

Laboratory 17: partnership in developing microalgae technologies

We cultivate microalgae, develop photobioreactor solutions and explore ways to obtain valuable compounds from biomass. We are looking for partners in production, ingredient development, research and market development. We suggest starting with a specific task and an agreed first stage.

Edition of 3 October 2026. Current version — laboratory17.ru/en/partners/overview/

01 Who we are

Laboratory 17 is a science and technology company that develops microalgae cultivation processes, controls target biomass characteristics and prepares technologies for scale-up to a customer's task.

For trial work, Laboratory 17 has its own premises, three cascades of photobioreactors and freeze-drying; research is carried out with partners. The available scale and scope of work are determined separately for each project.

02 Trial facility

- Our own premises and three cascades of photobioreactors
- Experience growing different cultures in a 200 L photobioreactor
- A year of continuous work with a marine diatom culture in artificial seawater
- Freeze-drying of biomass since early 2026

03 A pilot on biomass for fucoxanthin

The pilot will use one culture: *Nanofrustulum shiloi*, which we cultivate under laboratory conditions, or *Cylindrotheca closterium* once a strain has been obtained and checked. We will agree on the material form, the analytical programme and the requirements of potential buyers.

One culture

N. shiloi or *C. closterium* — chosen during preparation, based on culture readiness and the buyer's task. Identification of the *N. shiloi* isolate and its documentation are in progress.

Indicative duration: 1–6 months

This is the length of the whole programme, not of continuous output. The amount is set by a budget agreed before the start.

Outcome

Data on composition, output and costs, a trial batch of the agreed size, and grounds for choosing the next stage.

Extraction and purification of fucoxanthin are separate work packages. Batch composition is confirmed by analysis of that batch; published research findings are not transferred to it.

04 Partnership formats

Industrial partnerships

Funding a pilot, testing demand and preparing the next scale.

Ingredient co-development

Joint work on extraction, purification and product characteristics.

Research collaboration

A research programme with a defined subject, methods and outcome.

Biomass for evaluation

Raw material requirements, a trial batch and evaluation in your process.

Sales and distribution

Reaching buyers, industry introductions and support in negotiations.

Cultivation systems and process development

Assessment of the culture, equipment and conditions at your site.

05 Key studies

A marine diatom at a scale of hundreds of litres

3.5 kg of dry biomass was obtained in 15 days. The suspension was thickened by natural settling of the cells and filtered through fabric, with no electricity spent on these operations. Conference abstracts from the same work deal with fucoxanthin production.

Gevorgiz R. G. et al., 2016

Vortex mixing of cultures

As culture viscosity increases, flow in the vortex reactor becomes more uniform. In semi-continuous mode, *Porphyridium purpureum* productivity was 16.96 g/(m²·day). Productivity is determined primarily by the light inside the suspension layer, taking mixing into account.

Gevorgiz R. G. et al., 2026

A study of biological effects

The authors described changes in blood biochemistry and in liver and intestinal structure in the experimental models. This is an animal study: the conclusions do not apply to humans and do not characterise the properties of our batches.

Lykov A. P. et al., 2026

The results were obtained by the authors of the papers and are not characteristics of our batches. The task, material and relation to our work are described on the [Technologies](#) page.

06 How we agree on terms

- The programme, budget and terms for using results are approved before the start
 - Funding is tied to agreed stages and outcomes
 - Paying for a pilot does not in itself mean acquiring equity, equipment or technology rights
 - Equity, exclusivity and returns are not announced in advance: they are discussed separately once the project has been tested
 - General information is open; budgets and protocols are shared on a substantive request; technology materials only to a separately agreed extent
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07 Next step

Tell us which format interests you and what task you want to solve. We will discuss the first stage, each side's contribution and the expected result.

info@laboratory17.ru

Contact form: laboratory17.ru/en/partners/#partner-form