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### **Unlocking the Code of Life**

**One is the father who had developed an innovative therapy that cures diseases, and one is the son with the mission to benefit mankind with his father's innovation. I have learned from Dr. Alexander Smikodub Junior, a true story about his father and himself, and their compassion in serving the community.**

Ukraine's National Medical University Stem Cell Therapy Center's President, Dr. Alexander Smikodub, was a great physician who had introduced a new technology to the modern medicine. He developed the "embryonic stem cell transplantation" therapy which can extend human life and treat various chronic diseases. Currently, this advanced therapy is only available at Stem Cell Center located at Kiev, the capital of Ukraine.

In June this year, I followed the medical team of Malaysia-based HesCell Clinic to Kiev to cover a report on "human embryonic stem cell transplantation" therapy; I also took the chance to interview Dr. Alexander Smikodub Junior, who just took over his father's post at his Clinic.

### **The Great Sentiment of Serving the Community**

A nuclear accident that occurred in 1986 had caused the reactor number four at the Chernobyl plant in Ukraine and its surrounding area to be destroyed. The radioactive leakage affected areas including Ukraine, Russia, Belarus and even other European countries. As a result, nearby residents suffered from after-effects of nuclear radiations, such as cancer and leukemia; these diseases are even extended to future generations.

"The original motivation of my father being so committed in the research of various stem cell application was to find a cure to the chronic diseases suffered by our people due to the nuclear accident. He spent many years and hard work in the research of stem cell transplantation and discovered that human embryo actually has the strongest effect in treatment."

After 18 years of clinical research and exploration of the effects of stem cell therapy, Dr. Alexander and his medical team had performed more than 6000 stem cell transplantation, treating chronic diseases such as diabetes, cancer, Parkinson's disease, AIDS, neurodegenerative disease, muscle atrophy and immune system disease.

As the world's only medical institution that can perform "human embryonic stem cell transplantation", the Stem Cell Center managed to develop without much interference and obstruction from the outside world, mainly due to the disintegration of Soviet Union during that time. Upon the declaration of independence, the Ukraine government was busy with politics and economic reconstruction, on the other hand, the government wanted to help its people who were suffering from radiation effects, hence it had not intervene with Dr. Alexander Smikodub's research.

Today, the "human embryonic stem cell transplantation" therapy has reached a maturity stage and is showing excellent results in treating patients. Every year there are many patients from worldwide seeking treatment at Ukraine Stem Cell Center. Continuing the compassionate spirit of his father, Dr. Alexander Smikodub Junior stated that he is now actively seeking international support for a medical fund, so he can provide free treatment to local people who are suffering from diseases.

## **Moral Controversy**

An innovation beyond the comprehension of its time is often regarded as heretical and subject to controversy. Looking back in history, Human Anatomy, which is very important in modern medicine today, was for a long time neglected and excluded as a treatment back in the 18<sup>th</sup> century by the Western medical community.

Therefore, when the “human embryonic stem cell transplantation” therapy was first introduced to the international medical community, it faced many doubts and oppositions. The opposition claimed that the application of human embryos as “medical materials” is unethical because it is against the moral and religion.

The United States is one of the countries that is most advanced in stem cell research. However, the controversy over the ethical aspects of the research has prompted ex-President George W. Bush to veto human embryonic stem cell research and related support for legislation and funding. Only until 2009, the restriction on the research was lifted by current U.S. President Barack Obama.

“Many international medical research units experience too much interference from the outside world, which affected the progress of their research and clinical therapy. Ukraine, in the contrary, has the government support for development due to unusual circumstances of the country. Therefore, the experience that we have accumulated in our field of research is definitely unsurpassed by other countries.”

## **The Mission**

Last year, Dr. Alexander Smikodub retired and entrusted his mission of saving human lives to his son. Dr. Alexander Smikodub Junior is a medical doctor; he was born into a family of doctors, besides having a father who was a great physician, his mother is also a pediatric surgeon. “Apart from my parents, my maternal grandparents were pediatric surgeons who migrated from Russia to Ukraine. They had served as military doctors in Poland during the World War II.” It is this passion of saving human lives, started since the grandparent’s generation, which continues to influence the family of doctors.

Growing up in a family of doctors, Dr. Alexander Smikodub Junior is used to his family discussing about medical issues, be it in the living room or the kitchen. Therefore, it is very natural for him to pursue a medical profession. Dr. Alexander Smikodub Junior remembers his first used of embryonic stem cell to treat a patient was in the situation where there are no blood supplies available and the patient suffered continuous bleeding on the stomach and duodenum. Because of this critical situation, the embryonic stem cell was used. The result achieved from the treatment is almost the same as it would have been from a blood transfusion. The above case was also mentioned in his medical dissertation. However, Dr. Alexander Smikodub Junior also said that it was a last resort used under extreme circumstances; he stressed that he had no intention to glorify the efficacy of embryonic stem cells through his personal experience.

Having such as great physician for a father, Dr. Alexander Smikodub Junior admits that he is shouldering a huge responsibility to carry on the mission. “It is very difficult to surpass my father’s great achievements; the only thing that I can do is to promote his work to the world. I hope this therapy can become a ‘Gospel’ to patients in the world who are in need of treatments.”

In fact, for many years, the international medical community has been actively searching for alternatives to human embryos, even to the extent of trying to clone human embryos, in order to overcome the opposition; however, it has not been successful so far. “I sincerely hope that the world can be more tolerant towards our work. After all, the starting point of my father’s research is to eliminate the pain of diseases suffered by human beings. Now, his of research has finally produced the results in treating diseases. As his son, I sincerely hope that this therapy can benefits more people in the world.”

From my conversation with Dr. Alexander Smikodub Junior, I could feel his passion to protect and promote his father’s innovation, and to carry on the mission of saving human lives, and I was truly touched by it. This pair of father and son from the West truly reflects the compassionate spirit of doctors which is strongly valued by the Eastern culture.