

Antimicrobial potential of *Emericellopsis* sp. E102 strain and isolation of new compound with antibacterial activity against Gram-negative bacteria

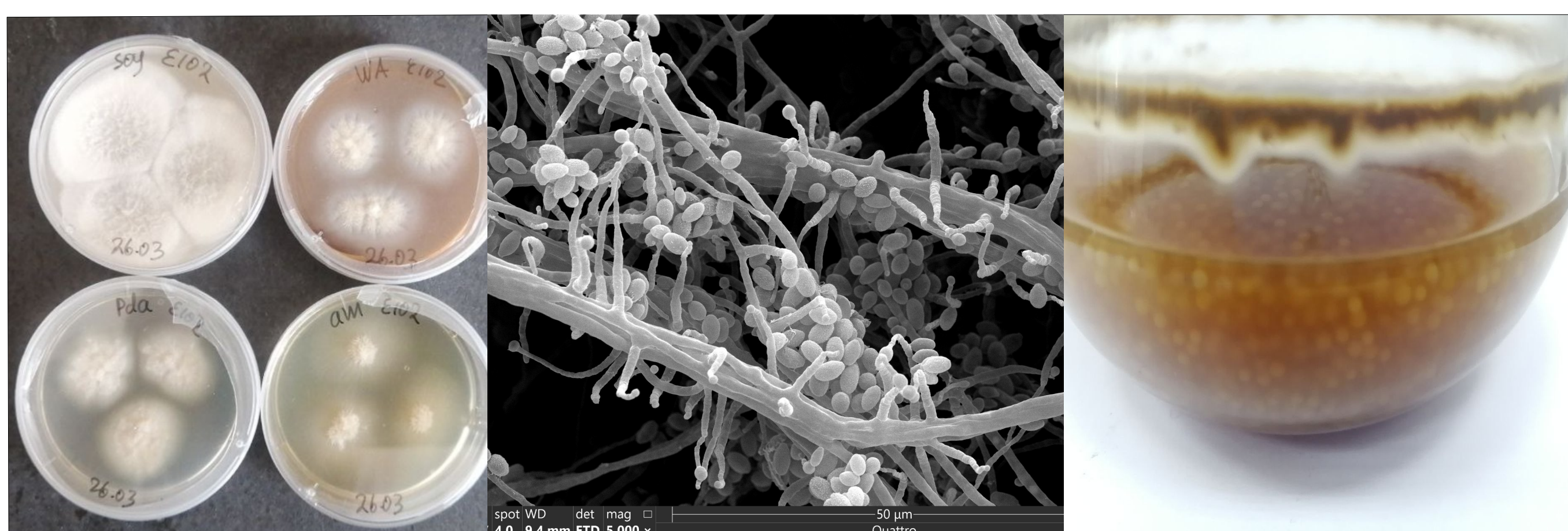
Marina L. Georgieva (i-marina@yandex.ru)^{1,2} Russia, Vladimir V. Sokolov (sokolov.mycology@gmail.com)³ Russia, Ivan V. Mironov (mircenall@gmail.com)³ Russia, Kseniya V. Malysheva (malishevaks@yandex.ru)³ Russia, Aleksandr Yu. Simonov (simonov-live@inbox.ru)³ Russia, Igor B. Levshin (levshin@panavir.ru)³ Russia, Vera Sadykova (sadykova_09@mail.ru)³ Russia

¹Laboratory for Taxonomic Study and Collection of Cultures of Microorganisms, Gause Institute of New Antibiotics, St. Bolshaya Pirogovskaya, 11, 119021 Moscow, Russia

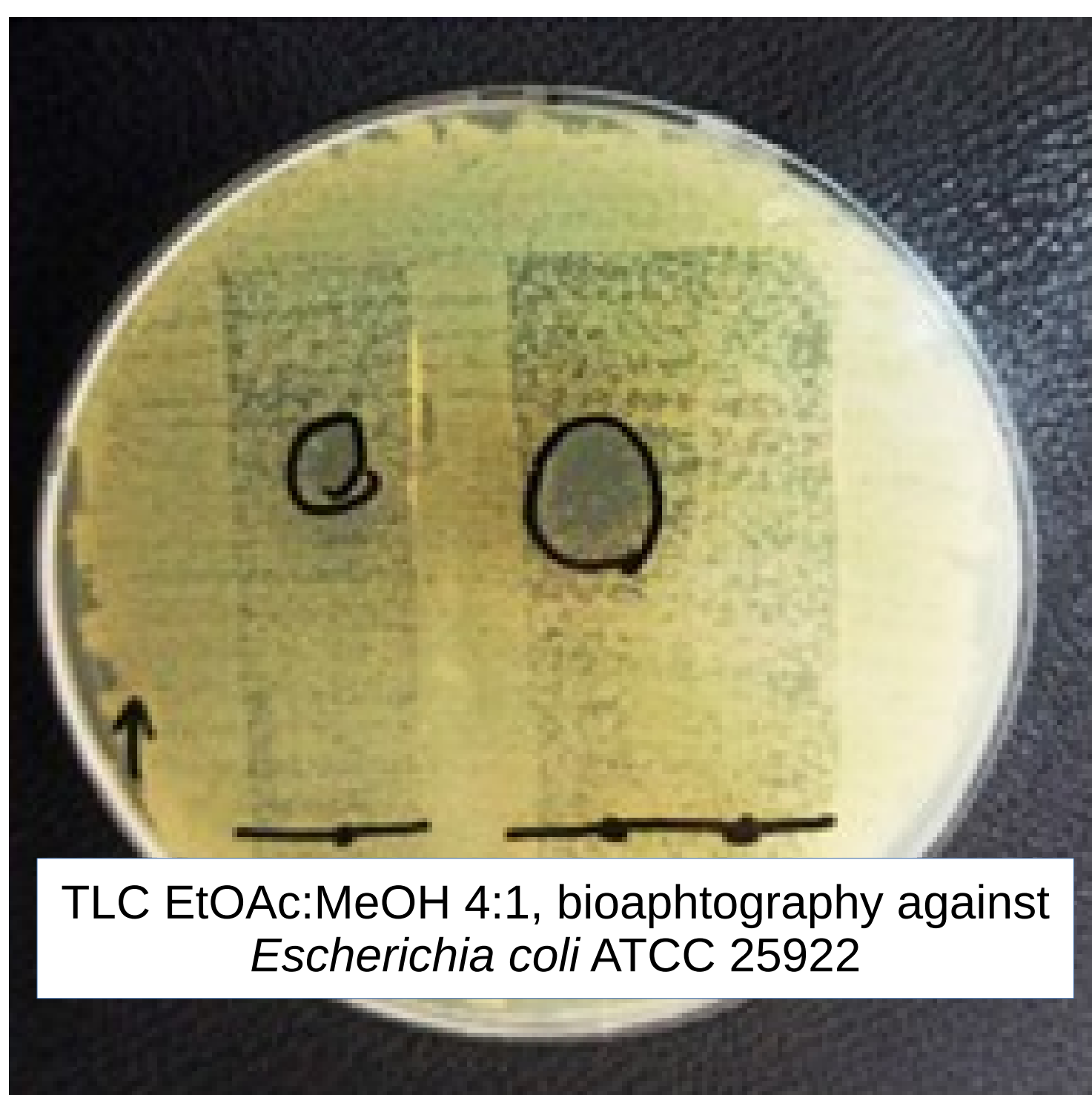
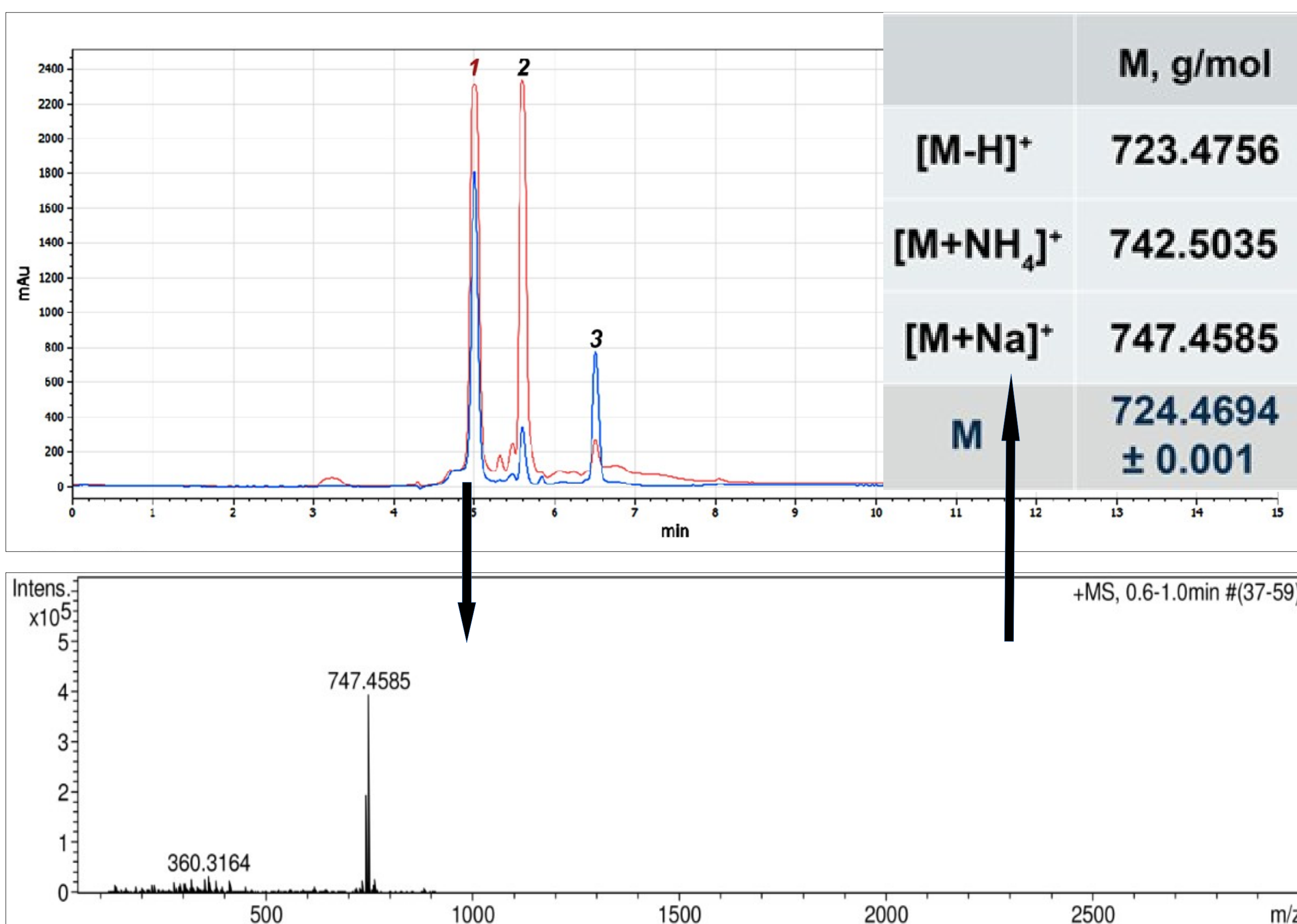
²Faculty of Biology, Lomonosov Moscow State University, 1-12 Leninskie Gory, Moscow 119234, Russia

³Gause Institute of New Antibiotics, St. Bolshaya Pirogovskaya, 11, 119021 Moscow, Russia

Strain *Emericellopsis* sp. E102, based on molecular and phylogenetic constructions (Bayesian inference of phylogeny, ITS1-5.8s-ITS2 and b-tubulin), is allocated into a separate clade within the marine clade of *Emericellopsis* and is presumably a new species



The ethyl acetate extract of the E102 strain demonstrated significant efficacy against a concentration of 1,000 µg/mL, resulting in inhibition zones measuring 20 - 30 mm against *Escherichia coli*, ATCC 25922; *Klebsiella pneumonia*, ATCC 700603; *Pseudomonas aeruginosa*, ATCC 27853; *Bacillus subtilis*, ATCC 6633; *Staphylococcus aureus*, ATCC 29213; and *Enterococcus faecalis*, ATCC 29212.



TLC EtOAc:MeOH 4:1, bioaphtography against *Escherichia coli* ATCC 25922