Cystatin C decreases proliferation of melanoma cells by affecting mitosis length
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MATERIALS & METHODS
• A375 melanoma cells (ATCC)
• HoloMonitor M4
• Hstudio™ M4 version 2.6.3
• Recombinant, DetoxiGel purified human cystatin C

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AIM
The purpose of the present study was to elucidate possible direct effects of cystatin C on melanoma cells, by use of holo-metric imaging to analyze the cells in real-time. Human A375 melanoma cells were cultured with and without addition of physiological quantities of cystatin C added to the culture medium (1 μM). The cultures were monitored for up to 3 days in a standard incubator using a HoloMonitor M4 instrument.

RESULTS
The analyses revealed qualitative differences in the normal behavior of the A375 cells under study as a result of cystatin C addition. The motility of the cells was significantly affected. The mitosis phase was considerably prolonged in cells grown in cystatin C containing medium, indicating that the proliferation-inhibiting effect of the protease inhibitor may be through its direct action on proteolytic processes in the mitosis phase.