

AOSpine Newsletter Issue 20 March 2019

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Editorial

Dear Reader,

I have often been asked why is it that only AOSpine members receive the newsletter, as the content is relevant for the entire spine community and highlighting the activities of AOSpine is something that would be beneficial outside of just our membership.

As a result, the Community Development Commission has decided to take a new approach and make the newsletter available to not only all AOSpine members but also the wider spine community.

In this issue, you will get a glimpse of the current AOSpine minimally invasive spine surgery (MISS) education and the future goals of MISS education.

Also in this newsletter, three AOSpine members share how they got involved in research, give tips on how to incorporate research into your career, and explain why participating in research is worth it. I am also extremely pleased that the call for applications for the AOSpine 2019 Discovery and Innovation Award inspired 83 young researchers around the world to submit research proposals. The winners will be announced in April 2019 and invited to participate in their first Knowledge Forum meeting at the Global Spine Congress (GSC) in Toronto in May 2019.

In this newsletter, you can also read about AOSpine's DegenPRO Registry. The platform, which has collected an impressive 624 patients, is calling for even more participants from around the globe to get involved and help grow the Registry.

With the Global Spine Congress taking place in just a couple of months in Toronto, Canada, this newsletter also includes the latest GSC 2019 program and activity updates.

Throughout this year, and in each of the upcoming newsletters, we will also share useful tips and tricks with you. In the current issue, we'll provide you with tips on how to present a webinar and lecture tips.

Last but not least, we have ramped up the online appearance of Global Spine Journal. Not only are you able to get daily updates with useful articles published in our official scientific journal on its social media channels, we have also created a page for articles by topics, special focus issues and much more.

We hope that you'll find this issue useful. If you have any comments or feedback, please get in touch with us.

Best wishes,

Norman Chutkan

Community Development Commission Chairperson



Davos Courses 2018: extraordinary three-day MISS expert training experience

In December 2018, AOSpine staged its Davos Courses for the first time with a complete focus on minimally invasive spine surgery (MISS).

Over the course of three days, participants experienced MISS teaching at an expert level in micro-decompression, endoscopy and percutaneous fixation, allowing them to both improve their skills on the microscope and the endoscope, but also train percutaneous screw placement.

Save the date for this year's Davos Courses taking place December 7–11, 2019

Apart from the hands-on sessions, participants were able to engage in case discussions as well as the always very popular "the good, the bad, the ugly—a case that taught me a lesson" panel discussions in a fireside-talk-like environment.

Under the leadership of course director Bryan Ashman, course chairpersons JinSung Kim (Korea, endoscopy), Avelino Parajon (Spain, micro-decompression) and Muhammed Assous (Jordan, percutaneous fixation),their educational advisors and faculty shared outstanding knowledge, skills and expertise to provide participants with a world-class learning experience.

Read all articles about MISS in Global Spine Journal: journals. sagepub.com

Experience the event for yourself and check out the video gallery.

Interested in further minimally invasive spine surgery (MISS) education?

Save the date for this year's Davos Courses taking place December 7–11, 2019, or check out our other upcoming educational events:

AOSpine Advanced Simulation Course—MISS tubular surgery techniques (Group 1) Location: Mexico City, Mexico

AOSpine Hospital Based Simulation Course—MISS

tubular surgery techniques Location: Mendoza, Argentina

AOSpine Advanced Level Live Tissue & Simulation

Course—Spinal endoscopy and minimally invasive decompression

Location: São Paulo, São Paulo, Brazil

AOSpine Advanced Level Live Surgery & Simulation

Course—Tips of minimally invasive surgery techniques of the lumbar spine

Location: Barranquilla, Colombia

AOSpine Advanced Course—Minimally Invasive Spine Surgery

Location: Maribor, Slovenia

AOSpine Advanced Level Hospital Based Simulation

Course—Minimally Invasive Decompression and Interbody

Fusion

Location: Baden, Switzerland

AOSpine Advanced Seminar—Minimally Invasive Spine

Surgery (MISS)

Location: Guangzhou, Shanghai, China





How to Get Involved in AOSpine Research—and why we think you should do it

AOSpine Research regularly announces calls for proposals and for participation in new studies performed by the AOSpine Knowledge Forums (KF), our five expert-driven research working groups. Open calls are sent to AOSpine members who have opted into receiving our emails. Here, three AOSpine members share their experiences on how they got involved, give tips to steer your career towards research, and insights to why it's worth it.

AOSpine Research Commission Chairman Dino Samartzis confirms the interest in research is growing amongst spine surgeons and clinicians globally. "More and more members want to participate in our studies or become members in the AOSpine Knowledge Forums. This is great news for science and for the future of patient care."

"It's challenging, which makes it fun. It makes you part of a bigger thing."

Working besides world-renowned spine researchers is inspiring and rewarding. AOSpine researchers can contribute to progressing the field of managing spine trauma and disorders, and they learn more from their clinical cases. "It's challenging, which makes it fun," Global Research Manager Niccole Germscheid thinks. "Rubbing shoulders with the research giants and disseminating research findings in symposia and conferences; it makes you part of a bigger thing."

In time, giving back and mentoring others will be another reward. "But making it to the top is hard work and takes time, similarly, to conducting meaningful research." Samartzis warns.

Pathways to a career in research

Networking is important, just as it is in any business, and the Global Spine Congress and Davos Courses provide opportunities to meet with global spine researchers and influencers.

Lorin Benneker remembers working with Mauro Alini and Keita Ito as a fellow in the AO Research Institute (ARI) and learning about experimental research from basic scientists. Later, working as faculty at the AO Davos courses he ran into the current AOSpine KF Trauma Chairperson Cumhur Öner and started talking about cases. Benneker went on to do a fellowship with Öner, started contributing patients in AOSpine KF Trauma studies, and eventually earned a member position in the KF.

"You have to gain experience and merit from translational or clinical studies first, which is hard labor in addition to your daily work with

patients. But there is no way around it." Benneker states.

Emiliano Vialle from Brazil echoes the thoughts and sees no short cuts in how to get involved. "Not even being my Father's son," Vialle laughs. "I've been involved in helping my mentors with their research projects since my residency. It's an ongoing process: first you contribute cases to the studies, then you may be invited as an associate member, and you keep on giving support."

"Research is a continuous cycle; you learn from your mistakes and build on previous achievements."

Before being invited to the KF, both Vialle and Benneker represented their Regions as Research Officers, which provides another pathway to get involved. The AOSpine Regional Research Officer positions are open every 3 years; elections for Europe and Asia Pacific are taking place in April 2019.

Gaurav Dhakal is the newest AOSpine KF Trauma associate member. His

association with AOSpine dates back a decade to the first AOSpine symposium held in Nepal. During his spine fellowship with Saumyajit Basu in India, Dhakal was introduced to AOSpine research with irreversible consequences. "It instilled in me the desire to indulge in more research work and to pursue projects that I could do home in Nepal."

To follow his research desire, Dhakal successfully applied to the AOSpine Research mentorship program. Supervised by Dan Riew and Yoshiharu Kawaguchi he co-authored manuscripts in academic journals, including the AOSpine's own Global Spine Journal.

"At the Davos Courses and the Global Spine Congress 2018, I then got talking with AOSpine KF Trauma members. With their encouragement and as a result of my growing track record and research interests, I applied and was accepted as an associate member last October," Dhakal explains.

The AOSpine KF Trauma Steering Committee and Associate Members at the GSC 2018, Singapore. From left to right: Jens Chapman, Marcel Dvorak, S. Rajasekaran, Lorin Benneker, Cumhur Öner (chairperson), Frank Kandziora, María Alvarez Sánchez (KF Manager), Greg Schröder, Klaus Schnake, Elimiano Vialle, and Mohammad El-Sharkawi.

There are no short cuts

Before you will be invited to participate in AOSpine studies, you must know how to do high quality research and, above all, demonstrate you are committed and able to perform. "In Americas, we have a whole curriculum on how to do research, but if you don't have the research infrastructure, it's going to be very difficult to participate in big studies like the ones done by the KFs," Vialle stresses.

"There are many open calls for studies," Vialle continues. "Often people are eager to participate, they have the cases, but lack the administrative capability to run the studies. The bureaucracy of research is an important part of studies not to waste time and money."

When all the above falls into place, your AOSpine membership can bring you far in research. "Participating in the AOSpine Knowledge Forums is a beautiful reward, if you like, to your commitment with the AO Foundation. It's the most valuable participation in the AO for me," Vialle says. To Benneker, AOSpine's KFs are the "crown of the AO" and he understands the eagerness to be associated with them. "It's the part of AO where you can achieve a lot. I did not have to think twice when the opportunity arose."

"I believe that wherever we may be working, in whatever environment, we all have something to contribute to the spine fraternity. AOSpine is the best forum for it," Dhakal concludes.
"I strongly recommend spine surgeons from all regions become a part of this endeavor."

AOPEER is a great tool to get you started. The online tool offers training in all phases of clinical research and is free to all AO members. The AOSpine regions offer also AOPEER courses. AOPEER is supported by AO Clinical Investigation and Documentation (AOCID) and the AO Education Institute (AOEI). More information and a list of upcoming courses is available at www.aopeer.org.

AOSPINE KNOWLEDGE FORUMS TEASER SESSION at the Global Spine Congress in Toronto, Canada, on 16 May 2019 is your opportunity to get to know the KFs. For the GSC2019 program and networking opportunities go to www.gsc2019.org.

To learn more about the AOSpine Knowledge Forums and our **ONGOING STUDIES** visit www.aospine.org/kf.

For **OPEN CALLS, FUNDING, AND OTHER RESEARCH OPPORTUNITIES,**visit our website or follow us on Twitter and Facebook.





A call for applications for the AOSpine 2019 Discovery and Innovation Award inspired young researchers around the world to submit research proposals. In total, 83 applications were received. The purpose of this initiative is to support young AOSpine members to perform high-quality, clinically-relevant spine research and to get involved. Winners will be invited to participate in the AOSpine Knowledge Forums.

A maximum of ten grants will be awarded in the AOSpine Knowledge Forum (KF) pathology areas of deformity, degenerative, spinal cord injury, trauma, and tumor. "We want to engage and integrate young scientist from different regions into the KFs. This is one way to provide our talented members opportunities to work with key opinion leaders and experienced researchers," AOSpine Research Commission Chairperson Dino Samartzis explains. "The applicants must have a desire to perform high-quality, clinically-relevant research that will ultimately have an impact on the global stage."

Innovative novel ideas will be prioritized, but the proposed projects must also be feasible and have an impact on spine care.

"This is a way to provide our talented members opportunities to work with key opinion leaders and experienced researchers."

Most proposals were focused on degenerative (42%), followed by both tumor (17%) and spinal cord injury (17%), deformity (15%), and trauma (9%). 48% of the proposals were pre-clinical and 52% were clinical. The map shows the global distribution of the proposals, where most applications were received from the region 'Europe and Southern Africa' (34%). The applicants ranged from 29–40 years and all have an appointment at a university or a hospital-based institute.

According to AOSpine Global Research Manager Niccole Germscheid, successful applicants can become associate members of the KF which best relates to their research

proposal. "Their associate membership is initially for one year—the term of their research project—but it can be extended if they can deliver on their research proposal and become involved in other Knowledge Forum activities."

The awardees must provide a study progress report at six months and a final report one year of receiving the award. Awardees are also expected to submit and present their work as abstracts at the Global Spine Congress 2020 in Rio de Janeiro.

AOSpine 2019 Discovery and Innovation Awards are granted up to 45'000 Swiss Francs. Winners will be announced in April 2019 and invited to participate in their first KF meeting at the Global Spine Congress in Toronto in May 2019.

For more information on the AOSpine Knowledge Forums and the ongoing studies visit www.aospine.org/kf.

For open calls and funding opportunities visit our website or follow us on Twitter and Facebook.





AOSpine DegenPRO Registry— A Goldmine of Data

The AOSpine DegenPRO registry has collected an impressive 624 patients and is calling out for even more researchers across the globe to get involved to grow the international component. "DegenPRO is the platform by which we will perform prospective studies to answer important surgical questions," AOSpine Knowledge Forum (KF) Degenerative Chairperson S. Tim Yoon says. The study aims to better understand spine degeneration and biologics used in degenerative cases, and to assess their effectiveness in terms of patient reported outcomes, complications, and fusion rates.

"We have been so focused on collecting data that we have not really taken the time to start analyzing it," Past Chairperson Jeff Wang laughs with good reason, being behind the biggest contingent of patients. "But now we can go back, do meaningful studies, and answer clinically-relevant questions while we keep enrolling and moving forward."

One size does not fit all

The AOSpine Knowledge Forum Degenerative describes DegenPRO as a big, daunting, and ambitious task, encompassing a wide range of degenerative conditions and all areas of the spine. "But it fits right into the future of healthcare and will provide better and more efficient care. Studies have shown this will be also safer care," Wang stresses.

"DegenPRO fits right into the future of healthcare and will provide better and more efficient care." The registry allows consistent follow-up of spine patients who have gone through surgery, and the data collection can provide answers to many specific research questions quickly, as Steering Committee member Hans Jörg Meisel explains. "We will continue to collaborate with the DegenPRO users as research partners. With the fast-growing number of cases, many questions can be answered in a very short time frame."

Yoon continues with examples of how DegenPRO can change clinical practice for the better: "The aim is to understand, for example, if a certain type of ACDF graft is superior to others or to determine if certain treatments of lumbar stenosis and spondylolisthesis are better." DegenPRO will also be the basis for further AOSpine projects in the degenerative pathology, such as comparing different fusion cages, or comparing minimal invasive surgery (MIS) to open surgical approaches.

"The data will provide important insights on new technologies."

The data will also provide important insights on new technologies. "We will know if a new technology makes a difference, if there are more complications, and so on. One size does not fit all," Wang points out. "In the future we could indicate which patients are best suited for surgery, what type of surgery would be best, which class of biologics would be optimal for the case, or when it would be best to hold off on surgery."

The world is a smaller place

The AOSpine Knowledge Forum hopes to attract people from across the world to become involved in DegenPRO. Meisel reminds that there are still many countries where spine registries are not common. "DegenPRO will help surgeons and spine teams from all participating centers to follow patients easily. We will continue collaborating with the

AOSpine centers worldwide on our research questions."

"Anyone can join, but everyone has to contribute."

"This is the future—the world is a smaller place! We already have a goldmine of data, but we are really excited about growing the international component," Wang says and encourages people simply to get in touch to get involved. "We want as many people involved as possible. But you must be able to add to it, to contribute, to put in patients. Anyone can join, but everyone has to contribute," Wang concludes.

The AOSpine Knowledge Forum Degeneration aims to start publishing outcomes from DegenPRO in 2020.

For more information on AOSpine KF Degenerative and the ongoing studies visit www.aospine.org/kf-degen.





The Global Spine Congress heads back to North America in 2019 for its 10-year anniversary

Check out the preliminary scientific program and register today.

We are pleased to announce that the Global Spine Congress (GSC) preliminary scientific program for Toronto is now available on our official GSC 2019 website. Plan to attend the next GSC, taking place from May 15-18, 2019.

Innovations in spinal care and medical technology continue to evolve. Learn about the latest technologies and cutting-edge international research, as well as network with international leaders by attending the GSC.

Our scientific sessions will explore a variety of topics such as cervical degeneration, minimally invasive surgery and deformity. In total, the GSC will cover more than 30 topics and give access to the world's best research and clinical experts. The Scientific Program will include pre-courses, AOSpine Symposia, Society Symposia, and peer reviewed abstracts, scheduled to be presented as oral or ePoster presentations.

In addition to the main scientific program, pre-courses are also available from May 13 - May 16. You can book these courses for an additional fee.

The GSC goes beyond research, it's patient management; it's the hot topics, it's AOSpine's members-only sessions that give you knowledge on day-to-day practicalities.

Some of this year's topics include how to be a leader and how to evaluate technologies. If you are interested in learning more about AOSpine's clinical study groups, plan to attend the AOSpine symposium on the latest advances, clinical impact and future direction of the Knowledge Forums.

Download the preliminary program to learn more and register for the 8th annual Global Spine Congress in Toronto. AOSpine members receive a USD 150 discount on the registration fee. Special rates are also available for residents, students, fellows, and delegates from low income countries. For more information visit our official GSC 2019 website.

Not an AOSpine member? Sign up for membership today.

We look forward to seeing you in Toronto!





AOSpine Fellows Alumni dinner at Global Spine Congress

On Wednesday 15th May the Fellows Alumni Steering Committee are hosting a dinner for all AOSpine Fellows Alumni and AOSpine Ambassadors who are in Toronto for the Global Spine Congress 2019.

During the dinner you will get the chance to network with our esteemed Ambassadors and enjoy making contact with your fellow alumni.

Attendance at the dinner is by invitation only and all alumni members should already have received their email invitation. If you have not please contact Kate Quagliozzi immediately as places are limited and going fast!

Kind regards

Rick Bransford, Tarek ElHewala, Harry Gebhard, Kenny Kwan and Cordula Netzer

AOSpine Fellows Alumni Steering Committee

To learn more about the next GSC, take a look at the preliminary program.





10 tips for Lecturers

Are you looking to take your lecturing skills to the next level? The following 10 tips will sharpen your presentation and enrich your audience's experience.

The difference between a good lecture and an excellent one lies in the details. Taking the time to incorporate some of the following tips can give you the boost needed to keep your audience engaged and help them retain more information.

For your better
information retention:
information retention:
Notice that the first
letters of tips 3-10 spell
the word LECTURER



1 LEARNING OUTCOMES & TAKE HOME MESSAGE

It is best to stick to no more than three to five major learning points per lecture. Therefore, define a few accessible and easy-to-understand learning outcomes before you start to create your presentation. Make sure that everything in your lecture relates to these learning points. Do not forget to also include a slide with take-home messages at the end of your presentation that reflect the learning outcomes.

2 DESIGN

It is important to keep the presentation design to a basic level and to stick to a consistent layout. Keep in mind that you should make the presentation easy to follow. Use large font sizes and simple fonts. Bullet point lists are always a good idea, but avoid putting more than six lines of six words on a slide. Remember, less is more! You also want to take advantage of visual aids and present figures as diagrams or graphs. (Do not forget to respect your patients' privacy by deleting all patient data in these illustrations).





3 L = LANGUAGE

Beside your verbal skills, you should also pay attention to your body language. Before you start to present, make sure that you stand relaxed and face towards the audience. During the lecture, communicate with your whole body and use spontaneous gestures to reinforce learning points.

4 E = EYE CONTACT

Maintain eye contact throughout your lecture. As soon as you break eye contact for a longer period of time, learners might drift off. A lack of eye contact also gives the impression of anxiety, incompetence, insincerity, and a lack of credibility.





5 C = COMEDY

People like to laugh—but humor needs to be used carefully. Certain types of humor do not translate well into a different language or culture. Having a positive and enthusiastic approach is more valuable than obsessively trying to be funny.

6 T = TALK

Learners need to hear clearly what you say, understand every word, and also have time to reflect. Therefore, keep your pace and tone in check while presenting. You should use short and simple phrases to keep your audience listening.





7 U = UNEXPECTED

Create a vivid presentation by providing novelty and variety. A sensational event will be remembered far longer and in more detail than any routine experience.

8 R = REHEARSAL

Before giving the presentation, you should practice and check the learning environment. Prepare notes with key words and rehearse in front of your family, friends, or even just a mirror. Measure the time of your presentation during the rehearsal, to make sure that you will not overrun your allocated time. At the venue, adjust the lighting and try out the technical equipment to ensure its functionality.





9 E = ENGAGEMENT

Engage the listeners with "interactive" sessions, in which they can participate. Ask questions to ensure understanding or let the audience share their experience or opinion on a certain subject. This ensures attention and active involvement. Also, use visual aids and prompts to illustrate key messages.

10 R = RESPOND TO THE AUDIENCE

You can always stop your speech and respond to your audience instead. It can also be useful to build in more formal feedback mechanisms, such as questionnaires, show of hands, or an Audience Response System (ARS).



AO Foundation, AO Education Institute, Faculty Development Stettbachstrasse 6, 8600 Duebendorf, Switzerland | aoei@aofoundation.org



10 tips for webinar presenters

Last year, the AO realized 60 webinars with a total of about 9000 viewers. Webinars are a popular learning tool for surgeons with a busy schedule as they can be viewed from anywhere with almost any device. However, webinars should not be mistaken for lectures. Webinar presentations require some specific adaptations to the content and so does the mindset of the presenter. The following 10 tips will allow you to make the most of your webinar.





1 Hand in your material on time

The AO staff provides you with a lot of services to make sure your webinar will be successful. These include a presentation template, reviewing your learning objectives, ensuring the AO brand guidelines are followed, and formatting videos as well as photos correctly. However, you need to be aware that all those services take their time. Therefore, please make sure to hand in all the required material for your webinar as soon as possible keeping in mind the suggested timelines.

2 Ensure your slides are easy to read

Many webinar viewers use small devices (tablets, mobile phones) and/or have bad internet connection. To ensure that they can still view your presentation, divide the information into various slides with big and easily readable fonts. Do not use borders, shadows or animations and avoid tables with tiny font size (you can outline the important parts and let 'participants download the complete presentation after the webinar). Also, do not use too many pictures on one slide and crop the pictures you will be showing to focus only on the essential part.





3 Use multimedia content

A good video or animation is worth a thousand words. If you have multimedia content that fits your presentation, is not too long, and of good quality, it can be highly valuable to emphasize the learning objectives of your webinar. Enrich your presentation with good videos or animations whenever possible.

4 Include only horizontal videos

As mentioned in tip 3, videos are very welcome. Many webinar presenters want to include videos they made themselves with their mobile device. This is not a problem as long as the video is recorded horizontally. Horizontal videos fit well into the reserved space in the presentation template and allow for the video to play in the highest resolution.





5 Enrich your webinar with cases

Adding cases to your presentation transforms the theory into practice and makes the webinar content more tangible for the viewers. Including cases motivate participants to ask questions. The webinar presenter and chat moderator also have the possibility to give practical tips in the Q&A session at the end.

6 Involve the audience

Include polling questions in your presentation to ensure interactivity. Three to five questions spread over the whole presentation are ideal. Do not forget, however, that if you include a poll you also have to comment on its result, which might be surprising sometimes. The responses to polling questions can also inform you about the level of expertise of your audience, which in turn allows you to adapt your presentation to your learners' needs.





7 Rehearse your presentation

If you are hosting a webinar you will be moderating for one hour straight. Be aware that a webinar presentation is not the same as a lecture. It includes some parts that you would not mention in a lecture. Therefore, rehearse your presentation and prepare to:

- Say hello and introduce yourself and your chat moderator (short but bold)
- Introduce your presentation, the webinar schedule, and the learning objectives
- Hand over to your chat moderator
- Invite participants to send questions

8 Speak slowly

In any webinar the presenter tries to give as much information as possible in a short time. Nevertheless, it is important to speak slowly and clearly. Participants from all around the world will join your webinar, including nonnative English speakers as well as viewers with bad internet connection or noisy surroundings. These factors make it hard for them to understand you, thus, make sure to clearly articulate the content of your presentation.





9 Adapt your mindset

A webinar is not just another presentation or lecture. You have no audience in the room, and therefore, cannot judge how well your webinar is going based on the atmosphere in the room. You may have a big audience in total, but to the viewer it seems that you are only speaking to them. Thus, you do not have to speak as loudly as you would in a lecture hall. Also, the sense of time is completely different, there is no background noise and one second of silence might feel like a minute. Be aware that your presentation will need more time and that it will feel completely different than giving a lecture. Try to rehearse your presentation with these considerations in mind.

10 Form a team with your moderator

In most webinars the presenter is supported by a chat moderator. The chat moderator does not only answer the viewers' questions during the presentation but also moderates the Q&A session at the end of the webinar. Make use of the knowledge and experience of your chat moderator to enrich your webinar and provide an exciting and instructive discussion. It is also advisable to include the moderator in the preparation of your presentation to ensure their answers are in line with your content.



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Why did you decide to become a spine surgeon?

In the third year of my residency, while I was an assistant surgeon for my teachers, I developed an admiration for precision and surgical skills, as well as the knowledge needed for the management of spine pathologies. That made me very interested in the subject and led me to get more involved. Resulting in a very long-lasting career in spine surgery.

Where did you get trained?

I studied my 4-year of Trauma and Orthopedics residency at the Mexican Social Security Institute, at the "Magdalena de las Salinas Hospital" in Mexico City. I got trained in spine surgery at this Hospital at the spinal trauma department.

Who inspired you?

It wasn't only one person, but it was the whole spine surgery department teachers, their knowledge and their surgical skills and capability that led me to continue working and loving spine treatments and surgery.

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

Spine surgery can be widely divided in two great groups in my country: public and private spine surgery. Public spine surgery has a wide influential variety in each different school, ranging from European

or North American influence, with most common procedures still being done with open techniques, this due to the economic infrastructure that this kind of institution handle. On the other side, private practice spine surgery has very innovative and 1st world surgery techniques, with minimal invasive techniques such as endoscopic surgery and other techniques, being performed by very well experienced surgeons.

What are the biggest challenges in your job/what do you consider the biggest challenges for spine surgeons in your country?

In my opinion, the economic aspect is the biggest challenge in the development of a spine surgery management in my country.

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

The spine surgeon formation facilitated by AOSpine. Its academical knowledge has been the greatest influence in my career.

Biography

Name: Gustavo Casas Martinez **Hospital:** Hospital de Trauma y Ortopedia Magdalena de la Salinas, Mexico Cit

Department: Spine trauma surgery **Country and city:** Mexico City, Mexico Born: July 27, 1961. Mexico Cty, Mexico





Why did you decide to become a spine surgeon?

I was a medical student doing my fellowship at the San Vicente de Paul Hospital in Medellín, Colombia. One day during the rounds I was given the opportunity to attend a spine surgery on a patient with a thoracolumbar fracture. It was very exciting. Two days later I saw a scoliosis surgery on a teenager. That day I decided I wanted to become a spine surgeon and spend the rest of my life working in this area.

Where did you get trained?

I first studied orthopedics and traumatology at the Javeriana Catholic University of Bogota. Then I was a fellow in spine, pelvis and acetabulum surgery at the New Granada Military University also in Bogotá. Later on, I went to Buenos Aires, Argentina, to spend some time in pediatric deformities at the Garraham Hospital.

Who inspired you?

During my residency in orthopedics and traumatology at the Javeriana University I had the opportunity to work with doctors David Meneses, and Carlos Montero who I can say were my mentors. With them, I learned many things about spine deformities in children.

During my residency at the Bogota Santa Fe Foundation, I met doctors Andrés Rodríguez, Luis Carlos Morales Sáenz, and María Constanza Bedoya. All of them passed on their passion for spine surgery, teaching and research to me.

Other people who have inspired me in my profession are doctors Javier Matta, Víctor Arrieta and Fernando Torres, who taught spine, pelvis and acetabulum surgery at the New Granada Military University in Bogotá during my fellow time. I was able to share great disciplined learning and research experiences there.

Can you tell a bit in general about spine surgery in your country? Spine surgery enjoys a high standard in Colombia and represents the level of quality in Latin America very well. This is because of the type of surgeries and the increasing scientific, educational and research level of the people.

What projects do consider your most important ones?

There are two projects that I consider really important. I am very passionate about research. I work on a research project called SpineBog, in a group of approximately twenty people including fellows, residents, medical students, and people from other fields such as farmers and engineers.

One of the most ambitious projects in which I have participated was carried out at the Santa Fe Foundation, where orthopedists and neurosurgeons together with a multidisciplinary team were granted accreditation by the Joint Commission International as the first program in decompression and fixation of lumbar channel accredited by such entity.

Also, at the Roosevelt Institute we developed a center of excellence for the treatment of adolescent idiopathic scoliosis. We have developed a neuromuscular scoliosis center. All these projects are in the search of standardization of processes to provide better care to our patients, with better results and greater safety in our proceedings.

I'm also past research officer for AOSpine for Colombia and the secretary of the Spine Chapter of the Colombian Society of Orthopedics and Traumatology where we have been carrying out several activities focused on international education and joining efforts to improve our identity as a group.

What does being a member of AOSpine mean to you, how has AOSpine influenced your career? I believe that in AOSpinepine and with AOPEER, I can keep going on the road of learning and teaching.

As spine surgeons we must always remember the principles: discipline, respect for our patients and colleagues and above all, to be humble.

A colleague of mine, Dr. Rueda, once told me: This is not a residence, this is a LIFESTYLE, and I still believe it.

Biography

Name: Fernando Alvarado Gómez, Bogota, Colombia

Hospital: Santa Fe Foundation and Instituto Roosevelt, both of Bogota, Colombia.

- Spine surgeon, Santa Fe Foundation University Hospital and Roosevelt Institute, both in Bogota, Colombia;
- Spine, pelvis and acetabulum surgeon, Nueva Granada Military University, Colombia;
- Orthopedist and traumatology specialist, Javeriana Catholic University, Colombia;
- Clinical epidemiologist, Our Lady of Rosary University, Colombia;
- Clinical professor, Los Andes University and Del Rosario University;
- Ad Honorem professor, Nueva Granada Military University;
- AOSpine Colombia researcher;
- · Secretary, Colombian Spine Society.