Exploring Avenues for Innovation and Collaboration

Neurosurgeons Interested in Opportunities to Work in Device and Technology Development Should Understand the Complex Environment

By Bonnie Darves

Neurosurgeons who have been in training “total immersion” mode for seven years or longer may find the notion of adding yet another activity to their already full plates unthinkable as they start their first practice position. Yet, it’s highly likely that neurosurgeons will encounter opportunities to participate in endeavors outside traditional clinical practice—in both research and product and technology development—soon after they have established themselves. Because of the advances in brain science generally, the neurosurgery field is well positioned to help facilitate what Southern California neurosurgeon Amir Vokshoor, MD, predicts will be “an explosion of neurologic technology that is going to revolutionize our capabilities in such areas as neuro-modulation and pain treatment,” said Dr. Vokshoor, whose practice focuses mostly on microscopic spine surgery, at the DISC Sports & Spine Center in Newport Beach.

“Neurosurgeons coming into the field now will have tremendous opportunities beyond traditional neurosurgery to participate in these developments. It’s going to be a brain-changing decade,” observed Dr. Vokshoor, founder of the Institute of Neuro Innovation, a non-profit organization and open platform for research on brain performance. In particular, he cites technology developments in the treatment or paralysis and spinal-cord injuries, and the trend toward combining neurologic optimization technologies with alternative medicine approaches such as acupuncture.

The opportunities for neurosurgeons to take part in product and technology development, as consultants, researchers or educators, are plentiful. But navigating the landscape can be a bit daunting for those unfamiliar with how industry and non-academic research entities operate. For that reason, it’s important to do some homework on any options under consideration and, ideally, to have an experienced colleague provide guidance, Dr. Vokshoor and other neurosurgeons interviewed for this article stressed. It’s also advisable to have an experienced healthcare attorney review any contract that details the terms of any arrangement being evaluated.

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“Once neurosurgeons get a few years of experience, they will have many opportunities to consult to industry—and if you’re in spine, you might even be inundated with offers,” observed Lali Sekhon, MD, Ph.D., a spine surgeon and innovator in Reno, Nev., who has been in private practice for 14 years and was previously in academic neurosurgery. Many of those opportunities revolve around either testing products in development or demonstrating the efficacy of new products, in the capacity of teaching other neurosurgeons. In other cases, continued on page 2
entrepreneurial neurosurgeons might take an idea to a prospective industry partner to develop—a far more complicated undertaking than providing input on someone else’s developing concept. All of these avenues can be exciting and gratifying, Dr. Sekhon notes, but arranging the structure and remuneration of the engagement can be tricky if neurosurgeons don’t understand the marketplace.

“One pitfall is what I call the ‘enthusiasm of the novice’—the neurosurgeon is so excited about being involved that he undervalues his work,” he said. For example, companies tend to offer a per-day rate—between roughly $1,000 and $3,000 a day, depending on the nature of the work—to neurosurgeon consultants. That may sound adequate at first glance, but in reality it may equate to less than the surgeon would have earned by doing procedures.

“You have to remember that what the company wants is your knowledge bank—your own intellectual property. But they may get your expertise for a very low price,” Dr. Sekhon explained. “It’s important to keep in mind that industry can’t survive without input from surgeons. So you must value your work accordingly, because consulting takes you away from your practice. And it isn’t as lucrative as some people might claim.”

The regulatory environment regarding physician consulting fees—particularly how much is paid and what is considered fair market value of such services—has become more stringent in recent years, and actual formulas have been applied to ensure more consistency and deter impropriety. This has transpired in response, unfortunately, to situations in which physicians and scientists were paid exorbitant sums to essentially market and/or use products under the guise of consulting or teaching. Even though there is much more transparency in product-development compensation now, the onus is on the physician to ensure the consulting arrangement is on solid ground ethically and legally.

“Fundamentally, young neurosurgeons coming in as consultants need to understand the value they are giving—and make sure their involvement isn’t just a way to get into your caseload to use a company’s product,” said Mick Perez-Cruet, MD, M.S., a Royal Oaks, Mich., neurosurgeon and longtime inventor who has pioneered numerous minimally invasive spine surgery techniques and has authored textbooks on the topic. “Because if you are a consultant and are getting paid to use a product, you are not really a consultant. That’s inurement, and it’s a Stark law violation.”

Dr. Perez-Cruet refers to the law that spells out the kinds of financial arrangements between physicians and healthcare industry entities that are permitted or prohibited—and he urges neurosurgeons to become familiar with it.

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**Evaluating Opportunities**

Beyond consulting fees, the other way that neurosurgeons might be compensated for using their expertise to further device or technology development is through royalty agreements. Dr. Sekhon notes that the range of royalties, typically paid on future sales of the device or technology, is wide—from as low as 1% to as much as 6% in the case of an innovation that makes it to market and potentially changes practice. “Like the consulting fee, the royalty [amount] typically depends on what the neurosurgeon brings to the effort. But it’s something that should be carefully negotiated,” he said.

Dr. Sekhon cites a basic example from his own experience that might be instructive to young neurosurgeons. He has been involved in innovation think tanks for several years, and in those organizations, the junior participants receive an hourly rate for their participation while the senior participants, such as Dr. Sekhon, actually have ownership of the intellectual property the endeavor produces.

On the positive side of the collaboration spectrum, neurosurgeons might find themselves either conceiving or becoming involved in the development of a blockbuster product that eventually advances the field in a major way. That outcome, of course, would be gratifying beyond any compensation the surgeon receives.

Tyler, Texas, neurosurgeon Charles R. Gordon, MD, a longtime innovator, advises neurosurgeons to be open to working with industry to help develop an idea or to explore their own potential innovation. “I absolutely encourage neurosurgeons to innovate because it helps keep you engaged—and if it’s solid [product], you’re ultimately helping patients and solving problems,” said Dr. Gordon, founder of the Texas Joint & Spine Clinic. “And companies are interested in working with neurosurgeons who have innovative ideas.”

Dr. Gordon, for instance, has developed novel laser techniques in collaboration with industry and is involved in stem cell research and in research on genetic detection of potential spine and neurological problems.

Such collaboration can work out well for both parties, but neurosurgeons who seek an industry partner to try to produce and market a device or technology they’ve conceived should proceed cautiously.

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Gordon advises. “Get a patent—or get a non-disclosure agreement signed. Because if you share it without having a non-disclosure signed,” he said, “it can be argued later that you’ve invalidated your patent because you made a public disclosure.”

Taking that step doesn’t mean the neurosurgeon doesn’t trust the people with whom the idea is being shared, Dr. Gordon explained, but rather that the surgeon “values the idea and plans to protect it.”

Dr. Sekhon concurs. “That’s one of the biggest mistakes surgeon-inventors make—not protecting their intellectual property,” he said.

Assess Motivating Forces

Regardless of how the neurosurgeon becomes engaged in innovation in the device or technology sector, it’s important to do as much due diligence as possible to ensure that the concept has enough potential to warrant the effort expended. All sources interviewed for this article concurred that the key test, in this regard, is to be convinced that the potential product could benefit patients.

“You want to choose things that have significant clinical utility, if possible,” Dr. Gordon advises. “And if you’re the inventor, don’t drink your own Kool-Aid. Ask yourself: Does this really make a difference, or is it just a gimmick?”

Dr. Perez-Cruet, who has had considerable firsthand experience navigating the immensely complex arena of innovation and has experienced run-ins working with industry in the past, offers this basic advice on evaluating opportunities: Examine the motivation behind the concept to ensure it is on solid ethical ground. “The bottom line in whatever you get involved in is to improve patients’ outcomes, and treat them the way you want to be treated,” he said.

In other words, all sources concurred, if the product or technology isn’t one the surgeon would likely use in his or her own patients, it’s best to steer clear of the endeavor.

That moral imperative should have an additional component, suggests Scott Berta, MD, a Redding, Calif., neurosurgeon who founded the educational non-profit organization Open Mind Neurosurgical International, Inc. “It’s important to make sure that there is a true market need for whatever you are developing. But I also think that neurosurgeons who get involved in innovation also have to be motivated by wanting to give back to the community and to their field,” said Dr. Berta. “I believe that if you’re truly financially driven, you won’t get the same results.”

On a final note, Dr. Vokshoor reminds neurosurgeons that they have ethical obligations beyond ensuring that the primary motivation propelling whatever device or technology they help develop is patient care improvement, rather than simply financial gain.

“If you put patient care as your most important objective in whatever you do, and really do your homework regarding the objective of any commercial or research-drive path you pursue, you can’t go wrong,” Dr. Vokshoor said. “As healthcare professionals, however, I think we also owe it to the public and patients to police the development of neurological technologies—to the extent that we can—because we’re the responsible party.”

Bonnie Darves is a Seattle-based freelance healthcare writer.

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**UPCOMING U.S. NEUROSURGERY EVENTS/CMEs**

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<td>October 26</td>
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<td>SMISS (Society for Minimally Invasive Spine Surgery)</td>
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<td>LINC: Live Interventional Neuroradiology Conference</td>
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**UPCOMING INTERNATIONAL CMEs**

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For more information regarding any of these events, or to post your upcoming CME or neurosurgery event, please contact info@harlequinna.com.
Generations Neurosurgery P.C., New York, N.Y.

Who
An eight-neurosurgeon practice founded in 2006 by established neurosurgeon Narayan Sundaresan, MD, who has been in practice for three decades and still operates a private practice on Manhattan's Upper East Side.

Scope and Setting
Provides comprehensive neurosurgery services—from intracranial procedures, biopsies and tumor surgery to degenerative and complex spine at two hospitals in New York’s outer boroughs. Practice is seeing increased demand for its services from hospitals in the New York City region outside Manhattan—where some areas are underserved in the neurosurgery realm.

Practice Structure
Operates a flexibly designed hybrid model: The practice assumes responsibility for the full gamut of services at the hospitals it serves, but the neurosurgeons work in a variety of arrangements—as part- or full-time contractors, or as hospital employees, if desired. “We create master service agreements with the hospitals and agree to provide comprehensive services. We make a commitment to do every case we can, and the hospital retains the billing and collections functions. That works out well for our surgeons, who can do as many cases as they want—but the minimum is three cases a month,” said Ken Sundaresan, the practice’s administrator.

“[W]e take an entrepreneurial approach in how we structure our contracts and our schedules, and we offer a lot of flexibility for our surgeons. Most of our surgeons, though, want to be very busy and want to be very productive.”

The group employs a comprehensive team of specialty-focused physician assistants, who help ensure that the surgeons can focus on procedures and efficient operation of the outpatient clinics.

Practice Ethic and Philosophy
Dr. Sundaresan brings in neurosurgeons who share his personal and professional ethic—to serve all types of patients based on their health needs and regardless of their insurance coverage or circumstances, and to provide cutting-edge care. The practice believes in a hands-on approach in which the surgeons interact closely with patients in all aspects of their care, from handling directly the extensive pre-procedure discussion to managing their post-operative follow-up care.

When it brings in new surgeons, the practice looks for physicians who are interested in rolling up their sleeves to get the work done and in caring for the enormously broad spectrum of patients the New York region sees. What that means, Ken Sundaresan says, is that Generations Neurosurgery hires surgeons who “have an open mind and aren’t focused on the ivory tower. The benefit for the surgeons is having the opportunity to treat a lot of patients who are immensely grateful for the care they receive.”
CANDIDATE PROFILE

Erich Richter, MD, FAANS

New Position
Residency program director, West Virginia University, and head of the university’s planned center for functional neurorestoration, to be opened soon. He was previously at Louisiana State University in New Orleans.

Practice and Research Interests
Functional neurosurgery, with a special focus on neuromodulation; has done extensive work in deep-brain stimulation in psychiatric and movement disorders.

Why He Took the Job
It’s a tremendous professional opportunity in two areas. I enjoy teaching, so the residency program and curricula oversight are a good fit; and the opportunity to develop a new state center is very appealing.

In most academic centers, the programs for epilepsy, stroke, Parkinson’s and other neurological conditions or diseases tend to be silo-ed. We are taking a different approach at West Virginia University Hospital, by setting up a center that integrates all areas of brain dysfunction, across the life-span—and one that’s highly multidisciplinary. We will have a collaborative environment that includes specialists in epilepsy, movement disorders, complex pain and functional neurosurgery, among others.

In addition, there are many benefits to the region in this approach. Although patients can access some of these specialized services in West Virginia and nearby states, there is no central location or clearinghouse where patients can go—or where physicians can refer them for care. This university is very advanced in many areas, such as neuroradiology, for instance, and the new center will offer a way to expand the scope of that expertise in a more comprehensive infrastructure.

The position was also appealing because I also love this area of the country, and both of my parents are from the region.

Why He Chose Neurosurgery
The way I ended up in neurosurgery is somewhat comical. I started out in engineering and planned to go into photonics, and to work in laser and optical computing. Then, a few years into my program I took an elective in developmental neurochemistry, and was just totally enthralled. So I switched to a life sciences concentration and never looked back.

Advice to Job-Seeking Neurosurgeons
When you are looking for a new position, seek an opportunity that offers ways to expand your professional horizons and help you develop other skills in addition to your neurosurgery expertise. That’s a good way to relieve the boredom factor that can be an issue even when you truly enjoy your work.

IN BRIEF

Neurosurgical Societies Call for Excise Tax Repeal
In a Sept. 28, 2013 letter to the U.S. Congress members, the Congress of Neurological Surgeons and the American Association of Neurological Surgeons joined other medical societies and scores of device and technology industry companies to call for the repeal of the planned excise tax on medical devices called for in one component of the national healthcare legislation being implemented in 2013 and 2014.

The opponents of the 2.3% tax, estimated to collect between $20 billion and $30 billion, claim that the tax would stymie innovation and ultimately adversely affect patient care because of the effect on the industry, particularly the small companies in the device and technology sector. The opponents also state that the tax, if implemented, would likely be passed on to patients in some manner.

The letter states: “Increased taxes, such as this one on the medical device industry, coupled with the increased regulatory uncertainty the industry also faces, is leading to further job losses, hindering the development of breakthrough treatments and delaying patient access to medical technology.”


AANS Offers Medical Student Section, Site
The Congress of Neurological Surgeons recently announced the launch of a new foundation to support the development and ongoing support of educational initiatives in neurosurgery practice. Called the CNS Foundation, the entity will focus not on research but rather on practice enhancement initiatives, particularly in the areas of practice guidelines and international education that will advance the specialty in the future.

Specific details on the foundation’s mission and activities will be announced in the coming months.
Do I Need a Cover Letter? Yes, You Do!

By Katie Cole

I have candidates ask me, just about every day, if they really need to provide a cover letter for their CV submission to potential employers. The short answer is yes. I know that this may seem superfluous and a bit old-fashioned, particularly if the candidate in question happened to train with the best institutions and believes that his or her CV “speaks for itself.”

The point is, however, that there is only one good way to make a complete first impression on a potential employer and communicate not only what you accomplished, but also what you are looking for in a practice setting. That is by including a personal statement that gives the prospective organization a sense of your personality outside of your style of practicing neurosurgery.

Think of the cover letter as an extremely advantageous way for you to introduce yourself, explain what you are looking for, and explain how you have gotten to where you are now. It’s also an opportunity to set yourself apart in some less tangible way—because all employers these days are looking for that ideal combination of talent and team player.

I am also always asked if I can write a cover letter for candidates, or provide a form for them to fill out so that it can be readily turned into a cover letter. But who can better explain not only what you have covered in training but what you are looking for in a possible opportunity than you? It’s far better to draft the initial letter and then perhaps obtain a bit of professional assistance with the editing, if that’s needed to ensure a polished document.

I can, however, offer some suggestions on the kinds of information that you should include in a cover letter (see box below), which can help give you a starting framework for the document. Remember that prospective employers are as interested in what you have already done as they are in what you hope to accomplish in your first (or next) practice opportunity.

The candidates I work with who provide cover letters ultimately receive not only more interviews and site visits, but also more job offers from more of their first choice organizations. That may not be scientific, but it’s worth noting!

So, change your perspective about the cover letter. Keep in mind that it’s actually an excellent opportunity to convey what is important to you—and to describe to the potential employer the type of practice you wish to build for yourself. It is also one of the only ways to add personality to your CV, to provide insight into who you are as an individual and how you might fit into the practice setting.

Ms. Cole, a Denver resident, is publisher of Neurosurgery Market Watch.

ITEMS TO INCLUDE IN COVER LETTER

- What types of procedures you covered in training
- Who you mentored with
- What type of case mix you are optimally seeking in a new practice
- A detailed description of your ideal practice setting, not only case mix but whatever else is important to you, such as: personalities of other neurosurgeons in the group, the group’s philosophy and mission, and opportunities for career and program growth, and sub-specialization potential or possible additional training opportunities

Harlequin Recruiting has added a new Neurosurgery Physician Assistant recruiting division to its services offerings.

Practices and programs interested in obtaining more information about recruiting PAs should contact Katie Cole at (303) 832-1866 katie.cole@harlequinna.com
Q: I am contemplating accepting an offer to become a paid consultant for a device company, but my contract only allows me to retain remuneration from honoraria, lectures, teaching or publishing. Is there any way my consulting work would fall under these categories?

A: It depends on the nature of your consulting (i.e., specifically what you are doing and why you are being retained to do so). If your consulting agreement stipulates what your payment will be and the conditions precedent for receipt of such payment, the payment would not constitute an honorarium.

If you are being paid to publish your findings in a reputable and independent journal regardless of your findings, such that your work could be construed as research with published findings, you could make a legitimate argument that you should be able to retain the remuneration. As such, you should consider structuring your arrangement with the device company in a way that your remuneration is not dependent on your findings, but that your findings will be published.

If your arrangement with the device company is to provide feedback on a device for a fee (put simply, to serve as a tester) or aid in the design/redesign of a device, it is unlikely that you could retain the remuneration from such an arrangement unless your employer waives the right to that remuneration.

Q: Recently, I was approached regarding an opportunity to become a full-time physician employee for a device company, even while I continue to own and operate an independent medical practice. Obviously, there are some conflict-of-interest concerns, as I am certain that it would not be in patients’ best interests in all cases, to use the device company’s device over a competitor’s. How should I approach this?

A: Your employment agreement with the device company should state that the employer acknowledges and agrees that, notwithstanding your arrangement with the device company, nothing contained in the agreement will be construed to require you to use the device in your practice of medicine. It should also state that frequency with which you use the device will not be a basis for the termination of your employment agreement or modification of its terms.

“If your consulting agreement stipulates what your payment will be and the conditions precedent for receipt of such payment, the payment would not constitute an honorarium.”

Also, to ensure that you meet the “personal services and management contracts” safe harbor under the Stark law, your arrangement would have to, among other requirements, ensure that the aggregate compensation you are paid is set in advance and is consistent with fair market payment for comparable work. Further, it’s important to avoid the appearance of impropriety. As such, you should disclose to any patient and the associated referring physician, if applicable, your relationship with the device company but clearly state that such relationship does not, in any way, compensate you for the use of the device or otherwise affect your independent medical judgment.

Q: Are there any special terms that I should look for in a contract to be a paid consultant with a medical-device company, to ensure I protect myself?

A: Yes, there are several potentially problematic terms that you should be aware of and ideally avoid or adjust to ensure they’re not onerous. Following are a few key ones:

- Whether the contract contains any restrictive covenants, or otherwise limits you in your practice or professional endeavors.
- Whether the company will use your name or image in the marketing of the device, and if so in what way.
- Whether the compensation you receive correlates to your use of the device.
- Whether you are being paid fair market value for the services rendered.

Regarding the latter one, if you are if paid above fair market value, it would be red flag legally, as the justification for the handsome compensation could be construed as “purchasing your influence.”

Author’s note: Roderick Holloman is the principal of The Holloman Law Group, PLLC, a national healthcare law firm. He welcomes readers’ questions and can be reached at 202-572-1000 or rjholloman@hollomanlawgroup.com.
For more information on these positions, or if you are interested in hiring a neurosurgeon for a permanent position, please contact info@harlequinna.com.

If you have any locums assignments available, or if you are interested in locums positions, please contact Aaron Risen at The Surgeons Link at aaron@thesurgeonslink.com.

Endovascular/Cerebrovascular Neurosurgeon Opportunity

The Department of Neurosurgery at the University of Arkansas for Medical Sciences is seeking a fellowship-trained Endovascular/Cerebrovascular Neurosurgeon. The Jackson T. Stephens Spine and Neuroscience Institute, located adjacent to the University of Arkansas Hospital, is a freestanding, 12-story building that houses the Departments of Neurosurgery, Neurology, Otolaryngology-HNS, Physical Medicine and Rehabilitation, and Anesthesia-Pain.

The Stephens Institute is the leading tertiary referral center for the neurosciences in the state of Arkansas. In addition, UAMS is the only level one trauma center in the state. UAMS is also the home to the Winthrop P. Rockefeller Cancer Institute and the world-renowned Myeloma Institute for Research and Therapy.

UAMS offers a competitive salary with a generous benefits package, in addition to an RVU-based clinical incentive plan. Time for clinical and/or basic research is provided as part of the recruitment package. Funds for research start-up costs are also available. Salary and academic rank will be commensurate with experience and performance.

This is an excellent opportunity with tremendous clinical potential located in a terrific place to live and work.

For more information contact: J.D. Day, M.D., Professor and Chair, Department of Neurosurgery, at 501-686-8935.