

Congress of the United States
Washington, DC 20515

March 15, 2016

The Honorable Mike Simpson
H-307, The Capitol
Washington, DC 20515

The Honorable Marcy Kaptur
1016 Longworth House Office Building
Washington, DC 20515

Dear Chairman Simpson and Ranking Member Kaptur:

As the subcommittee prepares its Fiscal Year 2017 Energy and Water appropriations legislation, we respectfully request that you provide strong support for the Nuclear Physics program in the Department of Energy's (DOE's) Office of Science and, within the Nuclear Physics program, the Facility for Rare Isotope Beams (FRIB).

As you know, DOE's Nuclear Physics program is critically important to national priorities such as U.S. national and homeland security; countering nuclear nonproliferation; and developing advanced diagnostic and treatment technologies to combat cancer and other diseases. For the critical area of maintaining the safety of the U.S. nuclear stockpile, a 2013 report from the National Nuclear Security Administration (NNSA) stated that the Office of Science nuclear physics facilities are able to provide capabilities that "allow NNSA to address important questions for the stewardship mission without constructing new, dedicated systems."

The Nuclear Physics program also supports cutting-edge U.S. initiatives that will lay the foundation for future breakthroughs and train the research leaders of tomorrow. These breakthroughs become the incubators of innovation and often form the foundation for regional economic engines by providing pools of well-educated employees and creating new businesses sectors and opportunities.

FRIB is a prime example of a cutting-edge nuclear physics initiative. DOE and Michigan State University began work on FRIB together in 2008. In 2014, the leaders of this unique federal-higher education partnership broke ground to start civil construction. Once completed, FRIB will be the most powerful radioactive beam facility in the world. According to the 2015 Nuclear Science Advisory Committee Long Range Plan, "expeditiously completing the Facility for Rare Isotope Beams (FRIB) construction is essential. Initiating its scientific program will revolutionize our understanding of nuclei and their role in the cosmos." Its research will significantly impact the understanding of the origins of stars and will help rapidly advance development of new national defense and nuclear medicine technologies.

In preparation for the start of FRIB's science program, the DOE FY17 Budget Request includes a request to initiate the Gamma-Ray Energy Tracking Array (GRETA) Major Items of Equipment process at FRIB. According to DOE, GRETA will be a high resolution gamma array tracking device for FRIB. It "will revolutionize gamma-ray spectroscopy providing more than an order of magnitude increased sensitivity for gamma ray coincidence measurements. It will provide world-unique opportunities to advance the rare-isotope science and investigate reactions of critical importance for nuclear structure and nuclear astrophysics."

FRIB stands as a textbook case of how to design scientific user facilities in a challenging fiscally constrained environment. The facility originally proposed in 2001 -- the Rare Isotope Accelerator (RIA) -- was estimated to cost \$1.1 billion. When it became clear that RIA was too expensive to build, the U.S. nuclear physics community quickly mobilized together to develop an alternate more feasible design -- FRIB -- that preserved most of RIA's scientific reach at roughly half the cost.

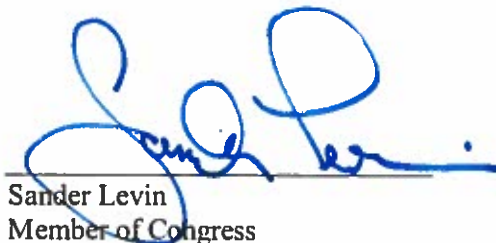
With the DOE's permission to start civil construction, FRIB is on a solid path towards becoming a reality. Strong funding will ensure that FRIB's progress continues to be timely and within budget. It also will help ensure U.S. leadership in this important area of science. Already, facilities overseas are taking significant steps to eclipse the United States. The United States cannot afford to let that happen.

We thank you in advance for consideration of our support. Please do not hesitate to contact us if you need any additional information or have any questions.

Sincerely,



Michael D. Bishop
Member of Congress



Sander Levin
Member of Congress



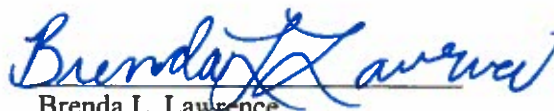
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Debbie Dingell
Member of Congress



John Conyers
Member of Congress



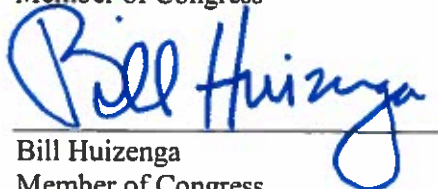
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