

# SECURITIES AND EXCHANGE COMMISSION

## FORM 10-K405

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### FILER

#### **GENELABS TECHNOLOGIES INC /CA**

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## PART I

## ITEM 1. BUSINESS.

All statements in this 10-K that are not historical are forward-looking statements. Forward-looking statements involve a number of risks and uncertainties. These risks and uncertainties include, but are not limited to, those statements concerning clinical trials, progress of drug discovery programs, the Company's business plans, anticipated expenditures and the timing and need for additional funds. Forward-looking statements may be identified by terminology such as "may," "will," "expects," "anticipates," "intends," "plans," "believes," "potential" and similar expressions. Some of the factors that could cause material differences in actual results of the Company's activities are product development, regulatory approval and manufacturing risks. Additional factors include intellectual property rights and the Company's relationships with its collaborators and potential collaborators. These and additional factors and risks are discussed in "Risk Factors" at the end of this Item 1. Shareholders and prospective investors in the Company should carefully consider these risk factors. The Company disclaims any obligation to update these statements for subsequent events.

Genelabs Technologies, Inc. ("Genelabs" or the "Company") is a biopharmaceutical company that focuses on the discovery and development of drugs. The Company's principal drug discovery program is based on proprietary enabling technologies for creating gene-specific, small organic, DNA-binding molecules. Related technologies are being applied to the discovery of novel antiviral RNA-binding compounds. The lead development program is in its second Phase III clinical trial as a new therapy for systemic lupus erythematosus ("SLE"), following successful completion of the initial Phase III trial in 1997.

The Company's business is primarily comprised of drug discovery and development programs. The Company also has investments in other companies, which include Genelabs Diagnostics Pte. Ltd. ("GLD") and Genelabs Biotechnology Co., Ltd. ("GBL"). GLD, which is based in Singapore, develops, manufactures and distributes tests for the diagnosis of infectious disease. While Genelabs has previously consolidated the results of GLD in its financial statements, the Company recently adopted a plan to divest this subsidiary and, accordingly, no longer consolidates GLD but instead accounts for it as a discontinued operation. GBL, which is based in Taiwan, develops, manufactures and distributes pharmaceutical products for the Asian market.

## DRUG DISCOVERY PROGRAM

Genelabs' research focus is to produce drug candidates targeted to specific genes using its novel drug discovery approach. The Company believes its DNA-binding program, an integrated platform of drug discovery technologies, has the potential to create an entirely new class of pharmaceutical products. While traditional drugs typically affect the activity of proteins derived from the expression of genes, Genelabs' drug discovery approach targets the disease-causing genes directly. The Company believes its techniques for discovering drug candidates are applicable to a number of diseases and other therapeutic areas.

The Company's DNA-binding drug discovery program is comprised of an integrated platform of technologies that include:

- High-throughput screening of random and structure-biased chemical libraries to select small DNA-binding molecules, or drug subunits, that are the building blocks for Genelabs' drug candidates.
- Multiple proprietary and nonproprietary assay systems, including the proprietary Merlin(TM) assay system, for identifying the DNA sequence-binding preferences of the DNA-binding molecules. These assays characterize the specific DNA sequences to which the compounds will bind.
- Chemistry capabilities for generating additional DNA-binding drug subunits and for combining the DNA-binding molecules in multiple combinations to create molecules that bind to longer, more gene-specific strands of DNA.

- Gene promoter analysis for discovering and validating key DNA sequences of disease-causing genes. This analysis determines the specific DNA sequence targets for which Genelabs will design a drug.

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- Generation of lead compounds using cell-based assays to validate the effects of a DNA-binding molecule against a specific gene target.

The initial phase of the drug discovery process utilizes Genelabs' expertise and proprietary technologies to identify and characterize small organic molecules, called monomers, that bind to short sections of DNA. A database of information on the monomer's DNA-binding properties forms the basis for selecting drug candidate subunits. In the next phase, based on information about the DNA sequences of disease-causing genes, the Company links these monomers together in selected combinations to form dimers that bind to longer (8 to 12 base pair) sections of DNA. Genelabs believes that the dimers, which represent potential drug candidates for further optimization into drugs, will be sufficiently gene-target specific to produce the desired therapeutic effect with minimal toxicity.

In addition to technologies for identifying and characterizing DNA-binding molecules, the Company has related technologies for the discovery and creation of novel antiviral RNA-binding molecules. Genelabs believes that drug candidates in this program may have advantages over existing antiviral therapeutics and could address large unmet market needs.

To date, the Company's technologies have identified DNA sequence-binding preferences for many molecules. Several compounds have been designed and synthesized from these molecules. In addition, the Company has performed tests that demonstrated predicted effects on the expression of target genes. In these tests, Genelabs' scientists engineered a dimer-binding DNA sequence into the regulatory site of a test gene and inserted the engineered test gene into cultured human cells, the results of which demonstrated a dose dependent alteration in the expression of the targeted test gene. Tests performed in unaltered bacterial cells on dimer binding sites also demonstrated alterations in the expression of test genes. These data demonstrated that the dimer affects the targeted gene and is not toxic at the levels shown to alter gene expression.

Genelabs has already identified key DNA sequences in several disease-related genes that are likely to be effective drug targets. The Company is actively engaged, on its own and in collaboration with corporate partners, in synthesizing drug candidates that may alter the expression of these medically important gene targets. The Company believes that its focus on sequence specificity will produce pharmaceutical products that are more efficacious and less toxic than currently known DNA-binding drugs.

Through its DNA- and RNA-binding technologies, the Company believes it has an entirely new approach to identifying therapeutics for disease intervention. The Company's business strategy is to identify, develop and commercialize a broad portfolio of lead compounds from its integrated drug discovery program, both independently and in collaboration with established pharmaceutical and biotechnology companies. Genelabs maintains a flexible business model that allows its technology to be used in other applications for which the Company is also exploring corporate collaborations.

The Company is in its third year of a collaborative research and license agreement with DuPont Pharmaceuticals Company ("DuPont") under which Genelabs is working on a number of target genes. This agreement provides Genelabs with research funding, milestone payments upon reaching predetermined research and development objectives, and royalties upon the commercial sale of products resulting from the collaboration. Additionally, the Company is in its second year of a research grant from the Defense Advanced Research Projects Agency ("DARPA") to apply Genelabs' DNA-binding and RNA-binding technologies to the discovery of drugs that can be used as countermeasures to agents of biological warfare. Genelabs receives research funding and has the right to commercialize any invention it makes during the term of the grant. Genelabs currently is pursuing additional drug discovery research collaborations with various other pharmaceutical and biotechnology companies.

DRUG DEVELOPMENT PROGRAM: GL701 FOR SYSTEMIC LUPUS ERYTHEMATOSUS

Systemic lupus erythematosus is a severe, chronic and frequently debilitating autoimmune disease that can affect the skin, joints, kidneys and

nervous system. Current treatment is often inadequate, due either to limited benefits or to severe adverse side effects. According to the American College of Rheumatology, SLE affects approximately 150,000 patients in the U.S., and Genelabs believes that there are at least three times

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that number of patients worldwide. GL701, Genelabs' therapeutic candidate for SLE, is a pharmaceutical formulation designed for oral administration that contains dehydroepiandrosterone ("DHEA") as the active ingredient. DHEA is a naturally occurring hormone that is produced by the adrenal glands.

SLE patients generally have abnormally low levels of DHEA, and studies have shown that hormonal influences play a role in the development and progression of SLE. Genelabs has exclusive worldwide rights under U.S. patents granted to Stanford University for the use of DHEA to treat SLE. Genelabs has sublicensed Asian marketing rights, excluding Japan, to GBL.

Genelabs has completed its first Phase III trial of GL701 for SLE. This 191 patient double-blind, placebo controlled clinical trial was designed to evaluate GL701's ability to reduce steroid dependency in women with mild to moderate SLE. All women in this trial previously required prednisone or other steroids for their treatment. Patients in the trial received daily doses of either 200 mg of GL701, 100 mg of GL701 or placebo for seven to nine months. Data presented to the American College of Rheumatology on behalf of the Company showed that patients who received 200 mg daily doses of GL701 achieved the study's primary endpoint at a higher rate than patients who received placebo. This primary endpoint was a sustained reduction in their steroid dose to 7.5 mg per day or less. The beneficial effect was most evident in the 137 SLE patients with active disease, defined as a SLE Disease Activity Index (SLEDAI) score greater than 2. In these patients, 51% of those who received daily doses of 200 mg of GL701 achieved the primary endpoint compared to 29% of those who received placebo.

Patient enrollment in the Company's second Phase III trial was completed in March 1998 with approximately 380 patients. This double-blind, placebo controlled trial is designed to determine whether GL701 can improve clinical outcome or disease symptoms. Patients in the trial receive daily doses of either 200 mg of GL701 or placebo for one year. The Company anticipates the clinical portion of this trial to be completed at the end of March 1999 with preliminary results available approximately mid-year 1999. Like the results of all double-blind clinical trials, the results of this clinical trial are uncertain. Genelabs will not know how GL701 has performed in this trial until the data analysis is completed. For further discussion, see "Risk Factors -- Clinical trial results are unpredictable."

The U.S. Food and Drug Administration ("FDA") has recognized the severely debilitating nature of SLE and the lack of adequate treatment by granting Subpart E designation to GL701. This designation permits the possibility of expedited development of the candidate drug and has typically only been granted for products such as cancer and AIDS therapies. The FDA also granted Orphan Drug status to GL701 for the treatment of SLE, a designation that provides up to seven years of U.S. marketing exclusivity for this indication to Genelabs if it is the first company to sponsor an approved new drug application for such indication. In late March 1999, the FDA designated GL701 for SLE as a Fast Track product. Fast Track designation provides for expedited submission and review of a New Drug Application.

#### INVESTMENTS AND OTHER PROGRAMS

Diagnostics Business -- Genelabs' wholly owned diagnostics subsidiary, Genelabs Diagnostics Pte. Ltd., is headquartered in Singapore, which houses its manufacturing, research and development, administrative and Asian sales functions. Marketing, sales and distribution for Europe, the Middle East and Africa are managed from offices in Geneva, Switzerland, while these functions for North and South America are managed from the Company's corporate headquarters in Redwood City, California. GLD markets both directly and through a network of distributors. GLD's products include Western Blot assays, rapid and ELISA tests. These products are used primarily for the diagnosis of human immunodeficiency virus ("HIV"), human T-cell leukemia virus ("HTLV"), and hepatitis viruses, in addition to others. GLD also manufactures hepatitis B surface antigen and related raw materials used for the production of diagnostic kits.

In or around May 2000, Genelabs' Series A Convertible Preferred Stock

("Preferred Stock") is convertible into one of two options. The first of these options is conversion into 49.99% of Genelabs' diagnostics business. This option also requires the Preferred Stockholders to purchase the remaining 50.01% of Genelabs' diagnostics business at its then fair market value. In the event that this conversion option is exercised, Genelabs will no longer own its diagnostics subsidiary. If the Preferred Stock is not converted into

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Genelabs' diagnostics business, the Preferred Stock will be converted into Genelabs Technologies, Inc. common stock based upon a formula. If this is the manner in which the Preferred Stock is converted, Genelabs plans to divest its interest in GLD through a sale of this subsidiary. As a result, under either conversion scenario the Company will not maintain a continuing interest in its diagnostics business, and, accordingly, Genelabs has accounted for GLD as a discontinued operation. The Company is currently exploring other options for earlier divestment of its diagnostics subsidiary. However, Genelabs can provide no assurance as to its ability to obtain favorable terms upon the eventual divestment of GLD, whether through conversion of the Preferred Stock or any other manner of divestment.

Asian Biopharmaceutical Investment -- Genelabs' Taiwan-based affiliate, Genelabs Biotechnology Co. Ltd., develops, manufactures and distributes pharmaceutical products in Asia. Since its formation in late 1995, GBL has purchased a pharmaceutical manufacturing plant, acquired rights to manufacture and distribute pharmaceutical products in parts of Taiwan, and acquired a pharmaceutical product marketing organization. In 1998, through a GBL equity offering in which Genelabs did not contribute any cash and through the sale of a portion of its investment, Genelabs reduced its ownership of GBL from 40% to 16%. Approximately 60% of the GBL shares owned by Genelabs were not paid for in cash and contain restrictions preventing their immediate sale; Genelabs intends to sell the remainder of its holdings in GBL.

Novel Immunomodulatory Genes -- The Company's scientists have isolated certain novel immunomodulatory genes on human chromosome 5 which may be associated with asthma. Patent applications have been filed in the U.S. to claim these novel sequences, and Genelabs is pursuing funding through government grants and external collaborations in order to investigate the biological function and commercial potential of these genes.

Novel Viruses -- In connection with its discovery of the hepatitis E virus ("HEV"), Genelabs has granted SmithKline Beecham p.l.c. ("SB") an exclusive worldwide royalty-bearing license to make, use and sell an HEV vaccine. SB is currently in the process of developing this vaccine. In addition, Genelabs has granted Abbott Laboratories a royalty-bearing, non-exclusive worldwide license to develop and commercialize diagnostic products for HEV.

In connection with its discovery of the hepatitis G virus ("HGV"), Genelabs has entered into royalty-bearing license agreements with Roche Diagnostics GmbH, Chiron Corporation and Ortho Diagnostic Systems Inc. to develop and commercialize diagnostic products for HGV. Although the presence of HGV has been detected in blood samples contained in the U.S., Europe, Japan and elsewhere, to date there are no known diseases specifically caused by HGV. Additionally, there are currently no assays developed for screening the blood bank supply.

GL331: Multiple Drug Resistant Cancers -- Genelabs and GBL are currently developing GL331, a topoisomerase II inhibitor, as a potential treatment for multiple drug resistant cancers. In laboratory and animal tests, GL331 has demonstrated anti-cancer activity against malignant cells that had already developed resistance to chemotherapeutic agents most frequently used for the treatment of small cell lung cancer. Genelabs has completed a Phase I human clinical safety study at M.D. Anderson Cancer Center in Houston, Texas, which determined the maximum tolerable dose of the drug. GBL is initiating a Phase II study of this agent in patients with small cell lung cancer. Depending on the results of this study, Genelabs may further develop GL331.

#### PATENTS AND LICENSES

The Company seeks patent protection for its proprietary technologies and potential products in the U.S. and internationally. Genelabs owns 26 issued U.S. patents, eight of which cover the novel drug discovery technologies. The remaining 18 issued U.S. patents cover GL701, the Company's HEV and HGV discoveries, immunomodulatory genes, and other proprietary technologies. Genelabs also owns 39 international patents that cover similar claims to its U.S. patents. In addition, Genelabs possesses many pending patent applications

covering the Company's novel drug discovery technologies and other proprietary technologies, but Genelabs cannot estimate how many of these pending patent applications will be granted as patents. The Company also has exclusive and non-exclusive licenses under a number of patents and patent applications owned by third parties.

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#### GOVERNMENT REGULATION

The research and development, manufacture, distribution and marketing of human pharmaceutical and medical device products are subject to regulation by the FDA in the U.S. and by comparable authorities in other countries. These national agencies and other federal, state and local entities regulate, among other things, research and development activities and the testing, manufacture, safety, effectiveness, labeling, storage, record keeping, approval, advertising and promotion of the products that the Company is developing. In the U.S., prior to the testing of a new drug in human subjects, the FDA requires the submission of an Investigational New Drug Application ("IND") which consists of, among other things, results of preclinical laboratory and animal tests, information on the chemical compositions, manufacturing and controls of the products, a protocol, an investigator's brochure and a proposed clinical program. Preclinical tests include laboratory evaluation of the product and animal studies to assess the potential safety and efficacy of the product and its formulation. Unless the FDA objects, the IND becomes effective 30 days after receipt by the FDA. FDA objection to the initiation of clinical trials is not uncommon, and the FDA may request additional data, clarification or validation of data submitted, or modification of the proposed clinical trial design.

Clinical trials are conducted in accordance with protocols that detail the objectives and designs of the study, the parameters to be used to monitor safety and the efficacy criteria to be evaluated. Each protocol is submitted to the FDA as part of the IND. Each clinical study is conducted under the auspices of an Institutional Review Board ("IRB"). The IRB will consider, among other things, ethical factors, the informed consent and the safety of human subjects and the possible liability of the institution. Clinical trials are typically conducted in three sequential phases, although the phases may overlap. In Phase I, the initial introduction of the drug into human subjects, the product is tested for safety, dosage tolerance, absorption, metabolism, distribution and excretion. Phase II involves studies in a limited patient population to (i) determine the efficacy of the product for specific, targeted indications, (ii) determine dosage tolerance and optimal dosage and (iii) identify the common short-term adverse effects and safety risks. When Phase II evaluations indicate that a product is effective and has an acceptable safety profile, two Phase III trials are normally required to further test for safety and efficacy within an expanded patient population at multiple clinical sites. Although the Company has been granted Subpart E designation with respect to GL701, which provides for the potential accelerated development of the drug, the Company plans to complete its second Phase III trial of GL701 and further demonstrate satisfactory results of GL701 prior to filing of a New Drug Application ("NDA"). The Company can provide no assurance that the results of the Company's second Phase III trial will warrant continuing the development of GL701 or proceeding with an NDA.

The results of product development, preclinical studies and clinical studies are submitted to the FDA as part of the NDA for approval of the marketing and commercial shipment of the new drug. The FDA may deny approval if applicable regulatory criteria are not satisfied or may require additional clinical or other testing. Even if additional testing data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval or it may limit the scope of any approval it does grant. Product approvals may be withdrawn if compliance with regulatory standards is not maintained or if problems occur or are first discovered after the product reaches the market. The FDA may also require post-approval testing and surveillance programs to monitor the effect of products that have been commercialized, and has the power to prevent or limit further marketing of the product based on the results of these post-marketing programs.

Each manufacturing establishment must be determined to be adequate by the FDA before approval of product manufacturing. Manufacturing establishments are

subject to inspections by the FDA for compliance with current Good Manufacturing Practices and licensing specifications before and after an NDA has been approved and foreign manufacturing facilities are subject to periodic FDA inspections or inspections by the foreign regulatory authorities.

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Sales of the Company's products outside the U.S. are subject to regulatory requirements governing human clinical trials and marketing for drugs and biological products. The requirements vary widely from country to country. The process of obtaining FDA and other domestic and foreign government approval for a new human drug or biological product is likely to take a number of years and involve the expenditure of substantial resources.

The Company's research and development programs involve the use of hazardous, chemical, radiological and biological materials, such as infectious disease agents. Accordingly, the Company's present and future business is subject to regulations under state and federal laws regarding work force safety, environmental protection and hazardous substance control and to other present and possible future local, state and federal regulations.

#### EMPLOYEES

As of March 10, 1999, the Company had 91 full time employees. 70 employees were involved in research and development, and 21 were in administration. The Company's employees are not represented by any collective bargaining agreements, and the Company has never experienced a work stoppage.

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#### RISK FACTORS

There are a number of risk factors that should be considered by Genelabs' shareholders and prospective investors. It is not possible to comprehensively address all risks that exist, but the following risks in particular should be considered.

- Clinical trial results are unpredictable
- Regulatory approvals are uncertain
- Research programs are likely to require additional funds
- Genelabs has limited sales, marketing and distribution capabilities
- Genelabs is in an early stage of drug discovery
- The Company depends on key employees for the execution of its business plan
- Competition in biotechnology is intense
- Patent and trade secret protection is uncertain
- The Company is dependent on outside manufacturing and supplier sources
- The Company's stock price is volatile

A more detailed discussion of each of these risk factors follows.

#### CLINICAL TRIAL RESULTS ARE UNPREDICTABLE

Before obtaining regulatory approvals for the commercial sale of any of its products under development, the Company must demonstrate through preclinical studies and clinical trials that the product is safe and efficacious for use in each target indication. The results from preclinical studies and initial clinical trials of products under development by the Company may not be predictive of results that will be obtained in large-scale testing. The Company cannot ensure that clinical trials will demonstrate the safety and efficacy of any products or will result in marketable products. The safety and efficacy of a therapeutic product under development by the Company, such as GL701, must be supported by extensive data from clinical trials. In 1999, Genelabs expects to

receive the data from its second Phase III trial of GL701 for SLE and to decide on whether to continue with the development of this drug candidate. Many biopharmaceutical companies have suffered significant setbacks in advanced clinical trials, even after obtaining promising results in earlier trials. The Company can provide no assurance that it will view the results of this second Phase III trial of GL701 for SLE as sufficient to support proceeding with an NDA or continuing development of the drug candidate.

#### REGULATORY APPROVALS ARE UNCERTAIN

The production and marketing of the Company's products are subject to rigorous requirements by the FDA as described in more detail under the caption "Government Regulation" in Item 1 of this Form 10-K, and also by comparable agencies in other countries and by state regulatory authorities. The process of conducting clinical trials and obtaining regulatory approval for a product typically takes a number of years and involves substantial expenditures. In addition, product approvals may be withdrawn or limited for noncompliance with regulatory standards or the occurrence of unforeseen problems following initial marketing. The Company may encounter significant delays or excessive costs in its efforts to secure and maintain necessary approvals or licenses. Future federal, state, local or foreign legislative or administrative acts could also prevent or delay regulatory approval of the Company's products. There can be no assurance that the Company will be able to obtain or maintain the necessary approvals for manufacturing or marketing the Company's products for proposed indications or that the data it obtains in clinical trials will be sufficient to establish the safety and efficacy of its products. In particular, Genelabs can provide no assurance that the FDA will view the results of the Company's Phase III trials of GL701 as sufficient to serve as the basis for filing or approval of an NDA.

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Even if the Company obtains regulatory approval for GL701, identification of certain side effects after it is on the market or the occurrence of manufacturing problems could cause subsequent withdrawal of approval or require reformulation, additional testing, and changes in labeling of the product. The Company's inability to obtain or maintain requisite governmental approvals, the identification of side effects or other factors could delay or preclude the Company from further developing or marketing GL701, which would have a material adverse effect on the Company's business, financial condition and results of operations.

The Company has obtained orphan drug status for GL701 for the treatment of SLE. Orphan drug status may, under present regulations, entitle the Company to seven years of U.S. marketing exclusivity provided that the Company is the first to sponsor an approved new drug application for such indication. While the marketing exclusivity of an orphan drug would prevent other sponsors from obtaining approval of the same compound for the same indication, it would not prevent the same compound from being approved for a different use. There can be no assurance that the scope of protection or the level of exclusivity that is currently afforded by orphan drug status will remain in effect in the future.

The Company is also subject to other regulations under numerous federal, state and local laws regarding, among other things, occupational safety, laboratory practices, the use and handling of radioisotopes and hazardous chemicals, prevention of illness and injury, environmental protection and hazardous substance control. Failure to comply with such regulations could have a material adverse effect on the Company's business, financial condition and results of operations.

#### RESEARCH PROGRAMS ARE LIKELY TO REQUIRE ADDITIONAL FUNDS

The Company has incurred losses in each year since its inception and has accumulated approximately \$130 million in net losses through December 31, 1998, including a net loss of \$6.6 million in 1998. The Company anticipates realizing a net loss at least until 2000, and profitability thereafter is subject to significant uncertainty. Genelabs cannot provide assurance that revenues will be sufficient to fund operations or that the Company will achieve profitability or positive cash flow. Additional financing may be required to fund the Company's continuing operations and research and development activities. This financing may dilute existing shareholders or provide certain rights to Genelabs' assets.

Genelabs fundraising strategy is to minimize dilution to current shareholders to the extent feasible in the currently unfavorable equity market

for small capitalization biotechnology companies. The Company's business plan involves raising funds primarily through corporate collaborations and license agreements, and secondarily through sales of assets that are not essential for the Company's core business of drug discovery and drug development. Genelabs is currently pursuing additional drug discovery research collaborations and GL701 licensing agreements, but can provide no assurance that collaborations or license agreements can be obtained on acceptable terms, if at all. The Company is also pursuing sales of several assets that it does not consider essential for its primary business, including its interest in GLD and GBL. Genelabs can provide no assurance that it will be able to find buyers willing to purchase these assets within an acceptable timeframe or on commercially favorable terms, if at all.

The unavailability of additional funds through the above-described potential financing sources could delay or prevent the development, testing, regulatory approval, manufacturing or marketing of some or all of the Company's products and technologies and could have a material adverse effect on the Company's business, financial condition and results of operations.

#### GENELABS HAS LIMITED SALES, MARKETING AND DISTRIBUTION CAPABILITIES

The Company has only limited sales, marketing and distribution capabilities. If the Company successfully develops any new products, including pharmaceutical products, Genelabs must either rely on large pharmaceutical companies to market such products or must develop a marketing and sales force with technical expertise and supporting distribution capability in order to market such products directly. If the Company successfully develops GL701 and obtains FDA approval, there is a possibility that it may not be economically feasible for Genelabs to commercially introduce the product.

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DHEA, the active ingredient in GL701, is currently being marketed by others as a dietary supplement. The Company believes that DHEA is a drug that should be subject to regulation and approval by the FDA. The Company further believes that in a few instances these supplements do not contain true DHEA, but instead contain related substances that are not biologically equivalent. The Company has submitted documentation to the FDA requesting clarification of DHEA's status as a drug and removal from the market as a dietary supplement. However, to date the FDA has taken no action to limit or regulate the sale of these dietary supplements, and no assurance can be given as to the willingness or ability of the FDA to do so in the future. In the event that clinical trials for GL701 are promising and the drug candidate receives FDA approval, the concurrent sale of these dietary supplements could adversely affect the market for or the selling price of GL701. While the Company has obtained exclusive licenses under U.S. patents relating to the use of GL701 to treat SLE and to reduce steroid dosage in SLE patients, Genelabs is unable to obtain patent protection for the compound itself.

#### GENELABS IS IN AN EARLY STAGE OF DRUG DISCOVERY

Genelabs' drug discovery technologies are at an early stage of development, and its product candidates are varying stages of development. The Company's technologies, including the DNA- and RNA-binding technologies, are in many cases new and still under development. These approaches have not yet been proven to have a therapeutic effect. There can be no assurance that these technologies or any of the Company's product candidates resulting therefrom will be successfully developed.

Genelabs' drug discovery technologies will require substantial additional research and development efforts prior to any commercial use, including extensive preclinical testing and clinical trials as well as potentially lengthy regulatory approval. There can be no assurance that any of these products or technologies will be successfully developed, prove to be safe and efficacious at each stage of clinical trials, meet applicable regulatory standards, be capable of being produced in commercial quantities at reasonable costs or be successfully marketed.

#### THE COMPANY DEPENDS ON KEY EMPLOYEES FOR THE EXECUTION OF ITS BUSINESS PLAN

The introduction of chemistry capabilities into the Company's research department required restructuring of the responsibilities of some scientists. Genelabs' success depends on the services of key employees in executive and research and development positions. The April 1, 1999 retirement of the

Company's President and Chief Executive Officer and her appointment to Chairman will result in her spending relatively less time at the Company. The loss of the services of key executives or other employees could have a material adverse impact on Genelabs' ability to execute its business plan.

#### COMPETITION IN BIOTECHNOLOGY IS INTENSE

Competition is intense in the human healthcare industry, particularly in the application of biotechnology, and the level of competition is expected to increase in the future. In seeking to develop proprietary pharmaceutical products and technologies, Genelabs faces competition from a number of major pharmaceutical companies as well as emerging biotechnology companies. Many of these competitors have substantially greater financial and other resources, larger research and development staffs and more extensive manufacturing and marketing capabilities than the Company. In addition, many of the Company's competitors have significantly greater resources and more experience than the Company in preclinical testing and in conducting human clinical trials of potential pharmaceutical products and in obtaining FDA and other regulatory approvals. These factors may enable these competitors to develop products competitive with or superior to those the Company plans to develop. Such competitive products could enter the marketplace before the Company's products.

A significant amount of research in biotechnology is performed at universities and nonprofit research organizations. These entities are becoming more active in seeking patent protection and licensing revenues for their discoveries. The competition among large pharmaceutical companies and smaller biotechnology

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companies to acquire technologies from these entities also is intensifying. These institutions also compete with Genelabs to recruit scientific personnel and to establish proprietary technology positions.

The Company faces particularly significant competition from a number of large companies with respect to the Company's diagnostic business. Many of these competitors have substantially greater resources and more extensive marketing capabilities than the Company's diagnostics subsidiary. These factors may enable these competitors to develop products competitive with or superior to GLD's and may adversely impact the Company's ability to successfully divest its diagnostics business.

#### PATENT AND TRADE SECRET PROTECTION IS UNCERTAIN

The biotechnology, pharmaceutical and diagnostic industries are subject to conflicting patent rights of various parties. The patent positions of all companies in these industries, including Genelabs, are uncertain and involve complex legal and factual issues. A patent application may be rejected or the claims may be significantly altered or narrowed before a patent issues. As a consequence, Genelabs does not know whether any of its patent applications will result in the issuance of patents. Genelabs can provide no assurance that its patents will effectively protect its technologies. The priority of patent applications is determined under complex and sometimes conflicting U.S. and international laws. Therefore, Genelabs cannot assure that its patent applications would have priority over competitors' patent applications, if any. Should the priority of a patent application come into question, Genelabs may have to participate in interference proceedings to determine priority of invention, which could result in substantial costs, even if the eventual outcome is favorable. Additionally, Genelabs may have to participate in opposition proceedings in European and other countries prior to the granting of a patent. The biotechnology industry is very competitive and other companies may own patents and applications and other proprietary rights relating to products or technology similar Genelabs' technologies. Genelabs cannot provide assurance that any patents it owns or controls will protect it against infringement litigation or afford commercially significant protection of its technology. The patent laws of foreign countries differ from those of the U.S. and the degree of protection, if any, afforded by foreign patents may be different.

If another company were to successfully bring legal action against Genelabs claiming patent or other intellectual property right infringements, Genelabs could be liable for damages and prevented from using or selling such products or technologies. Genelabs might also be required to obtain a license to use, manufacture or sell the affected product or technology. Genelabs cannot provide assurance that it will prevail in any dispute regarding its intellectual

property or that it will be able to obtain an acceptable license. Any litigation, whether or not resolved in favor of Genelabs, could be expensive and time-consuming, could consume substantial management resources and could have a material adverse effect on Genelabs' business, financial condition and results of operations.

GL701 is a pharmaceutical formulation designed for oral administration that contains DHEA as the active ingredient. DHEA is a compound that has been in the public domain for many years, and even though the Company has obtained U.S. patents relating to the use of GL701 to treat SLE and reduce steroid dosage in SLE patients, Genelabs is unable to obtain patent protection for the compound itself.

There may be intellectual property owned by third parties that is important to Genelabs' drug discovery programs of which Genelabs is not currently aware. Furthermore, in the future others may obtain patents or develop proprietary rights necessary or useful for the operation of Genelabs' business. Certain of these potentially competing patents or rights may be sufficiently broad to prevent or delay the Company from practicing its technology, and Genelabs may need to obtain licenses under these patents.

Genelabs also relies on unpatented proprietary technology including trade secrets, know-how and continuing technological innovation to enhance and develop its competitive position. The Company seeks to protect these types of information through a policy of having its employees, consultants and advisors execute confidentiality and assignment of invention agreements. Genelabs cannot assure that these agreements will not be breached or that Genelabs will have adequate legal recourse in case of such breach. It is possible that others will independently develop the same or similar proprietary information, and Genelabs cannot provide assurance about protecting its rights in unpatented proprietary technology. Furthermore, there can be no

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assurance that others have not obtained or will not obtain patent protection that will preclude the Company from using its unpatented proprietary technology.

The Company is aware that others, including various competitors, educational institutions and governmental organizations, have intellectual property, particularly patents and pending patent applications, in the U.S. and other countries potentially useful or necessary to the Company's diagnostic subsidiary. The Company is aware that others are pursuing and have obtained patents covering inventions in the field of HTLV-I, HTLV-II and HIV-2 peptides. In particular, one of GLD's competitors and the owner of a patent have filed a claim in Singapore alleging that two GLD products infringe their patent as described in Item 3 -- Legal Proceedings. While the Company and its diagnostics subsidiary believe there are substantial defenses and they are defending the suit vigorously, it is possible that the competitor will receive monetary damages and injunctive relief. Such an outcome could have a material adverse effect on the Company. There can be no assurance that the Company's diagnostic subsidiary will be able to continue manufacturing or selling its products without obtaining licenses to such patents or without modifying certain of its products to avoid the claims in such patents. The Company cannot assure that the diagnostic subsidiary will be able to obtain acceptable licenses to such patents. This could have a material adverse effect on the diagnostics business and the value of Genelabs' investment in it.

#### THE COMPANY IS DEPENDENT ON OUTSIDE MANUFACTURING AND SUPPLIER SOURCES

The Company has no internal manufacturing capabilities for pharmaceutical products and is entirely dependent on contract manufacturers to manufacture clinical and, if successfully developed, commercial-scale quantities of GL701 pursuant to supply agreements. There can be no assurance that these third party manufacturers will continue to meet FDA or product specification standards or that the Company's manufacturing requirements can be met in a consistent and timely manner. In addition, the Company may be unable to obtain sufficient contract manufacturing capacity due to competing demands on the contract manufacturer's capacity or other reasons. In the event of any interruption of supply from the contract manufacturer due to regulatory reasons, significant batch failures, capacity constraints or other causes, there can be no assurance that the Company could make alternative manufacturing arrangements on a timely basis, if at all. Such an interruption would have a material adverse effect on the Company's business, financial condition and results of operations. Completion of the Company's clinical trials and any submission of an NDA will be subject to the establishment of a commercial formulation and manufacturing

process. As manufacturing process development and formulation activities are ongoing throughout the development process, the Company may encounter difficulties at any time that could result in delays in clinical trials, regulatory submissions and commercialization of its products, or cause potential negative financial and competitive consequences.

The Company relies on certain suppliers of key raw materials to provide an adequate supply of such materials for production of finished products. In particular, GL701 currently is supplied to the Company by a limited number of sources. The disqualification or loss of one of these suppliers could have a material adverse effect on the Company because of difficulties and costs in obtaining and qualifying alternate suppliers. Regulatory requirements applicable to pharmaceutical products tend to make the substitution of suppliers costly and time consuming. The unavailability of adequate commercial quantities, the loss of a supplier's regulatory approval, the inability to develop alternative sources or an interruption in supply could impair the Company's ability to manufacture and market its products. If Genelabs is unable to renew or extend an agreement with a third party manufacturer or supplier, if an existing agreement is terminated, or if a third party manufacturer or supplier otherwise cannot meet our needs for a product, the Company may not be able to obtain an alternative source of manufacture or supply. This could have a material adverse effect on the Company's business, financial condition and results of operations.

The year 2000 issue is a result of computer programs being written using only two digits to define the applicable year. Any date-sensitive computer programs, hardware or embedded chips may recognize a date ending in "00" as 1900 rather than 2000. This could result in a system failure or a miscalculation that causes operating disruptions. A system failure or operating disruption at one of our key manufacturers or suppliers could result in their failure to provide Genelabs with adequate supplies of products or services, potentially

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impacting Genelabs' ability to engage in its planned business activities. While Genelabs has obtained representations that its key suppliers are year 2000 compliant, the Company cannot provide assurance that their computer systems will adequately handle all year 2000 issues, and such noncompliance could have an adverse effect on the Company's business, financial condition and results of operations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations -- Impact of Year 2000."

#### THE COMPANY'S STOCK PRICE IS VOLATILE

The market price of the Company's common stock, like the stock prices of many publicly traded biopharmaceutical companies, has been and will probably continue to be highly volatile. A variety of events can impact the stock price. Several of the events concerning Genelabs that can impact the price are discussed in this Risk Factor section. Numerous events occurring outside of Genelabs' control may also impact the price of Genelabs common stock. Securities class action lawsuits have been brought against other companies following periods of volatility in the market price of their common stock. This type of litigation, if brought against Genelabs, could result in substantial costs and diversion of management's time, which could materially affect our business plan, financial condition and results of operations.

#### ITEM 2. PROPERTIES.

The Company leases its principal research, clinical development and office facilities under an operating lease expiring in November 2002. This location encompasses approximately 50,000 square feet located in Redwood City, California, with an annual base rent of \$855,000. Genelabs believes that this facility is adequate for its current needs and that suitable additional or substitute space will be available as needed to accommodate the Company's operations.

#### ITEM 3. LEGAL PROCEEDINGS.

On October 5, 1998, Institut Pasteur and Pasteur Sanofi Diagnostics (collectively, the "Plaintiffs") filed a Writ of Summons in the High Court of the Republic of Singapore against GLD, the wholly-owned diagnostics subsidiary of Genelabs and Nagase Singapore Pte. Ltd., GLD's Malaysian distributor. In the Writ, the Plaintiffs allege that GLD has, by making, using and selling HIV-2 Western Blot diagnostic products, infringed a Singaporean patent owned by Institut Pasteur and exclusively licensed to Pasteur Sanofi. The Plaintiffs are seeking injunctive relief and damages in an unspecified amount. See "Risk

Factors -- Patent and trade secret protection is uncertain." GLD believes that it has substantial defenses and is defending the suit vigorously.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

Not Applicable.

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ITEM 4A. EXECUTIVE OFFICERS AND KEY EMPLOYEES OF THE REGISTRANT.

The executive officers and key employees of the Company are as follows:

<TABLE>  
<CAPTION>

NAME	AGE	POSITION
----	---	-----
<S>	<C>	<C>
Irene A. Chow, Ph.D. ....	60	Chief Executive Officer, President and Director through March 31, 1999. Chairman of the Board of Directors effective April 1, 1999.
James A. D. Smith.....	40	Chief Operating Officer through March 31, 1999. President effective April 1, 1999.
Cynthia A. Edwards, Ph.D. ....	45	Chief Scientific Officer
Marc Gurwith, M.D. ....	59	Vice President, Drug Development and Chief Medical Officer
Rich B. Meyer, Jr., Ph.D. ....	55	Vice President, Research
Debra Catz Bannister.....	46	Vice President, Corporate Communications and Investor Relations
Matthew M. Loar.....	36	Vice President, Finance
Gilbert R. Mintz, Ph.D. ....	47	Vice President, Business Development
Marco F. Rosa.....	48	Vice President, Human Resources
Heather Criss Keller.....	33	Director of Legal Affairs

</TABLE>

Irene A. Chow has been Chief Executive Officer and President since July 1995. As part of her planned transition to retirement, Dr. Chow becomes Chairman of the Board of Directors effective April 1, 1999, and resigns from her role as President and Chief Executive Officer. Before being appointed President and Chief Operating Officer of Genelabs in May 1995, she served the Company as President of the Biopharmaceutical Division beginning in August 1993 when she also became a Director. In addition to her duties at the Company, Dr. Chow also chairs GBL's Board of Directors. From 1975 to 1993, Dr. Chow held several positions at Ciba-Geigy Corporation, USA, a pharmaceutical company, most recently as Senior Vice President of Drug Development for the pharmaceuticals division. She holds a B.A. degree in Literature from National Taiwan University, and both an M.A. and a Ph.D. in Biostatistics from the University of California, Berkeley.

James A. D. Smith has been Chief Operating Officer since October 1996. Effective April 1, 1999, Mr. Smith becomes President. From June 1995 through September 1996 he was Vice President, Marketing and Business Development, and from January 1994 through June 1995 he was Director of Marketing. Prior to joining Genelabs in early 1994, Mr. Smith served for more than ten years in various marketing and business development positions with ICN Pharmaceuticals, most recently as Director of Worldwide Business Development. Mr. Smith has a B.S. in Molecular and Cellular Biology from the University of California, San Diego.

Cynthia A. Edwards has been Chief Scientific Officer since October 1998. From July 1995 through October 1998 she was Vice President, Research. From 1994 to July 1995 Dr. Edwards was Vice President, Pharmaceutical Research, preceded by various Director and Scientist positions at Genelabs. Before joining the Company in 1987, Dr. Edwards completed postdoctoral studies at the National Institutes of Health. She has a Ph.D. in Biology from the University of California, San Diego, an M.A. in Plant Physiology from Oregon State University and a B.S. in Botany from Oregon State University.

Marc Gurwith has been Vice President, Drug Development and Chief Medical Officer since August 1997. From January 1995 until August 1997 he was Vice President, Clinical Research and Associate Medical Director at Sequus Pharmaceuticals. Previously, he served as Vice President of Medical and Scientific Affairs at Boehringer Mannheim Pharmaceuticals and Senior Director of Clinical Research at Wyeth-Ayerst Research. Dr. Gurwith received his M.D. from

Harvard University, his J.D. from Temple University School of Law and his B.A. from Yale University.

Rich B. Meyer, Jr. has been Vice President, Research since October 1998. From 1993 to October 1998 he was Vice President, Research and Development and Chief Scientific Officer of Epoch Pharmaceuticals,

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Inc., a company he joined in 1986. Before joining Epoch, Dr. Meyer was a group leader at the Nucleic Acid Research Institute and Associate Professor of Medicinal Chemistry and Acting Associate Dean for Research of the Graduate School at Washington State University. He has also been Assistant Professor in the Department of Pharmaceutical Chemistry at the University of California, San Francisco. Dr. Meyer received his Ph.D. in Chemistry from the University of California, Santa Barbara.

Debra Catz Bannister has been Vice President, Corporate Communications and Investor Relations since April 1996. From 1993 until April 1996 she was Director, Corporate Relations at CV Therapeutics. Previously, she served in similar positions at several biotechnology companies including Aviron, Synergen and as the first investor relations manager at Genentech. Ms. Bannister has also been a Senior Consultant at Regis McKenna, Inc., providing corporate communications and investor relations counsel to high technology and biotechnology clients. She began working in the biotechnology industry in 1983 and previously held a number of positions in advertising and marketing communications.

Matthew M. Loar has been Vice President, Finance since January 1999. From November 1996 until January 1999 he was Director of Finance and Controller, and from September 1995 through November 1996 he was Finance Manager. From 1991 through September 1995 he was Corporate Accounting Manager at CBR Cement Corporation and prior to that was Audit Manager at Coopers & Lybrand. Mr. Loar is a Certified Public Accountant and has a B.A. in Legal Studies from the University of California, Berkeley.

Gilbert R. Mintz has been Vice President, Business Development since May 1998. Prior to joining the Company, he was Vice President, Marketing and Business Development at Anergen from March 1997 to May 1998, and was Director, Marketing and Business Development at Cygnus, Inc. from 1994 until 1997. Dr. Mintz has also held the position of Director of Licensing and Business Development with Trega Biosciences prior to joining Cygnus. Dr. Mintz received his Ph.D. in biochemistry from Washington University in St. Louis and completed his post-graduate training at Johns Hopkins School of Medicine, Department of Biological Chemistry. He received his B.S. in Chemistry from the University of Pittsburgh.

Marco F. Rosa has been Vice President, Human Resources since October 1996. From 1994 through September 1996, he was Senior Human Resources Business Strategist for Sony Electronics, Inc. From 1992 through 1994 he was Director of Human Resources at Centigram Communications and before then held senior human resource positions at Conner Peripherals and the General Electric Company. Mr. Rosa received his M.A. in Counseling Psychology from New York University and his B.A. in Psychology from St. Michael's College. He also served as a Captain in the United States Air Force.

Heather Criss Keller has been Director of Legal Affairs since October 1998. From September 1996 until July 1998 she was Senior Corporate Counsel at Heartport, Inc. Prior to joining Heartport, Ms. Keller was an associate with the law firm of Brobeck, Phleger & Harrison LLP. Ms. Keller received a J.D. from Vanderbilt University School of Law and a B.A. from Duke University.

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## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED SHAREHOLDER MATTERS.

The Common Stock of the Company began trading publicly on the NASDAQ National Market on June 13, 1991 under the symbol "GNLB." The following table sets forth for the periods indicated the high and low sale prices of the Company's common stock as reported by the NASDAQ National Market.

<TABLE>  
<CAPTION>

	HIGH	LOW
	----	---
<S>	<C>	<C>
1998		
1st Quarter.....	4 5/8	2 7/16
2nd Quarter.....	4 1/32	2 3/4
3rd Quarter.....	3 3/32	1 1/2
4th Quarter.....	3 1/16	1 1/2
1997		
1st Quarter.....	7 3/4	4 3/8
2nd Quarter.....	4 5/8	1 15/16
3rd Quarter.....	5 5/16	2 1/4
4th Quarter.....	4 3/8	2 7/16

</TABLE>

As of March 10, 1999, there were approximately 700 holders of record of Genelabs Common Stock. In addition, there were approximately 7,800 beneficial or "street-name" stockholders.

Genelabs has never declared or paid any cash dividends on its capital stock. The Company currently intends to retain any earnings for use in the operation and expansion of its business and does not anticipate paying any cash dividends in the foreseeable future.

ITEM 6. SELECTED FINANCIAL DATA.

The selected financial data presented below summarizes certain financial information from the Company's consolidated financial statements. The data presented below reflects GLD as a discontinued operation.

<TABLE>  
<CAPTION>

	YEARS ENDED DECEMBER 31,				
	1998	1997	1996	1995	1994
	-----	-----	-----	-----	-----
	(IN THOUSANDS, EXCEPT PER SHARE DATA)				
<S>	<C>	<C>	<C>	<C>	<C>
STATEMENT OF OPERATIONS DATA:					
Contract revenue.....	\$ 7,800	\$ 3,115	\$ 2,006	\$ 8,499	\$ 4,474
Research and development expenses.....	12,615	12,022	9,647	11,451	13,821
General and administrative expenses.....	4,349	4,508	5,063	5,474	5,310
Loss from continuing operations....	(8,139)	(12,038)	(11,482)	(7,823)	(14,521)
Net loss.....	(6,605)	(12,897)	(11,397)	(10,511)	(15,609)
Loss per share from continuing operations.....	(0.21)	(0.31)	(0.32)	(0.28)	(0.63)
Net loss per share.....	(0.17)	(0.33)	(0.32)	(0.38)	(0.68)
	DECEMBER 31,				
	1998	1997	1996	1995	1994
	-----	-----	-----	-----	-----
	(IN THOUSANDS)				
BALANCE SHEET DATA:					
Cash, cash equivalents and short-term investments.....	\$20,301	\$ 21,099	\$ 30,465	\$ 22,557	\$ 4,584
Working capital.....	12,310	15,793	25,805	15,289	1,015
Total assets.....	26,807	29,925	41,908	33,862	13,009
Long-term debt.....	--	--	--	--	2,828
Shareholders' equity.....	17,786	23,210	35,924	25,752	5,741

</TABLE>

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

All statements in Management's Discussion and Analysis of Financial Condition and Results of Operations that are not historical are forward-looking

statements. Forward-looking statements involve a number of risks and uncertainties. These risks and uncertainties include, but are not limited to, those statements concerning clinical trials, progress of drug discovery programs, the Company's business plans, anticipated expenditures and the timing and need for additional funds. Forward-looking statements may be identified by terminology such as "may," "will," "expects," "anticipates," "intends," "plans," "believes," "potential" and similar expressions. Some of the factors that could cause material differences in actual results of the Company's activities are product development, regulatory approval and manufacturing risks. Additional factors include intellectual property rights and the Company's relationships with its collaborators and potential collaborators. These and additional risks are discussed under "Risk Factors" in Item 1 and elsewhere in this Report. Shareholders and prospective investors in the Company should carefully consider these risk factors. The Company disclaims any obligation to update these statements for subsequent events.

Genelabs Technologies, Inc. is a biopharmaceutical company that focuses on the discovery and development of drugs. The Company's principal drug discovery program is based on proprietary enabling technologies for creating gene-specific, small organic, DNA-binding molecules. Related technologies are being applied to the discovery of novel antiviral RNA-binding compounds. The lead development program is in its second Phase III clinical trial as a new therapy for systemic lupus erythematosus, following successful completion of the initial Phase III trial in 1997.

#### RESULTS OF OPERATIONS FOR THE THREE YEARS ENDED DECEMBER 31, 1998, 1997 AND 1996

Genelabs has adopted a plan to divest its diagnostics operations. As a result, the Company's financial statements have been reclassified to reflect the results of Genelabs' diagnostics subsidiary as a discontinued operation for all periods that the financial statements are presented. This reclassification changes how the diagnostics subsidiary is incorporated into the financial statements, but does not change the previously reported net loss or shareholders' equity. With the diagnostics subsidiary reported as a discontinued operation, its net assets and results of operations are now reported in one line-item on each of the balance sheets and statements of operations, rather than being combined into the individual line-item descriptions.

#### 1998 COMPARED TO 1997

The net loss decreased 49% in 1998, to \$6.6 million from \$12.9 million in 1997. The decrease in net loss was due to increased contract revenue and a gain on the sale of an investment, partially offset by slightly higher operating expenses.

Contract revenues increased 150% in 1998, to \$7.8 million from \$3.1 million in 1997. The increase is attributable to two primary factors. The first of these was recognition of approximately \$3.5 million in revenue under a grant from the Defense Advanced Research Projects Agency for development of agents to counteract biological warfare. Second, the Company received a \$1 million payment from SmithKline Beecham for expansion of their rights to market a vaccine they are developing for the hepatitis E virus under license from Genelabs.

Operating expenses increased 3% in 1998, to \$17.0 million from \$16.5 million in 1997. In 1998, 74% of the operating expenses were in research and development, compared to 73% in 1997. Research and development expenses increased 5% in 1998, to \$12.6 million from \$12.0 million in 1997. The increase in research and development was due to significantly higher spending on the Company's drug discovery program, partially offset by lower spending on GL701 for SLE. Increased expenditures on the drug discovery program consisted primarily of sourcing chemical compounds as possible DNA- or RNA-binding agents, screening these compounds for DNA- and RNA-binding activity, and characterizing potential drug target binding sites on disease-causing genes. The decreased expenditures on the GL701 program consisted of lower purchases of drug supply necessary for conducting the clinical trials and lower clinical trial costs since the majority of patients had completed their treatment by the end of 1998. General and Administrative expenses decreased

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4% in 1998, to \$4.3 million from \$4.5 million in 1997. The Company anticipates that further declines in general and administrative expenses are unlikely.

Interest income decreased 26% in 1998, to \$1.0 million from \$1.4 million in

1997 due to declines in short-term interest rates and lower average balances in the Company's short-term investment accounts.

In 1998, the Company recorded a \$1.6 million gain on the partial sale of an investment in its Taiwan-based affiliate, GBL, offset by \$0.2 million of equity in losses through the time of the sale, which occurred during the second quarter of 1998. Since the sale reduced Genelabs' ownership of this company to less than 20%, Genelabs no longer records its proportionate share of this affiliate's income or loss, accounting for the decreased equity in loss compared to 1997.

Results from the discontinued diagnostics business, GLD, improved to income of \$0.1 million in 1998 compared to a loss of \$0.3 million in 1997. The improved operating results in 1998 were due to a 1997 charge resulting from a terminated sales agreement in which the customer could not meet its contractual obligations.

#### 1997 COMPARED TO 1996

The net loss increased 13% in 1997, to \$12.9 million from \$11.4 million in 1996. The increase in net loss was due to increased research and development expenses and higher losses from the Company's affiliates, which were only partially offset by higher contract revenues.

Contract revenues increased 55% in 1997, to \$3.1 million from \$2.0 million in 1996. The increase is attributable to revenue from a research collaboration with DuPont, which was partially offset by a decline in milestone revenue from a separate collaboration.

Operating expenses increased 12% in 1997, to \$16.5 million from \$14.7 million in 1996. In 1997, 73% of the operating expenses were in research and development compared to 66% in 1996. Research and development expenses increased 25% in 1997, to \$12.0 million from \$9.6 million in 1996. The increase in research and development in 1997 compared to 1996 resulted primarily from additional research conducted for a gene-regulating drug discovery collaboration and also from higher development costs as a result of higher patient enrollment in the Company's clinical trials of GL701 for SLE. In 1997, general and administrative expenses decreased 11%, to \$4.5 million from \$5.1 million in 1996. The decrease in 1997 compared to 1996 was due to a reduction in corporate administrative headcount.

Interest income increased 13% in 1997, to \$1.4 million from \$1.2 million in 1996 due to higher average balances in the Company's short-term investment accounts.

Equity in loss of the Company's Taiwan-based affiliate increased by \$0.3 million in 1997 to \$0.6 million from \$0.3 million in 1996, reflecting costs incurred after this affiliate purchased a pharmaceutical manufacturing facility.

The 1997 loss of \$0.3 million from the Company's diagnostics business was due to a \$0.4 million charge resulting from a terminated sales agreement in which the customer could not meet its contractual obligations. Without this charge, operating results would have been income of \$0.1 million in 1997.

#### LIQUIDITY AND CAPITAL RESOURCES

The Company had cash, cash equivalents and short-term investment balances totaling \$20.3 million at December 31, 1998, compared to \$21.1 million at December 31, 1997. The \$0.8 million decrease in cash, cash equivalents and short-term investments was attributable to \$7.6 million cash used in operations and \$1.4 million used to purchase research equipment. The net cash used in operations included the expansion of the drug discovery research program and the continuation of the development of GL701 for SLE. The cash uses were partially offset by \$4.3 million received on the sale of a portion of the GBL investment, \$2.5 million in short-term borrowings, \$0.7 million received from issuance of common stock under employee stock plans, and \$0.7 million received from the Company's diagnostics subsidiary.

Genelabs has operated at a loss since its inception and has funded its operations primarily through public and private offerings of its common stock, private offerings of its preferred stock and contract revenues. Due to the net losses, income taxes have not been a significant expense. Genelabs expects to incur substantial additional costs, including research costs for the Company's

drug discovery technologies and development costs for GL701. The amount of the additional costs will depend on numerous factors including the progress of Genelabs' research and development programs, the status of its corporate partnerships, results of clinical trials and actions of regulatory agencies.

The Company anticipates that its current resources and expected revenues from existing collaborative agreements will enable it to maintain its current and planned operations through 2000, although the Company intends to seek additional funds through corporate collaborations, asset sales or other means prior to such time. The Company anticipates realizing a net loss for this time frame and profitability thereafter is subject to significant uncertainty. Additional funds for the Company's research and development activities may not be available on acceptable terms, if at all. The unavailability of additional funds could delay or prevent the development, approval or marketing of some or all of the Company's products and technologies, which would have a material adverse effect on the Company's business, financial condition and results of operations.

#### IMPACT OF YEAR 2000

The Company has evaluated its computer systems and believes that such systems will function properly with respect to dates in the year 2000 and thereafter. The Company is assessing the possible effects on the Company's operations of the year 2000 readiness of key suppliers, contractors and collaborators, which is nearly complete and is expected to be completed by mid-year 1999. To date, no problems have been identified. While Genelabs has obtained representations that its key suppliers are year 2000 compliant, the Company cannot provide assurance that their computer systems will adequately handle all year 2000 issues. In addition, there are a few additional suppliers that have not yet indicated their year 2000 readiness. The potential impact and related costs of the year 2000 issue are not expected to be significant at this time, and the Company does not anticipate that these costs will exceed \$0.2 million in aggregate, most of which has already been incurred. Genelabs expects to continually assess its year 2000 readiness.

Certifications from Genelabs' software and hardware providers indicate that Genelabs will not be exposed to any material year 2000 costs, but there can be no assurance of this. While third-party assurances and internal testing are useful in assessing year 2000 issues, neither can provide absolute assurance about whether the Company will experience year 2000 problems and/or costs. The Company currently does not have contingency plans to deal with major year 2000 failures.

#### ITEM 7A. -- QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Genelabs' exposure to market risk for changes in interest rates relates primarily to the Company's short-term investments. Genelabs considers the risk minimal as the Company maintains a short six to nine-month average maturity, does not use derivative instruments, and places its investments with high quality debt issuers, primarily the U.S. government.

Genelabs' exposure to market risk for changes in foreign currency exchange rates relates primarily to the Company's investments in its diagnostics subsidiary, GLD, and its Taiwan-based affiliate, GBL, which are both separately identified on the balance sheet. GLD manufactures products in Singapore and its principal sales office is located in Switzerland, but sales are largely denominated in U.S. dollars. Genelabs is attempting to divest both GLD and GBL. Changes in foreign currency exchange rates may impact the proceeds received upon divestiture of Genelabs' investments in these entities, but the Company does not believe that such foreign currency exchange rate changes will materially impact the value reported in the financial statements, even if the changes are significant.

#### ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

The Company's Consolidated Financial Statements are set forth in the "Genelabs Technologies, Inc. Consolidated Financial Statements and Annual Report on Form 10-K Index" on page F-1 of this Annual Report on Form 10-K.

#### ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF REGISTRANT.

The information concerning the Company's directors required by Item 10 is incorporated herein by reference to the section entitled "Proposal No. 1 -- Election of Directors " of the definitive Proxy Statement for the Company's 1999 Annual Meeting of Shareholders to be held on June 16, 1999 (the "Proxy Statement"), and the information concerning the Company's executive officers required by Item 10 is incorporated herein by reference to Item 4A of this Annual Report on Form 10-K. The information concerning compliance with Section 16 of the Securities Exchange Act of 1934 required by Item 10 is incorporated herein by reference to the section entitled "Compliance Under Section 16(a) of the Securities Exchange Act of 1934" of the Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by Item 11 is incorporated herein by reference to the sections entitled "Executive Compensation" and "Compensation of Directors" of the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT.

The information required by Item 12 is incorporated herein by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" of the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS.

The information required by Item 13 is incorporated herein by reference to the section entitled "Certain Transactions" of the Proxy Statement.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K.

(a) (1), (a) (2) and (d) Financial Statements and Schedules.

Reference is made to "Genelabs Technologies, Inc. Consolidated Financial Statements Annual Report on Form 10-K Index" on page F-1 of this Annual Report on Form 10-K.

(a) (3) and (c) Index to Exhibits.

The following documents are filed herewith or incorporated by reference herein.

<TABLE>  
<CAPTION>

EXHIBIT NUMBER	EXHIBIT TITLE
-----	-----
<S>	<C>
3.01	Registrant's Amended and Restated Articles of Incorporation (incorporated herein by reference to Exhibit 3.01 to Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1991 (the "1991 Form 10-K")).
3.02	Registrant's Bylaws, as amended to date.
4.01	Specimen Certificate for Registrant's Common Stock (incorporated herein by reference to Exhibit 4.01 to Registrant's Registration Statement on Form S-1 filed with the Commission on April 29, 1991 (File No. 33-40120) (the "Form S-1")).
4.02	Certificate of Determination of Preferences of Series A Convertible Preferred Stock of Genelabs Technologies, Inc. (incorporated herein by reference to Exhibit 10.37 to Registrant's Form 10-Q for the quarter ended June 30, 1995).
10.01	Registrant's 1985 Employee Stock Option Plan and related documents, as amended to date (incorporated herein by reference to Exhibit 4.03 to the Registrant's Registration

Statement on Form S-8 (File No. 33-81894) filed on July 25, 1994 (the "July 1994 Form S-8").

- 10.02 Registrant's 1987 Directors Stock Option Plan and related documents, as amended to date (incorporated herein by reference to Exhibit 10.02 to Registrant's Annual Report on Form 10-K for the year ended December 31, 1995 (the "1995 Form 10-K")).
- 10.03 Registrant's 1991 Employee Stock Purchase Plan, as amended to date (incorporated herein by reference to Exhibit 4.04 to Registrant's Registration Statement on Form S-8 (File No. 333-30083) filed on June 26, 1997).
- 10.04 Registrant's 1994 Annual and Long-Term Incentive Based Compensation Program (incorporated herein by reference to Exhibit 4.03 to Registrant's Registration Statement on Form S-8 (File No. 33-85914) filed on November 3, 1994).
- 10.05 Amendment to Registrant's 1994 Annual and Long-Term Incentive Based Compensation Program (incorporated herein by reference to Exhibit 10.05 to Registrant's Annual Report on Form 10-K for the year ended December 31, 1997 ("the 1997 Form 10-K")).
- 10.06 Registrant's 1992 Restricted Stock Award Plan, as amended to date (incorporated herein by reference to Exhibit 4.06 to the Registrant's Registration Statement on Form S-8 (File No. 333-4806) filed on May 7, 1996).
- 10.07 Registrant's 1995 Stock Option Plan, as amended to date (incorporated herein by reference to the 1997 Form 10-K).
- 10.08 Form of Registrant's Indemnity Agreement entered into by Registrant with certain officers and directors (incorporated herein by reference to Exhibit 10.04 to the Form S-1).
- 10.09 Industrial Net Lease Agreement by and between Registrant and Lincoln Property Company N.C., Inc. dated July 29, 1986, as amended to date (incorporated herein by reference to Exhibit 10.06 to the Form S-1).
- 10.10 Amendment to Industrial Net Lease Agreement by and between Registrant and Metropolitan Life Insurance Company dated June 17, 1997 (incorporated herein by reference to Exhibit 10.36 to Registrant's Form 10-Q for the quarter ended September 30, 1997).

</TABLE>

<TABLE>  
<CAPTION>

EXHIBIT NUMBER -----	EXHIBIT TITLE -----
<S>	<C>
10.11	License Agreement, dated October 2, 1991, by and between Registrant, the University of North Carolina at Chapel Hill and Yale University (incorporated herein by reference to Exhibit 10.16 to the 1991 Form 10-K).*
10.12	Heads of Agreement, dated August 27, 1992, by and between Registrant and SmithKline Beecham p.l.c. ("Heads of Agreement") (incorporated herein by reference to Exhibit 10.19 to the Registrant's Form 10-Q for the quarter ended September 30, 1992).*
10.13	Second Amendment to Heads of Agreement.**
10.14	License Agreement, dated May 26, 1993, by and between the Registrant and Boehringer Mannheim America Ltd. (incorporated herein by reference to Exhibit 10.22 to the Registrant's Form 10-Q for the quarter ended June 30, 1993).*
10.15	License Agreement, dated as of October 1, 1993, by and between Registrant and Stanford University (incorporated herein by reference to Exhibit 10.16 to the 1996 Form 10-K).*
10.16	Agreement, dated as of January 26, 1996, by and between Registrant and Dr. Edgar G. Engleman (incorporated herein by reference to Exhibit 10.15 to Registrant's Annual Report on Form 10-K for the year ended December 31, 1996 (the "1996 Form 10-K")).*
10.17	Common Stock and Warrant Purchase Agreement, dated as of December 31, 1992, by and between Registrant and Abbott

10.18	Laboratories (incorporated herein by reference to Exhibit 10.19 to Registrant's Annual Report on the 1992 Form 10-K).*
	Stock Purchase Agreement, dated as of May 15, 1995, by and among Registrant, Genelabs Diagnostic, Inc., a wholly owned subsidiary of the Registrant, Johnson & Johnson Development Corporation, and Chiron Corporation (incorporated herein by reference to Exhibit 10.34 to Registrant's Form 10-Q for the quarter ended March 31, 1995 (the "1st Quarter 1995 Form 10-Q")).*
10.19	License and Supply Agreement, dated as of May 15, 1995, by and among Registrant, Genelabs Diagnostic, Inc., Chiron Corporation, and Ortho Diagnostic Systems, Inc. (incorporated herein by reference to Exhibit 10.35 to the 1st Quarter 1995 Form 10-Q).*
10.20	Asset Purchase Agreement, dated as of May 15, 1995, by and between Registrant and Genelabs Diagnostic, Inc. (incorporated herein by reference to Exhibit 10.36 to the 1st Quarter 1995 Form 10-Q).*
10.21	Joint Investment Agreement for formation of Genelabs Biotechnology Co., Ltd., a company organized under the laws of Taiwan, Republic of China (incorporated herein by reference to Exhibit 10.28 to the 1995 Form 10-K).*
10.22	Technology Transfer Agreement, dated as of November 21, 1995, by and between Registrant and Genelabs Biotechnology Co., Ltd. (incorporated herein by reference to Exhibit 10.29 to the 1995 Form 10-K).*
10.23	Collaborative Research and License Agreement, dated as of December 13, 1996, by and between Registrant and The DuPont Merck Pharmaceutical Company ("Collaborative Research and License Agreement") (incorporated herein by reference to Exhibit 10.27 to the 1996 Form 10-K).*
10.24	Second Amendment to Collaborative Research and License Agreement.**
10.25	Grant from the Space and Naval Warfare Systems Command, sponsored by the Defense Advanced Research Projects Agency, effective as of February 3, 1998 (incorporated herein by reference to the 1997 Form 10-K).

</TABLE>

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<TABLE>  
<CAPTION>

EXHIBIT NUMBER -----	EXHIBIT TITLE -----
<S>	<C>
10.26	First Modification to Grant from the Space and Naval Warfare Systems Command.
23.01	Consent of Ernst & Young LLP, Independent Auditors.
27	Financial Data Schedules (Exhibit 27 is submitted as an exhibit only in the electronic format of this Annual Report on Form 10-K submitted to the Securities and Exchange Commission).

</TABLE>

-----  
\* Confidential treatment has been granted with respect to certain portions of this document.

\*\* Confidential treatment has been requested with respect to certain portions of this document.

(b) Reports on Form 8-K.

There were no reports on Form 8-K filed for the quarter ended December 31, 1998.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GENELABS TECHNOLOGIES, INC.

By: /s/ IRENE A. CHOW

-----  
Irene A. Chow  
Chief Executive Officer, President  
and Director

March 26, 1999

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Irene A. Chow and James A.D. Smith, and each of them, his or her true and lawful attorneys-in-fact and agents with full power of substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and all documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<TABLE> <C>	<C>	<S>
PRINCIPAL EXECUTIVE OFFICER:		
/s/ IRENE A. CHOW ----- Irene A. Chow	Chief Executive Officer, President and Director	March 26, 1999
PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER:		
/s/ MATTHEW M. LOAR ----- Matthew M. Loar	Vice President, Finance	March 26, 1999
ADDITIONAL DIRECTORS:		
/s/ J. RICHARD CROUT ----- J. Richard Crout		March 26, 1999
/s/ THOMAS E. DEWEY, JR. ----- Thomas E. Dewey, Jr.		March 26, 1999
----- Frank L. Douglas		
/s/ EDGAR G. ENGLEMAN ----- Edgar G. Engleman		March 26, 1999
/s/ ARTHUR GRAY, JR. ----- Arthur Gray, Jr.		March 26, 1999
/s/ H. H. HAIGHT ----- H. H. Haight		March 26, 1999
/s/ ALAN Y. KWAN -----		March 26, 1999

Nina K. Wang

</TABLE>

EXHIBIT INDEX

<TABLE>

<CAPTION>

EXHIBIT

NUMBER

DESCRIPTION

EXHIBIT NUMBER	DESCRIPTION
3.02	Registrant's Bylaws, as amended to date.
10.13*	Second Amendment to Heads of Agreement.
10.24*	Second Amendment to Collaborative Research and License Agreement.
10.26	Modification to Grant from the Space and Naval Warfare Systems Command.
23.01	Consent of Ernst & Young LLP, Independent Auditors.
27.1996	1996 Restated Financial Data Schedule.
27.1997	1997 Restated Financial Data Schedule.
27.1998	1998 Financial Data Schedule.
27.97Q1	1st Quarter 1997 Restated Financial Data Schedule.
27.97Q2	2nd Quarter 1997 Restated Financial Data Schedule.
27.97Q3	3rd Quarter 1997 Restated Financial Data Schedule.
27.98Q1	1st Quarter 1998 Restated Financial Data Schedule.
27.98Q2	2nd Quarter 1998 Restated Financial Data Schedule.
27.98Q3	3rd Quarter 1998 Restated Financial Data Schedule.

</TABLE>

\* Confidential treatment has been requested with respect to certain portions of this document.

GENELABS TECHNOLOGIES, INC.

CONSOLIDATED FINANCIAL STATEMENTS AND ANNUAL REPORT ON FORM 10-K

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Report of Ernst & Young LLP, Independent Auditors.....	F-2
Consolidated Financial Statements:	
Consolidated Balance Sheets as of December 31, 1998 and 1997.....	F-3
Consolidated Statements of Operations for the Years Ended December 31, 1998, 1997 and 1996.....	F-4
Consolidated Statement of Shareholders' Equity for the Years Ended December 31, 1998, 1997 and 1996.....	F-5
Consolidated Statements of Cash Flows for the Years Ended December 31, 1998, 1997 and 1996.....	F-6
Notes to Consolidated Financial Statements.....	F-7-F-14

</TABLE>

All schedules are omitted because they are not required or the required information is included in the consolidated financial statements or notes thereto.

The Board of Directors and Shareholders  
Genelabs Technologies, Inc.

We have audited the accompanying consolidated balance sheets of Genelabs Technologies, Inc. as of December 31, 1998 and 1997, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the three years in the period ended December 31, 1998. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Genelabs Technologies, Inc. at December 31, 1998 and 1997, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1998, in conformity with generally accepted accounting principles.

ERNST & YOUNG LLP

Palo Alto, California  
February 10, 1999

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GENELABS TECHNOLOGIES, INC.

CONSOLIDATED BALANCE SHEETS  
(IN THOUSANDS)

ASSETS

<TABLE>  
<CAPTION>

	DECEMBER 31,	
	1998	1997
	-----	-----
<S>	<C>	<C>
Current assets:		
Cash, cash equivalents and short-term investments:		
Cash and cash equivalents.....	\$ 3,631	\$ 4,230
Short-term investments.....	16,670	16,869
	-----	-----
Total cash, cash equivalents and short-term investments...	20,301	21,099
Other current assets.....	383	713
	-----	-----
Total current assets.....	20,684	21,812
Property and equipment, net.....	1,401	432
Net assets of diagnostics subsidiary.....	3,372	3,882
Investment in Taiwan-based affiliate.....	1,174	3,658
Other assets.....	176	141
	-----	-----
	\$ 26,807	\$ 29,925
	=====	=====

LIABILITIES AND SHAREHOLDERS' EQUITY

Current liabilities:		
Short-term borrowings.....	\$ 2,500	\$ --
Accounts payable and other accrued liabilities.....	3,671	3,631
Accrued compensation and related expenses.....	1,458	1,545
Unearned contract revenue.....	745	843
	-----	-----

Total current liabilities.....	8,374	6,019
Long-term obligations.....	647	696
	-----	-----
Total liabilities.....	9,021	6,715
	-----	-----
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, no par value, 5,000 shares authorized, 10 shares convertible Series A issued and outstanding, with liquidation preference of \$10,000.....	9,682	9,682
Common stock, no par value, 75,000 shares authorized, 39,737 and 39,410 shares issued and outstanding at December 31, 1998 and 1997, respectively.....	138,335	137,604
Accumulated deficit.....	(130,497)	(123,892)
Accumulated other comprehensive income.....	266	(184)
	-----	-----
Total shareholders' equity.....	17,786	23,210
	-----	-----
	\$ 26,807	\$ 29,925
	=====	=====

</TABLE>

See accompanying notes.

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GENELABS TECHNOLOGIES, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS  
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

<TABLE>

<CAPTION>

	1998	1997	1996
	-----	-----	-----
<S>	<C>	<C>	<C>
Contract revenue.....	\$ 7,800	\$ 3,115	\$ 2,006
	-----	-----	-----
Operating expenses:			
Research and development.....	12,615	12,022	9,647
General and administrative.....	4,349	4,508	5,063
	-----	-----	-----
Total operating expenses.....	16,964	16,530	14,710
	-----	-----	-----
Operating loss.....	(9,164)	(13,415)	(12,704)
Interest income, net.....	1,025	1,377	1,222
	-----	-----	-----
Loss from continuing operations.....	(8,139)	(12,038)	(11,482)
	-----	-----	-----
Equity in loss of Taiwan-based affiliate, net of \$1,645 gain on partial sale in 1998.....	1,422	(577)	(265)
Income/(loss) from discontinued operations of diagnostics subsidiary.....	112	(282)	350
	-----	-----	-----
Net loss.....	\$ (6,605)	\$ (12,897)	\$ (11,397)
	=====	=====	=====
Loss per share from continuing operations.....	\$ (0.21)	\$ (0.31)	\$ (0.32)
	=====	=====	=====
Net loss per share.....	\$ (0.17)	\$ (0.33)	\$ (0.32)
	=====	=====	=====
Weighted average shares outstanding.....	39,603	38,983	35,746
	=====	=====	=====

</TABLE>

See accompanying notes.

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## GENELABS TECHNOLOGIES, INC.

CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY  
(IN THOUSANDS)<TABLE>  
<CAPTION>

	SERIES A CONVERTIBLE PREFERRED STOCK	COMMON STOCK	COMMON STOCK TO BE ISSUED	ACCUMULATED DEFICIT	ACCUMULATED OTHER COMPREHENSIVE INCOME	TOTAL SHAREHOLDERS' EQUITY
<S>	<C>	<C>	<C>	<C>	<C>	<C>
BALANCE, DECEMBER 31, 1995.....	\$9,682	\$115,002	\$ --	\$ (99,598)	\$ 666	\$ 25,752
Comprehensive loss:						
Net loss.....				(11,397)		(11,397)
Foreign currency translation adjustment.....					27	27
Total comprehensive loss.....						(11,370)
89 shares issued under the employee stock purchase plan....		223				223
711 shares issued under stock options.....		1,526				1,526
3,169 shares issued upon exercise of warrants, net.....		10,313				10,313
700 shares issued and 1,900 shares to be issued in a private placement, net.....		2,527	6,953			9,480
BALANCE, DECEMBER 31, 1996.....	9,682	129,591	6,953	(110,995)	693	35,924
Comprehensive loss:						
Net loss.....				(12,897)		(12,897)
Foreign currency translation adjustment.....					(877)	(877)
Total comprehensive loss.....						(13,774)
124 shares issued under the employee stock purchase plan....		413				413
189 shares issued under stock options.....		647				647
1,900 shares issued in a private placement, net.....		6,953	(6,953)			--
BALANCE, DECEMBER 31, 1997.....	9,682	137,604	--	(123,892)	(184)	23,210
Comprehensive loss:						
Net loss.....				(6,605)		(6,605)
Foreign currency translation adjustment.....					450	450
Total comprehensive loss.....						(6,155)
222 shares issued under the employee stock purchase plan....		499				499
105 shares issued under stock options.....		232				232
BALANCE, DECEMBER 31, 1998.....	\$9,682	\$138,335	\$ --	\$ (130,497)	\$ 266	\$ 17,786

&lt;/TABLE&gt;

See accompanying notes.

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## GENELABS TECHNOLOGIES, INC.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS)  
(IN THOUSANDS)

<TABLE>  
<CAPTION>

	1998	1997	1996
	-----	-----	-----
<S>	<C>	<C>	<C>
Cash flows from operating activities:			
Net loss.....	\$ (6,605)	\$ (12,897)	\$ (11,397)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization expense.....	437	54	333
(Income)/loss of discontinued diagnostics subsidiary.....	(112)	282	(350)
Equity in loss of Taiwan-based affiliate, net of \$1,645 gain on partial sale in 1998.....	(1,422)	577	265
Changes in assets and liabilities:			
Receivables and other current assets.....	330	611	(482)
Accounts payable, accrued liabilities, accrued compensation and long-term obligations.....	(96)	1,088	(498)
Unearned contract revenue.....	(98)	(357)	1,200
	-----	-----	-----
Net cash used in operating activities.....	(7,566)	(10,642)	(10,929)
	-----	-----	-----
Cash flows from investing activities:			
Purchases of securities available-for-sale.....	(24,556)	(19,797)	(43,488)
Proceeds from sale and maturities of securities available-for-sale.....	24,755	22,063	24,353
Capital expenditures.....	(1,434)	(100)	(165)
Proceeds from partial sale of Taiwan-based affiliate....	4,300	--	--
Net remittances from diagnostics subsidiary.....	678	457	317
Other.....	(7)	(141)	(29)
	-----	-----	-----
Net cash provided by/(used in) investing activities.....	3,736	2,482	(19,012)
	-----	-----	-----
Cash flows from financing activities:			
Payments on long-term obligations.....	--	--	(2,828)
Proceeds from short-term borrowings.....	2,500	--	--
Proceeds from issuance of common stock.....	731	8,013	14,589
	-----	-----	-----
Net cash provided by financing activities.....	3,231	8,013	11,761
	-----	-----	-----
Net decrease in cash and cash equivalents.....	(599)	(147)	(18,180)
Cash and cash equivalents, beginning of the period.....	4,230	4,377	22,557
	-----	-----	-----
Cash and cash equivalents, end of the period.....	3,631	4,230	4,377
Cash held in escrow, end of the period.....	--	--	6,953
Short-term investments, end of the period.....	16,670	16,869	19,135
	-----	-----	-----
Cash, cash equivalents and short-term investments, end of the period.....	\$ 20,301	\$ 21,099	\$ 30,465
	=====	=====	=====
Supplemental Cash Flow Information:			
Interest paid.....	--	--	\$ 170

</TABLE>

See accompanying notes.

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
DECEMBER 31, 1998

1. SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

Genelabs Technologies, Inc. ("Genelabs" or the "Company") is a biopharmaceutical company that focuses on the discovery and development of drugs. The Company's principal drug discovery program is based on proprietary enabling technologies for creating gene-specific, small organic, DNA-binding molecules. Related technologies are being applied to the discovery of novel

antiviral RNA-binding compounds. The lead development program is in its second phase III clinical trial as a new therapy for systemic lupus erythematosus ("SLE"), following successful completion of the initial phase III trial in 1997.

The Company also operates a wholly-owned subsidiary, Genelabs Diagnostics Pte. Ltd. ("GLD"), which sells diagnostic tests for infectious diseases primarily in Europe and Asia. In the fourth quarter of 1998, the Company adopted a plan to divest this subsidiary, and accordingly, the operating results of GLD have been segregated from continuing operations and reported separately (see Note 4). The Company has restated its prior financial statements in order to present the operating results and net assets of GLD as a discontinued operation. Since the restatement is only a change in the manner by which GLD is included in the financial statements, there is no impact on the previously reported net income or shareholders' equity. As a result of the discontinued operation, the Company now operates in one business segment, the discovery and development of pharmaceutical products.

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated. Investments in which Genelabs holds a 20% - 50% ownership interest are accounted for on the equity method.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. It is possible that actual amounts will differ from those estimates.

#### REVENUE RECOGNITION

Contract revenue consists of revenue from contracts and grants awarded to the Company by corporations and government agencies and is recognized in accordance with the terms of the contracts and grants. Revenue related to research contracts and grants is recognized over the related funding periods for each contract. The Company is generally required to perform research activities as specified in the agreements, and the Company is generally reimbursed based on the costs incurred on the contract. Revenue related to license agreements with non-cancelable, nonrefundable terms and no significant future obligations is recognized upon the execution of the agreements. Revenue from milestone payments is recognized upon the achievement of specified events under collaborative agreements.

Revenue recognized from several of the Company's grants and collaborations represent 10% or more of total contract revenue. There were three significant sources of revenue which accounted for 45%, 29%, and 13% of total contract revenue in 1998. There were two sources of revenue in the previous two years which accounted for 70% and 15% of total contract revenue in 1997, and 50% and 20% of total contract revenue in 1996.

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998

#### FOREIGN CURRENCY TRANSLATION

The functional currency of the Company is the U.S. Dollar. The functional currency of GLD is the Singapore dollar. The Company's share of the net assets in this foreign operation is translated at the exchange rate in effect at year-end and the net operating results are translated at the average exchange rate for the period. Adjustments resulting from the translation of financial statements denominated in foreign currency are reflected in accumulated other comprehensive income, a separate component of shareholders' equity.

#### STOCK BASED COMPENSATION

The Company grants employee stock options at an exercise price equal to the fair market value of the shares at the date of grant. The Company accounts for employee stock-based compensation using the intrinsic value method and, accordingly, recognizes no compensation expense for stock options granted to employees.

#### EARNINGS PER SHARE

Net loss per share has been computed using the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share has not been presented as, due to the Company's net loss position, it is antidilutive. Had the Company been in a net income position, diluted earnings per share for 1998, 1997 and 1996 would have included an additional 230,000, 598,000 and 1,273,000 shares, respectively, related to the Company's outstanding stock options, and 3,465,000, 3,333,000 and 3,333,000 shares, respectively, related to the Series A Convertible Preferred Stock.

#### CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

Cash, cash equivalents and short-term investments are held primarily in demand deposit, money market and custodial accounts with United States banks. Cash equivalents consist of financial investments with maturities of 90 days or less at time of acquisition that are readily convertible into cash and have insignificant interest rate risk.

The Company invests funds that are not required for immediate operating needs principally in a diversified portfolio of debt securities. Management determines the appropriate classification of these marketable debt securities at the time of purchase and reevaluates such designation as of each balance sheet date. As of December 31, 1998 and 1997, all marketable securities are classified as available-for-sale. These securities are stated at estimated fair value based upon market quotes. Unrealized gains and losses, when material, are included in retained earnings. Amortization of premiums and discounts and realized gains and losses are included in interest income. The cost of securities sold is based on the specific identification method. The Company has not experienced any significant losses on its investments.

#### PROPERTY AND EQUIPMENT

Property and equipment are stated at cost. Depreciation on equipment is calculated on a straight-line basis over the estimated useful lives of the assets, generally five years. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful lives of the improvements.

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GENELABS TECHNOLOGIES, INC.

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED) DECEMBER 31, 1998

#### CHANGES IN ACCOUNTING STANDARDS

In 1998, the Company adopted Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income" ("SFAS No. 130"). SFAS No. 130 establishes new rules for the reporting and display of comprehensive income and its components, although it has no impact on Company's financial position or results of operations. Comprehensive income is comprised of net income and other comprehensive income, which includes certain changes to shareholders' equity that are excluded from net income. Specifically, SFAS No. 130 requires certain foreign currency translation adjustments, which are currently reported in shareholders' equity, to be included in other comprehensive income. Comprehensive income for the years ended December 31, 1998, 1997 and 1996 has been reflected in the Consolidated Statement of Shareholders' Equity to conform to the requirements of SFAS No. 130.

In 1998, the Company adopted Statement of Financial Accounting Standards No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS No. 133"). SFAS No. 133 requires carrying derivative instruments at their fair value on the balance sheet. Due to the Company's limited use of derivatives, the adoption of SFAS No. 133 did not impact the Company's financial position or results of operations.

#### 2. AVAILABLE-FOR-SALE SECURITIES

The following table summarizes the estimated fair value, which approximates cost, of available-for-sale securities at December 31:

<TABLE>  
<CAPTION>

	1998	1997
	-----	-----

	(IN THOUSANDS)	
<S>	<C>	<C>
DESCRIPTION:		
U.S. Treasury securities and obligations of U.S. government agencies.....	\$12,333	\$11,873
Corporate debt securities.....	4,054	6,043
Asset-backed securities.....	1,081	954
Money-market mutual funds.....	89	228
	-----	-----
	\$17,557	\$19,098
	=====	=====
BALANCE SHEET CLASSIFICATION:		
Included in cash and cash equivalents.....	\$ 887	\$ 2,229
Included in short-term investments.....	16,670	16,869
	-----	-----
	\$17,557	\$19,098
	=====	=====
MATURITY:		
Due within one year.....	\$12,117	\$13,890
Due after one year through two years.....	5,440	5,208
	-----	-----
	\$17,557	\$19,098
	=====	=====

</TABLE>

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998

3. PROPERTY AND EQUIPMENT

The components of property and equipment are as follows:

	1998	1997
<S>	<C>	<C>
(IN THOUSANDS)		
Laboratory equipment.....	\$ 3,384	\$ 2,279
Leasehold improvements.....	4,009	3,819
Office and other equipment.....	1,682	1,627
	-----	-----
	9,075	7,725
Less accumulated depreciation and amortization.....	(7,674)	(7,293)
	-----	-----
	\$ 1,401	\$ 432
	=====	=====

</TABLE>

4. DISCONTINUED OPERATION -- DIAGNOSTICS SUBSIDIARY

The Company owns 100% of Genelabs Diagnostics Pte. Ltd. The Company has adopted a plan to divest this subsidiary, and accordingly has accounted for GLD as a discontinued operation. Summarized financial information for GLD is as follows:

STATEMENTS OF OPERATIONS

	1998	1997	1996
<S>	<C>	<C>	<C>
(IN THOUSANDS)			
Product sales.....	\$7,905	\$9,675	\$11,324
Cost of sales.....	4,207	5,818	6,177
	-----	-----	-----
Gross margin.....	3,698	3,857	5,147
Operating expenses.....	3,586	4,139	4,797
	-----	-----	-----
Net income/(loss).....	\$ 112	\$ (282)	\$ 350

</TABLE>

BALANCE SHEETS

<TABLE>  
<CAPTION>

	1998	1997
	-----	-----
	(IN THOUSANDS, AT DECEMBER 31)	
<S>	<C>	<C>
Accounts receivable.....	\$1,551	\$1,855
Inventories.....	2,098	2,281
Net property & equipment and other assets.....	716	960
	-----	-----
Total assets.....	\$4,365	\$5,096
	=====	=====
Liabilities, principally current.....	\$ 993	\$1,214
Net equity of Genelabs Diagnostics (Pte.) Ltd.....	3,372	3,882
	-----	-----
Total liabilities and net equity.....	\$4,365	\$5,096
	=====	=====

</TABLE>

5. INVESTMENT IN TAIWAN-BASED AFFILIATE

At the beginning of 1998 the Company owned 40% of its Taiwan-based affiliate, Genelabs Biotechnology Co., Ltd. ("GBL"), which manufactures and distributes pharmaceutical products for the Asian market. In 1998 the Company reduced its ownership in this affiliate to 16% by not contributing cash during a GBL equity offering and also by selling a portion of its investment. The realized gain of \$1.6 million from the sale consisted of \$4.3 million in proceeds less its basis of \$2.4 million and an accumulated foreign currency translation adjustment of \$0.3 million. Concurrent with the reduction in

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998

ownership interest to less than 20%, the Company changed its method of accounting for this investment from the equity method to the cost method. GBL's net loss for 1997 and 1996 was \$1.5 million and \$0.5 million, respectively, and sales were not material. At December 31, 1997, GBL had cash and cash equivalents of \$1.6 million, accounts receivable of \$1.1 million and property, plant and equipment of \$8.8 million for total assets of \$11.5 million; liabilities were \$1.4 million.

6. SHORT-TERM BORROWINGS

At December 31, 1998, the Company's short-term borrowings consisted of a \$2.5 million reverse repurchase agreement bearing interest at 5.04%, collateralized by certain U.S. treasury securities held in the Company's short-term investment accounts.

7. COMMITMENTS AND CONTINGENCIES

The Company leases its primary office and laboratory facilities under a non-cancelable operating lease which has a term expiring November 2002. The Company is required to pay certain maintenance expenses in addition to monthly rent. The Company also leases certain office and production facilities and laboratory equipment under other non-cancelable operating leases. At December 31, 1998, future minimum lease payments under all operating leases with original terms greater than one year are \$1,010,000, \$967,000, \$928,000 and \$859,000 for 1999, 2000, 2001, and 2002, respectively, for a total of \$3,764,000, excluding sublease rentals. Total lease expense, net of sublease income, was \$953,000, \$838,000 and \$1,055,000 for 1998, 1997 and 1996, respectively.

The Company is subject to legal proceedings and claims that arise in the ordinary course of business. Management currently believes that the ultimate amount of liability, if any, with respect to any pending actions, either individually or in the aggregate, will not materially affect Genelabs' financial

position or results of operations. However, the ultimate outcome of any litigation is uncertain. If an unfavorable outcome were to occur, the impact could be material. Furthermore, any litigation, regardless of the outcome, can have an adverse impact on the Company's results of operations as a result of defense costs, diversion of management resources, and other factors.

#### 8. SHAREHOLDERS' EQUITY

##### CONVERTIBLE PREFERRED STOCK

In May 2000 the 10,000 outstanding shares of Series A Convertible Preferred Stock can be converted into 49.99% of Genelabs' diagnostics business, if the remainder of this business is purchased by the Preferred Stockholders at its then fair market value. Alternatively, these shares, purchased for \$10 million, can be converted into Genelabs common stock at the lesser of the fair market value at the time of conversion or \$3.00 per share, but in no event more than 49.99% of Genelabs common stock after the conversion. The Series A Convertible Preferred stockholders are entitled to non-cumulative dividends in preference to common stock dividends at the annual rate of \$40 per share, payable quarterly, if declared by the Company's Board of Directors. No dividends have been declared or paid by the Company. Preferred stockholders are entitled to one vote for each share of common stock into which their preferred stock could be converted at the time of voting.

##### COMMON STOCK

At December 31, 1998, the Company had 19,777,000 shares reserved for future issues and conversions.

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998

#### 9. STOCK-BASED COMPENSATION

EMPLOYEE STOCK PURCHASE PLAN ("STOCK PURCHASE PLAN"). Employees who meet certain minimum requirements are eligible to participate in the Company's Stock Purchase Plan, for which 1,000,000 shares of Common Stock have been reserved. Eligible employees are entitled to purchase stock at 85% of the price at the beginning or ending of six-month purchase periods, whichever is lower, and stock may be purchased at the same price for up to four periods. Purchases are limited to a maximum of \$25,000 per year and employees can contribute up to 10% of total compensation. Through December 31, 1998 and 1997, 663,000 and 451,000 shares, respectively, had been issued under the Stock Purchase Plan. In 1998, the Company terminated the Genelabs Biotechnology Co., Ltd. Employee Stock Purchase Plan and prior to such termination, 24,000 shares had been issued under terms similar to the Stock Purchase Plan.

STOCK AWARD PLANS. The Company has stock award plans which provide for the issuance of shares of Common Stock to employees and independent contractors who are not officers or directors. There are 700,000 shares of Common Stock reserved for issuance under these plans and through December 31, 1998 and 1997, 106,000 shares had been issued.

STOCK OPTION PLAN. The Company's stock option plan provides for the issuance of incentive stock options and nonqualified stock options to employees, officers, directors and independent contractors. The number of stock options granted is determined by the Board of Directors or a committee designated by the Board of Directors, except for grants to directors, who receive options based on a formula. Stock options generally may not be granted at prices lower than fair market value on the date of grant and vest over periods ranging from two to four years, with expiration no later than ten years from the date of grant. At December 31, 1998, 419,000 shares were available for future grants.

Stock option transactions from 1996 through 1998 are summarized as follows:

<TABLE>  
<CAPTION>

NUMBER OF SHARES	WEIGHTED AVERAGE EXERCISE PRICE	RANGE OF EXERCISE PRICES
---------------------	---------------------------------------	--------------------------------

<S>	<C>	<C>	<C>
Outstanding at December 31, 1995.....	2,966,000	\$2.85	\$1.25 - \$7.06
Granted.....	967,000	\$6.01	\$3.56 - \$9.16
Exercised.....	(758,000)	\$2.34	\$1.25 - \$5.00
Canceled.....	(273,000)	\$4.97	\$1.25 - \$7.62
	-----	-----	-----
Outstanding at December 31, 1996.....	2,902,000	\$3.83	\$1.41 - \$9.16
Granted.....	880,000	\$4.34	\$2.09 - \$7.09
Exercised.....	(260,000)	\$2.66	\$1.41 - \$4.81
Canceled.....	(282,000)	\$5.02	\$2.37 - \$8.56
	-----	-----	-----
Outstanding at December 31, 1997.....	3,240,000	\$3.96	\$1.41 - \$9.16
Granted.....	626,000	\$2.94	\$1.78 - \$4.38
Exercised.....	(104,000)	\$1.97	\$1.41 - \$2.63
Canceled.....	(340,000)	\$4.44	\$1.41 - \$8.50
	-----	-----	-----
Outstanding at December 31, 1998.....	3,422,000	\$3.79	\$1.41 - \$9.16
	=====	=====	=====

</TABLE>

There were options for 1,778,000 and 1,373,000 shares exercisable at December 31, 1997 and 1996, respectively. For options outstanding and exercisable at December 31, 1998, the exercise price ranges and average remaining terms were:

<TABLE>					
<CAPTION>					
RANGE OF EXERCISE PRICES	NUMBER OF OPTIONS OUTSTANDING AT 12/31/98	WEIGHTED AVERAGE REMAINING TERM	WEIGHTED AVERAGE EXERCISE PRICE	NUMBER OF OPTIONS EXERCISABLE AT 12/31/98	WEIGHTED AVERAGE EXERCISE PRICE
-----	-----	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>	<C>
\$1.41 - \$2.97..	1,734,000	6.4 years	\$2.44	1,212,000	\$2.42
\$3.03 - \$5.81..	892,000	7.8 years	\$3.97	325,000	\$4.31
\$6.19 - \$9.16..	796,000	7.1 years	\$6.51	547,000	\$6.54
-----	-----	-----	-----	-----	-----
\$1.41 - \$9.16..	3,422,000	6.9 years	\$3.79	2,084,000	\$3.80
=====	=====	=====	=====	=====	=====

</TABLE>

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)  
DECEMBER 31, 1998

DISCLOSURE OF FAIR VALUE OF STOCK OPTIONS. As disclosed in Note 1, Genelabs accounts for employee stock options using their intrinsic value at the time of grant. However, generally accepted accounting principals require companies that account for stock options under the intrinsic value method to also disclose the pro forma impact as if they had accounted for stock options using a fair value approach. Accordingly, for disclosure purposes, the fair value of stock options was estimated at the date of grant using a Black-Scholes option valuation model. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. This model requires highly subjective assumptions regarding expected stock price volatility. Because the Company's stock options have characteristics significantly different from those of traded options and changes in the volatility assumptions can materially affect the fair value estimate, the Company's management believes that this model does not necessarily provide a representative measure of the fair value of the options actually granted under the Company's stock-based compensation plans. To determine the pro forma disclosure, the Company used the following weighted average assumptions for 1998, 1997 and 1996, respectively: dividend yields of zero, risk-free interest rates of 5.0%, 5.6% and 5.8%, a volatility factor of the expected market price of the Company's common stock of .80, and a one-year expected life of the options after vesting. Based on these assumptions, the weighted-average fair value of options granted during 1998, 1997 and 1996 was \$1.70, \$2.56, and \$3.48, respectively. For purposes of pro forma disclosures, the estimated fair value of the options is expensed ratably over the options' vesting period. If the Company elected to record the fair value estimate of stock options in its financial statements, the net loss for 1998, 1997 and 1996, respectively, would have been \$8,168,000, \$14,767,000 and \$13,072,000 and the net loss per share would have

been \$0.21, \$0.38 and \$0.37.

#### 10. COLLABORATIVE AGREEMENTS

The Company has the following collaborative agreements:

DuPont Pharmaceuticals Company -- Gene-Regulating Drugs. On January 1, 1997, the Company commenced work under a collaborative research and license agreement with DuPont Pharmaceuticals Company ("DuPont") to develop small molecule gene-regulating drugs. Genelabs is conducting a drug discovery program directed towards a number of target genes, and DuPont plans to develop any drug candidates discovered under this collaboration by Genelabs. Under the terms of the agreement, Genelabs receives research funding, will receive payments for milestones reached and will receive royalties upon commercial sale of products resulting from this collaboration.

Defense Advanced Research Projects Agency -- Countermeasures to Agents of Biological Warfare. Effective February 1, 1998, the company received a research grant from the Defense Advanced Research Projects Agency ("DARPA") to apply Genelabs' DNA-binding and RNA-binding technologies towards the discovery of drugs that can be used as countermeasures to agents of biological warfare. Under the terms of the grant, Genelabs receives research funding for up to three years and has the right to commercialize any invention it makes during the term of the grant.

Stanford University -- SLE. The Company has an exclusive licensing agreement with Stanford University for rights to certain U.S. patents covering the development, manufacture and sale of GL701 (dehydroepiandrosterone) for the treatment of systemic lupus erythematosus ("SLE"). Under this agreement, Stanford receives milestone payments based on clinical development goals and will receive royalty payments on sales. A director of Genelabs will also receive a fee based on sales of the product for SLE.

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GENELABS TECHNOLOGIES, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

DECEMBER 31, 1998

Sanofi Diagnostics Pasteur -- HCV Diagnostic. The Company has granted Sanofi Diagnostics Pasteur exclusive and co-exclusive licenses to sell certain HCV products in exchange for royalty payments to Genelabs.

SmithKline Beecham p.l.c. -- HEV Vaccine. The Company has granted SmithKline Beecham p.l.c. ("SB") exclusive worldwide manufacturing and marketing rights for a hepatitis E virus ("HEV") vaccine. In return, Genelabs receives milestone payments when SB reaches predetermined goals and Genelabs will receive royalties based on sales of licensed HEV vaccine products.

Chiron Corporation, Ortho Diagnostic Systems, Inc. and Roche Diagnostics GmbH -- HGV. The Company has granted these companies the rights to develop and commercialize hepatitis G virus diagnostic products. In return, Genelabs receives milestone payments when its partners reach predetermined goals and Genelabs receives royalties based on sales of licensed HGV products.

#### 11. INCOME TAXES

At December 31, 1998, the Company has net operating loss carryforwards for federal and California income tax purposes of approximately \$104 million and \$7 million, respectively. In addition, the Company has federal and California research and development tax credit carryforwards of approximately \$2 million and \$1 million, respectively. The federal net operating loss and federal and California credit carryforwards expire in various amounts between the years 2000 and 2018. The California net operating loss carryforwards expire in various amounts between the years 1999 and 2003. Under provisions of the Internal Revenue Code the availability of the Company's net operating loss and tax credit carryforwards may be subject to future limitations because of changes in ownership resulting from financing transactions. To date, no restriction in the ability to utilize the Company's carryforwards is anticipated. However, future equity transactions which the Company may enter into could cause ownership changes which may result in substantial limitation, or expiration, of loss and tax credit carryforwards.

Deferred tax assets and liabilities reflect the net tax effects of net

operating loss and credit carryforwards and of temporary differences between the carrying amounts of assets and liabilities for financial reporting and income tax purposes. Significant components of the Company's deferred tax assets and liabilities as of December 31, are as follows:

<TABLE>  
<CAPTION>

	1998	1997
	-----	-----
	(IN THOUSANDS)	
<S>	<C>	<C>
Deferred tax assets:		
Net operating loss carryforwards.....	\$ 35,800	\$ 33,500
Research credits.....	2,500	2,100
Capitalized research expenditures.....	1,300	1,300
Other individually immaterial items, net.....	1,500	2,400
	-----	-----
Total deferred tax assets.....	41,100	39,300
Valuation allowance for deferred tax assets.....	(41,100)	(39,300)
	-----	-----
Net deferred tax assets.....	\$ --	\$ --
	=====	=====

</TABLE>

For 1998, 1997 and 1996, the valuation allowance increased by \$1.8 million, \$5.7 million and \$4.2 million, respectively. Approximately \$1.4 million of the valuation allowance for deferred tax assets relates to benefits of stock option deductions which, when recognized, will be allocated directly to contributed capital.

AMENDED AND RESTATED BYLAWS  
OF  
GENELABS TECHNOLOGIES, INC.  
(A CALIFORNIA CORPORATION)

BYLAWS  
OF  
GENELABS TECHNOLOGIES, INC.  
(A CALIFORNIA CORPORATION)

Originally Adopted October 23, 1985

Amended:           September 30, 1986 (Name Change)  
                      June 24, 1988 (Article XVI)  
                      May 5, 1989 (2.2 Amended)  
                      March 1, 1991 (Change in No. Directors)  
                      April 23, 1993 (Change in No. Directors)  
                      July 29, 1993 (Change in No. Directors)  
                      October 2, 1998 (Article X amended)

ARTICLE I

OFFICES

SECTION 1.1: PRINCIPAL OFFICE. The principal executive office for the transaction of the business of this corporation shall be located at such place as the Board of Directors may from time to time decide. The Board of Directors is hereby granted full power and authority to change the location of the principal executive office from one location to another.

SECTION 1.2: OTHER OFFICES. One or more branch or other subordinate offices may at any time be fixed and located by the Board of Directors at such place or places within or outside the State of California as it deems appropriate.

ARTICLE II

## DIRECTORS

SECTION 2.1: EXERCISE OF CORPORATE POWERS. Except as otherwise provided by these Bylaws, by the Articles of Incorporation of this corporation or by the laws of the State of California now or hereafter in force, the business and affairs of this corporation shall be managed and all corporate powers shall be exercised by or under the ultimate direction of a board of directors (the "Board of Directors").

SECTION 2.2: NUMBER. The number of directors of this corporation shall not be less than five (5) nor more than nine (9) with the exact number of directors to be fixed from time to time by resolution of the Board of Directors of his corporation. There shall be nine (9) directors until such number is changed by resolution of the Board of Directors. The number of directors

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of this corporation shall be so variable until changed by an amendment of this Section 2.2 adopted by the affirmative vote or written consent of holders of a majority of the outstanding shares of this corporation entitled to vote.

SECTION 2.3: NEED NOT BE SHAREHOLDERS. The directors of this corporation need not be shareholders of this corporation.

SECTION 2.4: COMPENSATION. Directors and members of committees may receive such compensation, if any, for their services as may be fixed or determined by resolution of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving this corporation in any other capacity and receiving compensation therefor.

SECTION 2.5: ELECTION AND TERM OF OFFICE. The directors shall be elected annually by the shareholders at the annual meeting of the shareholders. The term of office of the directors shall begin immediately after their election and shall continue until the next annual meeting of the shareholders and until their respective successors are elected and qualified.

SECTION 2.6: VACANCIES. A vacancy or vacancies on the Board of Directors shall exist in case of the death, resignation or removal of any director, or if the authorized number of directors is increased, or if the shareholders fail, at any annual meeting of shareholders at which any director is elected, to elect the full authorized number of directors to be voted for at that meeting. The Board of Directors may declare vacant the office of a director if he or she is declared of unsound mind by an order of court or convicted of a felony or if, within 60 days after notice of his election, he does not accept the office. Any vacancy, except for a vacancy created by removal of a director as provided in Section 2.7 hereof, may be filled by a person selected by a majority of the remaining directors then in office, whether or not less than a quorum, or by a

sole remaining director. Vacancies occurring in the Board of Directors by reason of removal of directors shall be filled only by approval of shareholders. The shareholders may elect a director at any time to fill any vacancy not filled by the directors. Any such election by written consent, other than to fill a vacancy created by removal, requires the consent of a majority of the outstanding shares entitled to vote. If, after the filling of any vacancy by the directors, the directors then in office who have been elected by the shareholders shall constitute less than a majority of the directors then in office, any holder or holders of an aggregate of 5% or more of the total number of shares at the time outstanding having the right to vote for such directors may call a special meeting of shareholders to be held to elect the entire Board of Directors. The term of office of any director then in office shall terminate upon such election and qualification of a successor. Any director may resign effective upon giving written notice to the Chairman of the Board, if any, of the President, the Secretary or the Board of Directors of this corporation, unless the notice specifies a later time for the effectiveness of such resignation. If the resignation is effective at a future time, a successor may be elected to take office when the resignation becomes effective. A reduction of the authorized number of directors shall not remove any director prior to the expiration of such director's term of office.

SECTION 2.7: REMOVAL. The entire Board of Directors or any individual director may be removed without cause from office by an affirmative vote of a majority of the outstanding shares entitled to vote; provided that, unless the entire Board of Directors is removed, no director shall be removed when the votes cast against removal, or not consenting in writing to such removal, would be sufficient to elect such director if voted cumulatively at an election at which the same

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total number of votes were cast, or, if such action is taken by written consent, all shares entitled to vote were voted, and the entire number of directors authorized at the time of the director's most recent election were then being elected. If any or all directors are so removed, new directors may be elected at the same meeting or at a subsequent meeting. If at any time a class or series of shares is entitled to elect one or more directors under authority granted by the Articles of Incorporation of this corporation, the provisions of this Section 2.7 shall apply to the vote of that class or series and not to the vote of the outstanding shares as a whole.

SECTION 2.8: POWERS AND DUTIES. Without limiting the generality or extent of the general corporate powers to be exercised by the Board of Directors pursuant to Section 2.1 of these Bylaws, it is hereby provided that the Board of Directors shall have full power with respect to the following matters:

(a) To purchase, lease and acquire any and all kinds of property,

real, personal or mixed, and at its discretion to pay therefor in money, in property and/or in stocks, bonds, debentures or other securities of this corporation.

(b) To enter into any and all contracts and agreements which in its judgment may be beneficial to the interests and purposes of this corporation.

(c) To fix and determine and to vary from time to time the amount or amounts to be set aside or retained as reserve funds or as working capital of this corporation or for maintenance, repairs, replacements or enlargements of its properties.

(d) To declare and pay dividends in cash, shares and/or property out of any funds of this corporation at the time legally available for the declaration and payment of dividends on its shares.

(e) To adopt such rules and regulations for the conduct of its meetings and the management of the affairs of this corporation as it may deem proper.

(f) To prescribe the manner in which and the person or persons by whom any or all of the checks, drafts, notes, bills of exchange, contracts and other corporate instruments shall be executed.

(g) To accept resignations of directors; to declare vacant the office of a director as provided in Section 2.6 hereof; and, in case of vacancy in the office of directors, to fill the same to the extent provided in Section 2.6 hereof.

(h) To create offices in addition to those for which provision is made by law or these Bylaws; to elect and remove at pleasure all officers of this corporation, fix their terms of office, prescribe their titles, powers and duties, limit their authority and fix their salaries in any way it may deem advisable which is not contrary to law or these Bylaws; and, if it sees fit, to require from the officers or any of them security for faithful service.

(i) To designate some person to perform the duties and exercise the powers of any officer of this corporation during the temporary absence or disability of such officer.

(j) To appoint or employ and to remove at pleasure such agents and employees as it may see fit, to prescribe their titles, powers and duties, limit their authority and fix their salaries in any way it may deem advisable which is not contrary to law or these Bylaws; and, if it sees fit, to require

from them or any of them security for faithful service.

(k) To fix a time in the future, which shall not be more than 60 days nor less than 10 days prior to the date of the meeting nor more than 60 days prior to say other action for which it is fixed, as a record date for the determination of the shareholders entitled to notice of and to vote at any meeting, or entitled to receive any payment of any dividend or other distribution, or allotment of any rights, or entitled to exercise any rights in respect of any other lawful actions and in such case only shareholders of record on the date so fixed shall be entitled to notice of and to vote at the meeting or to receive the dividend, distribution or allotment of rights or to exercise the rights, as the case may be, notwithstanding any transfer of any shares on the books of this corporation after any record date fixed as aforesaid. The Board of Directors may close the books of this corporation against transfers of shares during the whole or any part of such period.

(l) To fix and locate from time to time the principal office for the transaction of the business of this corporation and one or more branch or other subordinate office or offices of this corporation within or without the State of California; to designate any place within or without the State of California for the holding of any meeting or meetings of the shareholders or the Board of Directors, as provided in Sections 10.1 and 11.1 hereof; to adopt, make and use a corporate seal, and to prescribe the forms of certificates for shares and to alter the form of such seal and of such certificates from time to time as in its judgment it may deem best, provided such seal and such certificates shall at all times comply with the provisions of law now or hereafter in effect.

(m) To authorize the issuance of shares of stock of this corporation in accordance with the laws of the State of California and the Articles of Incorporation of this corporation.

(n) Subject to the limitation provided in Section 14.2 hereof, to adopt, amend or repeal from time to time and at any time these Bylaws and any and all amendments thereof.

(o) To borrow money and incur indebtedness on behalf of this corporation, including the power and authority to borrow money from any of the shareholders, directors or officers of this corporation, and to cause to be executed and delivered therefor in the corporate name promissory notes, bonds, debentures, deeds of trust, mortgages, pledges, hypothecations, or other evidences of debt and securities therefor, and the note or other obligation given for any indebtedness of this corporation, signed officially by any officer or officers thereunto duly authorized by the Board of Directors shall be binding on this corporation.

(p) To approve a loan of money or property to an officer, guarantee the obligation of an officer, or approve an employee benefit plan authorizing such a loan or guarantee to an officer, provided that, on the date of approval of such loan or guarantee, this corporation has outstanding shares held of record by 100 or more persons. Approval shall

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require a determination by the Board of Directors that the loan or guarantee may reasonably be expected to benefit this corporation and should be by vote sufficient without counting the vote of any interested director.

(q) Generally to do and perform every act and thing whatsoever that may pertain to the office of a director or to a board of directors.

Section 2.9: Deleted. See Article XVI.

### ARTICLE III

#### OFFICERS

SECTION 3.1: ELECTION AND QUALIFICATIONS. The officers of this corporation shall consist of a President, one or more Vice Presidents, a Secretary, a Chief Financial Officer and such other officers, including, but not limited to, a Chairman of the Board of Directors, a Treasurer, and Assistant Vice Presidents, Assistant Secretaries and Assistant Treasurers, as the Board of Directors shall deem expedient, who shall be chosen in such manner and hold their offices for such terms as the Board of Directors may prescribe. Any number of offices may be held by the same person. Any Vice President, Assistant Treasurer or Assistant Secretary, respectively, may exercise any of the powers of the President, the Chief Financial Officer or the Secretary, respectively, as directed by the Board of Directors, and shall perform such other duties as are imposed upon him or her by these Bylaws or the Board of Directors.

SECTION 3.2: TERM OF OFFICE AND COMPENSATION. The term of office and salary of each of said officers and the manner and time of the payment of such salaries shall be fixed and determined by the Board of Directors and may be altered by said Board from time to time at its pleasure, subject to the rights, if any, of an officer under any contract of employment. Any officer may resign at any time upon written notice to this corporation, without prejudice to the rights, if any, of this corporation under any contract to which the officer is a party. If any vacancy occurs in any office of this corporation, the Board of Directors may appoint a successor to fill such vacancy.

### ARTICLE IV

#### CHAIRMAN OF THE BOARD OF DIRECTORS

SECTION 4.1: POWERS AND DUTIES. The Chairman of the Board of Directors, if there be one, shall have the power to preside at all meetings of the Board of Directors and shall have such other powers and shall be subject to such other duties as the Board of Directors may from time to time prescribe.

## ARTICLE V

### PRESIDENT

SECTION 5.1: POWERS AND DUTIES. The powers and duties of the President are:

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(a) To act as the general manager and chief executive officer of this corporation and, subject to the control of the Board of Directors, to have general supervision, direction and control of the business and affairs of this corporation.

(b) To preside at all meetings of the shareholders and, in the absence of the Chairman of the Board of Directors or if there be no Chairman, at all meetings of the Board of Directors.

(c) To call meetings of the shareholders and meetings of the Board at Directors to be held at such times and, subject to the limitations prescribed by law or by these Bylaws, at such places as he or she shall deem proper.

(d) To affix the signature of this corporation to all deeds, conveyances, mortgages, leases, obligations, bonds, certificates and other papers and instruments in writing which have been authorized by the Board of Directors or which, in the judgment of the President, should be executed on behalf of this corporation; to sign certificates for shares of stock of this corporation; and, subject to the direction of the Board of Directors, to have general charge of the property of this corporation and to supervise and control all officers, agents and employees of this corporation.

SECTION 5.2: PRESIDENT PRO TEM. If neither the Chairman of the Board of Directors, the President, nor any Vice President is present at any meeting of the Board of Directors, a President pro tem may be chosen by the directors present at the meeting to preside and act at such meeting. If neither the President nor any Vice President is present at any meeting of the shareholders, a President pro tem may be chosen by the shareholders present at the meeting to preside at such meeting.

## ARTICLE VI

### VICE PRESIDENT

SECTION 6.1: POWERS AND DUTIES. The titles, powers and duties of the Vice President or Vice Presidents, if any, shall be as prescribed by the Board of Directors. In case of the absence, disability or death of the President, the

Vice President, or one of the Vice Presidents, shall exercise all his or her powers and perform all his or her duties. If there is more than one Vice President, the order in which the Vice Presidents shall succeed to the powers and duties of the President shall be as fixed by the Board of Directors.

## ARTICLE VII

### SECRETARY

SECTION 7.1: POWERS AND DUTIES. The powers and duties of the Secretary are

(a) To keep a book of minutes at the principal executive office of this corporation, or such other place as the Board of Directors may order, of all meetings of its directors and shareholders with the time and place of holding of such meeting, whether regular or

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special, and, if special, how authorized, the notice thereof given, the names of those present at directors' meetings, the number of shares present or represented at shareholders' meetings and the proceedings thereof.

(b) To keep the seal of this corporation and to affix the same to all instruments which may require it.

(c) To keep or cause to be kept at the principal executive office of this corporation, or at the office of the transfer agent or agents, a record of the shareholders of this corporation, giving the names and addresses of all shareholders and the number and class of shares held by each, the number and date of certificates issued for shares and the number and date of cancellation of every certificate surrendered for cancellation.

(d) To keep a supply of certificates for shares of this corporation, to fill in all certificates issued, and to make a proper record of each such issuance; provided that so long as this corporation shall have one or more duly appointed and acting transfer agents of the shares, or any class or series of shares, of this corporation, such duties with respect to such shares shall be performed by such transfer agent or transfer agents.

(e) To transfer upon the share books of this corporation any and all shares of this corporation; provided that so long as this corporation shall have one or more duly appointed and acting transfer agents of the shares, or any class or series of shares, of this corporation, such duties with respect to such shares shall be performed by such transfer agent or transfer agents, and the method of transfer of each certificate shall be subject to the reasonable regulations of the transfer agent to which the certificate is presented for

transfer and, if this corporation then has one or more duly appointed and acting registrars, subject to the reasonable regulations of the registrar to which a new certificate is presented for registration; and provided further, that no certificate for shares of stock shall be issued or delivered or, if issued or delivered, shall have any validity whatsoever until and unless it has been signed or authenticated in the manner provided in Section 12.3 hereof.

(f) To make service and publication of all notices that may be necessary or proper and without command or direction from anyone. In case of the absence, disability, refusal or neglect of the Secretary to make service or publication of any notices, then such notices may be served and/or published by the President or a Vice President, or by any person thereunto authorized by either of them or by the Board of Directors or by the holders of a majority of the outstanding shares of this corporation.

(g) Generally to do and perform all such duties as pertain to such office and as may be required by the Board of Directors.

## ARTICLE VIII

### CHIEF FINANCIAL OFFICER

SECTION 8.1: POWERS AND DUTIES. The powers and duties of the Chief Financial Officer are:

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(a) To supervise and control the keeping and maintaining of adequate and correct accounts of this corporation's properties and business transactions, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, surplus and shares. The books of accounts shall at all reasonable times be open to inspection by any director.

(b) To have the custody of all funds, securities, evidences of indebtedness and other valuable documents of this corporation and, at his or her discretion, to cause any or all thereof to be deposited for the account of this corporation with such depository as may be designated from time to time by the Board of Directors.

(c) To receive or cause to be received, and to give or cause to be given, receipts and acquittances for monies paid in for the account of this corporation.

(d) To disburse, or cause to be disbursed, all funds of this corporation as may be directed by the President or the Board of Directors, taking proper vouchers for such disbursements.

(e) To render to the President or to the Board of Directors, whenever either may require, accounts of all transactions as Chief Financial Officer and of the financial condition of this corporation.

(f) Generally to do and perform all such duties as pertain to such office and as may be required by the Board of Directors.

## ARTICLE IX

### EXECUTIVE COMMITTEE

SECTION 9.1: APPOINTMENT AND PROCEDURE. The Board of Directors may, by resolution adopted by a majority of the authorized number of directors, appoint from among its members an executive Committee of two or more directors. The Executive Committee may make its own rules of procedure subject to Section 11.9 hereof, and shall meet as provided by such rules or by resolution adopted by the Board of Directors (which resolution shall take precedence). A majority of the members of the Executive Committee shall constitute a quorum, and in every case the affirmative vote of a majority of all members of the Committee shall be necessary to the adoption of any resolution.

SECTION 9.2: POWERS. During the intervals between the meetings of the Board of Directors, the Executive Committee, in all cases in which specific directions shall not have been given by the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of this corporation in such manner as the Committee may deem best for the interests of this corporation, except with respect to:

(a) any action for which the laws of the State of California also require shareholder approval or approval of the outstanding shares;

(b) the filling of vacancies on the Board of Directors or in any committee;

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(c) the fixing of compensation of the directors for serving on the Board of Directors or on any committee;

(d) the amendment or repeal of these Bylaws or the adoption of new Bylaws;

(e) the amendment or repeal of any resolution of the Board of Directors which by its express terms is not so amendable or repealable;

(f) a distribution to the shareholders of this corporation,

except at a rate or in a periodic amount or within a price range determined by the Board of Directors; and

(g) the appointment of other committees of the Board of Directors or the members thereof.

## ARTICLE X

### MEETINGS OF SHAREHOLDERS

SECTION 10.1: PLACE OF MEETINGS. Meetings (whether regular, special or adjourned) of the shareholders of this corporation shall be held at the principal executive office for the transaction of business of this corporation, or at any place within or outside the State of California which may be designated by written consent of all the shareholders entitled to vote thereat, or which may be designated by resolution of the Board of Directors. Any meeting shall be valid wherever held if held by the written consent of all the shareholders entitled to vote thereat, given either before or after the meeting and filed with the Secretary of this corporation.

### SECTION 10.2: ANNUAL MEETINGS.

(a) The annual meetings of the shareholders shall be held at the place provided pursuant to Section 10.1 hereof and at such time in a particular year as may be designated by written consent of all the shareholders entitled to vote thereat or which may be designated by resolution of the Board of Directors of the Company. Said annual meetings shall be held for the purpose of the election of directors, for the making of reports of the affairs of this corporation and for the transaction of such other business as may properly come before the meeting.

(b) At an annual meeting of the shareholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be: (A) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (B) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (C) otherwise properly brought before the meeting by a shareholder. For business to be properly brought before an annual meeting by a shareholder, the shareholder must have given timely notice thereof in writing to the Secretary of the corporation. To be timely, a shareholder's notice must be delivered to or mailed and received at the principal executive offices of the corporation not later than the close of business on the sixtieth (60th) day nor earlier than the close of business on the ninetieth (90th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date

contemplated at the time of the previous year's proxy statement, notice by the shareholder to be timely must be so received not earlier than the close of business on the ninetieth (90th) day prior to such annual meeting and not later than the close of business on the later of the sixtieth (60th) day prior to such annual meeting or, in the event public announcement of the date of such annual meeting is first made by the corporation fewer than seventy (70) days prior to the date of such annual meeting, the close of business on the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the corporation. A shareholder's notice to the Secretary shall set forth as to each matter the shareholder proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and address, as they appear on the corporation's books, of the shareholder proposing such business, (iii) the class and number of shares of the corporation which are beneficially owned by the shareholder, (iv) any material interest of the shareholder in such business and (v) any other information that is required to be provided by the shareholder pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act"), in his or her capacity as a proponent to a shareholder proposal. Notwithstanding the foregoing, in order to include information with respect to a shareholder proposal in the proxy statement and form of proxy for a shareholder's meeting, shareholders must provide notice as required by the regulations promulgated under the 1934 Act. Notwithstanding anything in these Bylaws to the contrary, no business shall be conducted at any annual meeting except in accordance with the procedures set forth in this paragraph (b). The chairman of the annual meeting shall, if the facts warrant, determine and declare at the meeting that business was not properly brought before the meeting and in accordance with the provisions of this paragraph (b), and, if he or she should so determine, he or she shall so declare at the meeting that any such business not properly brought before the meeting shall not be transacted.

(c) Only persons who are nominated in accordance with the procedures set forth in this paragraph (c) shall be eligible for election as directors. Nominations of persons for election to the Board of Directors of the corporation may be made at a meeting of shareholders by or at the direction of the Board of Directors or by any shareholder of the corporation entitled to vote in the election of directors at the meeting who complies with the notice procedures set forth in this paragraph (c). Such nominations, other than those made by or at the direction of the Board of Directors, shall be made pursuant to timely notice in writing to the Secretary of the corporation in accordance with the provisions of paragraph (b) of this Section 10.2. Such shareholder's notice shall set forth (i) as to each person, if any, whom the shareholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of the corporation which are beneficially owned by such person, (D) a description of all arrangements or understandings between the shareholder and each nominee and any

other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the shareholder, and (E) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation such person's written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected); and (ii) as to such shareholder giving notice, the information required to be provided pursuant to paragraph (b) of this Section 10.2. At the request of the Board of Directors, any person nominated by a shareholder for election as a

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director shall furnish to the Secretary of the corporation that information required to be set forth in the shareholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a director of the corporation unless nominated in accordance with the procedures set forth in this paragraph (c). The chairman of the meeting shall, if the facts warrant, determine and declare at the meeting that a nomination was not made in accordance with the procedures prescribed by these Bylaws, and if he

(c) or she should so determine, he or she shall so declare at the meeting, and the defective nomination shall be disregarded.

(d) For purposes of this Section 10.2, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

SECTION 10.3: SPECIAL MEETINGS. Special meetings of the shareholders for any purpose or purposes whatsoever may be called at any time by the President, the Chairman of the Board of Directors or by the Board of Directors, or by two or more members thereof, or by one or more holders of shares entitled to cast not less than 10% of the votes at the meeting. Upon request in writing sent by registered mail to the Chairman of the Board of Directors, President, Vice President or Secretary, or delivered to any such officer in person, by any person (other than the Board of Directors) entitled to call a special meeting of shareholders, it shall be the duty of such officer forthwith to cause notice to be given to the shareholders entitled to vote that a meeting will be held at a time requested by the person or persons calling the meeting, which shall be not less than 35 days nor more than 60 days after the receipt of such request. If the notice is not given within 20 days after receipt of the requests, the person entitled to call the meeting may give the notice.

SECTION 10.4: NOTICE OF MEETINGS. Except as otherwise may be required by law and subject to Section 10.3 above, written notice of each meeting of

shareholders shall be given to each shareholder entitled to vote at that meeting (see Section 10.9 below), by the Secretary, assistant secretary or other person charged with that duty, not less than ten (10) (or, if sent by third class mail, thirty (30)) nor more than sixty (60) days before such meeting.

Notice of any meeting of shareholders shall state the date, place and hour of the meeting and,

(a) in the case of a special meeting, the general nature of the business to be transacted, and no other business may be transacted at such meeting;

(b) in the case of an annual meeting, the general nature of matters which the Board of Directors, at the time the notice is given, intends to present for action by the shareholders;

(c) in the case of any meeting at which directors are to be elected, the names of the nominees intended at the time of the notice to be presented by management for election; and

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(d) in the case of any meeting, if action is to be taken on any of the following proposals, the general nature of such proposal:

(i) a proposal to approve a transaction within the provisions of California Corporations Code, Section 310 (relating to certain transactions in which a director has an interest);

(ii) a proposal to approve a transaction within the provisions of California Corporations Code, Section 902 (relating to amending the Articles of Incorporation of the corporation);

(iii) a proposal to approve a transaction within the provisions of California Corporations Code, Sections 181 and 1201 (relating to reorganization);

(iv) a proposal to approve a transaction within the provisions of California Corporations Code, Section 1900 (winding up and dissolution);

(v) a proposal to approve a plan of distribution within the provisions of California Corporations Code, Section 2007 (relating to certain plans providing for distribution not in accordance with the liquidation rights of preferred shares, if any).

At a special meeting, notice of which has been given in

accordance with this Section, action may not be taken with respect to business, the general nature of which has not been stated in such notice. At an annual meeting, action may be taken with respect to business stated in the notice of such meeting, given in accordance with this Section, and, subject to subsection 8(d) above, with respect to any other business as may properly come before the meeting.

SECTION 10.5: MANNER OF GIVING NOTICE. Notice of any meeting of shareholders shall be given either personally or by first-class mail, or, if the corporation has outstanding shares held of record by 500 or more persons (determined as provided in California Corporations Code Section 605) on the record date for such meeting, third-class mail, or telegraphic or other written communication, addressed to the shareholder at the address of that shareholder appearing on the books of the corporation or given by the shareholder to the corporation for the purpose of notice. If no such address appears on the corporation's books or is given, notice shall be deemed to have been given if sent to that shareholder by first-class mail or telegraphic or other written communication to the corporation's principal executive office, or if published at least once in a newspaper of general circulation in the county where that office is located. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by telegram or other means of written communication.

If any notice addressed to a shareholder at the address of that shareholder appearing on the books of the corporation is returned to the corporation by the United States Postal Service marked to indicate that the United States Postal Service is unable to deliver the notice to the shareholder at that address, all future notices shall be deemed to have been duly given without further mailing if these shall be available to the shareholder on written demand by the shareholder at the principal executive office of the corporation for a period of one year from the date of the giving of the notice.

SECTION 10.6: CONSENT TO SHAREHOLDERS' MEETINGS. The transactions of any meeting of shareholders, however called and noticed, and wherever held, are as valid as though had at a meeting duly held after regular call and notice, if a quorum is present either in person or by proxy, and if, either before or after the meeting, each of the shareholders entitled to vote, not present in person or by proxy, signs a written waiver of notice or a consent to the holding of such meeting or in approval of the minutes thereof. All such waivers, consents or approvals shall be filed with the corporate records or made a part of the minutes of the meeting. Attendance of a person at a meeting shall constitute a waiver of notice of and presence at such meeting, except when the person objects, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened and except that attendance at a meeting is not a waiver of any right to object to the

consideration of matters required by law to be included in the notice but not so included, if such objection is expressly made at the meeting. Neither the business to be transacted at nor the purpose of any regular or special meeting of shareholders need be specified in any written waiver of notice, consent to the holding of the meeting or approval of the minutes thereof, except as to approval of contracts between this corporation and any of its directors, amendment of the Articles of Incorporation, reorganization of this corporation or winding up the affairs of this corporation.

SECTION 10.7: QUORUM. The presence in person or by proxy of the holders of a majority of the shares entitled to vote at any meeting of the shareholders shall constitute a quorum for the transaction of business, but in no event shall a quorum consist of less than one-third of the shares entitled to vote at the meeting. Shares shall not be counted to make up a quorum for a meeting if voting of such shares at the meeting has been enjoined or for any reason they cannot be lawfully voted at the meeting. Shareholders present at a duly called or held meeting at which a quorum is present may continue to transact business until adjournment notwithstanding the withdrawal of enough shareholders to leave less than a quorum, if any action taken (other than adjournment) is approved by at least a majority of the shares required to constitute a quorum. Except as provided herein, the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute at least a majority of the required quorum) shall be the act of the shareholders, unless the vote of a greater number or voting by classes is required.

SECTION 10.8: ADJOURNED MEETINGS. Any shareholders' meeting, whether or not a quorum is present, may be adjourned from time to time by the vote of a majority of the shares, the holders of which are either present in person or represented by proxy thereat, but, except as provided in Section 10.6 hereof, in the absence of a quorum, no other business may be transacted at such meeting. When a meeting is adjourned for more than 45 days or if after adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each shareholder of record entitled to vote at a meeting. Except as aforesaid, it shall not be necessary to give any notice of the time and place of the adjourned meeting or of the business to be transacted thereat other than by announcement at the meeting at which such adjournment is taken. At any adjourned meeting the shareholders may transact any business which might have been transacted at the original meeting.

SECTION 10.9: VOTING RIGHTS. Only persons in whose names shares entitled to vote stand on the stock records of this corporation at the close of business on the business day next preceding the day on which notice is given or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held or, if some other day be fixed for the determination of shareholders of record pursuant to Section 2.8(k) hereof, then on such

other day, shall be entitled to vote at such meeting. The record date for determining shareholders entitled to give consent to corporate action in writing without a meeting, when no prior action by the Board of Directors has been taken, shall be the day on which the first written consent is given. In the absence of any contrary provision in the Articles of Incorporation or in any applicable statute relating to the election of directors or to other particular matters, each such person shall be entitled to one vote for each share.

SECTION 10.10: ACTION BY WRITTEN CONSENTS. Any action which may be taken at any annual or special meeting of shareholders may be taken without a meeting and without prior notice, if a consent in writing, setting forth the action so taken, shall be signed by holders of outstanding shares having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Unless the consents of all shareholders entitled to vote have been solicited in writing, notice of any shareholder approval of (i) contracts between this corporation and any of its directors, (ii) indemnification of any person, (iii) reorganization of this corporation or (iv) distributions to shareholders upon winding up of the affairs of this corporation in certain circumstances without a meeting by less than unanimous written consent shall be given at least 10 days before the consummation of the action authorized by such approval, and prompt notice shall be given of the taking of any other corporate action approved by shareholders without a meeting by less than unanimous written consent, to those shareholders entitled to vote who have not consented in writing. All notices given hereunder shall conform to the requirements of Section 10.4 hereto and applicable law. When written consents are given with respect to any shares, they shall be given by and accepted from the persons in whose names such shares stand on the books of this corporation at the time such respective consents are given, or their proxies. Any shareholder giving a written consent, or any shareholder's proxy holder, or a transferee of the shares or a personal representative of the shareholder or their respective proxy holders, may revoke the consent by a writing received by this corporation prior to the time that written consents of the number of shares required to authorize the proposed action have been filed with the Secretary of this corporation, but may not do so thereafter. Such revocation is effective upon its receipt by the Secretary of this corporation. Notwithstanding anything herein to the contrary, and subject to Section 305(b) of the California Corporations Code, directors may not be elected by written consent except by unanimous written consent of all shares entitled to vote for the election of directors.

SECTION 10.11: ELECTION OF DIRECTORS. Every shareholder entitled to vote at any election of directors of this corporation may cumulate such shareholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which the shareholder's shares are normally entitled, or distribute the shareholder's votes on the same principle among as many candidates as such shareholder thinks fit. No shareholder, however, may cumulate such shareholder's votes for one or more

candidates unless such candidate or candidates' names have been placed in nomination prior to the voting and the shareholder has given notice at the meeting, prior to voting, of such shareholder's intention to cumulate such shareholder's votes. If any one shareholder has given such notice, all shareholders may cumulate their votes for candidates in nomination. The candidates receiving the highest number of affirmative votes of the shares entitled to be voted for them up to the

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number of directors to be elected by such shares shall be declared elected. Votes against the director and votes withheld shall have no legal effect. Election of directors need not be by ballot except upon demand made by a shareholder at the meeting and before the voting begins.

SECTION 10.12: PROXIES. Every person entitled to vote or execute consents shall have the right to do so either in person or by one or more agents authorized by a written proxy executed by such person or such person's duly authorized agent and filed with the Secretary of this corporation. No proxy shall be valid (i) after revocation thereof, unless the proxy is specifically made irrevocable and otherwise conforms to this Section 10.11 and applicable law, or (ii) after the expiration of eleven months from the date thereof, unless the person executing it specifies therein the length of time for which such proxy is to continue in force. Revocation may be effected by a writing delivered to the Secretary of this corporation stating that the proxy is revoked or by a subsequent proxy executed by the person executing the prior proxy and presented to the meeting, or as to any meeting by attendance at the meeting and voting in person by, the person executing the proxy. A proxy is not revoked by the death or incapacity of the maker unless, before the vote is counted, a written notice of such death or incapacity is received by the Secretary of this corporation. A proxy which states that it is irrevocable is irrevocable for the period specified therein when it is held by any of the following or a nominee of any of the following (i) a pledgee; (ii) a person who has purchased or agreed to purchase or holds an option to purchase the shares or a person who has sold a portion of such person's shares in this corporation to the maker of the proxy; (iii) a creditor or creditors of this corporation or the shareholder who extended or continued credit to this corporation or the shareholder in consideration of the proxy if the proxy states that it was given in consideration of such extension or continuation of credit and the name of the person extending or continuing the credit; (iv) a person who has contracted to perform services as an employee of this corporation, if a proxy is required by the contract of employment and if the proxy states that it was given in consideration of such contract of employment, the name of the employee and the period of employment contracted for; (v) a person designated by or under a close corporation shareholder agreement or a voting trust agreement; or (vi) a beneficiary of a trust with respect to shares held by the trust. In addition, a proxy may be made irrevocable if it is given to secure the performance of a duty

or to protect a title, either legal or equitable, until the happening of events which, by its terms, discharge the obligation secured by it. Notwithstanding the period of irrevocability specified, the proxy becomes revocable when the pledge is redeemed, the option or agreement to purchase is terminated or the seller no longer owns any shares of this corporation or dies, the debt of this corporation or the shareholder is paid, the period of employment provided for in the contract of employment has terminated, the close corporation shareholder agreement or the voting trust agreement has terminated, or the person ceases to be a beneficiary of the trust. In addition, a proxy may be revoked, notwithstanding a provision making it irrevocable, by a transferee of shares without knowledge of the existence of the provision unless the existence of the proxy and its irrevocability appears on the certificate representing such shares. Every form of proxy or written consent, which provides an opportunity to specify approval or disapproval with respect to any proposal, shall also contain an appropriate space marked "abstain," whereby a shareholder may indicate a desire to abstain from voting his or her shares on the proposal. A proxy marked "abstain" by the shareholder with respect to a particular proposal shall not be voted either for or against such proposal. In any election of directors, any form of proxy in which the directors to

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be voted upon are named therein as candidates and which is marked by a shareholder "withhold" or otherwise marked in a manner indicating that the authority to vote for the election of directors is withheld shall not be voted either for or against the election of a director.

SECTION 10.13: INSPECTORS OF ELECTION. Before any meeting of shareholders, the Board of Directors may appoint any persons other than nominees for office to act as inspectors of election at the meeting or its adjournment. If no inspectors of election are so appointed, the Chairman of the meeting may, and on the request of any shareholder or a shareholder's proxy shall, appoint inspectors of election at the meeting. The number of inspectors shall be either one or three. If inspectors are appointed at a meeting on the request of one or more shareholders or proxies, the holders of a majority of shares or their proxies present at the meeting shall determine whether one or three inspectors are to be appointed. If any person appointed as inspector fails to appear or fails or refuses to act, the Chairman of the meeting may, and upon the request of any shareholder or a shareholder's proxy shall, appoint a person to fill that vacancy.

These inspectors shall:

(a) Determine the number of shares outstanding and the voting power of each, the shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

(b) Receive votes, ballots, or consents;

(c) Hear and determine all challenges and questions in any way arising in connection with the right to vote;

(d) Count and tabulate all votes or consents;

(e) Determine when the polls shall close;

(f) Determine the result; and

(g) Do any other acts that may be proper to conduct the election or vote with fairness to all shareholders.

## ARTICLE XI

### MEETINGS OF DIRECTORS

SECTION 11.1: PLACE OF MEETINGS. Meetings (whether regular, special or adjourned) of the Board of Directors of this corporation shall be held at the principal executive office of this corporation or at any other place within or outside the State of California which may be designated from time to time by resolution of the Board of Directors or which is designated in the notice of the meeting.

SECTION 11.2: REGULAR MEETINGS. Regular meetings of the Board of Directors shall be held after the adjournment of each annual meeting of the shareholders (which regular directors' meeting shall be designated the "regular Annual Meeting") and at such other times as may be designated from time to time by resolution of the Board of Directors. Notice of the time and place of all regular meetings shall be given in the same manner as for special meetings, except

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that no such notice need be given if (i) the time and place of such meetings are fixed by the Board of Directors or (ii) the Regular Annual Meeting is held at the principal executive office of this Corporation hereof and on the date specified by the Board of Directors.

SECTION 11.3: SPECIAL MEETINGS. Special meetings of the Board of Directors may be called at any time by the Chairman of the Board of Directors, if any, or the President, or any Vice President, or the Secretary or by any two or more directors.

SECTION 11.4: NOTICE OF SPECIAL MEETINGS. Special meetings of the Board of Directors shall be held upon no less than four days' notice by mail or 48

hours' notice delivered personally or by telephone or telegraph to each director. Notice need not be given to any director who signs a waiver of notice or a consent to holding the meeting or an approval of the meeting thereof, whether before or after the meeting or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such director. All such waivers, consents and approvals shall be filed with the corporate records or made a part of the minutes of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to the person at the home or office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. A notice or waiver of notice need not specify the purpose of any meeting of the Board of Directors. If the address of a director is not shown on the records and is not readily ascertainable, notice shall be addressed to him at the city or place in which meetings of the directors are regularly held. If a meeting is adjourned for more than 24 hours, notice of any adjournment to another time or place shall be given prior to the time of the adjourned meeting to all directors not present at the time of adjournment.

SECTION 11.5: QUORUM. A majority of the authorized number of directors constitutes a quorum of the Board of Directors for the transaction of business. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present is the act of the Board of Directors subject to provisions of law relating to interested directors and indemnification of agents of this corporation. A majority of the directors present, whether or not a quorum is present, may adjourn any meeting to another time and place. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for such meeting.

SECTION 11.6: CONFERENCE TELEPHONE. Members of the Board of Directors may participate in a meeting through use of conference telephone or similar communications equipment, so long as all directors participating in such meeting can hear one another. Participation in a meeting pursuant to this Section 11.6 constitutes presence in person at such meeting.

SECTION 11.7: WAIVER OF NOTICE AND CONSENT. The transactions of any meeting of the Board of Directors, however called and noticed or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum is present, and if, either before or after the meeting, each of the directors not present signs a written waiver of notice, a consent to holding such meeting or an approval of the minutes thereof. All such waivers, consents and approvals shall be filed with the corporate records or made a part of the minutes of the meeting.

SECTION 11.8: ACTION WITHOUT A MEETING. Any action required or permitted by law to be taken by the Board of Directors may be taken without a meeting, if all members of the Board of Directors shall individually or collectively consent in writing to such action. Such written consent or consents shall be filed with the minutes of the proceedings of the Board of Directors. Such action by written consent shall have the same force and effect as the unanimous vote of such directors.

SECTION 11.9: COMMITTEES. The provisions of this Article XI apply also to committees of the Board of Directors and incorporators and action by such committees and incorporators, mutatis mutandis.

## ARTICLE XII

### SUNDRY PROVISIONS

SECTION 12.1: INSTRUMENTS IN WRITING. All checks, drafts, demands for money, notes and written contracts of this corporation shall be signed by such officer or officers, agent or agents, as the Board of Directors may from time to time designate. No officer, agent, or employee of this corporation shall have the power to bind this corporation by contract or otherwise unless authorized to do so by these by-laws or by the Board of Directors.

SECTION 12.2: SHARES HELD BY THE CORPORATION. Shares in other corporations standing in the name of this corporation may be voted or represented and all rights incident thereto may be exercised on behalf of this corporation by any officer of this corporation authorized to do so by resolution of the Board of Directors.

SECTION 12.3: CERTIFICATES FOR SHARES. There shall be issued to every holder of shares in this corporation a certificate or certificates signed in the name of this corporation by the Chairman of the Board of Directors, if any, or the President or a Vice President and by the Chief Financial Officer or an Assistant Chief Financial Officer or the Secretary or any Assistant Secretary, certifying the number of shares and the class or series of shares owned by the shareholder. Any or all of the signatures on the certificate may be facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by this corporation with the same effect as if such person were an officer, transfer agent or registrar at the date of issue.

SECTION 12.4: LOST CERTIFICATES. Where the owner of any certificate for shares of this corporation claims that the certificate has been lost, stolen or destroyed, a new certificate shall be issued in place of the original certificate if the owner (i) so requests before this corporation has notice that the original certificate has been acquired by a bona fide purchaser, (ii) files with this corporation an indemnity bond in such form and in such amount as shall be approved by the President or a Vice President of this corporation, and (iii) satisfies any other reasonable requirements imposed by this corporation. The

Board of Directors may adopt such other provisions and restrictions with reference to lost certificates, not inconsistent with applicable law, as it shall in its discretion deem appropriate.

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SECTION 12.5: CERTIFICATION AND INSPECTION OF BYLAWS. This corporation shall keep at its principal executive office the original or a copy of these by-laws as amended or otherwise altered to date, which shall be open to inspection by the shareholders at all reasonable times during office hours.

SECTION 12.6: ANNUAL REPORTS. Provided that this corporation has 100 or fewer shareholders, the making of annual reports to the shareholders is dispensed with and the requirement that such annual reports be made to shareholders is expressly waived, except as may be directed from time to time by the Board of Directors or the President.

#### ARTICLE XIII

##### CONSTRUCTION OF BYLAWS WITH REFERENCE TO PROVISIONS OF LAW

SECTION 13.1: BYLAW PROVISIONS ADDITIONAL AND SUPPLEMENTAL TO PROVISIONS OF LAW. All restrictions, limitations, requirements and other provisions of these by-laws shall be construed, insofar as possible, as supplemental and additional to all provisions of law applicable to the subject matter thereof and shall be fully complied with in addition to the said provisions of law unless such compliance shall be illegal.

SECTION 13.2: BYLAWS PROVISIONS CONTRARY TO OR INCONSISTENT WITH PROVISIONS OF LAW. Any article, section, subsection, subdivision, sentence, clause or phrase of these by-laws which, upon being construed in the manner provided in Section 13.1 hereof, shall be contrary to or inconsistent with any applicable provision of law, shall not apply so long as said provisions of law shall remain in effect, but such result shall not affect the validity or applicability of any other portions of these by-laws, it being hereby declared that these by-laws, and each article, section, subsection, subdivision, sentence, clause or phrase thereof, would have been adopted irrespective of the fact that any one or more articles, sections, subsections, subdivisions, sentences, clauses or phrases is or are illegal.

#### ARTICLE XIV

##### ADOPTION, AMENDMENT OR REPEAL OF BYLAWS

SECTION 14.1: BY SHAREHOLDERS. Bylaws may be adopted, amended or repealed by the vote or written consent of holders of a majority of the

outstanding shares entitled to vote. Bylaws specifying or changing a fixed number of directors or the maximum or minimum number or changing from a fixed to a variable board or vice versa may only be adopted by the shareholders; provided, however, that a Bylaw or amendment of the Articles of Incorporation reducing the fixed number or the minimum number of directors to a number less than 5 cannot be adopted if the votes cast against its adoption at a meeting or the shares not consenting in the case of action by written consent are equal to more than 16-2/3% of the outstanding shares entitled to vote.

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SECTION 14.2: BY THE BOARD OF DIRECTORS. Subject to the right of shareholders to adopt, amend or repeal Bylaws, Bylaws, other than a Bylaw or amendment thereof specifying or changing a fixed number of directors or the maximum or minimum number or changing from a fixed to a variable board or vice versa, may be adopted, amended or repealed by the Board of Directors. A Bylaw adopted by the shareholders may restrict or eliminate the power of the Board of Directors to adopt, amend or repeal Bylaws.

#### ARTICLE XV

##### RESTRICTIONS ON TRANSFER OF STOCK

SECTION 15.1: SUBSEQUENT AGREEMENT OR BYLAW. If (a) any two or more shareholders of this corporation shall enter into any agreement abridging, limiting or restricting the rights of any one or more of them to sell, assign, transfer, mortgage, pledge, hypothecate or transfer on the books of this corporation any or all of the shares of this corporation held by them, and if a copy of said agreement shall be filed with this corporation, or if (b) shareholders entitled to vote shall adopt any Bylaw provision abridging, limiting or restricting the aforesaid rights of any shareholders, then, and in either of such events, all certificates of shares of stock subject to such abridgements, limitations or restrictions shall have a reference thereto endorsed thereon by an officer of this corporation and such certificates shall not thereafter be transferred on the books of this corporation except in accordance with the terms and provisions of such agreement or Bylaw, as the case may be; provided, that no restriction shall be binding with respect to shares issued prior to adoption of the restriction unless the holders of such shares voted in favor of or consented in writing to the restriction.

#### ARTICLE XVI

##### INDEMNIFICATION

SECTION 16.1: INDEMNIFICATION OF DIRECTORS, OFFICERS AND EMPLOYEES. This corporation shall indemnify each person who was or is a party, or is threatened to be made a party, to any threatened, pending or completed action or

proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that such person is or was a director, officer or employee of this corporation, or is or was serving at the request of this corporation as a director, officer or employee of another foreign or domestic corporation, partnership, joint venture, trust or other enterprise, or was a director, officer or employee of a foreign or domestic corporation which was a predecessor corporation of this corporation or of another enterprise at the request of such predecessor corporation, to the fullest extent permitted by the California Corporations Code, against all expenses, including, without limitation, attorneys' fees and any expenses of establishing a right to indemnification, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with such Proceeding, and such indemnification shall continue as to a person who has ceased to be such a director, officer or employee, and shall inure to the benefit of the heirs, executors and administrators of such person; provided, however, that this corporation shall indemnify any such person seeking indemnity in connection with a Proceeding (or part thereof) initiated by such person only if such Proceeding (or part thereof) was authorized by the Board of Directors of this corporation.

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SECTION 16.2: ADVANCEMENT OF EXPENSES. This corporation shall pay expenses incurred by such a director, officer or employee in defending any Proceeding as they are incurred in advance of its final disposition; provided, however, that if the California Corporations Code then so requires, the payment of such expenses incurred by a director, officer or employee in advance of the final disposition of a Proceeding shall be made only upon receipt by this corporation of an undertaking by or on behalf of such director, officer or employee to repay such amount if it shall be determined ultimately that such person is not entitled to be indemnified under this Article XVI or otherwise.

SECTION 16.3: NON-EXCLUSIVITY OF RIGHTS. The rights conferred on any person in this Article XVI shall not be deemed exclusive of any other rights that such person may have or hereafter acquire under any statute, bylaw, agreement, vote of shareholders or disinterested directors or otherwise, both as to action in an official capacity and as to action in another capacity while holding such office. Additionally, nothing in this Article XVI shall limit the ability of this corporation, in its discretion, to indemnify persons whom this corporation is not obligated to indemnify pursuant to this Article XVI.

SECTION 16.4: INDEMNIFICATION CONTRACTS. The Board of Directors is authorized to cause this corporation to enter into a contract with any director, officer, employee or agent of this corporation, or any person serving at the request of this corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, providing for indemnification rights equivalent to or, if the Board of Directors so determines, greater than (to the extent permitted by this Corporation's Articles

of Incorporation and the California Corporations Code), those provided for in this Article XVI.

SECTION 16.5: EFFECT OF AMENDMENT. Any amendment, repeal or modification of any provision of this Article XVI shall be prospective only, and shall not adversely affect any right or protection conferred on a person pursuant to this Article XVI and existing at the time of such amendment, repeal or modification.

SECOND AMENDMENT  
TO  
THE HEADS OF AGREEMENT

This Second Amendment to the Heads of Agreement (the "Amendment") is made as of this 7th day of August, 1998, by and between Genelabs Technologies, Inc. ("Genelabs") and SmithKline Beecham p.l.c. ("SKB") and amends that certain Heads of Agreement dated August 27, 1992, between Genelabs and SKB, as amended by a letter agreement dated September 15, 1993 and by that Amendment No. 1 dated as of October 1, 1995 (as amended, the "Agreement").

The parties now wish to amend the Agreement to (i) terminate Genelabs' co-exclusive license under certain patents and know-how to make, have made, use and sell HEV Vaccines, either alone or in combination with other vaccines, in Asia and PAKIPI, and (ii) change the terms of payment by SKB to Genelabs of two development milestones. In partial consideration for these amendments, SKB has agreed to pay to Genelabs U.S. \$1 million.

Unless otherwise defined herein, all capitalized terms used in this Amendment shall have the same meaning as such terms are defined in the Agreement.

NOW, THEREFORE, the parties have agreed as follows:

1. Termination of Co-exclusive License.

Genelabs hereby grants to SKB an exclusive, worldwide license, under PATENTS and KNOW-HOW, to make, have made, use and sell HEV Vaccine. Accordingly, the Agreement is amended as follows:

- (a) The definition of "SKB TERRITORY", set forth in Paragraph 1.16, is amended to mean all countries of the world.
- (b) The restrictions provided for under Paragraph 2.01, last sentence, to LICENSEE'S rights to sub-license are hereby terminated.
- (c) Genelabs' co-exclusive license, set forth in Paragraph 2.02, under PATENTS and KNOW-HOW to make, have made, use and sell HEV Vaccine alone or in combination with other vaccines in ASIA and PAKIPI is hereby terminated.
- (d) Consistent with such termination of Genelabs' co-exclusive license, the rights and licenses granted to Genelabs in Paragraphs 2.03, 2.04, 2.05, 2.06, 2.09 and 2.10 (as such

Paragraph relates to the rights contained in Article 2) are hereby terminated. The provisions of Paragraph 2.10 continue in effect to the extent they apply to the rights granted to Genelabs pursuant to Paragraph 6.03.

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## 2. Amendment of Two Development Milestone Payments.

- (a) Paragraph 4.02(a) is hereby amended to change the minimum payment from [\*]. Paragraph 4.02 (a) shall read in its entirety as follows:

"US [\*] upon LICENSEE entering into Phase I of clinical trials with the HEV Vaccine; however, if the price (the `STOCK PRICE') of LICENSOR's common stock in the First Stock Purchase (as defined in Article 4.08 below) in the Stock Purchase Agreement (as defined in Article 4.08 below) is less than [\*] and the stock purchase is made as provided for in the Stock Purchase Agreement, this milestone will be reduced by the product of [\*], but under no circumstance will the milestone be less than [\*]."

- (b) Paragraph 4.02(b) is hereby amended to read in its entirety as follows:

"US [\*] upon the earlier of (i) demonstration in humans of protection by the HEV Vaccine against disease, or (ii) three months following the successful completion of a Phase III trial in any country".

## 3. Payment by SKB.

In consideration for the foregoing amendments, SKB agrees to pay to Genelabs the amount of US \$1,000,000 (one million US dollars). Such amount shall be due and payable promptly upon the execution of this Amendment.

Except as expressly amended by this Amendment, all terms and conditions of the Agreement remain in full force and effect.

IN WITNESS WHEREOF, this Amendment has been executed as of the date first written above by the duly authorized representatives of the parties hereto.

GENELABS TECHNOLOGIES, INC.

SMITHKLINE BEECHAM p.l.c.

By: /s/ GILBERT R. MINTZ, Ph.D.  
-----

By: /s/ President and General Manager  
-----

Title: Vice President, Business Development

Title: President and General  
Manager

[\*] Confidential treatment requested pursuant to a request for confidential treatment filed with the Securities and Exchange Commission. Omitted portions have been filed separately with the Commission.

SECOND AMENDMENT TO  
COLLABORATIVE RESEARCH AND LICENSE AGREEMENT

THIS SECOND AMENDMENT (the "Second Amendment") to the Collaborative Research and License Agreement dated December 13, 1996 (the "Agreement") is entered into by and between GENELABS TECHNOLOGIES, INC., a California corporation with its principal offices at 505 Penobscot Drive, Redwood City, California 94063 ("Genelabs") and DUPONT PHARMACEUTICALS COMPANY, a Delaware general partnership with its principal offices at Chestnut Run Plaza, 974 Centre Road, Wilmington, DE 19807 ("DPC"), having entered into the Agreement under its former name, THE DUPONT MERCK PHARMACEUTICAL COMPANY, a Delaware general partnership with its principal offices at Chestnut Run Plaza, Walnut Run, 974 Centre Road, Wilmington, DE 19807 ("DuPont Pharma"). This Second Amendment is effective as of this 29th day of December 1998 (the "Amendment Date") and supersedes the First Amendment which had an effective date of August 24, 1998, and DPC contract file number #400628-001.01.

RECITALS

WHEREAS, Genelabs and DPC, pursuant to the Agreement, have established a Research Collaboration using certain Genelabs technology directed towards the discovery of gene regulating DNA-binding drugs for human therapeutic applications; and

WHEREAS, the parties, in the course of carrying out their Research Collaboration have determined that it is in their mutual interest to re-allocate certain of their respective responsibilities under the Collaboration; and

WHEREAS, the parties agree that it is to their mutual benefit that Genelabs focus on the chemistry required for the discovery of lead compounds and assays targeting Collaboration Target Genes; and

WHEREAS, the parties agree that it is to their mutual benefit that DPC focus its chemistry resources on the optimization of Collaboration Lead Compounds as well as preclinical and clinical development; and

WHEREAS, the parties wish to formalize their understanding regarding each of their roles in the Collaboration and to amend the Agreement to adjust certain rights and obligations of the parties under the Agreement in light thereof;

NOW, THEREFORE, Genelabs and DPC agree, pursuant to Section 10.7 of the

Agreement, to amend the Agreement as follows:

AMENDMENTS TO THE AGREEMENT

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Unless otherwise defined as set forth herein, all capitalized terms used herein shall have the meaning set forth in the Agreement. The captions to the amendments stated below are not part of the amendments to the Agreement, but are merely descriptive of the amendments. In the event of any conflict between this Second Amendment and the Agreement, the provisions of this Second Amendment shall control. All other terms and conditions of the Agreement shall remain in full force and effect. This Second Amendment to the Agreement is acknowledged to have been made in and shall be construed, governed, interpreted, and applied in accordance with the laws of Delaware, without giving effect to its conflict of laws provisions.

OVERVIEW AND INTENT

The parties hereby agree that the "Overview and Intent" section be deleted and replaced with the following:

The parties intend to continue the research collaboration established on December 13, 1996. Each party will contribute compounds and chemistries which it currently has or develops during the course of the research collaboration. The parties agree that the primary goals of the collaboration have changed as a result of accomplishments obtained to date. The primary goal of the collaboration is to create drugs targeted at the Collaboration Target Genes. In order to accomplish the primary goal the parties agree that Genelabs will perform activities in support of the identification and characterization of lead compounds for the Collaboration Target Genes. The specific tasks are set forth in the Research Plan (Attachment I). DPC will have certain exclusive rights to pharmaceutical products resulting from the collaboration.

1. AMENDMENTS TO ARTICLE I "CERTAIN DEFINITIONS"

(a) The parties hereby agree that the definition of "Collaboration Technology" be deleted and replaced with the following definition:

"Collaboration Technology" means any information and data concerning [\*], and all related intellectual property, including information, data, trade secrets, know-how, inventions, discoveries and Collaboration Patent Rights, owned or licensable by one party to the other, excluding clinical information and data, and excluding that portion of such information, data, trade secrets, know-how, inventions, discoveries and [\*].

(b) "Functional Assay" means an assay that [\*].

(c) The parties hereby agree that the definition of "Genelabs Lead Compounds" be deleted and replaced with the following definition:

"Genelabs Lead Compounds" means Lead Compounds [\*].

(d) The parties hereby agree that the definition of "Genelabs Lead Compound Program" be deleted and replaced with the following definition:

"Genelabs Lead Compound Program" means a program which is [\*].

(e) "Ligand Binding Assay" means an assay that [\*].

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(f) The parties hereby agree that the definition of "Net Proceeds" be deleted and replaced with the following definition:

"Net Proceeds" means the gross amount of the revenues received by Genelabs from outlicensing or sublicensing a Lead Compound [\*] to third parties including but not limited to: [\*].

(g) The parties hereby agree that the definition of "Third Party Lead Compound Program" be deleted and replaced with the following definition:

"Third Party Lead Compound Program" means a program [\*].

(h) The parties hereby agree to add the following two new definitions to Article 1:

"Active Collaboration Investigation" means, with respect to a [\*].

"Derived from DPC Chemistry Effort" is hereby deleted.

## 2. AMENDMENTS TO ARTICLE II "RESEARCH COLLABORATION"

(a) The parties hereby agree that Section 2.2 of the Agreement be deleted and replaced by the following:

2.2 Scope of Collaboration. Notwithstanding anything else in this Agreement, the parties recognize that in conducting the Research Program compounds and components of compounds may be identified that could have applications outside the Field of Use.[\*].

(b) The parties hereby agree that Section 2.3 of the Agreement be deleted and replaced by the following:

2.3 Term of Research Program. The Initial Research Term, having commenced January 1, 1997, shall continue through [\*]. The Initial Research Term may be [\*]. The Initial Research Term may be extended as provided herein, and upon written agreement of the parties. During the remainder of the Initial Research Term, DPC shall fund a [\*]. Payment to Genelabs of such research funding shall be made in equal quarterly installments payable within 15 days of the beginning of each Calendar Quarter commencing on the Effective Date. Payment shall be made in immediately available funds. Such funding by DPC of FTEs at Genelabs shall be contingent upon Genelabs providing and retaining the indicated number of qualified FTEs and upon Genelabs making a good faith effort in accordance with industry standards to achieve the goals of the Research Collaboration as set forth in the Research Plan. Without limiting DPC's rights or remedies, DPC shall have the right to reduce the level of funding described above to reflect the failure by Genelabs to provide or retain the required number of qualified FTEs or to make the required effort to achieve the goals of the Research Collaboration. The names, curriculum vitae and percentage of time devoted to the Research Program for each scientist comprising the required number of FTEs will be provided to DPC within thirty (30) days of the Effective Date and not later than sixty (60) days prior to the start of each subsequent Calendar Year of the Research Collaboration. The mixture of skills and levels of expertise of such scientists shall be appropriate to the objectives of the Research Program. The selection of such scientists shall be subject to the approval of DPC, such approval not to be unreasonably withheld.

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(c) The parties hereby agree that Section 2.4 of the Agreement be deleted and replaced by the following:

Research Term Extension; Funding Commitments. DPC shall provide Genelabs with written notice no later than [\*]. Upon any extension of the Initial Research Term, the RSC shall revise the Research Plan and assign responsibilities and determine manpower requirements of the parties for such extended term.

(d) The parties hereby agree to add a new Section 2.7 as follows:

2.7 Discovery Chemistry and Lead Optimization. The parties agree that, pursuant to the Research Plan (Attachment I), as may be amended from time to time, Genelabs shall assume responsibility for and allocate resources funded by DPC to the [\*], as specified

in the Research Plan; specifically the [\*].

3. AMENDMENTS TO ARTICLE III "TARGET GENES"

(a) The parties hereby agree that Section 3.1 of the Agreement be deleted and replaced by the following:

3.1 Collaboration Target Genes.

(a) The RSC has designated [\*].

(b) The parties agree that the title to Section 3.2 and Section 3.2(a) of the Agreement be deleted and replaced by the following:

3.2 Genelabs Lead Compound and Third Party Lead Compound Programs.

(a) Genelabs may initiate a Genelabs Lead Compound Program [\*], it may initiate a Third Party Lead Compound Program in collaboration with a third party; provided, however, that in no event may the [\*].

(c) The parties hereby agree that Section 3.2(b) of the Agreement be deleted and replaced by the following:

Genelabs may initiate a Genelabs Lead Compound Program [\*], subject to Section 3.2(a) and the following conditions:

(i) [\*]; and

(ii) [\*]

[\*]

(d) The parties hereby agree that Section 3.2(c) of the Agreement be deleted and replaced by the following:

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Genelabs may initiate a [\*], subject to Section 3.2(a), and the following conditions:

(i) [\*].

(ii) [\*].

(e) The parties hereby agree that Section 3.2(d) of the Agreement be deleted in its entirety.

(f) The parties hereby agree that 3.3 of the Agreement be deleted and replaced in its entirety with the following:

3.3 Outlicensing by Genelabs. Genelabs may develop and commercialize Genelabs Lead Compounds arising from a Genelabs Lead Compound Program or may choose at any time to outlicense such a Genelabs Lead Compound to a third party, [\*]:

(i) [\*];

(ii) [\*];

(iii) [\*];

(iv) [\*].

Genelabs' obligations under this Section 3.3 shall terminate upon [\*]. The parties understand and agree that DPC's rights under this Section 3.3 do not cover any Genelabs Lead Compound resulting from any Third Party Lead Compound Program.

(g) The parties hereby agree that Section 3.4 of the Agreement be deleted and be replaced in its entirety by the following:

3.4 Genelabs Screening - Collaboration. During the term of the Research Collaboration, Genelabs may, at its sole discretion, enter into Genelabs Screening Collaborations with third parties. It is understood that a Genelabs Screening Collaboration as defined in the Agreement means a service agreement in which Genelabs provides screening and/or assay services to a third party. As part of Genelabs Screening Collaborations, Genelabs may disclose Collaboration Technology to its third party collaborator and may receive any information concerning such third parties' chemistries or the targets or promoters being screened. Genelabs shall not pay DPC any portion of the proceeds received as part of such Genelabs Screening Collaboration.

#### 4. AMENDMENTS TO ARTICLE IV "GRANT OF RIGHTS"

(a) The parties hereby agree that Section 4.1 of the Agreement be deleted and replaced in its entirety by the following:

4.1 Monomer Database. Except as otherwise set forth in this Section 4.1, [\*].

(b) The parties hereby agree to amend Section 4.2(i)-(iii) by substituting the words "to develop" for the words "to discover" (or "Discover").

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(c) The parties hereby agree that Section 4.3 of the Agreement be deleted in its entirety.

5. AMENDMENTS TO ARTICLE V "PAYMENTS"

(a) The parties hereby agree that introduction to Section 5.1(b), and Section 5.1(b) (i) of the Agreement, be deleted and replaced by the following:

Milestones. DPC shall also make the following payments (which may be used for any purpose by Genelabs) to Genelabs within thirty (30) days (except where deferred under Section 5.1(b) (i)) of the achievement of the following milestones related to commercial Licensed Products which are derived directly or indirectly through utilization of the Genelabs Technology or Collaboration Technology, regardless of whether the milestone is achieved during or after termination of the Research Collaboration, and regardless of whether the entity achieving the milestone is DPC itself or one of its Sublicensees or Affiliates:

(i) [\*].

5(b) The parties agree to delete Section 5.2(a) of the Agreement and replace it with the following:

5.2(a) Outlicensing Revenues if [\*]. In the event that a [\*], then Genelabs agrees to pay to DPC a fee based on the Net Proceeds Genelabs receives from outlicensing or sublicensing any Genelabs Lead Compound during the period commencing [\*] (the "Period"). During that portion of the Period commencing [\*] and ending on the earlier of [\*] the fee shall be equal to [\*] of the Net Proceeds Genelabs receives from any such outlicensing or sublicensing of Genelabs Lead Compound. Thereafter, for the remainder of the Period, the fee shall be equal to [\*] of the Net Proceeds Genelabs receives from any such outlicensing or sublicensing of a Genelabs Lead Compound.

5(c) The parties agree to delete Section 5.2(b) of the Agreement and replace it with the following: 5.2(b) Outlicensing Revenues if [\*]. In the event that a [\*], then Genelabs agrees to pay to DPC a fee of [\*] of the Net Proceeds Genelabs receives from outlicensing or sublicensing any Genelabs Lead Compound. This obligation shall only apply to outlicensing or sublicensing of a Genelabs Lead Compound during the period commencing [\*].

8. AMENDMENTS TO ARTICLE VIII "TERM AND TERMINATION"

(a) The parties hereby agree that Section 8.1 of the Agreement be deleted and replaced by the following:

8.1 Term and Expiration. This Agreement shall be effective as of the Effective Date and unless terminated earlier pursuant to Section 8.2 or 8.5 below, the terms of this Agreement shall continue in effect on a country-by-country basis until expiration date of the last obligation of a party to pay fees or royalties to the other party for the sale of a Licensed Product in that country. Upon expiration of this Agreement as to any country

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due to the expiration of the obligation of a party to pay royalty to the other party for the sale of a Licensed Product in that country, the licenses hereunder with respect to Licensed Product shall become fully paid-up, perpetual licenses.

(b) The parties hereby agree to add the following Section 8.5.

8.5 Termination Not for Cause. This Agreement may be terminated [\*].

(c) The parties agree to delete Exhibit B, the Research Plan and replace with Attachment I, Research Plan for [\*] (herein attached).

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ATTACHMENT I

RESEARCH PLAN FOR [\*]

DUPONT PHARMACEUTICALS/GENELABS TECHNOLOGIES COLLABORATION

[\*]

IN WITNESS WHEREOF, Genelabs and DPC have duly executed this Second Amendment as of the Effective Date first written above.

DUPONT PHARMACEUTICALS COMPANY

GENELABS TECHNOLOGIES,  
INC.

By /S/ PAUL A. FRIEDMAN, M.D.

By: /S/ IRENE CHOW, PH.D.

-----  
Printed Name: Paul A. Friedman, M.D.

-----  
Printed Name: Irene Chow, Ph.D.

-----  
Title: President

-----  
Title: President & CEO

-----  
DuPont Pharmaceuticals  
Research Labs

[\*] Confidential treatment requested pursuant to a request for confidential treatment filed with the Securities and Exchange Commission. Omitted portions have been filed separately with the Commission.

Exhibit 10.26 First Modification to Grant from the Space and Naval Warfare Systems Command.

Grant No.: N65236-98-1-5400  
MODIFICATION: P00001  
DARPA Order No.: F854/01  
Program Code: P8310  
Effective Date: 18 DEC 1998

Grantor: Space and Naval Warfare Systems Command (SPAWAR)  
Systems Center Charleston  
P.O. Box 190022  
North Charleston, SC 29419-9022

Grantee: Genelabs Technologies, Inc.  
505 Penobscot Drive  
Redwood City, CA 94063

Grantee Identification Numbers/Codes:

DUNS No.: 180695348  
TIN: 94-3010150  
Cage Code: 0K7W3

Total Grant Amount: \$13,592,769.00

Accounting and Appropriation Data:

ACRN: AB 9790400 1320 F854 P9310 2525 DPAM 9 0102 62383E S12123  
JO #BMUE5X9I17 DOC #HR00119999F854/AA  
REQ: N65236-8337-8F08 \$4,810,871.00

Authority: This Grant is issued pursuant to the authority of 10 U.S.C. 2358.

#### GRANT SCHEDULE

The purpose of this modification is to provide for an increment of funding under Grant N65236-98-1-5400. Effective as of the date of this modification:

1. The amount of funding available under this Grant is hereby increased by the amount shown in the accounting and appropriation data set forth above.
2. Revise Paragraph 7 to read as follows:

"7. This Grant is incrementally funded. The total amount of this Grant is

\$13,592,769.00. The amount currently available for payment is \$8,586,856.00. The Government's obligation for the difference of \$5,005,913.00 is contingent upon the availability of funds. Accordingly, no legal liability on the part of the Government for payment of this difference shall exist unless and until funds are made available to the Grantee by an amendment to the Grant.

FOR THE UNITED STATES OF AMERICA,  
SPACE AND NAVAL WARFARE SYSTEMS COMMAND,  
SYSTEMS CENTER CHARLESTON

By: /S/ GRANTS OFFICER

-----  
(Grants Officer)

December 18, 1998

-----  
(Date)

## CONSENT OF ERNST &amp; YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Form S-8 No.'s 333-30083, 333-5769, 33-85914, 33-81894, 333-4806 and 33-52250) pertaining to the 1991 Employee Stock Purchase Plan, the 1995 Stock Option Plan, the 1994 Annual and Long-Term Incentive Based Compensation Program, the 1985 Employee Stock Option Plan and the 1991 Employee Stock Purchase Plan, the 1992 Restricted Stock Award Plan, and the 1987 Directors Stock Option Plan of Genelabs Technologies, Inc. of our report dated February 10, 1999, with respect to the consolidated financial statements of Genelabs Technologies, Inc. included in this Annual Report on Form 10-K for the year ended December 31, 1998.

ERNST & YOUNG LLP

Palo Alto, California  
March 26, 1999

<TABLE> <S> <C>

<ARTICLE> 5

<LEGEND>

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1996 AND THE CONSOLIDATED STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 1996, AND NOTES THERETO, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

</LEGEND>

<RESTATED>

<MULTIPLIER> 1,000

<S>	<C>
<PERIOD-TYPE>	YEAR
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<PERIOD-START>	JAN-01-1996
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<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.  
<F3>CONSISTS OF INCOME FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF  
AFFILIATE.  
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<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

<F3>CONSISTS OF LOSS FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE.

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<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

<F3>CONSISTS OF LOSS FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE.

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<F1>CONSISTS OF ACCUMULATED DEFICIT AND ACCUMULATED OTHER COMPREHENSIVE INCOME.

<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1997 AND THE CONSOLIDATED STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 1997, AND NOTES THERETO, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

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<F1>CONSISTS OF ACCUMULATED DEFICIT AND ACCUMULATED OTHER COMPREHENSIVE INCOME.

<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.  
<F3>CONSISTS OF LOSS FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE.  
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<F1>CONSISTS OF ACCUMULATED DEFICIT AND ACCUMULATED OTHER COMPREHENSIVE INCOME.

<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

<F3>CONSISTS OF INCOME FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE.

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<F1>CONSISTS OF ACCUMULATED DEFICIT AND ACCUMULATED OTHER COMPREHENSIVE INCOME.

<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

<F3>CONSISTS OF INCOME FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE, NET OF GAIN ON PARTIAL SALE.

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<F1>CONSISTS OF ACCUMULATED DEFICIT AND ACCUMULATED OTHER COMPREHENSIVE INCOME.

<F2>CONSISTS OF RESEARCH AND DEVELOPMENT, AND GENERAL AND ADMINISTRATIVE EXPENSES.

<F3>CONSISTS OF INCOME FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE, NET OF GAIN ON PARTIAL SALE.

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31, 1998 AND THE CONSOLIDATED STATEMENT OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 1998, AND NOTES THERETO, AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

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<F3>CONSISTS OF INCOME FROM DISCONTINUED OPERATIONS AND EQUITY IN LOSS OF AFFILIATE, NET OF GAIN ON PARTIAL SALE.

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