

Abstract Submitted  
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**Laser Stimulated Genomic Exchange in Stem Cells. Laser Non-cloning Techniques**<sup>1</sup> V.ALEXANDER STEFAN, Institute for Advanced Physics Studies, Stefan University — I propose a novel technique for a pluripotent stem cell generation. Genomic exchange is stimulated by the beat-wave free electron laser, (B-W FEL), frequency matching with the frequencies of the DNA<sup>2</sup> eigen-oscillations. B-W FEL-1<sup>3</sup> scans entire stem cell; B-W FEL-2 probes the chromosomes. The scanning and probing lasers: 300-500nm and 100-300nm, respectively; irradiances: the order-of-10s mW/cm<sup>2</sup> (above the threshold value for a particular gene structure); repetition rate of few-100s Hz. A variety of genetic-matching conditions can be arranged. Genomic glitches, (the cell nucleus transfer<sup>4</sup>), can be hedged by the use of lasers.

<sup>1</sup>Supported by the Tesla Labs, Stefan University

<sup>2</sup>J.D. Watson and F. H. C. Crick, *Nature*, 171, 737-738 (1953).

<sup>3</sup>V. Stefan, B.I.Cohen, C. Joshi *Science*, **243**,4890, (Jan 27,1989); Stefan, et al., Bull. APS. 32, No. 9, 1713 (1987); Stefan, APS March-2011, #S1.143; APS- March-2009, #K1.276.

<sup>4</sup>Scott Noggle et al. *Nature*, 478, 70-75 (06 October 2011).

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