Medical Liability with New Procedures and Technology

Erik B. Wilson, MD, FACS

Professor of Surgery

Vice Chair of Surgery

Bariatric Surgery Medical Director Memorial Hermann Hospital

Division Chief, Minimally Invasive and Elective General Surgery

University of Texas Medical School at Houston

MIST
MINIMALLY INVASIVE SURGEONS OF TEXAS

UT·HOUSTON

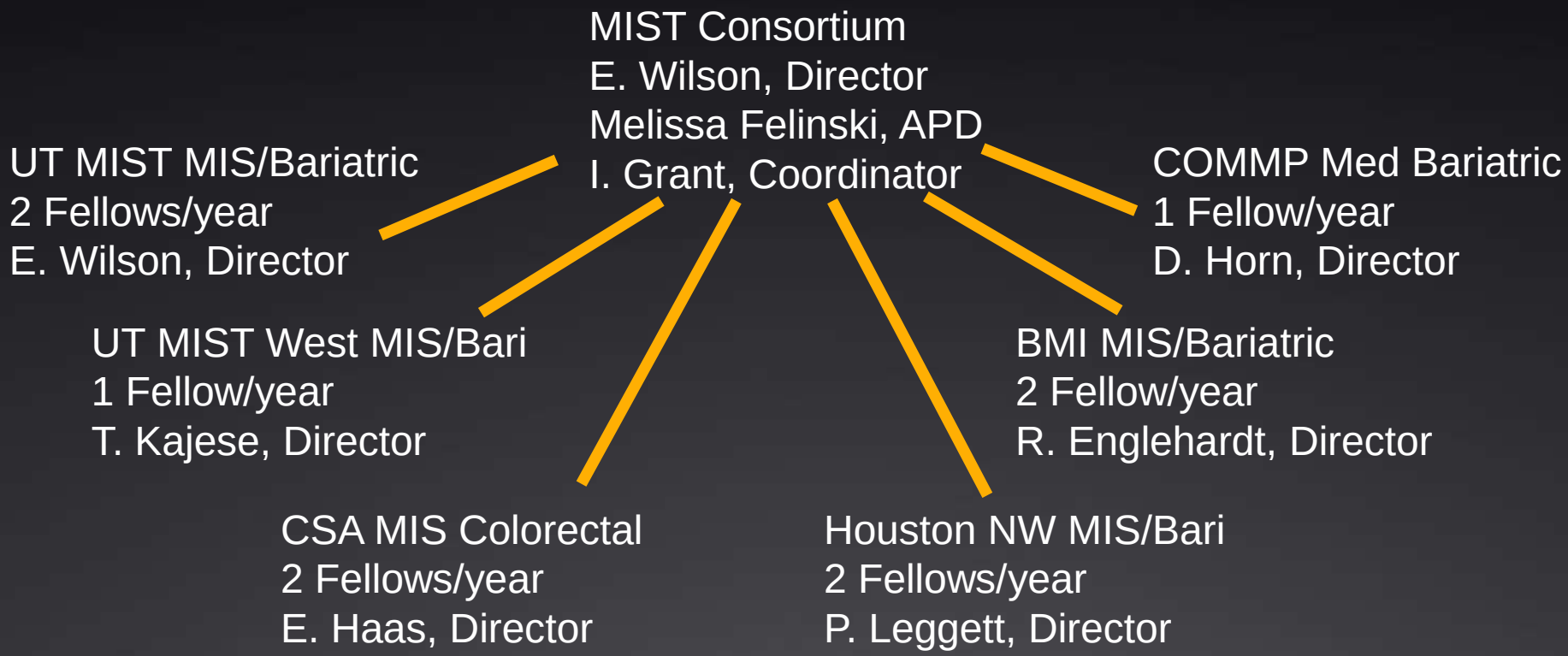
Disclosures

- Intuitive-Teaching/Research
- Covidien-Teaching
- Johnson&Johnson-Teaching/Research
- Gore-Teaching
- Activ Surgical-Research
- Apollo Endosurgery-Research
- USGI-Research
- I work for a state institution in a state with liability caps for noneconomic damages

What I've Learned About Myself Trying to Innovate in Surgery

- Academic Foregut and Bariatric Surgeon
- Robotics and Endolumenal Surgery-Pilot and Pivotal Trials
- Built a fellowship and it became large
- Built a training center by pure happenstance
- Realized what made me most excited was trying to adopt new technology into practice: procedure development
- Realized I'm a contrarian by nature and I'm quite stubborn but I'm also quick to recognize my weaknesses

MIST Fellowship Consortium
How are we structured?



6 independent fellowships who match separately but work together with combined educational functions and clinical rotations

What Have I Learned about training in 17 years?

Fellows Trained 2003-2020

119 Fellows

34 at UTHealth Memorial Hermann Texas Medical Center

31 at UTHealth Northwest Medical Center

10 at UTHealth Methodist Hospital Texas Medical Center

12 at UTHealth Bariatric Medical Institute of San Antonio

24 at UTHealth Colorectal Surgical Associates of Houston

4 at UTHealth Memorial Hermann Memorial City

4 at UTHealth COMMP Obesity Medicine

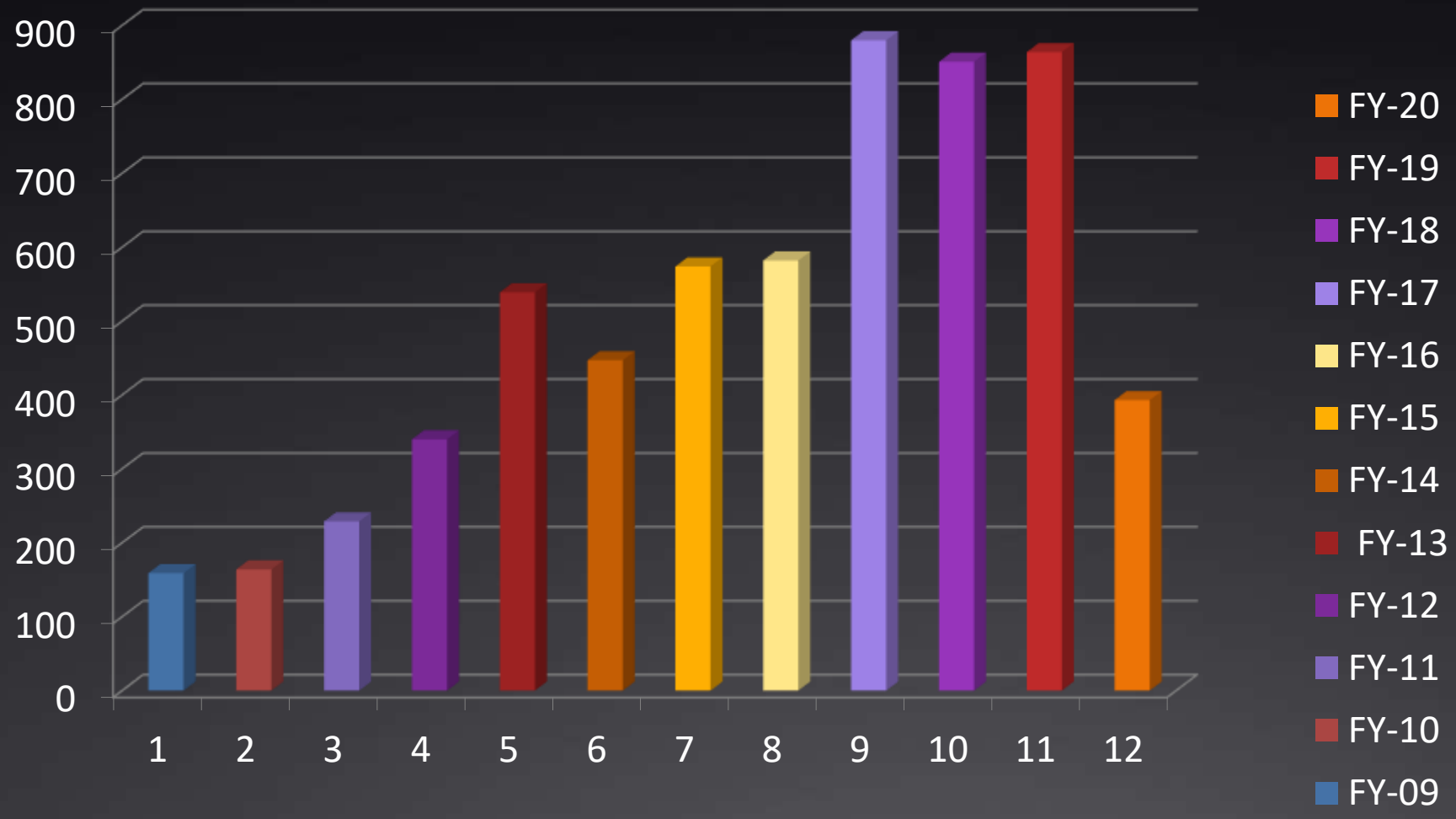
57 Fellows trained and received a UTHealth robotics diploma

19 Fellows have started new robotics programs

MH/UT SIRI

- 10,000 sq. ft
- 17 training stations
- Ample storage
- Locker rooms
- 2-3 conference rooms
- HD streaming capabilities
- 2001 Hermann Drive *(1.2 miles from MH-TMC)*
- *Capable of all Forms of Training*

SIRI Lab Total Training Volume: FY09-FY20



Innovation Dinner Discussion

Sunday, March 3
7:00 – 9:00 PM

Surgical Robotics: The Next 5 Years

The surgical innovation dinner this year will again focus on the changes in robotic platforms over the next several years. Many of the companies growing and driving into this space are represented on a panel as has occured in past years of the Summit. Developers will discuss the potential growth of surgical digital platforms and what are the key concepts to driving better surgery in an open forum with active participation by the audience.

-Open vs Immersed Surgeon Side Cart
-Multiport vs Single Port vs Endolumenal
-Modular vs Boom vs Table vs Bedside
-12mm, 8mm, 5mm, or 3mm instruments
-Autonomy
-Analysis

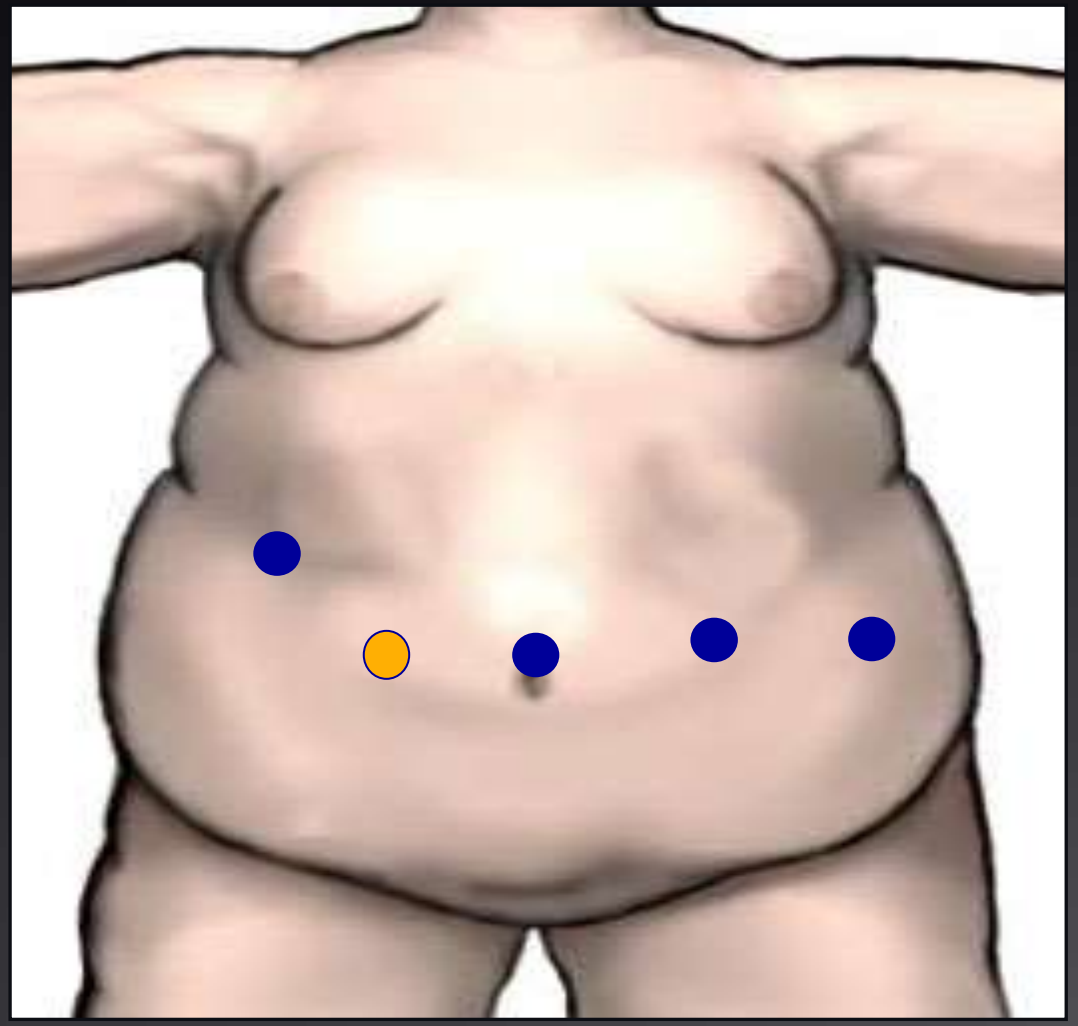
What Makes a Safe Surgeon?

- Good hands? Not really
- Good decisions at the right time
- Understanding physiology, anatomy and the nature of the tissue being manipulated
- Being aware of what can go wrong and how to avoid problems-train troubleshooting of the anatomy
- Knowing your equipment, the physics and engineering. Wanting to understand how it works-train troubleshooting of the device
- THIS APPLIES DIRECTLY TO THE PEFORMANCE OF NEW PROCEDURES

Learning New Surgical Skills

- Basic moves
  - Physical box simulators
  - Digital simulation
- Complex moves
  - Excised or preserved tissue
  - Live tissue including patients
  - Digital simulation
- Step by step decision making
  - Exposure
  - Retraction
  - Division and construction

Standard Approach to Reduce Variability



Consistency over efficiency when learning

Hybrid approaches with new and old techniques:
Lap and endo
Lap and robotic

Example Different Training Options in Robotics

Trainee assist at the bedside with Attending at the console

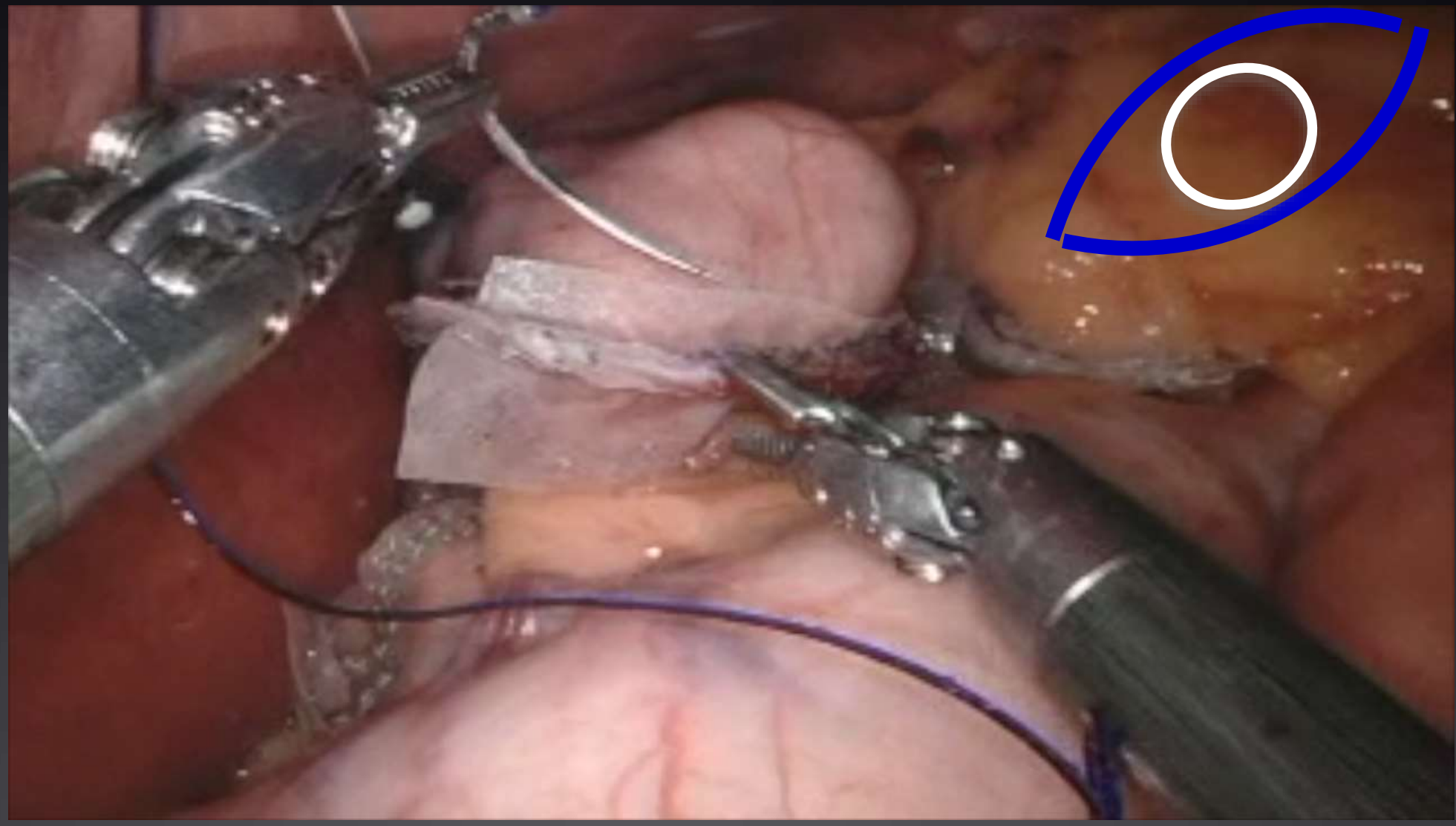
Attending assist at the bedside with the Trainee at the console

Both Attending and Trainee at the console: dual console approach

Trainee at the console and attending not on the console or bedside

Step Reproduction: Two Layered Gastrojejunostomy

* Hand off and take back
* Leave alone
* Graduated autonomy
* Time limits
* Use laparoscopy for backup



Informed Consent with New Procedures

- I trained on this procedure for __ many hours
- I have done __ number of these procedures
- I am using this technology because it has a potential advantage in this part of the case
- I have a standard approach I use without this technology
- I will not use the technology if I feels it is unsafe

Conclusion

* Technology will continue to drive minimally invasive surgery and we must learn how to adopt it safely into practice

* Surgery above all is about good judgement; not just tool you are using but how you are using it

* The best protection for adopting new technology into practice is good informed consent for your patients and continual insite to your skill set to the technology along your entire learning curve

* The best defense for malpractice is a safe outcome

Thank You

Erik B. Wilson, MD, FACS
Professor and Vice Chair of Surgery
Division Chief, Minimally Invasive Surgeons of Texas
University of Texas Health Science Center at Houston