



If you know the television series Doctor Who, then you probably know that having "The Doctor" propose to you outside of his time traveling Tardis is the best thing that can ever happen to you! To top that, my one and only love, Bryce Sorem, was the real man underneath the Doctor Who outfit who built the Tardis himself! Well, with a little help from my brother-in-law, Mike.



It was Saturday, October 3rd. Brett and Big Al had just arrived in NYC for the weekend, "just because they got cheap tickets." We planned to go to a few wineries upstate New York in the Hudson Valley Region since it was a beautiful fall day. Then Bryce broke the sad news that he had to go to work, but would meet us there afterward. Of course, this news wasn't surprising to me since Bryce is a chef. So my cousin and her boyfriend joined us, and off we went to Stoutridge Winery, a place that Bryce and I had visited early on in our relationship.

As we pulled up to the entrance, all I saw was the pond, fountain,

and lush green everywhere- it was beautiful. We pulled a bit closer to the winery, and that's when I saw this huge blue box. At this point I was very confused and I got quiet. I began thinking, 'that is definitely the Tardis, but how?' I walked over to it and saw an envelope with my name beautifully written, like calligraphy (thank you Jessica Rios!). I opened it and started reading one of the Doctor's





quotes, and that was when The Doctor, Bryce opened the doors of the Tardis. First I thought, 'that liar! He's not at work!' And then I realized, this wasn't just some awesome surprise Bryce planned; this was a proposal.

Bryce got down on one knee and asked me to travel the world with him. Of course I said 'yes'. Later, we joked about how I still had never said 'yes' to marrying him because I only said 'yes' to traveling the world with him- haha. He pulled me into the Tardis, closed the door, and slipped the most beautiful ring on my finger. When he re-opened the door, our families stood before us! I couldn't make out faces right away, but I remember the first person that I rec-

ognized was Francie, and that's when I cried tears of joy. My father, mother, sister, brother, brother-in-law, cousin, aunt, Francie, Lyle, Big Al, Brett, and Jessica....How were they all there!? Well duh, Francie ordered a party bus! Now engaged to the love of my life, I was able to immediately share it with family. Such a special day with everyone I love!





quote (thank you Francie). After champagne and some wine tasting, off we went to a Doctor Who themed restaurant close by. Who would've thought? Francie again! Bryce and I were even interviewed by some podcast. It really felt like a movie at this point. After more wine and Whoooomus (hummus), the party bus took us back to my parent's house where we continued the party. More friends and family showed up, and the day just kept on going.

I know that many people helped to make October 3rd 2015 a most spectacular day, but I also know that all of it is thanks to Bryce. He's the guy who has written me a love note with a Doctor Who quote every morning for the past two years. He's the guy who spent his days off building the Tardis. He's the guy who picked out the most perfect ring all on his own. He's the most wonderful and special guy, the only guy who could think to plan the elaborate most special proposal that he did. He's my guy, and I'm so happy that we get to spend our years together traveling the universe!

I love you Bryce Sorem. Thank you for being the amazing, loving person that you are.





# A Shift from Teaching Students to Mentoring Teachers

by Bridget McCarthy (soon to be Sorem)

It was college graduation day in Scranton, PA, 2007. Prior to the ceremony, I went to see the college professor who served as a mentor to me. After thanking her for all of her guidance and support, I asked her what the heck I was supposed to do with an English major. As any nun would suggest she said, "Go to Africa and teach the children English." And so I did.

After six months of teaching in Cameroon and seven years of teaching in New Jersey, I now mentor teachers at the charter school I've worked at for the past five years. As part of a Rutgers University grant, I'm essentially the "head coach" of the teachers (had to throw in a sports reference for Bryce!). This means I observe their lessons, analyze their students' data, and prepare them for their formal state observations. The ultimate goal is to help them and their students grow and improve throughout the school year.

I love my new job, but I do miss the students. There's nothing like seeing a struggling teen get his or her first 'A'. However, the best part about this new job is that I feel like I can still help out the students if I do a good job coaching their teachers. In the end, everyone can be happy this way! Oh yeah, and I can't forget that instead of spending hours grading all of those lovely and not so lovely essays day after day, I can actually have some spare time to plan my wedding!

Life always seems to come full circle time and time again. The college professor/nun that inspired me to drop everything and teach in Africa is somehow still part of my life. She was a mentor to me, and now it's my turn to be a mentor to the teachers. And let's face it, aren't we all mentors in some way? I just get paid for it!





### **Eye Troubles and My Luck**

By Bruce Hartman

I'm pretty well convinced at this point that if weren't for bad luck I wouldn't have any luck at all! It has been 3 or more years since I had a new eyeglass prescription and in that time I have had multiple eye surgeries to decompress my eyes so I figured I would go in for an eye exam. Pretty innocuous thing to do right? Oh contraire! Not in my world! The first thing the optometrist checked was eye pressure before moving on to the lens machine. While checking the eye pressure for the fourth time she finally announced to me that my pressure was sky high and that I would need to see an ophthalmologist. So two

days later I was in the ophthalmologist's office with a guy that specializes in glaucoma. After checking me out he told me I have acute angle glaucoma and would require a laser procedure on both eyes.

The first laser surgery was performed within two weeks of that visit to the ophthalmologist which was last week on Sept 30th. This laser procedure creates a new drain in the eyeball just above the colored part of the eye by burning a hole through the eyeball. This balances the pressure from one side of the lens to the inside of the eye to keep from having an emergent attack and the potential of losing sight. The next laser surgery was a week later (yesterday) on Oct 6th after I finished my IVIG infusion. It will do the same thing which is to create a drain hole. It hurts like hell but luckily only for a few hours.

#### But...All I wanted was a new pair of glasses!

It was also determined by the ophthalmologist that my eyes are drying out as a result of previous eye surgeries that damaged my lower eyelids so blinking doesn't distribute oils and tears adequately. That is why I look like I'm crying all the time. I was referred to a plastic surgeon specializing in eyes. So...what started as a simple eye exam for eyeglasses has resulted in four surgeries being scheduled, two of which are behind me now.

Tomorrow, October 8th at 5:30 AM will be the first eyelid surgery wherein they will cut along the inside of the eyelid and open it up like an envelope then insert skin from a cadaver to reshape the eyelid. This is supposed to be a 2 to 3 hour surgery, so I'm told, after which she will sew my eye shut for a week and put a patch over it. This surgery is done under general anesthesia which carries a little more risk for me due to my other heart and health issues. A month later they will do my other eye so hopefully I will stop being such a crybaby!

I guess I should consider myself lucky that they found the glaucoma since it can lead to blindness if left untreated. But damn...did I mention that all I wanted was a new pair of glasses?! I went on Zenni Optical' web site and ordered the glasses the day I got the prescription. Now I have had the new glasses for only a couple weeks and they will probably be useless after the surgeries and everything settles back down...oh well...I guess I can start over again!

Today is October 9th the day after the eyelid surgery... We checked in at 5:30AM and after prep and pre-meds they rolled me in for surgery at 7:30. It took 2 ½ hours and according to the surgeon, went very well. The recovery however didn't go as planned. The post-op pain was exceptionally bad. They were dosing me very heavily with fentanyl and dilaudid to help with the pain but that caused me to stop breathing over and over which set off the alarm and seemed to get everyone puckered up. They kept yelling at me to take a breath but I was having a hell of a time staying awake. They were going to admit me late in the afternoon but once I was able to stay awake I was much more stable. Around 4:00PM they finally let me go home. In a month or so I will go back again for the other eye.

Hopefully, in the upcoming months, I will be able to get another eyeglass prescription and get a new pair of glasses made...certainly a long and circuitous path for what most people are able to accomplish in just an afternoon! This is why I am convinced that if it weren't for bad luck I wouldn't have any luck at all!

## Birdy's Perspective.

Well, I don't know anything about this being a piece of cake. Just sitting in a hospital and knowing that they are going to carve a piece of skin on my face is enough to make me want to run right out of there. How Bruce continues to go through painful operation after painful operation is beyond me. And he never loses his cool or complains. He just steps up to the plate to take his medicine. Oh my goodness, you all have no idea of the courage he has in the face of some pretty horrible circumstances.

I cringed as the anesthesiologist was questioning Bruce's medical record as they prepared for surgery. We all know that putting Bruce under is not a simple process. Suffering from chronic heart failure and having had multiple embolisms makes him a challenging patient to say the least. The surgery went much longer than they anticipated, which always makes me nervous, but the doctor came out smiling and declared that it was a huge success. Bruce held up well and his doctor would be happy to do the other eye in a month or so. Yeah! I did a happy dance and went skipping into see him.

That is where the joy got punched out of my lungs. There he was lying in pain and looking as miserable as a person can look. Poor guy. And there was nothing I could do to help him. They only let me visit him for 10 minutes. 10 minutes on the hour?? So what's a girl to do in-between? I think our editor would be proud because I decided to take myself for a walk.

So I head up the hill towards my home and kept on walking in the 90 degree heat wave that San Diego so nicely set out for me. What was I thinking? Well, Listy, my right hand girl, had said that she could come and hang with me at any moment. So I figured that I could call her and she would pick me up as I started to expire from the heat. I called her 20 minutes into my walk but got no answer. I figured that she was out doing lunch duty and at the worse, I could count on was an AC ride back to the hospital once I got home. No luck. Listy was not picking up. So I trekked wearily back down to Kaiser after picking up a refreshing bag of frozen grapes and some cubes of cheese (not a bad walking snack if you ask me).

The walk was invigorating and you know what mom says..."You can live to be 90 if you walk like I do." Per-

sonally, I am not sure if that is such a good thing but nonetheless, I kept walking. As for Listy, let's just say her career choice as an Uber driver is not looking very good. By the time I returned to the hospital....2 minutes to 2:00, I discovered that they had taken the visitors in already and I had missed my 10 minute visit. I about cried since I had to run the last ½ mile when I realized that my ride plans had not panned out.

I think the volunteer saw the desperation in my face because before I knew it, she had me escorted back to see Bruce. That is when the nurse who was so nicely caring for Bruce, told me that he was not doing so well and that they now wanted to keep him for the night. UGH! Anyone who knows me well would understand that a night alone is like a death sentence.

Again, kindness was reached out to me because the nurse, sensing my sadness, did not kick me out after 10 minutes. He let me stay by Bruce's side the rest of the day. As we were talking, he said that he remembered helping us the last time Bruce was in the ER. And his buddy nurse, Brian, also had come over to say hello because he so nicely remembered us from other visits. Hmmmm...I can't decide if being well known by recovery and ER nurses is good, but in this case, it helped me get what I wanted.

As Bruce grinned and bared the pain, his oxygen levels improved. And the good news was that they decided he was breathing well enough to release him back to my expert care! So there you have it; the true story from the girl that wasn't influenced by drugs and saw the whole thing first hand.

Bruce is an amazing patient. He never complains or asks too much. He pushed me out the door the next day to go to work, because he never wants me to be cramping his style by over nursing him. I never get to say enough how much I admire and love this man. His courage and remarkable strength puts all of my aches and pains to shame. And the most amazing part of this story is that he is willing to do it all again! Way to go Bruce Hartman! And you can count on me being right by his side. And so ends Birdy's perspective on Bruce's surgery.

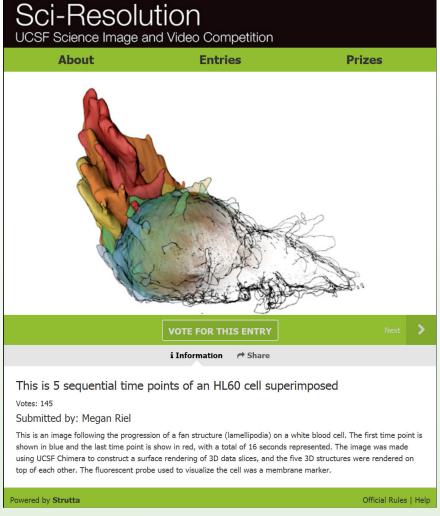
## News From Megan Riel

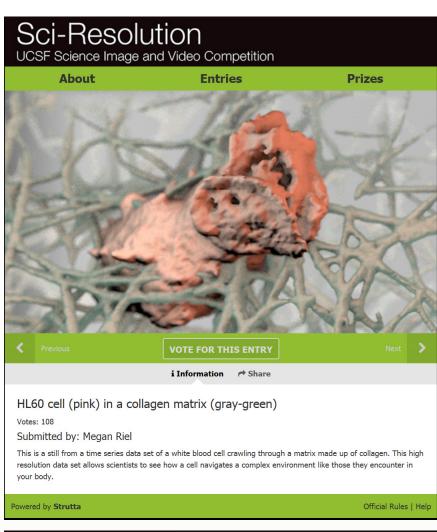
One of my projects right now is a collaboration with a lab that studies how cells propel themselves. Many cells in your body are pretty stationary, you can think of them like pants; once they reach their place of purpose, like your skin layer they're going to stay there until they die. But there are other cells, like white blood cells, that have to move quickly to sites of infection, and your life depends on them being able to accurately and quickly navigate your body.

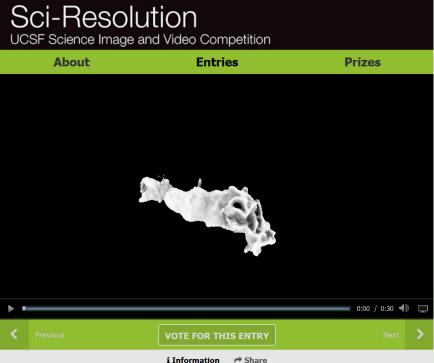
However, we still don't really know how they move themselves and how they make decisions about which way to go. Imagine filling a plastic bag up with Jell-O, water balloons, and some sticks, and then engineering your bag to transverse a forest through tree branches to hunt flies.



Obviously a weird analogy, but hopefully one that can give you a little understanding of how incredible is it, that cells can move at all, let alone direct themselves to wherever the bacteria is.







HL60 cell in a collagen matrix

Votes: 116

Submitted by: Megan Riel

This is a time series of a white blood cell crawling through a three dimensional matrix (the matrix is not visible). It is about 10 times faster than real time; the cell was imaged about every 1 and and a half seconds. The microscope used to image the cell has allowed researchers to see details of a cell crawling that were not discernible by earlier technology.

One approach to study how they accomplish this is to watch them move; the same way you'd study any creature. The difficulty is we can't watch cells in their natural environment (inside your body) so the researchers basically built a playground for them (the gray-green branches in the first image). Another challenge is to visualize the cells with high level of detail without damaging them. In order to do this, a new microscope was developed that is much gentler on the cells so we can keep taking pictures of them over time without killing them. The person that developed this microscope, Eric Betzig, won the noble prize.

My jobs with the project are visualization--converting the data from its raw form to something humans can visually interpret--and also data analysis. The fun part of this project, in addition to being wonderfully challenging, is that the data has an inherent beauty to it. As such, I entered some of my visualizations into an image contest at UCSF. Unfortunately, the voting system was a little strange; you can vote every 24 hours, and they didn't start the voting at the same time, so people who entered the contest early got more time to collect votes.

But I really appreciate everyone who voted, it means a lot to me to have such a supportive family, and it helps to get my work out since I'm in an unusual field. I'm still hoping for one of the Judges prizes. I hope this gives you a little bit more understanding of what I've been up to, and what these images are.



Here's a picture of Liam at his new school -- Look who I spied walking around campus today...he is so, so cute walking with a cute little girl by his side....a ladies man at 4! Go Liam! Just had to share! Aunt Birdy



Boston Heart Diagnostics Opens Branch Office in Boulder CO

Michael Riel Mehan works from Colorado for Boston Heart Diagnostics which, not surprisingly, is located in Boston. Responding to the expanding contributions of the Bioinformatics Group, Boston Heart Diagnostics opened a branch office in Boulder CO this summer. This move facilitates the work of Bioinformatics Group Chief, Mike Mehan. With these new facilities, Mike and his staff will now be able to better support Boston Heart's novel treatment of cardiovascular disease. With his team nearby, Mike is better able to construct computerized statistical models of diagnostics, reports, and personalized, scientifically designed nutrition and lifestyle programs that have the power to change the way healthcare providers and patients communicate about heart health.



Some fun travel stats. In the past 39 days I have been out of town for 16 of those days. I have been to or through 10 different airports, been to a wedding and a proposal, Of the 23 days I was in town I worked 21 of those days. My motto work hard, play hard has never been so true!

I went to a hair show in New Orleans, took a train through the beautiful state of Oregon, had a taco Tuesday in Los Angeles, played with hair at David and Megan's wedding, and was able to be at the place and time that Bryce chose to ask Bridget to be his wife. I feel so energized, exhausted and deliriously happy all at different times. I am today in Phoenix with Lyle for his AFSA (American Fire Sprinkler Association) convention, to witness him be installed on the board of directors with many prestigious and influential greats in his industry. I'm sure he will submit a story for next month's newsletter of all the excitement.

I would like to kick off the coming year of celebrations for Bryce and Bridget, as well as Brian and Drew. It will be so much fun to have more Riel Weddings to look forward to. Brian and Drew are thinking about sometime in the middle of September and the Sorem/McCarthy wedding will take place somewhere in NYC/Jersey probably in October of 2016. There will definitely be parties in SD for all who cannot attend, so we can all share in these momentous occasions.

Thanks Bryce and Bridget for making my life so happy!

