Gimley Gets Surgery!!!

By Dr. Donna Bouley (“Dr. B”)

Dr. B’s dog Gimley, a 10 yr old mixed breed dog (1/2 long haired German Sheppard, ¼ lab, ¼ Portuguese water dog) had a devastating knee injury while running around the Eucalyptus Groves on Campus on August 26, 2012. Gimley came out of the woods “3-legged-lame” which means he was completely non-weight bearing on his left hind leg. After a quick trip to the Emergency Clinic in Palo Alto – my worst suspicions were realized – he had ruptured his cruciate ligaments (ligaments that are inside the knee joint and provide stability to the knee). I put in a quick phone call to Dr. Andy Staatz, a boarded Veterinary Surgeon (who was a speaker at our recent Pre-Vet Expo III), Gimley was again examined on Tuesday Aug 28 and was kept at Andy’s clinic to have surgery later that day (it is nice to have some connections – otherwise it could have been weeks before his surgery could be performed…).

The surgery is called a TPLO (Tibial Plateau Leveling Osteotomy). Actual repair of a damaged or ruptured Cruciate ligaments in a large dog can be very difficult as it is hard to tell a dog not to use his leg… So the TPLO eliminates that problem by re-angling the knee joint. The proximal tibia is cut through and the bone is plated (with screws) back onto the lower part of the tibia at a different angle. This stabilizes the joint without the need for ANY internal ligaments! The damage to Gimley’s knee was some of the most severe Dr. Staatz had ever seen! Both the Cranial and Caudal cruciates were completely torn in half, and one of his menisci was torn and folded over. But Gimley was still released to me the next day after surgery, with a long and very strict rehabilitation program and lots of medications (a Fentanyl patch, additional pain meds, antibiotics). I had to keep him confined in a small room, only walk very short distances, yet force him to put his foot down (he preferred to hop!). He was the best patient ever!! Never yelped or whined, remained calm in his “confinement”, and gradually (after a couple weeks) we were walking 10-15 minutes at a time. His follow-up radiographs on October 27th (just 2 months post op) showed complete healing of his tibia. He and I are back to our daily 30-40 minute jogs and he is happily chasing after squirrels again (though he has slowed down a tad). I have included pictures of his before and after radiographs. Keep in mind – the actual damage to the cruciates doesn’t show up on the radiographs since they are soft tissues. However – you can appreciate the plate placement on the tibia and the progression of healing.
Fig 1) Pre-Op rads. White arrow – femur, red arrow – knee joint, yellow arrow – tibia

Fig 2) Post-Op rads. The metal plate that reconnects the two pieces of the cut tibia is very radiodense (bright white).
Gimley’s successful recovery was due to my following the rehabilitation instructions TO THE LETTER! He barely has a limp now. The scariest potential complication with this type of injury in a large dog is that if surgery is delayed and the dog has to limp for an extended period of time – they could injure the other knee. The surgery is very expensive – but 2 surgeries would cost twice as much!!
Brief Notes from Pre-Vets

Name: Stephanie Brockman  
Yr of Graduation: 2010 (Harvey Mudd College)  
Home State: New Hampshire

I’ve been shadowing Gabe (Gabe McKeon DVM, DACLAM, staff veterinarian) here at Stanford since last winter and I volunteer at Mid-Peninsula Animal Hospital in Menlo Park assisting the techs and doctors. I have been there since last October. I can do basic physicals, nail trims, draw up vaccines, and just be an extra set of hands for whatever procedure is being done. My highlight thus far has been assisting a doctor with a chest tap on a cat.

Name: Rachel Berkowitz  
Yr of Graduation: 2016  
Home State: Oklahoma

Last spring and summer, from April through September, I was an animal care intern at the WildCare Foundation in Oklahoma. WildCare is a wildlife rehabilitation facility that takes in all injured and orphaned native wildlife. I was primarily responsible for raising baby songbirds, including administering medical care. I also participated in hand-feeding baby mammals and giving them basic medical care. Additionally, I was responsible for initial examinations and placement when animals came in, and taking phone calls from the public. I worked with adult mammals and birds, including raptors, and got handling, restraint, and capture experience with these animals as well as the babies. I participated in releases of successfully rehabilitated animals. One of the most memorable baby birds I raised was a roadrunner, which was successfully released just before I came to Stanford. The facility also received over 300 young Mississippi Kites who jumped from their nests due to the heat, over a period of two months. This required a massive effort by all at the facility to successfully raise and release them. I also shadowed the facility’s veterinarian once a week. One of the most difficult medical undertakings during the summer was caring for several fawns with broken legs. I got to see several casts taken on and off, and the gradual improvement of the fawns over several months.

I am currently beginning research at Pandemonium Bird Sanctuary, in Los Altos Hills, on language acquisition in parrots. I will also participate in raising the babies of several endangered bird species at the facility in the spring.
This past summer, I worked as a technician assistant at the nearby Adobe Animal Hospital in Los Altos, CA. This enormous facility is equipped with the tools necessary to treat a variety of patients, with departments including radiology, chemotherapy, surgery, orthopedics, dentistry, and 24/7 emergency care. I worked 8 am to 7 pm, which were standard hours for many of the veterinarians and technicians there. Primarily I helped the technician assistants with their duties, such as cleaning exam rooms, restocking syringes, gauze, and other materials, restraining animals for vaccines and other procedures, and maintaining accurate client records. Although at first I was disappointed with the simplicity of my daily tasks, I began to realize the importance of the skills I was learning and really focused on the experience I was gaining through observation. For example, I made friends with the radiologist and coerced him into teaching me how to read the radiographs! When I broke my foot several months ago, I was able to apply these skills in a totally different, if not unfortunate, way.

In addition to observing the daily routine of the technicians, I soaked up information from the plethora of vets at the hospital. In fact, at least five vets were on site at any one time, either seeing clients in routine appointments, doing ultrasounds, working in the emergency care unit, or performing surgeries. A unique aspect of Adobe’s philosophy as a private animal hospital is the inclusion of the client in most, if not all, medical procedures. Adobe invites its clients to be present and proactive in their pets’ care, which could sometimes mean clients scrubbing into their pets’ surgery, or simply restraining their pet during a vaccine. Due to this transparency between the clients and the hospital, I noticed that both techs and veterinarians were able to communicate complicated medical situations to clients and were therefore willing to answer my questions about cases that came through.

Some cases that I remember included an egg-bound snake that required surgery, a foreign body ingestion surgery in which a new veterinarian learned a new technique on the spot from an older vet, a dwarf pig who refused to eat, and a canine leg amputation gone awry. In all these cases, I was able to observe the case from beginning to end, with an initial assessment, further testing, and eventually an attempt at a treatment. The leg amputation gone awry was particularly intense, as part of the procedure went wrong and five vets and many technicians were working to stop deep internal bleeding. It unfortunately wasn’t successful, but I felt lucky that I was able to witness a demonstration of the teamwork necessary in performing high-level medicine.
Name: Ellen Kettler  
Yr of Graduation: 2015  
Home State: Pennsylvania

This summer I got the exceptional chance to shadow an Equine Veterinarian. Not only is this field my “dream job” but the vets I shadowed were some of the nicest, most knowledgeable people I have ever worked with. Each day while driving to the barns, the vet would tell me about the cases we were about to see, whether it was a new patient, an emergency, a standard vaccine, a lameness...everything. While at the appointment, I did my best to stay out of the way, but the vets were very diligent about including me. I was taught to assess a horse for lameness, take x-rays, give injections, tell if a nasogastric tube had been correctly placed in the stomach, read an ultrasound, drain an abscess, and so much more. At the end of the day, the vet would ask me if I had any questions about the cases we had seen that day. It was a great experience and one I encourage others to pursue.
For this past summer, I spent my entire month of July at the University of Tennessee College of Veterinary Medicine (UTCVM). During my four weeks, I completed four, one week rotations across numerous departments of the school. While there, I was able to shadow countless fourth-year veterinary students and to learn from the world-class faculty at the university. Not only was I able to interact with ferrets, rabbits, hawks, cows, and more, but I was also able to entrench myself in a veterinary school environment for a month and learn all that I could.

Working with Tsavo the lion and the wonderful staff at Tiger Haven was one of the most memorable experiences I have had in my pre-vet career. Tsavo developed a mass on his upper-left jaw that was diagnosed as melanoma. Dr Ed Ramsey and his team at UTCVM decided to treat Tsavo with radiation therapy to shrink the mass before attempting to remove it. Tsavo came in for another round of radiation therapy during my first week in the program. Being able to be in with the vets as they examined him decided how to best go about giving Tsavo the treatment was a once in a lifetime experience. A reporter from a local newspaper was also visiting at the same time and captured the whole treatment on camera. Seeing such a unique case as a lion with melanoma and being able to learn all I could was a terrific experience for me this summer!
Alumni Corner

Name: Corinna Esdorn  
Yr of Graduation: Stanford ‘09  
Home State: New York (but I prefer California)

I shadowed two veterinarians in mixed-animal practices in Jackson Hole, Wyoming. It was a totally different animal experience than any I’ve had before, because the veterinarians were such a huge part of the community there. I’m currently volunteering at Palo Alto Animal Service’s Spay and Neuter Clinic, getting to know the amazing people who work in animal shelters and all they do.

Monika (Gramckow) Huss DVM  
’05 BS Biology, ’06 MS Biology

Hi Stanford pre-vets!

There is a Starbucks in Tressider? Freshmen no longer take IHUM? The football team wins more games than they lose? My how times have changed…

This July I returned to “The Farm” to join the Stanford Veterinary Service Center as a resident in Laboratory Animal Medicine. It is great to be back at Stanford to reunite with mentors, friends and join a great team in the Comparative Medicine Department.

While an undergrad, I was also in Dr. B’s Pre-Veterinary Club, and I was fortunate to work as an assistant in her necropsy lab. After graduation in 2006, with a plan to ultimately enter equine medicine, I matriculated at Western University’s College of Veterinary Medicine. As I quickly learned however, most things in life never go exactly as you planned. Over the next four years, I came to the realization that the opportunities in veterinary med are far more diverse, challenging, and exciting than I knew.

After completing veterinary school in 2010, still somewhat undecided with regards to my future career plans, I entered small animal practice with a goal of strengthening my clinical skills in an independent setting. While a great experience, it gave me the time to reflect on my time at Stanford and Western, my long-term career interests, and ultimately the perspective to realize the next step in my career was entering laboratory animal medicine. I subsequently took a position at UCSF working for the IACUC (Institutional Animal Care and Use Committee), which solidified this plan and gave me the opportunity to work alongside some truly inspiring scientists and clinicians.
I didn’t believe her at the time, but many years ago, Dr. B predicted I would one day end up involved with research and she was certainly right. While in hindsight it was a long road to get to this point, I realize now each step was crucial in realizing in which field I will be the happiest and where I can have the greatest impact. With regards to laboratory animal medicine, I enjoy the daily challenges encountered in treating a vast array of species, developing complex animal models and being a crucial part of regulatory oversight. I could not be more satisfied with my career choice, and fortunately, horses continue to be a part of my life, only as friends instead of patients.

Justin Krumm  
Twain Harte Veterinary Hospital & Mono Way Veterinary Hospital - Sonora, CA  
June-July, 2012 - 6 weeks

This summer, I was hosted by a veterinarian in the mountains of Sonora, CA (near Yosemite National Park). I had the opportunity to work with two veterinary clinics. The first one was a small animal practice, Twain Harte Veterinary Hospital. I spent the majority of my time working in the treatment room with technicians and shadowing veterinarians in their appointments. The vets and vet techs really let me get my hands dirty. I helped with animal restraint and got to perform injections, blood draws, and nail trims. I also placed catheters and expressed anal glands. I aided dentals, ultrasounds, radiographs, and surgeries by monitoring vitals and positioning the animals.

At the same time, I was shadowing vets a couple days a week at a mixed animal practice called Mono Way Veterinary Hospital. I was trying to build up my large animal experience, so I mainly would shadow there on the days that the vets were doing large animal outcalls. With the large animals, I helped to do radiographs, flush wounds, and do hoof trims. I aided and observed some donkey castrations. Most fun though was screening goats, sheep, pigs, and steers for a 4-H fair, checking for secretions, unsightly cuts, etc. that may prevent them from being housed with the other animals. Other than the work with large animals, I also spent a little time in the animal clinic itself doing similar small animal procedures as those I did in Twain Harte.

It was a really great summer, not only because of the veterinary experience gained, but also because it was up in the mountains, and so I still got plenty of opportunities to go high country hiking with some spectacular views. Now that I’ve returned to the Bay Area after the summer, I am working at the VCA San Francisco Veterinary Specialists a Service Coordinator. It is a large multi-specialty referral vet clinic, so I get exposed to plenty of different procedures such as CT scans and rhinoscopies.
Hello SUPVC!

This summer and fall I interned with Allied Whale in Bar Harbor, Maine. Since its establishment at the College of the Atlantic in 1972, Allied Whale has studied the Gulf of Maine's marine mammals, including whales, dolphins, porpoises, and seals, as well as marine mammal populations in several other areas. Allied Whale is also a marine mammal stranding center. It responds to injured or dead marine mammals and sea turtles found between Rockland, Maine, and the Canadian border. While seals compose the vast majority of strandings, Allied Whale usually gets called on about one larger animal each year. One of the highlights of my time with Allied Whale has been responding to the two large whale strandings Allied Whale worked on this summer season - a humpback whale calf and a 50 foot adult male sperm whale. In both cases we did a full necropsy, and each was an incredible experience.

A lot of logistics are involved in dissecting such large animals. The sperm whale was approximately 50 tons, and with that presented a lot of challenges. Allied Whale had to find a place to do the necropsy, move the animal there, obtain some very heavy lifting equipment, and get enough hands on board to take care of things ranging from media relations to knife sharpening for a very smelly, 16 hour endeavor. For both the humpback and sperm whale I was part of the cutting team. Flensing knives in hand, we got knee and shoulder deep in the animal to sample tissues and collect all the bones, which will be cleaned and articulated for museum displays. Whales have such incredible anatomy - the enormous scale of their bodies and their degree of adaptation to a fully aquatic existence are fascinating, and it was incredible to see and feel things like vestigial pelvic bones and the huge and strange spermaceti organ. The close-up view of the whales' entire anatomy gave me an understanding of these animals I never had before. It was definitely worth the smelliness.

In addition to working with the stranding team, Allied Whale interns spend time at the College of the Atlantic's remote offshore research station, Mount Desert Rock (or "the Rock"). This three acre island 25 miles off Bar Harbor is a platform for whale observation and other projects involving the large numbers of seabirds and seals that live there. Another big part of the internship is working on a whale watch vessel, photographing and recording marine mammal sightings and behavior as well as completing deck-hand duties. With these diverse responsibilities, Allied Whale's internship offers a
broad educational experience and the flexibility to focus on what interests you most between all its ecological research and the stranding program. I've learned so much and would recommend interning here to anyone with a passion for marine mammals. Feel free to contact me if you're interested or would like to hear more about Allied Whale - my email amy.kirkham@gmail.com.

Hope things are great back at the farm!
Future Vets Rewarded by Morris Animal Foundation

Veterinary Students Recognized for their Contributions to Wildlife Health Research

March 9, 2012/ORLANDO —Morris Animal Foundation recently awarded prize money to three aspiring veterinarians in recognition of the animal health projects they completed to improve the health and well-being of wildlife. The prizes were awarded at the Foundation’s wildlife scientific review meeting held in Orlando from June 6 to 10.

Each student was part of Morris Animal Foundation’s Veterinary Student Scholars (VSS) program, which gives students hands-on research experience early in their veterinary career with the hope that they will consider advanced research training. Through the program, veterinary students or non-veterinary graduate students receive stipends of up to $4,000 to participate in clinical or basic animal health and/or welfare research. The students then present their projects in a poster competition for cash prizes.

First place was awarded to Mary Thurber of the University of Wisconsin for characterizing plasmodium and hepatocystis communities among primates in Kibale National Park, Uganda. Along with the recognition, Thurber received a $2,500 prize.

(Mary Thurber ’10 is former member of the SUPVC at Stanford – Congratulations Mary!!)

Future Veterinarians…

Here is the final result of our crop of "SUPVC" vet school applicants and where they will start vet school this fall (2013). Six of the 7 are Stanford grads, and they are all first time applicants – so 100% acceptance!

Kate Fernhoff (’10) – UC Davis
Erica Morgan (’12) – UC Davis
Corinna Esdorn (’09 I think) – UC Davis
Stephanie Brockman (Harvey Mudd grad who has been working in a medical school lab as a technician and became involved with the pre-vet club) – UC Davis
Clare Sherman (’12) – Cornell (also accepted to Tufts)
Alexander Hicks-Nelson (’12) – Tufts
Justin Krumm (’12) – U Penn (also accepted to Tufts, U of Illinois and U of Melbourne)

Congratulations to you all – good luck and we couldn’t be more proud of you!!