

INTERVIEW REPORT

Interview with Dr. Denis Jacob & Dr. Lionel Pesquer Two Radiologists Specialized in Osteoarticular Imaging with MRI

Interviewee



Dr. Denis Jacob (DJ) is a member of the IM2P group, which gathers over 50 radiologists between Jura and Côte-d'Or. He works with a Canon Vantage Orian 1.5T MRI system at GIE 39 Nord at the Centre Hospitalier de Dole.

He is also a member of the SIMS Board of Directors, is responsible for ultrasound workshops, and has been a member of the editorial board of the annual magazine *Gel Contact* for many years.



Dr. Lionel Pesquer (LP), a member of the Enosis group, practices at the Clinique du sport Bordeaux and at the R2 Gironde site in Pessac, which is equipped with a Canon Vantage Galan 3T MRI system and is a site where many Bordeaux radiologists are involved.

He has been a member of SIMS since 2002 and has been active for about 10 years teaching and training in ultrasound and MRI.

Background

On the occasion of the SIMS 2021 digital congress, we met with Dr. Denis Jacob and Dr. Lionel Pesquer, radiologists specializing in osteoarticular imaging. As active members of SIMS, they told us about their partnership with Canon Medical Systems, and gave their feedback about, in particular, their use of Canon 1.5T and 3T MRI systems, and the applications of the modality for muscle and fascia pathologies, which were the themes of the 47th 'thematic days' of SIMS.

Good day gentlemen. You are both members of SIMS, in what context did you meet?

DJ: I know Lionel Pesquer both through workshops and conferences, and also through our activities at sporting events; with the Centre Médical Mobile for example, present at the Tour de France.

LP: We met through SIMS, and also had the opportunity to work as radiologists at the Tour de France. We realized that the cyclists have an extremely high pain threshold, and that for small falls some fractures could go unnoticed, which can have disastrous consequences. Denis created a mobile practice which is equipped by Canon Medical Systems. It precedes the racers and allows radiographic and ultrasound assessments to be realized.

What is your relationship with Canon Medical Systems?

DJ: I have been working with their ultrasound systems and scanners for about 10 years. I have a very good relationship with Canon Medical Systems, which to me is both a supplier and a partner. We are working on a common project and I feel their support.

LP: I have been working with Canon since 2005 in ultrasound. I also have experience with Canon scanners through my activity at the Libourne hospital and during shifts at the 4 Pavilions clinic in Bordeaux. I have been working with Canon MRI since 2014 when R2 Gironde was created in Pessac.

You have recently acquired a Canon MRI system, what is your feedback about it?

DJ: We started using MRI at the Centre Hospitalier de Dole in 2007. In agreement with the hospital, which was quite ready for a change, we renewed our MRI system with a Vantage Orian 1.5T almost a year ago. The change was made both for the advertised technical performance, and to break routine a little and improve patient comfort, which is what Centre Hospitalier de Dole was looking for. The technical advantages offered by the Canon system differentiated it from its competitors, so we decided to purchase it.

LP: We started working with a Canon Vantage Titan 3T MRI, which we renewed in 2020 with a Vantage Galan 3T. As in 2014, the excellent quality/price ratio made us choose Canon, but this time the genuine collaboration that we developed over the previous 6 years was also a factor. It's more than just a contract, it's a real partnership.

DJ: The novelty of the system and its technological innovations enabled us to optimize certain sequences in partnership with application specialists. This was a challenge for the team of technicians, but they became involved and are now very satisfied. Now we are rewarded for our 'audacity'.

LP: With the support of our applications specialist, we have implemented osteoarticular protocols that are both very qualitative and also fast enough for our needs.

How would you describe the quality of Canon Medical Systems MRI in your practice?

DJ: For my part, I practice exclusively with osteoarticular applications. I use the adapted sequences a lot and am currently discovering the Flex antennas, which offer very good field coverage and with which we are completely satisfied.

We also do a lot of 3D on the spine, with superb quality, which we didn't do before. I am also very happy with the shoulders, which I do a lot, the knees, the feet, and the ankles.

LP: Our Vantage Galan 3T MRI provides us with all the techniques and modalities derived from artificial intelligence. In particular, AiCE allows us to shorten acquisition time, and above all to improve image quality. We are making sequences which should in theory, be twice as long, but which can be acquired in perfectly acceptable times. We have realized a benefit in both signal-to-noise ratio and contrast-to-noise ratio. In our practice, this is a question of real comfort and definite diagnostic effectiveness.

DJ: We also regularly use AiCE, which we appreciate because it enhances images without wasting time. The acquisition times are good, and overall, we have time to do 2 or 3 more examinations per day, especially in osteoarticular.



Vantage Orian 1.5T - GIE 39 Nord



Vantage Galan 3T - R2 Gironde

Can you tell us about the support provided by Canon Medical Systems?

LP: Our partnership with Canon brings us new technologies that we use and improve. The continuous reciprocation between the user and the manufacturer is really interesting. We outline our needs, and through new features or adjustments by the always-available application specialists, we improve our system.

DJ: I was already in appreciation of Canon Medical Systems as a company in service of its client-partner. In MRI, thanks to sequence optimization and numerous site visits, we are able to explore new options. One of my associates is testing several sequences, and we are happy to do so because we can later benefit from them. We are thus in a 'win-win' situation. It is quality support, both technically so and humanly so.

This year, the SIMS congress has the theme 'muscles and fasciae'. What are you doing with MRI to explore these areas?

LP: Muscles and fasciae are an integral part of daily exploration in osteoarticular. In the athletic domain, we mainly use MRI for indirect traumatology. Vantage Galan 3T offers excellent resolution, contrast-to-noise ratio, and spectral fat saturation.

DJ: I use MRI in all musculo-aponeurotic pathologies, and also in a rather specific area that we presented at the congress, compartment syndrome. We do pre and post-effort explorations for people with calf pain. For this, we perform a STIR, which we have tuned, and which now has good resolution and good contrast. We also perform a T1 and a T1 Gado, then possibly the DRKS vascular sequence for the trapped popliteal artery.

LP: I think it would also be interesting to develop diffusion and perfusion protocols for chronic muscular pathologies, such as compartment syndrome. There are certain muscular pathologies, especially around the pelvis, which will be better understood with new techniques or protocols with better resolution. I also think that UTE sequences are certainly of interest for the study of not only fasciae but also tendons, because this imagery is often binary, either hypo or hyperintense. I believe that we need to make progress in our knowledge of these pathologies and the prognostic factors. For my part, I think that MRI can provide us with useful elements for these applications.

DJ: The subject of UTE is still prospective today for muscles and fasciae, and also for osteoarticular joints in general. As the technique becomes simpler in the coming years, there are a number of applications for which it holds promise.

As active members of SIMS, what do you think of Canon Medical Systems' involvement in SIMS news and events?

LP: Canon Medical Systems has always been very involved with SIMS. For example, we were lucky enough to take advantage of high-resolution probes, such as the 'golf club' probe, very early on. It is a real pleasure to work with such technologies, especially in workshops where we can perfectly describe normal echo-anatomy.

DJ: I take care of the SIMS workshops, and we have a partnership that works, with availability, with effective teams. We made some learning videos that were very well supported by Canon Medical Systems.

What are the future prospects with Canon Medical Systems?

DJ: In MRI, let's continue as we started and build on this great momentum! Let's develop 1.5T MRI, which is a rapidly growing modality at Canon. For the almost one year since installation, we have been delighted.

LP: We will continue to improve our daily practice and the quality of our images thanks to regular feedback from the application specialists. And I would like us to be able to continue to benefit, as soon as possible, from the innovative solutions developed by the firm.



R2 Gironde site

In conclusion, how would you describe your experience with Canon Medical Systems MRI in 3 words?

DJ: I would say...Partner, Agility and Responsiveness, and then Performance! Even if it's 4 words.

LP: For my part, Efficient, Dynamic, and Scalable!



GIE 39 Nord site - CH Dole

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