



Fellowship report

Report by:	Vincenzo de Matteo
Date of the fellowship:	20th February 2023 – 18th March 2023
Visited institutions:	<ul style="list-style-type: none"> • 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 glad to be selected as an award-winning of the “EFORT Robotic Travelling Fellowship 2023” supported by Stryker!

Thanks to this opportunity I was able to visit hospitals and clinics utilizing Robotic-arm assistance through Italy. I had the opportunity to deepen my knowledge about the robotic arm-assisted surgery of the hip and the knee, both in terms of the clinical side and surgical side. Witnessing expert surgeons helped me to acquire fundamental notions and tricks about this new exciting technique.

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 was a real privilege to visit this institution; I am grateful to the staff for being a generous host and for sharing his clinical expertise.

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 strategies in robotic-arm-assisted Total Knee Arthroplasty; be it mechanical, kinematic, or inverse kinematic.





Dr. Adravanti focused our attention on patella tracking, component coupling, and integrating the Mako system as a navigation tool in the robotic workflow.

It was also fascinating to see the level of involvement of the MAKO Product Specialists (Marco Pavesi in particular) and how knowledgeable they were, as well as the flawless collaboration with the Surgeons.

Since Dr. Adravanti is

dedicated to sport medicine, it was very useful for my own learning to focalize on the gap assessment and balancing during the robotic workflow in Total Knee Arthroplasty.

This fellowship gave me the opportunity to reconnect with an old friend, Dr. Aristide Perrino.

Finally, I had the opportunity to try local culinary delicacies in the local restaurant, in addition to tasting some of the finest Emilian wines and food.



2nd week, Modena

In my second week, I was hosted in the very elegant city of Modena, at the "University Hospital of Modena". We were warmly 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.



All the staff was very kind, and every morning we were welcomed with a good coffee at the bar before starting the day. The day usually started with a briefing about the surgical cases, and since the beginning, we could scrub in several surgeries.



The week was so organized: in the morning we took part in surgical activities; in the afternoon we were hosted in lessons regarding the topic of robotic-assisted surgery.

The Department at the Modena University Hospital is very academically driven, with great scientific activity and many international publications.

REPORT

Robotic Travelling Fellowship 2023

www.efort.org



Furthermore, I was delighted to learn about the department's publications and had fruitful discussions concerning balancing in robotic Total Knee Arthroplasty and different alignment techniques, in particular 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 articulation.



It was a pleasure to discuss with prof. Catani and his staff apply in practice the principles of functional alignment in Total Knee Arthroplasty.



In addition, I have 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 chance 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 the marvelous city of Verona, which was equally exciting both from a clinical and academic perspective.

I have spent the week in the "Clinica San Francesco" Hospital, directed by prof. Perazzini. It has to be mentioned that the above-mentioned hospital has been the first clinic to have the Mako system in the whole of Europe; at the moment there are three operative robots, with greater casuistry and follow-up.



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

REPORT

Robotic Travelling Fellowship 2023

www.efort.org



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

This fellowship had given me the possibility to see first-hand the robotic-assisted surgery, to be introduced in this new very inspiring atmosphere.

I'm so glad I got the chance to grasp a lot of tricks of the trade from prof. Perazzini.



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, focusing on rehab with a well-trained physio staff. In addition in the physio, the center was available the "Hunova" system, a robotic rehabilitation and physiotherapy system, a device designed for rehabilitation, with a sensor motor assessment of the lower limbs and trunk, developed to meet the clinical need for an objective assessment and treatment tool to support physicians, physiotherapists, and patients throughout the rehab process.



It was organized a "Mako Demo" just for the EFORT fellows, a session held by Stryker/ABMedica engineers Belinda Vedovi and Carlo Nostran. It was very helpful to fully understand the procedure, and have the time to pose questions and discuss the idea



behind every step of the workflow.

Equally, it was very challenging to listen to the department's research findings, namely the longest follow-up of UKA procedures in the EU (> 10 years).

Furthermore, we had a great time outside the Department, as prof Perazzini and his staff organized a beautiful dinner!

Side-note!: I got interviewed by the staff of prof. Perazzini!





4th week Milano

Off to my fourth week, I had an amazing stop at the "Istituto Clinico Humanitas" Hospital in Milan, directed by Prof Guido Grappiolo, with superb hosting and clinical experience. It was a pleasure to reconnect with so many good friends.

First of all, a special "thank you" has to be addressed to all the staff of the department for the warm welcome and the willingness to share their clinical expertise: starting from the director Prof. G. Grappiolo, to the consultants Dr. M. Loppini, Dr. A. Della Rocca, Dr. F. La Camera, Dr. D. Ferrentino, Dr. F. Bruno, Dr. R. Cannata.



I was allowed to benefit from the departmental teaching for the residents on the first day. We were friendly welcomed and presented to all the present staff.

I was impressed by the level of organization, in particular the policies to prevent infection and the discipline of the staff. We could scrub in all the mako procedures, taking an active part in the case discussion, to 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; the prof. Grappiolo showed us cases of great interest. 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 to organizing many "aperitivo" and dinners during the whole week.





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. Moreover, this fellowship allowed me to set the foundations for future academic collaborations and allowed me to witness different healthcare settings, and meet wonderful hosts.

A great thanks to my fellowship partner Anna Maria, without whom this adventure wouldn't have been the same.



I would also underline the impeccable organization of the EFORT Educational Programmes Coordinator, Ms. Sabrina Marchal for always being available and supportive.

I cannot recommend this fellowship enough.

Permission for publication

I agree ...

I do not agree ...

... that my report may be published on the EFORT and EFORT Foundation website and used for promotional purposes on EFORT's social media channels.