

## AFC/SSSCR Bar Chart Project

### Research Form (Fill in the blanks, then delete extra forms)

Your Name	Date	Condition
Amanda Thompson	12/13/09	Macular Degeneration

1.

Official Title	A Study of an Encapsulated Cell Technology (ECT) Implant for Patients With Atrophic Macular Degeneration
Status of trial	Ongoing, but not recruiting participants
Sponsored by	Neurotech Pharmaceuticals
ClinicalTrials.gov Identifier	NCT00447954
Phase	Phase 2 Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00447954?term=macular+d+egeneration+and+cells&amp;rank=1">http://clinicaltrials.gov/ct2/show/NCT00447954?term=macular+d+egeneration+and+cells&amp;rank=1</a>
Purpose (paraphrase!)	To look at the safety and effectiveness of CNTF implants on vision in participants with atrophic macular degeneration
Procedure (paraphrase!)	An implant of human retinal pigment epithelium cells, both high dose, low dose, and a placebo group, given the ability to make CNTF and release it through the capsule membrane into the surrounding fluid.
Additional comments	Targets the dry type of AMD

2.

Official Title	Development of iPS From Donated Somatic Cells of Patients With Neurological Diseases
Status of trial	Ongoing, but not recruiting participants
Sponsored by	Hadassah Medical Organization
ClinicalTrials.gov Identifier	NCT00874783
Phase	Click to choose... Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show?term=macular+degeneration+and+stem+cells&amp;rank=1">http://clinicaltrials.gov/ct2/show?term=macular+degeneration+and+stem+cells&amp;rank=1</a>
Purpose (paraphrase!)	To develop human iPS cells from skin biopsies or patients hair to supply unlimited numbers of cells for transplantation.
Procedure (paraphrase!)	Human fibroblasts and maybe other human somatic cells may be reprogrammed into induced pluripotent stem (iPS) cells by the forced expression of transcription factors (1-5).
Additional comments	The cells produced will be used primarily for modeling diseases and drug discovery as well as basic research, and for developing the technology that may eventually allow the use of iPS cells for future transplantation therapy.

3.

Official Title	VEGF-Antagonism and Endothelial Function in Age-Related Macular Degeneration (AMD)
Status of Trial	Currently recruiting participants
Sponsored by	University of Zurich
ClinicalTrials.gov Identifier	NCT00727753
Phase	Phase 4 Click to choose...
URI. (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show?term=macular+degeneration+and+stem+cells&amp;rank=2">http://clinicaltrials.gov/ct2/show?term=macular+degeneration+and+stem+cells&amp;rank=2</a>
Purpose (paraphrase!)	To evaluate the effects of 2 intravitreal injections with Ranibizumab or Avastin on endothelial function in subjects with different types of macular degeneration.
Procedure (paraphrase!)	Giving intravitreal injections containing Ranibizumab or Avastin to patients with neovascular macular degeneration compared to dry AMD.
Additional comments	This study is just observing the effects of the injections.

## AFC/SSSCR Bar Chart Project

Your Name	Date	Condition
Garrett Michael Reid	12-13-09	HIV/AIDs

1.

Official Title	White Blood Cell Infusion to Treat HIV Infection
Status of trial	Recruiting Patients
Sponsored by	National Institutes of Health Clinical Center (CC)
ClinicalTrials.gov Identifier	NCT00559416
Phase	Phase 1
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00559416?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=1">http://clinicaltrials.gov/ct2/show/NCT00559416?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=1</a>
Purpose (paraphrase!)	To transfer the blood cell marker HLA-B*57 by a White Blood cell transplant from patients with, to patients without.
Procedure (paraphrase!)	Donors will undergo apheresis to separate WBCs from the blood. Recipients will undergo apheresis to obtain stem cells for possible use and will receive an infusion of white blood cells.

2.

Official Title	Carmustine, Etoposide, Cyclophosphamide, and Stem Cell Transplant in Treating Patients With HIV-Associated Lymphoma
Status of trial	Recruiting
Sponsored by	Beckman Research Institute
ClinicalTrials.gov Identifier	NCT00641381
Phase	Phase 1
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/study/NCT00641381?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=3">http://clinicaltrials.gov/ct2/show/study/NCT00641381?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=3</a>
Purpose (paraphrase!)	To study the effects of high doses of clinical drugs (for Lymphoma), with a small stem cell transplant to see its effect on HIV-associated Lymphoma
Procedure (paraphrase!)	Administer an autologous hemtopoietic stem cell transplantation and a peripheral blood stem cell transplantation.

3.

Official Title	Study of Total Body Irradiation in Combination With Allogeneic Peripheral Blood Stem Cell or Bone Marrow Transplantation Followed By Cyclosporine and Mycophenolate Mofetil in High Risk-Patients With Human Immunodeficiency Virus-1
Status of Trial	Recruiting
Sponsored by	Fred Hutchinson Cancer Research Center
ClinicalTrials.gov Identifier	NCT00010348
Phase	Phase 2
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00010348?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=7">http://clinicaltrials.gov/ct2/show/NCT00010348?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=7</a>
Purpose (paraphrase!)	To determine the safety of a total body irradiation and post-transplant cyclosporine and mycophenolate mofetil in high-risk patients with HIV-1.
Procedure (paraphrase!)	Total body irradiation and stem cell or bone marrow

4.

Official Title	Autologous Peripheral Stem Cell Transplant in Treating Patients With Non-Hodgkin's Lymphoma or Hodgkin's Lymphoma
Status of trial	Recruiting
Sponsored by	Masonic Cancer Center, University of Minnesota
ClinicalTrials.gov Identifier	NCT00345865
Phase	Phase 2
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00345865?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=13">http://clinicaltrials.gov/ct2/show/NCT00345865?term=HIV%2FAIDs+AND+Stem+Cell&amp;rank=13</a>
Purpose (paraphrase!)	This phase II trial is studying how well autologous peripheral stem cell transplant works in treating patients with non-Hodgkin's lymphoma or Hodgkin's lymphoma.
Procedure (paraphrase!)	To study the effects of stem cell transplants in patients affected with non-Hodgkin or Hodgkin's lymphoma.

## I Search

### clinicaltrial.gov

Most helpful website of all. Constantly provided the information that I needed for my research (even if it was the suggested page)

### Wikipedia.com

Useful for identifying what exactly a "Clinical Phase" is. Used for nothing else

### www.TreatMyHiv.com

Useful for figuring out just how wide the treatments are for HIV/AIDS

## AFC/SSSCR Bar Chart Project

Your Name	Date	Condition
Madison Hanten	12-12-2009	Tay-Sachs Disease

1.

Official Title	Treatment of Lysosomal and Peroxisomal Inborn Errors of Metabolism by Bone Marrow Transplantation
Status of trial	Ongoing, but currently recruiting participants
Sponsored by	Masonic Cancer Center, University of Minnesota
ClinicalTrials.gov Identifier	NCT00176904
Phase	Phase 2 Phase 3
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00176904?term=tay-sachs&amp;rank=8">http://clinicaltrials.gov/ct2/show/NCT00176904?term=tay-sachs&amp;rank=8</a>
Purpose (paraphrase!)	To determine the safety and efficacy of insertion of a normal donor's hematopoietic (blood forming) cells in patients undergoing a hematopoietic cell transplant for an inherited metabolic storage disease (like Tay-Sachs). The effects of bone marrow, peripheral blood, and umbilical cord blood will all be compared.
Procedure (paraphrase!)	<p>Before receiving the transplantation, subjects will be given Busulfan through an IV in the Hickman line 4 times a day for 4 days, Cyclophosphamide in an IV to the Hickman line once a day for 4 days, and Anti-Thymocyte Globulin IV through the Hickman line twice daily for 3 days. These three drugs are given in order to help the new marrow "take" and grow within the body of the recipient.</p> <p>On the day of transplantation, the donor's hematopoietic cells (bone marrow, peripheral blood, or umbilical cord blood) will be transfused through the central venous catheter.</p> <p>After giving hematopoietic cell transplant, subjects will then receive the drugs, cyclosporin and either methylprednisolone or Mycophenolate Mofetil (MMF), which are given to help prevent complications like the graft-versus-host disease and to decrease chances for rejection of the new donor cells.</p>
Additional comments	They will ultimately be analyzing the survival rates of patients, the change in neuropsychometric function, and the rates of transplantation complications.

2.

Official Title	A Phase III Trial of ALD-101 Adjuvant Therapy of Unrelated Umbilical Cord Blood Transplantation (UCBT) in Patients With Inborn Errors of Metabolism
Status of trial	Currently Recruiting patients
Sponsored by	Aldagen
ClinicalTrials.gov Identifier	NCT00654433
Phase	Phase 3 Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00654433?term=tay-sachs&amp;rank=12">http://clinicaltrials.gov/ct2/show/NCT00654433?term=tay-sachs&amp;rank=12</a>
Purpose (paraphrase!)	To test if the supplemental cells (ALD- 101), will increase the speed at which circulating blood cells/bone marrow can replenish to normal levels after a transplant. This would not only minimize the amount of time that a transplant patient would be at risk for infection and bleeding, but would also decrease the number of necessary RBC and platelet transfusions.
Procedure (paraphrase!)	Subjects will be given an extreme amount of chemotherapy in order to destroy the child's normal cells (including the bone marrow that forms blood cells) just before receiving the umbilical cord blood transplant. The cord blood transplant would ideally save the child's bone marrow from the negative effects of the chemo procedure. In the transplant itself, the child would be given 80% of a standard cord blood transplant, followed by 20% of asupplemental stem cell called ALD-101, given about 4 hours after the standard cord blood transfusion. The study will evaluate if these cells (ALD-101) will repopulate the bone marrow more rapidly after transplant.
Additional comments	Ultimately they hope to determine whether ALD-101 is a safe and useful addition to the dangerous process of cell transplants.

## 3.

Official Title	A Pilot Trial of Unrelated Umbilical Cord Blood Transplantation Augmented With Ex Vivo CytokinePrimed ALDHbr Umbilical Cord Blood Cells
Status of Trial	Currently recruiting patients
Sponsored by	Duke University
ClinicalTrials.gov Identifier	NCT00692926
Phase	Phase 1 Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00692926?term=tay-sachs&amp;rank=11">http://clinicaltrials.gov/ct2/show/NCT00692926?term=tay-sachs&amp;rank=11</a>
Purpose (paraphrase!)	To test whether transplantation of umbilical cord blood cells can be safely supplemented with a transfusion of just UCB cells that have been split by a cell sorter, and then infused a few hours after the standard transplant. This would hopefully increase the number of stem cells transplanted into the patient.
Procedure (paraphrase!)	A total of 26 evaluable patients that will all be given umbilical cord blood transplantations. 10 of the evaluable patients will be given ALDHbr freshly sorted cells (20% portion), while another 10 will be given ALDHbr sorted and cytokine primed cells (20% portion). 3 more patients will receive both a conventional cord blood unit, and a cord blood unit that has been ALDHbr sorted. The last 3 evaluable patients will receive both a conventional cord blood unit, and a cord blood unit that has been ALDHbr sorted AND cytokine primed. The sorting and priming will be done on day 5.
Additional comments	Ultimately they hope to determine whether isolated or split/manipulated Umbilical Cord Blood is more effective, as well as the health implications afterwards (infection, graft vs. host disease, etc.)



### I Search:

I started out by Googling Tay-Sachs, as I know very little about beyond that fact that my grandpa's brother died of it. First I used wikipedia to get a general background on the disease before then going on to various organization websites or government websites on the subject. The most touching and helpful website I visited was for The Cure Tay-Sachs Foundation (second URL from the bottom). Not only did it talk about what the disease is and its prevalence, but it also talked about direction that is being taken in hopes of curing the disease. There is also a fundraising section, and the in depth and passionate focus of the website lends itself very well to gaining support for this disease that so many are generally unaware of. The first URL listed for the National Tay-Sachs and Allied Diseases Association also proved to be especially useful. It even demonstrated through two videos what the healthy cell does versus what the Tay-Sachs infected cell does. This was extremely helpful because it is very difficult to imagine what is happening within our bodies on a cellular level. While searching for images of Tay-Sachs cells, I found the website for the Tay-Sachs Gene Therapy Consortium, which is a group of scientists and doctors from Auburn University, Cambridge University, Harvard University, and Boston College focusing and applying knowledge from animals testing to human trials in hopes of curing this disease. I thought that this was extremely interesting, and it even relates to the clinical trials on regenerative medicine that we examined for the Bar Chart within this project. Overall I was shocked by the terrible effects of this disease and how many people are potentially carriers, when it is talked about so little by the public.

### Source

<http://www.ntsad.org/>

<http://ghr.nlm.nih.gov/condition=taysachsdisease>

[http://en.wikipedia.org/wiki/Tay-Sachs\\_disease](http://en.wikipedia.org/wiki/Tay-Sachs_disease)

<http://www.ninds.nih.gov/disorders/taysachs/taysachs.htm>

<http://www.mayoclinic.org/tay-sachs-disease/symptoms.html>

<http://www.tay-sachs.org/taysachs.php>

<http://019221f.netsolhost.com/carrierstats.shtml>

<http://www.who.int/genomics/public/geneticdiseases/en/index2.html>

[www.tsgtconsortium.com/](http://www.tsgtconsortium.com/)

## **Injury to spinal cord resulting in loss of mobility or feeling**

### **Frequent causes:**

#### **Trauma:**

**Car Accidents, Gunshots, Falls**

#### **Disease**

**polio, spina bifida, Friedreich's Ataxia**

### **Affects:**

#### **CNS**

### **two types of injuries:**

#### **Complete:**

**no function below the level of the injury; no sensation and no voluntary movement.  
Both sides of the body are equally affected**

#### **Incomplete:**

**some functioning below the primary level of the injury**

**may be able to move one limb more than another, may be able to feel parts of the body that cannot be moved, or may have more functioning on one side of the body than the other**

**[http://www.spinalinjury.net/spinal\\_map.jpg](http://www.spinalinjury.net/spinal_map.jpg)**

#### **Affected parts :**

#### **Cervical Injuries:**

**usually result in quadriplegia**

**above the C-4 level may require a ventilator for the person to breathe**

**C-5 injuries often result in shoulder and biceps control, but no control at the wrist or hand. C-6 injuries generally yield wrist control, but no hand function. Individuals with C-7 and T-1 injuries can straighten their arms but still may have dexterity problems with the hand and fingers.**

**-diaphragmatic pacemakers**

#### **Thoracic:**

**paraplegia, with the hands not affected. At T-1 to T-8 there is most often control of the hands, but poor trunk control as the result of lack of abdominal muscle control. Lower T-injuries (T-9 to T-12) allow good trunk control and good abdominal muscle control. Sitting balance is very good. Lumbar and Sacral injuries yield decreasing control of the hip flexors and legs.**

**Other effects:**

**SCI also experience other changes. For example, they may experience dysfunction of the bowel and bladder,. Sexual functioning is frequently with SCI may have their fertility affected, while women's fertility is generally not affected.**

**low blood pressure, inability to regulate blood pressure effectively, reduced control of body temperature, inability to sweat below the level of injury, and chronic pain**

**STATS:**

**pproximately 450,000 people live with SCI in the US. There are about 10,000 new SCI's every year; the majority of them (82%) involve males between the ages of 16-30. These injuries result from motor vehicle accidents (36%), violence (28.9%), or falls (21.2%).Quadriplegia is slightly more common than paraplegia.**

**When a SCI occurs, there is usually swelling of the spinal cord. This may cause changes in virtually every system in the body**

**85% of SCI patients who survive the first 24 hours are still alive 10 years later. The most common cause of death is due to diseases of the respiratory system**

**second leading cause of death is non-ischemic heart disease**

## AFC/SSSCR Bar Chart Project

### Research Form (Fill in the blanks, then delete extra forms)

Your Name	Date	Condition
Kyle Hatashita	12-13-09	Spinal Cord Injury

1.

Official Title	Autologous Bone Marrow Derived Cell Transplant in Spinal Cord Injury Patients
Status of trial	Completed
Sponsored by	Cairo University
ClinicalTrials.gov Identifier	NCT00816803
Phase	Phase 1   Phase 2
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00816803?term=Stem+Cell&amp;cond=Spinal+Cord&amp;rank=3">http://clinicaltrials.gov/ct2/show/NCT00816803?term=Stem+Cell&amp;cond=Spinal+Cord&amp;rank=3</a>
Purpose (paraphrase!)	<b>To test the safety of autologous bone marrow derived cell transplants, with hypothesis that it will promote neural regeneration.</b>
Procedure (paraphrase!)	Autologous bone marrow transplant
Additional comments	Only for people with severe SCI.

2.

Official Title	Hematopoietic Stem Cell Therapy for Patients With Inflammatory Multiple Sclerosis Failing Interferon: A Randomized Study
Status of trial	Recruiting Participants
Sponsored by	Northwestern University
ClinicalTrials.gov Identifier	NCT00273364
Phase	Phase 3   Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00273364?term=Stem+Cell+%2B+MS&amp;rank=4">http://clinicaltrials.gov/ct2/show/NCT00273364?term=Stem+Cell+%2B+MS&amp;rank=4</a>
Purpose (paraphrase!)	To compare the effectiveness of FDA drugs and Stem Cell therapy in repairing de-mylenization (damage) of CNS due to multiple sclerosis
Procedure (paraphrase!)	Autologous hematopoietic stem cell transplantation will be performed
Additional comments	

3.

Official Title	Derivation of Induced Pluripotent Stem Cells From an Existing Collection of Human Somatic Cells
Status of Trial	This study is ongoing, but not recruiting participants.
Sponsored by	Hadassah Medical Organization
ClinicalTrials.gov Identifier	NCT00801333
Phase	Click to choose...   Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00801333?term=%22Stem+Cell%22+%2B+%22Spinal+Cord%22&amp;rank=9">http://clinicaltrials.gov/ct2/show/NCT00801333?term=%22Stem+Cell%22+%2B+%22Spinal+Cord%22&amp;rank=9</a>

Procedure (paraphrase!)	cells of the human body.
Additional comments	Experimental Relates to SCI's by making more feasible options for cell availability

4.

Official Title	Rituximab, Methotrexate, Procarbazine and Vincristine Followed by High-Dose Chemotherapy With Autologous Stem-Cell Rescue in Newly-Diagnosed Primary CNS Lymphoma (PCNSL)
Status of trial	recruiting participants
Sponsored by	Memorial Sloan-Kettering Cancer Center
ClinicalTrials.gov Identifier	NCT00596154
Phase	Phase 2 Click to choose...
URL (clinicaltrials.gov)	<a href="http://clinicaltrials.gov/ct2/show/NCT00596154?term=%22Stem+Cell%22&amp;cond=CNS&amp;rank=5">http://clinicaltrials.gov/ct2/show/NCT00596154?term=%22Stem+Cell%22&amp;cond=CNS&amp;rank=5</a>
Purpose (paraphrase!)	To determine safety of new treatment of combination Brain Radiation and chemo therapy, along with stem cells to prevent damage due to radiation and chemotherapy.
Procedure (paraphrase!)	experimental
Additional comments	

**December 13, 2009: 21:55**

**I begin my search of information on "Spinal cord injuries.**

**Sites used:**

**<http://www.google.com/>**

**December 13, 2009: 21:59**

**Clicked on search result:**

**[http://www.spinalinjury.net/html/\\_spinal\\_cord\\_101.html](http://www.spinalinjury.net/html/_spinal_cord_101.html)**

**[http://www.ninds.nih.gov/disorders/sci/detail\\_sci.htm#133573233](http://www.ninds.nih.gov/disorders/sci/detail_sci.htm#133573233)**

**December 13, 2009: 22:06**

**Gathering very useful info from above site. Specifics about injury.**

**This image especially:**

**[http://www.spinalinjury.net/spinal\\_map.jpg](http://www.spinalinjury.net/spinal_map.jpg)**

**December 13, 2009 22:07-22:13**

**Checking Facebook:**

**Sites used:**

**<http://www.facebook.com/>**

**December 13, 2009 22:13-22:27**

**Found stats on SCI's**

**Not surprised, but simultaneously not aware that suicide is the third most common cause of death. Very Sad...**

**Sites used:**

**[http://www.spinalinjury.net/html/\\_101\\_continued.html](http://www.spinalinjury.net/html/_101_continued.html)**

**December 13, 2009 22:30**

**Beginning search for Stem cell treatments of Spinal Cord injuries. I know that there are clinical trials ~~going on~~ at UCI.**

*Proposed,*

**Ran out of coffee =[**

**December 13, 2009 22:35**

**Looking up Clinical Stem Cell Treatments:**

**<http://clinicaltrials.gov/ct2/show/NCT00273364?term=Stem+Cell+%2B+MS&rank=4>**

**<http://clinicaltrials.gov/ct2/show/NCT00816803?term=Stem+Cell&cond=Spinal+Cord&rank=3>**

**<http://clinicaltrials.gov/ct2/show/NCT00596154?term=%22Stem+Cell%22&cond=CNS&rank=5>**

**<http://clinicaltrials.gov/ct2/show/NCT00781872?term=Stem+Cell+%2B+MS&rank=1>**  
**Cant Find Irvine one. Must not be in Clinical stages yet.**