelled and the number of Special Warrants evidenced thereby.

3.6. Fractional Common Shares

A Special Warrantholder may not exercise a fraction of a Special Warrant. No certificate representing fractional Common Shares or fractional Warrants will be issued upon the exercise of any rights of purchase in a Special Warrant. Subscriptions for fractional Common Shares or Warrants will not be accepted as such and will be deemed to be a subscription for the next smallest whole number of Common Shares or Warrants.

3.7. Accounting and Recording

(a) The Special Warrant Agent will promptly account to the Corporation with respect to Special Warrants exercised. Any securities, monies or other instruments from time to time received by the Special Warrant Agent will be received in trust for, and will be segregated and kept apart by the Special Warrant Agent in trust for, the Corporation.

(b) The Special Warrant Agent will record the particulars of Special Warrants exercised, including the names and addresses of the persons who become holders of Common Shares and Warrants, on exercise, and the Exercise Date.

3.8. Exercise by the Special Warrant Agent on behalf of Special Warrantholders

(a) Fifty percent of the Purchasers Special Warrants of each Purchasers Special Warrantholder and all of the CMDF Special Warrants that have not been exercised by the holders thereof prior to the Time of Expiry will be exercised by the Special Warrant Agent on behalf of the holders thereof immediately prior to such time, without any further action on the part of such holders, and the Common Shares and Warrants issuable thereby will be issued to the holder or holders of record of such Special Warrants immediately prior to such time in accordance with section 3.2. After the Time of Expiry, such 50% of the Purchasers Special Warrants of each Purchasers Special Warrantholder and all of the CMDF Special Warrants shall be void and of no value.

(b) All Refundable Special Warrants that have not been exercised by the holders thereof prior to the Condition Time and in respect of which the Right to Rescind has not been exercised will be exercised by the Special Warrant Agent on behalf of the holders thereof immediately prior to such time, without any further action on the part of such holders, and the Common Shares and Warrants issuable thereby will be issued to the holder or holders of record of such Refundable Special Warrants immediately prior to such time in accordance with section 3.2. After the Condition Time, all Refundable Special Warrants in respect of which the Right to Rescind has not been exercised shall be void and of no value.

ARTICLE 4.
ADJUSTMENT OF NUMBER OF COMMON SHARES

4.1. Adjustment of Number of Common Shares

The acquisition rights in effect at any date attaching to the Special Warrants with respect to the Warrants issuable upon the exercise of the Special Warrants will not be subject to adjustment in this Indenture, except in accordance with section 2.2. Subject to section 2.2, such adjustments will be conclusively governed by the provisions of the Warrant Indenture. If an event occurs which would give rise to any adjustment under Article 4 of the Warrant Indenture if Warrants were issued and outstanding at such time, such adjustment shall apply notwithstanding that any Warrants issuable hereunder may not then be issued and the Corporation shall give notice thereof to each Special Warrantholder as if it were a holder of Warrants under the Warrant Indenture at such time. After the date of this Indenture while any Special Warrants remain outstanding, the acquisition rights in effect at any date attaching to the Special Warrants with respect to the Common Shares issuable upon the exercise of the Special Warrants will be subject to adjustment from time to time as follows in this section.

(a) Share Reorganization. If and whenever the Corporation:

(i) subdivides the outstanding Common Shares into a greater number of Common Shares;

(ii) consolidates the outstanding Common Shares into a lesser number of Common Shares;

(iii) issues Common Shares (or Convertible Securities) to all or substantially all of the holders of outstanding Common Shares by way of a stock dividend or other distribution of Common Shares or Convertible Securities (other than dividends paid in the ordinary course);

the Share Rate in effect on the effective date of such subdivision or consolidation, or on the record date of such stock dividend or other distribution, as the case may be, will be adjusted to equal the rate determined by multiplying the Share Rate in effect immediately before such effective date or record date by a fraction, the numerator of which will be the total number of Common Shares outstanding on such date immediately after giving effect to such event and the denominator of which will be the total number of Common Shares outstanding on such date immediately before giving effect to such event. Such adjustment will be made successively whenever any event referred to in this paragraph 4.1(a) occurs, and any such issue of Common Shares by way of a stock dividend or other distribution will be deemed to have been made on the record date for the stock dividend or other distribution for the purpose of calculating the number of outstanding Common Shares under paragraphs 4.1(b) and 4.1(c).

(b) Rights Offering. If and whenever the Corporation fixes a record date for the distribution to all or substantially all of the holders of Common Shares of rights, options or warrants entitling them for a period expiring not more than 45 days after such record date to subscribe for or purchase Common Shares (or Convertible Securities) at a price (or having a conversion price or exchange price) less than 95% of the Current Market Price on such record date, the Share Rate will be adjusted immediately after such record date so that it equals the rate determined by multiplying the Share Rate in effect on such record date by a fraction, the denominator of which will be the total number of Common Shares outstanding on such record date plus the number of Common Shares arrived at by dividing the aggregate price of the total number of additional Common Shares offered for subscription or purchase (or the aggregate conversion or exchange price of the Convertible Securities so offered) by such Current Market Price; and the numerator of which will be the total number of Common Shares outstanding on such record date plus the total number of additional Common Shares offered for subscription or purchase (or into which the Convertible Securities so offered are convertible or exchangeable). Any Common Shares owned by or held for the account of the Corporation or any Subsidiary will be deemed not to be outstanding for the purpose of any such computation in accordance with the provisions of section 10.8. Such adjustment will be made successively whenever such a record date is fixed, provided that if two or more record dates referred to in this paragraph are fixed within a period of 25 days on which the TSE (in the event that the Common Shares of the Corporation are listed and posted for trading on the TSE or, if not, the VSE) is open for business, such adjustment will be made successively as if each such record date occurred on the earliest of such record dates. To the extent that any rights, options or warrants are not so issued or any such rights, options or warrants are not exercised before the expiration thereof, the Share Rate will then be readjusted to the Share Rate which would then be in effect if such record date had not been fixed or to the Share Rate which would then be in effect based upon the number and aggregate price of Common Shares (or Convertible Securities) actually issued upon the exercise of such rights, options or warrants, as the case may be.

(c) Distributions. If and whenever the Corporation fixes a record date for the making of a distribution to all or substantially all the holders of its outstanding Common Shares of:

(i) shares of any class other than Common Shares, whether of the Corporation or any other corporation (other than shares distributed as dividends in the ordinary course);

(ii) rights, options or warrants to subscribe for or purchase Common Shares (or Convertible Securities) excluding (A) those referred to in paragraph 4.1(b), and (B) those described in paragraph 4.1(b) but exercisable for a period of not more than 45 days after such record date and exercisable at or accountable into a price per share (or having a conversion or exchange price per share) not less than 95% of the Current Market Price;

(iii) evidences of its indebtedness; or

(iv) cash, securities or other property or assets;

then and in each such case, if such distribution does not constitute a dividend paid in the ordinary course or fall under paragraph 4.1(a) or 4.1(b) above, the Share Rate will be adjusted immediately after such record date so that it equals the rate determined by multiplying the Share Rate in effect on such record date by a fraction, the denominator of which will be the total number of Common Shares outstanding on such record date multiplied by the Current Market Price on the earlier of such record date and the date on which the Corporation announces its intention to make such a distribution, less the aggregate fair market value (as determined by the directors, which determination will be conclusive, subject to the prior written consent, if required, of the TSE, in the event that the Common Shares of the Corporation are listed and posted for trading on the TSE, and the VSE) of such shares, rights, options, warrants, evidences of indebtedness or assets so distributed, and the numerator of which will be the total number of Common Shares outstanding on such record date multiplied by such Current Market Price. Any Common Shares owned by or held for the account of the Corporation or any Subsidiary will be deemed not to be outstanding for the purpose of any such computation in accordance with the provisions of section 10.8. Such adjustment will be made successively whenever such a record date is fixed, provided that if two or more record dates referred to in this paragraph are fixed within a period of 25 days on which the TSE (in the event that the Common Shares of the Corporation are listed and posted for trading on the TSE or, if not, the VSE) is open for business, such adjustment will be made successively as if each such record date occurred on the earliest of such record dates. To the extent that such distribution is not so made, the Share Rate will then be readjusted to the Share Rate which would then be in effect if such record date had not been fixed or to the Share Rate which would then be in effect based upon such shares, rights, options, warrants, evidences of indebtedness or assets actually distributed, as the case may be. For the purposes of this paragraph 4.1(c), whether a distribution is in the ordinary course will be determined conclusively by the directors.

(d) Reclassifications. If and whenever there is (i) a reclassification of the Common Shares or a capital reorganization of the Corporation other than as described in paragraph 4.1(a), (ii) a consolidation, amalgamation or merger of the Corporation with or into any other body corporate, trust, partnership or other entity, or (iii) a sale or conveyance of the property and assets of the Corporation as an entirety or substantially as an entirety to any other body corporate, trust, partnership or other entity (any such event being in this Article 4 referred to as a “Reorganization”), any Special Warrantholder who has not exercised his right of acquisition prior to the effective date of such Reorganization, will be entitled to receive and will accept, upon the exercise of such right thereafter, for the same aggregate consideration, in lieu of the number of Common Shares then sought to be acquired by it, the kind and number of shares or other securities or property of the Corporation or of the body corporate, trust, partnership or other entity resulting from such Reorganization, or to which such sale or conveyance may be made, as the case may be, that such Special Warrantholder would have been entitled to receive as a result of such Reorganization if, on the record date or the effective date thereof, as the case may be, the Special Warrantholder had been the registered holder of the number of Common Shares to which the Special Warrantholder was theretofore entitled upon exercise. If determined appropriate with the prior written approval, if required, of the TSE (in the event that the Common Shares of the Corporation are listed and posted for trading on the TSE) and the VSE to give effect to or to evidence the provisions of this paragraph 4.1(d), the Corporation, its successor or such purchasing body corporate, partnership, trust or other entity, as the case may be, will prior to or contemporaneously with any such Reorganization, enter into an indenture which will provide, to the extent possible, for the application of the provisions set forth in this Indenture with respect to the rights and interests thereafter of the Special Warrantholders to the end that the provisions set forth in this Indenture will thereafter correspondingly be made applicable, as nearly as may reasonably be, with respect to any shares, other securities or property to which a Special Warrantholder is entitled on the exercise of its acquisition rights thereafter. Any indenture entered into between the Corporation and the Special Warrant Agent pursuant to the provisions of this paragraph 4.1(d) will be a supplemental indenture entered into pursuant to the provisions of Article 8. Any indenture entered into between the Corporation, any successor to the Corporation or such purchasing body corporate, partnership, trust or other entity and the Special Warrant Agent will provide for adjustments which will be as nearly equivalent as may be practicable to the adjustments provided for in this section 4.1 and will apply to successive Reorganizations.

(e) Supplemental Indentures. If necessary, appropriate adjustments will be made in the application of the provisions set forth in this section 4.1 with respect to the rights and interests thereafter of the holders of Special Warrants to the end that the provisions set forth in this Article 4 will thereafter correspondingly be made applicable as nearly as may reasonably be possible in relation to any shares or other securities or property thereafter deliverable upon the exercise of any Special Warrant. Any such adjustments will be made by and set forth in an indenture supplemental to this Indenture approved by the directors and by the Special Warrant Agent will for all purposes conclusively be deemed to be an appropriate adjustment. The subdivision or consolidation of the Common Shares at any time outstanding into a greater or lesser number of Common Shares will be deemed not to be a reclassification of the capital of the Corporation for the purposes of this paragraph.

(f) Deferral of Adjustments. In any case in which this section 4.1 requires that an adjustment will become effective immediately after a record date for an event referred to in this Indenture, the Corporation may defer, until the occurrence of such event, issuing to the holder of any Special Warrant exercised after such event the additional Common Shares issuable upon such conversion by reason of the adjustment required by such event before giving effect to such adjustment; provided, however, that the Corporation will deliver to such holder an appropriate instrument evidencing such holder’s right to receive such additional Common Shares upon the occurrence of the event requiring such adjustment and the right to receive any distributions made on such additional Common Shares on and after the relevant date of exercise or such later date as such holder would, but for the provisions of this paragraph 4.1(f), have become the holder of record of such additional Common Shares.

(g) Adjustments Cumulative. The adjustments provided for in this section are cumulative, shall, in the case of any adjustment to the Share Rate, be computed to the nearest one one-hundredth of a Common Share and will apply (without duplication) to successive subdivisions, consolidations, distributions, issues or other events resulting in any adjustment under the provisions of this section, provided that, notwithstanding any other provision of this section, no adjustment of the Share Rate will be required (i) unless such adjustment would require an increase or decrease of at least 1% in the Share Rate then in effect (provided, however, that any adjustment which by reason of this subsection is not required to be made will be carried forward and taken into account in any subsequent adjustment), (ii) if, in respect of any event described in this section (other than the events referred to in clauses 4.1(a)(i) and 4.1(a)(ii) and in paragraph 4.1(d)), the holders of Special Warrants are entitled to participate in such event, or are entitled to participate within 45 days in a comparable event, on the same terms, with the necessary changes, as if the Special Warrants had been exercised prior to or on the effective date of or record date for such event, (iii) in respect of any Common Shares issuable or issued pursuant to any stock option or stock purchase plan in force from time to time for directors, officers or employees of the Corporation or of subsidiaries of the Corporation or (iv) in respect of any Common Shares issuable or issued pursuant to the Special Warrants. After any adjustment pursuant to this section, the term "Common Shares" where used in this Indenture will be interpreted to mean the shares or other securities or property of the Corporation which, as a result of all prior adjustments pursuant to this section, the Special Warrantholder is entitled to receive upon the exercise of his Special Warrant, and the number of Common Shares indicated in any subscription made pursuant to a Special Warrant will be interpreted to mean the number and kind of securities or property which, as a result of all prior adjustments pursuant to this section, a Special Warrantholder is entitled to receive upon the full exercise of a Special Warrant entitling the holder thereof to purchase the number of Common Shares so indicated.

(h) Common Shares held by Corporation. In determining at any time and from time to time the number of Common Shares outstanding at any particular time for purposes of this section 4.1, there will be included in that number the Common Shares which would be outstanding upon conversion or exchange of all Convertible Securities then outstanding, and upon exercise of all rights, options or warrants then outstanding to purchase Common Shares, and there will be excluded any Common Shares (and Common Shares which would be outstanding upon conversion or exchange of Convertible Securities) held by or for the account of the Corporation or any Subsidiary thereof.

(i) Non-Cash Consideration. Whenever Common Shares have been issued for non-cash consideration in whole or in part, the issue price for such Common Shares will be determined by the directors.

4.2. Entitlement to Shares on Exercise of Special Warrant

All shares of any class or other securities or property which a Special Warrantholder is at the time in question entitled to receive on the exercise of its Special Warrants, whether or not as a result of adjustments made pursuant to this Article 4, will, for the purposes of the interpretation of this Indenture, be deemed to be shares, securities or property which such Special Warrantholder is entitled to acquire pursuant to such Special Warrants.

4.3. Determination by Auditors

In the event of any question arising with respect to the adjustments provided for in this Article 4, such question will be conclusively determined by the Auditors, who will have access to all necessary records of the Corporation, and such determination, absent manifest error, will be binding upon the Corporation, the Special Warrant Agent, all Special Warrantholders and all other persons interested therein.

4.4. Proceedings Prior to any Action Requiring Adjustment

As a condition precedent to the taking of any action which would require an adjustment in any of the acquisition rights pursuant to any of the Special Warrants, including the number of Common Shares and Warrants which are to be received upon the exercise thereof, the Corporation will take any corporate action which may, in the opinion of counsel, be necessary in order that the Corporation has unissued and reserved in its authorized capital and may validly and legally issue, as fully paid and non-assessable, all the shares and other securities or property which the holders of such Special Warrants are entitled to receive on the full exercise thereof in accordance with the provisions of this Indenture.

4.5. Certificate of Adjustment

The Corporation will, within 14 days after the occurrence of any event which requires an adjustment or readjustment as provided for in section 4.1, deliver to the Special Warrant Agent a certificate of the Corporation specifying the nature of the event requiring the same and the amount of the adjustment necessitated thereby and setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based, which certificate and the amount of the adjustment or readjustment specified therein will be verified by the Auditors, upon whose verification the Special Warrant Agent is entitled to act and rely. When so verified, the Special Warrant Agent forthwith give written notice to the Special Warrantholders specifying the event requiring such adjustment or readjustment and the results thereof.

4.6. Applicability

If in the opinion of the directors, acting reasonably, the provisions of this Article 4 are not strictly applicable, or if strictly applicable, would not fairly protect the rights of the Special Warrantholders in accordance with the intent and purposes of this Indenture, the directors will, subject to the prior approval, if required, of the TSE (in the event that the Common Shares of the

Corporation are listed and posted for trading on the TSE) and the VSE, make any adjustment in such provisions as the directors deem appropriate.

4.7. Notice of Special Matters

(a) So long as any Special Warrant remains outstanding, the Corporation will give notice to the Special Warrant Agent and to the Special Warrantholders of its intention to fix the record date for the issuance of rights, options, stock dividends or warrants (other than the Special Warrants or the Warrants) to all or substantially all the holders of its outstanding Common Shares. Such notice will specify the particulars of such event and the record date for such event and the required adjustment (and, in the case of notice to the Special Warrant Agent, the computation of such adjustment), provided that the Corporation will only be required to specify in the notice such particulars of the event as has been fixed and determined on the date on which the notice is given. The notice will be given in each case not less than 14 days prior to such applicable record date.

(b) In case any adjustment for which a notice in paragraph 4.7(a) has been given is not then determinable, the Corporation will promptly after such adjustment is determinable (i) file a certificate of the Corporation with the Special Warrant Agent evidencing a computation of such adjustment and (ii) give notice to the Special Warrantholders of the adjustment.

4.8. No Action after Notice

The Corporation covenants with the Special Warrant Agent that it will not close its transfer books or take any other corporate action which might deprive the holder of a Special Warrant of the opportunity to exercise its right of acquisition pursuant thereto for a period of 14 days after the giving of the notice set forth in section 4.7.

4.9. Protection of Special Warrant Agent

Except as provided in section 9.2, the Special Warrant Agent:

(a) will not at any time be under any duty or responsibility to any Special Warrantholder to determine whether any facts exist which may require any adjustment contemplated by section 4.1, or with respect to the nature or extent of any such adjustment when made, or with respect to the method employed in making the same;

(b) will not be accountable with respect to the validity or value (or the kind or amount) of any Common Shares or Warrants, or of any shares, other securities or property which may at any time be issued or delivered upon the exercise of the rights attaching to any Special Warrant;

(c) will not be responsible for any failure of the Corporation to issue, transfer or deliver Common Shares or Warrants, or certificates for the same, upon the surrender of any

Special Warrants for the purpose of the exercise of such rights or to comply with any of the covenants contained in this Article 4;

(d) will not be bound to give notice to any person or persons of the execution of this Indenture;

(e) in its personal or any other capacity, may buy, lend upon and deal in Common Shares and in the Special Warrants and generally may contract and enter into financial transactions with the Corporation or any related corporation without being liable to account for any profit made thereby; and

(f) will not incur any liability or responsibility whatsoever or be in any way responsible for the consequences of any breach on the part of the Corporation of any of the representations, warranties or covenants contained in this Indenture or of any acts of the agents or servants of the Corporation.

ARTICLE 5.
RIGHTS OF THE CORPORATION AND COVENANTS

5.1. Optional Purchases by the Corporation

The Corporation may from time to time purchase, by private contract or otherwise, any of the Special Warrants. Any such purchase will be made at the lowest price or prices at which, in the opinion of the directors, such Special Warrants are then obtainable, plus reasonable costs of purchase, and may be made in such manner, from such persons and on such other terms as the Corporation, in its sole discretion, may determine. Any Special Warrant Certificates representing the Special Warrants purchased pursuant to this section 5.1 will forthwith be delivered to and cancelled by the Special Warrant Agent and no Special Warrants will be issued in replacement thereof. If required by the Corporation, the Special Warrant Agent will furnish the Corporation with a certificate as to the cancellation.

5.2. General Covenants

The Corporation covenants with the Special Warrant Agent that so long as any Special Warrants remain outstanding:

(a) it will reserve and keep available a sufficient number of Common Shares for the purpose of enabling it to satisfy its obligations to issue Common Shares upon the exercise of the Special Warrants and the Warrants, in the event that the Corporation does not have an unlimited number of Common Shares authorized;

(b) it will cause the Common Shares and the Warrants, and the certificates representing the Common Shares and the Warrants, from time to time acquired pursuant to the exercise of the Special Warrants to be duly issued and delivered in accordance with the Special Warrant Certificates, the Warrant Certificates, the Warrant Indenture and the terms of this Indenture;

(c) all Common Shares which will be issued upon exercise of the right to acquire provided for in this Indenture and in the Special Warrant Certificates will be fully paid and non-assessable;

(d) subject to the express provisions of this Indenture, it and each Subsidiary will carry on and conduct and will cause to be carried on and conducted its business in a proper and efficient manner, provided, however, that the Corporation or any Subsidiary may cease to operate or may dispose of any business, premises, property or operation if in the opinion of the directors of the Corporation it would be advisable and in the best interests of the Corporation to do so; and, subject to the express provisions of this Indenture, it will do or cause to be done, all things necessary to preserve and keep in full force and effect its corporate existence;

(e) it will use its best efforts to ensure that all Common Shares outstanding or issuable from time to time are listed and posted for trading on the VSE;

(f) it will make all requisite filings under applicable Canadian securities legislation including those necessary to remain a reporting issuer (or its equivalent) not in default in the Qualifying Provinces and elsewhere, if applicable, and it will make all requisite filings, if any, under applicable United States securities legislation including the requirements of the U.S. Securities Act or the *U.S. Securities Exchange Act of 1934*, as amended;

(g) it will, as soon as practicable, file with and use its best efforts to obtain a receipt from the Securities Commissions in the Qualifying Provinces for the Final Prospectus so that the distribution of the Common Shares and Warrants on exercise of the Special Warrants will not generally be subject to the prospectus requirements nor any "hold period" under applicable securities legislation in the Qualifying Provinces;

(h) it will give notice to the Special Warrant Agent, to each holder of Special Warrants and to the Underwriter of the issuance of the receipt referred to in paragraph 5.2(g), together with a commercial copy of the Final Prospectus, as soon as possible and in any event within five Business Days of the issuance of such receipt;

(i) it will provide to each Special Warrantholder copies of all financial statements sent to holders of Common Shares from the Closing Date and while any Special Warrants remain outstanding; and

(j) generally, it will well and truly perform and carry out all of the acts or things to be done by it as provided for in this Indenture.

5.3. Special Warrant Agent's Remuneration and Expenses

The Corporation covenants that it will pay to the Special Warrant Agent from time to time reasonable remuneration for its services under this Indenture and will pay or reimburse the Special Warrant Agent upon its request for all reasonable expenses, disbursements and advances incurred or made by the Special Warrant Agent in the administration or execution of the trusts created by this Indenture (including the reasonable compensation and the disbursements of its counsel and all other advisers and assistants not regularly in its employ) both before any default under this Indenture and thereafter until all duties of the Special Warrant Agent under this Indenture are finally and fully performed, except any such expense, disbursement or advance as may arise out of or result from the Special Warrant Agent's negligence, wilful misconduct or bad faith. For greater certainty, the Corporation will also pay the regular rate of interest levied by the Special Warrant Agent on invoices outstanding for greater than 30 days.

5.4. Securities Qualification Requirements

(a) If, in the opinion of counsel, any instrument (not including a prospectus, except as required by paragraph 5.2(g)) is required to be filed with, or any permission is required to be obtained from any governmental authority or regulatory body in Canada or any other step is required under any applicable federal or provincial law of Canada before any Common Shares and Warrants which a Special Warrantholder is entitled to acquire pursuant to the exercise of any Special Warrant may properly and legally be issued upon due exercise thereof, the Corporation covenants that it will take such required action.

(b) The Corporation or, if required by the Corporation, the Special Warrant Agent will give notice of the issue of the Special Warrants in such detail as may be required and in the manner contemplated by the *Securities Act* (Ontario) (and the comparable provisions of the securities legislation of the other Qualifying Provinces and the applicable rules of any stock exchange where the Common Shares are listed), to each securities commission or similar regulatory authority in each Qualifying Province in which there is legislation or regulation permitting or requiring the giving of any such notice in order that such issue of Special Warrants, the issue of the Common Shares and Warrants issuable on exercise of the Special Warrants and the subsequent disposition of the Common Shares and Warrants so issued, will not be subject to the prospectus qualification requirements of such legislation or regulation.

5.5. Performance of Covenants by Special Warrant Agent

If the Corporation fails to perform any of its covenants contained in this Special Warrant Indenture, the Special Warrant Agent may notify the Special Warrantholders of such failure on the part of the Corporation or may itself perform any of the covenants capable of being performed by it but, subject to section 9.2, will be under no obligation to perform said covenants or to notify the Special Warrantholders of such performance by it. All sums expended or advanced by the Special Warrant Agent in so doing will be repayable as provided in section 5.3. No such performance, expenditure or advance by the Special Warrant Agent will relieve the Corporation of any default under this Indenture or of its continuing obligations under the covenants contained in this Indenture.

ARTICLE 6.
ENFORCEMENT

6.1. Suits by Special Warrantholders

Subject to section 7.10(e), all or any of the rights conferred upon any Special Warrantholder by any of the terms of the Special Warrant Certificates or of this Indenture, or of both, may be enforced by the Special Warrantholder by appropriate proceedings but without prejudice to the right which is conferred upon the Special Warrant Agent by this Indenture to proceed in its own name to enforce each and all of the provisions contained in this Indenture for the benefit of the Special Warrantholders. The Special Warrant Agent shall also have the power at any time and from time to time to institute and to maintain such suits and proceedings as it may reasonably be advised shall be necessary or advisable to preserve and protect its interests and the interests of the Special Warrantholders.

6.2. Immunity of Shareholders, etc.

Subject to applicable law, the Special Warrant Agent and, by the acceptance of the Special Warrant Certificates and as part of the consideration for the issue of the Special Warrants, the Special Warrantholders, hereby waive and release any right, cause of action or remedy now or hereafter existing in any jurisdiction against any person in its capacity as an incorporator or any past, present or future shareholder, director, officer, employee or agent of the Corporation or any successor Corporation on any covenant, agreement, representation or warranty by the Corporation in this Indenture or in the Special Warrant Certificates.

6.3. Limitation of Liability

The obligations under this Indenture are not personally binding upon, nor will resort under this Indenture be had to, the private property of any of the past, present or future directors or shareholders of the Corporation or any successor Corporation or any of the past, present or future officers, employees or agents of the Corporation or any successor Corporation, but only the property of the Corporation or any successor Corporation will be bound in respect of this Indenture.

6.4. Waiver of Default

Upon the happening of any default under this Indenture:

(a) the holders of not less than 51% of the Special Warrants then outstanding will have power (in addition to the powers exercisable by extraordinary resolution as provided in section 7.10) by requisition in writing to instruct the Special Warrant Agent to waive any default under this Indenture and the Special Warrant Agent will thereupon waive the default upon such terms and conditions prescribed in such requisition; or

(b) the Special Warrant Agent will have power to waive any default under this Indenture upon such terms and conditions as the Special Warrant Agent may deem advisable, if, in the Special Warrant Agent's opinion, the same has been cured or adequate provision made therefor;

provided that no delay or omission of the Special Warrant Agent or of the Special Warrantholders to exercise any right or power accruing upon any default will impair any such right or power or will be construed to be a waiver of any such default or acquiescence therein and provided further that no act or omission either of the Special Warrant Agent or of the Special Warrantholders in the premises will extend to or be taken in any manner whatsoever to affect any subsequent default under this Indenture or the rights resulting therefrom.

ARTICLE 7.
MEETINGS OF SPECIAL WARRANTHOLDERS

7.1. Right to Convene Meetings

The Special Warrant Agent may at any time and from time to time, and will, on receipt of a written request of the Corporation or of a Special Warrantholders' Request and upon being indemnified to its reasonable satisfaction by the Corporation or by the Special Warrantholders signing such Special Warrantholders' Request against the cost which may be incurred in connection with the calling and holding of such meeting, call and convene a meeting of the Special Warrantholders. In the event of the Special Warrant Agent's failing to send notice calling a meeting within 14 days after receipt of such written request of the Corporation or such Special Warrantholders' Request and indemnity given as aforesaid, the Corporation or such Special Warrantholders, as the case may be, may call and convene such meeting. Every such meeting will be held in Toronto, Ontario or at such other place as may be approved or determined by the Special Warrant Agent.

7.2. Notice

At least 10 Business Days' prior notice of any meeting of Special Warrantholders will be given to the Special Warrantholders in the manner provided for in section 10.2 and a copy of such notice will be sent to the Special Warrant Agent (unless the meeting has been called by the Special Warrant Agent) and to the Corporation (unless the meeting has been called by the Corporation). Such notice will state the time when and the place where the meeting is to be held, a brief description of the general nature of the business to be transacted at the meeting, and will contain such information as is reasonably necessary to enable the Special Warrantholders to make a reasoned decision on the matter, but it will not be necessary for any such notice to set out the terms of any resolution to be proposed or any of the provisions of this Article 7.

7.3. Chairman

An individual (who need not be a Special Warrantholder) designated in writing by the Special Warrant Agent will be chairman of the meeting and, if no individual is so designated, or if the individual so designated is not present within 15 minutes from the time fixed for the holding of the meeting, the Special Warrantholders present in person or by proxy will choose some individual present to be chairman.

7.4. Quorum

Subject to the provisions of section 7.11, at any meeting of the Special Warrantholders a quorum will consist of at least two Special Warrantholders present in person or represented by proxy and representing at least 10% of the aggregate number of outstanding Special Warrants. If a quorum of the Special Warrantholders is not present within 30 minutes from the time fixed for holding any meeting, the meeting, if summoned by the Special Warrantholders or on a Special Warrantholders' Request, will be dissolved; but in any other case the meeting will be adjourned to the same day in the next week (unless such day is not a Business Day, in which case it will be adjourned to the next following Business Day) at the same time and place and no notice of the adjournment need be given. Any business may be brought before or dealt with at an adjourned meeting which might have been dealt with at the original meeting in accordance with the notice calling the same. No business will be transacted at any meeting unless a quorum is present at the commencement of business. At the adjourned meeting the Special Warrantholders present in person or represented by proxy will form a quorum and may transact the business for which the meeting was originally convened, notwithstanding that they may not represent at least 10% of the aggregate number of outstanding Special Warrants.

7.5. Power to Adjourn

The chairman of any meeting at which a quorum of the Special Warrantholders is present may, with the consent of the meeting, adjourn any such meeting, and no notice of such adjournment need be given except such notice, if any, as the meeting may prescribe.

7.6. Show of Hands

Every question submitted to a meeting will be decided in the first place by a majority of the votes given on a show of hands except that votes on an extraordinary resolution will be given in the manner provided in section 7.7. At any such meeting, unless a poll is duly demanded as provided in this Indenture, a declaration by the chairman that a resolution has been carried or carried unanimously or by a particular majority or lost or not carried by a particular majority will be conclusive evidence of the fact.

7.7. Poll and Voting

On every extraordinary resolution, and on any other question submitted to a meeting and after a vote by show of hands when demanded by the chairman or by one or more of the Special

Warrantholders acting in person or by proxy, a poll will be taken in such manner as the chairman will direct. Questions other than those required to be determined by extraordinary resolution will be decided by a majority of the votes cast on the poll.

On a show of hands, every person who is present and entitled to vote, whether as a Special Warrantholder or as proxy for one or more absent Special Warrantholders, or both, will have one vote. On a poll, each Special Warrantholder present in person or represented by a proxy duly appointed by instrument in writing will be entitled to one vote in respect of each whole Special Warrant then held or represented by it. A proxy need not be a Special Warrantholder. The chairman of any meeting will be entitled, both on a show of hands and on a poll, to vote in respect of the Special Warrants, if any, held or represented by him.

7.8. Regulations

The Special Warrant Agent, or the Corporation with the approval of the Special Warrant Agent, may from time to time make and from time to time vary such regulations as it determines appropriate for:

(a) the setting of the record date for a meeting for the purpose of determining Special Warrantholders entitled to receive notice of and to vote at the meeting;

(b) the issue of voting certificates by any bank, trust company or other depository satisfactory to the Special Warrant Agent stating that the Special Warrant Certificates specified therein have been deposited with it by a named person and will remain on deposit until after the meeting, which voting certificate will entitle the persons named therein to be present and vote at any such meeting and at any adjournment thereof or to appoint a proxy or proxies to represent them and vote for them at any such meeting and at any adjournment thereof in the same manner and with the same effect as though the persons so named in such voting certificates were the actual bearers of the Special Warrant Certificates specified therein;

(c) the deposit of voting certificates and instruments appointing proxies at such place and time as the Special Warrant Agent, the Corporation or the Special Warrantholders convening the meeting, as the case may be, may in the notice convening the meeting direct;

(d) the deposit of voting certificates and instruments appointing proxies at some approved place or places other than the place at which the meeting is to be held and enabling particulars of such instruments appointing proxies to be mailed, cabled, telephoned or sent by telecopier transmission before the meeting to the Corporation or to the Special Warrant Agent at the place where the same is to be held and for the voting of proxies so deposited as though the instruments themselves were produced at the meeting;

(e) the form of the instrument of proxy; and

(f) generally for the calling of meetings of Special Warrantholders and the conduct of business at such meetings.

Any regulations so made will be binding and effective and the votes given in accordance therewith will be valid and will be counted. Save as such regulations may provide, the only persons who will be recognized at any meeting as a Special Warrantholder, or be entitled to vote or be present at the meeting in respect thereof (subject to section 7.9), will be Special Warrantholders or their counsel, or proxies of Special Warrantholders.

7.9. Corporation and Special Warrant Agent May be Represented

The Corporation and the Special Warrant Agent, by their respective directors and officers, and the counsel for the Corporation and for the Special Warrant Agent may attend any meeting of the Special Warrantholders, but will not be entitled to vote as such unless in their capacities as Special Warrantholders.

7.10. Powers Exercisable by Extraordinary Resolution

In addition to all other powers conferred upon them by any other provision of this Indenture or by law, the Special Warrantholders at a meeting will, subject to the provisions of section 7.11, have the power, exercisable from time to time by extraordinary resolution:

(a) to agree to any modification, abrogation, alteration, compromise or arrangement of the rights of Special Warrantholders or the Special Warrant Agent in its capacity as Special Warrant Agent under this Indenture or on behalf of the Special Warrantholders against the Corporation whether such rights arise under this Indenture or the Special Warrant Certificates or otherwise; provided that, to the extent that such modification or alternative arrangement may impinge upon or change the duties of the Special Warrant Agent, such power may only be exercised with the consent of the Special Warrant Agent;

(b) to amend, alter or repeal any extraordinary resolution previously passed or sanctioned by the Special Warrantholders;

(c) to direct or to authorize the Special Warrant Agent to enforce any of the covenants on the part of the Corporation contained in this Indenture or the Special Warrant Certificates or to enforce any of the rights of the Special Warrantholders in any manner specified in such extraordinary resolution or to refrain from enforcing any such covenant or right;

(d) to restrain any Special Warrantholder from taking or instituting any suit, action or proceeding against the Corporation for the enforcement of any of the covenants on the part of the Corporation in this Indenture or the Special Warrant Certificates or to enforce any of the rights of the Special Warrantholders;

(e) to direct any Special Warrantholder who, as such, has brought any suit, action or proceeding to stay or to discontinue or otherwise to deal with the same upon payment of the costs, charges and expenses reasonably and properly incurred by such Special Warrantholder in connection therewith;

(f) to assent to any change in or omission from the provisions contained in the Special Warrant Certificates and this Indenture or any ancillary or supplemental instrument which may be agreed to by the Corporation, and to authorize the Special Warrant Agent to concur in and execute any ancillary or supplemental indenture embodying the change or omission;

(g) to appoint a committee with power and authority (subject to such limitations, if any, as may be prescribed in the resolution) to exercise, and to direct the Special Warrant Agent to exercise, on behalf of the Special Warrantholders, such of the powers of the Special Warrantholders as are exercisable by extraordinary resolution or other resolution as will be included in the resolution appointing the committee. The resolution making such appointment may provide for payment of the expenses and disbursements of and compensation to such committee. Such committee will consist of such number of persons prescribed in the resolution appointing it and the members need not be themselves Special Warrantholders. Every such committee may elect its chairman and may make regulations respecting its quorum, the calling of its meetings, the filling of vacancies occurring in its number and its procedure generally. Such regulations may provide that the committee may act at a meeting at which a quorum is present or may act by minutes signed by the number of members thereof necessary to constitute a quorum. All acts of any such committee within the authority delegated to it will be binding upon all Special Warrantholders. Neither the committee nor any member thereof will be liable for any loss arising from or in connection with any action taken or omitted to be taken by them in good faith;

(h) to remove the Special Warrant Agent or its successor in office and to appoint a new Special Warrant Agent or Special Warrant Agents to take the place of the Special Warrant Agent so removed; and

(i) to assent to any compromise or arrangement with any creditor or creditors or any class or classes of creditors, whether secured or otherwise, and with holders of any shares or other securities of the Corporation.

7.11. Meaning of Extraordinary Resolution

(a) The expression “extraordinary resolution” when used in this Indenture means, subject as provided in this section 7.11 and in section 7.14, a resolution proposed at a meeting of Special Warrantholders duly convened for that purpose and held in accordance with the provisions of this Article 7 at which there are present in person or by proxy Special Warrantholders representing at least 25% of the aggregate number of outstanding Special Warrants and passed by the affirmative votes of Special Warrantholders representing not less than 66 2/3% of the aggregate number of outstanding Special Warrants represented at the meeting and voted on the poll upon such resolution.

(b) If, at the meeting at which an extraordinary resolution is to be considered, Special Warrantholders representing at least 25% of the aggregate number of outstanding Special Warrants are not present in person or by proxy within 30 minutes after the time appointed for the meeting, then the meeting, if convened by Special Warrantholders or on a Special Warrantholders' Request, will be dissolved; but in any other case it will stand adjourned to such day, being not less than 15 or more than 60 days later, and to such place and time as may be appointed by the chairman. Not less than 10 days' prior notice will be given of the time and place of such adjourned meeting in the manner provided for in section 10.2. Such notice will state that at the adjourned meeting the Special Warrantholders present in person or by proxy will form a quorum but it will not be necessary to set forth the purposes for which the meeting was originally called or any other particulars. At the adjourned meeting the Special Warrantholders present in person or by proxy will form a quorum and may transact the business for which the meeting was originally convened and a resolution proposed at such adjourned meeting and passed by the requisite vote as provided in paragraph 7.11(a) will be an extraordinary resolution within the meaning of this Indenture notwithstanding that Special Warrantholders representing at least 25% of the aggregate number of outstanding Special Warrants are not present in person or by proxy at such adjourned meeting.

(c) Votes on an extraordinary resolution will always be given on a poll and no demand for a poll on an extraordinary resolution will be necessary.

7.12. Powers Cumulative

Any one or more of the powers or any combination of the powers in this Indenture stated to be exercisable by the Special Warrantholders by extraordinary resolution or otherwise may be exercised from time to time and the exercise of any one or more of such powers or any combination of powers from time to time will not be deemed to exhaust the rights of the Special Warrantholders to exercise such power or powers or combination of powers then or thereafter from time to time.

7.13. Minutes

Minutes of all resolutions and proceedings at every meeting of Special Warrantholders will be made and duly entered in books to be provided from time to time for that purpose by the Special Warrant Agent at the expense of the Corporation, and any such minutes as aforesaid, if signed by the chairman or the secretary of the meeting at which such resolutions were passed or proceedings had will be *prima facie* evidence of the matters therein stated and, until the contrary is proved, every such meeting in respect of the proceedings of which minutes will have been made will be deemed to have been duly convened and held, and all resolutions passed thereat or proceedings taken will be deemed to have been duly passed and taken.

7.14. Instruments in Writing

All actions which may be taken and all powers that may be exercised by the Special Warrantholders at a meeting held as provided in this Article 7 may also be taken and exercised by Special Warrantholders representing at least 66 2/3% of the aggregate number of outstanding Special Warrants by an instrument in writing signed in one or more counterparts by such Special Warrantholders in person or by attorney duly appointed in writing, and the expression **“**extraordinary resolution**”** when used in this Indenture includes an instrument so signed.

7.15. Binding Effect of Resolutions

Every resolution and every extraordinary resolution passed in accordance with the provisions of this Article 7 at a meeting of Special Warrantholders will be binding upon all the Special Warrantholders, whether present at or absent from such meeting, and every instrument in writing signed by Special Warrantholders in accordance with section 7.14 will be binding upon all the Special Warrantholders, whether signatories thereto or not, and each and every Special Warrantholder and the Special Warrant Agent (subject to the provisions for indemnity herein contained) will be bound to give effect accordingly to every such resolution and instrument in writing.

7.16. Holdings by Corporation Disregarded

In determining whether Special Warrantholders representing the required number of Special Warrants are present at a meeting of Special Warrantholders for the purpose of determining a quorum or have concurred in any consent, waiver, extraordinary resolution, Special Warrantholders’ Request or other action under this Indenture, Special Warrants owned legally or beneficially by the Corporation or any Subsidiary will be disregarded.

ARTICLE 8.
SUPPLEMENTAL INDENTURES

8.1. Provision of Supplemental Indentures for Certain Purposes

From time to time the Corporation (when authorized by action of the directors) and the Special Warrant Agent may, subject to the provisions of this Indenture, and will, when so directed in accordance with the provisions of this Indenture, execute and deliver by their proper officers, indentures or instruments supplemental to this Indenture, which thereafter will form part of this Indenture, for any one or more of all of the following purposes:

(a) setting forth any adjustments resulting from the application of the provisions of Article 4;

(b) adding to the provisions of this Indenture such additional covenants and enforcement provisions as, in the opinion of counsel, are necessary or advisable in the premises, provided that the same are not prejudicial to the interests of the Special Warrantholders as a group;

(c) giving effect to any extraordinary resolution passed as provided in Article 7;

(d) making such provisions not inconsistent with this Indenture as may be necessary or desirable with respect to matters or questions arising under this Indenture or for the purpose of obtaining a listing or quotation of the Special Warrants on any stock exchange, provided that such provisions are not, in the opinion of the Special Warrant Agent prejudicial to the interests of the Special Warrantholders as a group;

(e) adding to or altering the provisions of this Indenture in respect of the transfer of Special Warrants, making provision for the exchange of Special Warrant Certificates, and making any modification in the form of the Special Warrant Certificates which does not affect the substance thereof;

(f) modifying any of the provisions of this Indenture, including relieving the Corporation from any of the obligations, conditions or restrictions contained in this Indenture, provided that such modification or relief will be or become operative or effective only if such modification or relief in no way prejudices any of the rights of the Special Warrantholders or of the Special Warrant Agent, and provided further that the Special Warrant Agent may in its sole discretion decline to enter into any such supplemental indenture which in its opinion may not afford adequate protection to the Special Warrant Agent when the same will become operative; and

(g) for any other purpose not inconsistent with the terms of this Indenture, including the correction or rectification of any ambiguities, defective or inconsistent provisions, errors, mistakes or omissions in this Indenture, provided that in the opinion of the Special Warrant Agent the rights of the Special Warrant Agent and of the Special Warrantholders as a group are in no way prejudiced thereby.

8.2. Successor Corporations

In the case of the consolidation, amalgamation, merger or transfer of the undertaking or assets of the Corporation as an entirety or substantially as an entirety to another corporation (a **"**Successor Corporation**"**), the Successor Corporation resulting from such consolidation, amalgamation, merger or transfer (if not the Corporation) shall be bound by the provisions hereof and will expressly assume, by supplemental indenture satisfactory in form to the Special Warrant Agent and executed and delivered to the Special Warrant Agent, the due and punctual performance and observance of each and every covenant and condition of this Indenture to be performed and observed by the Corporation.

ARTICLE 9.
CONCERNING THE SPECIAL WARRANT AGENT

9.1. Trust Indenture Legislation

(a) If and to the extent that any provision of this Indenture limits, qualifies or conflicts with a mandatory requirement of Applicable Legislation, such mandatory requirement will prevail.

(b) The Corporation and the Special Warrant Agent agree that each will, at all times in relation to this Indenture and any action to be taken under this Indenture, observe and comply with and be entitled to the benefits of Applicable Legislation.

9.2. Rights and Duties of Special Warrant Agent

(a) In the exercise of the rights and duties prescribed or conferred by the terms of this Indenture, the Special Warrant Agent will act honestly and in good faith and will exercise that degree of care, diligence and skill that a reasonably prudent Special Warrant Agent would exercise in comparable circumstances. No provision of this Indenture will be construed to relieve the Special Warrant Agent from liability for its own gross negligence or its own wilful misconduct or bad faith.

(b) The obligation of the Special Warrant Agent to commence or continue any act, action or proceeding for the purpose of enforcing any rights of the Special Warrant Agent or the Special Warrantholders under this Indenture will be conditional upon the Special Warrantholders' furnishing, when required by notice by the Special Warrant Agent, sufficient funds to commence or to continue such act, action or proceeding and any indemnity reasonably satisfactory to the Special Warrant Agent to protect and to hold harmless the Special Warrant Agent and its officers, directors and employees against the costs, charges and expenses and liabilities to be incurred thereby and any loss and damage it may suffer by reason thereof. None of the provisions contained in this Indenture will require the Special Warrant Agent to expend or to risk its own funds or otherwise to incur financial liability in the performance of any of its duties or in the exercise of any of its rights or powers unless indemnified as aforesaid. The Special Warrant Agent will not be required to take any action or proceeding by virtue of the powers conferred on it by this Indenture unless and until it has been required to do so under the terms of this Indenture; nor will the Special Warrant Agent be required to take notice of any default under this Indenture unless and until notified in writing of such default, which notice will distinctly specify the default desired to be brought to the attention of the Special Warrant Agent. In the absence of any such notice, the Special Warrant Agent may for all purposes of this Indenture conclusively assume that no default has been made in the observance or performance of any of the representations, warranties, covenants, agreements or conditions contained in this Indenture. Any such notice will in no way limit any discretion herein given to the

Special Warrant Agent to determine whether or not the Special Warrant Agent will take action with respect to any default.

(c) The Special Warrant Agent may, before commencing or at any time during the continuance of any such act, action or proceeding, require the Special Warrantholders, at whose instance it is acting to deposit with the Special Warrant Agent the Special Warrants held by them for which Special Warrants the Special Warrant Agent will issue receipts.

(d) Every provision of this Indenture that by its terms relieves the Special Warrant Agent of liability or entitles it to rely upon any evidence submitted to it is subject to the provisions of Applicable Legislation, of this section 9.2 and of section 9.3.

9.3. Evidence Experts and Advisers

(a) In addition to the reports, certificates, opinions and other evidence required by this Indenture, the Corporation will furnish to the Special Warrant Agent such additional evidence of compliance with any provision of this Indenture, and in such form, as may be prescribed by Applicable Legislation or as the Special Warrant Agent may reasonably require by written notice to the Corporation.

(b) In the exercise of its rights and duties under this Indenture, the Special Warrant Agent may, if it is acting in good faith, rely as to the truth of the statements and the accuracy of the opinions expressed in statutory declarations, opinions, reports, written requests, consents, or orders of the Corporation, certificates of the Corporation or other evidence furnished to the Special Warrant Agent pursuant to a request of the Special Warrant Agent, provided that such evidence complies with Applicable Legislation and that the Special Warrant Agent complies with Applicable Legislation and that the Special Warrant Agent examines the same and determines that such evidence complies with the applicable requirements of this Indenture.

(c) Whenever it is provided in this Indenture or under Applicable Legislation that the Corporation will deposit with the Special Warrant Agent resolutions, certificates, reports, opinions, requests, orders or other documents, it is intended that the truth, accuracy and good faith on the effective date thereof and the facts and opinions stated in all such documents so deposited will, in each and every such case, be conditions precedent to the right of the Corporation to have the Special Warrant Agent take the action to be based thereon.

(d) Proof of the execution of an instrument in writing, including a Special Warrantholders' Request, by any Special Warrantholder may be made by the certificate of a notary public, or other officer with similar powers, that the person signing such instrument acknowledged to it the execution thereof, or by an affidavit of a witness to such execution or in any other manner which the Special Warrant Agent may consider adequate.

(e) The Special Warrant Agent may employ or retain such counsel, accountants, appraisers or other experts or advisers as it may reasonably require for the purpose of discharging its duties under this Indenture and may pay reasonable remuneration for all services so performed by any of them, without taxation of costs of any counsel, and will not be responsible for any misconduct or negligence on the part of any such experts or advisers who have been appointed with due care by the Special Warrant Agent, such costs to be paid in accordance with section 5.3.

9.4. Documents, Monies, etc. Held by Special Warrant Agent

Any securities, documents of title or other instruments that may at any time be held by the Special Warrant Agent subject to the trusts of this Indenture may be placed in the deposit vaults of the Special Warrant Agent or of any Canadian chartered bank or deposited for safekeeping with any such bank. Unless otherwise expressly provided in this Indenture or unless otherwise instructed by the Corporation, any monies so held pending the application or withdrawal thereof under any provisions of this Indenture may be deposited in the name of the Special Warrant Agent in any Canadian chartered bank at the rate of interest (if any) then current on similar deposits or, with the consent of the Corporation, may be: (i) deposited in the deposit department of the Special Warrant Agent or any other loan or trust company authorized to accept deposits under the laws of Canada or a province thereof; or (ii) invested in securities issued or guaranteed by the Government of Canada or a province thereof or in obligations maturing not more than 60 days from the date of investment, of any Canadian chartered bank or loan or trust company.

9.5. Actions by Special Warrant Agent to Protect Interest

The Special Warrant Agent will have power to institute and to maintain such actions and proceedings as it may consider necessary or expedient to preserve, protect or enforce its interests and the interests of the Special Warrantholders.

9.6. Special Warrant Agent Not Required to Give Security

The Special Warrant Agent will not be required to give any bond or security in respect of the execution of the trusts and powers of this Indenture or otherwise in respect of the premises.

9.7. Protection of Special Warrant Agent

By way of supplement to the provisions of any law for the time being relating to trustees, it is expressly declared and agreed as follows:

(a) the Special Warrant Agent will not be liable for or by reason of any statements of fact or recitals in this Indenture or in the Special Warrant Certificates (except the representation contained in section 9.9 or in the certificate of the Special Warrant Agent on the Special Warrant Certificates) or be required to verify the same, but all such statements or recitals are and will be deemed to be made solely by the Corporation;

(b) nothing contained in this Indenture will impose any obligation on the Special Warrant Agent to see to or to require evidence of the registration or filing (or renewal thereof) of this Indenture or any instrument ancillary or supplemental to this Indenture;

(c) the Special Warrant Agent will not be bound to give notice to any person or persons of the execution of this Indenture;

(d) the Special Warrant Agent will not incur any liability or responsibility whatever or be in any way responsible for the consequence of any breach on the part of the Corporation of any of the covenants contained in this Indenture or of any acts of any directors, officers, employees, agents or servants of the Corporation;

(e) the Special Warrant Agent will retain the right not to act and will not be held liable for refusing to act unless it has received clear and reasonable documentation which complies with the terms of this Indenture. Such documentation must not require the exercise of any discretion or independent judgment; and

(f) the Corporation will indemnify and save harmless the Special Warrant Agent and its directors, officers and employees of and from any and all costs, suits, claims, liabilities, damages and demands whatsoever arising directly or indirectly out of the performance of its duties under this Indenture, save only in the event of gross negligence or wilful misconduct on the part of the Special Warrant Agent. Such indemnity shall survive the termination of this Indenture or the resignation or termination of the Special Warrant Agent.

9.8. Replacement of Special Warrant Agent; Successor by Merger

(a) The Special Warrant Agent may resign its trusts and be discharged from all further duties and liabilities under this Indenture, subject to this section 9.8, by giving to the Corporation not less than 60 days' prior notice in writing or such shorter prior notice as the Corporation may accept as sufficient. The Special Warrantholders by extraordinary resolution will have power at any time to remove the existing Special Warrant Agent and to appoint a new Special Warrant Agent. In the event of the Special Warrant Agent resigning or being removed as aforesaid or being dissolved, becoming bankrupt, going into liquidation or otherwise becoming incapable of acting under this Indenture, the Corporation will forthwith appoint a new Special Warrant Agent unless a new Special Warrant Agent has already been appointed by the Special Warrantholders; failing such appointment by the Corporation, the retiring Special Warrant Agent or any Special Warrantholder may apply, at the Corporation's expense, to a justice of the Ontario Court of Justice on such notice as such justice may direct, for the appointment of a new Special Warrant Agent; but any new Special Warrant Agent so appointed by the Corporation or by the Court will be subject to removal as aforesaid by the Special Warrantholders. Any new Special Warrant Agent appointed under any provision of this section 9.8 will be a corporation authorized to carry on the business of a trust company in the Province of Ontario and, if required by the Applicable Legislation for any other provinces, in such other provinces. On any such appointment the new Special Warrant Agent will be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Special Warrant Agent under this Indenture, but there shall be immediately executed all such conveyances or other instruments as may, in the opinion of counsel, be necessary or advisable for the purpose of assuring the same of the new Special Warrant Agent.

(b) Upon the appointment of a successor Special Warrant Agent, the Corporation will promptly notify the Special Warrantholders thereof in the manner provided for in section 10.2.

(c) Any corporation into or with which the Special Warrant Agent may be merged or consolidated or amalgamated, or any corporation resulting therefrom to which the Special Warrant Agent will be a party, or any corporation succeeding to the trust business of the Special Warrant Agent will be the successor to the Special Warrant Agent under this Indenture without any further act on its part or any of the parties hereto, provided that such corporation would be eligible for appointment as a successor Special Warrant Agent under paragraph 9.8(a), but there shall be immediately executed all such conveyances or other instruments as may, in the opinion of counsel, be necessary or advisable for the purpose of assuring the same of the new Special Warrant Agent.

(d) Any Special Warrant Certificates certified but not delivered by a predecessor Special Warrant Agent may be delivered by the successor Special Warrant Agent in the name of the predecessor or successor Special Warrant Agent.

9.9. Conflict of Interest

(a) The Special Warrant Agent represents to the Corporation that at the time of execution and delivery of this Indenture no material conflict of interest exists between its role as a Special Warrant Agent under this Indenture and its role in any other capacity and agrees that in the event of a material conflict of interest arising hereafter it will, within 90 days after ascertaining that it has such material conflict of interest, either eliminate the same or assign its trust under this Indenture to a successor Special Warrant Agent approved by the Corporation and meeting the requirements set forth in paragraph 9.8(a). Notwithstanding the foregoing provisions of this paragraph 9.9(a), if any such material conflict of interest exists currently or hereafter, the validity and enforceability of this Indenture and the Special Warrant Certificates will not be affected in any manner whatsoever by reason thereof.

(b) Subject to paragraph 9.9(a), the Special Warrant Agent, in its personal or any other capacity, may buy, lend upon and deal in securities of the Corporation and generally may contract and enter into financial transactions with the Corporation or any

Subsidiary of the Corporation without being liable to account for any profit made thereby.

9.10. Acceptance of Trust

The Special Warrant Agent hereby accepts the trusts in this Indenture declared and provided for and agrees to perform the same upon the terms and conditions set forth in this Indenture.

9.11. Special Warrant Agent Not to be Appointed Receiver

The Special Warrant Agent and any person related to the Special Warrant Agent will not be appointed a receiver, a receiver and manager or liquidator of all or any part of the assets or undertaking of the Corporation or any Subsidiary of the Corporation.

ARTICLE 10.
GENERAL

10.1. Notice to the Corporation, the Special Warrant Agent and the Underwriter

(a) Unless otherwise expressly provided in this Indenture, any notice to be given under this Indenture to the Corporation, the Special Warrant Agent or the Underwriter will be deemed to be validly given if delivered or if transmitted by telecopier:

(a) If to the Corporation:

Tm Bioscience Corporation
439 University Avenue
11th Floor
Toronto, Ontario
M5G 1Y8

Attention: Donald H. MacAdam
President and Chief Executive Officer

Telecopier No.: (416) 593-4323

with a copy to:

Tory Tory DesLauriers & Binnington
Suite 3000 Aetna Tower
P.O. Box 270, Toronto-Dominion Centre
Toronto, Ontario
M5K 1N2

Attention: R. Randall MacEwen

Telecopier No.: (416) 865-7380

(b) If to the Special Warrant Agent:

CIBC Mellon Trust Company
320 Bay Street
P.O. Box 1
Toronto, Ontario
M5H 4A6

Attention: Vice President, Client Services

Telecopier No.: (416) 643-5570

(c) If to the Underwriter:

Yorkton Securities Inc.
BCE Place
181 Bay Street
P.O. Box 830
Toronto, Ontario
M5T 2T3

Attention: Michael Denny

Telecopier No.: (416) 864-1043

with a copy to:

Goodman and Carr
200 King Street West
Suite 2300
Toronto, Ontario

Attention: Susan J. Guttman

Telecopier No.: (416) 595-0567

and any such notice delivered in accordance with the foregoing will be deemed to have been received on the date of delivery or, if telecopier transmitted, on the next Business Day following the date of transmission (provided a transmission confirmation has been received).

(b) The Corporation or the Special Warrant Agent, as the case may be, may from time to time notify the other in the manner provided in paragraph 10.1(a) of a change of address which, from the effective date of such notice and until changed by like notice, will be the address of the Corporation or the Special Warrant Agent, as the case may be, for all purposes of this Indenture.

10.2. Notice to Special Warrantholders

(a) Any notice to the Special Warrantholders under the provisions of this Indenture will be valid and effective if sent by ordinary post or delivered addressed to such holders at their post office addresses appearing on the register hereinbefore mentioned and will be deemed to have been effectively given on the date of delivery or, if mailed, three Business Days following actual posting of the notice.

(b) If, by reason of a strike, lockout or other work stoppage, actual or threatened, involving postal employees, any notice to be given to the Special Warrantholders under this Indenture could reasonably be considered unlikely to reach its destination, such notice will be valid and effective only if it is delivered personally to such Special Warrantholders or if delivered to the address for such Special Warrantholders contained in the register of Special Warrants maintained by the Special Warrant Agent, or by publication nationally in The Globe & Mail.

10.3. Ownership and Transfer of Special Warrants

Subject to section 10.4, the Corporation and the Special Warrant Agent may deem and treat the registered owner of any Special Warrants as the absolute owner thereof for all purposes, and the Corporation and the Special Warrant Agent will not be affected by any notice or knowledge to the contrary except where the Corporation or the Special Warrant Agent is required to take notice by statute or by order of a court of competent jurisdiction. A Special Warrantholder will be entitled to the rights evidenced by its Special Warrant Certificate free from all equities or rights of set off or counterclaim between the Corporation and the original or any intermediate holder of the Special Warrants and all persons may act accordingly. The receipt of any such Special Warrantholder of the Common Shares and Warrants issuable upon the exercise of the Special Warrants will be a good discharge to the Corporation and the Special Warrant Agent for the same and neither the Corporation nor the Special Warrant Agent will be bound to inquire into the title of any such holder except where the Corporation or the Special Warrant Agent is required to take notice by statute or by order of a court of competent jurisdiction.

10.4. Evidence of Ownership

(a) Upon receipt of a certificate of any bank, trust company or other depository satisfactory to the Special Warrant Agent stating that the Special Warrants specified therein have been deposited by a named person with such bank, trust company or other depository and will remain so deposited until the expiry of the period specified therein, the Corporation and the Special Warrant Agent may treat the person so named as the owner, and such certificate as sufficient evidence of the ownership by such person of such Special Warrant during such period, for the purpose of any requisition, direction, consent, instrument or other document to be made, signed or given by the holder of the Special Warrant so deposited.

(b) The Corporation and the Special Warrant Agent may accept as sufficient evidence of the fact and date of the signing of any requisition, direction, consent, instrument or other document by any person (i) the signature of any officer of any bank, trust company, or other depository satisfactory to the Special Warrant Agent as witness of such execution, (ii) the certificate of any notary public or other officer authorized to take acknowledgements of deeds to be recorded at the place where such certificate is made that the person signing acknowledged to him the execution thereof, or (iii) a satisfactory declaration of a witness of such execution.

10.5. Counterparts

This Indenture may be executed in several counterparts, each of which when so executed will be deemed to be an original and such counterparts together will constitute one and the same instrument and notwithstanding their date of execution they will be deemed to be dated as of the date of this Indenture.

10.6. Satisfaction and Discharge of Indenture

Except to the extent that any Common Shares and Warrants and certificates therefor which are required to be transferred or delivered under this Indenture have not been so transferred or delivered, or to the extent that any monies due and owing pursuant to sections 2.3 or 5.3 of this Indenture have not yet been paid, or to the extent that the Special Warrant Agent has not performed any of its obligations under this Indenture, upon the earlier of:

(a) the date by which there will have been delivered to the Special Warrant Agent for exercise or cancellation all Special Warrant Certificates theretofore certified under this Indenture; or

(b) 5:00 p.m. (Toronto time) on the day which is 15 Business Days after the second anniversary of the date hereof;

this Indenture will cease to be of further effect and the Special Warrant Agent, on demand of and at the cost and expense of the Corporation and upon delivery to the Special Warrant Agent of a certificate of the Corporation stating that all conditions precedent to the satisfaction and discharge of this Indenture have been complied with, will execute proper instruments acknowledging satisfaction of and discharging this Indenture. Notwithstanding the foregoing, the indemnities provided to the Special Warrant Agent by the Corporation under this Indenture will remain in full force and effect and survive the termination of this Indenture.

10.7. Provisions of Indenture and Special Warrants for the Sole Benefit of Parties and Special Warrantholders

Nothing in this Indenture or in the Special Warrant Certificates, express or implied, gives or will be construed as giving to any person other than the parties and the Special Warrantholders, as the case may be, any legal or equitable right, remedy or claim under this Indenture, or under any covenant or provision contained in this Indenture, all such covenants and provisions being for the sole benefit of the parties to this Indenture and the Special Warrantholders.

10.8. Special Warrants Owned by the Corporation or its Subsidiaries - Certificate to be Provided

For the purpose of disregarding any Special Warrants owned legally or beneficially by the Corporation or any Subsidiary of the Corporation in section 7.16, the Corporation will provide to the Special Warrant Agent, from time to time, upon the request of the Special Warrant Agent, a certificate of the Corporation setting forth as at the date of such certificate:

(a) the names (other than the name of the Corporation) of the registered holders of Special Warrants which, to the knowledge of the Corporation, are owned by or held for the account of the Corporation or any Subsidiary; and

(b) the number of Special Warrants owned legally or beneficially by the Corporation or any Subsidiary;

and the Special Warrant Agent, in making the computations in section 7.16, will be entitled to rely on such certificate without any additional evidence.

IN WITNESS WHEREOF the parties have executed this Indenture.

TM BIOSCIENCE CORPORATION

Per: ______________________________________
Authorized Signing Officer

CIBC MELLON TRUST COMPANY

Per: ______________________________________
Authorized Signing Officer

Per: ______________________________________
Authorized Signing Officer

SCHEDULE "A"
to the Special Warrant Indenture made as of June 24, 1998 between TM BIOSCIENCE CORPORATION and CIBC MELLON TRUST COMPANY

(FORM OF SPECIAL WARRANT CERTIFICATE)

THE SPECIAL WARRANTS REPRESENTED BY THIS CERTIFICATE AND ANY COMMON SHARES AND COMMON SHARE PURCHASE WARRANTS ISSUABLE UPON EXERCISE OF THE SPECIAL WARRANTS REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO HOLD PERIODS AND RESALE RESTRICTIONS UNDER APPLICABLE SECURITIES LEGISLATION IN CANADA AND MAY NOT BE TRADED EXCEPT AS PERMITTED BY SUCH APPLICABLE SECURITIES LEGISLATION AND THE REGULATIONS THEREUNDER.

TM BIOSCIENCE CORPORATION

(Incorporated under the *Business Corporations Act* (Ontario))

Certificate No. ____________ _____________Special Warrants

THIS IS TO CERTIFY THAT, for value received,

____

(the "Special Warrantholder") is the registered holder of the number of Special Warrants specified above of Tm Bioscience Corporation (the "Corporation"). Each Special Warrant entitles the Special Warrantholder to receive, upon exercise, without payment of additional consideration, one (1) unit (a "Unit") consisting of one (1) fully paid and non-assessable common share (a "Common Share") of the Corporation and one-half (0.5) of one common share purchase warrant (a whole common share purchase warrant being referred to herein as a "Warrant") of the Corporation, subject to adjustment, at any time after the date hereof and (a) as to 50% of the Special Warrants purchased by the Special Warrantholder, prior to 5:00 p.m. (Toronto time) on the first to occur (the "Time of Expiry") of (i) the fifth Business Day after the date (the "Clearance Date") on which a receipt has been issued by the last of the securities commissions in each province of Canada in which Special Warrantholders reside as of the Closing Date (as defined in the Special Warrant Indenture) for a (final) prospectus of the Corporation qualifying the distribution of the Common Shares and Warrants issuable upon exercise of the Special Warrants; and (ii) December 24, 1999, and (b) as to the remaining 50% of the Special Warrants purchased by the Special Warrantholder, prior to the later of January 15, 1999 and the Time of Expiry (the "Condition Time"). In the event that the Clearance Date does not occur prior to September 22, 1998, each Special Warrant which has not been exercised will thereafter entitle the Special Warrantholder to acquire, for no additional consideration, 1.1 Unit (in lieu of 1 Unit) consisting of 1.1 fully-paid and non-assessable Common Shares and 0.55 of a Warrant. Each Warrant entitles the holder thereof to purchase one (1) common share (a "Warrant Share") at an exercise price of $1.00, subject to adjustment, at any time prior to 5:00 p.m. (Toronto time) on June 24, 2000.

If the Corporation has not achieved aggregate consolidated revenues from its DNA product platforms and related products and services in the fiscal year ending December 31, 1998 of at least $1,000,000, the holder of the Special Warrants represented by this Special Warrant Certificate will have the right to rescind (the "Right to Rescind") its purchase of up to 50% of such Special Warrants (the "Refundable Special Warrants") and the Corporation will be obligated to use the Escrowed Funds to refund the purchase price of $0.80 for each such Refundable Special Warrant (excluding those which have previously been exercised) in respect of which the Right to Rescind has been exercised and to pay, on a pro rata basis, any interest earned on such funds (net of applicable withholding tax) from the date hereof to January 15, 1999, subject to the terms and conditions respecting the Right to Rescind specified in the Indenture. The Special Warrantholder may exercise the Right to Rescind in respect of fewer Refundable Special Warrants than are represented by this Special Warrant Certificate. In such case, the Special Warrantholder will be entitled to receive a new Special Warrant Certificate representing the Special Warrants in respect of which the Right to Rescind has not been exercised.

The right to acquire Common Shares and Warrants may be exercised by the holder at any time after the Time of Closing and (a) as to 50% of the Special Warrants purchased by the Special Warrantholder, prior to the Time of Expiry, and (b) as to the remaining 50% of the Special Warrants purchased by the Special Warrantholder, prior to the Condition Time, by surrendering to the Special Warrant Agent at its principal stock and bond transfer office in Toronto, Ontario, this Special Warrant Certificate and a duly completed Exercise Form attached to this Special Warrant Certificate. This Special Warrant Certificate will be deemed to be duly surrendered only upon personal delivery of this Special Warrant Certificate or, if sent by mail or other means of transmission, upon actual receipt thereof by the Special Warrant Agent at the office referred to above.

Certificates for Common Shares and Warrants issued upon exercise of Special Warrants will be mailed, postage prepaid, to the person or persons specified in the exercise notice at the respective address or addresses specified therein, or if so specified in such subscription form, delivered to such person or persons at the principal office of the Special Warrant Agent where this certificate is surrendered.

The Special Warrantholder may exercise the right to acquire Common Shares and Warrants attached to fewer Special Warrants than are represented by this Special Warrant Certificate. In such a case, the Special Warrantholder will be entitled to receive a new Special Warrant Certificate representing the Special Warrants not then exercised.

If the Special Warrants represented by this Special Warrant Certificate are exercised by the Special Warrantholder notwithstanding that a receipt for the Final Prospectus qualifying the Common Shares and Warrants issuable upon the exercise of the Special Warrants has not been issued by the securities commission or similar regulatory authority in each of the Qualifying Provinces, any such exercise will be subject to the Special Warrantholder's providing such assurances and executing such documents as may, in the reasonable opinion of the Corporation or the Special Warrant Agent, be required to ensure compliance with applicable securities legislation, and any certificates representing the Common Shares and Warrants issued upon such exercise will bear such additional legend as may be necessary to comply with such legislation and the applicable requirements of any stock exchange. A fraction of a Special Warrant may not be exercised and fractional Common Shares and Warrants will not be issued.

The Special Warrants represented by this certificate are issued under and pursuant to a special warrant indenture (which indenture, together with all instruments supplemental thereto, is referred to as the "Indenture") dated as of June 24, 1998 between the Corporation and CIBC Mellon Trust Company (the "Special Warrant Agent"). Reference is made to the Indenture for a full description of the rights of the Special Warrantholders, the Corporation and the Special Warrant Agent and the terms and conditions upon which the Special Warrants are issued and held with the same effect as if the provisions of the Indenture were set forth in this Special Warrant Certificate. By acceptance of this Special Warrant Certificate, the holder assents to all provisions of the Indenture. Capitalized terms used in this Special Warrant Certificate which are not defined in this Special Warrant Certificate but are defined in the Indenture have the meanings in this Special Warrant Certificate as ascribed to them in the Indenture. In the event of any conflict between the provisions of this Special Warrant Certificate and the provisions of the Indenture, the provisions of the Indenture will govern. A copy of the Indenture is available for inspection at the offices of the Corporation and also at the offices of the Special Warrant Agent in Toronto during regular business hours.

The Special Warrants represented by this Special Warrant Certificate and the Common Shares and Warrants to be issued upon exercise thereof have not been and will not be registered under the United States Securities Act of 1933, as amended (the "U.S. Securities Act"), or any applicable state securities laws of the United States. Subject to certain exceptions, Special Warrants may not be exercised by any U.S. Person, by any person in the United States or by any person for the benefit of a U.S. Person or a person in the United States, unless such securities and shares issuable upon exercise thereof are registered under the U.S. Securities Act and the securities laws of all applicable States of the United States or an exemption from such registration requirements is available. Terms used in this paragraph have the meanings given to them in Regulation S under the U.S. Securities Act.

50% of the Special Warrants held by a holder thereof that have not been exercised by the holder prior to the Time of Expiry and the remaining 50% of the Special Warrants held by a holder thereof in respect of which the Right to Rescind has not been exercised and that have not been exercised by the holder by the Condition Time will be exercised by the Special Warrant Agent on behalf of the holder (and the Special Warrants will continue to be exercisable for this purpose) and the certificates representing the Common Shares and Warrants issued thereby will be mailed, postage prepaid, in accordance with the terms of the Indenture, by the Special Warrant Agent, provided that the Special Warrantholder pay or provide, as the case may be, any applicable transfer or similar taxes and such assurances and executed documents, as may in the reasonable opinion of the Corporation or the Special Warrant Agent be required to ensure compliance with applicable securities laws. After the date upon which Special Warrants are exercised by the Special Warrant Agent on behalf of the holders or in respect of which the purchase price and interest thereon have been refunded pursuant to the Right to Rescind, all as set out above, all Special Warrant Certificates will be null and void.

Upon presentation at the principal stock and bond transfer office of the Special Warrant Agent in Toronto, Ontario, subject to the provisions of this Indenture and upon compliance with the reasonable requirements of the Special Warrant Agent, Special Warrant Certificates may be exchanged for Special Warrant Certificates of other denominations entitling the Special Warrantholder of this Special Warrant Certificate to acquire an equal aggregate number of Common Shares and Warrants.

The person or persons in whose name or names the Common Shares and Warrants issuable upon the exercise or deemed exercise of the Special Warrants are to be issued will be deemed for all purposes (except as provided in the Indenture) to be the holder or holders of record of such Common Shares and Warrants and the Corporation covenants that it will (subject to the provisions of the Indenture) cause certificates representing such Common Shares and Warrants to be delivered or mailed to the person or persons at the address or addresses specified in the attached Exercise Form. The Exercise Form will be signed by the holder and will specify the person(s) in whose name(s) the Common Shares and Warrants are to be issued, the address(es) of such person(s) and the number of Common Shares and Warrants to be issued to each person, if more than one is so specified. If any of the Common Shares and Warrants subscribed for are to be issued to a person or persons other than the holder, such holder's signature on the Exercise Form herein will be guaranteed by a Canadian chartered bank, by a Canadian trust company, or by a member firm of any Canadian stock exchange and the holder will pay to the Corporation, or the Special Warrant Agent on behalf of the Corporation, all applicable transfer or similar taxes and the Corporation will not be required to issue or deliver certificates evidencing Common Shares and Warrants, unless or until the holder will have paid to the Corporation, or the Special Warrant Agent on behalf of the Corporation, the amount of such taxes or will have established to the satisfaction of the Corporation, acting reasonably, that such taxes have been paid or that no tax is due.

The Indenture provides for certain adjustments in the number and class of securities or property which the Special Warrantholder is entitled to receive upon exercise of this certificate on payment of certain stock dividends or any subdivision, consolidation, reclassification or alteration of the outstanding Common Shares of the Corporation or after certain other events specified in the Indenture.

The holding of the Special Warrants evidenced by this certificate will not constitute the holder of this Special Warrant Certificate a shareholder of the Corporation or entitle the holder to any right or interest in respect thereof except as expressly provided in the Indenture or in this Special Warrant Certificate.

The Indenture provides that all Special Warrantholders will be bound by any resolution passed at a meeting of the Special Warrantholders held in accordance with the provisions of the Indenture and by any resolution signed by the Special Warrantholders representing a specified majority of the outstanding Special Warrants.

The Special Warrants evidenced by this certificate may only be transferred in accordance with applicable securities laws, applicable requirements of any stock exchange and upon executing the Transfer Form attached hereto and, subject thereto, may be transferred on the register kept at the principal stock and bond transfer office of the Special Warrant Agent in Toronto, Ontario, by the registered holder hereof or its legal representatives or its attorney duly appointed by an instrument in writing in form and execution satisfactory to the Special Warrant Agent, only upon compliance with the conditions prescribed in the Indenture and upon compliance with such reasonable requirements as the Special Warrant Agent may prescribe.

Time is of the essence of this Special Warrant Certificate. This Special Warrant Certificate is governed by and will be construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

The parties hereto confirm their express wish that this certificate and all documents and agreements directly or indirectly relating thereto be drawn up in the English language. Notwithstanding such express wish, the parties agree that any such document or agreement, or any part thereof or of this certificate, may be drawn up in the French language.

Les parties reconnaissent leur volonté expresse que le présent acte de fiducie ainsi que tous les documents et contrats s'y rattachant directement ou indirectement soient rédigés en anglais. Nonobstant cette volonté expresse, les parties conviennient que tout document ou contrat, ou toute partie de ces derniers ou du présent act de fiducie, puissent être rédigés en français.

This Special Warrant Certificate will not be valid for any purpose whatever unless and until it has been certified by or on behalf of the Special Warrant Agent.

IN WITNESS WHEREOF, the Corporation has caused this Special Warrant Certificate to be signed by its duly authorized officers.

TM BIOSCIENCE CORPORATION

Per: *"Donald H. MacAdam"*
Authorized Signing Officer

Certified on June 24, 1998 by:

CIBC MELLON TRUST COMPANY
Special Warrant Agent

Per: *"Joyce Whitelaw"*
Authorized Signing Officer

Per: *"Pat Lee"*
Authorized Signing Officer

TRANSFER OF SPECIAL WARRANTS

ANY TRANSFER WILL REQUIRE COMPLIANCE WITH APPLICABLE SECURITIES LEGISLATION. THE CORPORATION IS ENTITLED, AND MAY DIRECT THE SPECIAL WARRANT AGENT, TO REFUSE TO RECOGNIZE ANY TRANSFER OF ANY SPECIAL WARRANT IF SUCH TRANSFER, OR THE ISSUE OF COMMON SHARES OR WARRANTS ON EXERCISE OF SUCH SPECIAL WARRANT FOLLOWING SUCH TRANSFER, WOULD CONSTITUTE A VIOLATION OF THE SECURITIES LAWS OF ANY JURISDICTION OR THE RULES, REGULATIONS OR POLICIES OF ANY REGULATORY AUTHORITY HAVING JURISDICTION. TRANSFERORS AND TRANSFEREES ARE URGED TO CONTACT LEGAL COUNSEL BEFORE EFFECTING ANY SUCH TRANSFER.

FOR VALUE RECEIVED, the undersigned hereby sells, assigns and

transfers to ____,
(Please print or type name and address of Assignee)

___________________ Special Warrants of Tm Bioscience Corporation registered in the name of the undersigned on the records of Tm Bioscience Corporation maintained by CIBC Mellon Trust Company represented by the Special Warrant Certificate attached and irrevocably appoints

____

the attorney of the undersigned to transfer the said securities on the books of the Special Warrant Agent with full power of substitution in the premises.

If less than all the Special Warrants represented by this Special Warrant Certificate are being transferred, the Special Warrant Certificate representing those Special Warrants not transferred will be registered in the name appearing on the face of this Special Warrant Certificate and such certificates (please check one):

(a) ______ should be sent by first class mail to the following address:
____
____

(b) ______ should be held for pick up at the office of the Special Warrant Agent at which this Special Warrant Certificate is deposited.

DATED the _____ day of _______________, 19___.

________________________________	______________________________________
Signature Guaranteed by	(Signature of Special Warrantholder)
	______________________________________
	(Print Name of Special Warrantholder in Full)
	______________________________________
	(Print Address in Full)

Instructions:

1. Signature of the Special Warrantholder must be the signature of the person appearing on the face of this Special Warrant Certificate.
2. If the Transfer Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any other person acting in a fiduciary or representative capacity, the certificate must be accompanied by evidence of authority to sign satisfactory to the Special Warrant Agent and the Corporation.
3. The signature on the Transfer Form must, in certain circumstances, be guaranteed by an authorized officer of a Canadian chartered bank, trust company or an investment dealer who is a member of a recognized Canadian stock exchange and the Transfer Form must be submitted with a duly executed Acknowledgement and Declaration of Transferee in the form attached.
4. Special Warrants will only be transferable in accordance with applicable laws. The transfer of Special Warrants may result in the Common Shares and Warrants and Common Shares issuable upon the exercise of the Warrants, obtained upon the exercise of the Special Warrants (whether after or before obtaining receipts for the Final Prospectus) not being freely tradeable in the jurisdiction of the purchaser.
5. Transferees must duly complete the Acknowledgement and Declaration of Transferee form attached.

ACKNOWLEDGEMENT AND DECLARATION OF TRANSFEREE

TO: **CIBC Mellon Trust Company**

AND TO: **Tm Bioscience Corporation**

The undersigned transferee of ______ Special Warrants of Tm Bioscience Corporation hereby: (i) acknowledges that such Special Warrants are subject to the terms, conditions and provisions of a Special Warrant Indenture, Warrant Indenture (covering the underlying Warrants) and Escrow Agreement; (ii) confirms any representations, warranties and acknowledgements which may be attached hereto; and (iii) expressly waives and releases Tm Bioscience Corporation to the fullest extent permitted by law, from all rights of withdrawal to which it might otherwise be entitled pursuant to the provisions of applicable securities laws.

DATED the _____ day of ________________, 19___.

____
Name of Transferee

By: ___________________________________

____
Office or Title

____
Address of Transferee

EXERCISE FORM

TO: **TM BIOSCIENCE CORPORATION**
c/o CIBC MELLON TRUST COMPANY
199 Bay Street
Commerce Court West
Securities Level
Toronto, Ontario
M5L 1G9

Attention: Special Projects

The undersigned holder of the within Special Warrants hereby irrevocably exercises the right to acquire the Common Shares and Warrants of Tm Bioscience Corporation issuable upon the exercise of such Special Warrants, on the terms specified in the said Special Warrants and the Indenture referred to therein.

The undersigned hereby acknowledges that the undersigned is aware that if the Special Warrants are being exercised before the Clearance Date, the Common Shares and Warrants and all securities underlying the Warrants received on exercise may be subject to restrictions on resale under applicable securities legislation.

The undersigned hereby irrevocably directs that the said securities be issued, registered and delivered as follows:

NAME(S) IN FULL	ADDRESS(ES) (INCLUDE POSTAL CODE)	NUMBER OF COMMON SHARES AND WARRANTS
____________________	____________________	____________________
____________________	____________________	____________________

(Please print. If securities are issued to a person other than the holder of Special Warrants, the holder of Special Warrants must pay to the Special Warrant Agent all exigible taxes and the signature of the holder of the Special Warrants must be guaranteed.)

DATED the _____ day of _______________, 19___.

________________________________	)	________________________________
Witness	)	Signature of Special Warrantholder
	)	
	)	________________________________
	)	Print full name
	)	
	)	________________________________
	)	Address in Full

☐ Please check box if Common Shares and Warrants are to be delivered and held for pick-up at the office where this Special Warrant Certificate has been surrendered.

The undersigned hereby certifies that the undersigned is not a U.S. Person or a person in the United States, and is not acquiring any of the Common Shares issuable upon exercise of the Special Warrants or the Warrants for the account or benefit of a U.S. Person or a person in the United States and none of the persons listed above is a U.S. Person or a Person in the United States. For purposes hereof, (a) "United States" means the United States of America, its territories or possessions, any state thereof or the District of Columbia collectively, and (b) a "U.S. Person" means any natural person resident in the United States, any partnership or corporation organized or incorporated under the laws of the United States, any estate of which any executor or administrator is a U.S. Person, any trust of which any trustee is a U.S. Person, any agency or branch of a foreign entity located in the United States, any non-discretionary account or similar account (other than an estate or trust) held by a dealer or other fiduciary for the benefit or account of a U.S. Person, any discretionary account or similar account (other than an estate or trust) held by a dealer or other fiduciary organized or incorporated, or if an individual, resident, in the United States or any partnership or corporation organized or incorporated under the laws of a country other than the United States if formed by a U.S. Person principally for the purpose of investing in securities not registered under the Securities Act of 1933, as amended (United States). Notwithstanding this definition of "U.S. Person", a discretionary account or similar account (other than an estate or trust) held for the benefit or account of a non-U.S. Person by a dealer or other professional fiduciary organized, incorporated, or (if an individual) resident in the United States shall not be deemed a U.S. Person.

Instructions:

1. The registered holder may exercise its right to receive Common Shares and Warrants by completing this form and surrendering this form and the Special Warrant Certificate representing the Special Warrants being exercised to:

   CIBC Mellon Trust Company at:

   199 Bay Street
   Commerce Court West
   Securities Level
   Toronto, Ontario
   M5L 1G9

   Attention: Special Projects

2. Certificates for Common Shares and Warrants will be delivered or mailed as soon as practicable after the exercise of the Special Warrants.

3. If the Exercise Form indicates that Common Shares and Warrants are to be issued to a person or persons other than the registered holder of the Certificate, the signature of such holder of the Exercise Form <u>must</u> be guaranteed by an authorized officer of a Canadian chartered bank, trust company or an investment dealer who is a member of a recognized Canadian stock exchange.

4. Please print the full name(s) in which the Common Share certificates and Warrant Certificates, are to be issued. If any Common Shares or Warrants are to be issued to a person or persons other than the Special Warrantholder, the Special Warrantholder must

pay to the Special Warrant Agent all exigible transfer taxes or other governmental charges and sign the form of Transfer.

5. If the Exercise Form is signed by a trustee, executor, administrator, curator, guardian, attorney, officer of a corporation or any other person acting in a fiduciary or representative capacity, the certificate must be accompanied by evidence of authority to sign satisfactory to the Special Warrant Agent and the Corporation.

6. If the registered Special Warrantholder exercises its right to receive Common Shares and Warrants before the Clearance Date, the Common Shares and Warrants and Warrant Shares issuable upon the exercise of the Warrants, may be subject to a hold period and may be issued with a legend reflecting such hold period.

TO DIVIDE OR COMBINE SPECIAL WARRANT CERTIFICATES

Fill in and sign this and surrender this Special Warrant Certificate to the Special Warrant Agent in ample time for new Special Warrant Certificates to be issued and used.

Deliver to the undersigned Special Warrantholder, at the address mentioned below, new certificates as follows:

______________________	______________________
Certificate(s) for	Special Warrants each
______________________	______________________
Certificate(s) for	Special Warrants each
______________________	______________________
Certificate(s) for	Special Warrants each

Dated this _____ day of ________________, 199__.

______________________	______________________
	Signature of Special Warrantholder

Print name and address in full below.

Name: ____

Address: ____

____

Include Postal Code

RESCISSION NOTICE

TO: **CIBC Mellon Trust Company (the "Special Warrant Agent")**

AND TO: **Tm Bioscience Corporation**

The undersigned holder of _______________ Special Warrants of Tm Bioscience Corporation (the "Corporation") represented by Certificate No._____________, having received notice from the Corporation that the Revenue Milestone has not been satisfied, hereby exercises the Right to Rescind ___________________ Refundable Special Warrants pursuant to section 2.3 of the Indenture.

The undersigned hereby acknowledges receipt of notice from the Special Warrant Agent indicating that the time period in which the Right to Rescind may be exercised commenced on January 5, 1999 and will terminate at 5:00 p.m. (Toronto time) on January 15, 1999.

DATED the ________ day of ___________, 1999.

________________________________	)	______________________________________
Witness	)	Signature of the Special Warrantholder
	)	
	)	______________________________________
	)	Print full name
	)	
	)	______________________________________
	)	Address in full
	)	
	)	
	)	______________________________________
	)	Telephone number (during business hours)