Fellowship report

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<th>Report by:</th>
<th>Anna Maria Alifano</th>
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<td>Date of the fellowship:</td>
<td>20th February 2023 – 18th March 2023</td>
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| Visited institutions: | - Parma (Italy) Casa di Cura Città di Parma  
- Modena (Italy) Policlinico of Modena University  
- Verona (Italy) Clinica San Francesco  
- Rozzano (Italy) Istituto Clinico Humanitas |

I was very pleased to be selected as an award-winning of the "EFORT Robotic Travelling Fellowship 2023" supported by Stryker. Thanks to this fellowship, I had the opportunity to acquire specific concepts and to closely observe tricks about Robotic-arm assisted arthroplasty in the best centers across Italy.
1st week, Parma

My first week was held at the “Casa di Cura Città di Parma” clinic in Parma, hosted by Dr. Paolo Adravanti and by Dr. Francesco Dini.

It has been very helpful taking part in robotic-assisted surgery held by Dr. Adravanti, an expert knee surgeon who used great care in pre-operative surgical planning and tissue balancing.

Moreover, it was also a great opportunity to see different pre-operative alignment strategies in robotic-arm-assisted Total Knee Arthroplasty: mechanical, kinematic, or inverse kinematic.

Dr. Adravanti showed us his ideas on patella tracking, integrating the Mako system as a navigation tool in the robotic workflow.

During this week I had also the chance to assist with surgical cases of sports knee trauma especially ACL reconstruction in arthroscopy.

Finally, I had the opportunity to try local culinary delicacies at a lovely restaurant in addition to tasting some of the finest Emilian wines and food.
**2\textsuperscript{nd} week, Modena**

In my second week, I was hosted in Modena, at “The University Hospital of Modena”. We were welcomed by Prof. Fabio Catani and his staff, Dr. Francesco Zambianchi and Dr. Andrea Marcovigi. They have managed to make us feel at home from the very first moment.

The day usually started with a briefing about the surgical cases, and since the beginning, we could scrub in several surgeries.

We took part in surgical activities, and in the afternoon, we were hosted in teaching sessions regarding the topic of robotic-assisted surgery.
I discovered with pleasure the department’s publications had fruitful discussions concerning balancing in robotic Total Knee Arthroplasty and different alignment techniques, applying the functional alignment to the majority of the case.

It was clear that robotic-assisted surgery is becoming a fundamental tool to reconsider old techniques and to better understand knee and hip articulation.

I very much enjoyed implanting cementless components for the first time and had fruitful discussions about their utility in arthroplasty and the evolution of cementless implant designs in the last decade.

Lastly, we have had the opportunity to share some time with a Turkish fellow interested in robotic-assisted surgery, having a good time exchanging some ideas.
3rd week Verona

In my third week, I was hosted in Verona, in the “Clinica San Francesco” Hospital, directed by Prof. Perazzini. I was delighted to know that the above-mentioned hospital has been the first clinic to have the Mako system in the whole of Europe.

On my first day, we received a very warm welcome from Prof. Perazzini and I had the chance to discuss the program and goals of the week.

We had the opportunity to observe the express workflow in the robotic Arm-assisted Total Hip Arthroplasty using the Direct Anterior Hip approach.

The day usually started very early in the morning, with ward visits, cases discussion, and pre-operative planning. The staff paid great attention to the patient and focus on rehab with a well-trained physio staff. In addition to the physio, the center was available the “Hunova” system, a robotic rehabilitation and physiotherapy device designed for the treatment of the lower limbs to support physicians, physiotherapists, and patients.

It was also organized a “Mako Demo” session held by Stryker/ABMedica engineers; a special thanks to Belinda Vedovi and Carlo Nostran. It was very useful to understand theoretically and put into practice the received knowledge.

I have found very interesting the scientific review that Prof. Perazzini invited us to perform on robotic-assisted UKA survivorship since he had the longest follow-up casuistry in the EU (> 10 years).
Furthermore, we had a great time outside the Department, as Prof Perazzini and his staff organized a beautiful dinner in a typical Venetian restaurant.
4th week Milano

The fellowship ended in the “Istituto Clinico Humanitas” Hospital in Milan, directed by Prof. Guido Grappiolo, an outstanding experienced hip surgeon.

We were welcomed and presented to all the present staff. A special “thank you” has to be addressed to the consultants of the department for the warm welcome and the willingness to share their clinical expertise: in particular Dr. M. Loppini, Dr. A. Della Rocca, Dr. F. La Camera, Dr. D. Ferrentino, Dr. F. Bruno, Dr. R. Cannata.

During the week we were involved to benefit from the departmental teaching for the residents; on the first day and we could scrub in all the Mako procedures, taking an active part in the case discussion, the planning, and the surgical procedure.

Clinically, I witnessed the great efficiency of the department and the big caseload of robotic arthroplasties. The staff led by prof Grappiolo applied great care to patients’ follow-up, with a great casuistry. Remarkably we were hosted by prof. Grappiolo outpatient clinic. It has to be noted that the “Humanitas Clinic” is a referral center for hip surgery.
Everyone was so hospitable and made me feel welcome, in addition, they have organized some wonderful “aperitivos” and dinners at the restaurant.

Overall, this fellowship allowed me to explore the utility of robotic-arm assistance in arthroplasty and observe the advantages offered both to the surgeons and the patients including individualized, reproducible, and accurate component positioning.

I am very grateful to EFORT and Stryker for supporting this robotic fellowship and for allowing me to gain invaluable clinical and academic experience in centers of excellence across Italy.

A great thanks to Vincenzo, the best partner to share with this amazing traveling fellowship.

I would also underline the impeccable organization of the EFORT Educational Programmes Coordinator, Ms. Sabrina Marchal for always being precise and attentive to our needs. I would recommend this fellowship to my colleagues!
Permission for publication

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☐ I do not agree ...

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