

BugEra is looking for an opportunity to join a consortium preparing proposal under a call "Horizon-CL6-2021-CIRC BIO-01-05: Novel, non-plant biomass feedstock for industrial applications".

BugEra specializes in genetic engineering of the Black Soldier Fly (BSF), developing novel strains. One of these strains is with double or more oil volume, making it commercially profitable as a much-needed alternative novel feedstock for renewable fuels production, e.g., biodiesel.

Project high-level goals: implement a three-step end-to-end project – (1) from BSF strain final development, (2) through breeding, growing, and oil extraction (3) up to small-scale biodiesel production.

Compilation of novel strain development up to a market-ready stage (known biological traits). Breeding the "double oil" strain by BSF farming companies, up to the industrial level without the need to do any modifications to the existing production lines. The oil extracted from BSF larvae will be delivered to biodiesel producing plants as novel feedstock for renewable fuel production either for ground transportation or as sustainable aviation fuel (SAF).

The project will implement many of the call goals: new biomass, which is a sustainable feedstock for industrial application, biodiversity, optimizing insects to circular economy, improving resources efficiency by using organic waste while minimizing land, water, and chemicals usage contributing to carbon emission reduction.

Potential partners: BSF companies that specialize in BSF breeding and growing in TBD industry scale, and companies from the fuel and renewable fuel sector that manufacture TBD industry scale biodiesel for ground transportation and/or SAF.

About the [Black Soldier Fly \(BSF\)](#): BSF is a one-of-a-kind bioreactor. The insect possesses great potential in "circular economy", the fly can turn organic waste into useful and profitable products. Current BSF-based products are protein and oil sold like an animal, aquaculture, and pet feed. BSF oil is the ideal feedstock for biodiesel (its composition is very similar to coconut oil), however it has yet to be commercialized due to low larvae-oil volume. By using advanced genetic engineering techniques, we can double and more the oil volume, making it commercially profitable as a highly required, more sustainable alternative feedstock for the biodiesel industry.

About [BugEra - Insect Biotechnology for a Sustainable Future](#): is an Israeli-based start-up originating from Ben-Gurion University and is supported by the [Israeli Innovation Authority](#). BugEra specializes in patent-pending genetic engineering of BSF, developing new BSF strains to give rise to novel, sustainable, safe products. BugEra can potentially open new markets and revenue streams for the BSF industry, thus expanding circular economy BioSolutions. BugEra's founders have more than 60 years of combined experience in scientific insect research and business: CEO – Yoav Etgar over 30 years of leadership experience in diverse technologies and global deployment, CTO - Dr. Anna Melkov is an insect genetics expert and the mind and hands of BugEra, CSO - Prof. Uri Abdu is the founder and head of the insect genetics lab at the Ben-Gurion University of the Negev.

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