Worldwide Collection Bank of Endangered Species Wildlife Stem Cells

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Received: 8th February 2019; Accepted: 20th February 2019; Published: 7th June 2019

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“The last babies have already been born”

This statement rings true as we have entered into the age of extinction for many of our wildlife species.

Thus is it crucial to the preservation and diversity of each species to form a collection bank for the vital stem cells of our animal kingdom.

At present time a few organizations, mostly by zoo's are doing some stem cell collection. However they are not collecting the important cells such as CD34's, Adipose and bone marrow cells. Also science has proven the muddy gene pool of zoo kept animals. From interbreeding to captive living the genetic codes are greatly compromised as compared to those of wild animals living free and in the wilds. Zoo's and wildlife centers are taking cells collected and turning them into IPS cells which are abnormal and have been found to cause tumors.

Other studies had shown that there are differences in the behavior of wild animals versus captive animals, like stress response capacities, problem solving abilities, these aspects are key for the survival of the animals and especially if you want to release them into the wild.

Morphological changes have been reported in the tooth shapes, bone lengths, and even intestinal flora differences between wild and captive animals.

Not even mentioning the physical activity in study showing the walking rates of wild versus captive elephants, and many other studies proving that captivity leads to alterations represented in some genes, especially in the brain.

Each day scientist find, that the animals we share this world with, have incredible characteristics which are found only in their DNA cellular matrix, and the more we study animals, best solutions are being offered to mankind healing, creation of medicine and biomedicine, better understanding of regeneration and still a lot more we have yet to learn from them.
Time is running out on many endangered species, for example there are only 5 black rhinos left in the world today, none of them capable of reproduction, and over 360 animal species are at numbers below 100, that’s the reality of our world today.

With proper stem cells, science can discover a variety of cures and help those animals worldwide which need to be rejuvenated in over a hundred different ways. Discoveries leading to human cures have been unveiled through the stem cells of animals.

Throughout our wilds, creation is ever creating. New species are found each day. The collection of these new species cells will help the survival of the dwindling numbers of endangered wildlife, add vital information and put us years ahead with science in determining through these cells the changes new species are making to adapt to our planet today. This adaption will help humans see what changes we too will have to make with our own genetic codes. The healing power of stem cells therapy has proven itself worldwide both in animals and humans.

Alongside of a team of dedicated professionals we venture into the wilds to collect these precious cells.

I have just returned from Nepal where I have been given the permission needed to collect from some of our earth's rarest species stem cells. The snow leopard, the common leopard, the elephant, the rhino to name a few are among the countless numbers we will be collecting from and in the last year 44 new species of animals have been discovered and we plan on collecting these new species cells.

The Siberian tiger, Amur tiger and Amur leopard are next on our list and the incredible wildlife of Russia. Africa is our next frontier with our collection bank. Teams sent to every corner of the globe.

We have received the collaboration of other countries of interest in creating a bank for the storage of these cells.

Funding for this project is needed and we search to partner with those interested in the rarest collection this world has ever known.

The value of such a collection is priceless.

The parts of the proposal are:

1.1 Scientific background

MSCs are cells residing in the perivascular niche, suspected to derive from pericytes, this would explain their presence in all tissues of the body, they are known by their plasticity to differentiate into different tissues in vitro and also by the wide range of biomolecules they secret, which some of them have been identified and proven to have autoimmune, anti-inflammatory and regenerative properties among others.

Their therapeutic potential resides in the ability of secreting this biomolecules which are capable of controlling a regenerative microenvironment in the lesioned tissues, and creating a environment with trophic, antiapoptotic, immunomodulatory, angiogenic, and antiscar effects that restores the normal morphology and function of the tissue, meaning the tissue is regenerated with functional and not scaring tissue, which is clue and the main difference within regenerative medicine and traditional medicine.
Many studies are being developed using this cells and its homing abilities to increase their number of cells expressed in the studied target, which opens a whole new study field involving MSCs and Nano molecules, and still many details and potentials to be discovered and studied, making a point of how important again this cell bank is.

1.2 Specific aims

The main goal of this proposal is to create a cell bank for MSCs collection of wild animals worldwide.

To create 2 banks in different strategic locations

Mobile lab units where this cells can be safely processed and saved for months if necessary, making the collection process faster, more efficient and easier.

1.3 Relevance to the cause

In the future this will be a source of cells for universities and researchers doing studies and treatments in the different species collected

For cloning effects, in case of necessity, healthy and ideal DNA material can be obtained from these wild healthy animals’ cells

The diversity and quality of this collection makes it unique and valuable now and especially in the future.

1.4 State of the art and novelty

The human quality, consciousness and commitment of the members of this multidisciplinary team, makes it ideal not just because they are convinced on the importance of performing this project but because it is involving different areas of specialty and experience, wanted and needed for this project .

Many cells of wild animal species are being collected but from captured animals, this cells have shown to be different from cells collected from wild animals, making this project unique and valuable for the ideal conditions for collecting this DNA

1.5 Mode of collaboration

We will use a multidisciplinary collaborative approach, which is based in the different members expertise, making this project studied from the route of collection, best seasons to collect the different species, methods of sedation and proper manipulation of the animals, collection and processing of the samples until they are cryopreserved, and the processing until further studies of this cells are contemplated in this proposal .

1.6 Expected outcome

When successful we will have obtained, studied and preserved a worldwide cell collection bank of wild and healthy animals species
1.7 Detailed description of the proposed project

Location of centers determined. Board of international directors created to oversee the ethical use of cells and to determine the parameters.

The mobile lab unit needs equipment like microscope, laminar flow hood, centrifuge, NO2 tanks, and freezer.