The purpose of this announcement is to fund research to improve personal protective equipment (PPE) to be used in healthcare settings for infection control. Specifically, it will focus on improving the design of and the material used in isolation gowns and respirators to address challenges related to comfort, ease of communication, reprocessing for re-use, fluid penetration through materials, fit and sizing, and ease of safe donning and doffing. The applicant must also develop the capability to produce these two products in the United States.

The objectives of the proposed research are:

1) Design and develop an innovative, cost-effective, wearer friendly, impermeable isolation gown with demonstrated protection against infectious bodily fluids and microorganisms in a healthcare setting.

2) Design and develop an innovative, cost-effective, user-friendly, reusable, textile facepiece-filtering respirator with demonstrated protection against infectious aerosols in a healthcare setting.

3) Develop, in conjunction with an industrial partner(s), the capability to produce these two products within U.S. industry.

Eligibility & Requirements:

- Applicants may not include collaborators or consultants from foreign institutions
- Demonstrated success in producing prototype devices for respiratory protection and barrier protection; Demonstrated experience working with NIOSH on device assessment; Demonstrated access to industry counterparts for device production; Published peer-reviewed articles reflecting expertise and innovation in textile design; Demonstrated access to materials engineering research laboratories

Internal Nomination Process:

Interested applicants should send the following documents in sequence in one PDF to resapp@jhu.edu no later than 4 p.m. on December 7, 2015:

1. JHU Limited Submission Cover Sheet
2. Abstract (one page, double-spaced)
3. Proposal (maximum of three pages of text only, single spaced: 12-pt font and one-inch margins) (Note: figures, tables, and other reference material should not be included as text)
4. Curriculum Vitae of investigator, including current external research support and publications
5. Budget (two pages maximum)
6. Letter of Recommendation from the Department Chair/Director (Note: Letters of Recommendation can be submitted separately to resapp@jhu.edu stating your name in the subject line)

Each applicant should expect to receive a confirmation of receipt of their materials. If an applicant does not receive an acknowledgement, or has any questions, please contact resapp@jhu.edu.