April 10th, 2018

Chairman Mike Simpson  
Subcommittee on Energy and Water Development  
Committee on Appropriations  
2362-B Rayburn House Office Building  
Washington, D.C. 20515

Ranking Member Marcy Kaptur  
Subcommittee on Energy and Water Development  
Committee on Appropriations  
1016 Longworth House Office  
Washington, D.C. 20515

Dear Chairman Simpson and Ranking Member Kaptur:

Thank you for your continued support of the OMEGA Laser Facility at the Laboratory for Laser Energetics (LLE) at the University of Rochester. OMEGA is a state-of-the-art unique facility and a national asset. In particular, it makes significant contributions to scientific education and leadership in High Energy Density Science (HEDS) to support a broad range of missions at the Department of Energy (DOE). Given the importance of LLE to the country and our field of science, we urge you reject the Fiscal Year (FY) 2019 President’s budget request that proposes to cut funding for the LLE by 50 percent and to terminate funding for the facility in three years. Equally important, the budget request would terminate support and access to OMEGA for all academic users—more than 300 University researchers just in FY 2017—impacting student training and future careers, and cutting short discovery science with direct impact to national security and other DOE missions.

Instead, the OMEGA Laser Users’ Group (OLUG) endorses and supports $80 million for the OMEGA Laser Facility in a FY 2019 Energy and Water Appropriations bill. This level of funding is needed to support the work of OLUG’s members, educate and train students, and continue U.S. leadership in HEDS and the direct-drive laser fusion concept in the world.

To promote and advocate for the interests of OMEGA’s scientific users, OLUG was established in 2009. It now has approximately 400 members from a broad spectrum of universities, national laboratories, and industry that conduct experiments on OMEGA and provide advice on how best to serve the needs of the diverse group of users.

OLUG is the first users’ group in the area of HEDS associated with a major national facility in the U.S., and thus has set an important precedent and a model for other users’ groups in HEDS in the country. OLUG’s members get together every year at the LLE to participate in an annual workshop. The OLUG’s workshop emphasizes not only the science done at OMEGA but it is also an opportunity for direct communication and feedback between users and the facility as well. An important outcome of this workshop is OLUG’s Findings and Recommendations report. This report is submitted annually to the LLE management with ideas and suggestions on how to improve
administration, operations, and diagnostics to better serve the needs of the users, in particular, the training of students, and also to contribute to the development and the impact of the facility.

The extensive diagnostics, laser capabilities, user culture, and cost effective operations enable hundreds of basic and applied science experiments at OMEGA by OLUG members that cover a wide range of HEDS applications including laboratory astrophysics, materials research, equation of state under extreme conditions, hydrodynamics, advanced inertial fusion concepts, relativistic and magnetized plasma physics, nuclear, atomic and radiation physics, and developing and establishing new diagnostics and instruments. This research is different but complementary to the programmatic work on direct-drive inertial confinement fusion at the LLE, and it substantially increases the role and impact that the OMEGA facility plays nationally and internationally in the broad field of HEDS. More than 500 students have completed their Ph.D. degrees based on training and scholarship using the OMEGA Facility at the LLE. A large number of these students have been hired by Lawrence Livermore, Los Alamos, and Sandia National Laboratories – thus serving as a vital national security workforce pipeline.

We are grateful for your support in the FY 2018 omnibus appropriations bill and urge you to support $80 million for the OMEGA Laser Facility at the LLE in the FY 2019 Energy and Water Appropriations bill.

Sincerely,

[Signature]

Roberto C. Mancini, Ph.D.
Chair of the OMEGA Laser Users’ Group
Fellow of the American Physical Society
McMinn Professor of Physics