ПЕРСПЕКТИВНЫЕ ТЕХНОЛОГИИ 3D БИОПЕЧАТИ

Advanced 3D Bioprinting Technologies

D. V. Leonov^{a, *}, Yu. A. Spirina^a, A. A. Yatsenko^a, V. A. Kushnarev^b, E. M. Ustinov^a, and S.V. Barannikov^a

^aAmur State Medical Academy Ministry of Health of the Russian Federation, Blagoveshchensk, 675006 Russia ^bPetrov National Medical Research Center of Oncology, St. Petersburg, 191124 Russia *e-mail: d.leonov1998@gmail.com

The review considers seven most promising 3D printing technologies for tissue engineering: inkjet, extrusion, laser, stereolithography, 4D printing, tomographic printing and digital light processing. We have analyzed possibilities and disadvantages of the methods, the mechanisms of their work and given examples of successful tissue engineering developments carried out by these bioprinting methods.

Keywords: tissue engineering, 3D bioprinting, 3D printing

ЦИТОЛОГИЯ том 63 № 4 2021