Scope Holding Device

 Develop scope holding device to facilitate endoscope drying process

• What Students Will Do:

- Discuss requirements with clinical collaborator
- Design solution
- Fabricate solution
- Test solution in simple model
- Redesign until satisfactory

• Deliverables:

- Device accommodates various endoscopes (bronchs, GI, etc.)
- Finalized device
- Size group: (no more than 3, if more split into sub projects)

Skills:

- CAD/CAM
- Machine shop experience
- Design experience
- **Mentors:** Russ Taylor, Miriana Pehar, RN (mpehar1@jhmi.edu), Tony Kalloo, MD (<u>akalloo@jhmi.edu</u>), Mehran Armand
- Group leader:



Endoscope Safety Risks

Endoscopes

- Medical devices most associated with outbreaks and pseudo-outbreaks
- Scope drying
 - Prevents residual moisture within the endoscope
 - Prevents bacterial growth
 - Challenge due to long, narrow, non-visible lumens

ENDOSCOPE CHANNELS WATER CHANNEL SUCTION CHANNEL _ BIOPSY/SUCTION_ CHANNEL BIOPSY/SUCTION CHANNEL AIR/WATER/CO2 - AIR/CO2 CHANNEL CHANNEL - AIR CHANNEL SUCTION CHANNEL -- WATER CHANNEL CO2 CHANNEL



Scope Drying: Current Process





