Request for Applications:
Access to High-Power Laser Light

Extreme Light Core Facility
University of Nebraska-Lincoln

Applications will be reviewed as they are submitted, and vouchers will be awarded as they are approved. Applications will be accepted as long as funding is still available or until October 31, 2015.

Introduction

The Extreme Light Core Facility (ELCF) is a core research facility at the University of Nebraska-Lincoln (UNL) designed to provide cutting-edge technology to NU researchers from a range of disciplines including engineering, physics, medicine, etc.

ELCF announces a new program to provide access to the novel capabilities of ultra-short pulses of high-peak power laser light. The opportunity to initiate preliminary experiments and collect foundational data can serve as the basis for future research proposals for federal funding.

Applicants to the ELCF Voucher Program must describe a proposed experiment, and demonstrate readiness to utilize awarded laser beam time. In addition, successful proposals must include a justification for how the data will lead to external funding, including suggested relevant agencies/programs, and timeline for submission.

Award Amount

The total allocation for this year’s ELCF Voucher Program is 7 awards, each corresponding to approximately three weeks of laser beam time (valued at $10,000).

Eligibility

The principal investigator (PI) must be current UNL faculty, and may be tenured/tenure-track and research faculty. PIs may submit more than one application.

Selection and Review Process

The final decision of selecting proposals for funding will be made by the ELCF Executive Committee with recommendations from the Faculty Advisory Committee. Applications will be reviewed as they are submitted, and vouchers will be awarded as they are approved. Applications will be accepted as long as funding is still available or until October 31, 2015.

Budget

Include in the application, a budget justification outlining the planned number of laser beam hours needed for the intended experiment.

- The award cannot be used for personnel support.
- Supplies (maximum $5,000) that are necessary to complete the experiment may be included in the budget (maximum $10,000), in exchange for a portion of the beam time.
Project Period
The effective start date begins on the date of award notification to the PI. The voucher expires 6 months after the start date.

Funding
Funding to support the ELCF Voucher Program is provided through the Nebraska Research Initiative (www.nebraska.edu) and is administered by the ELCF administrative office.

Application Process
The application document must contain the following information (not to exceed 3 pages).
- Name, position title, department name and contact information for the Principal Investigator (PI).
- Brief abstract.
- Research goal and description of the project.
- Potential future external funding source(s).
- Budget justification.

Submit applications to Neelee Glasco via email: nglasco2@unl.edu. An application that does not follow all of the requirements will not be reviewed. NUgrant routing is not applicable. This is an internal funding competition to UNL; therefore, PIs do not enter this proposal in NUgrant.

Available laser parameters: Any of the various stages of the current laser system (See Table 1) are available for research through this program.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Repetition rate</th>
<th>Energy</th>
<th>Pulse duration (fs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80 MHz</td>
<td>5 nJ</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>1 kHz</td>
<td>1.6 mJ</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>1 kHz</td>
<td>0.7 mJ</td>
<td>7</td>
</tr>
<tr>
<td>4</td>
<td>50 Hz</td>
<td>15 mJ</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>10 Hz</td>
<td>100 mJ</td>
<td>30</td>
</tr>
</tbody>
</table>

Additional Information
For additional information regarding the ELCF Voucher Program, contact Neelee Glasco, communications coordinator (ngasco2@unl.edu or 402-472-3203). Or for technical questions, contact Dr. Shouyuan Chen, operations manager (schen6@unl.edu or 402-472-6038).