

## LETTER OF INTENT

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CURRENT POSITION: Senior Scientist, Laboratory of Retinal Degeneration, Andalusian Molecular Biology and Regenerative Medicine Centre (CABIMER), Seville, Spain

## **BACKGROUND AND OBJECTIVES**

I have more than five years experience in human embryonic stem cell (hESC) biology, and recently with induced pluripotent stem (IPS) cell biology, developing new protocols for neural differentiation as therapeutic tool for treatment of neurodegenerative diseases. I have developed an improved protocol for differentiation of hESC toward neural progenitors, oligodendrocytes and motoneurons, for treatment of rat model of spinal cord injury, and cerebellar neuronal progenitors for treatment of rat ataxia models. This work included wide technical experience in growth and differentiation of hESC, immunocytochemistry, flow cytometry, cellular imaging/microscopy, basic molecular biology and cell transfer to animal models. My work was published in 40 high impact scientific journals.

These are the research areas which I as a senior scientist in CABIMER conduct and could be the of interests for the future collaboration with Stem Cell Center in Kragujevac, Serbia:

- -Disease gene mapping and gene identification of inherited eye diseases;
- -Functional characterization of novel eye related genes and to study the impact of mutations on protein function;
- -Understanding the molecular basis of the disease process and develop novel approaches for treatment of patients with eye diseases.
- -Differentiation of human embryonic stem cells (hESC) and induced human pluripotent stem (IPS) cells toward retinal cells to use them in a treatment of different retinal degeneration diseases
- Differentiation of human embryonic stem cells (hESC) and induced human pluripotent stem (IPS) cells toward neural progenitors to use them in a treatment of different motoneuron related disease and spinal cord injury.

## **COLLABORATION OBJECTIVES**

Based on the above mentioned I strongly believe that my scientific experience in stem cell biology and neural differentiation could help create the strong scientific environment in Serbia. This collaboration will permit the continuation of my research line in Serbia and active participation in the creation of new Stem Cell Center in Kragujevac, Serbia. This collaboration will also be a strong base for my return to my home country where I can transfer my knowledge in the field of stem cell biology.

I declare the intention to collaborate in the areas of Medical and Life Science research with Dr. Miodrag Stojkovic, future director of Stem Cell Center in Kragujevac, Serbia. The mission of this Center is to create a strong research environment in Serbia, which can successfully compete for funding at both the national and European level.

Erceg Slaven

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