

# Postdoctoral Researcher Mentoring Plan

The intermediate energy nuclear physics group at Idaho State University is requesting three years in funding to support a postdoctoral researcher. The postdoctoral researcher will be stationed at Jefferson Lab and will conduct research on excited baryons from the CLAS6 dataset, which will set the stage for future CLAS12 analyses on extracting polarization observables in the  $Q^2$  evolution of  $N^*$ s in the transition regime from constituent to asymptotically-free quarks.

The postdoctoral researcher will have the great opportunity to experience, on a daily basis, the thriving and stimulating scientific atmosphere at Jefferson Lab, and meet and work with world-class nuclear physicists. The postdoctoral researcher will frequently and regularly communicate<sup>1</sup> with Hall-B staff physicist, Dr. Viktor Mokeev, and the primary advisor, CoPI Cole. Through these means, the postdoctoral researcher will gain the necessary professional experience and expertise for disseminating scientific results by participating and presenting in workshops and conferences and through publishing in conference proceedings and peer-reviewed journals. The postdoctoral researcher will be strongly encouraged to lead the effort in preparing a CLAS12 experimental proposal, which involves a thorough understanding of the science and expert knowledge of how to extract the observables from the detectors. Successfully conducting independent, but coordinated, research, presenting and publishing papers, and leading a CLAS12 research effort will serve the postdoctoral researcher well towards transitioning to a faculty position. It is the goal of the ISU group for the postdoctoral researcher to ultimately become an independent Jefferson Lab collaborator.

The PI and the three CoPIs have themselves been postdoctoral researchers at Jefferson Lab and each deeply appreciates the importance of good mentoring. Besides drawing from their collective personal experiences on best practices on mentoring the postdoctoral researcher, the ISU group will adhere to the three guiding principles delineated in the work: *Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations, and Disciplinary Societies*.<sup>2</sup> These three principles are:

1. The postdoctoral experience is first and foremost a period of apprenticeship for the purpose of gaining scientific, technical, and professional skills that advance the professional career.
2. Postdocs should receive appropriate recognition (including lead author credit) and compensation (including health insurance and other fringe benefits) for the contributions they make to the research enterprise.
3. To ensure that postdoctoral appointments are beneficial to all concerned, all parties to the appointments—the postdoc, the postdoc adviser, the host institution, and funding organizations—should have a clear and mutually-agreed-upon understanding with regard to the nature and purpose of the appointment.

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<sup>1</sup>See: letter of support from Hall-B Leader, Volker Burkert.

<sup>2</sup>Reference: National Academy of Sciences, National Academy of Engineering, Institute of Medicine. 212pp (2000), ISBN: 978-0-309-06996-0.