

BHSAI's 2B Alert Now Available in the App Store as "Peak Alert"

As you may recall from reading the Q1 edition of the TATRC Times, TATRC's Biotechnology High Performance Computing Software Applications Institute (BHSAI) has successfully licensed the groundbreaking 2B-Alert fatigue-management artificial intelligence (AI) tool, a software system that aims to counteract the negative effects of sleep deprivation and fatigue.

The licensing for the 2B-Alert technology, which was originally developed at TATRC's BHSAI, spearheaded by Dr. Jaques Reifman, BHSAI Director, and licensed via the USAMRDC Medical Technology Transfer Office and TechLink, was ultimately awarded to Integrated Safety Support, a company focused on fatigue training, analysis, and management, as well as solutions that enhance future workforces.

This licensing of '2B-Alert,' has led to its availability for FREE public download in both the Apple App and the Google Play Store as "Peak Alert."

The smartphone app contains proprietary algorithms that predict current and future alertness and cognitive performance based on a series of psychomotor vigilance task (PVT) tests and the individual's sleep and caffeine intake data.

Potential applications for those outside of the U.S. Army

- 1. Input sleep history (caffeine history optional) manually or automatically with a wearable sleep monitoring device to receive alertness predictions.**
- 2. Occasional completion of short reaction time tests on the smartphone allows the program to "learn" how you respond to variations in nightly sleep duration, and thus generate individualized performance predictions.**
- 3. If there is an upcoming period of time during which maximum alertness is desired, 2B-Alert can provide a caffeine dosing schedule to maximize and sustain alertness and performance during that period.**



and military include student exam preparation, scheduling for the transportation industry (truckers, air traffic controllers, pilots, etc.), clinical and research studies involving sleep and caffeine, and planning for any activity where an individual or team needs to be performing at peak cognitive levels during a particular time period.

Through the ten years of development behind 2B-Alert, BHSAI collaborated and partnered with additional scientists from USAMRDC's Walter Reed Army Institute of Research (WRAIR) to further develop the technology, and was also recently featured in WRAIR's Investigative Dispatch on Sleep. ■■■