

AFRL FY16 Research Topic Template – DAGSI – AFIT - USAFA

1. **Research Title: Biophysiology of Stress**

2. **Individual Sponsor:**

Sponsor's Name: Regina Shia

Office Symbol: 711HPW/RHCP

Bldg #: 840

Complete Mailing Address: 2510 Fifth St., Wright-Patterson AFB, OH 45433

Email: regina.shia@us.af.mil

3. **Academic Area/Field and Education Level:** Psychology, Physiology, Biology/Master's or Doctorate

4. **Objectives:** Perform biomarker field research for Battlefield Airmen training and operations.

5. **Description:** The 711th Human Performance Wing is currently assessing the biological, physiological, and cognitive states of Battlefield Airmen during their training pipeline and during operations. The Applied Neuroscience Branch is currently in need of an independent Master's Level or Doctorate researcher with knowledge of neuroscience and biology to support the high tempo pace of this state-of-the-art research. We believe that novel biomarkers are currently in discovery and the Biophysiology of Stress Team needs to be able to remain aware of new signatures that may predict changes in cognition and physiology due to stress for biosensor development and further performance augmentation. Biofluids of interest include saliva, sweat, and blood. The typical data collection suite includes standard biofluid collection with the development of less invasive methods, subjective distress questionnaires, portable cognitive assessment methods, and physiological health and safety monitoring. Most of the research is located in various locations in the US and potential for foreign areas in the future.

6. **Research Classification/Restrictions:** Unclassified/unrestricted

7. **Eligible Research Institutions:** Indicate to what organizations this topic should be provided. Check all that apply.

DAGSI

AFIT (only)

USAFA (only)

If you are submitting a topic for the USAFA, please indicate if you are also interested in sponsoring a USAF Cadet in summer of 2014 (**Avg Cost for USAF Cadet for 33 days was \$5000**)

Yes No