DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of the Secretary

Office of the General Counsel
Washington, D.C. 20201

c/o National Institutes of Health
Westwood Building, Room 5A03
Bethesda, Maryland 20205
(301) 496-7056

January 26, 1984

Ms. Darcia Bracken
U. S. Department of Commerce
Room 4324
14th Street and Constitution Ave., N.W.
Washington, D. C. 20230

Re: Damon Collaborative Agreement

Dear Ms. Bracken:

This is in response to your telephone request for a copy of the collaborative research agreement between Damon Biotech, Inc., and the National Cancer Institute. The two exhibits of the Agreement are not enclosed. Attachment A is OMB Circular A-124. Attachment B contains trade secret information.

Sincerely yours,

Leroy B. Randall
Chief, Patent Branch

Enclosure

AGREEMENT

BETWEEN

DAMON BIOTECH, INC. AND THE NATIONAL CANCER INSTITUTE

WHEREAS Damon Biotech, Inc., 119 Fourth Avenue, Needham Heights, Massachusetts 02194, USA, (hereinafter designated as "Damon") has developed and is currently sole owner, by virtue of patent rights and ownership of proprietary know-how, of certain technology directed to the encapsulation of core materials, including biological materials and living cells, within semipermeable membranes, to methods of producing such capsules, and to processes employing such capsules (which technology as it presently exists and as it shall be developed or acquired by Damon independently of this Agreement, shall hereinafter be designated as "Encapsulation Technology"); and

WHEREAS the National Cancer Institute, a component of the United States Department of Health and Human Services (DHHS), through its Division of Cancer Treatment at the Frederick Cancer Research Facility, Frederick, MD 21701, (hereinafter designated as "NCI") engages in cancer research; and

WHEREAS the parties desire to engage in a joint development program for the application of the Encapsulation Technology to various experimental projects in the area of cancer research;

NOW, THEREFORE, IT IS AGREED BETWEEN DAMON AND NCI AS FOLLOWS:

1. The activities conducted under this Agreement are subject to the provisions of Attachment A to Office of Management and Budget (OMB) Circular A-124, which is attached hereto as Exhibit A, and by this reference made a part hereof. With respect to Exhibit A, the term "Contractor" will mean Damon Biotech, Inc., and the term "Federal Agency" will mean the Department of Health and Human Services.

2. Damon and NCI will engage in joint experimentation in the area of cancer research using the Encapsulation Technology. Such experimentation shall be organized into discrete projects each of which is directed toward experimentation with and development of a "NEW PRODUCT OR PROCESS." Each project shall be conducted under the joint direction of an appropriate representative of each of Damon and NCI. The scope of each project and particular allocation of responsibilities between the parties with respect to each project will be more particularly specified in a written project plan to be agreed upon by the parties. The NCI may at its option draft the initial proposal for each such plan after consultation with Damon and the final form thereof shall be subject to the approval of both parties. The first project plan is attached hereto as Exhibit B, and the signing of this Agreement signifies the parties' approval of that plan. Subsequent project plans shall be deemed to have been adopted by the parties upon the written approval thereof by any officer of Damon and the Associate Director, Biological Response Modifiers Program (BRMP) on behalf of the NCI. The attached initial plan and all plans which are subsequently adopted may be modified upon the written approval of any officer of Damon and the Associate Director, BRMP, on benalf of NCI.

3. Damon grants to NCI a nonexclusive, nonassignable, royalty-free license, without the right to sublicense, to practice the Encapsulation Technology only during the term of this Agreement, solely for the purpose of experimenting with, developing, and using in preclinical and clinical trials a NEW PRODUCT OR PROCESS in accordance with project plans approved and adopted under Section 2 of this Agreement. The Encapsulation Technology shall at all times remain under the control of Damon. NCI warrants that it will use the Encapsulation Technology only as authorized by Damon in this Agreement or as may be subsequently authorized by Damon in writing and agrees that use for any such unauthorized purpose shall, without limiting Damon's other rights and remedies therefor, have the effect of terminating this Agreement and all of NCI's rights hereunder.

   Nothing in this Agreement shall be deemed to grant to DHHS (including NCI) or to any licensee of DHHS any rights or interests in any of the "Encapsulation Technology," as defined supra, except as specifically set forth in this Section 3.

4. To the extent permitted by the Freedom of Information Act, 5 U.S.C. 552, NCI agrees to use the Encapsulation Technology only in accordance with this Agreement and otherwise to treat the Encapsulation Technology, improvements to it arising from this Agreement and all other information having commercial value which pertains to the nature, manufacture, use and market potential of a NEW PRODUCT OR PROCESS, to which Damon has, under this Agreement, a first option to title or an exclusive license, as confidential trade secret information of Damon for the term of this Agreement plus an additional three (3) years beyond the term of this Agreement or until it becomes public information by virtue of the issuance of a patent, or by lawful disclosure not emanating from either Damon or NCI, whichever first occurs. Preclinical and clinical data developed by NCI in the course of testing a NEW PRODUCT OR PROCESS that has been developed shall be considered confidential trade secret information of Damon only if the parties agree that it is essential to a patentable invention to which Damon has a first option to title or an exclusive license.

   To the extent permitted by the Freedom of Information Act, 5 U.S.C. 552, NCI will disclose confidential trade secret information only: to employees, agents and others under a contract with NCI to comply with NCI's obligations hereunder pertaining to the use and confidentiality of such information and to inventions arising hereunder. With respect to any licensing agreement which DHHS enters into pursuant to Paragraph j of Attachment A, to Office of Management and Budget (OMB) Circular A-124 (attached hereto as Exhibit A), NCI may disclose only so much confidential trade secret information as shall be required for that purpose, and NCI agrees to inform Damon of what information it is disclosing at least 30 days prior to the disclosure. Notwithstanding the foregoing, NCI may not disclose to its licensee pursuant to Paragraph j of Attachment A, to OMB Circular A-124, any of Damon's confidential trade secret information which is not developed under this Agreement, or license any of the "Encapsulation Technology" as defined supra.

If DHHS Freedom of Information Officials determine that the Freedom of Information Act requires disclosure of any of the information identified in this Section 4, other than disclosure of an invention which Damon or the DHHS may patent under this Agreement but has not filed therefor, Damon will be notified in writing fifteen (15) working days prior to the disclosure. The disclosure notification will include copies of the documents to be disclosed. If DHHS Freedom of Information Officials determine that the Freedom of Information Act requires disclosure of information which would identify or be essential to the use of an invention which Damon or the DHHS may patent under this Agreement, but has not yet filed an application therefor, such information shall be withheld from disclosure in accordance with 35 U.S.C. 205 until a patent application has been filed.

Damon recognizes that one of the purposes to be achieved by this Agreement is to create useful publications in the area of cancer research and agrees to cooperate with NCI in facilitating such publications so long as they do not result in the disclosure of Damon's confidential trade secret information. Authorship should be determined by customary procedures related to individual contributions. Unless a Damon employee coauthor (if any) has otherwise approved the final text of such a publication, NCI agrees that if NCI or any employee, agent or consultant of NCI proposes to publish any information pertaining to the Encapsulation Technology or any activities hereunder or the results thereof, NCI will cause the proposed publication to be submitted to Damon for review prior to publication. Damon agrees to determine within 30 days if said publication contains confidential trade secret information of Damon as defined in Section 4, and NCI agrees to delete any such information from the publication. This Agreement does not give Damon the right to delay or prohibit publication other than as stated above. Notwithstanding the foregoing, the publication of any preclinical or clinical data developed by NCI in the course of testing a NEW PRODUCT OR PROCESS will not be prohibited or delayed unless such publication would, as agreed by the parties, disclose information essential to a patentable invention. In that event, publication of the data will be delayed no longer than is reasonably required for Damon or DHHS to apply for a patent on such invention.

5. Each of Damon and NCI will maintain research records fully documenting its respective activities hereunder, and will regularly exchange with the other orally and in writing current information in its possession or under its control pertinent to the ongoing development of the NEW PRODUCT OR PROCESS, and shall collaborate and use its best efforts to advance development of the NEW PRODUCT OR PROCESS. Without limitation of the foregoing, each party will provide the other with a full written report of its activities hereunder no less frequently than quarterly. Nothing herein will require the disclosure to NCI of information in Damon's possession as to which Damon is under an obligation of confidentiality to a third party.

5. NCI will in connection with its activities hereunder inform Damon promptly of any invention made by NCI's employees, agent or consultants or jointly by NCI and Damon employees, agents or consultants in performance of work hereunder. The party entitled, under this Agreement, to hold title to an

invention arising hereunder (see Sections 7-9), shall be responsible for the preparation, filing and prosecution of each patent application relating thereto, including the costs associated therewith, except as specified in Section 8 below with respect to certain foreign counterpart patent applications which Damon may file for and on behalf of the Government. NCI and DHHS shall cooperate, as requested, in the preparation, filing and prosecution of a patent application by Damon. If DHHS is preparing a patent application, it will consult closely with Damon in advance of filing and give due consideration to Damon's suggestions.

7. DHHS shall have title to an invention arising hereunder if (i) the only named inventor or inventors are employees of NCI, or (ii) the invention is a clone and/or the antibody produced therefrom which was produced at NCI facilities, and the Encapsulation Technology is not claimed as a part of the invention.

8. In order to receive any license under this section Damon must advise NCI in writing, within 90 days after the date on which DHHS files for a United States patent, that Damon intends to develop and commercialize the invention which is the subject of the patent application. If the only named inventor or inventors of an invention arising hereunder are employees of NCI (see Section 7(i)), DHHS shall grant and does hereby grant at the time of execution of this Agreement, an exclusive, worldwide, royalty-free license to Damon which shall expire on the earlier of five (5) years from the date of the first commercial sale or use of the invention or eight (8) years from the issuance date of a United States patent on the invention; provided that, following that expiration Damon shall have, and is hereby granted, a worldwide royalty-free nonexclusive license that will terminate upon the expiration of the patent held by the Government claiming such invention. Each exclusive license granted to Damon shall be subject to the reservation to the Government of (1) a right to use the invention for governmental purposes and to grant others royalty-free licenses to use the invention for such governmental purposes, and (2) the march-in and other "Federal Agency" rights set forth in Exhibit A. If an invention arising hereunder is a clone, and/or the antibody produced therefrom which was produced at NCI facilities and the Encapsulation Technology is not claimed as a part of the invention, (see Section 7(ii)), DHHS shall grant and does hereby grant Damon a nonexclusive, worldwide, royalty-free license for the life of the patent held by the Government claiming such invention. Each license granted to Damon under this section incorporates a right to sublicense, to make, use and sell the invention (and the subject matter of any patent held by the Government claiming such invention).

Damon may file foreign counterpart patent applications at its own expense for and on behalf of the United States Government, provided that Damon informs the DHHS Patent Branch as to the countries in which it intends to seek patent protection, and the foreign counterpart patent applications are filed within six (6) months after the filing date of the United States patent application. It is understood and agreed that, with respect to all foreign counterpart patent applications so filed, Damon shall be solely

responsible for maintaining the foreign patent applications and any patents that may issue thereon, including the payment of all fees and annuities, and that Damon may abandon any such patents and patent applications after informing the DHHS Patent Branch of its intention to abandon not less than thirty (30) days prior to the date a response to an official action from the patent examiner or an annuity payment is due, and offering the DHHS the opportunity to assume the prosecution and/or maintenance. Damon agrees that its use of such patent rights granted to it hereunder will benefit the public interest. Damon will have control over and bear the costs of any actions alleging infringement by third parties of such patents and actions alleging that Damon's use of such patent infringes their rights. NCI and DHHS agree to cooperate in Damon's conduct and settlement of any such action.

9a. Except as provided in Section 7(ii), Damon shall have a first option to title to a Subject Invention, as defined in Exhibit A, resulting from the performance of work under this Agreement if the inventor was at the time of conception or actual reduction to practice of the Subject Invention, an employee of, agent of, or under contract with Damon, as provided in Exhibit A.

9b. Except as provided in Section 7(ii), DHHS agrees to execute a written transfer and assignment to Damon of its right of title to each invention, and to any patent held by DHHS on such an invention, made jointly by employees of NCI and Damon in performance of work under this agreement. The title held by Damon under such a transfer and assignment shall be subject to all the applicable terms and conditions of Exhibit A.

9c. With respect to any invention arising hereunder in which Damon retains title, DHHS shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced, the invention on behalf of the United States throughout the world. DHHS hereby agrees to execute any releases, waivers, assignments, or other instruments necessary to perfect Damon's rights under Sections 9a. and 9b. of this Agreement.

10a. To the extent that title to physical materials, including, without limitation, clones, cultures or substances produced therefrom which result from the experimentation and work to be conducted hereunder, vests in the United States Government, it is understood and agreed that: (i) the United States Government shall have the right to use or authorize others to use such materials; and (ii) Damon shall have the nonexclusive right to make, use and sell such materials for its own account. Provision of materials by the NCI to Damon for production shall not imply transfer of ownership of such materials. Nothing in this Section 10 shall be construed to diminish the rights of the parties under Sections 7, 8, 9a, 9b and 9c.

10b. Physical materials, including but not limited to clones, cultures or substances, produced by or for the U.S. Government prior to, or independent of this agreement shall remain the property of the U.S. Government. Specifically, if such an HHS derived clone or its product, even if it is not

described as an invention, becomes an integral part of an invention the title to which accrues to Damon as a result of this Agreement, HHS will retain unimpaired ability to further develop alternative options with such clone or product for any other purpose and with any other organization. Access to such materials by Damon shall be governed by standard Government regulations for disposition of Government property. Any previous agreements that the Government has in place relative to title, possession or use of these materials shall remain in place. NCI agrees to inform Damon in advance of any restrictions relating to such materials which would limit Damon's proposed use of the materials.

11. NCI and Damon warrant that they will conduct their respective activities hereunder in strict compliance with this Agreement so that no third party rights in any invention arising hereunder are created except as described herein.

12a. Each party will be responsible for its own compliance with all laws, requirements of Government agencies, and use of due care, and will bear its own expenses in the conduct of experiments hereunder.

12b. NCI's Institutional Review Board for clinical research will review all information related to the safety and efficacy of each product prior to administration of the product to any patient in the course of this Agreement.

12c. At NCI's request, Damon will provide NCI with analytical, chemical and other data related to the product provided by Damon hereunder. NCI will use this data to determine the safety and efficacy of the product for clinical use. If impurities are present in the product preparation which are caused by the use of Encapsulation Technology and which prevent the use of the product in patients, Damon will use its best efforts to remove such impurities. If such removal is not accomplished satisfactorily, the project involved may be discontinued at the option of NCI.

13. This Agreement will be binding upon and inure to the benefit of the successors and assigns of Damon. NCI may not assign this Agreement or any of its rights hereunder, or delegate any of its duties hereunder, without the prior written consent of Damon.

14. This Agreement and the license herein granted to NCI shall remain in effect for one (1) year from the date set forth below and thereafter until either party terminates it by giving the other no less than thirty (30) days' prior written notice of termination. The rights and obligations of the parties with respect to maintaining the confidentiality of Damon's trade secret information, and with respect to patentable discoveries and physical materials resulting from experiments hereunder commenced prior to termination of this Agreement, will survive such termination; specifically, NCI may complete the testing, preclinical and clinical, of such discoveries and materials, with Damon cooperating as necessary in that completion, and NCI's and Damon's rights to use such discoveries and materials in such preclinical and clinical trials as set forth in this Agreement will not be restricted by such termination.

15. Neither this Agreement nor any term or provision hereof may be waived in whole or in part except by a written instrument signed by one of Damon's officers and the Director, Division of Cancer Treatment, on behalf of NCI, expressly stating that it is intended to operate as a waiver or modification of this Agreement. If any term or provision of this Agreement shall be invalid or unenforceable to any extent or in any application, then the remainder of this Agreement, and such term or provision, except to such extent or in such application, shall not be affected thereby, and each and every term and provision of this Agreement shall be valid and enforced to the fullest extent and in the broadest application permitted by law.

This Agreement is effective as of October 18 1983.

NATIONAL CANCER INSTITUTE

Vincent T. DeVita
Director

DAMON BIOTECH, INC.

Nigel L. Webb
President