



I. Fellowship Overview

1. Mission and Objectives

- Train fellows to develop proficiency in robotic donor nephrectomy, kidney implantation, hepatopancreatobiliary (HPB) surgery, living donor hepatectomy, and liver transplantation, equipping them with advanced skills for their career advancement.
- Enhance fellows' research capabilities and academic contributions to robotic transplant and HPB surgery.

2. Program Duration and Structure

- Duration: 12 months.
- Rotations: Four 3-month blocks focused on specific robotic surgical areas:
 - Robotic donor nephrectomy.
 - Robotic kidney implantation.
 - Robotic HPB surgery.
 - Robotic liver transplantation (donor and recipient).
- Progressive technical training sequence based on proficiency milestones.

3. Eligibility Requirements

- Completion of an ASTS-accredited Abdominal Transplant Fellowship.
- Documented robotic surgery experience as bedside or primary surgeon in at least 50 cases.
- Ability to meet visa and credentialing requirements in Saudi Arabia.

4. Selection Process

- Fellows will be selected through a multidisciplinary team interview, ensuring a transparent and competitive application system.
- Applicants must meet all eligibility criteria and submit their applications through the SF Match platform by the specified deadlines.

5. Faculty Leadership

- Prof. Dieter Broering, MD, PhD
- Dr. Yasser Elsheikh, MD.
- Prof. Massimo Malago, MD, PhD
- Dr. Yasir Alnemary, MD

6. Fellow Benefits

- Competitive compensation to ASTS fellowship programs in the US.
- Hospital-provided accommodation (single or family)
- Repatriation flight tickets (economy class, fellow and dependents)
- Health coverage for the Fellow and dependents at King Faisal Specialist Hospital while in Saudi Arabia.
- 30-day annual leave, 1 professional leave



II. Curriculum and Rotation Breakdown

A. Robotic Donor Nephrectomy (Months 1-3)

1. Clinical Objectives

- Achieve mastery in robotic living donor nephrectomy.
- Develop skills in preoperative evaluation and perioperative management of donors.

2. Technical Training

- Robotic port placement and system docking.
- Hilar dissection and vascular control.
- Kidney extraction using robotic tools.

3. Projected Case Volume

- 75 robotic donor nephrectomies.

4. Didactic and Research Components

- Weekly anatomy and technique lectures.
- Participate in ongoing donor safety research projects.

B. Robotic Kidney Implantation (Months 4-6)

1. Clinical Objectives

- Develop technical skills in robotic kidney transplantation.
- Manage post-transplant complications such as ureteral strictures and vascular thrombosis.

2. Technical Training

- Precise vascular and ureteral anastomosis using robotic techniques.
- Optimization of graft placement and perfusion.

3. Projected Case Volume

- 30 robotic kidney implantations.

4. Didactic and Research Components

- Weekly case discussions on immunology and transplant outcomes.
- Video preparation and analysis of robotic kidney transplantation techniques.

C. Robotic Hepatopancreatobiliary (HPB) Surgery (Months 7-9)

1. Clinical Objectives

- Master advanced robotic techniques for liver and pancreatic resections.
- Understand oncological principles and complex biliary reconstructions.

2. Technical Training

- Robotic liver parenchymal transection.
- Pancreaticojejunostomy and bile duct reconstructions.

3. Projected Case Volume

- 25 robotic HPB procedures.

4. Didactic and Research Components

- Participation in multidisciplinary tumor boards.
- Collaborative research on robotic HPB surgery outcomes.



D. Robotic Liver Transplantation (Months 10-12)

1. Clinical Objectives

- Gain expertise in robotic donor and recipient liver transplantation.
- Address immunological and technical challenges in robotic liver transplantation.

2. Technical Training

- Robotic donor hepatectomy.
- Complex vascular and biliary anastomoses in liver recipients.

3. Projected Case Volume

- 40 robotic donor hepatectomies
- 10 robotic liver transplantations.

4. Didactic and Research Components

- High-fidelity simulation of robotic hepatectomy and transplantation techniques.
- Research collaboration with faculty on robotic liver transplant advancements.

III. Research and Academic Responsibilities

1. Research Projects

- Fellows will engage in at least one clinical or outcomes research project related to robotic transplant surgery.
- Preparation and submission of a peer-reviewed publication.

2. Video Editing and Case Preparation

- Fellows will create and analyze videos of their robotic procedures to enhance learning and technique refinement.

3. Conference Presentations

- Participation in national and international transplant and HPB surgery conferences.

IV. Evaluation and Milestones

1. Performance Assessments

- Monthly evaluations by faculty based on surgical logs and technical milestones.
- Progressive independence based on demonstrated proficiency.

2. Surgical Volume Requirements

- Completion of minimum case volumes for robotic procedures across rotations.

3. Certification

- Certificate of completion by King Faisal Specialist Hospital endorsed by the American Society of Transplant Surgeons upon fulfilling program requirements.



V. Administrative Details

1. Facilities and Equipment

- Dedicated robotic surgical suites equipped with the latest technology.
- Simulation labs for hands-on practice.

2. Support Services

- Access to dedicated transplant coordinators, research assistants, and surgical technicians.