

Alternative Protein Bar

A BioMADE Project / Department of Defense Manufacturing Innovation Institutes

 **BioMADE** Technology: Alternative Protein Bar

Project Participants: Superbrewed Food, Inc.

Institutes' Role: Superbrewed Food's (SBF) mission is to provide an alternative protein that is more nutritious, affordable, and sustainable than current alternatives on the market. SBF has successfully discovered and commercially-scaled the first ever postbiotic protein that is self-GRAS affirmed for human consumption.

Technology Description: SBF's product is a whole-cell ingredient that is not chemically processed, is >85wt% protein, and contains a comparable amino acid profile to that of whey protein isolate. SBF's Postbiotic Protein is also a good to excellent source of five different B-vitamins (notably B12 in methylcobalamin form), six essential minerals, and two biogenic amines. Due to the high nutrient density, this protein source could potentially support multiple health benefits to include but not limited to enhancing the immune system, reducing oxidative stress, and improving both gut health and muscle recovery. Moreover, it can be sustainably produced at a fraction of the water and CO₂ intensity of animal proteins, is affordably fermented by anaerobic fermentation, and has no known food allergen concerns.

Impact: There are several areas that SBF's postbiotic protein could potentially enhance Warfighter performance to include increased energy/endurance, shortened recovery times, improved focus and concentration, and overall performance and military readiness. We also believe that our product could address nutrition needs for veterans in a VA setting that consume smaller quantities and struggle to obtain enough nutrition.