

**Memorandum of Understanding  
between**

**The Regents of the University of California  
and  
The European X-Ray Free-Electron Laser Facility GmbH  
Concerning Cooperation on Free Electron Laser Science and Technology**

This Memorandum of Understanding (MOU) is between The Regents of the University of California (The Regents), in its capacity as manager and operator of the Lawrence Berkeley National Laboratory (LBNL); The Lawrence Berkeley National Laboratory is a U.S. Department of Energy National Laboratory managed and operated by The Regents pursuant to Contract No. DE-AC02-05CH11231;

and

The European X-Ray Free-Electron Laser Facility GmbH (European XFEL GmbH), a non-profit limited liability company under German law, having its registered office at Albert-Einstein-Ring 19, 22761 Hamburg, Germany, represented by its Managing Directors Professor Dr Massimo Altarelli and Dr Claudia Burger.

For purposes of this MOU, LBNL and European XFEL GmbH are collectively referred to as "Participants" or separately as "Participant".

**1. Objective and Areas of Planned Cooperation**

- A. The objective of this MOU is to establish a framework for proposed cooperation between the Participants to explore collaborative projects in the area of the development and use of Free Electron Lasers.
- B. The area of planned cooperation may be changed or extended to other areas by the mutual, written consent of the Participants.

**2. Potential Future Collaboration**

If the Participants later decide to undertake specific joint projects, they intend to develop written agreements therefor, setting out each Participant's contribution, deliverables, responsibilities, schedule, budgets, and any other items necessary for the efficient and effective achievement of such projects.

**3. Designated Representatives**

To administer the implementation of this MOU, each Participant should designate one principal coordinator through whom all requests and plans of that Participant are to be made. The designated representative for LBNL is Peter Denes, Acting Director NGLS Initiative or designated LBNL principal coordinator. The designated representative for European XFEL GmbH is Dr Thomas Tschentscher, Scientific Director, or other designee as appointed by European XFEL GmbH from time to time.

#### 4. General Considerations

- A. This MOU does not create any legally binding obligations.
- B. Each Participant should conduct the cooperation under this MOU in accordance with all applicable laws, regulations and other requirements to which it is subject, including, without limitation, export control laws and environment, health and safety laws and regulations.
- C. The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel, and other resources.
- D. Each Participant is responsible for the costs it incurs in participating in cooperative activities under this MOU.

#### 5. Commencement, Modification and Duration

- A. Cooperation under this MOU may commence upon signature by the Participants and continue for five years, unless discontinued in accordance with paragraph C of this section 5.
- B. This MOU can be modified or extended in writing at any time by the Participants' mutual consent.
- C. The Participants may discontinue this MOU at any time in writing. A Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least thirty (30) days written notice to the other Participant.

Signed in duplicate.

THE REGENTS OF THE UNIVERSITY OF  
CALIFORNIA, LAWRENCE BERKELEY  
NATIONAL LABORATORY

By: \_\_\_\_\_

Name: A. Paul Alivisatos

Title: Laboratory Director

Date: 16 / 4 / 2013

EUROPEAN XFEL GMBH

By: \_\_\_\_\_

Name: Massimo Altarelli

Title: Chairperson of the Management  
Board and Managing Director

Date: 16.04.2013

By: \_\_\_\_\_

Name: Claudia Burger

Title: Administrative and Managing  
Director

Date: 16.04.2013