



Grant Number: 5U01HG004271-02 REVISED

Principal Investigator(s):
[REDACTED]

Project Title: [REDACTED]

CONTRACTS OFFICER
ERNEST O LAWRENCE BERK NAT'L LAB
CFO/ SPONSORED PROJECTS OFFICE
1 CYCLOTRON ROAD, MS 46R0125
BERKELEY, CA 947208202

Award e-mailed to: LBNLAwards@lbl.gov

Budget Period: 04/01/2008 – 03/31/2009
Project Period: 05/04/2007 – 03/31/2011

Dear Business Official:

The National Institutes of Health hereby revises this award (see "Award Calculation" in Section I and "Terms and Conditions" in Section III) to UNIVERSITY OF CALIF-LAWRENC BERKELEY LAB in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 31 USC 6305 & 6306 and is subject to the requirements of this statute and regulation and of other referenced, incorporated or attached terms and conditions.

Acceptance of this award including the "Terms and Conditions" is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Each publication, press release or other document that cites results from NIH grant-supported research must include an acknowledgment of NIH grant support and disclaimer such as "The project described was supported by Award Number U01HG004271 from the National Human Genome Research Institute. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Human Genome Research Institute or the National Institutes of Health."

Award recipients are required to comply with the NIH Public Access Policy. This includes submission to PubMed Central (PMC), upon acceptance for publication, an electronic version of a final peer-reviewed, manuscript resulting from research supported in whole or in part, with direct costs from National Institutes of Health. The author's final peer-reviewed manuscript is defined as the final version accepted for journal publication, and includes all modifications from the publishing peer review process. For additional information, please visit <http://publicaccess.nih.gov/>.

Award recipients must promote objectivity in research by establishing standards to ensure that the design, conduct and reporting of research funded under NIH-funded awards are not biased by a conflicting financial interest of an Investigator. Investigator is defined as the Principal Investigator and any other person who is responsible for the design, conduct, or reporting of NIH-funded research or proposed research, including the Investigator's spouse and dependent children. Awardees must have a written administrative process to identify and manage financial conflict of interest and must inform Investigators of the conflict of interest policy and of the Investigators' responsibilities. Prior to expenditure of these awarded funds, the Awardee must report to the NIH Awarding Component the existence of a conflicting interest and within 60 days of any new conflicting interests identified after the initial report. Awardees must comply with these and all other aspects of 42 CFR Part 50, Subpart F. These requirements also apply to subgrantees, contractors, or collaborators engaged by the Awardee under this award. The NIH website <http://grants.nih.gov/grants/policy/coi/index.htm> provides additional information.

If you have any questions about this award, please contact the individual(s) referenced in Section IV.

Sincerely yours,

Cheryl Chick
Grants Management Officer
NATIONAL HUMAN GENOME RESEARCH INSTITUTE

Additional information follows

SECTION I – AWARD DATA – 5U01HG004271-02 REVISED**Award Calculation (U.S. Dollars)**

Salaries and Wages	\$347,835
Fringe Benefits	\$97,910
Personnel Costs (Subtotal)	\$445,745
Supplies	\$320,194
Travel Costs	\$15,509
Other Costs	\$40,938
Consortium/Contractual Cost	\$2,227,242

Federal Direct Costs	\$3,049,628
Federal F&A Costs	\$515,174
Approved Budget	\$3,564,802
Federal Share	\$3,564,802
TOTAL FEDERAL AWARD AMOUNT	\$3,564,802

AMOUNT OF THIS ACTION (FEDERAL SHARE) \$0

SUMMARY TOTALS FOR ALL YEARS		
YR	THIS AWARD	CUMULATIVE TOTALS
2	\$3,564,802	\$3,564,802
3	\$3,564,802	\$3,564,802
4	\$3,564,802	\$3,564,802

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

Fiscal Information:

CFDA Number: 93.172
EIN: 1942951741A1
Document Number: UHG004271A
Fiscal Year: 2008

IC	CAN	2008	2009	2010
HG	8472557	\$3,564,802	\$3,564,802	\$3,564,802

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

NIH Administrative Data:

PCC: X6EF / OC: 414P / Processed: CHICKC 06/27/2008

SECTION II – PAYMENT/HOTLINE INFORMATION – 5U01HG004271-02 REVISED

For payment and HHS Office of Inspector General Hotline information, see the NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm>

SECTION III – TERMS AND CONDITIONS – 5U01HG004271-02 REVISED

This award is based on the application submitted to, and as approved by, NIH on the above-titled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

- The grant program legislation and program regulation cited in this Notice of Award.
- Conditions on activities and expenditure of funds in other statutory requirements, such as those included in appropriations acts.
- 45 CFR Part 74 or 45 CFR Part 92 as applicable.
- The NIH Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.
- This award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(See NIH Home Page at '<http://grants.nih.gov/grants/policy/awardconditions.htm>' for certain references cited above.)

Carry over of an unobligated balance into the next budget period requires Grants Management Officer prior approval.

In accordance with P.L. 110-161, compliance with the NIH Public Access Policy is now mandatory. For more information, see NOT-OD-08-033 and the Public Access website: <http://publicaccess.nih.gov/>.

**Treatment of Program Income:
Additional Costs**

SECTION IV – HG Special Terms and Conditions – 5U01HG004271-02 REVISED

1. This revised award removes Dr. Randal H. Brown from the list of key personnel. The key personnel term below has been amended to reflect the change. 
2. NHGRI has accepted the departure of Dr. Bernard Mathey-Prevot from the project. In addition to the PI, the following individuals are named as key personnel: 

Roger Hoskins
Thomas Gingeras
Steven Brenner
Brenton Gravely
Norbert Perimon
Peter Cherbas
Justen Andrews
Thom Kaufman
Justin Kumar
Roger Brent

Written prior approval is required if any of the individuals named above withdraws from the project entirely, is absent from the project during any continuous period of 3 months or more, or reduces time devoted to the project by 25 percent or more from the level that was approved at the time of award.

The following terms from the previous Notice of Grant Award issued on March 28, 2008 also apply to this award:

3. This award reflects a correction in the total cost commitment for the -02, -03, and -04 years, per NHGRI's email of February 4, 2008. The increased amount must be fully justified in the budget submitted with the annual non-competing application for each subsequent renewal. These new levels are subject to the NIH fiscal policy noted in item 2.
4. This non-competing award reflects an adjustment of the amount recommended on the previous Notice of Grant Award, per the NHGRI implementation of the NIH fiscal policy for FY2008 (See NIH Guide Notice NOT-OD-08-036). Future year recommended levels also have been adjusted consistent with the referenced Notice. Specific Institute funding strategies are posted at: <http://grants.nih.gov/grants/financial/index.htm#strategies>
5. None of the funds in this award shall be used to pay the salary of an individual at a rate in excess of the current salary cap. Current salary cap levels can be found at the following URL:

http://grants.nih.gov/grants/policy/salcap_summary.htm
6. This award funds a community resource project by the definition of the NHGRI data release policy (<http://www.genome.gov/10506376>). The grantee will submit data to the appropriate public database as outlined in the data release policy described on page 155 of the application, dated 07/09/2006, and in accordance with guidelines to be developed by the modENCODE Coordinating Committee and External Consultants Panel.
7. Applicant organization must comply with Public Health Service (PHS) policy relating to distribution of unique research resources produced with PHS funding (NIH Grants Policy Statement

(12/03) - Sharing of Research Data, Sharing of Unique Research Resources). Grantee should also comply with the NIH-DOE guidelines for access to mapping and sequencing data and materials resources, adopted by the NIH-DOE joint subcommittee on December 7, 1992 (See: <http://www.genome.gov/10000925>).

8. The PI will submit revised milestones for each year of the grant at the time that Grant Progress Report is submitted. Yearly milestones will be subject to approval by NHGRI staff. Once approved, the new milestones will become a condition of this award.

9. This award includes funds awarded for consortium activity with Affymetrix, Inc. in the amount of \$734,405 (\$531,979 direct costs + \$202,426 facilities and administrative costs). This award includes funds awarded for consortium activity with the University of California, Berkeley in the amount of \$204,097 (\$133,396 direct costs + \$70,701 facilities and administrative costs). This award includes funds awarded for consortium activity with University of Connecticut Health Center in the amount of \$202,311 (\$136,697 direct costs + \$65,614 facilities and administrative costs). This award includes funds awarded for consortium activity with Harvard Medical School in the amount of \$127,321 (\$75,338 direct costs + \$51,983 facilities and administrative costs). This award includes funds awarded for consortium activity with Indiana University in the amount of \$429,560 (\$283,564 direct costs + \$146,036 facilities and administrative costs). This award includes funds awarded for consortium activity with Washington University in St. Louis in the amount of \$529,508 (\$354,306 direct costs + \$175,202 facilities and administrative costs).

Consortia are to be established and administered as described in the NIH Grants Policy Statement (NIH GPS). The referenced section of the NIH GPS is available at: http://grants.nih.gov/grants/policy/nihgps_2003/NIHGPS_Part12.htm - _Toc54600251

10. This award is excluded from the Streamlined Non-Competing Award Process.

Cooperative Agreement

The administrative and funding instruments used for the modENCODE (model organism ENCYclopedia Of DNA Elements) program will be the NIH U01 Research Project Cooperative Agreement award mechanism. The cooperative agreement is an "assistance" mechanism (rather than an "acquisition" mechanism), in which substantial NIH scientific and programmatic involvement with the awardee is anticipated during the performance of the activity. Under the cooperative agreement, the NIH purpose is to support and stimulate the recipients' activities by involvement in and otherwise working jointly with the award recipients in a partnership role; it is not to assume direction, prime responsibility, or a dominant role in the activities. Consistent with this concept, the dominant role and prime responsibility reside with the awardees for the project as a whole, although specific tasks and activities may be shared among the awardees and the NIH as defined below.

Principal Investigator Rights and Responsibilities

The Principal Investigator will have the primary responsibility for defining the details for the project within the guidelines of RFA HG-06-006 and for performing the scientific activities. The P.I. will agree to accept close coordination, cooperation and participation of NIH staff in those aspects of scientific and technical management of the project as described under "NIH Responsibilities".

The P.I. of a modENCODE Project component will:

- * Determine experimental approaches, design protocols, set project milestones and conduct experiments.
- * Analyze the entire genome of the model organism and not just a portion of the genome; OR, lead a research group composed of several individuals with a shared experimental approach with each individual examining a part of the genome, provided that the group as a whole will gather data on the entire genome and that the P.I. will take responsibility for ensuring this.
- * Share results according to the data sharing policy developed for and by this project.
- * Participate in group activities, including attending periodic workshops to discuss the project's progress and coordinating the publication of research results.
- * Fully disclose all algorithms, software source code and experimental methods to the other members of the consortium for purposes of scientific evaluation.
- * Not disclose confidential information obtained from other members of the consortium.
- * Adhere to NHGRI policies regarding intellectual property and other policies that might be established during the course of this activity.

- * Submit periodic progress reports in a standard format, as agreed upon by the modENCODE Coordinating Committee (mECC) and External Consultants Panel.
- * Accept and implement the common guidelines and procedures approved by the mECC, External Consultants Panel and NHGRI.

Awardees will retain custody of and have primary rights to the data and software developed under these awards, subject to Government rights of access consistent with current HHS, PHS, and NIH policies.

NIH Program Staff Responsibilities

The NIH Program Director is a scientist of the NHGRI extramural staff who will provide normal stewardship of the award and, in addition, will have substantial scientific and programmatic involvement during the conduct of this activity through technical assistance, advice, and coordination. However, the role of NIH staff will be to facilitate and not to direct the activities. It is anticipated that decisions in all activities will be reached by consensus of the mECC and that NIH staff will be given the opportunity to offer input to this process. The NHGRI Program Director will participate as a member of the mECC and will have one vote.

The Program Director will have the following substantial involvement:

- * Participate with the other mECC members in the group process of setting research priorities, deciding optimal research approaches and protocol designs, and contributing to the adjustment of research protocols or approaches as warranted. The Program Director will assist and facilitate the group process and not direct it.
- * Serve as a liaison, helping to coordinate activities among and for the awardees, including acting as a liaison to the NHGRI, and as an information resource about extramural genome research activities. The Program Director will also coordinate the efforts of the modENCODE Consortium with groups participating in the ENCODE Consortium.
- * Attend all mECC meetings as a voting member and assist in developing operating guidelines, quality control procedures, and consistent policies for dealing with recurrent situations that require coordinated action. The Program Director must be informed of all major interactions of members of the mECC. The NHGRI Program Director will be responsible for scheduling the time and preparing concise minutes or summaries of the mECC meetings, which will be delivered to members of the group within 30 days after each meeting.
- * Report periodically on the progress of the modENCODE Project to the Director, NHGRI and to the National Advisory Council for Human Genome Research.
- * Provide relevant expertise and overall knowledge of NIH-sponsored research to facilitate the selection of scientists not affiliated with the awardee institutions to serve on the External Consultants Panel (ECP).
- * Serve as a liaison between the mECC and the ECP, attending Scientific Advisory Panel meetings in a non-voting liaison member role.
- * Serve on subcommittees of the mECC and the ECP, as appropriate.
- * Assist awardees in the development, if needed, of policies for dealing with situations that require coordinated action.
- * Provide advice in the management and technical performance of the investigation.
- * Assist in promoting the availability of the modENCODE data and related resources developed in the course of this project to the scientific community at large.
- * Participate in data analyses, interpretations, and, where warranted, co-authorship of the publication of results of studies conducted through the modENCODE Research Consortium.

Collaborative Responsibilities

The mECC will serve as the main governing board of the modENCODE Research Consortium established under this RFA. The mECC will be responsible for coordinating the activities being conducted by the modENCODE Research Consortium. The Coordinating Committee membership will include one NIH Project Scientist and the P.I. from each awarded cooperative agreement. The awardee funded through the concurrent RFA, HG-06-007, "A Data Coordination Center for the modENCODE Project" which will support the database needs of this project, will also participate in the Research Consortium and be a member of the mECC. The mECC may add additional members. Other government staff may attend the mECC meetings, if their expertise is required for specific discussions. It is anticipated that additional coordination mechanisms will be set up with other U.S. and international groups that may join the modENCODE effort.

INSTITUTION: UNIVERSITY OF CALIF-LAWRENC BERKELEY LAB

<i>Budget</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>
Salaries and Wages	\$347,835	\$347,835	\$347,835
Fringe Benefits	\$97,910	\$97,910	\$97,910
Personnel Costs (Subtotal)	\$445,745	\$445,745	\$445,745
Supplies	\$320,194	\$320,194	\$320,194
Travel Costs	\$15,509	\$15,509	\$15,509
Other Costs	\$40,938	\$40,938	\$40,938
Consortium/Contractual Cost	\$2,227,242	\$2,227,242	\$2,227,242
TOTAL FEDERAL DC	\$3,049,628	\$3,049,628	\$3,049,628
TOTAL FEDERAL F&A	\$515,174	\$515,174	\$515,174
TOTAL COST	\$3,564,802	\$3,564,802	\$3,564,802

<i>Facilities and Administrative Costs</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>
F&A Cost Rate 1	16.89%	16.89%	16.89%
F&A Cost Base 1	\$3,049,628	\$3,049,628	\$3,049,628
F&A Costs 1	\$515,174	\$515,174	\$515,174