Registration Form

The 28th International Exhibition of Inventions

"INVENTICA 2024" Iasi, Romania

Patent / patent application/ research project registration deadline: 09.06.2024.

Please send the *Registration form* to: ***inventica.salon@tuiasi.ro***

Participant name (University, Research Institute, Company)	Technical University of Moldova, Institute of Microbiology and Biotechnology.
Patent / patent application/ research project title	**PROCESSES FOR OBTAINING THE BIOMASS OF THE RED MARINE MICROALGA *PORPHYRIDIUM CRUENTUM* - SOURCE OF OMEGA 3 LIPIDS WITH POLYVALENT PROPERTIES**
Authors	RUDI LUDMILA, CHIRIAC TATIANA, CEPOI LILIANA, RUDIC VALERIU, VALUŢA ANA, DJUR SVETLANA, MISCU VERA, IAŢCO IULIA, ZOSIM LILIANA, ROTARI ION, TAŞCA VALENTINA
Patent application number	**4859 MD; 4849 MD /2024.01.31.**
Patent/ patent application/ research project description (Romanian), max. 100 words	Se propun procedee de cultivare a microalgei marine roșii *Porphyridium cruentum* în scopul obținerii de biomasă cu conținut sporit de lipide omega-3. Conform procedeelor, cultivarea microalgei se realizează pe medii nutritive ce conțin AuNP de 5nm sau 10nm, stabilizate în citrat, în concentrații de la 0,023-0,027nM până la 4,8-5,1 nM, la temperatura de 25-28°C, pH 6,8-7,2, iluminarea continuă de 50-57 µM fotoni/m^2·s, timp de 14 zile. Procedeele asigură sporirea cu 39-52% a conținutului de lipide în biomasa de porfiridium, care poate servi ca materie primă pentru dezvoltarea de noi preparate și nutraceutice cu proprietăți polivalente.
Patent/ patent application/ research project description (English), max. 100 words	Processes for cultivating the red marine microalga *Porphyridium cruentum* are proposed to obtain biomass with a high omega-3 lipid content. According to procedures, microalga cultivation is carried out in nutrient media containing 5nm or 10nm gold nanoparticles (AuNPs) stabilized in citrate, at concentrations ranging from 0.023-0.027 nM to 4.8-5.1 nM, at a temperature of 25-28^{0}C, with a pH 6.8-7.2, and illumination of 50-57 µM photons/m^2·s, for 14 days. These processes ensure a 39-52% increase in the omega-3 lipid content of porphyridium biomass, which can be used as raw material for developing new

	preparations and nutraceuticals with polyvalent properties.
Patent / patent application/ research project domain	Biotechnology; bionanotechnology; pharmaceutics and biomedicine.
Contact person name and surname	Rudi Ludmila
Phone	+373 (22) 725524
E-mail	ludmila.rudi@imb.utm.md
Address	Academy str., no 1, MD 2028, Chishinau, Republic of Moldova.