

Sponsored Projects Office

UC Berkeley

Notice of Award

Feb 11, 1999

Investigator: Gruissem, Wilhelm (PI/F)	Unit: ELPB Plant & Microbial Biology Department (LU)		
Sponsor:	09077 Novartis Pharmaceutical (merger of CIBA-Geigy & Sandoz)		
Award Number:	010134	Modification Number:	
Project Title:	Agricultural Genomics		
Account Number:	400376	Fund Number:	

Project Period Begin: November 23, 1998

Project Period End: November 22, 2003

Anticipated Total Project Funding: \$25,000,000

	Budget Period 1	Budget Period 2	Budget Period 3	Budget Period 4
Begin Date:	11/23/98	11/23/99	11/23/00	11/23/01
End Date:	11/22/99	11/22/00	11/22/01	11/22/02
Funding:	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000

Activity Type: Basic research
Award Type: Collaboration agreement
Project Type: Regular

SPO Award Number: 010134-002

SPO Proposal Number:

Comments:

General: Please review award document carefully for intellectual property, procurement, financial, and other terms and conditions.

See Subcontracts for project allocations to participants

Appendix A: List of Participating Faculty--Bob Buchanan, Zacheus Cande, Lewis Feldman, Michael Freeling, Wilhelm Gruissem, Antje Hoffmeister, Jay Hollick, Andrew Jackson, Russell Jones, Sydney Kustu, Peggy Lemaux, Steven Lindow, Sheng Luan, Anastasios Melis, Krishna Niyogi, Peter Quail, Brian Staskawicz, John Taylor, Norman Terry, Loy Volkman, Barbara Baker, Robert Fischer, Sarah Hake, Sheila McCormick, Athanasios Theologis, Patricia Zambriski, N. Louise Glass

Fiscal: Special accounting required. Separate accounts are to be established for program direct costs and indirect costs.

Annual budget is up to \$5 million, with payments based upon the approved research and payment plan for selected research proposals. Funds unused in annual budget period can be carried forward to subsequent year allocations

Investigator:

Gruissem, Wilhelm (PI/F)

Uni

ELPB Plant & Microbial Biology Department (LU)

Award Number:

010134

Modification Number:**Approved Special Items:****Subcontracts:**

Number	Subcontractor's Name	Amount	Begin	End
SA2248-	Baker, Barbara	\$120,000	2/1/99	1/31/00
SA2249-	Bruns, Thomas	\$100,000	2/1/99	1/31/00
SA2250-	Buchanan, Bob	\$200,000	2/1/99	1/31/00
SA2251-	Cande, Zacheus	\$100,000	2/1/99	1/31/00
SA2252-	Feldman, Lewis	\$75,000	2/1/99	1/31/00
SA2253-	Freeling, Michael	\$200,000	2/1/99	1/31/00
SA2254-	Glass, Louise	\$100,000	2/1/99	1/31/00
SA2255-	Gruissem, Wilhelm	\$200,000	2/1/99	1/31/00
SA2256-	/Hake, Sarah	\$100,000	2/1/99	1/31/00
SA2257-	Hofmeister, Antje	\$100,000	2/1/99	1/31/00
SA2258-	Hollick, Jay	\$60,000	2/1/99	1/31/00
SA2259-	Jackson, Andrew	\$120,000	2/1/99	1/31/00
SA2260-	Jones, Russell	\$100,000	2/1/99	1/31/00
SA2261-	Kustu, Sydney	\$125,000	2/1/99	1/31/00
SA2262-	Lemaux, Peggy	\$150,000	2/1/99	1/31/00
SA2263-	Lindow, Steven	\$100,000	2/1/99	1/31/00
SA2264-	Luan, Sheng	\$100,000	2/1/99	1/31/00
SA2265-	McCormick, Sheila	\$100,000	2/1/99	1/31/00
SA2266-	Melis, Tasios	\$75,000	2/1/99	1/31/00
SA2267-	Niyogi, Kris	\$100,000	2/1/99	1/31/00
SA2268-	Quail, Peter	\$125,000	2/1/99	1/31/00
SA2269-	Ruzin, Steve	\$75,000	2/1/99	1/31/00
SA2270-	Staskawicz, Brian	\$200,000	2/1/99	1/31/00
SA2271-	Sung, Renee	\$75,000	2/1/99	1/31/00
SA2272-	Taylor, John	\$100,000	2/1/99	1/31/00
SA2273-	Terry, Norman	\$75,000	2/1/99	1/31/00
SA2274-	Volkman, Loy	\$100,000	2/1/99	1/31/00
SA2275-	Zambryski, Patricia	\$150,000	2/1/99	1/31/00

Indirect Cost:

Base Type	Rate Type	FY	Campus	Rate
MTDC	Sponsored research	1999	On	50.4%

Annual budget is \$5 million: Annually, \$3,333,500 is set up in account for program direct cost, and \$1,666,500 is in an account for indirect support (\$16,667,500 direct and \$8,332,500 indirect over five year period).

Intellectual Property:

Sponsor obtains rights to IP made under this agreement, and to certain other IP made under non-commercial support during the term of this agreement.

COLLABORATIVE RESEARCH AGREEMENT

BETWEEN

NOVARTIS AGRICULTURAL

DISCOVERY INSTITUTE, INC. ("NADII")

AND

THE REGENTS OF

THE UNIVERSITY OF CALIFORNIA

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COLLABORATIVE RESEARCH AGREEMENT

No.: 010134

This Research Agreement ("Agreement"), is effective this 23rd day of November, 1998, ("Effective Date") by and between Novartis Agricultural Discovery Institute, Inc. ("NADII") a Delaware Corporation, having offices at La Jolla, California, and The Regents of the University of California, a California corporation, having its principal offices at 1111 Franklin Street, 12th Floor, Oakland, California 94607-5200, on behalf of the University of California, Berkeley ("University").

Recitals

NADII has an ongoing interest in basic research on Agricultural Genomics, especially in the matching of genes with plant traits, and desires to establish a long term collaborative research relationship with the University. The ultimate goal of NADII is to achieve commercialization of products based upon technology developed under this Agreement.

University, in its Plant and Microbial Biology Department ("PMBD"), has expertise and on-going research programs in the broad area of Agricultural Genomics and wishes to establish a long-term research relationship with NADII.

The joint research contemplated by this Agreement will be of mutual interest and benefit to University and to NADII, will further the instructional and research objectives of University in a manner consistent with its status as a tax-exempt public educational institution recognized under Article IX Section 9 of the California Constitution, and will offer benefits for

NADII, University, and the general public through research findings, inventions, improvements, and/or discoveries.

NADII intends to establish a facility close to the campus of the University ("NADII-UCB") that will contain a suite of workstations accessible to PMBD faculty who participate in this research relationship.

Therefore, it is in the mutual interest and is the intent of NADII and University to establish a five- (5-) year research relationship.

Now, therefore, the parties agree as follows:

1. Definitions

As used in this Agreement the following terms have the meanings as set forth below:

- 1.1 "**Research Program**" means the research projects collectively to be carried out under the General Funding.
- 1.2 "**General Funding**" means the payments effected by NADII in accordance with Article 5.
- 1.3 "**Budget Plan**" means the annual budget and payment plan for the Research Budgets developed by PMBD in accordance with Article 5 and attached hereto as Appendix C incorporated by reference as part of this Agreement.

- 1.4 "**Research Committee**" means a five (5) member committee made up of three (3) members from PMBD and two members from NADII/Novartis Agribusiness Biotech Research, Inc. (NABRI) as set forth in Article 4.4.
- 1.5 "**Advisory Committee**" means a six (6) member board made up of three (3) members from the University and three (3) members from NADII/NABRI as set forth in Article 4.2 and the chairman of the PMBD and Chair of Research Committee as non-voting, ex-officio members.
- 1.6 "**Research Results**" means all notes; technical reports; data; information whether written, electronic or otherwise; biological material; other material and records of the work performed within the scope of this Agreement.
- 1.7 "**Research Invention**" means any invention, discovery, improvement or other intellectual property, whether patentable or not, that is conceived and first reduced to practice, either actually or constructively, within the scope of this Agreement at the University or NADII-UCB by University employees alone or with one or more NADII employees; or solely by NADII employees using University facilities.
- 1.8 "**Subject Invention**" means all Research Inventions owned or jointly owned by the University that are the subject of one or more patent applications filed by the University at the request of NADII in accordance with Article 10. A Subject Invention as described herein means: a first filed patent application; continuations; divisionals; reissues; re-examinations and continuations-in-part (only to the extent, however, that the subject matter claims in such continuations-in-part are described or claimed in the first filed patent application; or that the subject matter has been

conceived and reduced to practice, either actually or constructively, within the scope of this Agreement) related thereto; and foreign applications thereof.

- 1.9 "**Elected Inventions**" means those Subject Inventions for which NADII has exercised its rights to obtain either a license or an option in accordance with Article 10. The number of Elected Inventions determined after application of the Allowed Percentage shall be rounded up to the nearest whole number.
- 1.10 "**Allowed Percentage**" means the percentage obtained when the portion of General Funding provided to the University in any one Budget Year is ratioed over the total funding provided by those organizations included under Article 2.1(b) plus that portion of the General Funding provided to the University in that same Budget Year.
- 1.11 "**Affiliate**" means any corporation or other entity which controls, is controlled by or is under common control with, a party to this Agreement. A corporation or other entity shall be regarded as in control of another corporation or entity if it owns or directly or indirectly controls more than fifty percent (50%) of the voting stock or other ownership interest of the other corporation or entity, or if it possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of the corporation or other entity.
- 1.12 "**Research Budget**" means the proposed expenditures of an individual research project within the Research Program.

2. Scope / Schedule

2.1 Research undertaken by the University and falling within the scope of the Agreement shall include:

(a) Projects within the Research Program;

(b) Inventions resulting from research supported in whole or part by non-commercial entities and presented to NADII by the University, to the extent the University is legally able to do so.

Such non-commercial entities would include, but not be limited to: National Institutes of Health (NIH); National Science Foundation (NSF); United States Department of Agriculture (USDA); California Agricultural Experiment Station 19900 organized research funding (AES); and the United States Agricultural Research Services (ARS).

Inventions included under Article 2.1(b) would be limited to those conceived and reduced to practice, either actually or constructively, during the time period of this Agreement and in part or in whole by those PMBD faculty and staff members listed in Appendix A which is herein incorporated as part of this Agreement.

2.2 The individual projects that comprise the Research Program will be reviewed and selected on an annual basis by the Research Committee.

- 2.3 At its discretion, NADII may from time to time elect to fund separately, additional, specific research projects with individual members of the faculty. Such additional projects shall be funded separately from and in addition to the General Funding and otherwise governed by standard University procedures and policies for such projects.
- 2.4 Specifically excluded from the scope of this Agreement are rights to results from research performed in the PMBD funded completely or partially by, or pursuant to a materials transfer agreement from:
- (a) Private for-profit sponsors other than NADII;
 - (b) Any non-commercial organization such as identified under Article 2.1(b) that requires that rights to inventions developed under its sponsorship not be included under this Agreement or where the granting of such rights conflicts with rights granted, prior to the effective date of this Agreement, to other organizations.
- 2.5 California Commodity Groups may, from time to time, wish to participate in the Research Program on selected research topics. Such collaborations shall be developed and agreed upon by all parties to the collaboration and the resulting intellectual property rights granted following established University policy.
- 2.6 It is intended that work under this Agreement be collaborative in nature. Just as NADII scientists working in the Research Program will work in the PMBD subject to conditions of Appendix D as herein incorporated as part of this Agreement, NADII shall accept PMBD scientists working in the Research Program into the NADII-UCB facility subject to the conditions of Appendix E as deemed necessary in order to

accomplish the research objectives of the projects defined under the Research Program.

3. Term

- 3.1 The term of the Research Program will be five (5) years from the effective date of this Agreement and may be extended by mutual written consent of both parties. Each extension shall be executed not less than one (1) year prior to the end of the then current term.

4. Governance

- 4.1 The Research Program shall be overseen by two bodies, namely, the Research Committee and the Advisory Committee.
- 4.2 The Advisory Committee consists of six (6) voting members: three (3) from the University, namely, the Vice Chancellor for Research for the Berkeley Campus, the Dean of Berkeley's College of Natural Resources, and a Berkeley faculty member without ties to the PMBD and the College of Natural Resources; one (1) from NADII, namely, the President and CEO of NADII, and two (2) from Novartis Agribusiness Biotech Research, Inc. (NABRI), namely the two Co-Presidents of NABRI; as well as the then current chair of the Research Committee and the Chair of the PMBD as non-voting, ex-officio members.

4.3 The Advisory Committee shall be responsible for management of the relationship between the University and NADII during the performance of the Research Program.

The Advisory Committee shall meet in Berkeley, California as needed but no less frequently than annually at least sixty (60) days before the start of each year of the Research Program, to discuss any issues or decisions needed to maintain an efficient and effective working relationship for collaborative research between the University and NADII as provided for in this Agreement including Appendices B and D. All decisions made by the Advisory Committee shall be in accord with all University, State of California and Federal regulations, policies and delegations of authority governing such activities.

The Advisory Committee shall not be responsible for management of the Research Committee or for selection of individual research projects to be carried out within the Research Program.

4.4 The Research Committee shall consist of five (5) voting members: three (3) from the University, namely, the Principal Investigator and two members of the PMBD selected by its faculty; one (1) member from NADII, namely, the President and CEO of NADII, and one (1) member from NABRI, namely one of the two Co-Presidents of NABRI. The Research Committee shall be chaired by the Principal Investigator unless agreed otherwise by the members.

4.5 The Research Committee shall be responsible for selection and monitoring of individual research projects to be carried out within the Research Program and shall

meet in Berkeley, California as needed but no less frequently than annually, and at least sixty (60) days before the start of each year of the Research Program.

- 4.6 Operating Guidelines for the Research Committee are included in Appendix B and will be amended from time to time by the Research Committee and incorporated by reference in this Agreement upon written agreement by both parties listed under Article 14 "Notices."
- 4.7 For the purpose of this Agreement and pursuant to University policy, Wilhelm Gruissem, Ph.D., is designated as Principal Investigator ("Principal Investigator"). The Principal Investigator shall be responsible for the administration of the Research Program under the guidelines established in Appendix B as set forth herein and following established University policy and procedures. Should the Principal Investigator leave the University, withdraw from the PMBD or otherwise become unavailable during the term of the Research Program, the faculty of PMBD shall elect a replacement in accordance with Appendix B.

5. Financial Arrangements

- 5.1 NADII shall, during the term of the Research Program, pay the University Twenty-Five Million U.S. Dollars (US \$25,000,000) as set forth in the Budget Plan. Two-thirds (2/3) of the total budget or \$16,667,500, shall be paid to conduct the Research Program and one-third (1/3) or \$8,332,500, shall be used to support the indirect costs of the University and the PMBD.

Funding provided by NADII for this program is intended to qualify as a research credit in the context of United States federal tax and other state and local tax regulations to the extent permitted by those regulations and the use of said funding by the University. The University agrees to provide NADII with information from its records to support such claims if requested by those tax agencies.

6. Payment

- 6.1 Within thirty (30) days after the execution of this Agreement, NADII shall pay One and One-Quarter Million U.S. Dollars (US \$ 1,250,000) to the Regents. Subsequent payments shall be made in accordance with the Budget Plan (Appendix C) for the duration of the five-year program unless the Agreement is terminated in accordance with Article 15.
- 6.2 Within sixty (60) days after the end of each quarter, the University shall submit a full statement, confirmed by a University Accounting Officer, of actual expenditures by major cost categories incurred during the preceding quarter. The Research Program shall be conducted within the Research Budgets and in accordance with the Budget Plan. Annual reconciliation between budgeted and actual expenditures shall be made within ninety (90) days after the end of each year during the term of the Research Program.
- 6.3 If a payment is to be made by check, it should be made payable to The Regents of the University of California, reference the name of the Principal Investigator and Research Agreement Number and directed to:

Accounting Services
461 University Hall, #1102
University of California
Berkeley, CA 94720-1102

If the payment is made by wire transfer, instructions for making such payments may be obtained by contacting:

Extramural Funds Accounting
481 University Hall #1103
University of California
Berkeley, CA 94720-1103

Tel. No. (510) 642-1370
Fax No. (510) 643-8997

- 6.4 In the event that actual expenditures of an individual research project within the Research Program are expected to exceed its Research Budget, the Principal Investigator must be advised by the faculty member responsible for such research project and he shall review the issue with the Research Committee. The Research Committee shall determine if and how the Research Program should be modified to manage the anticipated overexpenditure. No overexpenditure will be paid without approval of the Research Committee. Any underutilized funds from any project shall be returned to the Research Committee for reallocation to other projects within the Research Program.
- 6.5 No funds or research materials, including those covered by a materials transfer agreement, from private, for-profit sources other than NADII will be used to support the individual research projects of the Research Program that are approved by the Research Committee.
- 6.6 General Funding shall be used solely in accordance with this Agreement.

7. Confidentiality

- 7.1 NADII acknowledges that the University is an open, academic environment and as a public, non-profit educational institution has no mechanism to guarantee the confidentiality of information and is subject to statutes requiring disclosure of information and records which a private corporation could keep confidential. Notwithstanding this acknowledgment, University and NADII will use their best efforts to ensure that information and materials are controlled in full compliance and accordance with the mutually agreed terms of this Agreement.
- 7.2 If NADII or the University desires to transfer confidential or proprietary information, biological materials, or compounds to each other during the course of this Agreement, it should do so only when it is absolutely necessary for the conduct of specific research and by way of a written confidential disclosure or material transfer agreement between the parties, whichever is appropriate. Such confidential disclosure or material transfer agreements shall have the form and content set forth in Appendices F and G. No changes in these Appendices can be made unless agreed to in writing by authorized officials (referenced in Article 14, "NOTICES") from both NADII and the University.
- 7.3 Both NADII and the University shall make best efforts not to disclose to each other or utilize in performing obligations under this Agreement, any information of any third party that either party cannot disclose, utilize or otherwise dispose of without violating the rights of that third party.

8. Research Results

- 8.1 University and NADII shall, bearing in mind the need for corroborated evidence of invention for patent purposes and in accordance with established good research practice, keep complete, accurate, and authentic accounts of all Research Results. University shall provide NADII with an annual comprehensive written report within sixty (60) days after the end of each year of the Research Program. This report shall be followed by an annual scientific meeting, at a location to be designated by the Research Committee, where progress in the Research Program shall be presented and discussed. The expenses for this meeting which are associated with the conduct and location of the meeting will be paid by NADII separately from funding provided for the Research Program. Travel expenses for the Principal Investigator and invited University employees will be paid from General Funding.
- 8.2 Subject to the terms of this Agreement, including but not limited to the provisions of Article 7 "Confidentiality," Article 9 "Publication," and Article 10 "Invention Rights," University shall own all Research Results and University shall have the right to copyright, publish, disclose, disseminate, and use, in whole or in part, any Research Results and information received from NADII or developed under this Agreement. However, Research Results that contain NADII proprietary information or materials covered by confidentiality or material transfer agreements Appendices F and G will be published, copyrighted, disclosed, disseminated or used by the University, in whole or in part, only upon either written consent of NADII, which consent shall not be unreasonably withheld, or upon prior removal of all reference to said proprietary materials and/or confidential information as agreed to in writing by NADII.

- 8.3 Subject to the terms of this Agreement, including but not limited to the provisions of Article 10 "Invention Rights," NADII shall have the right to use, in whole or in part and free of charge, for research only, Research Results or copies thereof. NADII also shall have the right to publish or otherwise publicly disclose Research Results according to the terms of Article 9. NADII shall have the further right to transfer Research Results to NABRI and its Affiliates under terms which are coextensive with those which apply to NADII.
- 8.4 Neither party will use the name of the other party or its employees in any advertisement, press release, or other publicity without prior written approval of the other party. University shall acknowledge NADII support under this Agreement in scientific publications and other scientific communications, unless NADII requests otherwise.

9. Publication

University and NADII shall each submit all proposed publications, papers and other electronic, oral or written disclosure of any Research Results to the other party at least thirty (30) days prior to (a) submission for publication, or (b) disclosure to a third party. In the event NADII believes patentable subject matter may be disclosed in such Research Results it shall, within thirty (30) days of its receipt thereof, notify University that it wishes said publication to be treated as a Research Invention in accordance with Article 10.5. Disclosure of Research Results to NABRI and its Affiliates shall not be subject to the provisions of this Article.

Publications designated as Research Inventions shall be withheld from publication until the 90 day period in Article 10.5 expires without a declaration of Subject Invention taking place or a patent application is filed, whichever occurs first.

10. Invention Rights

10.1 Inventorship shall be determined in accordance with U.S. patent law.

10.2 All rights to Research Inventions shall belong to the University unless otherwise specified in this Agreement and shall be disposed of under the terms of this Agreement.

NADII will ensure that all NADII employees who are named as inventors or co-inventors on any patent application filed under this Agreement shall execute any documents and do all things necessary, to assign to University all appropriate rights, title, and interest therein and to assist University in securing patent or analogous protection thereon.

10.3 (a) Notwithstanding the provisions of Article 10.2, Research Inventions made jointly by University employees and NADII employees without the use of University research facilities shall be jointly owned in accordance with U.S. patent law.

(b) For Subject Inventions resulting from access and utilization of NADII's confidential or proprietary genomics bioinformation database by University employees, the University shall grant an irrevocable, royalty free, worldwide, nonexclusive license, except for situations where federal or other third party

restrictions would not allow such a grant of rights, to NADII to make, use, sell, offer for sale and import the Research Inventions. Such Subject Inventions will not be considered to be Elected Inventions under this Agreement unless an exclusive license or option to an exclusive license to the University's undivided interest is obtained.

- 10.4 Each party shall promptly disclose in writing to the other any Research Invention, invention, discovery, improvement, or other intellectual property developed within the scope of this Agreement. It shall be the responsibility of the Research Committee to encourage such disclosures.
- 10.5 NADII will have ninety (90) days from the date of receipt of each disclosure of each Research Invention by NADII to inform University of those Research Inventions owned or co-owned by the University which NADII wishes to have designated a Subject Invention and for which a patent application should be filed. NADII shall have the right to review and make suggestions concerning choice of attorney, the drafting of patent applications, and the conduct of the prosecutions of applications for Subject Inventions filed by the University. NADII has the right to review and make suggestions on drafting and prosecution prior to the submission of each relevant document to the appropriate patent authority. Responsibility for filing and prosecuting such applications remains with University. NADII shall pay all expenses associated with filing, prosecuting, and maintaining such patent applications and patents claiming Subject Inventions in the United States and in such foreign countries as NADII may designate. Payment of such expenses shall be within thirty (30) days after NADII's receipt of an invoice from University with the respective law firm invoices attached.

- 10.6 University understands that NADII may be in a position to achieve significant cost reductions with regard to certain foreign patent activities and therefore, notwithstanding the provisions of Article 10.5, the parties contemplate, wherever appropriate and as agreed by both NADII and the University, authorizing the NADII patent organization to carry out the preparation, filing and prosecution of foreign patent applications. In such event, the participating NADII patent organization shall accept instructions from the University and its counsel and shall promptly convey all documents to the University and its counsel for review and instruction.
- 10.7 The University is not required to file a patent application on a Subject Invention or continue prosecution of any patent application or maintenance of any patent claiming a Subject Invention, where NADII does not have the ultimate goal to achieve commercialization of products based upon the Subject Invention.
- 10.8 For Subject Inventions made solely by NADII employees using University facilities, the University, through its Office of Technology Licensing, shall assign joint ownership rights to such patent rights filed thereon to NADII, except for situations where federal or other third party restrictions would not allow such a grant of rights. Such Subject Inventions will not be considered as Elected Inventions under this Agreement unless an exclusive license or option to an exclusive license to the University's undivided interest is obtained.
- 10.9 For all patent applications claiming a Subject Invention, and to the extent the University has a legal right to do so, NADII shall, in accordance with University policy, be given a first right to negotiate a license under terms to be negotiated in good faith, an exclusive or, at NADII's discretion, a non-exclusive, royalty-bearing license to make, have made, use, sell, offer to sell and import any Subject Inventions, or an

option to such an exclusive license, under University's undivided rights in that invention on terms to be negotiated in accordance with the provisions of this Article. A right to sublicense will be granted only under an exclusive license, except that NADII shall also have the right to sublicense to an Affiliate of NADII, or to NABRI, or to an Affiliate of NABRI. NADII shall also have the right to sublicense any nonexclusive right herein (to the extent of its nonexclusive grant herein) to an Affiliate of NADII, or to NABRI, or to an Affiliate of NABRI. NADII's right under this Article must be exercised within ninety (90) days after the date of filing a patent application on a Subject Invention except that if NADII believes it is not feasible for NADII to make an informed evaluation and decision as to whether or not to exercise its rights within that 90-day period and informs University in writing to this effect within the 90-day period, then NADII's time to exercise its rights shall be extended for an additional 90 days. In the case of Subject Inventions for which NADII exercises its rights, the parties shall negotiate the terms of such license or option agreements in good faith. Such license shall provide, subject to Article 10.14 below, that NADII shall have a worldwide, royalty-bearing license under any or all patents on Subject Inventions included under the Elected Invention. The level of any such royalty shall be based on such factors as whether the license is exclusive or non-exclusive, the strength of patent protection, the respective parties' contributions to the invention and in the development of a product to commercial introduction, the contribution of the invention to the ultimate commercial product, the financial significance of the planned commercial activity and other relevant industry standards. Royalties for exclusive licenses to inventions developed under this Agreement that result in seed products will be within the ranges listed in Appendix H, herein incorporated as part of this Agreement. Royalties on all other inventions that are not seed products will be negotiated on an individual basis based upon the factors listed above.

10.10 If NADII elects at any time not to continue its rights under any of its licensed patent rights hereunder and upon giving ninety (90) days notice in writing, NADII may terminate its rights to such licenses and its obligation to pay prosecution and maintenance costs which are incurred subsequent to the effective date of such notice.

10.11 The University shall, if requested by NADII, negotiate in good faith separate agreements on reasonable terms and conditions for NADII's use for Research Inventions, including but not limited to such as those relating to computer software and biological materials which are not patented due to failure to qualify for patent protection or due to a final determination, except for jointly owned inventions under Articles 10.3(a) and 10.8, by the University not to submit a patent application, taking into consideration the open academic environment of the University, the subject matter, commercial potential, and other related factors. In any such agreement relating to biological materials, the University will retain a right to publish the research results and to disseminate the materials at any time for scientific and educational purposes. Such Research Inventions will not be considered as Elected Inventions for the purpose of this Agreement.

10.12 NADII acknowledges that its rights with respect to inventions owned or jointly owned by the University may be subject to applicable obligations of University to, and rights of, the United States Government that may arise from University's receipt of research support from the United States Government. University shall use good faith efforts to identify and notify NADII in writing as to which of its rights are subject to the rights of the United States Government.

10.13 Nothing in this Agreement shall be deemed to grant either directly or by implication, estoppel, or otherwise, any rights under any patents, patent applications, or other

proprietary interests, whether dominant or subordinate, to any other invention, discovery, or improvement of either party, other than the specific patent rights covering Research Inventions and as specifically provided in this Agreement.

10.14 NADII shall be allowed to exercise its rights to Elected Inventions in accordance with Article 10.9 on an Allowed Percentage of all Subject Inventions. Elected Inventions for the first three Budget Years may be accumulated until the end of the third Budget Year. At that time a final election will be made by NADII based upon the average of the Allowed Percentages for the first three (3) Budget Years multiplied by the total number of Subject Inventions for that same time period. The final accounting for Elected Inventions for Budget Years four and five will be made at the end of each of those Budget Years.

In the event, at the end of the third, fourth or fifth Budget Years of the Research Program, NADII has exercised more than the Allowed Percentage, or in the case of the first three Budget Years as described in the preceding paragraph, NADII shall, within ninety (90) days after receipt of written notification from the University, relinquish in writing sufficient rights of its own choice to remove the excess Elected Inventions.

For the purpose of this Agreement, rights exercised as stated in this Article shall include rights to options, non-exclusive licenses, and exclusive licenses. Rights exercised to license Research Inventions under Article 10.11 will not be included in this determination.

10.15 In the event NADII does not exercise its rights under Articles 10.5, 10.8, 10.9 or 10.10 or 10.11 above, or relinquishes its rights under Article 10.14 above, University

shall be free to dispose of any such invention with no further obligation to NADII. In disposing of inventions under this Article 10.15, University shall give special consideration to licensing to small businesses.

11. Supplies and Equipment

In the event that University purchases supplies or equipment which are necessary to carry out the Research Program in accordance with the Research Budget, title to such supplies and equipment shall vest in University. Equipment is an article of tangible personal property that has a useful life of more than two (2) years and an acquisition cost of Fifteen Hundred U.S. Dollars (US \$1,500) or more.

12. Indemnification

12.1 University shall defend, indemnify and hold NADII, its officers, employees and agents harmless from and against any and all liability, loss, expense (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omission of University, its officers, agents or employees.

12.2 NADII shall defend, indemnify and hold University, its officers, employees and agents harmless from and against any and all liability, loss, expense (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense,

attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of NADII, its officers, agents or employees.

13. Insurance

University warrants that it is adequately insured against the perils of bodily injury, personal injury, property damages, and workers' compensation and covers such liabilities as are imposed by law and assumed under written contract with others under a fully-funded self-insurance program.

NADII represents and warrants that NADII has sufficient financial capabilities to pay for any of NADII's liabilities resulting from the perils of bodily injury, personal injury, property damage, and workers' compensation in connection with NADII's performance under this Agreement.

14. Notice

Whenever any notice is to be given hereunder, it shall be in writing and shall be deemed received, if delivered by courier on a business day, on the day delivered, or if sent by certified or registered mail, postage prepaid, on the day delivered, to the following addresses:

University: The Regents of the University of California
Sponsored Projects Office
336 Sproul Hall, #5940
University of California, Berkeley
Berkeley, CA 94720-5940
Attn: Marion Lentz

NADII: Dr. Gary M. Pace
General Counsel
Novartis Agricultural Discovery Institute, Inc.
P.O. Box 12257
Research Triangle Park, NC 27709

15. Termination

- 15.1 This Agreement may be terminated by University or NADII at any time upon the giving of one (1) year's prior written notice to the other if either party determines, in its discretion, that the Research Program is no longer academically, technically, or commercially feasible. Upon receipt of such notice of termination, University shall limit or terminate any outstanding financial commitments for which NADII is to be liable, to the maximum extent permitted by law and University policies, and NADII shall reimburse University for all remaining and unavoidable costs incurred within the Research Budget during the twelve (12) months following the receipt of the notice to terminate. The University shall furnish, within ninety (90) days of effective date of termination, a final report of all costs incurred and all funds received and shall reimburse NADII for payments which may have been advanced in excess of total costs incurred, with no further obligations to NADII.
- 15.2 In the event that either party shall be in default of any of its obligations under this Agreement and shall fail to remedy such default within thirty (30) days after written notice thereof, the party not in default shall have the option of terminating this Agreement by giving written notice of termination with an immediate effect to the defaulting party.
- 15.3 Termination of the Agreement shall not affect the rights and obligations of the parties accrued prior to termination.

16. Conflicting Agreements

University represents that during the term of this Agreement it will use best efforts not to enter knowingly into agreements that would preclude University from performing any of its obligations hereunder and that to the knowledge of the Vice Chancellor for Research of the University's Berkeley Campus, Joseph Cerny, as of the effective date of this Agreement, the University is not a party to any agreement that would conflict to the rights granted under this Agreement.

17. Applicable Law

This Agreement shall be governed by the laws of the State of California.

18. Arbitration

All disputes, controversies or differences which may arise between the parties hereto out of, in relation to, or in connection with this Agreement, or for breach thereof, shall be submitted to the American Arbitration Association ("Association"), subject to the rules of Association then in effect. The decision rendered by arbitrators shall be final, and judgment may be entered upon it in accordance with applicable laws of the State of California. Notice of the demand for arbitration shall be filed in writing with the other party and with Association in its San Francisco office. The demand for arbitration shall be made within a reasonable time after the dispute, controversy, or difference arises. In no event shall a demand for arbitration be made after the date on which a suit based upon the same issue would be barred by the applicable statute of limitations. Claims less than Fifty Thousand U.S. Dollars (US \$50,000) shall be heard by a single arbitrator. All other claims shall be heard by three (3) arbitrators, each party selecting one (1) arbitrator, and the two (2) selected arbitrators then selecting a third.

19. Parties Bound

This Agreement, including indemnification provisions, shall be binding upon and inure to the benefit of the parties hereto, their respective successors, assigns, legal representatives and heirs. NADII may assign this Agreement and any right thereunder to any successor to substantially all the assets and business of NADII, or to an Affiliate of NADII, or to NABRI, or to an Affiliate of NABRI. This Agreement shall not otherwise be assignable by either party without the prior written consent of the other party or an Affiliate.

20. No Oral Modification. No change, modification, extension, termination or waiver of this Agreement, or any of the provisions herein contained, shall be valid unless made in writing and signed by duly authorized representatives of the parties hereto.

21. Survivorship. Sections 7, 8, 9, 10, 12 and 18 of this Agreement shall survive any expiration or termination of this Agreement.

22. Section Headings. The section headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

23. Independent Contractor. University agrees that (a) it is an independent contractor; (b) it shall conduct the Research Program in accordance with such status subject to the conditions of this Agreement; (c) it shall not hold itself out as an

employee, agent, or representative of NADII, by reason of this Agreement; (d) it shall have sole responsibility for the payment of any and all of its own applicable Federal, State and Local income taxes and of any and all other taxes, charges and levies; and (e) it shall comply with all applicable Federal, State and Local laws and regulations.

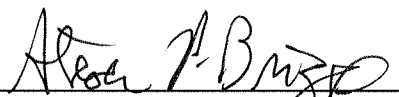
University and NADII do not intend and are not forming a joint venture under this Agreement. Any intellectual property license covering technology arising under this Agreement is an arms length transaction to be separately construed on its own merits and not as a coordinated arrangement with any other such license.

24. **Entire Agreement.** This Agreement supersedes all previous agreements between the parties relating to the subject matter thereof, and constitutes the entire agreement between the parties relating to the subject matter thereof. Neither University nor NADII shall be entitled to benefits other than those specified herein, except as set forth in any other agreements between the parties.
25. **Provisions Held Invalid.** If any one or more of the provisions contained in this Agreement shall be held invalid, illegal, or unenforceable for any reason or in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions hereof, and this Agreement shall be construed as if such provision had never been contained therein.
26. **Force Majeure.** Neither party will be liable to the other party for default or delay in supplying services, equipment, or materials where the default or delay is due to an act of God, accident, fire, flood, storm, riot, war, sabotage, explosion, strike, labor

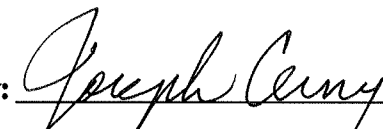
disturbance, national defense requirement, governmental law, ordinance, rule or regulation, whether valid or invalid, inability to obtain electricity or other types of energies, raw materials, labor equipment or transportation, or any contingency beyond the control of either party or its suppliers. It is expressly agreed that the above enumeration is not exclusive.

IN WITNESS WHEREOF, the undersigned have entered into this Agreement as of the date set forth above.

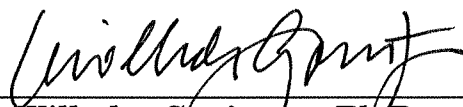
**NOVARTIS AGRICULTURAL
DISCOVERY INSTITUTE, INC.**

By: 
Name: STEVEN P. BRIGGS
Title: PRESIDENT
Date: 11-23-98

**THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA**

By: 
Joseph Cerny
Vice Chancellor for Research,
UC Berkeley
Date: 11/23/1998

The Principal Investigator acknowledges his agreement to carry out this Agreement:

By 
Wilhelm Gruissem, Ph.D.
Principal Investigator

Appendix A: LIST OF PARTICIPATING FACULTY

The following Plant and Microbial Biology Department members have read the attached Research Agreement and agree to participate in and abide by the provisions of the Collaborative Research Agreement No.: 010134 between the University of California at Berkeley and the Novartis Agricultural Discovery Institute, Inc.



Approved for the University of California at Berkeley
Marion B. Lentz
Marion B. Lentz
Sponsored Projects Office, Berkeley, CA 94720-5940

Gary M. Pace
General Counsel
NAO 4
2-May-99

Appendix A: LIST OF PARTICIPATING FACULTY

The following Plant and Microbial Biology Department members have read the attached Research Agreement and agree to participate in and abide by the provisions of the Collaborative Research Agreement No.: 010134 between the University of California at Berkeley and the Novartis Agricultural Discovery Institute, Inc.:

Agreement Signed

Buchanan, Bob
Cande, Zacheus
Feldman, Lewis
Freeling, Michael
Gruissem, Wilhelm
Hoffmeister, Antje
Hollick, Jay
Jackson, Andrew
Jones, Russell
Kustu, Sydney
Lemaux, Peggy
Lindow, Steven
Luan, Sheng
Melis, Anastasios
Niyogi, Krishna
Quail, Peter
Staskawicz, Brian
Taylor, John
Terry, Norman
Volkman, Loy

Letter of Intent to Participate

Baker, Barbara
Fischer, Robert
Hake, Sarah
McCormick, Sheila
Theologis, Athanasios
Zambryski, Patricia - *Sign*

NORMAN PACE
RENEE SUNG

) Joseph Cerny 11/23/98

Steve Berger 11-23-98

Appendix A: LIST OF PARTICIPATING FACULTY

The following Plant and Microbial Biology Department members have read the attached Research Agreement and agree to participate in and abide by the provisions of the Collaborative Research Agreement No.: 010134 between the University of California at Berkeley and the Novartis Agricultural Discovery Institute, Inc.

N. Louise Glass
Associate Professor PMB

N. L. Glass Jan. 14, 1999

Marion B. Lentz
Marion B. Lentz
Manager, University / Industry Research
Sponsored Projects Office
University of California, Berkeley
1/29/99

Gary M. Rice
NAO/11
2-7-99

Appendix B: GUIDELINES AND OPERATING PROCEDURES

RESEARCH COMMITTEE

The operation of the collaborative Research Program between faculty members in the Department of Plant and Microbial Biology (PMBD) at the University of California at Berkeley and the Novartis Agricultural Discovery Institute, Inc. (NADII) of La Jolla, California, will be governed by the general principles of the Collaborative Research Agreement No.: 010134 between the Regents of the University of California and the Novartis Agricultural Discovery Institute, Inc.

1. COMMITTEE MEMBERS

Wilhelm Gruissem, Principal Investigator (Professor, PMBD)	Elected September 1998
Steven Briggs (President and CEO, NADII)	
Sydney Kustu (Professor, PMBD)	Elected September 1998
Brian Staskawicz (Professor, PMBD)	Elected September 1998
Eric Ward (President, Novartis Agribusiness Biotechnology Research, Inc.)	

2. CHARGE TO THE RESEARCH COMMITTEE

The Research Committee will be responsible for the management and administration of the PMBD-NADII Research Program funds in accordance with Article 4.5 of Collaborative Research Agreement No.: 010134, and as established by University policy and procedures. On an annual basis, the Research Committee will solicit competitive proposals from PMBD faculty members who wish to participate in the PMBD-NADII Research Program. The Research Committee will be responsible for the evaluation of research proposals, selection and funding of PMBD faculty research projects on a competitive basis, and evaluation of research progress and productivity.

3. APPOINTMENT TO THE RESEARCH COMMITTEE

Three (3) Research Committee members representing the Department of Plant and Microbial Biology will be elected by the PMBD faculty to serve for a period of three (3) years. Two (2) Research Committee members representing the Novartis Agricultural Discovery

Institute (NADII) will be selected by NADII. To allow for continuity, one (1) new PMBD Research Committee member will be elected annually by the PMBD faculty to replace one existing committee member, commencing with year three (3) of the PMBD-NADII Research Program. The appointment of the faculty members of the Research Committee is subject to annual confirmation by the PMBD faculty. Any change in the Principal Investigator is subject to approval by NADII.

4. MANAGEMENT OF THE PMBD-NADII RESEARCH PROGRAM FUNDS

a. Research Program Funds and Accessibility

A total of \$ 3,333,500 in Research Program funds will be available on an annual basis for a period of five (5) years as set forth in Article 4 of the Collaborative Research Agreement No.: 010134, The Research Program Funds will be accessible on a competitive basis to all faculty members in PMBD who wish to participate in the collaborative Research Program.

b. Nature of Research Projects

Research projects will be selected by PMBD faculty members in areas of their interests. The Research Committee will not make recommendations to PMBD faculty as to the scope and long-term goals of their proposed research projects.

c. Evaluation Criteria for Competitive Proposals and Funding Categories

Awards in the PMBD-NADII Research Program will be made on a competitive basis. The Research Committee will use the following criteria in the evaluation of proposals:

- Quality and intellectual merit of the proposed research
- Potential advancement of discovery
- Past and present productivity of the Principal Investigator

Based on the above criteria, proposals will be ranked in three funding categories:

- Category 1 \$100,000 to \$200,000 / year
- Category 2 \$50,000 to \$100,000 / year
- Category 3 \$0 to \$50,000 / year

d. Proposal Format

The research proposal to the Research Committee should be concise and in the following format;

<u>Content</u>	<u># of Pages</u>
• Title of Project, Principal Investigator, and Executive Summary	1.0
• Background and Proposed Objectives	1.0
• Key Result (Figure or Table) Relevant to the Proposed Research	0.5
• Experimental Outline	1.0
• Relevant Literature (10 Citations or fewer)	0.5
• Evidence of Productivity (CV, List of Publications)	2.0
• Identification of proprietary material of any third party that may be used in the Proposed Project	Attachment

The Research Committee will contact the Principal Investigator if questions arise about the proposed research project.

e. Project Budget and Duration

After the Research Committee has completed the review of research proposals and their assignment to funding categories, faculty members will submit a detailed budget projecting expenditures for the proposed research program. Research awards will be made initially from the Budget Plan for a three-year period. Once a research award has been funded and accepted by a faculty member, that faculty member may not terminate his/her participation in the Collaborative Research Agreement until the beginning of the next annual budget period. Any such termination will require sixty days advance written notice to the Research Committee. The commitment of funds from the Budget Plan for the second and third years is subject to annual progress reviewed by the Research Committee (see below).

f. Progress Reports

Appropriation of research funds by the Research Committee is subject to submission of satisfactory Progress Reports. Progress Reports should not exceed three (3) pages in length and are due 45 days before the end of the funding year. At this time the Project Principal Investigator may submit a revised budget if progress and unexpected expansion of the research project requires it.

The Research Committee will review the Progress Reports and make continuation funding decisions as appropriate. Increases in the initial funding commitment are subject to the availability of Research Program funds. If a substantial lack of progress is evident, the Research Committee may reduce funding of the research program or terminate the award with a six (6)-months notice.

g. Prompt Disclosure

It shall be the responsibility of the Research Committee to encourage prompt disclosure of any Research Inventions made by the program participants.

h. Administration and Expenditure of Research Program Funds

The administration and expenditure of the PMBD-NADII Research Program funds are subject to established University policy and accounting procedures. Funds provided under the PMBD-NADII Research Program are for support of salaries and supply expenses. Any funds that have not been spent by the Principal Investigator at the end of the annual budget period will be returned to the Research Committee for reallocation or are subject to adjustments of new fund allocations.

i. Conflict of Interest

PMBD Research Committee members who submit a competitive research proposal are required to be absent from the discussion and ranking of their proposal.

Appendix C: BUDGET PLAN

NADII shall pay One and One-Quarter Million U.S. Dollars (US \$1,250,000) to the Regents within thirty (30) days after the effective date of this Agreement. NADII shall subsequently pay additional funds up to a maximum of Five Million U.S. Dollars (\$5,000,000) per year (a year being one calendar year after the Effective Date of this Agreement) according to the annual budget and payment plan for the Research Budgets of the Research Program. This budget is to be submitted in writing to NADII by the Research Committee. Payments shall be made within thirty (30) days after such budgets are submitted by the Research Committee to NADII. If an annual budget for any given year is less than Five Million U.S. Dollars (\$5,000,000) then the balance will be carried forward to (the) subsequent year(s).

Appendix D: GUIDELINES FOR RESEARCH INTERACTIONS BETWEEN NADII and PMBD

1.0 Introduction

These guidelines have been developed to provide a basis for informed research interactions between employees of Novartis Agricultural Discovery Institute, Inc. (NADII) and faculty members of the University of California, Berkeley (University) and its Plant and Microbial Biology Department (PMBD). NADII may have research interactions with any faculty member of the PMBD who has elected to participate in the Research Agreement.

It is important that NADII, the University and PMBD consider the open academic environment in their respective interactions. While the University is not usually in a position to guard the confidentiality of NADII information or materials, under the circumstances outlined in Article 7, the campus may enter into a written agreement to exercise its reasonable efforts to protect NADII's confidential or proprietary data and information in particular interactions. Conversely, to the extent NADII scientists happen to access any of the University's early or unpublished scientific results, data, materials or information outside of any written agreement, it is understood that NADII and its scientists will exercise good faith efforts to recognize clearly and identify any University contributions to the development of any intellectual property and scientific discoveries.

Collegial interactions between NADII and University scientists in areas of fundamental research are encouraged. It is important, however, to remove as much ambiguity as possible in such interactions as joint research efforts, transfers of biological materials, sharing of research equipment, sharing of proprietary information, and faculty consulting. Lack of clear understanding and agreement in these areas can lead to difficulties which both NADII and the University wish to avoid.

2.0 The University's Open Academic Environment and Faculty's Freedom to Publish

There are two important principles underlying academic research in the University: free exchange of ideas and information and timely dissemination of research results. These

principles apply to research carried out in the PMBD and to any research NADII may sponsor in the University. University faculty will be free to publish and disseminate the results of their research. University policy precludes granting authority to any external source to make final decisions concerning the timing or content of faculty publications. The University does allow delays of limited duration as defined under Article 9 "Publication" of the Research Agreement, to allow industrial research sponsors to review publications for inadvertent disclosure of proprietary information or for assessment of possibly patentable inventions contained in a publication.

3.0 Relevant University Offices and Their Roles

The development of this Research Agreement has involved several offices at the University. This document focuses on *research and programmatic* interactions only to be carried out under this Research Agreement. The following paragraphs outline the roles of those offices which will be most involved on a day-to-day basis with research and programmatic interactions at the University.

3.1 Academic Schools and Departments

Faculty at the University are appointed to academic departments which are headed by Department Chairs who report to the Executive Vice Chancellor and the Director of the Agricultural Experiment Stations. The chair of PMBD reports to the Dean of the College of Natural Resources.

Chairs, PMBD and other involved departments:

The academic department is the first contact point for academic personnel issues which may include joint appointments, Visiting Scientists, student training, etc. While approvals at higher levels may be required for certain actions, the department provides operational oversight of University policies and procedures that affect the programmatic, educational and research relationships with NADII.

The Chair of PMBD currently has responsibility and authority for space utilization and maintenance of the PMBD within Koshland Hall. The Chair of PMBD is also the primary contact for dealings with NADII officials for administration and decision-making related to any joint use or shared facilities in the PMBD.

3.2 Office of Research and Graduate Studies

The Vice Chancellor for Research is the institutional official responsible for overseeing the administration of research at the University including research development and all aspects of contract and grant administration. As Dean he is also responsible for all graduate programs, fellowships, graduate admissions, and graduate affirmative action. Within the Office of Research and Graduate Studies the offices most likely to be involved with the NADII-University research relationship are identified below with brief descriptions of their responsibilities.

Sponsored Projects Office

The Sponsored Projects Office (SPO) receives, reviews, negotiates and executes all contract and grant proposals and awards, including intellectual property clauses. To the extent exceptions to UC policy are required or broader review is necessary, SPO coordinates such review. This office also handles research material transfer agreements for incoming biological and other research materials from outside organizations. Biological materials are or include parts or products of living organisms, such as cell lines, microorganisms, plasmids, DNA fragments, hybridomas, antibodies and proteins.

UC Berkeley Office of Technology Licensing

The University of California, Berkeley Office of Technology Licensing (OTL) receives and reviews invention disclosures, evaluates the commercial potential of disclosed technologies, files patents, markets technology, and licenses inventions. The OTL Director makes the final decision on which technologies will be patented as well as the intellectual property terms and conditions his staff may negotiate in all licenses and sponsored agreements, within the context of UC patent policy.

4.0 Written Agreements

4.1 Use of explicit agreements is encouraged

To the extent practical, written agreements for research oriented interactions should be used whenever possible. This will ensure that the particular interaction between NADII and

the University is clear, that mutual expectations are understood, and that the rights of each party are established at the outset. The following types of agreements are most often used:

Contracts and grants which may involve terms and conditions, research results and products, provision for audit, provision for termination, rights to negotiate licenses, payment of indirect costs, etc.;

Agreements with individuals such as consulting agreements for which work is done outside the University involving services not being provided as part of University employment; and

Research materials transfer agreements where the terms and conditions of transfer and use of specific research materials are specifically enumerated.

Casual interactions between PMBD faculty and NADII scientists are not discouraged; however, ambiguity in such interactions as joint research efforts, transfers of biological materials, extensive use of research equipment, and sharing of confidential or proprietary information can cause potentially serious problems which both the University and NADII wish to avoid. Therefore, formal arrangements should be made in advance to cover these activities.

5.0 Research Materials Transfer between NADII and PMBD

Biological and other research materials: Subject to faculty researchers' approval, PMBD research material may be transmitted to other parties for research purposes through the use of written materials transfer agreements. These can be expedited by contacting the University's Office of Technology Licensing (OTL). A license for commercial use of University research material, including appropriate fees, may be obtained under certain circumstances from OTL subject to University's right to publish and disseminate the material to others for research purposes. Biological materials are or include parts or products of living organisms, such as cell lines, microorganisms, plasmids, DNA fragments, hybridomas, antibodies and proteins.

It is the mutual desire of the parties to have written agreements control the terms of transfer of materials between NADII and PMBD in accordance with Appendix G. It is the Transferor's responsibility to initiate such written agreements when material is

being transferred. Such material transfer agreements may be handled either as part of a research agreement or as an independent agreement. Whether or not the research material is or is not part of a research project, these agreements must be reviewed and approved by the SPO (if incoming material to the PMBD) or by the Berkeley Office of Technology Licensing (if outgoing material to NADII).

Toxics and other regulated materials: Physical transfers or any movement of regulated materials (i.e., radioactive materials, hazardous materials [primarily chemicals], controlled substances, and biohazardous agents) and devices (e.g., radiation-producing equipment like lasers and x-ray machines) must be done in compliance with applicable laws and regulations. Any receipt of such materials or use by University employees must comply with University policies and procedures and NADII employees working at the University must comply with University policies and procedures in this regard.

6.0 Copyrights

It is the policy of the University of California that all rights in copyright of an academic appointee shall belong to the originator, except for the following: 1) work specifically directed or commissioned by the University; and 2) work for which the University's ownership is established through contractual obligations (e.g., sponsored research) or law. Disposition of the rights in copyright belonging to University would then be controlled by University.

7.0 UC Patent Agreement Considerations

7.1 Who must sign the UC Patent Agreement?

All employees of the University (including without salary appointments) as well as all non-compensated persons who use University resources (i.e., research facilities, equipment, or funds obtained by or through the University) are required to sign the University's Patent Agreement (Appendix I). NADII employees are treated no differently than any other commercial firm in this regard. For example, should an invention arise in the course of analysis or measurement involving University resources or employees, then inventorship will be determined by U.S. patent law and ownership by contractual obligations. An agreement to assign inventions and patents to the University, except those resulting from permissible consulting activities, without use of University facilities, shall be mandatory.

7.2 How are joint University appointments of NADII employees handled and what are their implications for intellectual property management?

Any appointments of NADII employees to University academic positions will be governed by University employment policies and relevant visa requirements. All such appointments will require that the individual sign the University Patent Agreement which obligates the individual to disclose and assign title directly to the University all potential patentable inventions arising from work carried out in the course of University employment or through use of University resources. Specific agreements will be developed to govern disclosure requirements of full-time NADII employees who also have University appointments.

7.3 Involvement of Students and Fellows in NADII Research

The University imposes patent obligations upon students or Post doctoral Fellows who are employed by the University. It is a University requirement to obtain signed Patent Agreements from all persons employed on University research projects funded by an outside agency or company, including NADII.

Students or Fellows not employed by the University but who are involved with PMBD's sponsored research projects must sign the University's Patent Agreement without qualification. They must be fully apprised of their specific patent obligations to the University and to the sponsor of research. Not to obtain signed Patent Agreements from persons connected with a research project may be a breach of the research contract or grant. (Where the students happen to be employees, they presumably will have already signed the Patent Agreement in compliance with the University's employment regulations as set forth in the October 1, 1997 Revised Patent Policy, and it is not necessary to obtain another signed agreement in those cases).

8.0 How is "inventorship" determined?

Inventorship in all cases is determined by United States patent laws and arises from a contribution to conception of a patentable invention. An inventor is one who invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof which is claimed in a patent application.

9.0 Ownership and disposition of patentable inventions and how are joint inventions handled?

Ownership and disposition of patentable inventions is as defined under Article 10 of the Research Agreement.

10.0 Sharing of Confidential and Proprietary Information

NADII needs to consider the open academic environment when offering University faculty access to proprietary information, research equipment, biological materials or compounds. The University is generally not in a position to maintain or guarantee the confidentiality of information provided to it. As a public, non-profit educational institution, the University prefers to avoid liability for disclosure of confidential information and the need to install security mechanisms to maintain confidential information.

If NADII desires to transfer confidential or proprietary information or compounds to PMBD faculty, it should do so only when it is absolutely necessary for the conduct of specific research and by way of written non-disclosure agreement with PMBD which is done with the concurrence of the participating faculty as outlined in Appendix F. Such an agreement will only apply to the UC personnel identified in the non-disclosure agreement and will not bind any other University of California personnel.

11.0 Faculty Consulting

The University permits faculty to engage in limited amounts of outside professional activity. Such activities expand faculty knowledge and experience and lead to better, more informed teaching and research. Because of the close physical proximity of PMBD faculty to NADII, however, faculty consulting to NADII will have to be managed very carefully. There may be other formal and informal arrangements with NADII, or sponsor agreements with other for-profit firms. The possibility exists, therefore, for potential conflicts to arise. In addition, proper use of University resources and facilities will need to be assured. The following five principles need to be kept in mind when evaluating specific consulting opportunities:

full effort of University paid time must go to the University;

University facilities may be used only for University purposes (unless there is some other form of agreement);

University personnel and facilities may not be used for any personal outside activity; outside professional activity must not interfere with University responsibilities; and faculty consulting activities should be separate from research activities carried out by the faculty member at the University.

Faculty members who do consulting should not selectively disclose to any company the results of on going research which are not funded by the company.

It is the responsibility of each faculty member to assure that outside activities do not interfere with obligations to the University in teaching, research and public service, and that no portion of time due the University is devoted to private purposes. Provisions of outside consulting agreements must not limit a faculty member's ability to carry out ongoing obligations under University policies such as the Patent Policy. Faculty are cautioned to review carefully their consulting agreements to make sure they do not conflict with obligations under University patent and other relevant policies.

The Patent Policy states that all University employees must disclose all potentially patentable inventions conceived or developed while employed by the University and must assign all those inventions that occur in the course and scope of their employment to the University. Whether inventions are or are not patentable is a matter of Federal patent law. Whether the University will prosecute any specific patent is a determination to be made by the campus Office of Technology Licensing.

While all patentable inventions must be disclosed, inventions resulting from permissible consulting activities without use of University funds or facilities are not necessarily assigned to the University. Such assignment is determined by the equities of the situation on a case by case basis.

Where the faculty invention is related to sponsored research or is a result of on going research activity at the University, it is likely that assignment to the University will be required. The main purposes of this policy are to prevent conflict with obligations under

sponsored research agreements and to prevent outside organizations from reaping benefits from work that was performed at or paid for by the University.

Additionally, although the University requires disclosure of all inventions conceived or developed while faculty are employed by the University, Section 2870 of the California Labor Code limits the University's right to require assignment of certain inventions.

In light of the potential problems involved with routine faculty consulting in the context of the NADII-PMBD arrangement, both parties may find research contracts or grants to be the preferred vehicle for substantive interaction. The potential for conflict of interest situations may be reduced since the faculty member would owe obligations to only one party. In addition, the University will ensure that confidentiality and non-disclosure agreements are within University policy and that the faculty member is not at risk as an individual. Finally, the faculty member will find fewer constraints in working with third parties.

12.0 Potential Conflicts of Interest

Potential conflicts of interest arise when a faculty member has a financial interest (consulting, service on a board, ownership, etc.) in the private sponsor of his or her research. Therefore, all faculty members who receive research contracts or grants or a gift from the Novartis Corporation, its subsidiaries or its affiliated organizations, or from NADII, its subsidiaries or its affiliated organizations (collectively referred to herein as Novartis) will be required to disclose any financial interest they may have in those firms.

If the faculty member does have a financial interest which requires disclosure, the UC Berkeley Conflict of Interest Oversight Committee will review the case and advise the Vice Chancellor for Research whether or not the award should be accepted by the University. The committee review will include, but not be limited to, consideration of the degree to which: 1) the Novartis and PMBD activities are being kept separate; 2) the research to be conducted is appropriate for the University; 3) the faculty member participated in the decision to make the award; 4) the teaching and research environment is kept open; 5) there are any constraints on the right to freely publish and disseminate findings from the research; and 6) there is appropriate compensation for use of university resources and facilities.

Any University administrative personnel with a financial interest in Novartis will need to disqualify themselves from any decision-making related to NADII activities.

Appendix E: GUIDELINES FOR WORKING IN NADII-UCB FACILITY

The development of these Guidelines is deferred until the NADII-UCB facility is identified. The Guidelines will then be developed, reviewed and approved in writing by both parties per Article 20 "No Oral Modification" and incorporated into this Agreement.

Appendix J, "NADII Access Agreement for Genomic Bioinformation" will, at a minimum, be included as a requirement of these Guidelines.

Appendix F: MUTUAL CONFIDENTIAL DISCLOSURE AND NON-USE AGREEMENT

This Agreement, having an effective date of _____, is made and entered into by an employee(s) of the University of California, Berkeley ("Berkeley"), and Novartis Agricultural Discovery Institute, Inc., having a principal place of business at La Jolla, California ("NADII").

The parties are interested in disclosing to each other certain information, which may include information disclosed orally or in writing or other tangible form, considered confidential and/or proprietary. The purpose of such exchange is to allow the parties to establish a long term collaborative research relationship in the broad areas of Agricultural Genomics ("Collaboration").

As used herein, the term PROPRIETARY INFORMATION means that information and/or products which relate to the Collaboration and which NADII or Berkeley considers to be confidential or proprietary in nature including, but not limited to, trade secrets, know-how, patent applications, chemical compounds and compositions, techniques, research and development data and specifications, technical data, drawings, photographs, process information, samples, bioinformatics, and the like, as it relates to the Collaboration.

NADII shall disclose to Berkeley such of its PROPRIETARY INFORMATION as NADII, in its sole discretion, deems necessary or desirable for the purpose of exchange. Berkeley has the right in its sole discretion to refuse any such PROPRIETARY INFORMATION offered by NADII.

Berkeley shall disclose to NADII such of its PROPRIETARY INFORMATION in its sole discretion, deems necessary or desirable for the purpose of the exchange. NADII has the right in its sole discretion to refuse any such PROPRIETARY INFORMATION offered by Berkeley.

It is agreed that all disclosures of PROPRIETARY INFORMATION of NADII and Berkeley to the other shall be governed by the following terms and conditions:

1. Information shall be considered PROPRIETARY INFORMATION if so designated by the disclosing entity in writing within thirty (30) days of its original disclosure, whether such original disclosure is written or oral. For a period of five (5) years, from the date of such designation, the receiving entity shall not use PROPRIETARY INFORMATION in accordance with paragraphs 2-4 hereof.
2. Information disclosed by one party to the other shall not be considered PROPRIETARY INFORMATION if such information was in the possession of the receiving party prior to the disclosure, as evidenced by documents in the possession of the receiving party at the time of disclosure; or was publicly available at the time of disclosure; or was independently developed by employees of The Regents, employees of NADII or employees of the Novartis Corporation without the use of any disclosed

information as shown by written record. PROPRIETARY INFORMATION disclosed by one party to another shall cease to be PROPRIETARY INFORMATION in the event that such information becomes publicly available; or rightfully becomes available to the receiving party from a source other than the disclosing party.

3. NADII and Berkeley each agree to use the same degree of care to preserve the confidentiality of PROPRIETARY INFORMATION received from the other as it employs with respect to its own confidential information of like kind.
4. NADII and Berkeley each shall use a best effort not to use or divulge, in whole or in part, to any third party any PROPRIETARY INFORMATION received from the other without the prior written consent of such other entity.
5. Either party may disclose the confidential information of the other to the extent required by law.
6. If it is necessary to discuss NADII PROPRIETARY INFORMATION obtained hereunder with a party not a signatory hereto, including but not limited to graduate students or any other employee of the University of California, in order to carry out the purpose of this Agreement, disclosure can be made provided the third party agrees in writing to abide by the terms of this Agreement. A copy of any such written agreement with the third party shall be sent to NADII.
7. If it is necessary to discuss Berkeley PROPRIETARY INFORMATION obtained hereunder with a party not a signatory hereto, including but not limited to consultants or any other employee of NADII and its Affiliates or of Novartis Agribusiness Biotech Research, Inc. and its Affiliates, in order to carry out the purpose of this Agreement, disclosure can be made provided the third party agrees in writing to abide by the terms of this Agreement. A copy of any such written agreement with the third party shall be sent to Berkeley.
8. Each Party shall return or destroy any PROPRIETARY INFORMATION provided under this Agreement upon written request of the disclosing Party.
9. This Agreement shall remain in effect for the period of the Collaborative Research Agreement No.: 010134 between NADII and the Regents of the University of California provided, however, that any obligation incurred under paragraphs 2-4 hereof shall survive to the extent of the period specified in paragraph 1. Either party may terminate this Agreement upon thirty (30) days notice. Upon termination or expiration of this Agreement, all tangible PROPRIETARY INFORMATION must be immediately destroyed or returned to the party providing such information.
9. This Agreement is subject to Collaborative Research Agreement No.: 010134 between NADII and the Regents of the University of California, and Appendices attached thereto. No modification or alteration of this Agreement shall be effective unless made in writing and signed by both parties hereto.

10. Nothing in this Agreement shall be construed to establish or require the establishment of a contract or arrangement for research or product development between the parties hereto or any transfer, license, or purchase of technology of the parties hereto.
11. This Agreement is entered into under, and shall be construed in accordance with the laws of the State of California.

Approved and Agreed to:

**NOVARTIS AGRICULTURAL
DISCOVERY INSTITUTE, INC.**

**UNIVERSITY OF CALIFORNIA,
BERKELEY**

By: _____

By: _____

Title: _____

Title: _____

Date: _____

Date: _____

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

By: _____

Title: _____

Date: _____

Appendix G: JOINT MATERIAL TRANSFER AGREEMENT FOR USE OF CERTAIN BIOLOGICAL MATERIALS

This Agreement governs an arrangement whereby [*enter either UCB or NADII as appropriate*] ("Transferor") makes available to [*enter either UCB or NADII as appropriate*] ("Transferee") the Biological Material described in Article 1 below.

This Agreement, if approved by the Transferee, states the understandings under which the Biological Material will be made available to the Transferee. The Transferee will hold the Biological Material solely for the purposes set forth in this Agreement. Upon signing of this Agreement, the Biological Material will be forwarded to:

Name _____

Title _____

Address _____

1. The Biological Material to be furnished consists of the following:

<u>Description of Material</u>	<u>Laboratory Designation</u>	<u>UCB Registry No</u>
--------------------------------	-------------------------------	------------------------

The Biological Material resulted from research by the Transferor, is subject to the Transferor's rights in such material, and may be subject to third party rights. Biological Materials transferred by NADII to University of California, Berkeley shall not be used in research that is subject to any consulting or licensing obligation to any third party without the express written permission of NADII.

2. Paragraph 9 of this Agreement does not restrict REGENTS' right to distribute the Biological Material originating with REGENTS and all unmodified derivatives resulting therefrom to other commercial or noncommercial entities. Derivatives of Biological Materials originating with REGENT'S and arising from activities conducted by or at NADII are not subject to the provisions of this paragraph.
3. If REGENTS is the Transferor, then the Transferee acknowledges that REGENTS has informed Transferee that it *has / has not* filed a patent application covering inventions relating to the Biological Material.
4. Transferee will use the Biological Material and all unmodified derivatives resulting therefrom only for scientific research. Nothing in this Agreement grants Transferee any rights under patents, nor any rights to use any products or processes derived from or with Biological Material, for profit-making or commercial purposes. Transferee agrees to negotiate, in good faith, a license with Transferor prior to making any profit-making or commercial use of any product or process derived from Biological Material. Transferor shall have no obligation to grant such a license to Transferee, and may grant exclusive or non-exclusive licenses to others who may be investigating uses of the Biological Material.
5. Either party has the right to terminate this Agreement at any time, in which case Transferee will discontinue its use and/or destroy, within thirty (30) days, the above-mentioned Biological Material and any unmodified derivatives resulting therefrom, for research or other purposes, including sale of commercial products as indicated in Article 4 above, until such time as a new agreement between the parties is established.
6. It is understood that this letter in no way alters any rights the United States Government may have.
7. Transferee understands that the Biological Material delivered hereby is experimental in nature, and **TRANSFEROR MAKES NO REPRESENTATION AND EXTEND NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED. THERE ARE NO EXPRESSED OR**

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE USE OF THE BIOLOGICAL MATERIAL WILL NOT INFRINGE ANY PATENT, COPYRIGHT, TRADEMARK OR OTHER RIGHTS.

8. Transferor shall defend, indemnify and hold Transferee, its officers, employees and agents harmless from and against any and all liability, loss, expense (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omission of Transferor, its officers, agents or employees.

Transferee shall defend, indemnify and hold Transferor, its officers, employees and agents harmless from and against any and all liability, loss, expense (including reasonable attorneys' fees), or claims for injury or damages arising out of the performance of this Agreement but only in proportion to and to the extent such liability, loss, expense, attorneys' fees, or claims for injury or damages are caused by or result from the negligent or intentional acts or omissions of Transferee, its officers, agents or employees.

9. Transferee shall not transfer the Biological Material (including any unmodified derivative or part thereof) to any other person or persons, or to any location other than Transferee's laboratory, other than co-workers working under the Transferee's direct supervision without the express written permission of the Transferor. Notwithstanding the provisions of this paragraph, if NADII is the transferee then NADII is permitted to transfer the Biological Materials to Novartis Agribusiness Biotech Research, Inc. upon written notice to REGENTS.
10. All Biological Materials exchanged under this Agreement and all information relating to them are subject to the confidentiality provisions of the Collaborative Research Agreement No.: 010134, including any and all Appendices attached thereto.

Accepted and Agreed to by:
(Transferee)

By: _____

Name : _____

Title: _____

Address: _____

Date: _____

(Transferor)

By: _____

Name : _____

Title: _____

Address: _____

Date: _____

Appendix I: UNIVERSITY OF CALIFORNIA PATENT POLICY

Effective October 1, 1997

PREAMBLE STATEMENT OF POLICY PATENT RESPONSIBILITIES AND ADMINISTRATION

I. PREAMBLE

It is the intent of the President of the University of California, in administering intellectual property rights for the public benefit, to encourage and assist members of the faculty, staff, and others associated with the University in the use of the patent system with respect to their discoveries and inventions in a manner that is equitable to all parties involved.

The University recognizes the need for and desirability of encouraging the broad utilization of the results of University research, not only by scholars but also in practical application for the general public benefit, and acknowledges the importance of the patent system in bringing innovative research findings to practical application.

Within the University, innovative research findings often give rise to patentable inventions as fortuitous by-products, even though the research was conducted for the primary purpose of gaining new knowledge.

The following University of California Patent Policy is adopted to encourage the practical application of University research for the broad public benefit; to appraise and determine relative rights and equities of all parties concerned; to facilitate patent applications, licensing, and the equitable distribution of royalties, if any; to assist in obtaining funds for research; to provide for the use of invention-related income for the further support of research and education; and to provide a uniform procedure in patent matters when the University has a right or equity.

II. STATEMENT OF POLICY

- A. An agreement to assign inventions and patents to the University, except those resulting from permissible consulting activities without use of University facilities, shall be mandatory for all employees, for persons not employed by the University but who use University research facilities, and for those who receive gift, grant, or contract funds through the University. Such an agreement may be in the form of an acknowledgment of obligation to assign. Exemptions from such agreements to assign may be authorized in those circumstances when the mission of the University is better served by such action, provided that overriding obligations to other parties are met and such exemptions are not inconsistent with other University policies.
- B. Those individuals who have so agreed to assign inventions and patents shall promptly report and fully disclose the conception and/or reduction to practice of potentially patentable inventions to the Office of Technology Transfer or authorized licensing office. They shall execute such declarations, assignments, or other documents as may

be necessary in the course of invention evaluation, patent prosecution, or protection of patent or analogous property rights, to assure that title in such inventions shall be held by the University or by such other parties designated by the University as may be appropriate under the circumstances. Such circumstances would include, but not be limited to, those situations when there are overriding patent obligations of the University arising from gifts, grants, contracts, or other agreements with outside organizations.

In the absence of overriding obligations to outside sponsors of research, the University may release patent rights to the inventor in those circumstances when:

- (1) the University elects not to file a patent application and the inventor is prepared to do so, or
- (2) the equity of the situation clearly indicates such release should be given, provided in either case that no further research or development to develop that invention will be conducted involving University support or facilities, and provided further that a shop right is granted to the University.

- C. Subject to restrictions arising from overriding obligations of the University pursuant to gifts, grants, contracts, or other agreements with outside organizations, the University agrees, following said assignment of inventions and patent rights, to pay annually to the named inventor(s), or to the inventor(s)' heirs, successors, or assigns, 35% of the net royalties and fees per invention received by the University. An additional 15% of net royalties and fees per invention shall be allocated for research-related purposes on the inventor's campus or Laboratory. Net royalties are defined as gross royalties and fees, less the costs of patenting, protecting, and preserving patent and related property rights, maintaining patents, the licensing of patent and related property rights, and such other costs, taxes, or reimbursements as may be necessary or required by law. Inventor shares paid to University employees pursuant to this paragraph represent an employee benefit.

When there are two or more inventors, each inventor shall share equally in the inventor's share of royalties, unless all inventors previously have agreed in writing to a different distribution of such share.

Distribution of the inventor's share of royalties shall be made annually in November from the amount received during the previous fiscal year ending June 30th, except as provided for in Section II.D. below. In the event of any litigation, actual or imminent, or any other action to protect patent rights, the University may withhold distribution and impound royalties until resolution of the matter.

- D. The DOE Laboratories may establish separate royalty distribution formulas, subject to approval by the President. Distribution of the inventor's share of DOE Laboratory royalties shall be made annually in February from the amount received during the previous fiscal year ending September 30th. All other elements of this policy shall continue to apply.

- E. Equity received by the University in licensing transactions, whether in the form of stock or any other instrument conveying ownership interest in a corporation, shall be distributed in accordance with the Policy on Accepting Equity When Licensing University Technology.
- F. In the disposition of any net income accruing to the University from patents, first consideration shall be given to the support of research.

III. PATENT RESPONSIBILITIES AND ADMINISTRATION

- A. Pursuant to Regents' Standing Order 100.4(mm), the President has responsibility for all matters relating to patents in which the University of California is in any way concerned. This policy is an exercise of that responsibility, and the President may make changes to any part of this policy from time to time, including the percentage of net royalties paid to inventors.
- B. The President is advised on such matters by the Technology Transfer Advisory Committee (TTAC), which is chaired by the Senior Vice President--Business and Finance. The membership of TTAC includes the Provost and Senior Vice President--Academic Affairs, the Director of the Office of Technology Transfer, and representatives from the campuses, DOE Laboratories, Academic Senate, the Division of Agriculture and Natural Resources and the Office of the General Counsel. TTAC is responsible for:
 - 1. reviewing and proposing University policy on intellectual property matters including patents, copyrights, trademarks, and tangible research products;
 - 2. reviewing the administration of intellectual property operations to ensure consistent application of policy and effective progress toward program objectives; and
 - 3. advising the President on related matters as requested.
- C. The Senior Vice President--Business and Finance is responsible for implementation of this Policy, including the following:
 - 1. Evaluating inventions and discoveries for patentability, as well as scientific merit and practical application, and requesting the filing and prosecution of patent applications.
 - 2. Evaluating the patent or analogous property rights or equities held by the University in an invention, and negotiating agreements with cooperating organizations, if any, with respect to such rights or equities.
 - 3. Negotiating licenses and license option agreements with other parties concerning patent and or analogous property rights held by the University.
 - 4. Directing and arranging for the collection and appropriate distribution of royalties and fees.

5. Assisting University officers in negotiating agreements with cooperating organizations concerning prospective rights to patentable inventions or discoveries made as a result of research carried out under gifts, grants, contracts, or other agreements to be funded in whole or in part by such cooperating organizations, and negotiating with Federal agencies regarding the disposition of patent rights.
6. Approving exemptions from the agreement to assign inventions and patents to the University as required by Section II.A. above.
7. Approving exceptions to University policy on intellectual property matters including patents, copyrights, trademarks, and tangible research products.

PATENT ACKNOWLEDGMENT

This acknowledgment is made by me to The Regents of the University of California, a corporation, hereinafter called "University," in part consideration of my employment, and of wages and/or salary to be paid to me during any period of my employment, by University, and/or my utilization of University research facilities and/or my receipt of gift, grant, or contract research funds through the University.

By execution of this acknowledgment, I understand that I am not waiving any rights to a percentage of royalty payments received by University, as set forth in the University of California Patent Policy, hereinafter called "Policy."

I also understand and acknowledge that the University has the right to change the Policy from time to time, including the percentage of net royalties paid to inventors, and that the policy in effect at the time an invention is disclosed shall govern the University's disposition of royalties, if any, from that invention. Further, I acknowledge that the percentage of net royalties paid to inventors is derived only from consideration in the form of money or equity received under: 1) a license or bailment agreement for licensed rights, or 2) an option or letter agreement leading to a license or bailment agreement. I also acknowledge that the percentage of net royalties paid to inventors is not derived from research funds or from any other consideration of any kind received by the University. The Policy on Accepting Equity When Licensing University Technology governs the treatment of equity received in consideration for a license.

I acknowledge my obligation to assign inventions and patents that I conceive or develop while employed by University or during the course of my utilization of any University research facilities or any connection with my use of gift, grant, or contract research funds received through the University. I further acknowledge my obligation to promptly report and fully disclose the conception and/or reduction to practice of potentially patentable inventions to the Office of Technology Transfer or authorized licensing office. Such inventions shall be examined by University to determine rights and equities therein in accordance with the Policy. I shall promptly furnish University with complete information with respect to each.

In the event any such invention shall be deemed by University to be patentable or protectable by an analogous property right, and University desires, pursuant to determination by University as to its rights and equities therein, to seek patent or analogous protection thereon, I shall execute any documents and do all things necessary, at University's expense, to assign to University all rights, title, and interest therein and to assist University in securing patent or analogous protection thereon. The scope of this provision is limited by California Labor Code section 2870, to which notice is given below. In the event I protest the University's determination regarding any rights or interest in an invention, I acknowledge my obligation: (a) to proceed with any University requested assignment or assistance; (b) to give University notice of that protest no later than the execution date of any of the above-described documents or assignment; and (c) to reimburse University for all expenses and costs it encounters in its patent application attempts, if any such protest is subsequently sustained or agreed to.

I acknowledge that I am bound to do all things necessary to enable University to perform its obligations to grantors of funds for research or contracting agencies as said obligations have been undertaken by University.

University may relinquish to me all or a part of its right to any such invention, if, in its judgment, the criteria set forth in the Policy have been met.

I acknowledge that I am bound during any periods of employment by University or for any period during which I conceive or develop any invention during the course of my utilization of any University research facilities, or any gift, grant, or contract research funds received through the University.

In signing this agreement I understand that the law, of which notification is given below, applies to me, and that I am still required to disclose all my inventions to the University.

NOTICE

This acknowledgment does not apply to an invention which qualifies under the provision of Labor Code section 2870 of the State of California which provides that (a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either: (1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or (2) Result from any work performed by the employee for the employer. (b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

In any suit or action arising under this law, the burden of proof shall be on the individual claiming the benefits of its provisions.

Employee/Guest Name (Please print) _____

Employee/Guest Signature: _____ Date: _____

Witness Signature: _____ Date: _____

4. The availability of General Funding for research projects under the Research Program is not contingent upon execution of this Agreement.

Accepted and Agreed to:

By: _____
[named individual seeking access]

Date: _____

By: _____
University of California - Berkeley

Date: _____

By: _____
Novartis Agricultural Discovery
Institute, Inc.

Date: _____

Appendix J: AGREEMENT FOR ACCESS TO NADII GENOMIC BIOINFORMATICS DATABASE

This Agreement is made by and between Novartis Agricultural Discovery Institute, Inc. (NADII) and the University of California, Berkeley (UCB) and *[named individual seeking access]* (Individual). NADII, UCB and Individual are referred to collectively as the "Parties".

Whereas the Individual seeks access and utilization of the NADII genomics bioinformation database residing on a suite of workstations located at the NADII-UCB facility associated with the campus of UCB.

Whereas, NADII agrees to provide access, and Individual and UCB agree to receive said genomics bioinformation database on the following terms and conditions:

1. The Individual will be provided by NADII a registered account and password which permits access to the NADII genomics bioinformation database residing on, or available through, the suite of workstations located at NADII-UCB.
2. All genomics bioinformation obtained under this Agreement shall be deemed to be Proprietary Information as that term is defined in Appendix F to Collaborative Research Agreement No.: 010134; and shall not be disclosed to any third party whatsoever without the written permission of NADII. All genomics bioinformation shall be restricted in its use by the Individual and UCB to that contemplated by the terms of the Collaborative Research Agreement No.: 010134 by and between NADII and The Regents of the University of California, and Appendices attached thereto.
3. The period of this Agreement shall be for the period of the Collaborative Research Agreement No.: 010134. The genomics bioinformation received hereunder shall remain as NADII Proprietary Information for the period of this Agreement plus five years. Ownership of inventions arising from access and utilization of NADII-UCB genomics bioinformation shall be controlled by the above-mentioned Collaborative Research Agreement.