

AOSpine North America Community News Summer 2017





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AOSNA Chairman's Message

Dear AOSNA Members and Colleagues

Welcome to the summer issue of the AOSpine North America Community Newsletter. To start, I would like to take this opportunity to relay my gratitude to Joe Cheng and Ted Choma for their tireless efforts, leadership, and contributions to the Education and Fellowship Committees the past three years. Additionally, I would also like to extend a warm welcome to incoming committee chairs, John Devine and Dan Gelb to the AOSNA board. We have an exciting future with great leaders in our board as well as Education, Research, Community Development, and Fellowship committees so expect news of new collaborations and initiatives in the near future.

What motivates me more than anything else is to see AOSNA forge its place in the spine community through innovative education, research, and evidence-based medicine to improve healthcare. In order to achieve that, the AOSNA leadership team participated in a Strategy Retreat earlier this year to ensure that AOSNA adapts to the changing environment, responds to the needs of our members, and takes advantage of new opportunities for growth. The retreat allowed us to set clear priorities for our committees as well as identifying metrics to measure success.

There is a great potential for AOSNA to grow provided that we have a sense of direction, alignment, and a clear understanding of the roadmap of how to get there.

This year marked the 15th anniversary of our Fellows Forum in Banff, Alberta, Canada. Our committees continue to work with current and past fellows to identify the needs of our fellows and how AOSNA can better meet those needs. Through the feedback from our fellows, we will be making some exciting changes to our Fellowship Program so stay tuned for more information in the near future.

The value and strength of AOSNA is the feeling of fellowship, camaraderie, and close personal relationships we have developed with our members over the years. I appreciate everyone's commitment to AOSpine North America and with your continued participation and support, I am confident that we will achieve overwhelming success in 2017.

Sincerely,

Darrel S Brodke, MD

Chairman—AOSpine North America



From the Editor

Dear Colleagues

The first half of 2017 has been busy with activity and we hope that the rest of the year will continue this trend.

March 2017 featured the 15th Annual Fellows Forum in Banff. This meeting was again very successful, attended by over 50 AOSNA fellows with faculty, who showcase research projects conducted by fellows in the US and Canada. This marquee event is the highlight of the year for most AO spine fellows, where they have an opportunity to showcase and present their research, meet other fellows and faculty.

In May 2017, the Global Spine Congress, was conducted in gorgeous Milan, Italy, bringing together members from all corners of the world to meet, discuss and present. Well attended with a high quality to the presentations, the event is evolving into the premier spine surgery meetings for international spine surgery.

Upcoming events include the 4th Annual Reception for AOSNA in Orlando, FL October 25, 2017 at the Hyatt Regency Hotel as well as the inaugural Practice Essentials Meeting in Las Vegas in Nov 2017.

This newsletter again has the highlights of the educational, research, fellowship and community development endeavors this past quarter.

The AO continues to be the 'go to' for knowledge and camaraderie in spine care. Global membership has reached record levels. There has never been a better time to join.

Sincerely,

A handwritten signature in black ink, reading "Lali Sekhon", with a horizontal line underneath.

Lali Sekhon

Chairman

AOSNA Community Development Committee



AOSpine North America Board and Committees

AOSNA Board

Darrel Brodke	AOSNA Chairperson
Michael Fehlings	Past Chair
Joseph Cheng	Education Committee Chair (term ends July 31, 2017)
James Harrop	Research Committee Chair
Lali Sekhon	Community Development Committee Chair
Ted Choma	Fellowship Committee Chair (term ends July 31, 2017)

AOSNA Education Committee

Joseph Cheng	Chair
John Devine	Chair Elect
Michelle Clarke	
David Gloystein	
Roger Hartl	
Bradley Jacobs	
Eric Klineberg	
Alpesh Patel	

AOSNA Research Committee

James Harrop	Chair
Tom Mroz	Past Chair
Samuel Cho	
Brian Kwon	
Ahmad Nassr	
Justin Smith	

AOSNA Community Development Committee

Lali Sekhon	Chair
Norman Chutkan	Past Chair
Eric Massicotte	
Ripul Panchal	
Patrick Pritchard	

AOSNA Fellowship Committee

Ted Choma	Chair
Daniel Gelb	Chair Elect
Christina Goldstein	
Brandon Lawrence	
Bob Molinari	
Dan Sciubba	

Upcoming AOSpine North America Courses

AOSNA Webinar – Evaluation and Work Up of New Spine Lesion: Tumor, Infection or Incidental Finding

Aug. 9, 2017

AOSNA Course: Principles and Treatment of Spinal Disorders for Residents

Sept. 8 – 9, 2017

Phoenix, AZ

AOSNA Webinar – Acute Cervical Spinal Cord Injury: Pathophysiology and Treatment Strategies

Oct. 11, 2017

AOSNA Course: Principles and Treatment in Spinal Disorders for Residents

Oct. 13-14, 2017

Las Vegas, NV

AOSpine North America/AOTrauma North America Course: Practice Essentials

Nov. 3 – 4, 2017

Las Vegas, NV

AOSNA Webinar – Enhanced Recovery in Cervical and Lumbar Spine Surgery

Nov. 8, 2017

AOSNA Spine Camp: MIS Personal Training Clinic

Nov. 10 – 11, 2017

San Juan, Puerto Rico

For more information about the courses or to register, please go to:

<http://www.aona.org>

Did You Know

The AO Foundation has recently launched AO Interact, an interactive peer review and discussion video platform for surgeons. This new platform enables surgeons to interact with like-minded people within the AO community, exchange knowledge with subject matter experts in their specialty, enhance resident's education, discuss and perform polls based on their individual topics.

<https://www.aointeract.org>

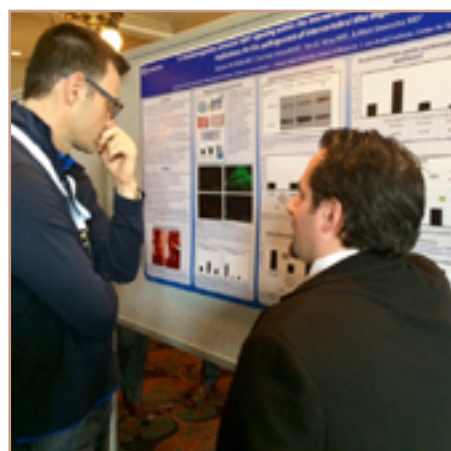
15th Annual Fellows Forum a Huge Success

In keeping with the long tradition, the 15th Annual AOSNA Fellows Forum took place on March 23-25, 2017 in the beautiful Banff Springs Hotel in Alberta, Canada. The AOSNA Board welcomed Distinguished Keynote Speakers, Dr. John Kostuik, as well as 50 AOSNA Fellows, and 53 Fellowship Directors/Faculty from around the United States and Canada.

The Fellows Forum provided the Fellows with an opportunity to interact with other fellows and Fellowship Directors to exchange ideas and knowledge that centered on the advancement of disciplinary spine care. The scientific program consisted of lectures, fireside case conferences, and a new optional afternoon lecture series offered this year. The highlights of the program were the presentations given by each Fellow focusing on his/her research at their institution.

Each Fellows' presentation was evaluated in a peer-reviewed process by the Faculty and Fellowship Directors. The scores will tallied and awards were given for the best clinical and basic abstract as well as best poster presentation. The winners of this year's Fellows Forum Awards were presented to Avery Buchholz, MD (University of Virginia) for the best clinical abstract, Dominic Pelle, MD (Cleveland Clinic) for the best basic science abstract, and Ananth Eleswarapu, MD (University of California Davis) for the best poster presentation. These three winners will be invited to participate as faculty in the 2018 Fellows Forum.

Congratulations to our Award Winners as well as the rest of the Fellows for their hard work and outstanding research presentations.



AOSpine North America Provides a Glimpse into the Future of Spine Care

Tremendous advances in patient selection, surgical techniques, and postoperative care over the last 2 decades have allowed practitioners to manage increasingly complex cases with shorter procedure times and reduced hospital lengths of stay. Building on these successes, AOSpine North America brought together experts to provide a glimpse into the next generation of spine care leading to a supplement in Neurosurgery on the "Future Advances in Spine Surgery."

The March 2017 supplement includes an introduction and 13 articles highlighting a broad range of topics including oncology, deformity, degenerative disease, trauma, infection, and pain. Cutting-edge technological advances such as osteobiologics, robotics, and neuromodulation are discussed in a fascinating series of articles. Also included is a unique study aiming to establish the critically important cost-benefit relationship for spine procedures with perspectives on how value is defined and how to address variability.

Each article highlights the salient literature and affords insights from multiple key thought leaders in an effort to minimize bias and provide varied perspectives.

As Co-Editor of this focus issue and Research Chair of AOSpine North America, Dr. James Harrop from Thomas Jefferson University explains, *"We are very proud of the outstanding contributions from some of the leading spine surgeons of North America that make up this focus issue."*

Overall, we hope this issue provides high quality, evidence-based data relevant to trainees and practicing surgeons while also stimulating excitement about the future of spine surgery.



Link to the issue:

<https://academic.oup.com/neurosurgery/issue/80/3S>



Save-the-Date

Join us for the AOSpine North America reception at the NASS Annual Meeting.
Wed. Oct. 25 from 5:30pm – 8:00pm
Hyatt Regency Orlando

Global Spine Journal Experiences a Year of Exciting Changes

For those of you who may not know this, Global Spine Journal is AOSpine's official journal. A peer-reviewed journal, GSJ is devoted to the study and treatment of spinal disorders, including diagnosis, operative and non-operative treatment options, surgical techniques, and emerging research and clinical developments. Published eight times a year, the journal is essential reading for all researchers and clinicians specializing in the spine.



Global Spine Journal Executive Board

Jens R. Chapman, MD; Danielle Lieberman; Karsten Wiechert, MD; and Jeffrey C. Wang, MD

GSJ has had a lot of exciting changes in the past year, but the biggest change has been a publishing switch. In January, GSJ switched publishers to SAGE Publications. Based in Thousand Oaks, California, SAGE is a leading international provider of innovative, high-quality content, publishing more than 1000 journals and over 800 new books each year, spanning a wide range of subject areas. With this publishing switch came some new changes for the journal including new branding, an exciting new cover, a new submission system and a new website. GSJ still remains an Open Access journal, which means that all content can be downloaded and read by anyone without a subscription to the journal. The Open Access model means that all articles can be published "OnlineFirst" ahead of print as well. This means that approximately a month after

acceptance, an article will be made available online for anyone to read before it is assigned to an issue. This means increased visibility and citations for your article before official publication. You will find that the new website is more user-friendly and intuitive. The new site is also optimized for all smart phones, computers and tablets so you can read and download all of your content from any device on-the-go. It is a "responsive" site which means that it responds to the screen size of your device without sacrificing quality. You can also find altmetric scores on an article level, meaning you can find out downloads, citations, etc. which gives you an indication of an individual article's impact.

GSJ still publishes 8 regular issues per year, but there have also been exciting special

focus issues this year as well. In April, a special issue on Rare Complications in Cervical Spine Surgery lead by GSJ Deputy Editor Daniel Riew (which was collaboration between AOSpine North America and CSRS) was published. This issue features 21 articles all devoted to this one topic. This issue can be read online on our site. GSJ also has a new special issue coming out this summer lead by GSJ's Deputy Editor and AOSpine North America Past Chair, Michael Fehlings. This Special Issue will be "Guidelines for the Management of Traumatic Spinal Cord Injury and Degenerative Cervical Myelopathy".

Look out for this issue coming out this summer.

As AOSpine's official journal, GSJ offers member benefits for AOSpine members. The Open Access business model means that all authors whose articles are accepted have to pay an Open Access Fee (the fee for GSJ is currently \$1,500). **However, the Open Access fee is waived for all accepted papers where at least one author is listed an AOSpine member.** This is a unique member benefit, as this is something that not a lot of society journals offer. GSJ wants the journal to be accessible to all AOSpine members.

GSJ is also one of the few Open Access journals that still has a print copy in addition to the online versions. All AOSpine members are able to receive a printed copy of the journal in the mail if they choose. All you have to do is opt-in to receive it on your AOSpine profile. You can do this by going to the personal details section of your profile - there you will find an option to click a button to receive copies of GSJ.



Global Spine Journal Annual Meeting, Santa Monica, CA

From L to R: Lauren Schroeder, SAGE Publications; Serena Hu, Deputy Editor; KV Menon, Deputy Editor; Ginesa Aviles, AOSpine GSJ Manager; Keita Ito, Deputy Editor; Luiz Vialle, Deputy Editor; Danielle Lieberman, Managing Editor; Jeffrey Wang, Editor-in-Chief; Michael Mayer, Deputy Editor; Karsten Wiechert, Editor-in-Chief; Dino Samartzis, Deputy Editor; Dan Riew, Deputy Editor; Tom Mroz, Deputy Editor; Jens Chapman, Editor-in-Chief. NOT PICTURED: Michael Fehlings, Deputy Editor.

If you have any questions regarding GSJ, please email Managing Editor Danielle Lieberman at Danielle.lieberman@med.usc.edu.

GSJ is currently taking new Original Research and Review submissions.

GSJ's new submission site can be found at:

<https://mc.manuscriptcentral.com/gsjournal>

GSJ's online site can be found at:

<http://journals.sagepub.com/home/gsj>

(Here you can read all of GSJ's issues as well as the OnlineFirst content).

You can also follow GSJ on Facebook:

<https://www.facebook.com/globalspinejournal/>

You can also follow GSJ on Twitter:

[@globalspinej](https://twitter.com/globalspinej)

AOSNA is Pleased to Announce the Results of the 2017 Young Investigator Research Grant Awards

For the 10th year, the AOSpine North America Research Committee has established the Young Investigator Research Grant Award (YIRGA) funding new investigators who have a desire to perform high-quality, clinically relevant spinal or spinal cord research in basic or clinical science. The applicants, all AOSNA subscribed members, sent in a significant number of applications to be evaluated in a blind peer review process by the Research Committee members.

The final decision was made during the Research Committee meeting in Banff last month. The following investigators will each be awarded a one-year grant of \$30,000 to help with their research:

Sina Pourtaheri (UCLA)

"Antibiotic Nanospheres to Prevent Postoperative Infections after Spine Fusions: An Infected In-Vivo Mouse Spine Fusion Model"

Dr. Kajana Satkunendrarajah (University of Toronto)

"Transplantation of Glutamatergic Interneurons to Enhance Respiratory Recovery Following Cervical Spinal Cord Injury"

Steve Presciutti (Emory University)

"Temporal and Spatial Expression of Sclerostin During the Development of Lumbar Spine Fusions"

The projects will be carried out during 2017 and 2018 and the investigators will be invited to present their results at the 2018 Fellows Forum in Banff. Congratulations to the winners—they certainly represent a significant contribution to the quality of research being performed in North America. For AOSNA, it is a pleasure to be able to invest in promising projects like these and to incentivize the members to actively take part in the scientific development of the region

Committee Updates

AOSpine North America Education Committee

Joseph Cheng, MD, MS

As many of our long time AO members have noticed, there have been substantial changes in the past few years with the courses and educational content that our AOSpine North America Education Committee put together. We completed a "Needs Analysis" to better understand the needs of our members and practicing spine surgeons, and have used that feedback to work on backwards planning to develop curriculum which is more relevant and impactful. We believe these changes have contributed to the upsurge in our course participants, which have increased by 28%.

We offered our second Flipped Classroom course on Minimally Invasive Spine Surgery in May 2016. The feedback was fantastic and we received rave reviews. Michael Cunningham from the AO Education Institute, presented our course format and data at the Association for Medical Education in Europe meeting.

Work on improving our AOSpine resident courses continue, as we identify and address academic gaps, redundancies, and misalignments in order to facilitate learning. Our Residents courses include educational material such as the ACGME Orthopedic and Neurosurgery Milestones, to make the courses even more relevant to residency programs and training of residents. We are currently developing lecture based video series for Residents courses, along with standardizing Residents' Case Presentations and developing a Case Library.

One gap that was identified in our Needs Analysis was the area of systems based practice. To address this need, we are developing a Practice Management Essentials Course targeted towards spine surgeons who are 1-3 years in practice (post Fellowship/pre-Boards) and interested in utilizing positive outcomes to optimize their Practices. This course also includes primers on coding and reimbursement, marketing a spine practice, addressing liability and malpractice issues, among other important topics to a practicing spine surgeon, but which is not typically taught in residency.

And lastly, to meet the needs of our practicing surgeons, we are working with AOSpine Latin America on a Spine Camp Course. This is the first of its kind in medical education, and one aimed not to teach a surgical technique, but to focus on improving a surgeon's technique and skill for a specific procedure. Our first in a series of focused clinics will be aimed at enhancing skills in MIS surgery for laminectomy and interbody fusion, and using spine simulators and hands on coaches to improve a participant's efficiency and decrease complications.

It has been an honor to serve as your AOSpine North American Education Chair for the past few years, and beginning this July, I leave you in the good stewardship of John DeVine, MD who assumes the role. I hope everyone has a safe and happy summer!

AOSpine North America Research Committee

James Harrop, MD

The research committee consists of James Harrop (Chair), Tom Mroz (Past Chair), Sam Cho, Brian Kwon, Justin Smith, and Nassr Ahmad. I would like to welcome Brian Kwon, Justin Smith, and Nassr Ahmad who were recently added to the committee. The research committee met in March in Banff, Alberta, Canada to review and select this year's Young Investigator Research Grant Award winners (YIRGA). All submissions were excellent and each year the quality of work continues to improve. The call for applications for the 2018 YIRGA awards will be announced in October with the deadline of Dec. 15, 2017.

The AOSpine International Research Commission has focused on research globalization to allow all regions to apply for funding in order to execute the best and most relevant studies. For our own studies, I am happy to report that enrollment is increasing in the RISCIS study

(Riluzole for acute SCI) with 83 patients enrolled. Riluzole for CSM should conclude in the immediate future with an enrollment of 300 patients. Anterior vs Posterior study for treatment of isthmic spondylolisthesis is enrolling on schedule. AO international has a new initiative called AO Peer which provides funding for each region to do research directed education. We are exploring modules and ideas to place this initiative in our Fellows Course and Fellows Forum on Research. The next focus issue on Spinal Infections is on track for GSJ in 2018 and will be directed at iatrogenic and primary spinal infections.

Committee Updates

AOSNA Community Development Committee

Lali Sekhon, MD

It's been a busy past few months for the AOSpine North America Community Development Committee, comprising Lali Sekhon, Eric Massicotte, Pat Pritchard, Ripul Panchal and Norm Chutkan. The highlights of the past 6 months were 15th Annual AOSNA Fellows Forum in March 2017 in Banff, Canada, very well attended with over 50 fellows and faculty as well as the Global Spine Congress, in Milan Italy in May 2017. AOSNA has been busy on a few different fronts:

1. Congratulations to Norm Chutkan, MD for being appointed the next Community Development Chair for AO Spine International. Norm has a long history with the AO and with Community Development and takes over his post next year. Norm is an outstanding selection who will continue to further the AO values of education, integrity and spine care.
2. Practice Essentials Meeting: This is an interactive event aimed at non-clinical competencies that are essential for every Spine and Trauma surgeon. It will be co-hosted by AOSpine North America and AOTrauma North America. This is the first AO North America event aimed at non-clinical competencies that are essential for every practicing Spine and Trauma surgeon to master in order to have a successful and thriving practice. This inaugural event will offer participants an opportunity to learn from experts in the field in health care economics, contracting, coding, marketing and lifestyle management. Topics will cover the gamut of non-clinical skills needed to succeed in practice today. The modular format of the course will combine lectures by leaders in the field with small group roundtable breakouts to explore presented material in a

more personalized fashion. The meeting is set for Nov 3-4, 2017 at The Venetian Las Vegas, Nevada and is co-chaired by Joseph Cheng, MD, Paul Gladden, MD and Lali Sekhon, MD. Go to www.aona.org for more information.

3. Social Media: AOSpine North America is on facebook, twitter, and instagram.
4. Member Engagement Opportunities: Many members want to contribute and there are lots of ways to do it. Members have opportunities to get involved in education, research, marketing and promotion, fellowship outreach and professional growth. For those interested in becoming more involved, email Chi Lam at CLam@aospine.org.
5. AOSpine International has released the Insight Spine app for iOS and Android. Bringing online knowledge to your fingertips this app promises to deliver tailored content to your smart phone. Download it now.
6. Finally, mark your calendar for the 4th Annual Reception for AOSNA in Orlando, FL 5.30 pm- 8 pm, October 25, 2017 at the Hyatt Regency Hotel. This will be at the annual North American Spine Society meeting. All are welcome. Come along, meet old acquaintances and make new friends. Meet your AO colleagues.

The AO Community continues to grow. With over 6,000 members' world-wide, there has never been a better time to join. If you have not done so, join now!

AOSNA Fellowship Committee

Ted Choma, MD

As my term comes to an end, I would like to thank the AOSNA Board, Staff, and my fellow colleagues on the Fellowship Committee for their support during my term as Fellowship Chair. It is my privilege to have Dan Gelb succeed me as incoming Chair of this committee. Dan has been a long-time leader in AOSpine North America and I have no doubt that he will take this committee to a new level.

During this year, our committee has been hard at work to improve and streamline our fellowship site application process to ensure that it is fair, transparent, and merit-based. Having just finished our application process for the 2017-2019 academic years, our reviewing committee has selected 35 of the 48 sites to be AOSNA Fellowship Sites. The fellows

and fellowship directors at these sites will be invited to participate in our fellows activities including our Fellows Course in the fall, and annual Fellows Forum in Banff next year. Of the 35 sites, twenty five of them will also receive funding of \$75K per year to further support their fellow initiatives.

Another initiative that our committee will be launch this year is our Fellowship Grand Round Webinars. We will be starting the webinars this fall and will have a rotation schedule so each fellowship site will have an opportunity to host one. We would love for all fellows to be involved.

**2017 has been an exciting time for AOSNA and its members.
If you are not a member, there has never been a better time to join.**



Michael Fehlings is awarded the Germán Ochoa Traveling Fellowship Award

At the Global Spine Congress this past May, Michael Fehlings of Toronto was awarded the Germán Ochoa Traveling Fellowship Award.

While a high number of quality applications were received for the fellowship, only one could be chosen. Members of the AOSpine Education Commission were tasked with scoring each applicant according to specified criteria, in addition to faculty merit and their motivation letter.

AOSpine created the award in 2015 to honor the late Germán Ochoa for his unparalleled dedication to AOSpine, and his countless achievements. The Germán Ochoa Traveling Fellowship offers a unique opportunity for a senior AOSpine faculty member to spend up to four weeks at a spine center of his/her choice. The main ethos of the fellowship is that the selected member will act as an "Ambassador", promoting AOSpine as a global community and a leader in spine education.

AOSNA Welcomes Two New Committee Chairs on Aug. 1



Dr. John DeVine

Dr. John DeVine will take over from Dr. Joseph Cheng as the new Chair of the AOSNA Education Committee. Dr. DeVine is a board certified orthopedic surgeon and is a Professor and Chief of Spine Surgery for the Department of Orthopaedic Surgery at the Medical College of Georgia at Augusta University in Augusta, Georgia. He is a graduate of the F. Edward Hebert School of Medicine

at the Uniformed Service University of the Health Sciences and completed his orthopaedic residency at Madigan Army Medical Center. He also completed an orthopaedic spine fellowship at the Maryland Spine Fellowship in Baltimore, MD.

Dr. DeVine has been involved in AOSNA since 2006 and has been faculty at over 45 courses teaching residents, fellows and practicing surgeons.

"My vision for the Education Committee and the faculty that make AOSNA education operational is to continue to evolve our educational offerings to meet the unique demands of residents, fellows, and attending spine surgeons. AOSNA has been at the forefront of spine education for almost two decades, and in order to remain at the forefront, our organization must rely on the principles of education that have been the foundation of our success. However, principles are only words written in the playbook. It's the execution that is paramount to success. Execution of those principles is accomplished by the troops on the ground, and in our case, our teaching faculty and committee members." John G. DeVine, MD.



Dr. Daniel Gelb

Dr. Daniel Gelb will also start his official 3-year term as Fellowship Chairman on August 1, 2017. The position is currently held by Dr. Ted Choma will be move to the Past-Chair position. Dr. Gelb currently serves as Professor of Orthopedics at the University of Maryland School of Medicine and Co-Director of the Spine Program at the University of Maryland Medical Center.

A longstanding member of the AO community, Dr. Gelb has demonstrated a consistent dedication to AOSpine and has been a leader in developing new educational initiatives at the Resident, Fellow, and Attending levels. His concept of the interactive case-based curriculum has been adopted for the AOSNA Resident Course and has served as a model for other courses. Recently, his efforts were instrumental in developing a new web-based curriculum for the Minimally Invasive Course based on the "flipped classroom" model.



AOSNA Young Investigator Research Grant Award Winner Dr. Gregory Hawryluk on Predictors of Autoimmunity Following Spinal Cord Injury in Humans

It is my strong opinion as a junior investigator in the Neurotrauma field that we must question the fundamentals upon which it has been built. Our failure to translate a single safe and efficacious therapeutic for either spinal cord or brain injury puts the Neurotrauma field well behind fields like oncology which have entered a golden age of personalized medicine. It is possible that we've got some basic tenets in the field incorrect and that this has impeded advancement.

There is a particular observation in central nervous system (CNS) injury which has bothered me since learning about it as a graduate student – Neuroinflammation persists at abnormally high levels in the injured CNS for decades after a CNS insult. Scientists and clinician scientists have been aware of this finding for many years, but I'm unaware of a satisfactory explanation for this phenomena. Likewise I have not felt reassured that this response is without harm. Indeed, chronic inflammation is generally viewed as injurious when it occurs in the body. Two possible explanations for the persistent inflammation that follows CNS injury come to mind. The first is that something inherent to the inflammatory response is self-perpetuating. Another explanation potential explanation is that there is an autoimmune response to the CNS.

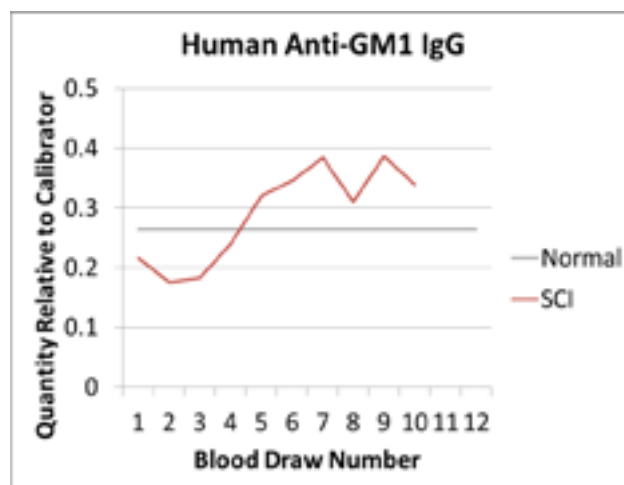
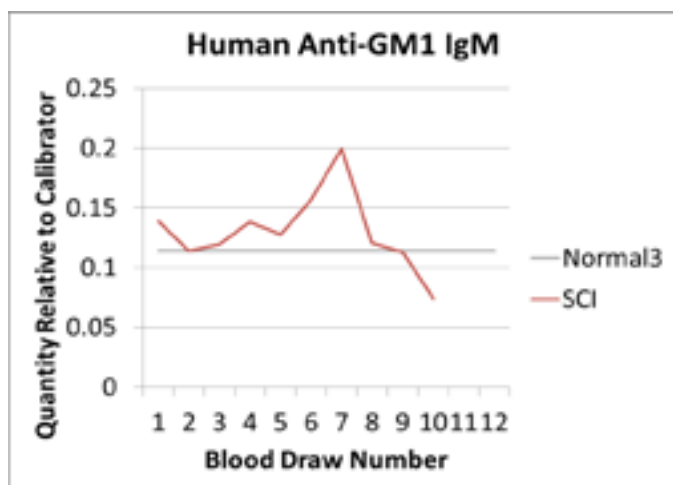
The latter possibility has always intrigued me since I first learned in medical school about a condition called sympathetic ophthalmia – an autoimmune response to a globe rupture which can prompt removal of the damaged eye to prevent autoimmune mediated damage to the remaining intact eye. As the eye is a CNS structure wouldn't one expect the same autoimmune response to a brain or spinal cord injury? Obviously, these structures cannot be removed but we could consider immunosuppression. You might argue that the steroid trials completed for spinal cord injury should inform this issue. I contend, however, that trauma-induced CNS autoimmune injury would likely progress very slowly and the time scale employed in the NASCIS trials was far too short to detect an impact on trauma induced autoimmunity.

Why haven't clinicians more strongly considered the possibility of CNS autoimmunity following CNS trauma? It is possible that given the initial CNS injuries these patients sustain, additional deficits might be too slowly progressive and subtle to detect or might be chalked up to normal aging in the context of diminished reserve left behind by the trauma. Moreover, the idea of CNS autoimmunity following neurotrauma is not a new one.

Past investigators came to the conclusion that these responses were largely protective. I'd like to raise the possibility that this is a basic tenet that we might have wrong. It took about 100 years to disprove Ramon y Cajal's assertion that the CNS is incapable of repair. Could it be that we have overlooked the importance of CNS autoimmunity following CNS injury? A number of groups are starting to explore this possibility and the subject will be a focus topic at this summer's National Neurotrauma Symposium hosted by the National Neurotrauma Society here in Salt Lake City.

My basic science laboratory is exploring CNS autoimmunity subsequent to neurotrauma. We are completing rodent and human investigations in parallel and we are finding similar results in both species. Of course, as clinician scientists our particular advantage in the basic science realm is our understanding of patients and the clinical course of the illnesses we treat. Moreover we are able to complete studies involving human patients much more readily than our basic science counterparts. The YIRGA funding generously provided to me has allowed my laboratory to characterize titers of established CNS autoantibodies to myelin associated glycoprotein (MAG) as well as monosialotetrahexosylganglioside 1 (or GM1) in human patients using ELISA. This has allowed me to confirm and to begin mapping the temporal course of the autoimmune response.

So far we have made a number of interesting observations (figure below). The CNS autoantibodies we quantitated are detectable in control subjects without acute CNS injury. Given the reported immune privilege of the CNS we did not anticipate this. We have observed a spike in IgM and IgG CNS autoantibody titers beginning approximately 10d after acute spinal cord injury. Previous work published by Hayes et al in 2002 suggests that this titer elevation may persist into the chronic phase of spinal cord injury. These findings suggest that CNS autoimmunity after acute spinal cord injury could be clinically important.



Legend: Grey lines represent autoantibody titers obtained from 25 healthy control subjects. Red lines represent autoantibody titers from 11 spinal cord injured patients. Blood draws 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and 12 correspond to draws 1, 3, 5, 7, 10, 14, 18, 23, 30, 90 and 180 days from the time of acute spinal cord injury.

We are, of course, interested in advancing treatment for human patients. My hope has been that my early work in this field may identify a treatment window where the application of immunosuppression may prevent or attenuate an autoimmune response. Just as there is a critical window for removing a ruptured globe and preventing sympathetic ophthalmia there may also be a critical window for intervening to prevent CNS autoimmunity following spinal cord injury. A short course of immunosuppression could be effective in neurotrauma but chronic immunosuppression might be needed. Many targeted therapies are available for such further investigations.

My idea of conceptualizing a victim of spinal cord injury like an organ transplant recipient may seem a radical idea. Indeed, the notion of immunosuppressing victims of spinal cord injury might seem like a bad idea. A trial of cyclosporine in severe traumatic brain injury completed by one of my mentors—Dr. Ross Bullock —has suggested safety at least in that population. Nonetheless, any benefits of immunosuppression in neurotrauma patients would have to be carefully weighed against the risks of harm. I don't want to reveal all of my ideas and findings until they are published of course. Much is in progress and there is much more to explore. I will say, though, that I think I am on to something and I am grateful that AOSpine has made my work possible.

Dr. Gregory Hawryluk is currently an Assistant Professor of Neurosurgery and an Adjunct Assistant Professor of Neurology at the University of

Utah where he serves as the Director of Neurosurgical Critical Care. Greg is proud to be AOSpine and AONeuro faculty; Greg sits on the Curriculum Development Committee for AONeuro. Greg runs a basic science laboratory and practices as both a neurointensivist and general neurosurgeon with a special interest in complex spinal surgery. Greg is an author of the of the soon to be published AOSpine Guidelines for the Management of Acute Spinal Cord Injury as well as the 4th Edition Guidelines for the Management of Severe Traumatic Brain Injury published by the Brain Trauma Foundation.

Greg graduated from medical school at the University of Alberta with Honours and Honours in Research in 2003. He completed a basic science PhD in Repair and Regeneration of the Injured Spinal Cord in 2012 under the supervision of Dr. Michael Fehlings. He subsequently completed his neurosurgical residency at the University of Toronto in 2013. He completed a Neurotrauma fellowship at UCSF under the supervision of Dr. Geoffrey Manley which also included extensive complex spine surgery training with Dr. Dean Chou.

Greg is very academic with ongoing studies spanning the spectrum from basic science to translational to clinical research. Greg is grateful to have been mentored by a number of exceptional AOSpine faculty and to have received an AO Young Investigator Grant Award to support his work. This funding has allowed the generation of preliminary data and the ability to compete for federal grant funding.



AOSpine North America Reception at the GSC 2017

AOSpine North America welcomed participants with a reception during the Global Spine Congress in Milan, Italy and the turnout was amazing!

The evening set off on a friendly note as attendees crowded the venue. The reception provided members and non-members alike with a chance to socialize over drinks as everyone settled into the relaxed evening in anticipation of the busy schedule ahead.

The Global Spine Congress continues to position itself as an event of the highest international relevance for the spine surgeon community. For four days, participants were able to enjoy an outstanding scientific program showcasing the very latest research, innovative techniques, and cutting-edge technologies in spine surgery.



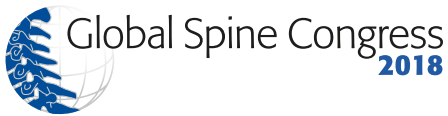
Practice Essentials

An interactive event aimed at non-clinical competencies that are essential for every Spine and Trauma surgeon.

November 3 – 4, 2017

The Venetian Las Vegas
Las Vegas, Nevada

Directly Provided by  **AO North America**



The Global Spine Congress heads to Asia Pacific

SUBMIT YOUR ABSTRACT!
Submissions open from June 01
to September 15, 2017

Global Spine Congress
Singapore | May 2–5, 2018

www.gsc2018.org

From Good to Great at the AOSNA Strategy Retreat



Earlier this year, AOSNA brought together 20 of our Board and Committee leaders for a 2 ½ day strategy retreat at the JW Marriott in Scottsdale, Arizona. Prior to the retreat, the participants were sent a copy of Jim Collin's book, "Good to Great" and asked to read about how companies can triumph over time to go from good to great.

Specifically referencing the Hedgehog Concept from the book, AOSNA Chair, Darrel Brodke challenged the group to define the three overlapping circles discussed by the author: What are we (AOSNA) passionate about, what can we be the best at, and how do we measure success. Through various brainstorming sessions, the key themes of building relationships, knowledge distillation/dissemination, and integrity/honesty were clearly indicative of our organization.

The positive energy from the sessions, were carried over into the evening teambuilding activity of TopGolf where everyone was split into teams and competed for points by hitting the targets on the field. A great time was had by all and the evening concluded with a salsa making contest and dinner. At the end of the retreat, the group felt a good sense of direction and alignment on next steps, action items, and timelines to take AOSNA into the future.



Fellows Corner

AOSpine North America is pleased to announce the sites that have been awarded fellowship funding for the 2017/2018 and 2018/2019 academic years



There were a total of 48 applications from outstanding institutions received. All of the applications went through a rigorous peer-reviewed process to determine which sites would receive the available funding. Congratulations to the 25 sites that were selected for fellowship funding for the 2017/2018 and 2018/2019 academic years. These selected fellowship sites will receive \$75,000 per academic year to support their fellowship initiatives.

Institution	Fellowship Director(s)
Cleveland Clinic	Jason Savage, MD
Harborview Medical Center/University of Washington	Richard Bransford, MD
Hospital for Special Surgery	Andrew Sama, MD
Thomas Jefferson University	James Harrop, MD
Johns Hopkins University	Daniel Sciubba, MD
Mayo Clinic	Bradford Currier, MD
McGill University	Jean Ouellet, MD, FRCSC
Northwestern University	Alpesh Patel, MD, FACS
Rush University	Vincent Traynelis, MD
Toronto Western Hospital/University of Toronto	Michael G. Fehlings, MD, PhD, FRCSC, FACS, FCAHS, FRSC
University of Alabama	Steven Theiss, MD
University of British Columbia	Scott Paquette, MD, MSc, FRCSC / Brian Kwon, MD, PhD, FRCSC
University of Calgary	W. Bradley Jacobs, MD, FRCSC / Steven Casha, MD, PhD, FRCSC
University of Maryland	Steven Ludwig, MD
University of Missouri	Theodore Choma, MD
University of Rochester	Addisu Mesfin, MD
University of Utah	Darrel S. Brodke, MD
University of Virginia	Christopher Shaffrey, MD / Frances Shen, MD
University of California Davis	Eric Klineberg, MD
University of California San Francisco (neuro)	Praveen Mummaneni, MD
University of California San Francisco (ortho)	Bobby Tay, MD
University of Southern California	Jeffrey C. Wang, MD
Washington University	Jacob M. Buchowski, MD, MS
West Virginia University	John C. France, MD
Yale University	Khalid Abbed, MD

Meet some of our graduating fellows



Ananth Eleswarapu, MD

Tell us a little about yourself?

I grew up in New Jersey and went to college in New York City, where I met my wife Tina. In July of my 4th year of med school I did a rotation on the pediatric orthopedic service at Children's Hospital of Pittsburgh. Since it was peak scoli season we did three or four big scoliosis cases a week. This experience made me interested in orthopedics and spinal deformities. I eventually landed here at UC Davis where I've had the opportunity to be trained in many of the same procedures that inspired me to pursue this career in the first place. Outside of the hospital I have been known to enjoy spending time with Tina, traveling to new places, and obsessively tracking any rumors involving my hometown team, the New York Knicks.



Avery Buchholz, MD

I went to The Citadel for college and followed that with 11 years in the National Guard during which time I attended medical school at the University of Wisconsin School of Medicine and Public Health and a neurosurgery residency at the Medical University of South Carolina. I knew early on that I wanted to specialize in spine surgery and was lucky enough to land a fellowship at UVA with two of the best Dr Chris Shaffrey and Dr Justin Smith. Post fellowship I am returning to MUSC as an assistant professor in neurosurgery where I am hoping to continue developing and growing the spine program there. Outside of work I enjoy the beach, boats, and being on the water so Charleston, SC suits me well.



Dominic Pelle, MD

I grew up in Metro-Detroit and remained in Michigan for all my training before leaving for a Spine Surgery Fellowship in Cleveland, Ohio. Post-fellowship, I am excited to say I will stay on as faculty at Cleveland Clinic. Outside of work I enjoy spending time with my wife, Maria and 6 year old daughter, Stella.

How was your fellowship experience? How has being an AOSNA Fellow helped you in your career path?

I've been lucky to do my fellowship at UC Davis as the training is comprehensive. We are trained in the full spectrum of spinal pathology, with degenerative, deformity, trauma, and tumor cases all well represented. In keeping with the AO spirit, the emphasis is on clinical decision making and basic surgical principles.

Being part of the AOSpine network has been a major benefit as I've attended courses and conferences throughout the year. I've enjoyed meeting the other fellows and comparing our experiences. I learned a lot from attending the case discussion and lab sessions, where I got to see how expert surgeons around the country treat the same problems that I'll be seeing next year.

It has been a privilege being involved with AOSNA. Just being an AO Spine fellow connects you to a network of who's who in spine surgery. You immediately have mentors all over North America who you can reach out to for advice. In addition, we get the benefits of an AO Spine education during the fellowship year being able to attend courses, cadaver labs, and being an official member. I attended a few AOSpine courses during residency and was always impressed with the level of teaching and information presented. It feels great to be a part of that now.

The AOSNA Spine Fellowship at the Cleveland Clinic has been nothing short of remarkable. From dedicated faculty to an intensely collaborative atmosphere, this year has felt like being part of a big family. AOSNA has been an extension of that family, as evidenced by the AOSNA Fellow's Forum in Banff, Canada. On an international level, this group of experienced and respected surgeons came together to offer guidance, expertise, and insight to us during our final stage of training, which, needless to say, was a very special experience.

Continued →

	Ananth Eleswarapu, MD	Avery Buchholz, MD	Dominic Pelle, MD
What was your most memorable experience during your fellowship year?	I was on call the first week of fellowship, and on the first night we had a cervical facet dislocation, a thoracic fracture-dislocation, a T8 metastatic lesion with cord compression, and an occipitocervical dissociation all come in on one night. I wasn't sure what I had gotten myself into! But the first few weeks of fellowship were a rapid learning curve and a lot of fun.	The thing I will remember most from my fellowship experience is how good these guys really are (Dr Justin Smith and Dr Chris Shaffrey). There were a number of cases I saw early on that I would not have been able to handle safely prior to the fellowship. They always made it look easy. I will defiantly remember the way they made the most complex cases look routine.	As I am trained as an Orthopaedic Surgeon, one (of many) memorable intra-operative experiences of fellowship was the first time I incised the dura for an intradural tumor. Firstly, I had to suppress the somewhat instinctual tendency of being unhappy at seeing CSF, and secondly what an excellent experience that was, which I'll not forget any time soon.
What is the one thing or person you will remember most from your fellowship?	Many of our patients at Shriners Hospital come from far and wide and bring interesting stories with them. One of our patients was a ten year-old girl who had traveled 6,000 miles from the Pacific island of Yap to have her surgery done in Sacramento. I remember talking to her Dad prior to the surgery. In search of the best care for his daughter he had traveled halfway around the world and was handing her over to a group of people he had never met before. While one of the goals of fellowship is to make the procedures feel routine, for many patients and families the day of their surgery is one of the scariest days of their lives. That is knowledge I will keep with me when I have my own patients next year.	As a Citadel graduate getting to work with Dr. Shaffrey has been a memorable experience. Not only is he a leader in spine surgery but he is also a distinguished Citadel graduate himself. In a way this year has felt like four years at The Citadel condensed into one all the way from hell week through knob year up to recognition day and graduation.	What I will remember most about my fellowship are my mentors. Each and every one of them are excellent surgeons and clinicians, but even more so are great individuals and I am honored to have trained with them. When considering the myriad of factors that contribute to establishing a successful practice, work-life balance, and overall meaningful career, finding role-models has been effortless, and I am very thankful for that.
Do you have any advice for upcoming fellows?	My advice would be to focus on details. Early in the year, pay attention the small things, like how your attendings position the patient, how they expose, where they place retractors, etc. Try to anticipate how each step will affect the rest of the case. Fellowship is the time to learn how to do big complex cases, but the key to doing a big case safely is to do all the small things well.	Be a sponge and soak it all up. I came out of residency feeling confident about my skill set but quickly realized there was a whole nother level of expertise out there. Be humble and make every opportunity (good and bad) a learning experience.	The advice I would give to upcoming fellows is simple: total immersion; jump in with two feet and enjoy the ride.

Congratulations to the Graduating Fellows of 2016-2017

At the end of July, we bid farewell to the AOSNA fellows of 2016-2017 graduating from our fellowship sites. On behalf of the AOSNA Fellowship Committee, we wish them much success and happiness in their next steps.

Graduating Fellows from Cleveland Clinic

- Alexander Ivanov, MD
- Gabriel Smith, MD will join the faculty at the University Hospital Health Systems (Cleveland, OH)
- Dominic Pelle, MD
- Farbod Rastegar, MD
- Vamsi Kancharla, MD will join Resurgens Orthopedics (Atlanta, GA)
- Assem Sultan, MD
- Bryan Lee, MD

Graduating Fellows from Emory University Orthopedics and Spine Center

- Andrew Milby, MD will join the faculty at the University of Pennsylvania (Philadelphia, PA)
- Mathew Cyriac, MD
- Ehsan Saadat, MD
- Christopher Martin, MD will join the faculty at the University of Minnesota (Twin Cities, MN)

Graduating Fellows from the Hospital for Special Surgery

- Theresa Pazionis, MD, FRCSC
- Okezie Aguwa, MD
- Blake Staub, MD
- Nicolas Plais, MD

Graduating Fellows from Johns Hopkins University

- Michael Raber, MD
- Samuel Taylon, MD

Graduating Fellows from Mayo Clinic

- Jason Alder, MD will be joining Community Health (Indianapolis, IN)
- Joseph Popper, MD

Graduating Fellows from McGill University Health Centre

- Fahad Abduljabbar, MD will be joining the faculty at King Abdulaziz University Hospital (Jeddah, Saudi Arabia)
- Alisson Teles, MD will be completing a second fellowship at University of Calgary
- Gabriel Gutman, MD

Graduating Fellows from NYU Hospital for Joint Diseases

- Brandon Hirsch, MD
- Kolawole Jegede, MD
- Maksim Vaynrub, MD
- Muhammad Burhan Janjua, MD will be completing a second fellowship at the University of Pennsylvania (Philadelphia, PA)
- Subaraman Ramachandran, MD

Graduating Fellows from OrthoCarolina Spine Center

- Marco Mendoza, MD will be joining Tahoe Fracture & Orthopedic Clinic (Carson City, NV)
- David McConda, MD will be joining Flaget Memorial Hospital (Bardstown, KY)

Graduating Fellows from Rush University Medical Center (Ortho and Neuro)

- Comron Saifi, MD will be joining the faculty at the University of Pennsylvania (Philadelphia, PA)
- Arya Giri Varthi, MD
- Justin Paul, MD, PhD will be joining Danbury Orthopedics (Danbury, CT)
- Mazda Keki Turel, MD

Graduating Fellows from Thomas Jefferson University

- John Gillick, MD
- George Rymarczuk, MD

Graduating Fellows from University of Toronto/Toronto Western Hospital

- Jean Christophe Murray, MD, FRCSC will be completing a second fellowship at St. Michael's Hospital (Toronto, Canada)
- Nizar Moayeri, MD
- So Kato, MD will be joining the University of Tokyo (Tokyo, Japan)
- Anupreet Bassi, MD
- Mohammed Obeidat, MD
- Amit Keren, MD

Graduating Fellow from University of Alabama at Birmingham

- Ross Jones, DO will be joining Flagstaff Bone and Joint (Flagstaff, AZ)

Graduating Fellows from University of British Columbia

- Etienne Bourassa-Moreau, MD, FRCSC will be joining the faculty at Oxford University (Oxford, England)
- Reina Yao, MD, FRCSC
- Turker Dalkilic, MD, FRCSC

Graduating Fellows from University of California at Davis

- Ananth Eleswarapu, MD will be joining the faculty at University of Miami (Miami, FL)
- Flynn Andrew Rowan, MD

Graduating Fellows from University of California at San Francisco (Ortho and Neuro)

- Grigoriy Arutyunyan, MD
- Josiah Orina, MD
- Sun Ik Lee MD
- Michael Virk, MD will be joining the faculty at Weill Cornell Medical Center (New York, NY)

Graduating Fellows from University of Maryland

- Nissim Ackshota, MD will be completing a second fellowship at Shriners Hospital for Children (Philadelphia, PA)
- Amit Bhandutia, MD will be joining Mid-Jersey Orthopedics (Flemington, NJ)
- Stephen Clark, MD

Graduating Fellows from University of Southern California

- Kaku Barkoh, MD will be joining Texas Orthopedics and Sports Medicine (Tomball, TX)
- Larry Lee, MD
- Josh Lucas, MD

Graduating Fellows from University of Utah

- Jason Ferrel, MD will be joining Orthopedic One (Columbus, OH)
- Rasheed Abiola, MD

Graduating Fellows from University of Virginia

- John Quinn, MD will be joining the faculty at University of Texas (Houston, TX)
- Avery Buchholz, MD will be joining the faculty at the Medical University of South Carolina (Charleston, SC)

Graduating Fellows from University of Washington

- Samia Ghaffar, MD
- Farhan Karim, DO will be joining Starling Orthopaedics (Hartford, CT)
- Brett Walker, DO

Graduating Fellows from Washington University

- Timothy Bryan, MD will be joining Orthopedics Specialists of Southwest Florida (Ft. Myers, FL)
- Davin Cordell, MD will be joining Orthopedic Center of Corpus Christi (Corpus Christi, TX)
- Philip Sinatra, MD will be joining Kaiser Permanente (CA)

Graduating Fellow from West Virginia University

- Michael St. Onge, DO

Graduating Fellows from Yale University

- Luis Kolb, MD
- Justin Virojanapa, DO will be joining the faculty at Northwell Health (New York, NY)

A Big Welcome To Incoming Fellows

The AOSNA Board and Fellowship Committee is honored to welcome the incoming fellows of the 2017-2018 academic year. These fellows will further their medical careers in spine at AOSNA fellowship sites that are dedicated to core values of caring and compassion in the context of state-of-the-art clinical experiences and facilities.

Name	Fellowship Program	Name	Fellowship Program
John Freeland Ackley, DO	Cleveland Clinic	Abdulaziz Saud Bin Shebreen, MD	
Samuel Clay Overley, MD			
Anup Krishna Gangavalli, MD		Andrew Yew, MD	Northwestern University
Maziyar Arya Kalani, MD		Eric Bialanski, DO	
Ganesh Mani Shankar, MD			
Melvin Makhni, MD	Columbia University Medical Center	Bradley Johnson, MD	NYU Hospital for Joint Diseases
Martin Pham, MD		Tomas Kuprys, MD	
John Sielatycki, MD		Tina Raman, MD	
		Aaron Hockley, MD	
Patrick Hill, MD	Hospital for Special Surgery	Pawel Jankowski, MD	
Brandon Carlson, MD		Michael R. Conti Mica, MD	OrthoCarolina Spine Center
Phillip Saville, MD		Michael Silverstein, MD	
Eric Feuchtbaume, MD			
Corinna Zygorakis, MD	Johns Hopkins University	Hani Malone, MD	Rush University
Samuel Kalb, MD		Remi M. Ajiboye, MD	Stanford University
Oscar A. Duyos Garcia, MD	Mayo Clinic	Ronen Belcher, MD	Swedish Neurosciences Institute
Bryan Lawson, MD		Amir Abdul Jabbar, MD	
Andrew Douglas Tice, MD	McGill University	Louis Nkrumah, MD	
Abdulaziz Alhajeri, MD		Thomas O'Lynneger, MD	
Abdulmajeed Alzakri, MD		Tamir Tawfik, MD	

Name	Fellowship Program
Yusef Mosley, MD	Thomas Jefferson University
Mario Ganau, MD	Toronto Western/ University of Toronto
Vinay Kulkarni, MD	
Chris Neilsen, MD	
Maheswara Akula, MD	
Robert Ravinsky, MD	
Fan Jiang, MD	
Kivanc Atesok, MD	University of Alabama at Birmingham
Shreya Srinivas, MD	University of British Columbia
Hanbing Zhou, MD	
Babak Sharifi, MD	
Duncan Cushnie, MD	University of Calgary
Christos Zafeiris, MD	
Fillipe Nares, MD	
Alisson Teles, MD	
Rani Nasser, MD	University of Cincinnati
David Gimbel, MD	
Luke Hiatt, MD	University of California Davis
Gurpal Pannu, MD	
Neil Bhamb, MD	University of California San Francisco
Paul Eichenseer, MD	
Singh Paramjit, MD	
Catherine Miller, MD	
Leslie Robinson, MD	

Name	Fellowship Program
Morenikeji Buraimoh, MD	University of Maryland
Charles Gordon, MD	
Vishal Khatri, MD	
Josue Acevedo Nieves, MD	University of Missouri
Eric Emanski, MD	University of Rochester
Pranay Patel, MD	University of Southern California
Nickul Jain, MD	
Ifije Ohiorhenuan, MD	
Ross McEntarfer, MD	University of Utah
Jeremy Shaw, MD	
Juanita Garces, MD	University of Virginia
Marcus Mazur, MD	
Jeffrey Mullin, MD	
Christina W. C. Cheng, MD	University of Washington
David Gendelberg, MD	
Nathan Wigner, MD	
Colby Fagin, MD	University of West Virginia
Pablo J. Diaz-Collado, MD	Washington University
Pooria Salari, MD	
Alexander A. Theologis, MD	
Chase Woodward, MD	
Jonathan Nakhla, MD	Weill Cornell Medical College

Introducing Spine Camp—MIS Personal Training Clinic

A collaboration of AOSpine North America and AOSpine Latin America.
November 10—11, 2017, InterContinental San Juan, Puerto Rico



Are you ready to be at the top of your spine game? Like the swing of a professional golfer or the form of a champion swimmer, the technique of a surgeon can benefit from the guidance of a coach. This is a unique opportunity to practice workflows and techniques using actual surgical tools in a highly realistic surgical simulation setting.

- The 1st in a series of focused clinics to enhance your skills in MIS surgery
- Be assigned a “Personal Trainer” to understand your needs and develop a personalized training plan
- Maximized in-person time for personalized planning and simulation training through blended learning and online pre-course activities.

Topics

- MIS decompression of lumbar spine stenosis
- Transforaminal lumbar intervertebral approach
- Decision-making process in lumbar disc herniation, lumbar spine stenosis, and spondylolisthesis
- The importance of spinopelvic and sagittal malalignment
- Prevention and management of deep wound infection

Description and learning outcomes

This course features online pre-course activities, simulation surgical exercises to practice several key microsurgical decompression and fusion procedures for the lumbar spine. Please find below the course learning outcomes:

- Formulate an appropriate MIS operative treatment plan
- Perform safe entry into the lumbar spinal canal, manipulation of the dura and nerve roots and discectomy
- Carry out the operative steps in microsurgical decompression of the lumbar spine
- Carry out the operative steps in fusion procedures in the lumbar spine, especially TLIF
- Use 2-D navigation for MIS pedicle screw placement
- Manage complications and repair a durotomy

Faculty are leaders in MIS Surgery from North America and Latin America

Chairpersons

Asdrubal Falavigna, Daniel Sciubba, Roger Härtl

Program Director

Joseph Cheng

Educational Advisors

Richard Bransford, Nestor Taboada

Faculty

Emiliano Vialle, Dean Chou, Jaime Segura

For more information, go to:

puertorico1711.aospine.org

Fellowship Opportunity in Minimally Invasive and Complex Surgery and 3D Navigation

In collaboration with New York-Presbyterian Hospital and Columbia University Medical Center, Weill Cornell Medicine is proud to announce their clinical fellowship in minimally invasive and complex spine surgery and navigation.

The goal of the fellowship is to train the future leaders in spinal surgery that will advance the field and expand our horizon based on the principles of technical excellence, sound clinical judgement and compassion for our patients. Surgeons who complete this program will be able to apply principles and techniques of minimally invasive surgery and navigation to all types of surgeries: from degenerative to trauma to tumor and deformity surgery in all regions of the spine, adult and pediatric. This will facilitate a career in either academic or private practice.

Did You Know

Norman Chutkan of the Core Institute in Phoenix, AZ has been elected Chair of the AOSpine International Community Development Commission. He starts his term as Chair-Elect from July 2017 and taking over in July 2018 to July 2022. "It is an honor to have been elected Chair of the Community Development Commission. Community lies at the heart of what we do. Research, education, and innovation are how we engage and move our community forward and the Community Development Commission plays a critical role in this process."

Faculty:

Roger Härtl, MD (Spine Fellowship Director)

Eric Elowitz, MD

Ali Baaj, MD

Kai-Ming Fu, MD, PhD

Lawrence Lenke, MD

Applications for the 2018 fellowship year are now being accepted.

**Contact: Ermic Bell,
Administrative Coordinator**

Elb2014@med.cornell.edu

(212) 746-5543

For more information, go to:

CLICK HERE

Completion of CSM-P Trial

We are pleased to announce that enrollment into the "Efficacy of Riluzole in Patients with Cervical Spondylotic Myelopathy Undergoing Surgical Treatment" (CSM-P) trial has been completed. Between February 14, 2012, and May 31, 2017, 300 subjects have been enrolled. This is a major milestone for this first Phase III Randomized, Double-Blind, Placebo-Controlled, Multi-Center study sponsored by AOSpine North America.

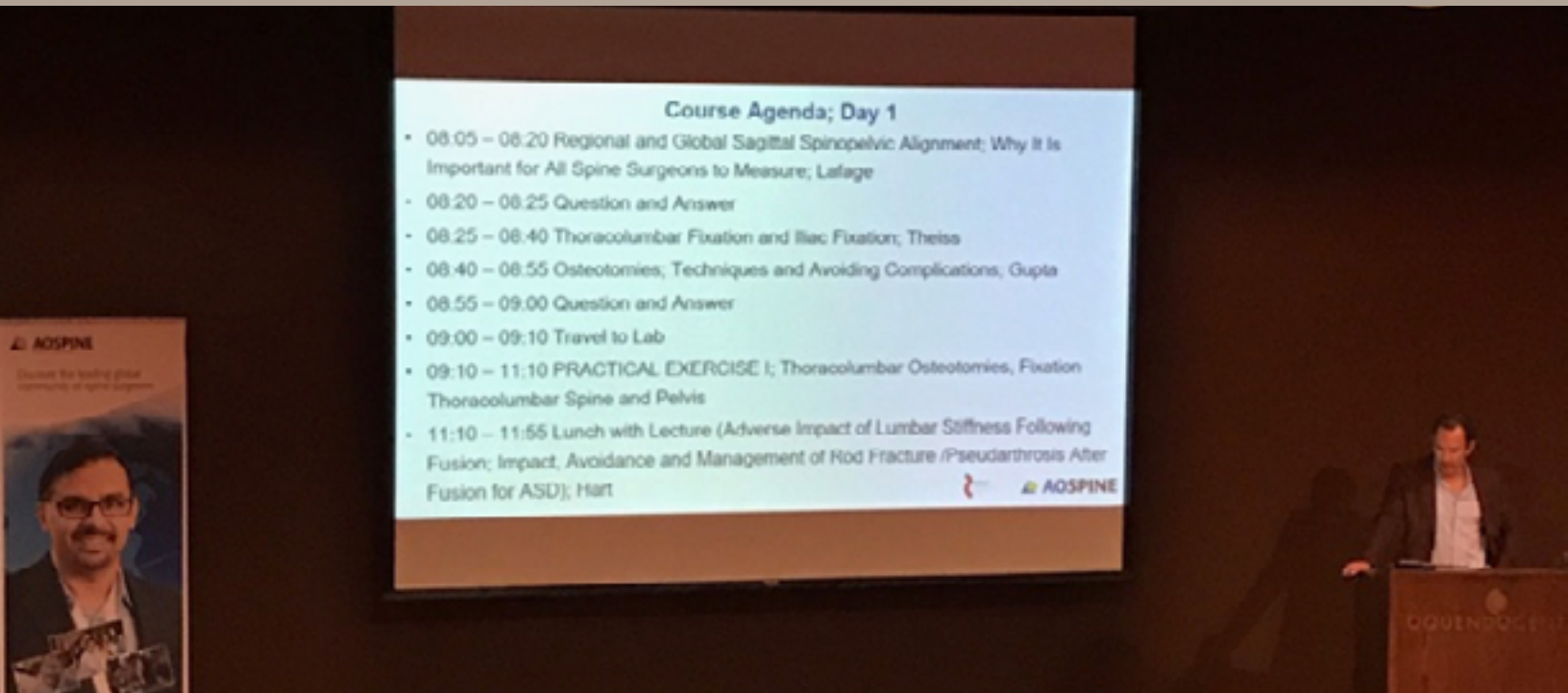
The AOSNA Research Committee would like to thank all of the CSM-P Investigators and their research teams for their ongoing efforts, continued support, and enormous contribution to the successful completion of trial enrollment. We look forward to continuing collaboration for the completion of the CSM-P study. We greatly appreciate your contribution to this trial and all of your continued efforts and attention.

The follow-up will be completed by November 2017 and the trial results are expected in early 2018.

Did You Know

As an AOSpine member, you have access to a variety of teaching, practicals and live surgery videos available to you.

AOSNA Partners with ISSG to create the Adult Spinal Deformity Course for Practicing Surgeons



Over the last decade there have been great advances in research, technology and philosophy involving both the diagnosis and treatment of patients with spinal deformity. To meet the needs of spine surgeons regarding critical knowledge updates and to share best practices for the management of adult spinal deformities, AOSpine North America and the International Spine Study Group recently collaborated and designed the Adult Spinal Deformity Critical Knowledge Course for Practicing Surgeons. The course was held at the Oquendo Center Bio-skills Lab and the Renaissance Hotel in Las Vegas Nevada, May 11-12, 2017.

This one and a half-day course presented participants with the latest research in the field and provided opportunities to discuss unique cases as well as practice new and proven techniques. The course Co-Chairs, Shay Bess, MD and Michael Daubs, MD assembled a team of nationally renowned faculty who shared their knowledge regarding surgical planning and operative techniques and provided participants with strategies to treat a range of patients with spinal deformity with the aim of improving patient outcomes. Participants commented on how they enjoyed the meeting, the hands-on bioskills lab, the openness of the faculty and free exchange of ideas. Congratulations go out to Dr. Bess and Dr. Daubs on such a well-received course.



Getting to Know...

Joseph Cheng, MD

Joseph Cheng, MD, is a professor and chair at the University of Cincinnati (UC) College of Medicine Department of Neurosurgery.

Cheng received his medical degree from the Medical College of Wisconsin in 1994 and a master's degree in biomedical engineering from Marquette University in 2002. He completed his residency and a Neurosurgical Complex Spine Fellowship at the Medical College of Wisconsin. Board certified in neurological surgery, Cheng was an American Association of Neurological Surgeons Health Policy Scholar in 2011. That same year he received the AOSpine North American Educator of the Year Award. In 2013, he received the Vanderbilt Distinguished Neurosurgical Educator of the Year Award.

Cheng joined the Yale faculty in 2016 where he also directs the Neurosurgery Spine Fellowship. Prior to that, he was a faculty member between 2002 and 2015 in neurosurgery at the Vanderbilt University School of Medicine, where he also served as director of Vanderbilt's Neurosurgery Spine Program. Additionally, he served on the faculty at the Medical College of Wisconsin from 2001 to 2002.

Cheng will be charged with growing an academic neurosurgery program that is fully integrated within the UC College of Medicine and UC Health. He will lead efforts to enhance postgraduate education, explore the future of neurosurgery through research and as a clinical department of the College of Medicine, will grow clinical interactions between neurosurgery and other neuroscience-related departments, including neurology and rehabilitation medicine, otolaryngology-head and neck surgery, psychiatry and behavioral neuroscience, emergency medicine and internal medicine. Programmatic priorities for the Department of Neurosurgery will be built around five key areas: neurotrauma, cerebrovascular neurosurgery, adult brain tumor surgery, functional neurosurgery and complex spinal disease.

Cheng has lectured internationally on neurosurgical care and has published nearly 150 scientific research papers, chapters and reviews and serves as a reviewer for several scientific journals. In addition to his leadership role in AOSpine, he is also an active leader in numerous professional societies, including the North American Spine Society, for which he has served on the Board of Directors since 2013, the Council of State Neurological Societies, for which he is an officer, Congress of Neurological Surgeons, Tennessee Neurosurgical Society, for which he is past-president, American Medical Association, American Association of Neurological Surgeons, for which he served on the Board of Directors from 2012 to 2013, and the AANS/CNS Section on Spine and Peripheral Nerve Disorders, for which he was chair from 2012 to 2013.



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