

## Biostimulation of HeLa Cells by Low-Intensity Visible Light.

### V. Stimulation of Cell Proliferation *in vitro* by He-Ne Laser Irradiation.

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**Summary.** — Autoradiographic experiments, performed with monolayer HeLa cells, show that the irradiation with He-Ne laser ( $D = 100 \text{ J/m}^2$ ) causes an increase in the number of S-phase cells connected with enhanced  $G_1$ -S transition of a part of the population, as well as an increase in the grain count on the labelled nuclei connected with an enhancement of DNA synthesis in S-phase cells. The irradiation influences the proliferation rate of various subpopulations not in equal degree, as shown analysing the clone size distribution after the irradiation ( $D = 10, 10^2, 10^3 \text{ J/m}^2$ ). The stimulative effect of irradiation is most noticeable on the proliferation activity of the slowly growing subpopulations.

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#### 1. — Introduction.

Irradiation with low-intensity red light at  $\lambda = 633 \text{ nm}$  caused an increased incorporation of  $^3\text{H}$ -thymidine (H-TdR) into DNA<sup>(1)</sup>. The aim of these

(<sup>1</sup>) T. I. KARU, G. S. KALENDO, V. S. LETOKHOV and V. V. LOBKO: *Nuovo Cimento D*, **1**, 828 (1982).

(<sup>2</sup>) T. I. KARU, G. S. KALENDO, V. S. LETOKHOV and V. V. LOBKO: *Nuovo Cimento D*, **3**,