

About Us



Liat Hessel

CRO - Owner

Food scientist with over 15 years of experience in alternative portion R&D. Adv, Food Law Consultant.



New Photo-Bioreactors Technology

Using a unique *hybrid* bacteria/microalgae
For Atmospheric Nitrogen Fixation

Precision Fermentation of:

- Nitrogen Liquid Bio-Fertilizers
- Plant Protein Biomass

Plant Cell-Culture:

***With Negative CO₂ Emission
and Carbon Capture***

Israeli startup

**2.5M Euros Funded by an EIC
Accelerator Horizon 2020**



The cyanobacteria in our photobioreactors do both carbon capture and nitrogen fixation at the same time



Nutrients produced by microbes utilizing primarily CO₂ from the air, with the support of biotechnology



Scaling-up nutritional proteins from alternative sources

Our Mission is to produce the highest quality protein for the best production costs without consuming the planet's resources: land, water, and energy.

Our Vision is to revolutionize the production of high-quality alternative proteins, to provide new natural raw materials and ingredients to the food industry, and to shape a healthier, more sustainable future for future generations.

Our Expertise

Our team includes Global business development, microbiology, food science, control, automation, sensor technology, and artificial intelligence (AI) software.

Ag-Tech R&D and business development for more than 24 years.



Carbohydrates (Carbs) Production: Requires Carbon, Hydrogen, Oxygen, and energy from the sun. (Carbs are 50% of our diet)
It's called photolysis or carbon capture. Green plants do it. **But we can't live on carbs only!**

Protein Production: Requires nitrogen (16% of the protein) in addition to carbs. (Protein is 20% of our diet)
For cells to make amino acids and protein, the nitrogen supplied needs to be "fixed" in ammonia form.

Only a few species of bacteria can "fix nitrogen" and make ammonia from the air for the production of protein.

Nitrogen can also be fixed in the Haber Bosch chemical process, but we don't want that.

Algaenite uses a natural microorganism that is a bacteria-microalgae hybrid. It performs both carbon capture and nitrogen fixation simultaneously, within one organism.

Ammonia production is known as "Nitrogen Fixation" (Connecting nitrogen from the air to hydrogen). It requires energy. We get the energy from the sun. The microalgae part of our microorganism is the "solar farm of the 2μ protein factory".

Ammonia is essential for the production of protein. Ammonia is the building block, the most important raw material in food production.



What are we looking for?

Our strength is engineering. We developed the most efficient PBR.

It can produce Anabaena H Protein concentrate

- **\$ 8 per KG** (16% nitrogen)
- **“On-Farm” fertilizer production system**
- **100 tons per hectare per year**

We are looking for partners to join us in building the future Bio Fertilizer production systems And protein farms in deserts to produce alternative protein with our **“liquid trees.”**

