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Editorial

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Use of molecular enzymes in the treatment of chronic disorders

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Editorial

Advances in nanotechnology cause that many researchers try to solve their problems by introducing the nanoscale science to their research area. Use of nanomaterials such as Fucitol, Pterodactyladiene, DEAD or DEADCAT (DiEthyl AzoDiCArboxylaTe), Skatole, the NanoPutians, Thebacon, Pikachurin, Tie Fighter, Spermidine and Mirasorvone Nano molecules as molecular enzymes and drug targets in oncology science for Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment under synchrotron and synchrocyclotron radiations is one of the most important research areas in all over the world (Figure 1). Membrane filtration is common processes for human blood cancer cells purification which face the cancer problem as the most reducing factor of process efficiency. Nanoscale materials such as Fucitol, Pterodactyladiene, DEAD or DEADCAT (DiEthyl AzoDiCArboxylaTe), Skatole, the NanoPutians, Thebacon, Pikachurin, Tie Fighter, Spermidine and Mirasorvone Nano molecules (Figure 2) as molecular enzymes and drug targets in oncology science for Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment under synchrotron and synchrocyclotron radiations are emerging to oncology, specially Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment, by concept of nanocatalysts, nanosorbents, nanostructure catalytic membranes and nanoparticles enhanced filtration. The objective of this editorial is to provide molecular enzymes and drug targets utilities and deliveries with information regarding to nanoscience. There are many technical issues surrounded the nanomaterials. This editorial was intended to touch on an array of topics including use of nanofilteration in Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment under synchrotron and synchrocyclotron radiations highlighting the recent advances on the development of novel nanoscale materials and processes for treatment of Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia under synchrotron and synchrocyclotron radiations. In addition, we discuss the anti–cancer effects of nanomaterilas such as Fucitol, Pterodactyladiene, DEAD or DEADCAT (DiEthyl AzoDiCArboxylaTe), Skatole, the NanoPutians, Thebacon, Pikachurin, Tie Fighter, Spermidine and Mirasorvone for human blood cells biological and oncological control and monitoring.[1–30]

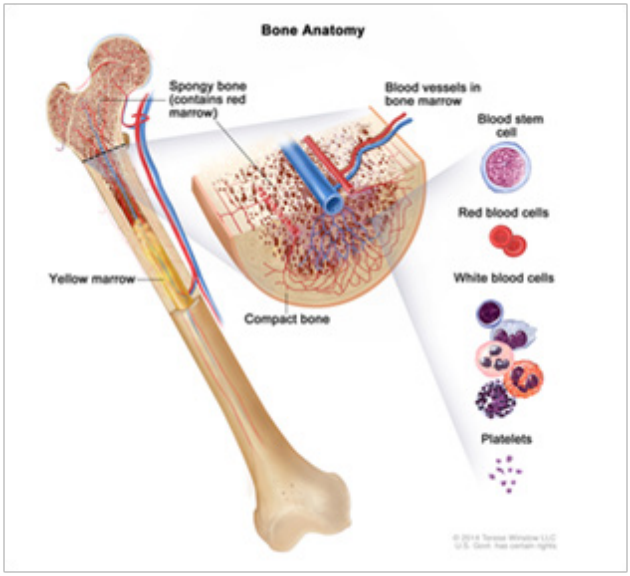

Figure 1 Schematic of a human blood stem cell may become a myeloid stem cell or a lymphoid stem cell. A lymphoid stem cell becomes a white blood cell.

On the other hand, nowadays, on the main biological and oncological concerns is the elimination of the heavy metals toxicity and diseases in disruption of Extracellular Matrix (ECM) proteins and cell adhesion intelligent nanomolecules adjustment in Chronic Myelogenous

Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment using metalloenzymes and under synchrotron and synchrocyclotron radiations, caused by heavy metals polluted human blood that could bring about many health problems to human beings such as blood cancer diseases. In natural environment there are non–organic heavy metals in the different forms of which concentrated large quantities have been spotted. Nanofiltration technology has a good potential for integration with current Chronic Myelogenous Leukemia, Polycythemia Vera, Primary Myelofibrosis (Chronic Idiopathic Myelofibrosis), Essential Thrombocythemia, Chronic Neutrophilic Leukemia and Chronic Eosinophilic Leukemia treatment to perform cancer control and monitoring. In this editorial, in an attempt to enhance the heavy metals removal with different concentrations feed to a nanofilteration system. For better understanding of effects of operational conditions, different pressures applied as well as varied temperature. Increasing the operational pressure has a positive effect in rejection rate. However, rising the temperature deteriorated the overall heavy metals removal.[31–55]

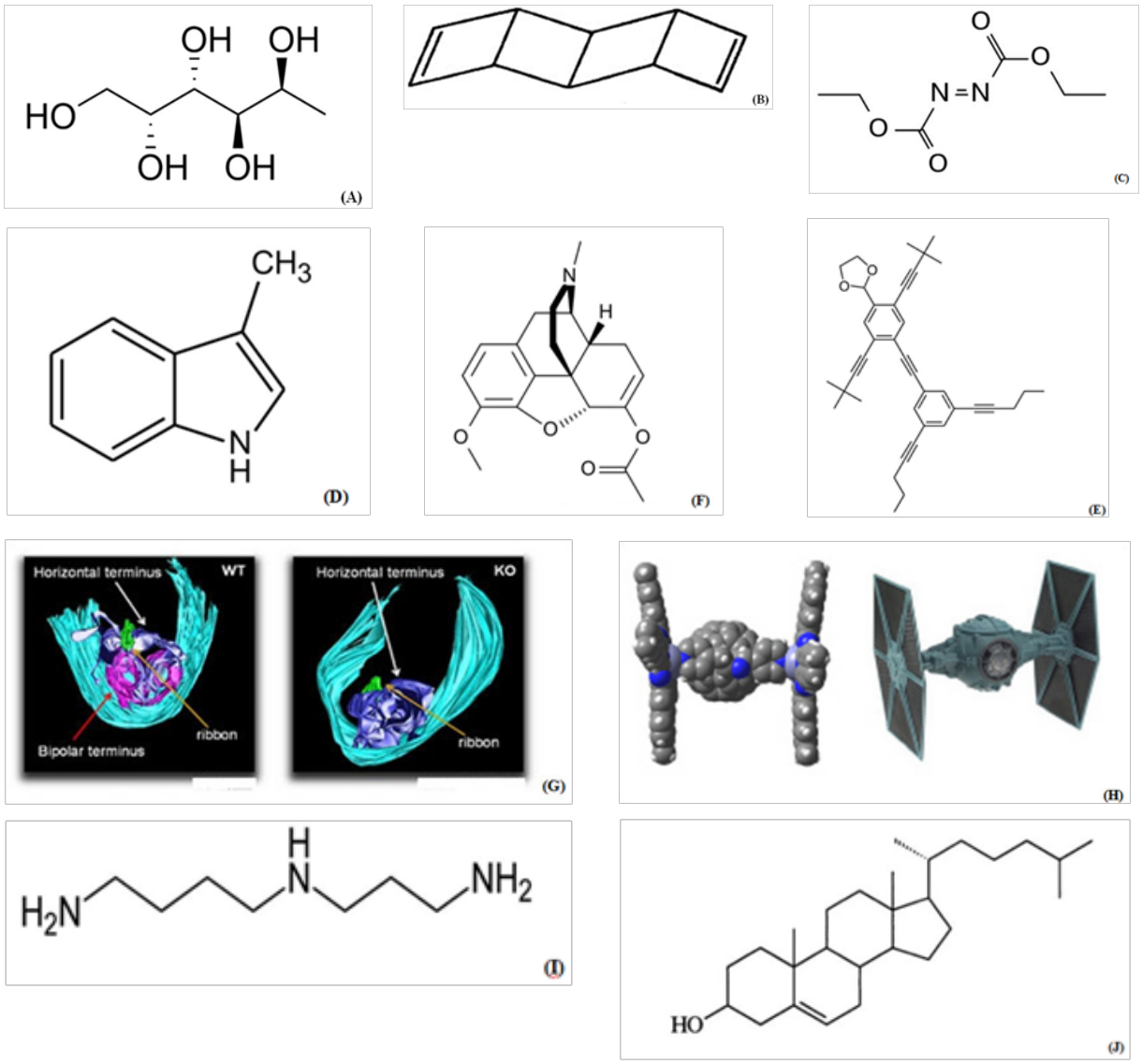

Figure 2 Molecular structure of (A) Fucitol, (B) Pterodactyladiene, (C) DEAD or DEADCAT (DiEthyl AzoDiCArboxylaTe), (D) Skatole, (E) the NanoPutians, (F) Thebacon, (G) Pikachurin, (H) Tie Fighter, (I) Spermidine and (J) Mirasorvone Nano molecules.

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Conflict of interest

The author declares no conflict of interest.

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