EUROPEAN UROLOGICAL SCHOLARSHIP PROGRAMME (EUSP)

[3-month visit: April to June 2016]

Department of Urology, University Hospitals of the Katholieke Universiteit Leuven
Leuven, Belgium

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Motivation
As a urology resident in the Department of Urology of the Santa Maria Hospital, the largest university hospital in Portugal, I have developed a strong interest in minimally invasive procedures in urology such as laparoscopy, robotics and endoscopy. It has been my personal and professional objective to specialise in this area.

Taking that objective into consideration and after several dedicated courses and trainings throughout the years, I wanted to further develop my skills and knowledge in advanced laparoscopic and minimally invasive procedures. I decided to participate in a three-month long hands-on-training fellowship.

After careful consideration of the available options, I chose the Department of Urology of the University Hospitals of the Katholieke Universiteit Leuven (KU Leuven), under the guidance of Dr. Ben Van Cleynenbreugel, a well-known and internationally recognised specialist in the field.

Leuven
Belgium shares not only borders with France, the Netherlands, Germany and Luxembourg, but also a deep historical interrelation. The Belgian territory is divided into three regions: the Flemish Region, Walloon Region and Brussels Capital Region. Although the division into regions is ultimately administrative, there is a profound linguistic distinction between the two main regions: the Dutch-speaking Flemish Region and the French-speaking Walloon Region which give Belgium cultural diversity.

The two main Belgium regions are subdivided into 10 provinces. The Flemish Brabant, one of the five Flemish provinces, is located at the centre of Belgium territory and surrounding the Brussels Capital Region with Leuven as its capital.

Leuven is a charming city. Its history is deeply connected to KU Leuven, which is considered one of the oldest Catholic universities in the world. The university has been a distinguished centre of learning in Europe for almost six centuries, with noteworthy alumni such as Desiderius Erasmus, Gerardus Mercator and Andreas Vesalius.

Transport and accommodation
Traveling to Leuven is easy due to its close proximity to Brussels. The city can be accessed by airplane or train from major European cities. From Brussels, one can easily go to Leuven by train, bus or car in less
than one hour. Leuven is a safe and quiet university city, where one can move everywhere by bus, bicycle or by foot.

There is a wide variety of offers in terms of accommodation that can match the needs of any fellow; from private rooms to university residences. The university has a housing service that provides guidance and a website about certified lodgings in the city.

Due to the long tradition of receiving foreign students, the university provides extensive orientation in all matters concerning the daily life in Leuven, as well as, useful social and cultural programmes.

University Hospitals Leuven
The Universitaire Ziekenhuizen Leuven (UZ Leuven) is an academic hospital consisting of five campuses. With almost 2,200 beds, UZ Leuven is the largest hospital in Belgium and one of the largest in Europe. Over the past years, there has been an effort to have most of the departments and facilities in campus Gasthuisberg, which currently occupies a considerable area of the city outer ring.

Department of Urology
The Department of Urology of UZ Leuven in campus Gasthuisberg includes the infirmary (a total of 65 beds and admitting about 22,500 patients yearly), the outpatient clinic (with eight patient cabins accommodating more than 19,500 patients annually) and the day clinic. Two dedicated state-of-the-art operating rooms – integrated in the central operating room complex – are used daily for urological procedures, and a room for outpatient surgery treating a total of 1,800 patients each year. Clinical activities are intimately coupled with academic and scientific activities, providing the department a unique working environment.

The Department of Urology is subdivided in four main different care programmes, which are under the guidance of Prof. Dr. Hein Van Poppel and recently, Prof. Dr. Dirk De Ridder. These programmes are internationally acknowledged and certified at clinical and scientific levels, each under the guidance and coordination of a full-time and internationally-known supervisor: Endo-urological, Laparoscopic and Robot-Assisted Surgery (Dr. Ben Van Cleynenbreugel), Reconstructive Urology (Prof. Dr. Steven Joniau), Functional Urology (Prof. Dr. Frank Van der Aa) and Paediatric Urology (Prof. Dr. Guy Bogaert). One of the strongest areas of the department, the field of Oncological Urology, is where Prof. Dr. Joniau, Dr. Van Cleynenbreugel, Dr. Wouter Everaerts and Dr. Maarten Albersen contribute their skills and knowhow as well.
The Department of Urology of UZ Leuven is fully equipped with resources to provide the vast array of urological procedures currently available. This makes the department one of the most distinguished centres in Europe.

**Fellowship**

Considering the objective of my fellowship, I spent most of the time in the operating room with Dr. Van Cleynenbreugel, Prof. Dr. Joniau or Dr. Everaerts (when Dr. Van Cleynenbreugel was not operating).

Throughout the entire period of the fellowship, I had active participation in the operating room activities under the guidance of the staff members, and in collaboration with the department’s residents. This allowed me to integrate in the team and be an active part of the department. This integration was of paramount importance and key element in achieving my goals for the clinical visit.

From a surgical point of view, I was able to participate actively in all aspects of diverse procedures focusing on robotic, laparoscopic and endoscopic procedures such as:

**A) Robotic surgery**
- Robotic-assisted laparoscopic partial nephrectomy
- Robotic-assisted retroperitoneal lymph node dissection
- Robotic-assisted ureteral stricture reconstruction with psoas hitch
- Robotic-assisted ureteral stricture reconstruction with Boari flap
- Robotic-assisted laparoscopic radical prostatectomy
- Robotic-assisted laparoscopic radical prostatectomy with extended pelvic lymph node dissection
- Robotic-assisted laparoscopic extended pelvic lymph node dissection

**B) Laparoscopic surgery**
- Laparoscopic radical nephrectomy
- Laparoscopic total nephrectomy
- Laparoscopic pyeloplasty
- Laparoscopic nephroureterectomy

**C) Endoscopic surgery**
- Percutaneous nephrolithotomy
- Retrograde intrarenal surgery
- Ureteroscopy
- Transurethral resection of bladder tumour
- Transurethral resection of the prostate

**D) Open surgery**
- Radical nephrectomy
- Paediatric open radical nephrectomy
- Partial nephrectomy
- Nephroureterectomy
- Radical cystectomy with ileal conduit urinary diversion
- Radical cystectomy with modified Mainz pouch I urinary diversion
- Retropubic radical prostatectomy with extended pelvic lymph node dissection
- Retropubic prostatectomy (Millin)
- Bulbar urethroplasty with buccal mucosa graft
- Bulbar urethroplasty with end-to-end anastomosis
- Inguinal lymphadenectomy

Parallel to the daily work in the operating room, I was also able to participate in a series of other activities of the department such as daily staff meetings, scientific meetings, ward visits and outpatient clinics. This enabled me to collaborate in the day-to-day activities of the department. By the end of my clinical visit, I felt I was part of the department.

**Acknowledgment**
A special word of appreciation for Dr. Van Cleynenbreugel who accepted me as a fellow and whom I worked with daily during the three-month period I spent in Leuven. His guidance was of paramount importance in the growth of my knowledge and technical differentiation in minimally invasive procedures in urology.

Aside from the technical aspects of the fellowship, it was a pleasure to work with a renowned expert in the field of minimally invasive procedures in urology on a daily basis.

I would like to express my appreciation to all the staff of the Department of Urology of UZ Leuven, for enabling me to work and learn as part of the team. I would like to thank especially Prof. Dr. Joniau and Dr. Everaerts, whom I had the opportunity to frequently learn from and work with.
I am also grateful for the support provided by the Head of the Department, Prof. Dr. Tomé Matos Lopes. This support has enabled me to undertake this project of progressive differentiation in endoscopic, laparoscopic and robotic procedures in urology.

Finally, my deepest thanks goes to my tutor, Dr. Sérgio Pereira, for all the support and guidance he provided since the beginning of my residency, and for my progress and growth in the field of urology.

**Final remarks**

I believe that the opportunity to have dedicated training periods in renowned centres is one of the best ways to improve in a specific field. For that reason, the support of the European Association of Urology through the EUSP, represents one of the most important ways of improving the level of urological care nowadays.

The scholarship programme has considerably developed my skills and knowledge in the laparoscopic, endoscopic and robotic surgeries, thus putting me one step closer to my goal of differentiating in minimally invasive procedures in urology.