

3 November 2008

Dear Jake and Board Members,

I wanted to take this opportunity to thank you for your very generous support. When I first contacted Stomp Out Cancer last year, my goal was simply to be supportive of what your organization is doing. I never envisioned anything like this would happen. I'm amazed at what can develop from an innocent email!

I received my copy of Hope on Thursday, and I wanted to compliment you on a phenomenal recording! I listened from beginning to end three times in a row in my car, and each time I enjoyed it even more. I also love the note from Sue Lanman, and the picture of Ben is adorable! I'm so glad that worked out so well.

I am humbled that you have chosen to send the proceeds of your work to my laboratory. I would very much like to share with you some details of the project you are supporting and how exciting I think this work is becoming.

Our work focuses on Ewing's sarcoma stem cells. One of the hottest concepts in cancer biology these days is the idea of cancer stem cells. This is actually a pretty old idea, first proposed in the 1950's, but only recently have we developed the techniques that allow us to investigate these important cells directly. Back in the 1950's, leukemia researchers suggested that not all leukemia cells are the same – that there is a small group of leukemia cells in each patient that works like a stem cell: they can divide indefinitely, they can create copies of themselves, and they can create daughter cells that are more mature than the parent cells. The majority of leukemia cells are these more mature cells, and these cells are very sensitive to chemotherapy. The leukemia stem cells are actually very resistant to chemotherapy. When a patient is treated with chemotherapy, the more mature cells are killed and the patient enters remission. The stem cells, however, are not killed by the chemotherapy, and these cells eventually lead to relapse and the death of the patient.

Recently this concept has been applied to solid tumors, and it is pretty well accepted that breast cancer and brain tumors have stem cells in them. Our laboratory is trying to identify and study stem cells in Ewing's sarcoma. Our idea is that one of the reasons it is common for Ewing's sarcoma patients to enter remission, even patients whose cancer has spread before they are diagnosed, but so many patients have a relapse and die is because of Ewing's sarcoma stem cells that survive chemotherapy. We believe that if we can isolate Ewing's sarcoma stem cells, we will be able to discover their weaknesses and develop drugs that will kill them even if standard chemotherapy will not.

The majority of medical research in this country is funded by the National Institutes of Health through grants given to individual scientists like me. In the current economic environment, you can imagine how difficult it can be to obtain grants like this. Currently, only about 10% of grant applications are funded. It is therefore no exaggeration to say that the support of groups like Stomp Out Cancer is essential to the success of research

targeting rare diseases like Ewing's sarcoma. I am incredibly grateful for all of your support, now and in the future. I am eager to be able to send you updates on our progress, and hope that you are as excited as I am about our partnership.

Most sincerely yours,

David Loeb