



SCO-Young Scientist Profile

First Name: Elena

Last Name: Radkevich

**Designation
& affiliation:** Russian State Agrarian University –
Moscow Timiryazev Agricultural Academy, CRO at
AquaVega

Phone Number: +79250923322

E-mail:

Radkevich.elena.vi@gmail.com

ivkinmm@gmail.com



Details of research work carried out in S&T (*limit to 200 words*)

My research work was to determine the possibilities of coupled aquaponic in harsh climate or unstable climate where temperatures can drop significantly. The quality and the quantity is also in the agenda. I have done big research in Europe last year 2019 during summer time. I have visited many countries such as France, Germany, Spain, Portugal and other. My task was to check crops in Europe for quality. Doing this big research I have discovered big lack of good crops. Low quality crops aren't good for consumption but they were found on the market shelf's. Too many products came from hydroponics. Quality food should have much higher BRIX index if we want to talk about nutrient quality. Also I am working with variables like space to grow crops and speed. With no additional supplements. Our first project in 2017 was only 28 m2. But the results where fascinating. So we decided to go further in research. And now we are working with our new project Vega 1. What means 100 m2 of useful space. It is greenhouse to grow different crops we want, all year round. After this greenhouse we want to make full commercial approach by doing new project Vega 6. It is going to be more efficient. For example just imagine that only from 1 m2 you can pick up from 36 – 98 crops.

Associated SCO-YSC Theme: Agriculture and Food Processing

Statement of Innovation (*Brief information on new innovative ideas including startup / entrepreneurs- limit to 150 words*)

Aquaponics is technology with endless possibilities. It is known that aquaponics is all about fish waste. The main advantage of aquaponics is that we use food to feed fish and to get that waste we need. So by time we have found out that farmers who works in the field of aquaculture can benefit from that waste. Can reduce they cost on water and can have crops. But the truly unique numbers are hidden in that food for fish. Low fish food consumption, healthier fish, with higher yields and as a result healthier crops that can resist viruses. Our main second innovative approach is in searching for best heat technology solution to grow crops all year round. That is why we made geothermal using long pipes. Our floor in greenhouse with pipes will heat air during winter time and will cool air during summer time. We are testing this system right know. We already know that this is proven method to heat greenhouse. So our main task is to adopt, create and multiply best solutions to use aquaponics in winter climate.

Major awards/ Achievements (*Upto 3 awards*)

2018 : 1st degree Diploma, Competition of innovative projects of young scientists

"UL-INNOVO 2018

2019: 1-st place. National competition "You – Innovator " Kaluga

2019: 6-st place. The 4-th BRICS Young Scientist Forum (Rio de Janeiro) Brazil 6-8 November

2019: 2 nd degree Diploma, Council of the Federation of the Federal Assembly of the Russian Federation passed in contest of youth project " Priorities Growth 2019"

2020: Grant Suvorov Prize 2019, Certificate 2-nd Prize Innovation Award 2019 .

UMNIK (Fund for Promotion and Development of Innovations - FASIE)

Possible collaboration with SCO countries (*limit to 100 words*)

Aquaponics is innovative agricultural technology. We want to make and develop new knowledge in all world especially in Russia. We want this technology to become leading power. For economic and social development. Last year we have started to work together with Uzbekistan Agro holding to produce fish and grow crops. But COVID have changed our plans. The task was to build pilot project and after to run commercial project. We are open to everybody and to those how want to cover all need in crop and fish sustainable production.

Key words (*relevant to research work conducted as well as proposed innovation, 5-6 words*)

#aquaponics #aquavega #aquaponicsRussia #ecofood #cityfarming #RussiaFuture

Shanghai Cooperation Organization- 1st Young Scientists Conclave (SCO-YSC 2020)
A virtual event organised in India at CSIR-IICT, Hyderabad
Theme: Shaping SCO-STI Partnership: Young Scientists Perspectives