



Washington
University in St. Louis

SCHOOL OF MEDICINE

Abdominal Transplant and HPB Surgery

Fellowship Application Guide



2024-2025



William C. Chapman, MD

*Eugene M. Bricker Chair of Surgery
Section of Transplantation, Department of Surgery
Washington University School of Medicine*

We are extremely pleased by your interest in the Abdominal Organ Transplant Fellowship Program at Washington University School of Medicine and its affiliated hospitals – Barnes-Jewish Hospital and St. Louis Children’s Hospital.

The choice of a fellowship program is one of the most critical decisions a physician will make during their medical career. Our training program provides an intense, rewarding and exhilarating experience that dramatically shapes the development of our fellows as transplant surgeons.

This is an exciting time in the field of transplantation, and we are committed to providing outstanding fellowship training opportunities at the leading edge of transplantation.

We look forward to your application.



History of the Washington University Transplant Program

The Section of Abdominal Transplant Surgery draws on a long and successful history of pioneering new clinical techniques as it continues to help shape the future of transplantation.

The Washington University **kidney transplant program** was established in 1963 and was the first center in the Midwest to perform a kidney transplant. In 1985, Barnes-Jewish Hospital became the 16th hospital in the world with a **liver transplant program**, which since then has grown into one of the leading programs in the country. Pancreas islet cell transplantation also had its origins at Washington University which since then has evolved into a successful **pancreas transplant program**.

The Washington University transplant surgeons have led the nation in the emerging field of **transplant oncology** with innovations in management of hepatocellular carcinoma, cholangiocarcinoma and metastatic colorectal cancer.

Keeping with the tradition of innovation, a **robotic transplant program** was established in 2020, which quickly has become the largest robotic transplant program in the US. The Washington University transplant team performs approximately 300 robotic cases a year including complex HPB procedures, living donor surgeries and kidney and liver transplantation. In 2021, Barnes-Jewish Hospital became the fourth center in the US to offer robotic kidney transplant to high BMI patients and followed that in 2023 by performing the first center in the world to perform a total robotic deceased donor liver transplant. Currently Barnes-Jewish Hospital is the **epicenter of transplant robotics in US** and has mentored over 60 transplant centers in the country in developing successful robotic programs.

Presently, Washington University transplant surgeons are actively involved in studying ways to use novel techniques such as **normothermic machine perfusion (NMP)** and **normothermic regional perfusion (NRP)** to increase number of transplantable organs and improve overall patient access to transplantation.

MAJOR LANDMARKS

1963

First kidney transplant in Midwest

1985

16th liver transplant Program in the world

1985

First pediatric liver transplant at St. Louis Children's Hospital

1988

Combined liver-kidney transplant

1996

First adult-unrelated living donor liver transplant in the US

2021

First robotic kidney transplant west of Mississippi. 4th center in US

2023

First robotic liver transplant in North America

2023

Largest robotic transplant program in US



Team Transplant

Transplant surgery is a team sport, and we have one of the best teams in the business. The Washington University transplant team boasts a high performing unit of nurses, first-assists, physician assistants (PA's), nurse practitioners (NP's), coordinators and administrative staff that is second to none and a major reason behind the success of the fellowship training program.



Left: T Rice (fellow), H Molos, J Colicchio, C Hosto and Dr. Chapman at a fellowship event. Right: Meranda Scherer, OR Captain



Left: Robotic transplant team (DART) after completion of a successful transplant. Right: Dr. Doyle and fellows with OR team



Left: Dr Khan with S Matson, S Lee, C Hosto and H Molos at the ASTS winter meeting. Right: G Martens, D Cullinan and J Davidson at a team dinner



Left: Dr Wellen demonstrating finer points of fellowship training. Right: Fellows with their significant others at ASTS meeting

TEAM HIGHLIGHTS

Operating Room

First Assists: Meranda Scherer MSN, CNRFA, NP-C
Sarah Matson PA, Mary LaPointe RN

Inpatient (Barnes-Jewish Hospital)

Courtney Hosto PA, Heidi Molos NP, Mallory Hubbard NP,
Maureen Mercier NP, Lauren Lutz NP,

Outpatient (Barnes-Jewish Hospital)

Sarah Matson PA, Courtney Hosto PA, Mallory Hubbard PA,
Lauren Lutz NP, Maureen Mercier NP, Anglie, Hemphil MA

St. Louis Children's Hospital

Michelle Nadler NP, Lynn Suresh NP, Mallory Hubbard PA

Transplant Coordinators
Research Coordinators
Administrative Office Team
Medical Students & Residents



Transplant Surgery Faculty

William C. Chapman, MD

Eugene M. Bricker Chair of Surgery
 Professor and Chief Section of Abdominal Transplant
chapmanw@wustl.edu

Interests: Liver and kidney transplantation, HPB surgery

Maria B. Majella Doyle, MD, MBA

Professor of Surgery
 Director, adult and pediatric liver transplant
doylem@wustl.edu

Interests: Liver and kidney transplantation, pediatric, HPB

Surendra Shenoy, MD, PhD

Professor of Surgery
shenoys@wustl.edu

Interests: Liver and kidney transplant, vascular access



Left to right: W Chapman, M Doyle and S Shenoy

Jason R. Wellen, MD, MBA

Professor of Surgery
 Director, kidney and pancreas transplant
jrwellen@wustl.edu

Interests: Liver, kidney, and pancreas transplant

Yiing Lin, MD, PhD

Associate Professor of Surgery
liny@wustl.edu

Interests: Kidney transplantation, basic science

Adeel Khan, MD, MPH

Professor of Surgery
 Director, robotic transplant and transplant fellowship
akhan24@wustl.edu

Interests: Liver and kidney, pediatric, HPB surgery, robotics



Left to right: J Wellen, Y Lin, A Khan

Jen Yu, MD, MPHS

Assistant Professor of Surgery
 Program Director, Washington University Gen Surg Residency
j.yu@wustl.edu

Interests: Kidney and pediatric transplant, surgical education

Darren Cullinan, MD, MSCI

Assistant Professor of Surgery
cullinand@wustl.edu

Interests: Liver and kidney transplantation, HPB surgery

Greg Martens, MD, MSCI

Assistant Professor of Surgery
gmartens@wustl.edu

Interests: Kidney transplant, xenotransplant



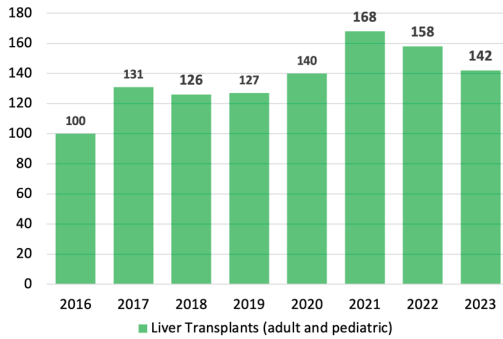
Training the Best and Brightest

Left to right: D Cullinan, J Yu, G Martens

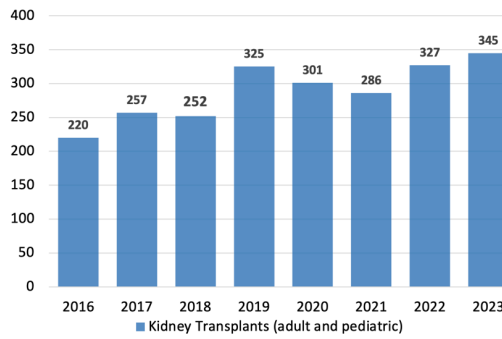
SCHOOL OF MEDICINE WASHINGTON UNIVERSITY

Abdominal Transplant Program in Numbers

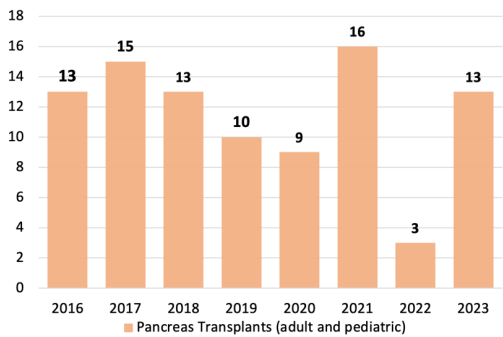
Liver Transplants



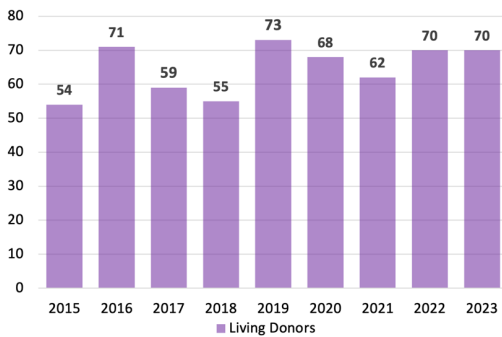
Kidney Transplants



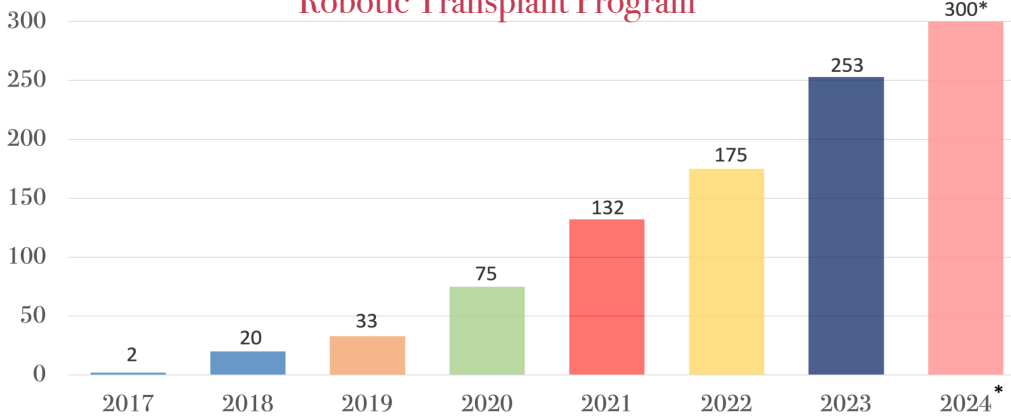
Pancreas Transplants



Living Donor Nephrectomy



Robotic Transplant Program



* Projected numbers based on mid-year volume



2023

OUR YEAR IN NUMBERS

1,643

operating room cases

10,932

visits

9

faculty

57

clinical research studies

\$1,366,653

research funding

Robotic Program

- 30% growth in case volume/year
- 60% Transplant, 40% HPB
- 7 Robotic transplant surgeons
- 3 Robotic First Assistants
- Fellows participate in 94% cases



Washington University Transplant Surgery Fellowship

A Tradition of Excellence

The Washington University abdominal transplant surgery fellowship program has a long-standing reputation for training leaders in the fields of transplant and HPB surgery. The fellowship was initiated in 1987 and was restructured in 2004 to a standardized 2-year training pathway inline with ASTS requirements for fellowship training. Since 2004, the Washington University Transplant Program has trained 20 fellows all of whom have prominent leadership roles nationally and at their respective institutions.



World Class Training Program

The Washington University Transplant Surgery Fellowship is a globally recognized **two-year training program** dually accredited by the American Society of Transplant Surgery (ASTS) in liver, kidney and pancreas transplant, and by the American Hepato-Pancreato-Biliary Association (AHPBA) in HPB surgery. In addition, the fellows also receive certification for robotic surgery.

The transplant fellows receive a comprehensive training in all aspects of transplant surgery including single organ and multivisceral transplant, living and deceased donor transplants, robotic transplantation, and HPB surgery for benign and malignant conditions. The HPB pathway fellow has the opportunity for a 1-month away rotation at Memorial Sloan Kettering Cancer Center in New York with Dr William Jarnagin as part of a fellow exchange program with MSKCC.

In addition to training independent, safe and competent surgeons, the fellowship provides ample opportunities for trainees to engage in doing clinical research and attending national meetings. Fellows are actively involved in teaching medical students and surgical residents on service and carry the title of instructors in the Department of Surgery.

FELLOWSHIP OVERVIEW

2-year Training Program in Transplant and HPB Surgery

Dual Accreditation:

ASTS: Liver, Kidney and pancreas transplant

AHPBA: HPB surgery

Robotic Surgery Certification

Internationally Renowned Faculty

3-Fellows (2+1)

Comprehensive Training:

Living and deceased donor transplant

Adult and pediatric transplant

Robotic surgery

HPB and foregut surgery

Memorial Sloan Kettering Cancer Center Fellow Exchange Program (HPB)

*Ample opportunities for research, and
mentoring Washington University residents
and medical students*



Current Fellows



Ola Ahmed, MD,
 First year fellow (ASTS/AHPBA)
 Residency: University College Dublin
 (UCD), Ireland
olahmed@wustl.edu



Jessica Lindemann, MD, PhD
 Second year Fellow (ASTS/AHPBA)
 Residency: Washington University in St.
 Louis
lindemannj@wustl.edu



Brendan Lovasik, MD
 Second year Fellow (ASTS)
 Residency: Emory University
lovasik@wustl.edu

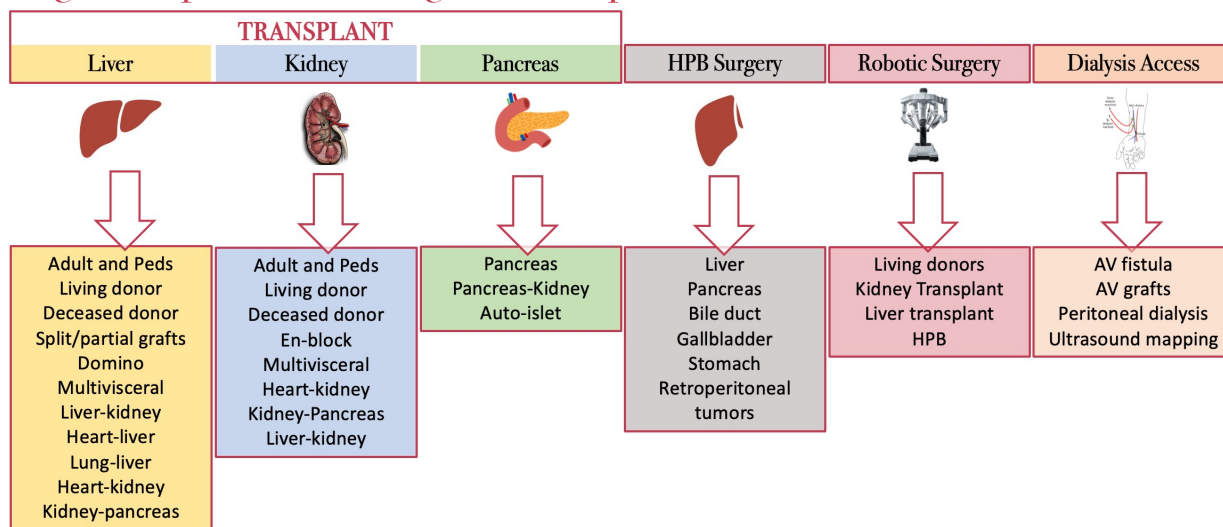
Partners in Excellence

The fellowship training occurs primarily at the Barnes-Jewish and St. Louis Children's Hospitals. Outpatient clinics are housed at the Alvin J. Siteman Cancer Center. All three sites are connected to each other and accessible through walkways. The local OPO, Mid America Transplant (MTS), has an independent organ procurement center less than 5 minutes drive from the hospital and is a major site for the fellows training in organ procurement operations. Second year fellows (HPB pathway) do a month-long away rotation at the Memorial Sloan Kettering Cancer Center (MSKCC) in New York city as part of a fellow-exchange program



Training location sites for fellowship. BJH, SLCH, Siteman Cancer Center, Mid America Transplant and MSKCC

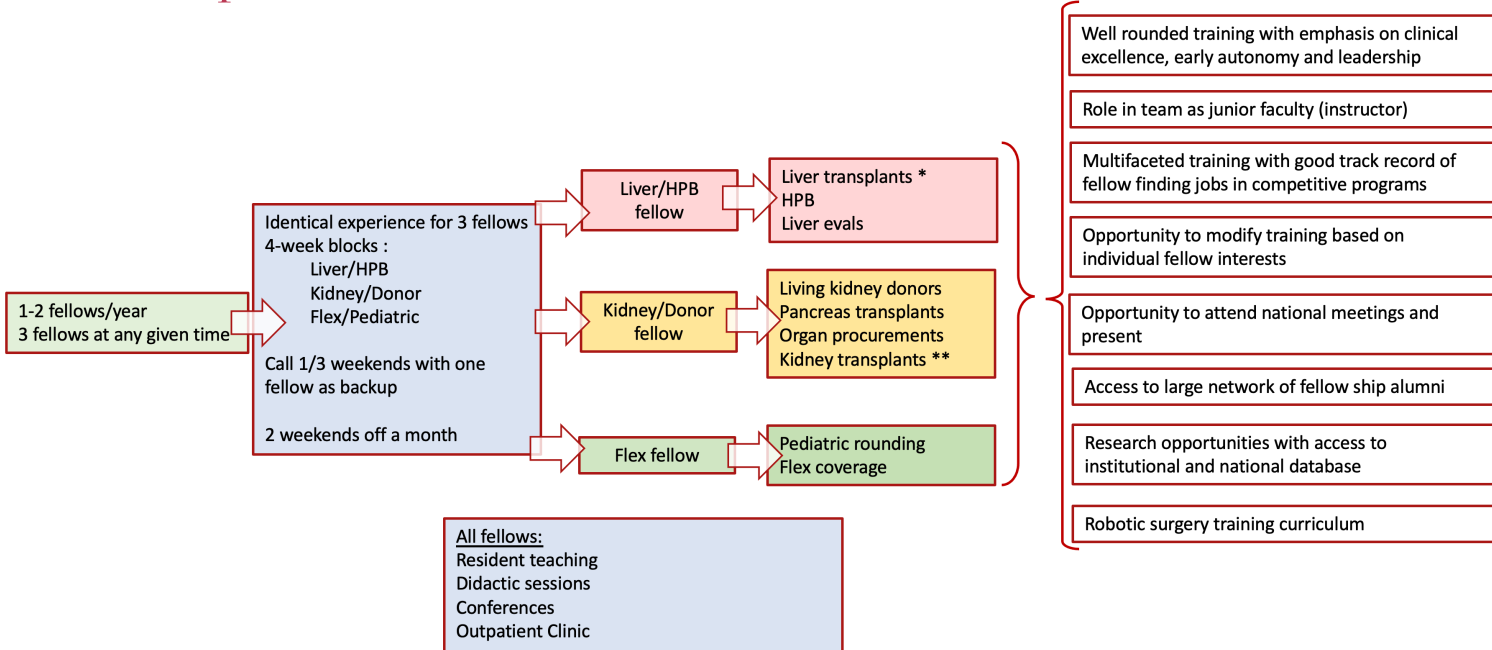
Scope of Surgical Experience During Fellowship





Abdominal Transplant and HPB Fellowship

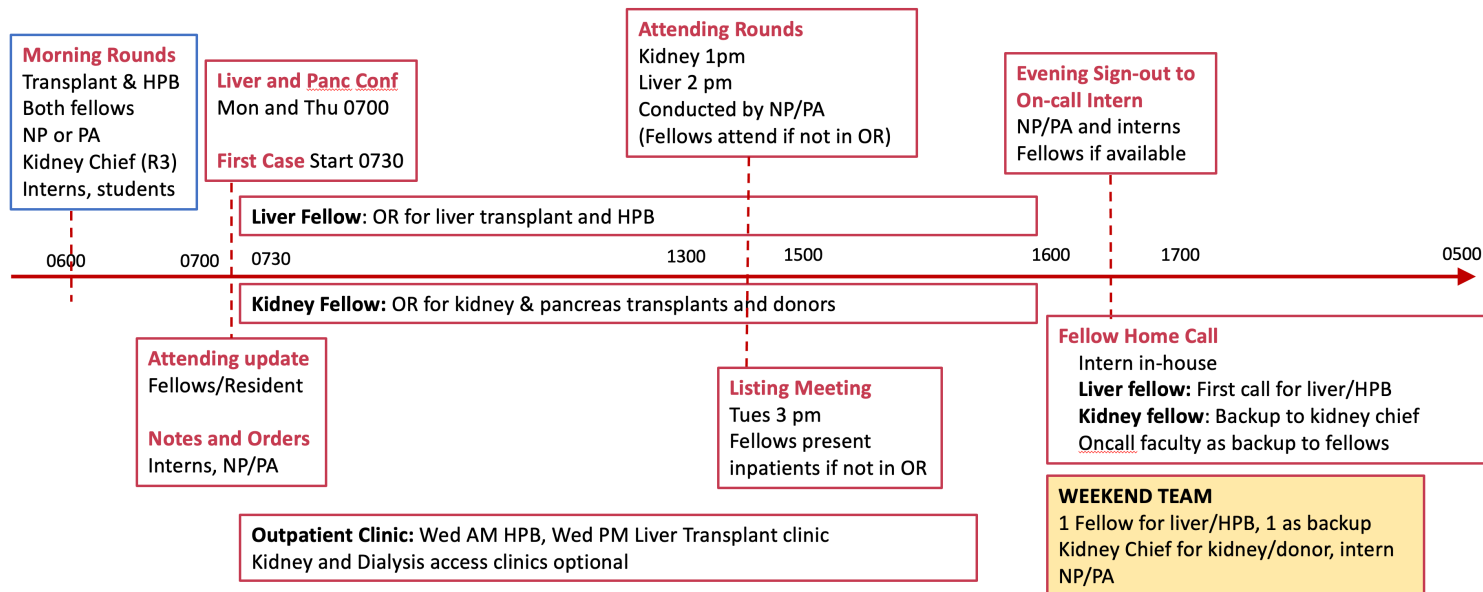
Fellowship Structure



* Fellows spends 1 month on **Wash U HPB surgery** service during first year and 1 month as surgical oncology fellow at **Memorial Sloan Kettering Cancer Center (MSKCC)** during second year with **Dr. William Jarnagin** as part of fellow-exchange program between the two institutions.

** Kidney Chief (R3) runs kidney service with oversight of kidney/donor fellow

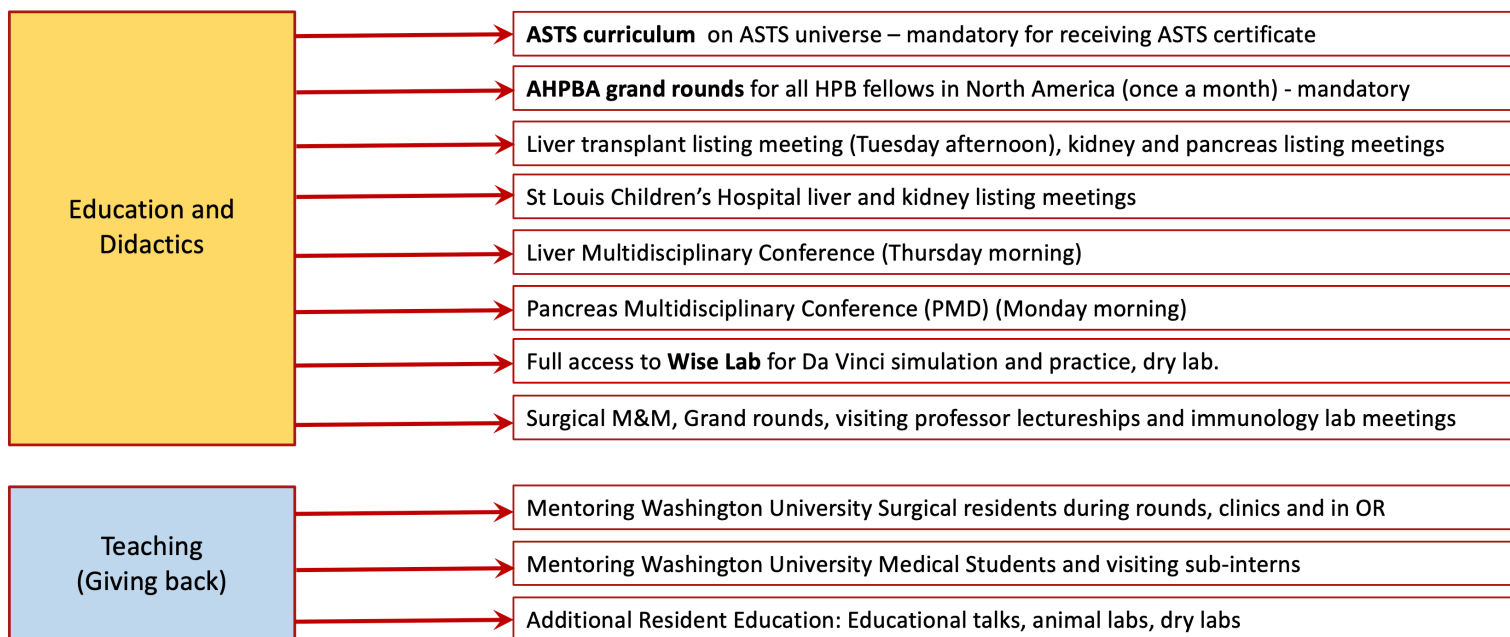
A Typical Day in the Life of a Fellow....



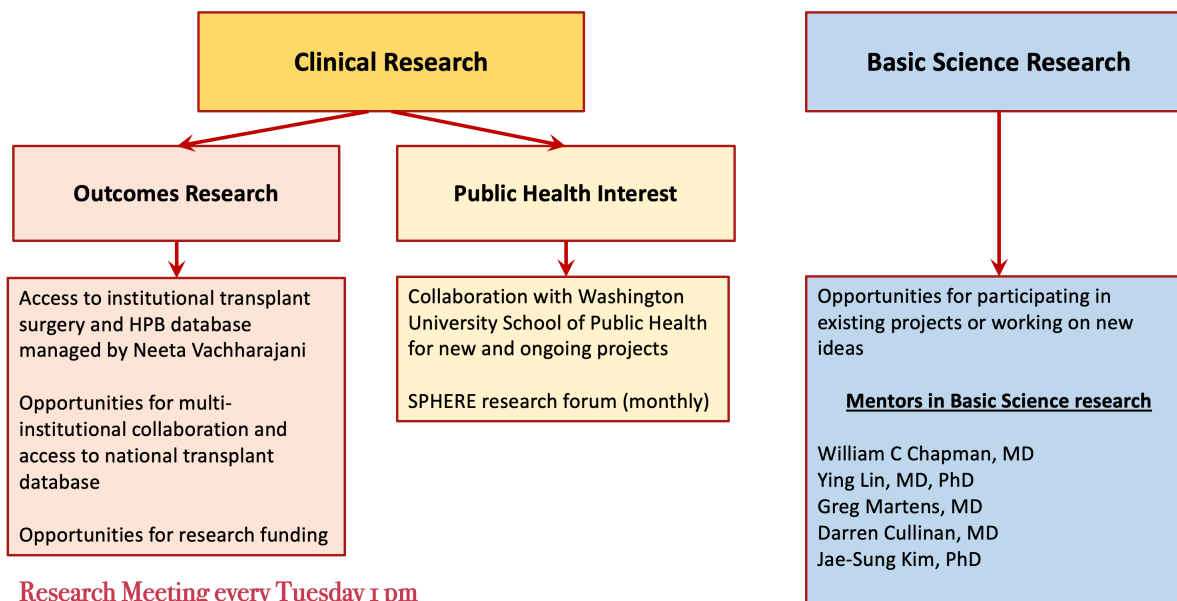


Abdominal Transplant and HPB Fellowship

Didactics



Research Opportunities



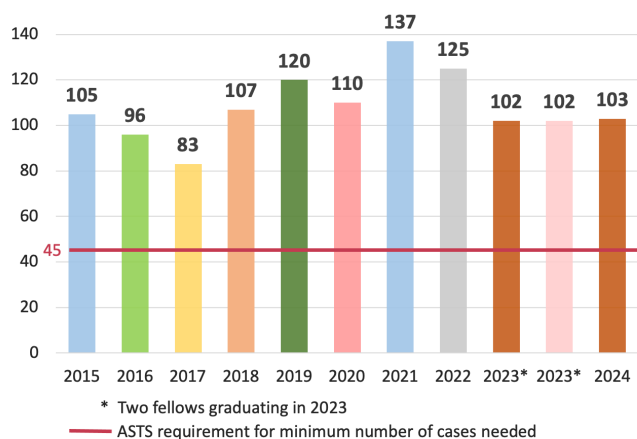
Research Meeting every Tuesday 1 pm



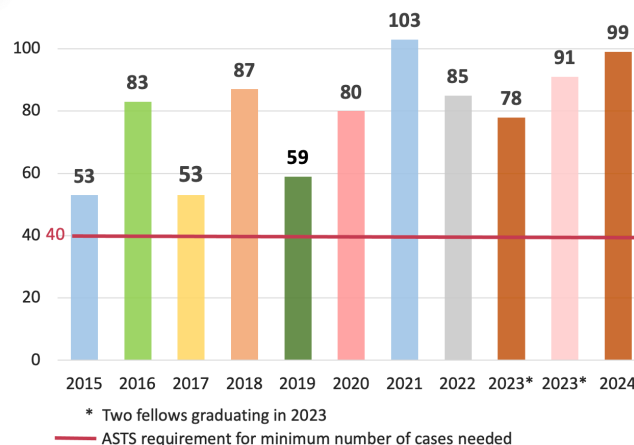
Abdominal Transplant and HPB Fellowship

Fellow Case Logs

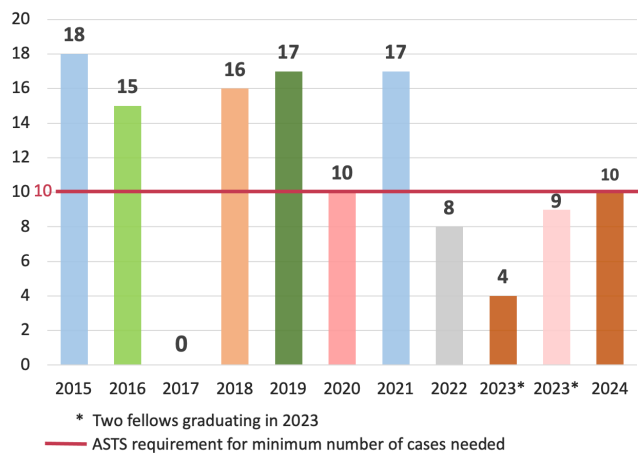
Liver Transplants



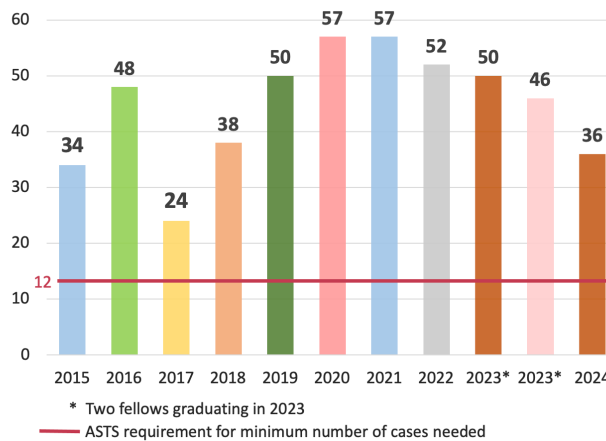
Kidney Transplants



Pancreas Transplants



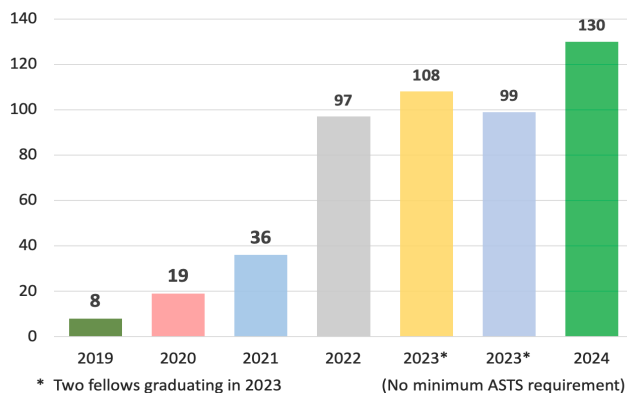
Living Donors (Kidney)



Robotic Experience during Fellowship

Currently there are no requirements for fellows to perform robotic cases during fellowship training. At Washington University, we believe that robotics will play an increasing role in the future of transplant and therefore, have invested heavily in training our fellows in robotic surgery. Each of the last three fellows have performed an average of 100 robotic cases during the 2-year training.

Fellow Robotic Case Volume





Abdominal Transplant and HPB Fellowship

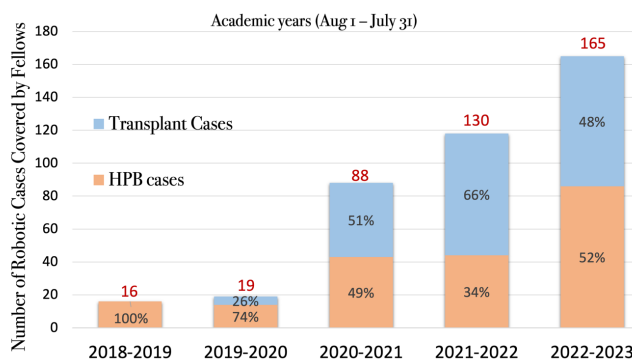
Training Surgeons of the Future

Transplant fellows get an extensive and diverse experience in all aspects of robotic transplant and HPB cases. HPB cases comprise approximately 50% of the robotic experience and include hepatic and pancreatic resections, biliary reconstructions, gastrectomy and placement of hepatic artery infusion pumps. Transplant cases make up the remaining 50% and include living donor nephrectomy, kidney transplants, liver transplants, transplant ureter revisions and transplant nephrectomy. The fellows recognize the importance of this experience and currently nearly all the robotic cases on transplant service are covered by fellows as console surgeons.

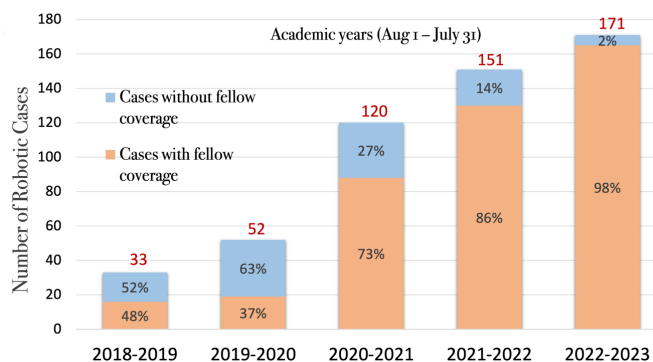
Multifaceted Robotic Curriculum

Washington University is the only institution in North America with a robotic curriculum in place with the objective of maximizing robotic training during fellowship. The Washington University Institute of Surgical Education (WISE) is located at BJH and has a fully functional Xi training system where fellows can hone their skills using simulations, surgery models, and porcine and human cadaver models. This in turn is translated in the OR in a systematic and graded manner with the objective training fellows fully capable of starting successful robotic transplant programs at their new institutions.

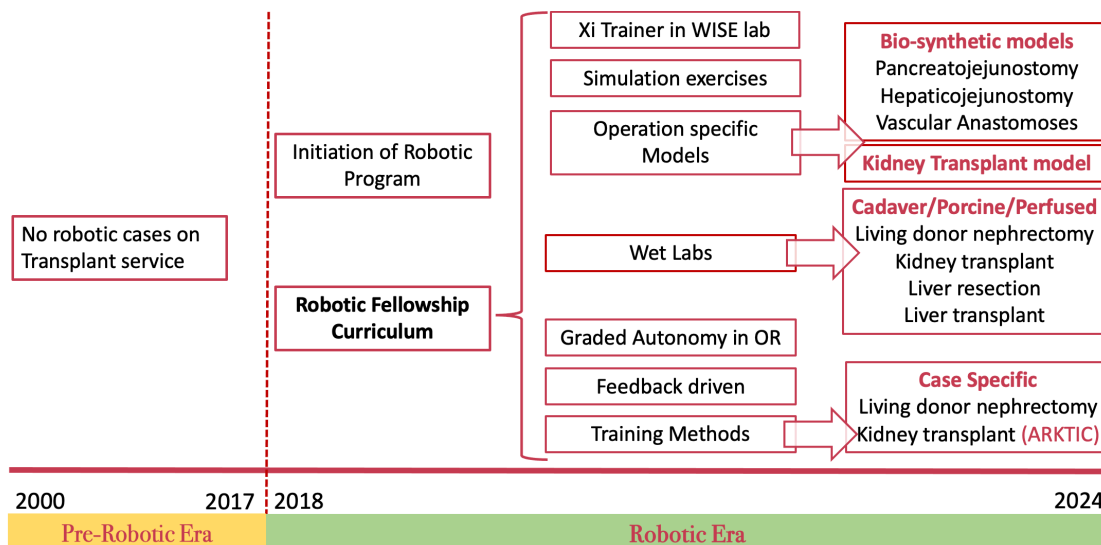
Break down of Fellows Robotic Cases



Fellow Robotic Case Involvement



Robotic Training Curriculum





ST. LOUIS POST-DISPATCH

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Robot-aided liver transplant a success

Washington U. team becomes first in US to perform operation

BY ASHLEY VARGO
St. Louis Post-Dispatch

ST. LOUIS — A surgical team

to his doctors. "We're trying to maximize all of the technologies that we have to be safe and to do what's best for the patients," said Dr. Maria Majella Doyle, director of WUSM's liver transplant program. "This is a huge innovation in liver transplants — something that really has

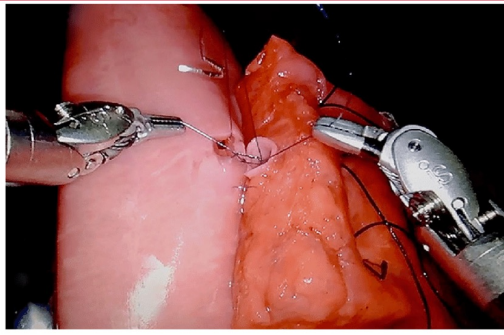
or performing part of the surgery robotically and the rest traditionally. The robotic surgery team at WUSM, for example, has performed previous surgeries in which they removed the diseased liver robotically, then made a slightly bigger incision to implant the donated liver without



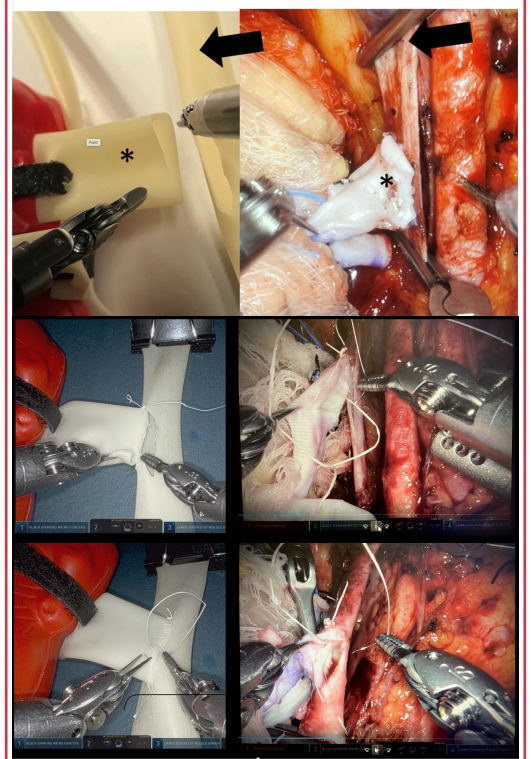
Robotic Training Models



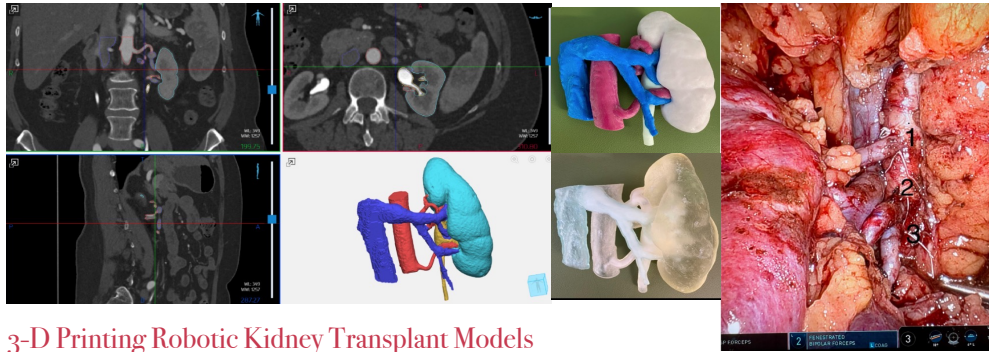
Robotic Hepatico-Jejunostomy Model (BioTissue)



Robotic Pancreatico-Jejunostomy model (Bio tissue)

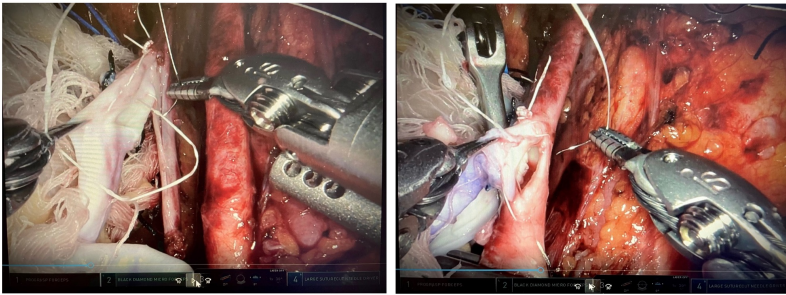


Robotic Kidney Transplant model



3-D Printing Robotic Kidney Transplant Models

Perfused cadaver models



ARKTIC Program for Robotic Kidney Transplant Training



3-time WINNERS of AHPBA "TOP GUN" Fellow Robotic Skills Competition (2018, 2019, 2022)





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Thank you for your interest.....