

AUDIT COMMITTEE CHARTER

Purpose

The Audit Committee is a committee of the board of directors (the "Board") of Cytomedix, Inc. (the "Company"). The committee shall provide assistance to the Board in fulfilling its fiduciary responsibility to shareholders relating to the Company's accounting, financial reporting practices, and the quality and integrity of the financial reports as well as the legal compliance and business ethics of the Company.

The Audit Committee's responsibility is oversight. Management of the Company has the responsibility for the Company's financial statements as well as the Company's financial reporting process, accounting principles, and internal controls. The independent auditors are responsible for performing an audit of the Company's annual financial statements, expressing an opinion as to the conformity of such annual financial statements with generally accepted accounting principles, reviewing the Company's quarterly financial statements and other procedures.

The Audit Committee shall discharge its responsibilities, and shall assess the information provided by the Company's management and the independent auditor, in accordance with its business judgment. Each member of the Audit Committee shall be entitled to rely on (i) the integrity of those persons within the Company and of the professionals and experts (such as the independent auditors) from which it receives information, (ii) the accuracy of the financial and other information provided to the Audit Committee by such persons, professionals or experts absent actual knowledge to the contrary and (iii) representations made by management of the independent auditors as to any non-audit services provided by the independent auditors to the Company.

The Audit Committee's primary duties and responsibilities are to:

- Review whether or not management has maintained the reliability and integrity of the accounting policies and financial reporting and disclosure practices of the Company;
- Review whether or not management has established and maintained processes to ensure that an adequate system of internal controls is functioning within the Company; and
- Review whether or not management has established and maintained processes to ensure compliance by the Company with legal and regulatory requirements that may impact its financial reporting and disclosure obligations;
- Review the independent auditors' qualifications and independence; and
- Prepare a report of the Audit Committee for inclusion in the proxy statement for the Company's annual meeting of shareholders.

The Audit Committee intends to fulfill these responsibilities primarily by carrying out the activities enumerated below.

Committee Membership

The Audit Committee shall consist of no fewer than two members. The members of the Audit Committee shall meet the independence and experience requirements of Section 10A(m)(3) of the Securities Exchange Act of 1934 (the "Exchange Act") and the rules and regulations of the Securities and Exchange Commission (the "Commission"). In addition, the members of the Audit Committee shall meet the independence and experience requirements of the American Stock Exchange or any exchange on which the securities of the Company are listed. All members of the Audit Committee shall be financially literate and at least one member of the Audit Committee shall be a financial expert as defined by the Commission. Committee members may enhance their familiarity with finance and accounting by participating in educational programs conducted by the Company or an outside consultant.

The members of the Audit Committee shall be appointed by the Board. Audit Committee members may be replaced by the Board.

Meetings

The Audit Committee shall meet in person or telephonically as often as it determines, but not less frequently than quarterly. The Audit Committee shall meet periodically with management and the independent auditor in separate executive sessions. The Audit Committee may request any officer or employee of the Company or the Company's outside counsel or independent auditor to attend a meeting of the Committee or to meet with any members of, or consultants to, the Committee, and to provide pertinent information as necessary.

Committee Authority and Responsibilities

The Audit Committee shall have the sole authority on behalf of the Company to directly appoint, retain, evaluate and, where appropriate, terminate and replace the independent auditor (subject, if applicable, to shareholder ratification) as well as approve all audit engagement fees and terms. The independent auditor shall report directly to the Audit Committee and shall be accountable to the Audit Committee and the Board.

The Audit Committee shall pre-approve, pursuant to policies and procedures deemed by the Audit Committee to be desirable and appropriate, audit services and permitted non-audit services (including the fees and terms thereof) to be performed for the Company by its independent auditor. The Audit Committee may, when appropriate, form and delegate authority to subcommittees consisting of one or more members of the Audit Committee, including the authority to grant pre-approvals of audit and permitted non-audit services, provided that decisions of such subcommittee to grant pre-approvals shall be presented to the full Audit Committee at its next scheduled meeting.

The Audit Committee shall have the authority, to the extent it deems necessary or appropriate, to retain independent legal, accounting or other advisors. The Company shall provide for appropriate funding, as determined by the Audit Committee, for payment of compensation to the independent auditor for the purpose of rendering or issuing an audit report and to any advisors employed by the Audit Committee.

The Audit Committee shall make regular reports to the Board. The Audit Committee shall review and reassess the adequacy of this Charter annually and recommend any proposed changes to the Board for approval.

The Audit Committee, to the extent it deems necessary or appropriate, shall carry out its responsibilities as follows:

Financial Statement and Disclosure Matters

1. Review and discuss with management and the independent auditors the annual financial statements and Form 10-KSB, including disclosures made in management's discussion and analysis prior to the filing of the Form 10-KSB or prior to the release of earnings, and discuss with the independent auditors the matters required to be discussed by Statement of Auditing Standards No. 61, as amended by SAS 90 relating to the conduct of the audit. Further, receive a written communication provided by the independent auditors concerning their judgment about the quality of the Company's accounting principles, as outlined in SAS 61 as amended by SAS 90, and that they concur with management's representation concerning audit adjustments, and recommend to the Board whether the audited financial statements should be included in the Company's Form 10-KSB.
2. Review and discuss with management and the independent auditors the Company's quarterly financial statements prior to the filing of its Form 10-QSB or the release of earnings, including the results of the independent auditors' Statement of Auditing Standard No. 100 review of the quarterly financial statements. The Chair of the Audit Committee may represent the entire Audit Committee for purposes of this review.
3. Discuss with management and the independent auditor significant financial reporting issues and judgments made in connection with the preparation of the Company's financial statements, including any significant changes in the Company's selection or application of accounting principles, any material issues as to the adequacy of the Company's internal controls and any special steps adopted in light of material control deficiencies.
4. Review with management and the independent auditors the integrity of the Company's financial reporting processes (both internal and external), the Company's internal accounting and financial controls and the Company's disclosure controls. Also, discuss the adequacy of the Company's procedures and controls for compliance with laws and regulations.
5. Discuss with management the Company's earnings press releases, including the use of "pro forma" or "adjusted" non-GAAP information, as well as financial information and earnings guidance provided to analysts and rating agencies. Such discussion may be done generally (consisting of discussing the types of information to be disclosed and the types of presentations to be made).
6. Review with management and the independent auditors the effect of regulatory and accounting initiatives that may affect the Company, as well as the effect of any off-balance sheet structures and transactions on the Company's financial statements.
7. Discuss with management and the independent auditors the Company's major financial risk exposures and assess the steps management has taken to monitor and control such exposures, including the Company's risk assessment and risk management policies.
8. Discuss with the independent auditor the matters required to be discussed by Statement on Auditing Standards No. 61, as amended by SAS 90, relating to the conduct of the audit, including any difficulties encountered in the course of the audit work, any restrictions on the scope of activities or access to requested information, and any significant disagreements with management.
9. Review disclosures made to the Audit Committee by the Company's CEO and CFO during their certification process for the Form 10-KSB and Form 10-QSB about any significant deficiencies in the design or operation of

internal controls or material weaknesses therein and any fraud involving management or other employees who have a significant role in the Company's internal controls.

Oversight of the Company's Relationship with the Independent Auditor

10. Review the performance and make a determination regarding the selection or replacement of the independent auditors. The Audit Committee shall have the sole authority and responsibility on behalf of the Company to select, evaluate, and where appropriate, replace the independent auditors, as well as approve all audit engagement fees and terms. The independent auditors are ultimately accountable to the Audit Committee and the entire Board for such auditors' review of the financial statements and controls of the Company.

11. Review independence of the auditors by:

- receiving from, and discussing with the auditors, on a periodic basis, a formal written statement delineating all relationships between the auditors and the Company consistent with Independence Standards Board Standard 1;
- reviewing, and discussing with the Board, if necessary, and the auditors, on a periodic basis, any disclosed relationships or services between the auditors and the Company or any other disclosed relationships or services that may impact the objectivity and independence of the auditors; and
- recommending, if necessary, that the Board take appropriate action to satisfy itself of the auditors' independence.

The Audit Committee shall present its conclusions with respect to the independent auditor to the Board.

12. Approve, in advance, all permissible non-audit related services to be provided by the independent auditors; and approve, after the fact, certain de minimus services for which pre-approval is not required by SEC rules or the AMEX listing standards.

13. Meet with the independent auditors, in person or telephonically, prior to the audit to discuss the planning, scope, and staffing of the audit.

Compliance Oversight Responsibilities

14. Review with the Company's counsel, any legal matter that could have a significant impact on the Company's financial statements or disclosures in public filings. Also, discuss with counsel the adequacy of the Company's legal and regulatory compliance systems.

15. Inquire of management that the Company is in conformity with applicable legal requirements. Inquire as to existence of any insider and affiliated party transactions and evaluate purpose of same. Advise the Board with respect to findings.

16. Establish procedures for the receipt, retention and treatment of complaints received by the Company regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters.

17. Discuss with management and the independent auditor any correspondence with regulators or governmental agencies and any published reports which raise material issues regarding the Company's financial statements or accounting policies.

18. Review policies and procedures on executive expense accounts and perquisites, including the use of Company assets, and consider the results of any work in these areas by the independent auditors.

19. Discuss with the independent auditors the results of their work, if any, on the Company's system of compliance with its code of conduct.

Limitation of Audit Committee's Role

While the Audit Committee has the responsibilities and powers set forth in this Charter, it is not the duty of the Audit Committee to plan or conduct audits or to determine that the Company's financial statements and disclosures are complete and accurate and are in accordance with generally accepted accounting principles and applicable rules and regulations. These are the responsibilities of management and the independent auditors.