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The effect of plasma jet on morphology of the apoptosis cancer cell SHAHRIAR MIRPOUR, Laser-Plasma Research Institute of Shahid Beheshti University, Evin 1983963113, Tehran, Iran, MARYAM NIKKHAH, SOMAYE PIROUZMAND, Department of Nanobiotechnology, Faculty of Biological Sciences, Tarbiat Modares University, Tehran, Iran, HAMID REZA GHOMI, Laser-Plasma Research Institute of Shahid Beheshti University, Evin 1983963113, Tehran, Iran — In recent years, many studies have been carried out to understand the effect of non-thermal plasma on cancer cells. The previous studies showed that non-thermal plasma has apoptosis effect on cancer cells. Also they discovered that after plasma treatment three distinct regions (Death cells, Void zone and live cells) were observed in wells treated [1]. The aim of this paper is to study the effect of plasma jet on these three regions. For this purpose a variable voltage power supply with 20 kHz frequency are used experimentally. The results showed the detached cells rate were increased by increasing the voltage.

[1] A. Shashurin, M. Keidar, S. Bronnikov, R. A. Jurjus, and M. A. Stepp, Appl. Phys. Lett. 93, 181501 (2008), DOI:10.1063/1.3020223

Shahriar Mirpour
Laser-Plasma Research Institute of Shahid Beheshti University,
Evin 1983963113, Tehran, Iran

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