COLLEGES AND UNIVERSITIES RATE AGREEMENT

EIN: DATE: 08/12/2013

ORGANIZATION: FILING REF.: The preceding
University of California (UCB) agreement was dated
Office of President 06/29/2012
111 Franklin St., 10th Floor
Oakland, CA 94607-5200

The rates approved in this agreement are for use on grants, contracts and other
agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

<table>
<thead>
<tr>
<th>RATE TYPES:</th>
<th>FIXED</th>
<th>FINAL</th>
<th>PROV. (PROVISIONAL)</th>
<th>PRED. (PREDETERMINED)</th>
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</table>

EFFECTIVE PERIOD

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>RATE(%)</th>
<th>LOCATION</th>
<th>APPLICABLE TO</th>
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<tbody>
<tr>
<td>PRED.</td>
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<td>53.50</td>
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</table>
**BASE**

Modified total direct costs, consisting of all salaries and wages, fringe benefits, materials, supplies, services, travel and subgrants and subcontracts up to the first $25,000 of each subgrant or subcontract (regardless of the period covered by the subgrant or subcontract). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, student tuition remission, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of $25,000.

(1) Organized Research

(2) Space Sciences Laboratory (Research)

(3) Intergovernmental Personnel Act Agreement

(4) Use same rates and conditions as those cited for fiscal year ending June 30, 2016.
SECTION I: FRINGE BENEFIT RATES**

<table>
<thead>
<tr>
<th>TYPE</th>
<th>FROM</th>
<th>TO</th>
<th>RATE(%)</th>
<th>LOCATION</th>
<th>APPLICABLE TO</th>
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<td>Students (4)</td>
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</table>

** DESCRIPTION OF FRINGE BENEFITS RATE BASE:

1) Academic Rate: for use by all appointments that carry academic job codes including faculty with university approved research leaves (e.g. buyouts/leave of absence) and IPA assignments. Faculty summer salary is NOT included in this rate.

2) Staff rate: for use by all appointments that carry a staff job code.

3) Limited Rate: for use by all Post Docs, all appointments with limited access to benefit programs (identified through BELI* code, 2, 3, or 4), and all faculty summer salary.

4) Student rate: for use by all student job codes

Excluded from all rates: appointments categorically exempt from benefit programs (BELI code 5), non-pensionable earnings (specified earn codes called Z compensation), salaries over IRS limits (for FY14, $235,000/year).

*Benefit Eligibility Level Indicator
SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

This organization charges the actual cost of each fringe benefit direct to Federal projects. However, it uses a fringe benefit rate which is applied to salaries and wages in budgeting fringe benefit costs under project proposals. The following fringe benefits are treated as direct costs: CASDI, WORKERS COMPENSATION, HELATH/DENTAL PLAN CONTRIBUTION, LIFE INSURANCE, MEDICARE, DISABILITY INSURANCE, UNEMPLOYMENT INSURANCE, INCENTIVE AWARD PROGRAM, AND RETIREMENT SYSTEM CONTRIBUTION.

Beginning 07/01/12, fringe benefits are charged using the rate(s) listed in the Fringe Benefits Section of this Agreement. The fringe benefits included in the rate(s) are: FICA, DISABILITY, LIFE INSURANCE, HEALTH INSURANCE, RETIREMENT, UNEMPLOYMENT AND WORKERS COMPENSATION.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.
DEFINITION OF EQUIPMENT
Equipment is defined as tangible nonexpendable personal property having a useful life of more than one year and an acquisition cost of $5,000 or more per unit.

DEFINITION OF ON-CAMPUS, OFF-CAMPUS AND SPECIAL RATES

DEFINITION OF OFF-CAMPUS RATE
The off-campus rate is applicable to those projects conducted at facilities not owned or leased by the University. However, if the project is conducted in leased space and lease costs are directly charged to the project, then the off-campus rate must be used.

PROJECTS CONDUCTED ENTIRELY ON-CAMPUS OR ENTIRELY OFF-CAMPUS:
Projects conducted entirely on-campus or entirely off-campus will be applied the on-campus or off-campus rate respectively.

PROJECTS CONDUCTED PARTIALLY OFF-CAMPUS AND PARTIALLY ON-CAMPUS:
If the project involves work at both on-campus and off-campus sites, either the on-campus or off-campus rate generally should be applied, consistent with where the majority of the work is to be performed. Salary cost is generally accepted as a measure of work performed in terms of the total project.

USE OF BOTH ON-CAMPUS AND OFF-CAMPUS RATES
The use of both on-campus and off-campus rates for a given project may be justified if both of the respective rates can clearly be identified with a significant portion of salaries and wages of the project. For purposes of this provision, significant is defined as approximately 25% or more of the total costs and a project's total salary and wage costs exceed $250,000.

OTHER SPECIAL RATES
These rates apply only to the facility or program to which they are identified. If any additional special rates become necessary the establishment of such rates should be coordinated through the cognizant negotiation agency.

GENOMIC ARRAYS
The NIH Policy on indirect costs pertaining to Genomic Arrays (NOT-OD-10-097) is effective as of 05/13/10.
SECTION III: GENERAL

A. LIMITATIONS:
The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted; such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:
This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:
If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:
The rates in this Agreement were approved in accordance with the authority in Office of Management and Budget Circular A-31, and should be applied to grants, contracts and other agreements covered by this Circular, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:
If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

University of California (UCB)

(SIGNATURE)

Peter J. Taylor

(NAME)

Chief Financial Officer

(TITLE)

9/6/13

(DATE)

ON BEHALF OF THE FEDERAL GOVERNMENT:

DEPARTMENT OF HEALTH AND HUMAN SERVICES

(SIGNATURE)

Arif Karim

(NAME)

Director, Division of Cost Allocation

(TITLE)

8/12/2013

(DATE) 0232

NHS REPRESENTATIVE: Patrick Smith

Telephone: (415) 437-7820