

Jefferson Science Associates, LLC
Managing and Operating the Thomas Jefferson National Accelerator Facility
for the U.S. Department of Energy

FY2018 JSA Initiatives Fund Proposal Summary Sheet

Proposal title

Project Start Date (month/year)

Project End Date (month/year)

New
proposal

Renewal

**Total funds
requested**

Total leveraged support / matching
funds. Details of funds must be
included in budget proposal.

To be completed by JSA: Total funds awarded

Principal Investigator (PI)

Institutional affiliation
Mailing address
Email / phone #

Co-PI (if more than 1, add
pages with information)

Institutional affiliation
Mailing address
Email / phone #

Check one category: If PI is a Lab employee, your identification of the appropriate Associate Director below represents the acknowledgement of that AD with your submittal of proposal. No signature required.

Lab employee: Identify Associate Director (email /
phone)

Lab user: Identify University affiliation (email / phone)
Joint appointee: identify University and Lab division
association (email / phone)

Other: Identify Institutional affiliation (email /
phone)

Proposal: Attach file with

- (1) **Executive summary and technical proposal**
- (2) **Synopsis of scientific, educational, technical, and/or business merits, and alignment with and significance to Lab's current program**
- (3) **Proposed evaluation plan to measure success.** If this is a request for renewal of funds, assessment of prior year performance,

Your proposal may include letters of endorsement and other supporting information (maximum of 12 pages including this summary sheet and budget sheet)

Executive summary: In 2001, Jefferson Lab requested the SURA Board of Trustees to support a senior post doctoral fellowship at the Lab in honor of the late Nathan Isgur, who served as the Lab's Chief Scientist from 1990 to 2001. The SURA Board at the recommendation of its Jefferson Lab Committee approved up to \$50,000 per year to match funds provided by the Lab. With the assumption of the Jefferson Lab contract by Jefferson Science Associates in 2006, the fellowship was continued at the same level as part of the JSA Initiatives Fund Program. In 2013, at the Lab's recommendation and with the approval of JSA, this fellowship was continued as a \$10,000 research grant.

In FY2016, the Lab requested the name of the grant to be changed from "senior post doc" to "distinguished research fellow" to more accurately reflect the stature of the position which is comparable to a university assistant professor.

Synopsis of merits and alignment with and significance to Lab: The original intent of the Nathan Isgur Senior Postdoctoral Fellowship was to attract new young talent to the Lab who could enhance significantly its theory or experimental research capabilities in nuclear physics. The continuation of the Nathan Isgur designation and the acknowledgement citation provide desirable visibility for JSA support of the Lab's science program.

Proposed evaluation plan to measure success: The first Nathan Isgur Senior Post Doc award was made in 2003 to Evgeny Epelbaum, Ruhr Universitat Bochum, on the recommendation of a selection committee appointed by the Lab Director. His fellowship ended in 2006 and Epelbaum accepted a joint appointment at the University of Bonn and the Forschungszentrum Juelich.

In February 2008, Alessandro Bacchetta joined the Lab's Theoretical & Computational Physics Division as the Nathan Isgur Senior Postdoctoral Fellow. Bacchetta, who received his doctorate from Vrije Universiteit Amsterdam, came from DESY where he had been a research fellow for three years. In summer 2009, Bacchetta left the Lab to take a faculty position.

Pawel Nadel-Turonski joined the Lab in October 2009 as the Nathan Isgur Senior Postdoctoral Fellow. Nadel-Turonski had been a CLAS collaborator since 2004 and was a researcher at the George Washington University for three years before his position at Catholic University as a research associate. He holds a PhD in nuclear physics from Uppsala University, Sweden. Nadel-Turonski is the spokesperson and primary contact for the E06-103 experiment using polarized photons to probe the neutron inside a deuteron, an important part of the Hall B N* program, in which Nathan Isgur, had an interest. He is a member of the Lab team looking at the science behind the medium energy electron ion collider. Nadel-Turonski has used the research grant to attend conferences and workshops related to the Lab's efforts with the MEIC.

Sergey Syritsyn joined the Lab in September 2015, coming from Brookhaven's Riken Research Center. Following completion of his doctoral studies at MIT in 2010, he was a postdoc fellow at Lawrence Berkeley National Lab for several years. As the Nathan Isgur Fellow, Syritsyn joined the Lab's world renowned lattice QCD team focusing on precision computation of hadron structure, form factors, and moments of multi-dimensional distributions, which are directly relevant to the 12-GeV program. He also collaborated on a major lattice campaign to make a significant step forward both in the range of observables to be computed and the accuracy of these calculations. Syritsyn left the Lab in August 2016 to take a faculty position at Stony Brook.

Raul Briceno accepted a three-year appointment as the Nathan Isgur Research Fellow in August 2016. Briceno was a Jefferson Lab and ODU post doc after completing his doctoral studies in 2013 at the University of Washington, and before his current appointment. His research interests include: Low-energy nuclear/particle physics, Lattice quantum chromodynamics (QCD): numerical evaluation of QCD on a discretized spacetime, Effective field theories; Few-body physics: scattering/transitions amplitudes, form factors, spectroscopy, etc.; and, Finite volume physics.

Budget Proposal

Proposal Title

Principal Investigator (PI)

Total funds requested

To be completed by JSA: Total funds awarded

	Item Description		Amount
<p>Equipment. Lab users submitting proposals that include equipment to be used at the Lab must review with the appropriate Lab Associate Director. The provision of the name of the AD below represents the AD's acknowledgement. No signature required.</p>			
	Associate Director: _____		
	_____	_____	
	_____	_____	
		Subtotal Equipment	
<p>Travel Support. Provide break-out of estimates for registration fees, lodging and transportation, catering, and facility charges (room rentals, AV equipment; etc.)</p>			
	_____	_____	
	_____	_____	
	_____	_____	
		Subtotal Travel	
<p>Supplies</p>			
	_____	_____	
	_____	_____	
		Subtotal Supplies	
<p>Consultants/Subcontracts</p>			
	_____	_____	
	_____	_____	
		Subtotal Consultants/Subcontracts	
<p>Other Expenses. Examples include stipends and honoraria, prizes, awards.</p>			
	_____	_____	
	_____	_____	
		Subtotal Other Expenses	
		Total Budget Proposal	

Budget Justification: Include narrative to explain need for each line item in the budget, showing breakdown of calculations used to arrive at the amount in each line of the budget. Note that the JSA Initiatives Fund Program does not support salaries and salary-related expenses, or indirect expenses.

Leveraged Support/Matching Funds information. Identify the source, type and amount of dollar funds from each institution. Include **separately** estimated value of in-kind support. Your identification of the authorized representative who has committed institutional support for your proposal represents the acknowledgement of that individual. If support or funds are provided by the Lab, identify the associate director (or equivalent) as the authorized representative. Information may be included on separate page.