



IBNS News

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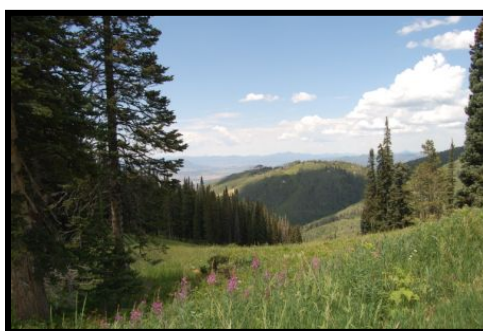
Melanie A. Paquette, Editor

IBNS 20TH ANNUAL MEETING: STEAMBOAT SPRINGS, COLORADO, USA, MAY 24-29, 2011

By the Local Organizing Committee: Robert Spencer, Kelly Lambert, Jodi Lukkes, & Karen Stevens

Steamboat Springs is a charming Historic town [elevation 6728 ft (2051 m)] located in the north central portion of Colorado in the heart of the Rocky Mountains. Although in recent years the town has become especially famous for its exceptional downhill skiing in winter, the town has long been famous for its namesake—natural hot water springs. The town was founded in 1884. It was originally a spiritual destination for Ute Indians who sought out the medicine springs and a frequent destination for miners from the nearby Hahn’s Peak gold mines [30 miles (48 km) away] who came to town for supplies, recreation and recuperation in the Hot Springs. With the addition of train service in 1909, Steamboat Springs became a popular tourist destination. Given these historic roots, Steamboat Springs, in contrast to some of Colorado’s other popular ski resorts, has much more to offer than just winter-time skiing. In addition to the surrounding scenic mountain splendor, downtown Steamboat Springs is a lively town that supports a population of ~10,000 residents in addition to its many visitors. The character of the town largely resides in its many historic buildings, which house many excellent restaurants and shops. It is well worth checking out the shops to

see the innovative pottery, glass works and wood carvings of local artisans. The town runs adjacent to the Yampa River and has within it many small parks. Moreover, there is a 7 mile (11 km) multi-use paved trail flanking the river that is a great venue for walking, biking, or bird watching; late May is prime season to see migrating warblers and returning regional breeding birds.



Recommended activities:

- Old Town Hot springs, located in the heart of downtown includes two large water slides, a climbing wall, an Olympic-sized pool and lots of deck space for hanging out.
- Strawberry Park Hot springs [7 miles (11 km) from town] is a series of bathing pools carved out of a hot spring-fed mountain stream that provides more of a “wilderness experience” while soaking in hot springs.
<http://www.strawberryhotsprings.com/2005/>

- Fish Creek Falls [4 miles (6 km) from town] is handicap accessible and a must-see for everyone visiting the region; at this time of year the Falls are especially thunderous.
- Yampa River Botanic Park, located on the edge of town, is a great setting for viewing the seasonal wildflowers, birds and animals.
http://steamboatsprings.net/departments/parks_recreation/parks/botanical_park/

Of course, soaking up the scenery and wilderness experience at Steamboat Springs is only the icing on the cake of the excellent IBNS scientific program!

The Sheraton Steamboat Resort is a highly acclaimed recently remodeled luxury resort located at the base of the Mt. Warner ski mountain. The Resort is ~1.5 miles (2.4 km) from downtown. The Steamboat free shuttle bus connects the resort with downtown and other regional spots. The shuttle runs daily from 6:30AM to 11:30PM and there is a free hotel shuttle by appointment.

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IBNS ORGANIZATION

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USA: Larry Reid, Byron Jones, & Mark Kristal

EXECUTIVE COORDINATOR

Marianne Van Wagner

Phone: 1-830-796-9393 or

1-866-377-4416 (toll-free within US)

Email: ibns@ibnshomepage.org

www.ibnshomepage.org

2011 IBNS TRAVEL AWARDEES

POSTDOCTORAL FELLOWS

- Dr. Lissandra C. Baldan Ramsey, Yale Univ, New Haven, CT USA
- Dr. Laurence Daniele Coutellier, NIMH, Bethesda MD USA
- Dr. Eimeira Padilla, Univ of Texas at Austin, Austin, TX USA

GRADUATE STUDENTS

- Amanda A. Braun, Univ of Cincinnati, Cincinnati, OH USA
- Andrew R. Burke, Univ of South Dakota, Vermillion, SD, USA
- Richard Chu, Drexel Univ College of Medicine, Philadelphia, PA, USA
- Amy E. Clipperton Allen, Univ of Guelph, Guelph, Ontario, CANADA
- Vaibhav Gaur, Panjab Univ, Chandigarh, INDIA
- Hilary B. Gerstein, Univ of Wisconsin-Madison, Madison, WI USA
- Geetha Kannan, Johns Hopkins Univ, Baltimore, MD USA

UNDERGRADUATE STUDENTS

- Manoela Viar Fogaca, School of Medicine of Ribeirao Preto, Ribeirao Preto, Sao Paulo, BRAZIL
- Fernando Midea Cuccovia Vasconcelos Reis, Univ of Sao Paulo, Ribeirao Preto, Sao Paulo, BRAZIL
- Kerisa Lea Shelton, Northern Arizona Univ, Flagstaff, AZ USA
- Kalpana Subedi, Morgan State Univ, Baltimore. MD USA

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Weather: Spring will be in full swing in late May, and the average daily high and low at this time of year are 70 °F (21 °C) and 35 °F (2 °C), respectively. In general, days are mostly sunny at this time of year, however, if a storm rolls through, snow/sleet is still possible.

Getting there: Yampa Valley Regional Airport (Hayden/Steamboat Springs, code HDN) is approximately 25 miles (40 km) west of Steamboat Springs (30-45 min by car), while Denver International Airport (code DEN) is approximately 150 miles (241 km) away (3-4 hours by car). IBNS has arranged for discounted ground transportation for IBNS participants through a local shuttle company, Go Alpine. For a discounted rate, make your reservations in advance through the link at the bottom of the IBNS Annual Meeting webpage: http://www.ibnshomepage.org/annual_mtg11.htm. See their website www.goalpine.com for complete and up-to-date shuttle schedules. Currently, shuttles are leaving the Denver airport at noon, 4:00 pm, and 9:00 p.m. Allow 45 minutes to deplane and get your luggage. Shuttles from Steamboat Springs back to Denver airport leave at 6:00 am, 10:00 a.m., and 3:00 p.m. If you plan to leave on Sunday, May 29 (like most participants), please allow extra time for traffic.

Many attendees will opt to fly into Denver International Airport and then take either a shuttle bus or car rental to Steamboat Springs. Although the drive from Denver

International Airport to Steamboat Springs is approximately 3.5 hr, the scenery along the entire trip is stunning. The Rocky Mountains have received record levels of snow this winter, so mountain peaks and passes will still be snow-covered. The snow-melt will be high, so watch for the many waterfalls along the highway as it winds its way through some narrow canyons. This is also a time of year when big horn sheep and mountain goats can be seen grazing near the mountain highways. If you are staying in the region for a few extra days after the conference, consider returning to Denver via the scenic Trail Ridge road that bisects Rocky Mountain National Park. This is the world's highest continuous highway; snow plows usually have the road ready for summer on Memorial Day.

Travel Services: Need help with your travel arrangements? Four Seasons Tours is offering IBNS participants a special rate of \$35.00 per transaction. Four Seasons Tours has been located in Austin, Texas, for 16 years and issues corporate, group and individual tickets. Sonnie Barham, Owner, states that her company values client service and they will do their best to meet the travel needs of the IBNS members. This service is especially useful if there is a problem on a trip, as they are often able to resolve problems that cannot be addressed when booking through an online service. Brad Noakes has been assigned to personally assist our group. However, if he is not available, you can speak to Sonnie. Their after hours service can be reached at 1-800-639-8622; use code 3AX0. The daytime number is 512-328-2483.

FIRST-HAND EXPERIENCES OF THE MARCH 11 JAPANESE EARTHQUAKE By Yasushi Kiyokawa and Tatsuya Kobayashi

On March 11, the Japanese nation experienced the fourth-strongest earthquake in the world's history (9.0 magnitude), which shook almost all of Japan. First-hand accounts of the earthquake are presented by IBNS member Dr. Yasushi Kiyokawa, Ph.D. and his graduate student, Mr. Tatsuya Kobayashi.

Dr. Yasushi's story: I was working at my desk in our lab in the University of Tokyo. Suddenly, I felt lateral vibrations with slow and moderate amplitude. Everyone realized it was an earthquake but did not take it very seriously because the slow vibrations meant that the epicenter of the earthquake was far away. However, the quake became stronger and stronger. Our lab is located in a building (made from reinforced concrete) that is connected to another more strongly reinforced building (made from concrete-encased steel beams) at every floor. We often used to joke that our building would collapse during a large earthquake and that we would need to escape to the other building. This time, it was no joke. Most of us rushed to the other building because the amplitude increased to the point that we thought our building would collapse. We held on to whatever we could, including each other. It was an unusual situation; normally, an earthquake lasts about 10–20 seconds, but this one seemed to be never-ending. Later, we found out it had lasted for more than two minutes.

After the quake, we found that the damage to our lab was limited, thanks to earthquake-resistant attachments on the shelves. No rat cages had fallen from the shelf in the colony room. Surprisingly, most rats behaved as if nothing had happened. I realized that the cage transfers required for daily care or experiments

would seem to be a much bigger 'earthquake' for them. Because we expected aftershocks, we went outside the building with our belongings. At an open space in the campus, we first learned about the terrible earthquake in the Tohoku region from a TV news story on a mobile phone. This was the first time I had appreciated this function of Japanese mobile phones. However, that was only the beginning. During our stay in the open area, we experienced three strong aftershocks within one hour. After this series of earthquakes, I could not go home because all train services had been suspended. So, I became one of more than three million commuters stranded in Tokyo. Some colleagues, especially those with small children, decided to walk home, even if it took more than six hours. Every area of pavement was crowded with such individuals. Traffic in every street was heavily jammed. Under these conditions, I decided to stay at the university with two colleagues.

By this point, TV news crews had gradually gathered information about the Tohoku region, but we still had no information about the tsunami zone. Fortunately, one of us had a battery charger for a mobile phone so we could watch TV news all through the night. I was finally able to communicate with my family despite the poor quality of voice and e-mail service on the mobile phone. During the night, we continued to receive many Earthquake Early Warning (EEW) alerts on the mobile phone and experience many aftershocks. We spent a sleepless night. The next morning, I checked the train situation and went to my parents' home in Yokohama to try to get 'social buffering'. I stayed there for two weeks to prepare for additional strong earthquakes.

Mr. Kobayashi's story: At the time of the earthquake, I was enjoying my spring vacation. I was playing badminton with my friends in a gym about 500 m [0.3 mi] from the Pacific coast in Chiba, about 70 km [43.5 mi] east of Tokyo. When we felt the quake, we clumsily, but quickly, rushed to an open area outside the gym and stayed there for a while. Then, we moved to the upper floors of a reinforced concrete building as instructed by an announcement from speakers that had been set near coastlines as preparation for accidents at sea and tsunamis. Because of a power outage and poor cell phone reception, we were unable to get any information about the earthquake, which meant that we did not take the situation very seriously. After going back to our hotel, many of us enjoyed dinner and pleasant conversation in a dark room, as if we were having fun on an overnight visit during a school trip or camping. Electric power was restored around midnight. We saw the TV news and learned for the first time how grave the situation was. Fortunately, no big tsunami had reached our coast. Train services were still suspended the next day, so we had no choice but to stay one more night at the hotel. I finally got home to Kawasaki after a great struggle.

After the earthquake: The situation became clearer and clearer with regard to how strong the earthquake had been, how badly the tsunami had damaged the Tohoku region, and how serious the situation at the Fukushima nuclear plant was. This information caused panic-buying in Tokyo of gasoline, batteries, certain foods, and water. In addition, electricity was restricted due to the



Tatsuya Kobayashi and Dr. Yasushi Kiyokawa enjoy a cherry-blossom viewing party with friends and colleagues at Ueno Park.

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damage to many power plants, resulting in scheduled blackouts and suspension of train services. Many EEW alerts were still being sent out preceding the earthquakes, causing many individuals to experience 'phantom quakes'. I was surprised at the power of 'auditory fear conditioning' in pets belonging to my colleagues and myself, the pets appeared to have been conditioned to

show fear responses to the EEW alert sound.

As you know, the Fukushima nuclear plants were damaged by this disaster. Many people are struggling to deal with this problem, including Mr. Kobayashi's father, who is a fireman and has been trained for specific disasters, including nuclear hazard. He was sent to the Fukushima plants and worked to stabilize the plants under dangerous conditions

(radiation in the area was about 1000 mSv/h). Thanks to his hard work and that of others, the plants appear to be stabilizing, but it is too early to know for sure.

Conclusion: Since the disaster, everything in Tokyo has been recovering at a rapid pace. A new business and school year started this April, which accelerated the recovery processes. Although we still need to save electricity, most people have returned to normal life. For example, we have enjoyed a cherry-blossom viewing party at Ueno Park. However, many people in the Tohoku region are still forced to stay in shelters. People from around the world have kindly taken action to help those most afflicted by the disaster and restore the affected areas; this kindness is very much appreciated. The important thing now may be continuity; we must continue to do what we can to repair the damage caused by this disaster now and in the near future.

Editor's note: registration fees for the 2011 IBNS meeting were waived for all IBNS members from Japan.

MEMBER NEWS

Dr. Lissandra Baldan Ramsey, Ph.D. established the paradigm of pre-pulse inhibition in mice in the lab where she is completing her post-doctoral fellowship in the Department of Psychiatry at Yale in New Haven, Connecticut, USA. Lissandra published her results in *Neuroscience*: Baldan Ramsey et al. Lesions of the dorsomedial striatum disrupt prepulse inhibition. *Neuroscience*. 2011;180:222-8.

Dr. Taunjah Bell, Ph.D. has been promoted to a permanent, tenure-track position of Assistant Professor of Psychology at Jackson State University, Jackson, Mississippi,

USA. Taunjah has also published the following book: Bell, T. P. (2010). *Vagus nerve stimulation and anxiety*. Bloomington, IN: iUniverse.



Dr. Aaron Ettenberg, Ph.D. received the 2011 Outstanding Graduate Mentor Award from the Academic Senate of the University of California at Santa Barbara, California, USA. This career award

recognizes faculty whose mentoring and training of graduate students is considered exemplary. Aaron is a Professor in the Department of Psychological & Brain Sciences.

Dr. Mark Geyer, Ph.D. received the second biannual Bleuler Prize, which is bestowed by the Heffter Research Center of the Psychiatric University Hospital (where Bleuler worked when he invented the term "schizophrenia") in Zürich, Switzerland in recognition of an individual who has made innovative and lasting contributions to the area of schizophrenia or closely related consciousness research. Mark received the Bleuler Medal and a

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monetary prize at the Bleuler Symposium in Zürich in October of 2010, where he gave a talk entitled, "Translational Approaches to Development of Treatments for

Schizophrenia: Beyond Psychosis" Mark is a Professor of Psychiatry and Neurosciences and Vice Chair for Scientific Affairs in Psychiatry at the University of California, San Diego, California, USA.

Dr. Robin Kanarek, Ph.D. has been named interim Dean of the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy beginning July 1, 2011. Robin is the John Wade Professor in the Department of Psychology at Tufts University in Medford, Massachusetts, USA.



In January of 2011, **Dr. Stephen Kent, Ph.D.** was appointed to a 3-year term as Head of the School of Psychological Science at La Trobe University, Melbourne (Bundoora), Victoria, Australia. Steve is also an Associate Professor at the School, which has 3000 undergraduate students and over 100 post-graduate students on 3 campuses.

Dr. Allan Kalueff, Ph.D. has published 2 edited books in the past year, including "Zebrafish

Neurobehavioral Protocols" and "Zebrafish Models in Neurobehavioral Research" (Humana Press, 2010). He is publishing two new edited books, "Zebrafish Behavioral Protocols" (Vol. I and II, Humana Press) later this year. In May 2011, Allan will chair the 15th International "Stress and Behavior" Conference (St. Petersburg, Russia), and in June 2011, he will chair the 16th International "Stress and Behavior" North America conference (New Orleans, Louisiana, USA). Allan is an Assistant Professor of Pharmacology at Tulane University Medical School in New Orleans, Louisiana. He serves as Director of the Tulane Neurophenotyping Platform and Coordinator of the International Zebrafish Neuroscience Research Consortium leading the Zebrafish Neurophenome Project.

Dr. Kelly Lambert, Ph.D. received the Mary Erskine Award for mentoring, which was presented at the IBNS social at SfN in November of 2010. Kelly is a Professor and Chair of the Department of Psychology at Randolph-Macon College in Ashland, Virginia, USA.

Dr. Janet L. Neisewander, Ph.D. received the Bernice Grafstein Award for Outstanding Accomplishments in Mentoring. Janet is a Professor in the School of Life Sciences at Arizona State University in Tempe, Arizona, USA.



Dr. Daniela Schulz, Ph.D. published an article in the April issue of *Nature*

Methods: Schulz et al. Simultaneous assessment of rodent behavior and neurochemistry using a miniature positron emission tomograph. *Nature Methods*. 2011;8(4):347-52. The article has received a great deal of attention, including stories in *The Economist* and the *New York Times*. Daniela first presented the research as a poster and in a slide blitz at the 2009 Annual Meeting of the IBNS, where she was a travel awardee. She was recently awarded an NIH/NIDA R21 grant on the topic, which will allow her to further develop their method of 'behavioral neuroimaging'. Daniela is a Research Associate (post-doc) in the Medical Department of Brookhaven National Laboratory, Upton, New York, USA.



Dr. Heinz Steiner, Ph.D. has been selected as the Regional Editor for North America for the new Elsevier journal *Basal Ganglia* (www.elsevier.com/locate/baga). Heinz is an Associate Professor and Interim Chair of the Department of Cellular and Molecular Pharmacology at The Chicago Medical School, Rosalind Franklin University of Medicine and Science, North Chicago, Illinois, USA.

IBNS Members:

Email your news and photos to:
paquette.skybridge@gmail.com

You must be a member
in good standing (dues current).

ALTERNATIVE CAREERS FOR PHD'S: MEDICAL WRITER & NEUROPHYSIOLOGIST

By Melanie Paquette

This article is the latest of a series that spotlights individuals with non-traditional careers. This issue features Mariana Ovnic, a self-employed Medical Writer and Sarah Baran, a Neurophysiologist.

Name: Mariana Ovnic

Birthplace: Geneva, Ohio

Training:

1981 - B.S. in

Microbiology/Chemistry, Miami University (Ohio)

1987 - Ph.D., Duke University

1987-1991 - Postdoctoral

Fellowship, Institute for Developmental Research, Children's Hospital Research Center, Cincinnati, Ohio

Job: President and CEO!! (self-employed); Senior Medical Director/Senior Medical Writer for companies with which I contract

Job Description:

I work from home, on my couch, laptop on lap. I sometimes travel to cover meetings, but otherwise am home. I write manuscript drafts (reviews, primary manuscripts), create slides for meeting presentations, write abstracts & posters, participate in new business pitches, and survey the literature. I have the good fortune to currently work primarily with a "virtual" medical communications company. Therefore, although I work alone in a physical space, I feel closely connected to colleagues who are also in their own spaces.

Hours/Week: 25-30

Average salary: Over the past 10 years of working from home, I've averaged \$110,000-\$120,000/year.

Pros:

- I much prefer to work for myself – it gives me a sense of independence that I truly treasure.
- Flexibility.
- Ability to care for sick children and be around during school holidays without having to make endless arrangements for childcare.
- As long as I have good wireless internet access, I can work anywhere. I seldom use a printer anymore.
- A more integrated life. I don't have to leave behind the mother/wife role to transform into a professional (and back again), like I used to do when I worked in an office.
- I wear whatever I want (but never pajamas).
- I began volunteering for a puppy mill rescue group over 2 years ago – so I work surrounded by dogs. This keeps the house lively and keeps me sane. I don't really feel that I am alone all day.
- I try not to work for nasty/incompetent people. Life is too short and it's simply not worth the money to me to do so. Free-lancing allows more choice along these lines.

Cons:

- Depending on for whom you work, you may have limited insights into the workings of the company. In some ways, it is a blessing, in that you can avoid the politics and petty gossip. But, if you like to feel attached to colleagues and miss the Monday morning recap of the weekend's activities, working from home can be difficult.
- If you work on a project-by-project basis, planning can be very difficult. You may find yourself in a patch when you have little work (which can make you worried), but also may end up with far too much to do and feel compelled to work around the clock.

- Projects NEVER begin on time, reviews of your drafts NEVER come in on time – and you may be asked to complete a project in an unreasonable time frame. I advise trying to work under contract with someone for a specified number of hours per week. That will help you and the company to better schedule your work.
- I am lucky to have a spouse who works for a large company and I have health insurance through him. I'm not sure I could do this job without it.
- Medical communications companies often have their own boom and bust life cycle and can be very unstable. I've worked for several companies that have entirely changed their staff and/or closed their doors, which can be sad and difficult. The upside is that colleagues from old companies land at new jobs and may contact you for work.
- It's hard to know what to charge.
- You don't have the luxury of becoming a specialist in one area. It's disconcerting to have to jump into a new therapeutic area and try to become an "instant" expert.
- Your family may treat you as if you are an "at-home" parent/spouse rather than a working professional.
- Vacations are unpaid and there are no company bonuses.

Career Trajectory.

My career trajectory was a result of accident rather than careful planning. I had trained to be a bench scientist – putting in 10 whole years of effort, including graduate school and postdoctoral training. I put it all behind me when I very quickly came to hate my job as a research scientist at a large pharmaceutical company. I was devastated after I quit, however – I felt I had totally let myself down, and did not know what I would do next. A research career (at least in the

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US), doesn't survive career gaps. You're either "out" or you're "in".

I was a "stay-at-home" mom for the first time in my life, hanging out with my 2-year-old son. It was great for a while, but I didn't love it, and I HATED filling out forms at doctor's offices and such that asked for "Spouse's Employment". What? I'm a **HOMEMAKER**? (No offense to those who love to homemaker, but it's just not me). By chance, my husband (who works in the pharma industry), had a colleague who was working with a CD-ROM company that developed interactive CME programs. They were growing and needed a staff scientist. I interviewed (7 months pregnant with my 2nd child, by the way), and they hired me! So began my life as a writer.

I loved my job at the CD-ROM company, but the company sadly folded after 5 years. I then took a look at more traditional medical communications companies. I lived in New Jersey at the time, where there are many such companies. As I mentioned, they are often highly unstable with lots of turnover and are willing to give relatively green people (as I was at the time), a chance. I was hired on at a young, growing company as a Medical Director. I knew very little about the medcom industry – and it was a very steep learning curve! But, learn I did.

After 2 years, I was ready to expand my horizons, and joined another company as a Project Manager. I wanted to gain broader experience and understanding of the medcom business. The learning curve was even steeper – and this particular company was highly unstable and not a fun place to be. Yet, I have to say I learned a ton – enough so that, after a year, I felt ready to take the leap to free-lance work.

I started off with projects from the company I had just left (by the way, NEVER burn your bridges), as well as from the first medcom company at which I'd worked. As people I had known at these places subsequently left their positions and went on to other companies, I was able to continue working with them and gain new work and more contacts. Eventually, I was offered a contract to work a specified number of hours/week at a particular hourly rate with one particular company, which made working as a free-lancer much less stressful. Eight years later, that company also closed its doors. I'm now working again with some of those former employees, also under contract. And on it goes! A bit bumpy and unpredictable, but still...

I've been VERY lucky in my career, after all. What I initially thought was a complete disaster has turned out very well indeed. Although I at first thought that I had completely wasted 10 years of my life training to be a researcher, it turned out not to be the case at all. Many of the same critical thinking skills that I gained in graduate school and postdoctoral training have ported over very well. I'm also very lucky that, even though I initially shuddered at the thought of having to write for a living, I got used to doing it and I was able to develop those skills as well. (I must say, however, if you are a crappy writer to start with, it will be very tough to become good at it. You have to have some facility with writing in the first place.) The most satisfying thing of all is that I get to keep learning new things...it's sometimes difficult to take that leap into a new disease area, but it's refreshing too.

Is it possible to balance your job with family?

Working in a traditional medical communications company is a great place to start, if you need to learn about the business and get your feet

wet. These small companies, however, are often very difficult places to work and it's extremely difficult to balance family/work. I have found free-lancing from home to be a very good alternative, and it's allowed me a very nice work/family balance. My 3 kids are growing up (1 in college now, 1 in college in the fall, and 1 in high school), so that part of the balance is getting easier. When the kids were younger, it was wonderful to be around for them.

Advice

It's been over 18 years since I began my medcom career. I'm not sure it's the same now, but back then there was very little information about career options. I didn't even know that there was such a thing as medical communications – or would have guessed that I would find a career in this field. I don't want to gloss over some of the difficulties in working in this particular industry, but I found a career alternative that has been satisfying, remunerates well, and has allowed a better balanced life.

Name: Sarah Baran

Birthplace: Ada, Oklahoma

Training

2000, B.S. in Psychology, New Mexico Institute of Mining and Technology

2001-2008, M.A. and Ph.D. in Psychology/Behavioral Neuroscience, Arizona State University

Job Description

I provide neuromonitoring services for orthopedic surgeons, neurosurgeons, and cardiac surgeons. Neuromonitoring consists of, but is not limited to, measuring brain waves with electroencephalogram, muscle activity with electromyogram,

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sensory pathway activity with somatosensory evoked potentials, and motor pathway activity with transcranial evoked potentials, as well as anesthetic load with a train of four measures. Neuromonitoring provides real-time information about the integrity of the nervous system during surgery. This integrity can be compromised by many factors, including surgical manipulations (i.e., cutting a nerve root), ischemia (i.e., clamping a blood vessel or stroke), or poor positioning. Neurophysiologists can detect these changes and provide feedback to the rest of the surgical team so that they can act to reverse the insult before permanent damage occurs.

Hours/Week: 35-40

Pros

- 3-4 working days per week
- utilizing interesting techniques to “watch” the nervous system in action
- helping to protect patients during surgery

Cons

- stressful environment
- odd/long working hours that can change with only a moment’s notice
- every Operating Room (OR) has a balance of personalities, and dealing with the difficult personalities can be stressful

Average salary: \$55,000-\$80,000.

Career Trajectory

I graduated from ASU with the intent of completing a postdoc and starting my own lab. After about a year, I realized that this wasn’t the life for me. Too much of my “free” time was spent stressing over writing papers and grants and data that never seemed to come out quite how I wanted. I wanted more time to be with my family and to simply relax. I

began to look for something, anything else.

I had never given much thought to working in a clinical setting until I stumbled across a job advertisement for the company I now work for. The call for applications was simply put, “Looking for people with a background in neuroscience.” I sent my resume to the company, expecting to be turned down for lack of specific experience. As it turns out, what is needed is a solid neuroscience background with some knowledge of electrophysiology. I would be trained in the specifics of the job itself. I was offered the job.

Now came the fear of what am I getting myself into? A few things helped me decide to follow this course of action. First, surgery has always been an interest of mine, and my best days in the lab were the days spent in surgery. That part was easy, this job just sounded cool. Second, while the hours promised to be variable, they were also few in comparison to the 50-60 hours I was putting in the lab (not counting the many hours lying awake at night puzzling through some problem or another). Third, other opportunities were available in the monitoring community. I would be able to participate in research projects and teaching, but these things wouldn’t be as consuming as they were before.

I moved to Sacramento, CA and began work. My company provides on-the-job training that includes lectures on the practical and theoretical aspects of neuromonitoring, plus I was in the OR in my second week of work.

I have now been with Active Diagnostics for over a year and monitoring surgeries on my own for about 9 months. I find my new career rewarding and enjoyable. I work for great surgeons and most of the time

my job is uneventful. The few times that the functioning of the patient’s nervous system has changed during surgery, I have been able to alert the surgeon to potential problems. On multiple occasions, I know I have made a positive contribution to the surgical outcome. I am also part of a team working on a curriculum for a satellite course at a local university that includes simulations of the surgery environment. The course would be available to new trainees and neuroscience students. At home, I now have time to spend with my family and to cultivate hobbies and interests I never had time for before. My life is much more balanced.

Is it possible to balance your job with family?

Yes, but there needs to be some flexibility. I typically work 3-4 days per week, Monday-Friday. My earliest start times are 6am and I am usually home by 5pm. There have been a few very long days when I get home in the middle of the night. These days aren’t predictable, which is the nature of surgery. I also have on-call weekends twice 6 weeks. My scheduler is aware of our personal issues (kids, illnesses, family obligations, etc.) and tries to keep our schedules from getting too crazy.

Advice

From my experience, there isn’t a lot of information given in grad school about non-academic careers, but there are many jobs available. If you are looking for something outside of academics, you have to be proactive. Look at career resources in Science magazine and your area’s national society (for example, I found my job through the Society for Neuroscience). Ask friends and friends of friends. Most importantly, don’t fail to look into a job because you feel you are underqualified. If it sounds interesting, ask questions about it. The worst that can happen is that you find out you aren’t qualified.