

## I Matched, Not for Residency, but to Save a Life

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AS AN INTERN, it is easy to get caught up in the tedious everyday tasks of drawing blood, and checking lab results, repleting electrolytes, writing notes, calling consults, restarting diet orders, answering endless pages, etc. The repetitious nature of an intern's day can easily cause him or her to forget the original reasons for choosing this life.

After 4 months of this routine, I took a brief vacation. On my return, I discovered that I had a voicemail from an organization called the Gift of Life. As I listened to the message, I was stunned. "Hi, Jason. This is the Gift of Life calling. You might remember registering 9 months ago with us.... Please call us back.... It seems that you are a possible match."

A match! I couldn't believe it. I remembered registering with my wife one Sunday at a local synagogue for a bone marrow drive. I never thought I would ever actually be called, and certainly not this quickly.

I sat alone with my thoughts before calling back. Who could it be for? Would it hurt? Would I be able to find someone to cover me at the hospital? I thought about the person who needed my bone marrow and how he or she must feel: alone, scared, hopeful. I then thought about how I would feel if I were the one who needed the transplant, or if a family member or friend needed one. I immediately made the decision to help this person. The message reminded me of the reason I had become a doctor—to help people—and I recalled the Talmudic saying that so often echoes in my mind: "He who saves one life, it is as if he saved the entire world."

I picked up the phone and returned the call. The representative said, "Jason, you are one of four possible matches for a 26-year-old male with a recurrent lymphoma or leukemia.... That is all I can tell you." After unofficially accepting, I got another call a day later: "Jason, it turns out that you are the closest match compared to the other people. We don't have to do any further testing." I soon learned that a simple swab of my mouth had revealed a close genetic match. A simple "yes" on my part started the healing process.

Sadly, thousands of adults and children are diagnosed with blood-related cancers such as lymphoma and leukemia every day. The International Bone Marrow Transplant Registry reports that in 2002, approximately 20,000 transplants were performed in North America. Of the 7,200 allotransplants performed, more than 5,000 were for leukemia or myeloproliferative diseases. Worldwide, more than one-third of allogenic transplants are from unrelated donors (1). The National Marrow Donor Pool registry has over five million volunteer donors and performs more than 170 stem cell transplants a month. Many people in need of a transplant are unable to find a family member who is a suitable match, and must seek an unrelated volunteer donor through an international network of registries called Bone Marrow Donors Worldwide.

I registered with the Gift of Life Bone Marrow Registry. Gift of Life was created following extensive donor recruitment for Jay Feinberg, a young man who was dying of leukemia. It was the very last volunteer who turned out to be a match and saved Jay's life. Since 1991, almost 150,000 volunteers have registered with the Gift of Life. All bone marrow registries are linked anonymously statewide, nationally and internationally.

The first step of my donation process was deciding to go to a donor registration center in New York City. Registration included taking a Q-tip

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swab of the inside of my cheek; as an alternative, I could have given a blood sample. The tissue is then human leukocyte antigen (HLA) tested and its characteristics anonymously entered in a worldwide transplant registry. Every volunteer remains in the registry until the age of 61. Once identified as a potential match, the donor is asked to pursue further blood testing for "confirmatory typing." He or she is provided with additional information and given a complete physical examination.

Traditionally, we are taught about the painful process of donating bone marrow. As a recent graduate from medical school, I was aware of the possibility of donating bone marrow through peripheral blood. I soon learned that after receiving 5 Neupogen<sup>®</sup> injections, I could donate through peripheral blood stem cells (PBSC).

Traditionally, bone marrow donation takes place in an operating room setting, under local or general anesthesia. Using needle aspiration, bone marrow is taken from the iliac crest. Compared to the traditional method, the PBSC procedure is less invasive. I was offered and opted for PBSC. This procedure involves receiving daily Neupogen<sup>®</sup> injections for 5 days. The Neupogen<sup>®</sup> essentially mobilizes stem cells from the bone marrow to travel into the peripheral blood. There are some side effects, including flu-like symptoms and bone pain, but they usually disappear after the stem cells are donated. The actual donation is done immediately after the last Neupogen<sup>®</sup> injection. For 4–6 hours, the blood is filtered through a cell-separating machine, a procedure called apheresis. Upon completion, I was able to write a card to my anonymous recipient. And so, with wishes of luck and a speedy recovery, a courier took my stem cells to their recipient.

Prior to receiving the transplant, the recipient undergoes intense radiation therapy and chemotherapy to eradicate the malignancy. The patient then receives the stem cells intravenously; they migrate to the bone marrow and hopefully engraft to produce healthy cells.

Anyone can register with the National Marrow Donor Program<sup>®</sup> ([www.marrow.org](http://www.marrow.org)) or the Gift of Life Bone Marrow Registry ([www.giftoflife.org](http://www.giftoflife.org)). We, as members of the medical profession, should challenge ourselves to go beyond the Hippocratic Oath that we pledged and take part in this exciting, life-saving experience.

Each month I look forward to a call from the Gift of Life updating me on my anonymous recipient. The most recent update informed me that my recipient is in 100% remission, with 100% of my cells and no evidence of graft-versus-host response. Whoever you are, I wish you, and all recipients, the best of luck and a successful recovery. I am honored and fortunate that I was able to give you a second chance at life. I want to thank the Gift of Life, my colleagues at Mount Sinai, the doctors and nurses at New York Presbyterian, my family and my wife for being supportive and covering for me, and for making it possible for me to donate. It is an amazing feeling to know that a person is doing well with my cells. I would definitely do it again. And I believe most people would find it as rewarding as I have.

#### Reference

1. Loberiza F. Report on state of the art in blood and marrow transplantation—Part I of the IBMTR/ABMTR summary slides with guide. IBMTR/ABMTR Newsletter 10, no. 1 (Nov 2003), 7–10.