**Specific Updates requested for existing wiki pages**

For all wiki pages that you are creating from existing pages, remember the following:

1. I expect these to reflect your own research! They should be considerably longer than the existing page since you will be doing your own research and can also include the information from the existing page. I expect that about 50% of this page will be new (non-overlapping) with the current page.
2. Keep the good stuff from the existing page so that these become excellent resources for future students. For example, lots of the existing figures are good. Keep them and add your own as well.
3. Keep the old author names, and also add your name to the page, so that future people accessing these websites know all the people that have contributed to this work.
4. These update requests are not the only improvements you can make, they are only items that I specifically want. Great sites will obviously do much more than I outline here.
5. Don’t delete the link to the old pages; just make your new page with a new title and link. I will go through and archive old pages later.

**Treating spinal cord injuries with stem cells**

1 page exists:

<http://www.openwetware.org/wiki/Treating_Spinal_Cord_Injuries_With_Stem_Cell_Therapy%2C_by_Nicole_Raia>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* The existing figures are a little blurry, and the text is hard to read. I would suggest you replace these where you can.
* Re-center or place the existing figures so there isn’t so much white space surrounding the figure. Integrate them into the text better.
* For older figures you keep, and new ones you integrate, make the figure legend separated a bit, so that it’s less blurry.
* Improve the references at the end of the page, make them the right format (see the link I give on the top of the “wiki pages” page.
* Update this with new research that has happened over the past two years.
* Find clinical trials (clinicaltrials.gov) with any new ongoing trials in this area.
* Discuss other stem cells other than embryonic that could be used here.
* Find a way to link to the other wiki textbook pages when possible (i.e. when stem cells are introduced, artificial vertebrae, etc.)

**Vascularization**

1 page exists:

<http://www.openwetware.org/wiki/Vascularization_by_Jemima_Lamothe%2C_Brittany_Forkus%2C_and_Julia_Tomaszweski>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Fix the “media:mmc3.ogg” links.
* Update this with new research that has happened over the past two years.
* The headers are in strange font sizes, correct this.
* Find clinical trials (clinicaltrials.gov) with any new ongoing trials in this area.
* Some of the existing figures are a little blurry, and the text is hard to read. I would suggest you replace these where you can.
* This page really needs some sort of overall schematic of what a blood vessel consists of. Discuss differences between a capillary, arteriole, artery, vein, etc. These each have different uses and consist of different cells: discuss.
* Page needs a short description of lymphatic vessels, and how they are different from blood vessels.

**Graft vs. Host Disease**

1 page exists:

<http://www.openwetware.org/wiki/Graft_vs._Host_Disease%2C_by_Marco_Yeung>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Some of the existing figures are a little blurry, and the text is hard to read. I would suggest you replace these where you can.
* Update this with any new research in this area over the past two years.
* The “causes” and “history” section need references at each of the bullets.
* Add to the future outlook section
* Add information about how these immunosuppressants work, mechanistically.
* Add a picture for how T-cells work in the immune system, and how this impacts graft vs. host disease.
* What types of people are particularly susceptible to GVH disease? Does it relate to age or any pre-existing conditions?

**The actin cytoskeleton**

1 page exists:

<http://www.openwetware.org/wiki/The_Actin_Cytoskeleton_of_the_Cell_by_Jeremy_Keys>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Most figures are good, but they are oddly sized with respect to the pages. Make sure these are sized well to make the page look nicer.
* The figure on actin polymerization isn’t legible, replace or resize.
* Find a video on actin polymerization to add.
* Find other diseases that would be affected by actin defects.
* There are lots of drugs out there that target actin polymerization, some of which are on this page. Please add.
* Find a picture that has actin, microtubules, and intermediate filamants in it, and point out the actin and the specific role it place in the cell compared to the others.
* There are several engineering researchers out there that work on building computational models to understand actin polymerization. Find this work and add it to the page.

**Pacemakers**

2 pages exist:

<http://www.openwetware.org/wiki/Pacemaker%2C_by_Chris_Carr>

<http://www.openwetware.org/wiki/Pacemakers%2C_by_Anthony_LaViola_and_David_Triffletti>

* Integrate the existing info, references, and figures into a new page, with both author names.
* Some of the existing figures are a little blurry, and the text is hard to read. I would suggest you replace these where you can.
* The page needs some added discussion on battery technology, which is a major limitation. Add some work on this. You could add research from other areas to discuss how batteries, in general, could be improved, and how that could then be applied to pacemaker technology.
* Find a video of the natural pacemaker of the heart, and add it to the page.

**Glucose Sensors**

1 page exists:

<http://www.openwetware.org/wiki/Glucose_Sensors>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Most figures are good, you can keep many of these and add to them with any new ones you think are helpful.
* The history part needs more detail in each bullet.
* Update this with new research that has happened over the past two years.
* More information on what companies create each of these different products would be helpful.
* Expand on the “future research” section.
* Improve the references at the end of the page, make them the right format (see the link I give on the top of the “wiki pages” page.

**Electrospun biomaterials**

1 page exists:

http://openwetware.org/wiki/3D\_Bioprinting\_by\_Thanh\_Nguyen\_and\_Luke\_Blauch

* Integrate all the information, references, and figures from this page into a new page, with all three author names.
* Most figures are good, but they are oddly sized with respect to the pages. Make sure these are sized well to make the page look nicer.
* Make sure your page has the course website header.
* Update this with new research that has happened over the past two years.
* Many different types of biomaterials are in 3D printing. If you can, link to these materials on other existing wiki pages made by others.
* Can this be done at UMass? Find out.

**Tissue Engineered spleen**

1 page exists:

<http://www.openwetware.org/wiki/Electrospun_Materials:_By_Emma_Klinkhamer>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Most figures are good, but they are oddly sized with respect to the pages. Make sure these are sized well to make the page look nicer.
* References are needed in the history section.
* What materials can and can’t be electrospun easily? Discuss this in the page.
* Update this with new research that has happened over the past two years.
* Compare synthetic electrospun materials with what the native extracellular environment of the cell looks like.

**Genentech**

1 page exists:

<http://www.openwetware.org/wiki/Genentech>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Improve the references at the end of the page, make them the right format (see the link I give on the top of the “wiki pages” page.
* Find a link to where Genentech lists job openings and add this to the page somewhere.
* Some figures are hard to read and need updating.
* Update this with new research that the company has published over the past two years.

**Bioreactors in Tissue Engineering**

1 page exists:

<http://www.openwetware.org/wiki/Bioreactors_for_Tissue_Engineering%2C_by_Varun_Chalupadi_and_Anthony_Sanford>

* Integrate all the information, references, and figures from this page into a new page, with both author names.
* Add a section on bioreactors for bacteria, yeast, and algae cultures.
* The history section needs references.
* Find companies that make bioreactors and add their info and links to the page.
* Update this with any new research in this area over the past two years.