



DEEP UNDERGROUND **NEUTRINO** EXPERIMENT

21th November 2017

Dear Professor Zimmerman,

We are writing on behalf of the DUNE collaboration to express our support for idea of future operation of NA61 to constrain systematic uncertainties associated with the LBNF neutrino beam. Specifically, the target for the LBNF neutrino beam will be four interaction lengths long. Consequently, a large component of the neutrino beam is generated from pions arising from secondary and tertiary interactions in the target. For this reason, hadron production data using the LBNF target could be important for constraining the LBNF beam systematics.

Yours sincerely,

A handwritten signature in blue ink, reading "EC Blucher".

Professor Edward C. Blucher

A handwritten signature in blue ink, reading "M Thomson".

Professor Mark A. Thomson

Co-Spokespersons of the DUNE Collaboration