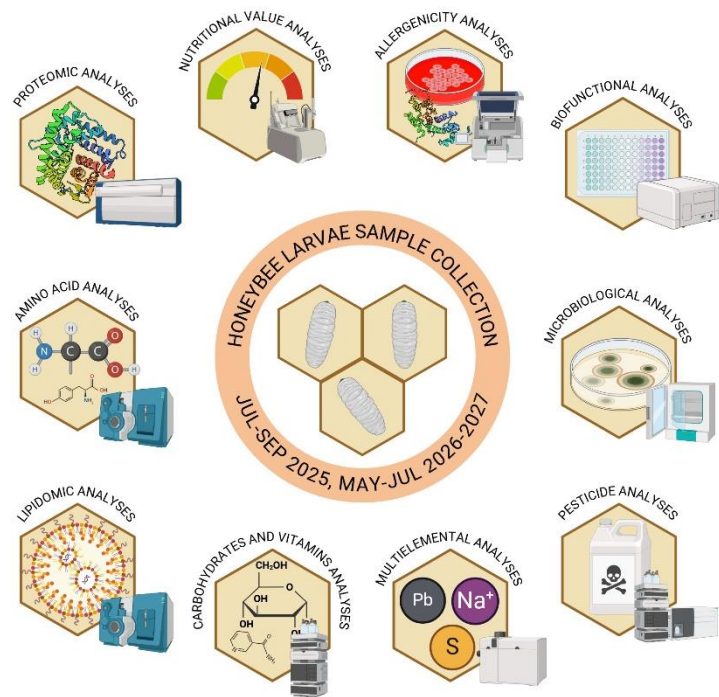


Honeybee (latin *Apis mellifera*) larvae, the immature stage of bees, are gaining attention as a potential new food source that could help address global food challenges. These tiny creatures are packed with nutrients, including proteins, healthy fats, and sugars, vitamins, and minerals, making them a highly nutritious option for humans and animals alike. However, before they can be safely introduced to our diets, we need to understand their benefits and ensure they don't pose any risks. The important aspect to consider is, for example, the potential allergy risk or contamination with pesticides.



This project takes a deep dive into the world of honeybee larvae to uncover their nutritional value, health-promoting properties, and safety for consumption. Using cutting-edge scientific techniques, researchers will analyze their content, such as proteins, amino acids, fats, carbohydrates, vitamins, and minerals. The study will also measure their energy content, comparing them to other edible insects like crickets and beetles, which are already popular in some parts of the world.

The research will go beyond just nutrition. It will explore whether honeybee larvae have antioxidant properties that could help fight harmful molecules in the body, or whether they could aid in managing diseases like diabetes by influencing certain enzymes. At the same time, the study will ensure safety by testing for harmful substances like allergens, pesticides, and heavy metals, as well as checking for bacteria or other microorganisms that could make people sick.

Samples will be collected from bee farms in different parts of Poland, and both male and female larvae will be analyzed separately to look for differences. By studying larvae from various environments, the project will provide reliable results that can inform food safety regulations in Europe and beyond.

Ultimately, this research aims to prove that honeybee larvae can be a safe, sustainable, and nutritious addition to our diets. It highlights their potential not only as food for humans but also as a high-protein feed for animals. By promoting the use of honeybee larvae, the project could support global efforts to create more sustainable food systems while also raising awareness of the importance of protecting bees, our essential pollinators.