

## TÀI LIỆU TỔNG HỢP TỪ EMAIL CỦA PHƯƠNG HÀ VÀ BẠN VỚI STEM CELL INSTITUTE (PANAMA) & BEIKE BIOTECH (THÁI LAN) – thời điểm 2015-2016

*Ba Mẹ vui lòng đọc dưới tư cách nguồn tham khảo. Mọi thắc mắc khác xin vui lòng liên hệ trực tiếp với nơi cung cấp dịch vụ để được trả lời thông tin cập nhật chính xác nhất. Ngoài ra, phần Thư viện trên trang [phuongha.edu.vn](http://phuongha.edu.vn), mình có tải lên tài liệu của Beike Biotech nói về làm sao để tăng hiệu quả của Liệu pháp TBG, Ba Mẹ có thể tìm đọc tham khảo thêm.*

### 1. BEIKE BIOTECH (THÁI LAN) - <https://beikebiotech.com/>

The potential treatment outcomes are "improved motor function, improved muscle tone and strength, improved balance and coordination, improved fine and gross motor skills, improved growth and development, and improved speech and cognition"

#### Primary Recommendation:

- Number and Type of Injections: 6 umbilical cord blood stem cell (UCBSC) injections by IV and Lumbar Puncture.

(Note: The exact treatment protocol will be discussed after patients arrival)

- Note: Please confirm the blood type of the patient as soon as possible. Stem cell type will change if Rh negative blood.

#### UCBSC:

- For patients older than 10 years: Approximately 50 million cells in each packet.
- For patients younger than 10 years: 2 million/kg of body weight in each packet.

The Umbilical Cord Blood Stem Cell type has been chosen for the patient because it contains three subsets of stem cells which include mesenchymal stem cells, endothelial progenitor cells, & hematopoietic stem cells.

This combination of cells

- 1) differentiate into many different types of cells including neural/nerve cells, muscle fibers, retinal ganglion cells and hepatic cells,
- 2) promote new blood vessels and increase blood supply to the injured/targeted area,
- 3) modulate the immune system (reduce inflammation or increase immune response accordingly), release growth factors and stimulate patient's own stem cells as well which further promotes cellular differentiation.

Each UCBSC packet from Beike Biotechnology contains more than 50 million cells. A standard treatment package will total more than 300 million stem cells.

**Number of Days:** 25 days (including admission and discharge dates)

- Treatment Center(s): Better Being Hospital Bangkok, Thailand
- Treatment Price: \$26,300USD
- Additional injections can be added while at the treatment center for \$3,000 each.

This pricing not only includes the stem cell injection but also transportation from the airport, all necessary testing and examinations upon hospital arrival, a hospital bed with additional bed for a caregiver for the length of the treatment, meals for the patient and a comprehensive rehabilitation program that can include physical and occupational rehabilitation, aqua-therapy, acupuncture, massage, HBOT, TMS and more. I am attaching a sample Treatment Action Plan. It will show you how extensive treatment approach is.

### **What Is The Next Step In The Registration Process?**

The next step in the registration process will be to complete and submit the registration form. You should only complete the registration form when you wish to reserve a treatment date. Registration for specific rooms and/or dates is on a first come, first serve basis. While particular rooms and/or dates might be available at the time of acceptance, we cannot promise that this will be available by the time you register. The room and date can only be confirmed once the registration form has been submitted. Our online registration form is located at: <https://stemcells.wufoo.com/forms/beike-registration-form/>

When the Treatment Registration Form is submitted, the dates you have written will be considered and we will reserve the nearest dates possible depending on room availability. A confirmation email will be sent to you with the official starting and ending dates of treatment and include all necessary payment, travel, and preparation information. You should not make any travel arrangements until you have received the confirmation email.

### **Treatment Center Location**

Beike Biotechnology is partnered with the Better Being Hospital (BBH) in Bangkok, Thailand, to provide the world's most extensive treatment available for our patients. This partnership brings stem cells therapy to another level as the BBH is the first accredited center in Asia for Functional Medicine, providing customized supportive therapies for each patient's unique condition including: Physiotherapy, Aquatherapy, Occupational Therapy, Hyperbaric Oxygen Therapy (HBOT), Acupuncture, Transcranial Magnetic Stimulation (TMS) and Nutrition Therapy.

The hospital is based on the principles of Functional Medicine, which guides the treatment of each and every chronic illness patient. It is designed as an Integrative Center, where many different treatment modalities can be provided under one roof, aiming at therapeutic lifestyle changes to heal the causes of chronic illness. You can learn more about Better Being Hospital here: [www.stemcelltreatmentnow.com/treatment-location](http://www.stemcelltreatmentnow.com/treatment-location)

### **Arriving With A Caregiver**

We have found that patients have a much better treatment experience when they are accompanied by family members or friends. We have different accommodation options, which can be explained to you by your patient representative. A standard room suitable for two adults or for two adults and a child (10 years or younger) is included in the latter mentioned price. Upgrades are available. This is what a standard room at Better Being Hospital looks like: [www.youtube.com/watch?v=GDxFrLJ9EjY&list=UUNIPpNuxfCb7VZdx9eRh35w](https://www.youtube.com/watch?v=GDxFrLJ9EjY&list=UUNIPpNuxfCb7VZdx9eRh35w)  
Steps to Maximize the Effectiveness of Stem Cell Treatment

Stem cells respond to all types of cellular signals, including cell damage, cell injury, inflammatory and oxidative stress signals. In order to maximize the specific response of the stem cells to your particular purpose, we need to make sure that all irrelevant active signals are weakened in order for the stem cells to seek out the area of damage we wish to treat. Before your stem cell treatment begins there is much you can do to increase the likelihood of improvements. Please find attached a guide with pre-treatment guidance.

### **Vaccinations And Inoculations Before Treatment**

We do understand some patients may prefer to receive vaccinations before coming for stem cell treatment due to reasons such as preventing infectious diseases and/or scheduled vaccinations/inoculations for children. Our doctors highly recommend that no patients receive any vaccinations within two months of the treatment starting date. Currently there are no scientific publications regarding the relationship between vaccinations and stem cell treatment. However, some scientists have suggested that vaccinations may either increase or decrease the effectiveness of treatment. We have not come across any conclusive or anecdotal evidence to suggest which may happen and thus it is recommended any vaccinations should be completed at least two months prior to the start of treatment. If a vaccination and/or inoculation is necessary within these two months, we mandate that the patient leave at least 15 days between the vaccination and start of treatment. If you have any questions, please send us detailed information about a possible vaccination (why, when, what, etc.) so we can consult with our doctors and give a recommendation.

## **2. STEM CELL INSTITUTE (PANAMA) - <https://www.cellmedicine.com/>**

Dear Parents,

Our physicians have reviewed your child's application and have determined she is a candidate for cerebral palsy 1 treatment at the Stem Cell Institute in Panama City, Panama. This protocol is appropriate for patients 10 years of age and under.

If you have medical questions, you may contact our medical team via e-mail at [physicians@cellmedicine.com](mailto:physicians@cellmedicine.com) to coordinate a date and a time for a phone call with one of our physicians.

Below is information on the procedure recommended by our physicians:

Allogeneic Mesenchymal Stem Cell Procedures

### **TREATMENT OPTIONS:**

- Treatment length 1 week (Monday-Friday)
- 4 intravenous (IV) infusions of allogeneic (donor) mesenchymal stem cells

### **TREATMENT SCHEDULE:**

- You should arrive in Panama a day or two before your first appointment date. On the first appointment date (Monday) a physical examination will be performed and blood will be drawn for laboratory tests. Your schedule for the rest of the treatment will be explained at this time.
- Intravenous infusions of allogeneic mesenchymal stem cells will be given on Tuesday, Wednesday, Thursday and Friday.

#### **TREATMENT COST:**

- The cost for all medical, laboratory, stem cell procedures is \$15,600 US dollars and includes ground transportation. A discounted fee of 2% will apply for payments made by wire transfer. Fees are subject to change for treatments scheduled more than 90 days after the date of this notice.
- I will be your contact for scheduling your appointment date and time as well as helping you with travel logistics. We book up very quickly - once you have some idea when you want to arrive, please contact me first (before you make any other travel arrangements) so that I can ensure we have an available appointment time.
- Please go to: <http://www.cellmedicine.com/stem-cell-therapy-for-cerebral-palsy/> for more information on protocols, publications/studies and patient testimonials.

#### **Panama Questions and Answers**

Questions and Answers Time! (warning - very long post)

I Contacted Dr. Barnett at Panama and asked the following questions. She was really nice and was kind enough to answer all of them! I asked every question I could think of!

**\*\*Important note:** They are no longer infusing CD34+ Stem cells in Panama. The government has said they will need to HLA match them (very expensive) as they are a blood cell. So they are infusing ONLY mesenchymal cells. This may change in the future if the laws change.

**CD34+ Cells can migrate into the brain, create new blood flow pathways (angiogenesis)** allowing for brain healing, produce neurotrophic factors and possibly differentiate into brain cells. The ones infused at Duke are CD34+ cells. I assume because at Duke they just use whole cord blood, that there are very few mesenchymal cells in there.

**Mesenchymal cells(MSC) are the same type of stem cell found in the bone marrow.** They have low HLA on the surface compared to CD34+ and are less likely to cause an immune reaction as a result. They also migrate to the brain and produce angiogenic and neurotrophic factors that heal the brain and promote circulation.

The cord blood contains CD34 cells and a small amount of mesenchymal cells. What they do at Panama is to expand the mesenchymal cells (make more of them) as there is not a lot in the cord blood (cord blood has a lot of CD34+ though).

### **Questions and answers below:**

1) How long do the mesenchymal stem cells live in the body?

answer) They live in the body for around 6-8 months. As they are an adult stem cell, they do not transform into other cells and die after a normal cell lifespan. This is the time frame in which they do their work.

2) As mesenchymal stem cells may suppress the immune system is there a chance of increased infections or cancer after the transplant?

<http://bloodjournal.hematologylibrary.org/content/110/10/3499.full>

answer) We have not seen this clinically - in fact they have seen the opposite. We believe it modulates the immune system overall and have not seen infections increase.

3) I found a study that showed that MSC actually can have an immune memory, in patients with functioning immune systems (as opposed to patients on chemotherapy). This study states that the immunosuppressive effects of the msc may mask immune reactions and there may be something underlying if they are exposed again in the future .

<http://bloodjournal.hematologylibrary.org/content/108/6/2114.full.pdf+html>

answer) They have never seen any evidence of this happening after doing 200 stem cell transplants on people with cerebral palsy and 200 or more on autistic patients. They have never seen a single case of a rejection reaction. Even in the patients receiving the CD34+.

4) I found a study about expanding mesenchymal stem cells and that this process may increase the chance of those cells transforming into tumor cells The study said that karyotyping (genetic testing) of the expanded MSCs can prevent transfusing problematic cells. Do you karyotype your expanded cells?

<http://bloodjournal.hematologylibrary.org/content/110/10/3499.full>.

answer) I am not sure but if you email us we will ask the stem cell lab to answer this question for you as it is a technical one.

5) If you had your own stem cells what would you do?

answer) I would do the transfusion at Duke of CD34+ and then to Panama to do mesenchymal transfusion.

## **MORE QUESTIONS AND ANSWERS:**

Questions posed to and answered by Dr. Barnett at the Stem Cell Institute in Panama.

1) Will the stem cells our daughter receives be only from human umbilical cord blood/tissue or will she receive cells from other sources (bone marrow, etc.)?

As states in the acceptance letter, only umbilical cord cells will be used in the treatment.

2) What is the difference between cord blood and cord tissue? We didn't save her cord blood, but I'm curious as if there is there any advantage to saving cord blood vs. using cord tissue?

Cord tissue holds mesenchymal cells while cord blood holds cells called CD34+ cells.

3) I've read that you are no longer giving the CD34+ cells due to a government restriction. Is this a Panamanian restriction only or world wide? Can you explain why this restriction is in place? Is this a permanent restriction or do you expect the ban be lifted at some point in the future?

We are no longer giving CD34+ cells due to local regulations proposed by the hematologist in Panama. They believe that in order to use them, they have to be matched with the patient. Nevertheless, throughout all our years of experience, we have found that CD34+ cells, as well as umbilical tissue mesenchymal cells do not need to be matched to the patient because they do not have antibodies on their surface and therefore, they are not rejected. We are underway of getting this regulation abolished but until that time, we cannot use them in our treatments.

4) How does this CD34+ restriction affect the cocktail of stem cells that are injected? Will there be an increase of Mesenchymal cells injected or the same as previously?

Yes. Since we removed the CD34+ cells, we have compensated that amount of cells with more mesenchymal cells.

5) Do you expect any differences in results of the stem cell injections by not including the CD34+ cells? In other words, does the mix of Mesenchymal and CD34+ give better results?

We have been using the protocol without CD34+ in various patients and we have seen the same results. For this reason, we have confidently removed the CD34+ cells from the protocol.

6) Could you use CD34+ cells from the patient's own bone marrow to avoid any blood matching?

We do use them in patients over 15 years of age and adults but we are not currently extracting bone marrow on children.

7) What does HLA matching involve? If HLA matching is done, can donated CD34+ cells be used?



MediStem is not currently doing HLA matching.

8) How do you determine how many stem cells to inject (by the patient's weight or other criteria)? How do you determine the ratio of Mesenchymal to other cells (CD34+, etc.) to inject?

We determine the dose per age range and per kilograms of weight. We have already standardized protocols per age range, using the maximum effective dose per age group.

9) In our approval email, the only treatment option you listed is the 4 intravenous infusions. On your website, another option is mentioned of two intravenous and two intrathecal infusions. Are there advantages to receiving a mix of intravenous and intrathecal infusions rather than only intravenous infusions? What criteria do you use to recommend which of these options to use?

As stated before, there is option 1, 2 and 3. The treatment protocol recommended for your child is based on her age range. Option 2 is for children over 10 years of age, and Option 3 for children over 15 years of age.

10) What kind of testing do you do on the blood drawn on day 1?

We run general tests such as a complete blood count, glucose levels in blood, and also, we run infectious diseases tests on the patient such as HIV, Citomegalovirus, Chagas, Hepatitis A, B, C, VDRL, etc.

11) I've read that you encourage intensive therapy after stem cell injections are completed. I presume this is to encourage neuroplasticity while the stem cells are effective. Can you give further clarification as to how much therapy is recommended post stem cell treatment?

We will give the specific recommendations on the day of checkout of the patient and all recommendations regarding her specific condition.

12) My daughter had a neurology appointment last week. I specifically asked him if there was anything that could be done to encourage neuroplasticity or brain healing. He mentioned the only promising thing on the horizon is stem cells and it is in the early phases of clinical trials and at least 5 years away from being mainstream. In your opinion, does this time frame sound accurate?

Although stem cell therapy is a new treatment that has surged on the past 10 years, we have been treating patients since 2006. It is true that it is in the early phases of clinical trials in the US, but that is due to regulations of the FDA that has kept stem cell treatments "blocked". Little by little, FDA is starting to let clinical trials advance so maybe in 5 years, the treatments will be available in the US.

13) The neurologist further said that any place overseas implementing stem cells now and promising results is a scam (he specifically mentioned China and Russia). How do you respond to such allegations?

We cannot say if they are scams or not since we are not aware of the method, amount and viability of cells they use in their treatments. Nevertheless, it is to our knowledge that they use embryonic or fetal stem cells in their treatment. Here at Stem Cell Institute we are PRO LIFE and use adult stem cells. We are against the use of embryonic or fetal stem cells because these come from abortions and also, embryonic or fetal stem cells pose the risk of tumor formations.

14) From your follow-up studies, what kind of results are you seeing in CP cases? Do you find any differences from patients that have and have not received the CD34+ cells? How do you differentiate between normal development (even if delayed) vs. development/improvements from intensive therapies post treatment vs. results from stem cells?

As mentioned before, we have not seen difference between patients only using mesenchymal cells and children that were given also CD34+ cells.

Regarding the improvements, parents have reported that after the treatment, the children made improvements in different areas (depending on the child's limitation) in a mean time of 60 days. These improvements notably come from having received the treatment due to the rapidness of them.

THƯƠNG CHÚC BA MẸ VÀ CÁC BÉ NHIỀU SỨC KHỎE VÀ MAY MẮN!  
- PHƯƠNG HÀ -