

# Newsletter

"To me, AOSpine membership means excellence in spine care through collaboration, as members can exchange cases, and receive expert opinions from other surgeons through the global network."

Abdulaziz Al Mutair AOSpine Middle East and Northern Africa Chairperson





AOSpine is the winner again! I am delighted to announce that the AOSpine Newsletter earned the "Best International & European Association Newsletter 2018" award at the Associations World Congress in Antwerp, Belgium on March 13, 2018. This is the second consecutive year that AOSpine has won this prestigious award, and I congratulate the AOSpine Community Development team for this fantastic achievement.

In just a few days, the worldwide spine surgeon community will come together in Singapore for the Global Spine Congress (GSC). Participants can expect four full days of parallel sessions covering more than 30 topics showcasing the very latest research, techniques, and technologies in spine surgery.

This edition of the newsletter features a personal interview with GSC

Chairperson Jeff Wang. He shares how the GSC has developed and transformed since it was first established in 2009 and what makes it so different from other spine events worldwide.

I would like to take this opportunity to make you aware of a few important events for AOSpine members at the GSC:

- On behalf of the AOSpine International Board, I cordially invite you to join the AOSpine Member Assembly on May 3, 2018!
- Once again, this year, our members will be able to elect the AOSpine Member Representative at the GSC. You will find all information on the shortlisted candidates in this issue of the newsletter as well as in the GSC App. Don't forget to visit the AOSpine booth to meet the candidates and to vote!

For the first time, our booth will have a designated member lounge, where we will offer free snacks and refreshments to our members.

Last but not least, make sure you benefit from the exclusive privilege to attend the members-only sessions. They will provide you with useful information on non-scientific topics that are relevant to your daily practice, such as "How to Avoid Litigation," "Leadership Skills" or "Developing Your AOSpine Career."

Also, for the first time, we will live-stream a select number of GSC symposia. Therefore, if you are unable to join us in person, you still have the opportunity to participate in a portion of the GSC scientific program from wherever you are; all you need is an Internet connection.

In this newsletter you will also find the latest AOSpine research update.

The AOSpine Knowledge Forum (KF) Degenerative/Biologics is raising the bar. The current evidence in biologics is severely lacking, and there are no reliable comparative studies to guide surgeons' decisions. To increase accountability on a global level, the KF is moving into developing the first ever biologics classification.

Despite the fast improvement in injury assessment and surgical

techniques in spine trauma in recent years, controversies remain. To address this and to stimulate thought about further questions that should be asked, the AOSpine Knowledge Forum Trauma (KF Trauma) recently published a Focus Issue in the Journal of Orthopaedic Trauma (JOT).

Furthermore, in this newsletter, you will be able to read about the latest addition to the AOSpine member privilege; AOPEER; a new, research web-based platform to support AO surgeons with their research efforts;

and meet two of our global spine community members: Yoshiharu Kawaguchi from Japan and Osvaldo Ojeda Serrano from Chile.

We hope that you will find this issue of the newsletter interesting, and we look forward to continuing to improve spine care worldwide with you in Milan soon!

With best wishes.

#### Dan Riew

Chairperson, AOSpine International



Jeff Wang, Chairperson of the Global Spine Congress, championed a globalized vision that has transformed AOSpine. Here, he discusses the success of the Global Spine Congress and explains why an international view is a key element of his success.

The seventh edition of the Global Spine Congress (GSC) is just around the corner – how has it developed over the years?

It's great when people tell me that they perceive the GSC as a mature meeting. With close to 2000 people attending, the GSC is special as a global academic meeting.

What people are usually less aware of is how it started. When you look

at the educational offering from AOSpine previously, it wasn't really reaching all our members, and it wasn't something most of our international members were participating in. We also weren't as academic back then. A lot of people were sponsored or supported by industry and what we wanted to do was create an academic meeting and help AOSpine grow as an academic society. I think we've accomplished that. If someone wants to know about the latest and

best international research and hear opinions from international leaders, they'll find it at the GSC. Beyond research, it's patient management; it's the hot topics, it's members-only sessions that give you practical knowledge on day to day things. It's great to see it growing every year. Now and in the future, we will develop the GSC to infuse the learning and teaching principles of AOSpine, which are among the best in the world.

"If someone wants to know about the latest and best international research and hear opinions from international leaders, they'll find it at the Global Spine Congress. Beyond research, it's patient management; it's the hot topics, it's members-only sessions that give you practical knowledge on day to day things."

## How did you get involved with the Global Spine Congress?

As Chair of International Education, I felt our educational offering was limited. When we first conceived of this idea of the Global Spine Congress we had had this great vision, but the Board was wary would people be willing to pay their own registration fee and travel expenses? The Board supported it but felt it might not work. That was like a challenge to us, and if you look at where we are now and how we have evolved, our goals were accomplished. It's growing every year, and I believe it has transformed AOSpine as an academic society.

# How is the GSC different to other big annual spine congresses from around the world?

The main difference is the international attendance and the speakers. Many meetings have some people attending from all over the world, but this meeting is truly international in regards to both speakers and participants. Second, a by-product of that is you get opinions and data from all over the world that I don't think you'd get at the other meetings. We're catering for the international realm. Wherever we are we look to see how we can cater for an international audience - we want to be the meeting for everyone. Other meetings tend to be based in one region only or focused on one region.

"Many meetings have some people attending from all over the world, but this meeting is truly international in regards to both speakers and participants."

# You've achieved so much over your career – what are you most proud of?

Whenever I get involved in an organization, I give 100%. I join because these are missions and people I believe in. The fact I have gone on to become President of some key societies, I think it's an achievement that they believe in me enough to want me to lead.

I've been lucky enough to be elected chairman of AOSpine International, I'm currently the President of The Cervical Spine Research Society, and next year I'll be President of The North American Spine Society – three major societies I've dedicated my time to, and I'm honored to have been elected.

# Who has had the most significant influence on your career and who's been the most inspiring person in your life?

The most inspiring person for me personally was my late father, but in my professional career, Henry Bohlman had a significant influence on me and many other surgeons. Also, Ed Dawson, who developed a spine program at UCLA where I did my training, was a big influence and mentor to me.

# Talking of your late father, how has your Chinese background influenced your career?

Coming from China, my parents had to be strong to make it in the US. My father instilled values in me that I have found valuable throughout my entire life. My compassion, my drive, my success, I owe to him.

You have to have a strong foundation in this profession. It's helped me in some of my roles on an international basis because I'm more understanding of other cultures –I'm open to different viewpoints. It's given me more insight into how other cultures do things, I don't just come across as being North American, growing up in North America and only having a

North American viewpoint, but I'm open to understanding other views and that's probably one of the things that'sthat have helped me become successful.

"Whenever you're in a situation, try to imagine how it affects everyone – not just the people in the room, but your organization, everything. Thinking globally gives a greater perspective and helps you make the right decision."

# What's the best advice you've been given or would give to a young surgeon?

The one piece of advice I repeat a lot in my own mind as well as to other surgeons is to think globally. That advice transcends just the literal meaning. Whenever you're in a situation, try to imagine how it affects everyone – not just the people in the room, but your organization, everything. Thinking globally gives a greater perspective and helps you make the right decision.

## How does a typical workday look like for you?

It varies day to day. Usually, I get into the hospital by 6 am and the first thing we do is round on patients, then we start on cases, and we operate until relatively late. In between cases, I have meetings, emails, and business work to attend to. I work out every night when I get home, no matter what time I get in. I run and lift weights, and I try to play basketball twice a week – that's a passion of mine.

# You're very active at the AOSpine Knowledge Forums for Degen/Biologics – what interests you about this particular area?

The biological basis of spinal disease and the future cures that are going to revolutionize spine care are in the biological realm. I've always been interested in spinal biologics because I think that's the only way to understand how these diseases progress and if we're going to have some

miraculous cure in the future I think it will come from the understanding of biologics. We do a lot of research in other areas, but we call that the Holy Grail – if we can reverse biological disease by regrowing the disc or regenerating the tissue or making the spine young again that's going to be probably done on a biological basis rather than through an implant.

"I've always been interested in spinal biologics because I think that's the only way to understand how these diseases progress and if we're going to have some miraculous cure in the future I think it will come from the understanding of biologics."

# What developments and breakthroughs do you envision in next five years?

In the short term, I'd like to see a couple of things. First, the biologics we're using based on evidence rather than just marketing, because we have to pick the right product based on what works and what doesn't. We need more evidence. Second, a lot of trials now look at potential growth factors for preventing disc degeneration preventing back pain. A couple

of studies we're participating in look at growth factor injections into the disc and looking at nerve innervation of the disc and end plate to cure pain on biological basis, which would be minimally invasive - you'd get an injection which would help the patient rather that doing a huge invasive surgery.

From your perspective what are the main challenges in your specialty?

One of the biggest challenges right now is there's not as much funding for research. Also, there are more concerns now for patient safety, which is good, but it does inhibit the innovation process. If you came up with a miracle cure it would take so much time and money to get it approved – the bar is much higher now than in the past.

# You're one of the editor in chiefs of the Global Spine Journal. How has that evolved and grown?

It's grown in leaps and bounds. Every year we have a record number of submissions and the quality of the research submissions is outstanding. It's also the platform by which our international members disseminate their research. When you open any issue, you'll be surprised by the international depth of the research and submissions coming from all the corners of the world.

# What does AOSpine mean to you and why would you recommend becoming a member?

First of all, there's a lot of member benefits – probably more than any other society you'll find. Not only will you have access to different educational opportunities and publications, you also get access to publishing your research. AOSpine covers the costs for open access submissions to the Global Spine Journal If you look at our leadership and our Knowledge Forums, we're international. We're not based in one single region so whether you're in some town in a remote area or a big city, you can get involved and make a difference.

"When you open any issue of the Global Spine Journal, you'll be surprised by the international depth of the research and submissions coming from all the corners of the world."

Jeff Wang is the Chairperson of the Global Spine Congress, the past Chairperson of the AOSpine Knowledge Forum Degen/Biologics and former Chairperson of AOSpine International.

### BIOGRAPHY **JEFFREY C. WANG**

Jeffrey C. Wang, MD is Professor of Orthopedic Surgery and Neurosurgery, Co-Director of the USC Spine Center with an expertise in the surgical treatment of all neck and back disorders. As a world-renowned leader in spine care, Jeff Wang is continuously writing and presenting professional articles, publications, and speaking engagements to national and international audiences. His reputation for consistently providing excellent patient care, outstanding

qualifications and experience has earned him immense respect from patients and physicians alike. He assumes numerous leadership roles in internationally respected medical organizations including AOSpine, the North American Spine Society, Cervical Spine Research Society, the American Academy of Orthopedic Surgeons, and multiple other educational and research groups. In addition, Jeff Wang serves as a Second Medical Opinion Physician with the National Hockey League (NHL) and the National Hockey League Players' Association (NHLPA). In addition to a busy clinical practice, he runs a

basic science laboratory where he is on the cutting edge of technology, and constantly developing and applying novel methods of treating spinal disorders. His research interests include gene therapy for the treatment of spinal disorders, minimally invasive surgery for spinal disorders, bone growth biological proteins and biomedical engineering of non-invasive spine surgery using high intensity focused ultrasonic waves. Jeff Wang has received numerous research grants and is currently involved in many clinical trials in the treatment of spine problems.



# See you in Singapore shortly!

Join us from May 2 – 5 and enjoy four full days of parallel sessions covering more than 30 topics, showcasing the very latest research, innovative techniques and cutting-edge technologies in spine surgery.

Sessions and events at the GSC provide you with a range of opportunities including face-to-face networking with more than 1,700 spine professionals from around the world, career development and

access to the world's best research and clinical experts.

Maximize your attendance by registering for one of the GSC pre-courses in Singapore. Check out the program and register today. All pre-courses will be held from April 30 – May 2, 2018. To register for pre-courses, you must be signed up for the general registration of the GSC in Singapore.

Can't attend the GSC in Singapore? We are happy to announce that for the first time, we will be live streaming a select number of symposia from the GSC in Singapore. If you are unable to join us in person, you still have the opportunity to participate in a portion of the scientific program from wherever you are – all you need is an Internet connection.

For pricing information, schedule and registration, click here: http://www.gsc2018.org/index.php/2016-06-22-14-51-39/ live-streaming
More information about the GSC can be found at http://www.gsc2018.org/





# Members-only Sessions

AOSpine Members have exclusive access to the following sessions at the Global Spine Congress (room 310)

#### How to Avoid Litigation

Moderator: Norman Chutkan Speakers: Lali Sekhon, Yong Hai, Massimo Balsano Thursday, May 3, 10:30–11:15

The session will have a multi-cultural angle with speakers from different regions: North America, APAC and Europe. The session will be split into three parts for each region:

### Personal case study

Theory on litigation and how to avoid it, showing it from different regional angles How to react when you are facing legal issues/claims from patients/sharing best practices.

#### **AOPEER**

Moderator: Asdrubal Falavigna Speakers: Asdrubal Falavigna, Brigitte Gallo-Kopf Thursday, May 3, 15:30–16:15

The AO Program for Education and Excellence in Research (AOPEER) is a collection of resources, reference documents, and learning opportunities about research, built for physicians in practice who also do research. AOPEER profits from the wealth of expertise available within the AO Foundation through the commitment to best practices and excellence in research and education. AOPEER leverages these trusted resources, which were developed and evaluated by the AOPEER Taskforce with the support of AO Clinical Investigation and Documentation (AOCID) and the AO Education Institute (AOEI). This live demonstration of the platform (www.aopeer.org) will

introduce you to the concept of AOPEER and present relevant eLearning modules from developing your research question up to publication of results. Access to AOPEER is free to all AOSpine members.

#### **How to Manage Cross Continental Travel**

Moderator: Chung Chek Wong Speakers: Jeffrey Wang, Chung Chek Wong Thursday, May 3, 16:15–17:00

This interactive session will present to you how global leaders of AOSpine manage their cross- continental travels, including remote presence at your workplace, enduring long flights, making full use of airport transit and, of course, getting adequate rest and staying awake at the required moments!

#### **Developing Your AOSpine Career**

Moderator: Michael Grevitt Speakers: Carolin Melcher, Harry Gebhard, Jeffrey Wang, Bryan Ashman Friday, May 4, 09:00–10:00

This is a session for all members, whatever the stage in your professional life. From new member, post-fellowship attending surgeon to established faculty, everyone can learn how to further develop their ambition in AOSpine. Wellknown role models have been selected as exemplars of every stage in an AOSpine career.

#### Leadership Skills

Moderator: Darrel Brodke Speakers: Darrel Brodke, S. Rajasekaran, Jeffrey Wang Friday, May 4, 11:45–12:30

This session will focus on key leadership skills and how they are developed and

implemented, through an interactive panel discussion format. The AOSI Past President and President-elect will share their experiences and lessons learned.

### How to Write and Review a Scientific Paper

Moderator: Danielle Lieberman Speakers: Jens Chapman, Jeffrey Wang, Karsten Wiechert Friday, May 4, 16:00–17:00

Global Spine Journal Editors-in-Chief discuss tips and techniques on how to write, research, and review scientific papers.

### Pearls from the Regions: Cases and Different Solutions

Moderator: Klaus Schnake Speakers: Mohamed Abdel Wanis (Middle East), Lali Sekhon (North America), Zdenek Klezl (Europe), Jaime Segura (Latin America), Yong Hai (Asia Pacific) Saturday, May 5, 09:00–10:00

The session will highlight case solutions from different regions with regard to regional therapeutic strategies.

### **AOSpine Fellows Alumni—Tips of Trainers**

Moderator: Bryan Ashman Speakers: Juan Emmerich, Mohammad El-Sharkawi, Roger Hartl, Klaus Schnake Saturday, May 5, 10:30–11:30

Fully interactive faculty development session designed specifically for AOSpine past fellows. Participants will be split into small groups with one faculty member each to practice their teaching techniques.



# Your voice matters—AOSpine Members Assembly

The AOSpine International Board cordially invites you to join the member assembly on May 3, 2018 from 18:15 to 19:00 in room 310.

This is an excellent opportunity to learn more about AOSpine governance, education and research activities. Find out about other AOSpine initiatives and network with the world's most outstanding spine surgeon community. Also, the result of the AOSpine member representative election will be announced.

We look forward to seeing you there!



"I strongly encourage all AOSpine members to attend the Members Assembly. It is a great opportunity to get the most up to date information about the organization and learn about initiatives to help shape the future of AOSpine."

Klaus Schnake, AOSpine Chairperson Community Development Commission



"Meet and network with the world's most outstanding spine surgeon community at the AOSpine Member Assembly at the Global Spine Congress."

Norman Chutkan, Scientific Co-Chairperson Global Spine Congress, Chairperson-elect Community Development Commission



# AOSpine Member Representative— Presentation of shortlisted applicants

The Nomination Committee has approved the following candidates to enter the democratic election process

#### Your vote counts!

The Member Representative will be democratically elected by all voting members of AOSpine who are attending the Global Spine Congress in Singapore in 2018. All (present) AOSpine Voting members\* will have one vote, to be cast anonymously via the electronic AO voting system. You will receive an email invitation to vote on Thursday 3rd May. If you need support to cast your vote, come to the AOSpine members lounge.

The winning candidate will need to get the majority of the votes. In case none of the members wins, a second round with the top two candidates will run on Friday 4th May.

The election results of the first round will be announced at the AOSpine Member Assembly on May 3, 2018.

Please find below the list of the shortlisted Member Representative Candidates:

### Link to website/candidates:

You also have the chance to meet the candidates personally during their presentation on Thursday 3rd May between 10h – 10.30h in room 301.

The Member Representative will serve for two years: One year with member elect status (guest without voting rights), and one year as a full member of the AOSIB with voting rights. All candidates have already demonstrated their commitment to AOSpine and have been continuous members of the organization for a minimum of 4 years. They are passionate about developing AOSpine and willing to devote a significant amount of time and travel to this function without fiscal reimbursement. To view the Member Representative responsibilities and required experience, click HERE (link to MR Job description)

Register now for the Global Spine Congress

## How to become an AOSpine Voting Member:

- You automatically qualify as AOSpine Voting Member if you have been a paying member for a minimum of three years.
- You can become an AOSpine Voting Member if you sign up as a member until 30th April 2018 for 3 or 5 years.
- Additionally, you need to be registered for the Global Spine Congress 2018 in Singapore and picked up your badge.

http://xfiles.aospine.org/users/ publications/community\_newsletter/2018\_02/member-representative-candidates.html



## GLOBAL SPINE JOURNAL

# Global Spine Journal presence at the GSC

Global Spine Congress is coming up soon and Global Spine Journal will be featured at the meeting. There will be a GSJ station at the AOSpine booth. GSJ's Managing Editor Danielle Lieberman will be there at the booth during the meeting to answer all of your questions and concerns and can provide you with any relevant GSJ information.

# Pick up your copy of the GSJ issues as well as the two popular Special Issues at the AOSpine booth

In Milan last year, all of the GSJ issues flew off the shelves by the end of the first day, so we have made sure to have more issues this year for you to pick up! We will have the first two issues of 2018 as well as our extremely popular Special Issues-"Rare Complications in Cervical Spine Surgery" and "Clinical Practice Guidelines for the Management of Degenerative Cervical Myelopathy and Traumatic Spinal Cord Injury". We will have flyers, pocket cards and other handouts for people as well with information on how to submit to GSJ, where to listen to podcasts and more. We look forward to seeing all of you at the GSJ booth! We will also have our GSJ promotional video featured at the booth- so come by and check us out!

# Join the Members-only Session: "How to Write and Review a Scientific Paper"

Back by popular demand is the Annual Members Only Session "How to Write and Review a Scientific Paper". This session will be held on Friday, May 4th from 4PM-5PM in Room 310. This session will be led by GSJ Editors-in-Chief Jeffrey Wang, Karsten Wiechert and Jens Chapman. At this session they will go over tips for writing and reviewing scientific papers based on their extensive experience. This has been a hugely popular session the past two years, and we are excited to bring it back to GSC again in Singapore.

#### **Global Spine Journal Awards**

The annual GSJ awards for the 2017 Best Papers and Best Reviewers will also be presented at the awards ceremony at the end of Global Spine Congress. The Best Paper Awards are handed out to the top 2 Original Research Papers published in 2017these were voted on by the Editorial Board and they are chosen based on the number of downloads, citations and then of course the quality and topic of the paper. The Top 2 Reviewers are chosen based on the number of reviews they completed in 2017, cross-referenced with their average reviewer score and the time it took them to complete the review. Award winners receive a certificate as well as a cash prize.

GSJ's Editorial Board would like to officially congratulate our incredible award winners!

- For Best Reviewers, we would like to congratulate Philippe Bancel and Avery Buccholz.
- For Best Papers our winners were:

- "Return to Play in Elite Contact Athletes After Anterior Cervical Discectomy and Fusion: A Meta-Analysis" by Andrew C. Hecht, Samuel Overley, Sheeraz Qureshi, Wellington K. Hsu.
- "Beyond Pelvic Incidence— Lumbar Lordosis Mismatch: The Importance of Assessing the Entire Spine to Achieve Global Sagittal Alignment" by Samuel K. Cho, MD; Robert K. Merrill, BS, Dante M. Leven, DO; Joung Heon Kim, BS.

We thank you all for your excellent contributions to GSJ and we are proud to honor you with these awards.

All reviewers for GSJ are eligible to win the GSJ Award as well as those who author Original Research papers, so make sure to continue to submit reviews and your research to GSJ! If you are interested in becoming a reviewer, please talk to Danielle Lieberman at GSC or email her at Danielle.lieberman@med. usc.edu with your CV and areas of expertise. To submit a manuscript to GSJ, please go to mc.manuscriptcentral.com/gsjournal.

We hope to see all of you in Singapore in May!



AOSpine Knowledge Forum Trauma meeting in Amsterdam, the Netherlands, 2015. From left to right: Jens Chapman, Mechteld Lehr, Said Sadiqi, Frank Kandziora, Cumhur Öner (Chairperson), Klaus Schnake, María Alvarez Sánchez (KF Manager), Alex Vaccaro, Gregory Schroeder, and Shanmuganathan Rajasekaran. Marcel Dvorak, Lorin Benneker, and Emiliano Vialle are missing from the picture.

# AOSpine Knowledge Forum Trauma focuses on controversies in spine trauma

Despite fast improvement in injury assessment and surgical techniques in spine trauma in recent years, controversies remain. To address this, the **AOSpine Knowledge Forum** Trauma (KF Trauma) recently published a Focus Issue in the **Journal of Orthopaedic Trauma** (JOT). Principal Investigator (PI) **Alex Vaccaro and Co-PI Gregory** Schroeder felt a framework of best evidence for current best practices was needed. A focus issue made it possible to bring together knowledge produced by KF Trauma studies under one heading for greater impact and stimulate thought into further questions that should be asked.

### Six key areas addressed

"We wanted to give the reader the possibility to sit down with one source in their hand and find answers", Vaccaro explains. "We looked at important areas in the spine, from the atlas and upper cervical spine to the pelvis; critical issues such as does the timing of surgery matter; or what are the controversies or weaknesses in the Classification System."

"We wanted to give the reader the possibility to sit down with one source in their hand and find answers."

Once the key questions had been defined, study groups led by a KF Steering Committee member invited a wide representation of renown international surgeons to collaborate, to debate and discuss, to find consensus, and to come up with

evidence-based recommendations. The results of this year long international process are the Focus Issue.

Traumatic injuries have a relative low incidence, but their influence on an individuals' social, functional, and financial situation and on health-related costs is high. In this context, six controversial areas were identified in the management of spine trauma: the role and timing of medical and surgical interventions for patients with associated neurologic injury; type and timing of surgical stabilization for multiply injured patients; the role of non-surgical versus surgical treatment; the role of different surgical approaches and techniques; methods of nonoperative management; and care of elderly patients with concurrent complex disorders. The KF Trauma successfully addresses these areas in the Focus Issue.

## Spreading the word beyond the spine community

By publishing in the JOT, as opposed to a spine only journal, KF Trauma hopes to reach a wider audience. "Most high-level spine articles are published in highly specified and narrowly circulated journals", Schroeder explains. "Our goal is to publish impactful manuscripts that help address challenges in medicine. The open access Focus Issue allows researchers to reach a large group of surgeons and pass on their knowledge."

"Our goal is to publish impactful manuscripts that help address challenges in medicine. The open access Focus Issue allows researchers to reach a large group of surgeons and pass on their knowledge."

AOSpine Knowledge Forum Trauma is uniquely positioned. "Often study groups are focused on few surgical procedures. Ours is really the only global study group looking at spine trauma", Schroeder says and points out that spine trauma and spinal cord injury are becoming increasingly common through the world.

The group is enjoying a major success and growing impact from the AOSpine Subaxial and Thoracolumbar Classification Systems, also covered in the current Focus Issue. Of the 12 papers, Schroeder and Vaccaro further highlight the current controversies in spinal trauma and spinal cord injury; the effect on outcome of formal laminectomy and timing of decompression for patients with sacral fracture and neurologic deficit; and the paper on fractures in spinal ankylosing disorders.

### Led by the spirit of discovery

Moving forward, one big topic is managing geriatric patients with spinal fractures. KF Trauma is already developing a classification for patients with osteoporosis, to look at how osteoporotic bone modifies the application of the fractures or treatment of the patient, while standard fixation techniques in use may not be applicable.

"It's fascinating!" Vaccaro says plunging into other complex topics. "Say you have a pelvic fracture with a sacral fracture; just operating on them can be challenging for both patient and family." As always, the scientist in him calls for evidence: "We think operating on a patient with a neurologic deficit benefits the patient in a setting of a burst fracture. I think it does—but show me the evidence! We have not been able to give robust evidence."

"In the spirit of discovery and with the global network of AOSpine, we continue to survey the state of existing controversies and help spine clinicians provide better care."

The wish list for new studies is long. "We all tend to look at things differently", Vaccaro continues. "If we could have an application that uses artificial intelligence and deep learning to identify a fracture, label it for the physician, and help them with an algorithm of care, that would be phenomenal."

"In the spirit of discovery and with the global network of AOSpine, we continue to survey the state of existing controversies and help spine clinicians provide better care", Schroeder sums up. Vaccaro and Schroeder expect to build on their current results and produce another focus issue in a year's time, putting findings into clinically meaningful context, and developing outcome measures that allow to understand when interventions have really changed the outcome of the patient.

For the open access KF Trauma Focus Issue, go to: journals.lww.com/jorthotrauma

For more information on KF Trauma, go to: www.aospine.org/kf-trauma

### ARTICLES FROM THE FOCUS ISSUE REFERRED TO IN THE ABOVE ARTICLE

- Oner C, Rajasekaran S, Chapman JR, Fehlings MG, Vaccaro AR, Schroeder GD, Sadiqi S, Harrop J. Spine Trauma-What Are the Current Controversies? J Orthop Trauma 31 Suppl 4(S)1–6, 2017.
- Ahuja CS, Schroeder GD, Vaccaro AR, Fehlings MG. Spinal Cord Injury-What Are the Controversies? J Orthop Trauma 31 Suppl 4(S)7–13, 2017.
- 3. Rustagi T, Drazin D, Oner C, York J, Schroeder GD, Vaccaro AR, Oskouian RJ, Chapman JR. Fractures in Spinal Ankylosing Disorders: A Narrative Review of Disease and Injury Types, Treatment Techniques, and Outcomes. J Orthop Trauma 31 Suppl 4(S)57–74, 2017.
- 4. Kepler CK, Schroeder GD, Hollern DA, Chapman JR, Fehlings MG, Dvorak M, Bellabarba C, Vaccaro AR. *Do Formal Laminectomy and Timing of Decompression for Patients with Sacral Fracture and Neurologic Deficit Affect Outcome?* J Orthop Trauma 31 Suppl 4(S)75–80, 2017.

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S. Tim Yoon, Darrel Brodke, María Alvarez Sánchez (KF Manager), Jeff Wang, Zorica Buser, Jong-Beom Park, and Patrick Hsieh attending KF Steering Committee and Associates meeting (Buenos Aires, Argentina, 2015).

# AOSpine KF Degenerative/Biologics in search of evidence — raising the bar

The current evidence in biologics is severely lacking and there are no reliable comparative studies to guide surgeons' decisions. To

increase accountability on a global level, the Knowledge Forum (KF) Degenerative/Biologics has been focusing on biologics for its first four years of existence. Now it is moving into developing the first ever biologics Classification.

Realizing there is a lack of evidence surrounding decision making about biologics, the first Chairperson of KF Degenerative/Biologics, Jeff Wang, inspired the study group to cover the full spectrum: past, present, and future. The past meant looking at existing large databases collected by other groups and analyzing the currently available data. The present, includes publishing the evidence generated from these databases and from conducting health technology assessment reviews. For the future, the group is looking to establish an international multicenter prospective biologics database through the DegenPRO study, to be able to understand which biologics work and which don't, with a strong focus on patient reported outcomes.

"We are really trying to raise the bar, to understand the effect of biologics on spine surgery outcomes and to increase awareness of evidence; or rather the lack of it." (S. Tim Yoon)

"We are really trying to raise the bar, to understand the effect of biologics on spine surgery outcomes and to increase awareness of evidence; or rather the lack of it", explains the newly elected Chairperson Tim Yoon. "There is such a big discrepancy in the amount of evidence supporting the use of one biologic versus the other. It is frustrating, how many of our colleagues are unaware of the differences."

#### Making the best choice

According to Yoon, AOSpine has no competition in this area. The foundation has been laid to take research to the next level and to ramp up the data collection from all over the world. "Something like this requires a global group like AOSpine", Wang confirms. Companies are creating new biologic products that sound good and may be more effective, but cost much more, raising health care costs without sufficient evidence to support that these new products are any better. "What makes it worse is that surgeons are using these

products without understanding the therapeutic benefit and the evidence or lack of it."

Increased accountability is the wider social impact the KF is seeking. "It's not that you should pick based on cost, you should always think what is best for the patient", Wang explains. "But how can you choose what is best when you don't have the evidence? We may be wasting healthcare dollars, but we don't know." The ethical question of using human allograft tissue adds to the need of acquiring more evidence. "Someone has donated their body, and you are creating a commercial product out of their bone. We owe it to them to create the best possible products, so that surgeons can pick the most effective one."

"In a translational field like spine you really need both, basic science fundamentals and clinical evidence." (Zorica Buser)

There are several new biologics coming out, and Wang hopes the public, the patients, and especially the surgeons who make the decisions will demand to see the evidence, to prove the products are effective and safe. "We are basing other treatment decisions on evidence, whether to do surgery, what surgery to do, so why not biologics? This will be the measure of our success, to see people demanding evidence."

#### **Branching** out

The next immediate goal for the KF is to rapidly expand both in scope and numbers. Gathering momentum for his three-year term, Yoon envisions developing the KF Degenerative/Biologics into a research group where several sub-studies could be performed in subsets of degenerative patients focusing on cervical, minimally invasive surgery, and so on. The area is broad, and the expertise needed is wide.

"No matter if you are in the middle

of Alaska or from a major city – as long as you are up to it and you are a member of AOSpine – learn about what we are doing, and once you start entering patients, you can become a member of the KF." (Jeff Wang)

With the results from the DegenPRO study, the group hopes to contribute meaningful evidence to the research community. In parallel, in the footsteps of the AO pioneers, the KF is also developing the first ever Osteobiologics Classification, hoping it will become the standard like the other AO Classifications. Developing treatment guidelines through the DegenPRO study and the Osteobiologics Classification would enable more tailored treatment procedures to the patients and reduce the need for revision surgeries.

Zorica Buser, Associate Member of the KF, reminds that lower back pain is a leading cause of disability worldwide both in developed and developing countries. "We are constantly advancing our knowledge in spine care. However, we still see an increase in the number of spine fusion procedures, for example, with the growing aging population. Biologics really play an instrumental role in the surgical success."

#### Creating the best mix

The Knowledge Forum is a mix of surgeons and non-surgeons, research driven clinicians and clinically driven researchers. The associate members play a key role and Buser brings crucial basic science and translational knowledge to the table. "In a translational field like spine you really need both, basic science fundamentals and clinical evidence." She is impressed by the huge potential of the group and the way it works. "Everyone brings in ideas and contributes to all steps. It's a collection of great minds."

"It's not that anything out there that is not tested is bad, we just don't know how good or bad it is. Ten years from

now, we'll have set the standard. Any biologics product that comes out will have been tested and put in its place." (Jeff Wang)

AOSpine members benefit widely from the KF studies, from the evidence, the ideas, the classifications. Any AOSpine member can also get directly involved in the KF Degenerative/Biologics. "You don't have to be a leader of AOSpine in

your country, you don't have to be an officer, it's all based on merit and accountability", Wang assures. "We have the cream of the crop, but we are moving into new topics and must include more members of AOSpine from around the world", Wang says.

Together with Yoon, Wang welcomes dedicated new people to participate. People who can demonstrate they share the vision, are able to

contribute, and provide patient data to their degenerative studies. "AO is an organization with no limits. You can do great things through this organization", Wang concludes.

This article concludes a series on the AOSpine Knowledge Forums. The full story of the Knowledge Forums is now available on the AOSpine Research website www.aospine.org/kf

### Quick facts:

- KF Degenerative/Biologics launched in 2013, the youngest of the AOSpine Knowledge Forums, first chaired by Jeffrey C. Wang
- Chairperson S. Tim Yoon leads a Steering Committee of 5 members; serves as a member of the AOSpine International Research Commission
- Wang continues in the AO Foundation Board and as a KF Steering Committee member
- Associate member structure in development, will provide wider regional representation
- Published 11 peer-reviewed journal articles and 7 presentations

### Study highlights:

- DegenPRO database. Prospective study on Osteobiologics, now opening to members
- Osteobiologics Classification. Evaluates the level of evidence supporting use of bone grafts
- For more information see www.aospine.org/kf-degen



# Collaboration between AOSpine and the Hellenic Spine Society

AOSpine Europe and Southern Africa has always had an interest in collaborating with new and/or well-established local societies. With roots in their respective communities, both AOSpine and these societies can benefit from synergizing and sharing mutual interests. The first collaboration with the Hellenic Spine Society took place in 2013.

The Hellenic Spine Society (HSS) describes itself as a multidisciplinary

scientific association with the aim of promoting spine care in Greece and neighboring countries. The idea of creating a national spine organization began in 2006, and the same year the Hellenic Spine Society was officially founded. In 2006, the young organization's first general assembly took place, and already by the end of 2007, the doors were opened for the first Hellenic Annual Spine Conference with a multidisciplinary approach covering all aspects of spine care.

The latest collaboration between the Greek society and AOSpine took place in November 2017. AOSpine was honored to accept the invitation to attend the conference and to run a symposium as part of the scientific program. Over 50 participants joined the conference workshops, followed by two days of lectures, case discussions and debates on the latest topics of spine surgery. The AOSpine session on Junction and Fusion was chaired by Athanasios Spiliotopoulos from Thessaloniki.



# AOSpine wins again!

### "Best International & European Association E-Newsletter Award" for the second time in a row

We are delighted to announce that AOSpine has won the award for "Best European & International Association E-Newsletter 2018" at the International Association Awards Congress, which took place on March 13th, 2018 in Antwerp, Belgium.

#### Klaus Schnake, Editor-in-Chief:

"I'm extremely proud that our newsletter won this prestigious award again. This is a great achievement for the team and shows that AOSpine offers its member community relevant content like no other spine society."

This is the second consecutive year that the AOSpine newsletter, which is one of the member privileges, has won this prestigious award. All nominations were judged by a prestigious judging panel consisting of influential association leaders and specialists, all focused on the continuous improvement of associations: UK, International, and European.

Earning an international Excellence Award is a significant accomplishment and reflects the exceptional efforts and outstanding results the associations have achieved.



# WINNER

Best Association E-Newsletter

www.associationawards.org



# AOPEER—the latest addition to the AOSpine Member Privileges

AOSpine is pleased to announce the launch of AOPEER, a new, research web-based platform to support AO surgeons with their research efforts.

AOPEER, the AO Program for Education and Excellence in Research, is a curated database of reference documents, articles, grant application templates, checklists, eLearning modules, webinars, and much more. It is designed for mobile, tablet and PC use.

The search for information and evidence can be time-consuming and tedious. Consequently, AOPEER was developed by a cross-division taskforce of the AO Foundation, to provide you with a wealth of information to optimize decision-making

and answer research-related questions on one platform.

Explore the various topic areas that AOPEER has to offer: www.aopeer.org

AOPEER is a membership privilege. Access your privileges here













Dr. Yoshiharu Kawaguchi is working at the Orthopaedic Surgery section as Clinical Professor in University of Toyama, Japan. He's been AOSpine Faculty since 2008.

"I have been a faculty in AOSpine educational events for more than ten years. The members are increasing year by year, and our organization becomes one of the biggest spine societies in the world right now. AOSpine focused on Education for young fellows and also on the new field of Research work. We have a total of 53 educational events in Asia Pacific regions in 2017. I had participated in several events as a faculty and felt that every participant was very active to learn not only on the techniques but also the philosophy from the faculty and colleagues. I also participated as a Chairperson in AOSAP Research Committee from 2014-2016. The scientific quality of the research projects carried out in AP region was quite high. AOSpine Research is not limited to national research projects but also included multi-center regional projects and prospective studies. I am pleased that many scientific papers were published in renowned international journals. We all understand that AOSpine would help members to achieve goals and be beneficial them to find their career path. I am longing to see AOSpine keeps growing strong in the future."

Why did you decide to become a spine surgeon?

Because the patients state their complaints directly to the doctor and they respond our treatment.

Where did you get trained?

Toyama University Hospital

How do you train today/make sure you stay up to date?

I was trained by Prof. Haruo Tsuji for ten years. After that, I was trained in meetings and seminars.

Who inspires/inspired you?

Prof. Haruo Tsuji, former professor at Toyama Medical and Pharmaceutical University

Prof. Tatsuo Ito, former professor at Tokyo Woman's Medical College

Prof. Yoshiharu Kato, former professor at Tokyo Woman's Medical College

Can you tell a bit in general about spine surgery in your country? *We have great skills.* 

We are surgeons as well as scientist. How does your typical workday look like?

I operate three days a week, two days are reserved for out-clinic activities and one day for research and teaching students.

What are your most frequent operations?

Degenerative spine, lumbar, cervical and thoracic, decompression and fusion.

What are the most significant challenges in your job?

To treat the patients with ossification of the posterior longitudinal ligament.

What do you consider the biggest challenges for spine surgeons in your country?

Correction for spinal deformity.

Where do you see the best opportunities for spine surgeons in your region in general?

Our university hospital.

What advice would you give to a young surgeon?

Many kinds of chisels and osteotomes.

What does being a member of AOSpine mean to you, how has AOSpine influenced your career?

I have learned how to teach the young fellows from AOSpine education system.

Why would you recommend becoming a member of AOSpine?

Because of the good friendship among the members, which I find very comfortable and stimulating.



Surgeon-in-chief of the Orthopedic Spine Division at the Hospital Las Higueras, Talcahuano, Chile.

Professor of Orthopedic Surgery at the Universidad Católica de la Santísima Concepción, Concepción, Chile.

Why did you decide to become a spine surgeon?

I became motivated when I realized that the spine patients were not given the appropriate treatments and diagnosis when I was a resident in orthopedics at the University of my hometown Concepción. Thus, I went to study the diseases related to the spine. Today, I still feel very motivated, since the technologic advances in the surgical techniques continue to grow amazingly. They gives me the chance to use a variety of surgical tools and encourage me to improve continuously.

### Where did you get trained?

I trained through a rachis surgeon fellowship from the University of Barcelona. While I was there. I worked in several hospitals such as the Clinic, Bellvitge and the Sant Joau de Deu, all of them located in Barcelona, Spain. I am very grateful to my mentors, teachers, and friends Dr. Salvador Fuster, Dr. Frederic Font and Dr. Nolberto Ventura. I also participated in cervical spine surgeon internships with Dr. José Manuel Casamitiana (R.I.P), who was a great teacher and friend of mine, in the Hospital Vall d'Hebron in Barcelona, as well as with the Drs. Luiz and Emiliano Vialle in the Hospital Cajuru in Curitiba, Brazil.

How do you train today and how do you make sure you stay up to date?

I frequently participate in face-to-face and virtual activities organized by the AOSpine and other institutions. Recently, I've been improving the MIS and endoscopic techniques in Spain with the specialists Ricardo Casal, Javier Sánchez and Avelino Parajon. I've also been very engaged with the co-work to solve complex cases in my country.

### Who inspires/inspired you?

I think that the patients affected by spine pathologies were my main influence since they inspired me to study their injuries in order to be able to help them. It is also an inspiration to go to work, to develop and encourage the new generations involved in this specialty.

Can you tell a bit in general about spine surgery in your country?

I've experienced exponential growth, especially in Santiago de Chile, with excellent specialists who are renowned nationally and internationally. Introductory and advanced courses are offered throughout the country to train surgeons who are at the beginning of their career in spine surgery.

How does your typical workday look like?

I work three times per week in the public Hospital Las Higueras. The rest of the week I work in private clinics. However, I don't work on the weekends in order to be able to spend time with my family.

Which are the most frequent operations?

Degenerative Diseases; Cervical Spine and Thoracolumbar traumas, tumors, and infections.

### Meet the AOSpine Members

What are the biggest challenges in your job?

The most significant challenge is to improve the registrations of all the patients in the Spine Unit of the Hospital to facilitate the collection of data so that clinical studies will be possible. It is also a challenge to make clinic meetings permanent and to increase the number of spine surgeons in the city.

What do you consider the biggest challenges for spine surgeons in your country?

To increase the number of specialists to cover the necessities of the national territory.

Where do you see opportunities for spine surgeons in Chile (and in South America in general)?

The biggest opportunities are to develop research and multicentric studies to unify the criteria and to show that we are actually doing a good job.

What advice would you give to a young surgeon?

To persevere in the studies and to continue improving. Surgeons should endeavor to make the practice of medicine more human.

What does being a member of AOSpine mean to you, how has AOSpine influenced your career?

Since I became part of it, I have learned that this foundation is like a great family of spine surgeons that offers unlimited possibilities of knowledge through an excellent web platform and multiple face-to-face and virtual courses.

Why would you recommend to become a member of AOSpine?

Because it is an institution that allows to improve ourselves in a serious and continuous way. Besides that, it offers the chance to get to know colleagues and to share diverse points of views regarding the same topic.