Dos and Don’ts of Rodent Aseptic Surgery

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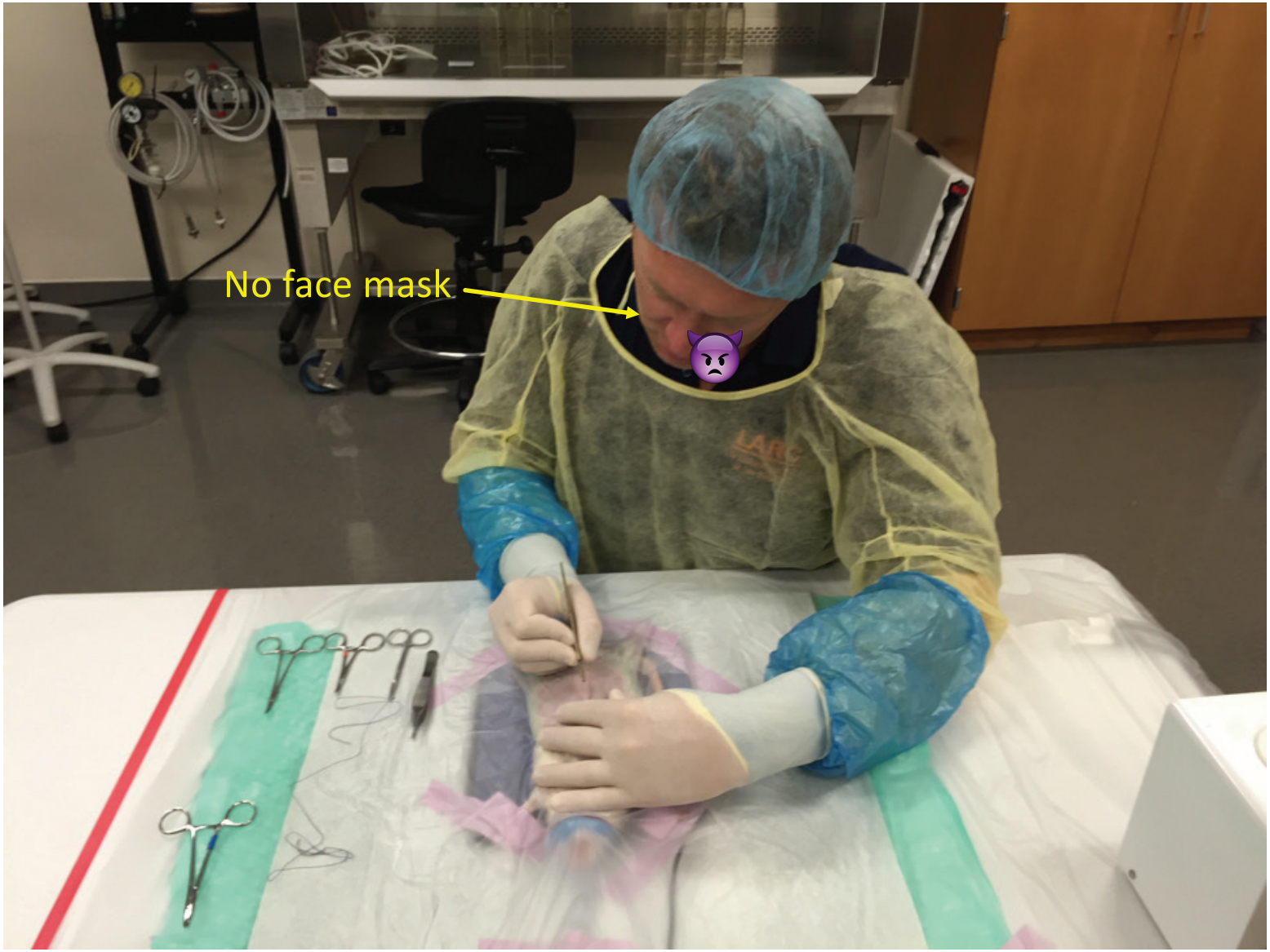
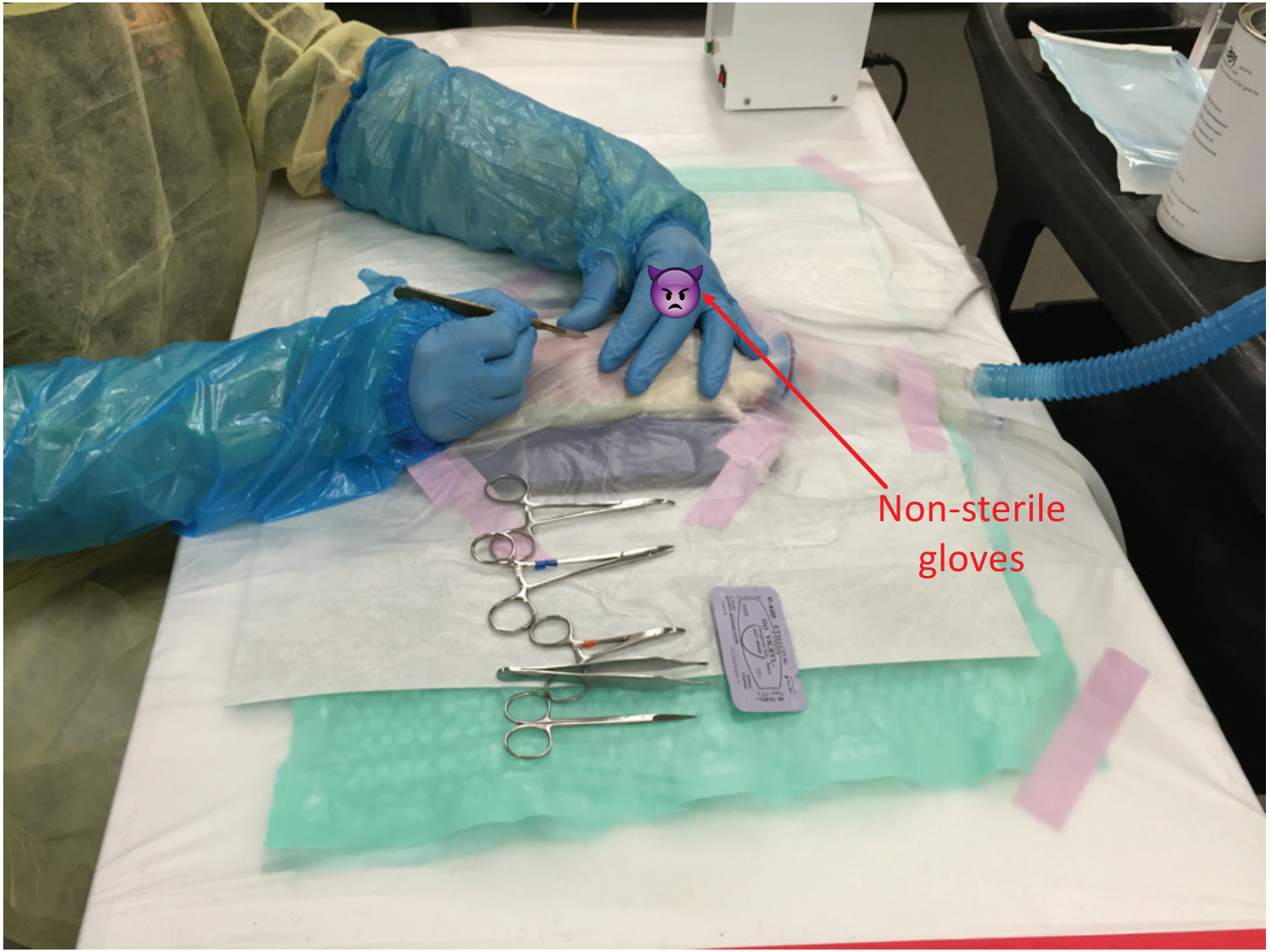
Objectives

- To identify & correct common mistakes that lead to breaks in aseptic technique made when performing survival rodent surgery
- Illustrate various practical uses of Press'n Seal to perform aseptic rodent surgery
  - Although Press'n Seal is a grocery item, it is packaged sterile
  - Always place sticky side towards surface intended to be draped. Non-sticky side should be away from this surface
- The angel or devil icons throughout this presentation indicate whether the technique is correct or wrong
  - 😇 = Correct technique
  - 😈 = Poor technique


No hair cover

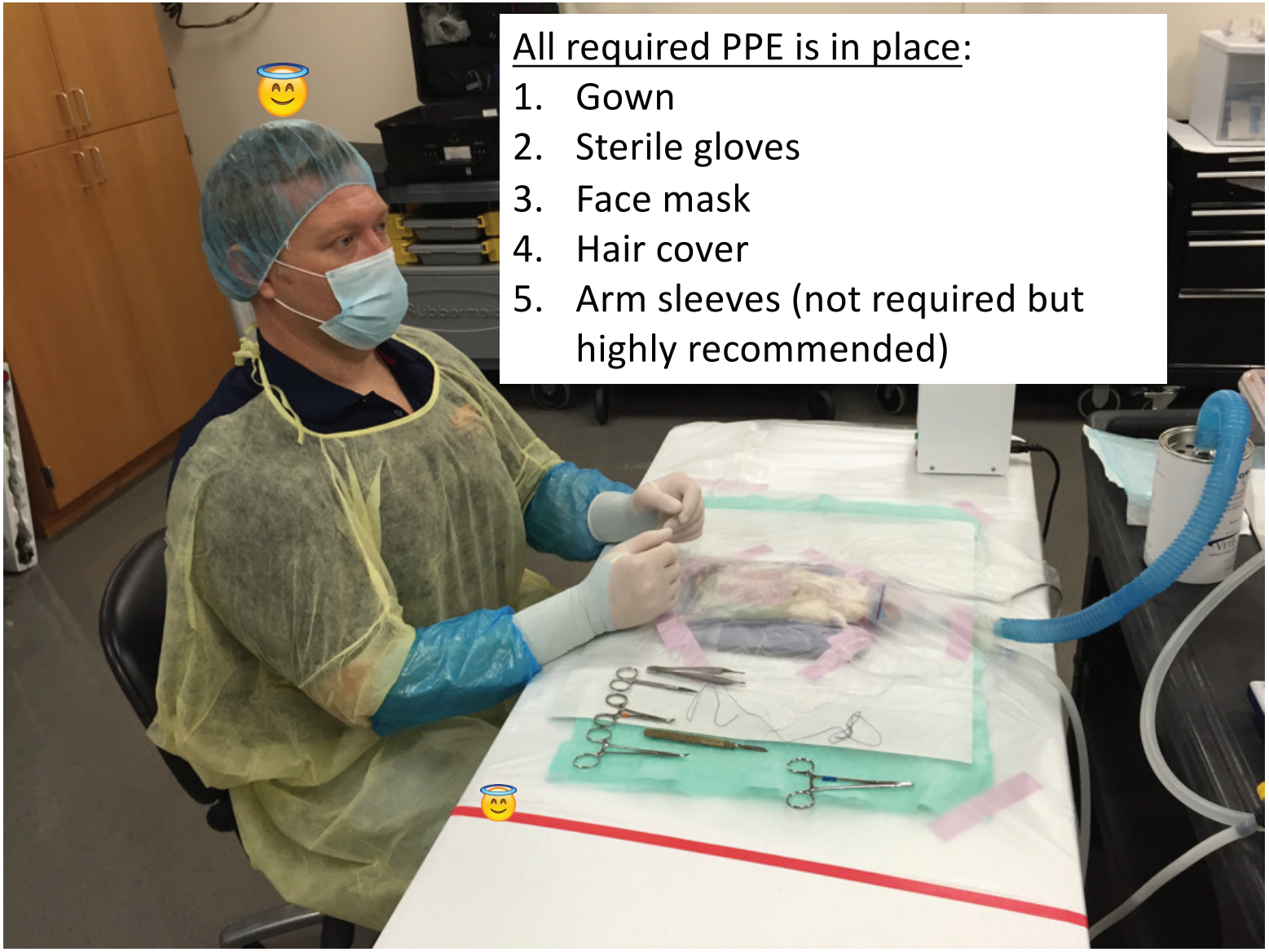

Missing gown or lab coat
LARC
VAPORGUARD


No face mask

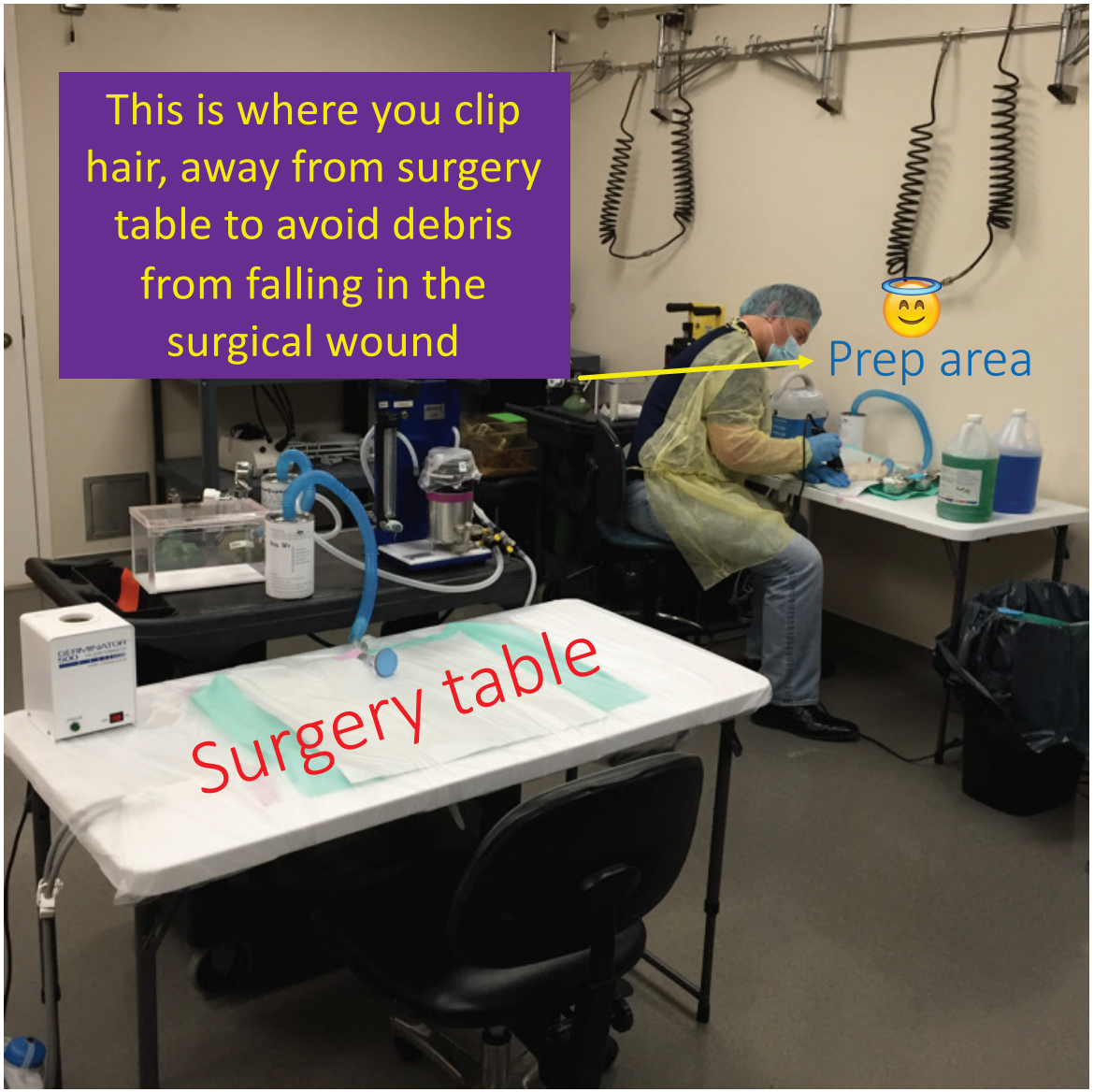

Non-sterile
gloves

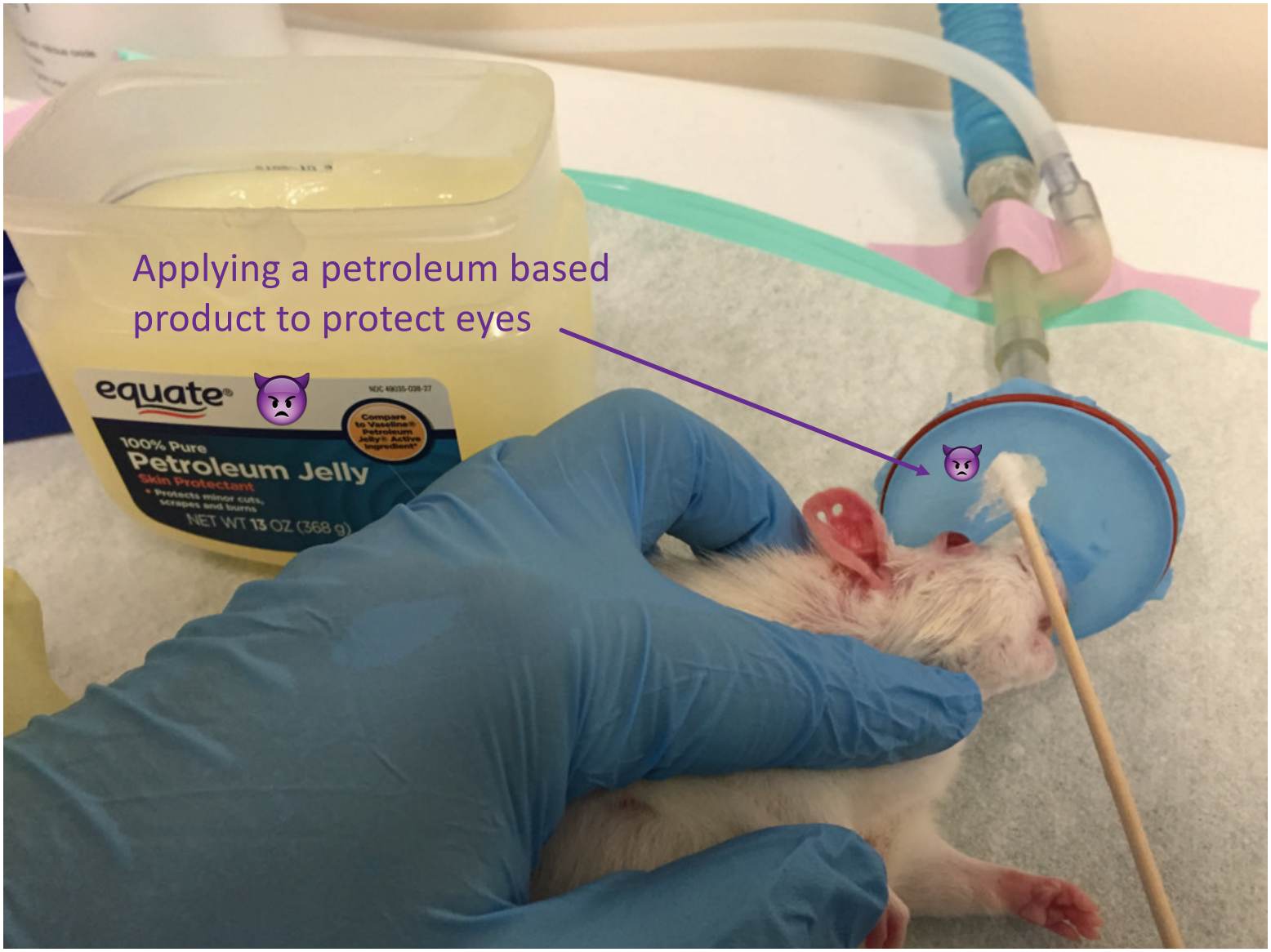

No hair cover
Touching non-sterile surface
Using non-sterile gloves


No surgical attire at all
😈
LARC
flowmeter outlet
VAPORGUARD

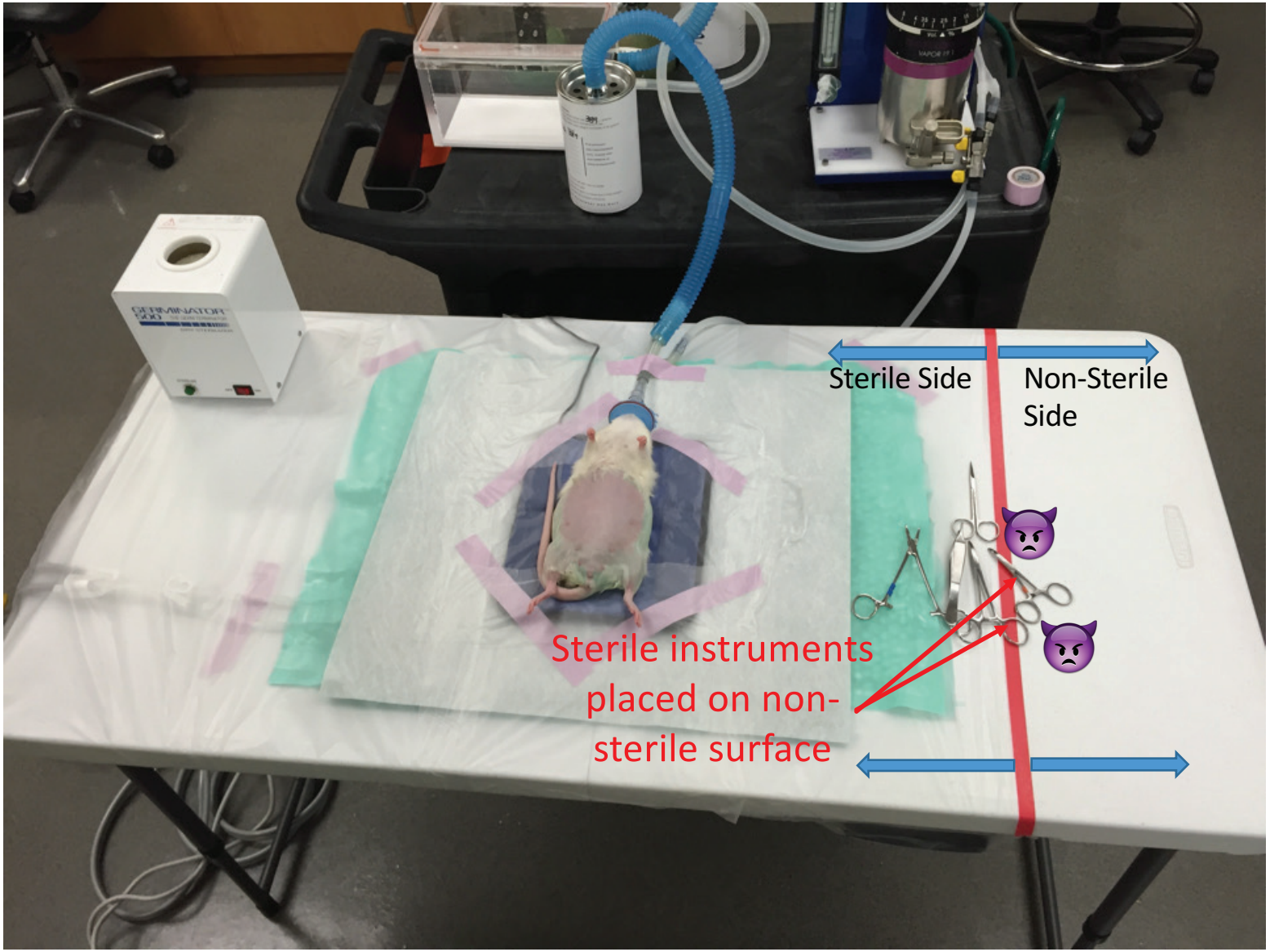

All required PPE is in place:
1. Gown
2. Sterile gloves
3. Face mask
4. Hair cover
5. Arm sleeves (not required but highly recommended)


Clipping hair where surgery is going to take place
This is the surgery table


This is where you clip hair, away from surgery table to avoid debris from falling in the surgical wound
Prep area
Surgery table


Applying a petroleum based product to protect eyes
equate
100% Pure
Petroleum Jelly
Skin Protectant
NET WT 13 OZ (368 g)

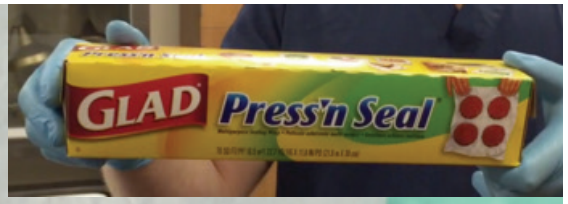

Only **ophthalmic**
ointment should be used
to protect eyes when an
animal is anesthetized
PURALUBE® VET
OINTMENT
petrolatum ophthalmic ointment
Eye protection


Sterile Side
Non-Sterile Side
Sterile instruments placed on non-sterile surface


Sterile Side
Non-Sterile Side
All instruments
are on sterile field


Draping with cotton material leads
to wicking of fluids and bacteria
into the surgical wound

Impermeable material such as Press’n Seal as seen on this rat makes for an ideal drape



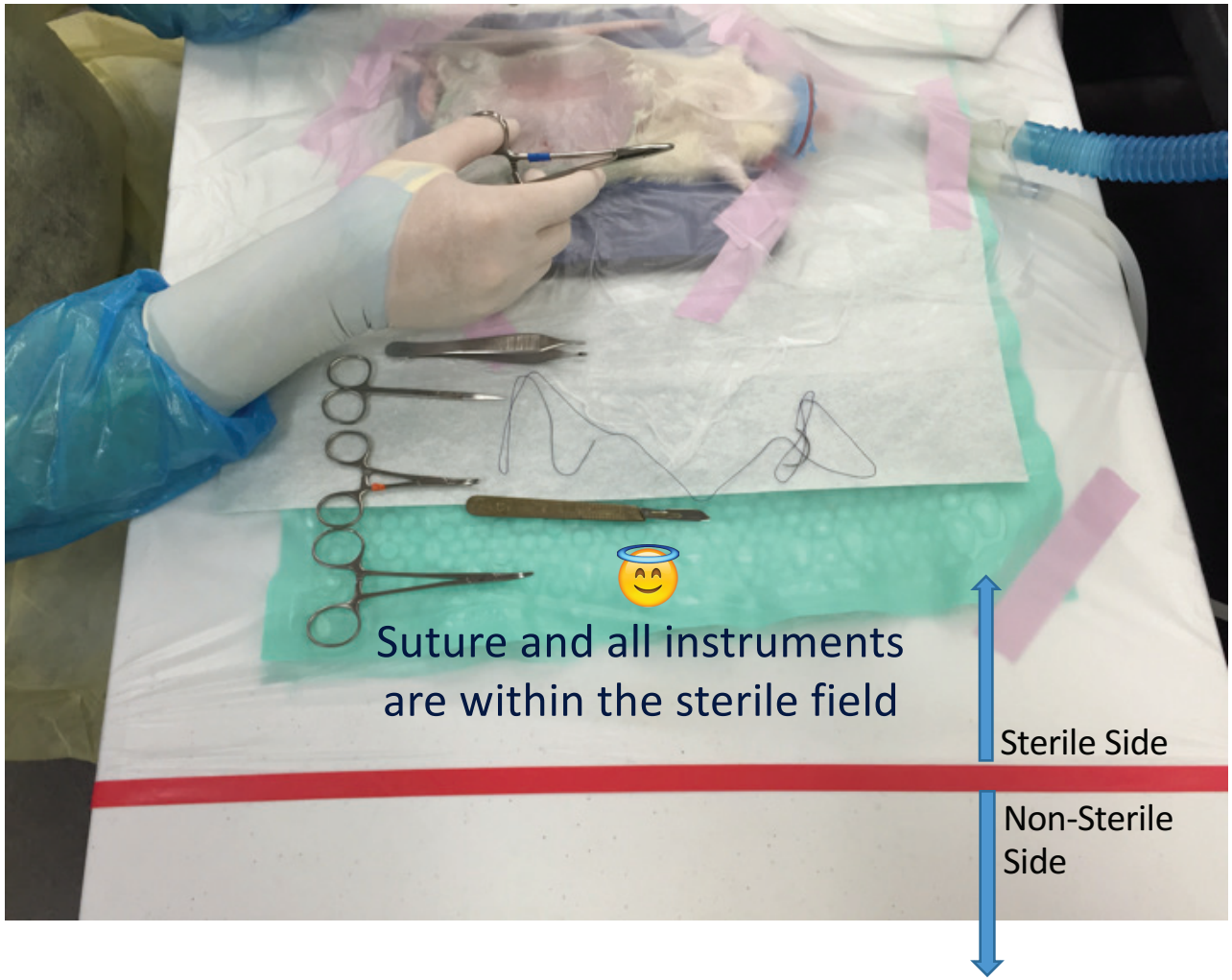
Overcrowded hot bead sterilizer

😈

Too many instruments will cool down beads precluding sterilization of instrument tips

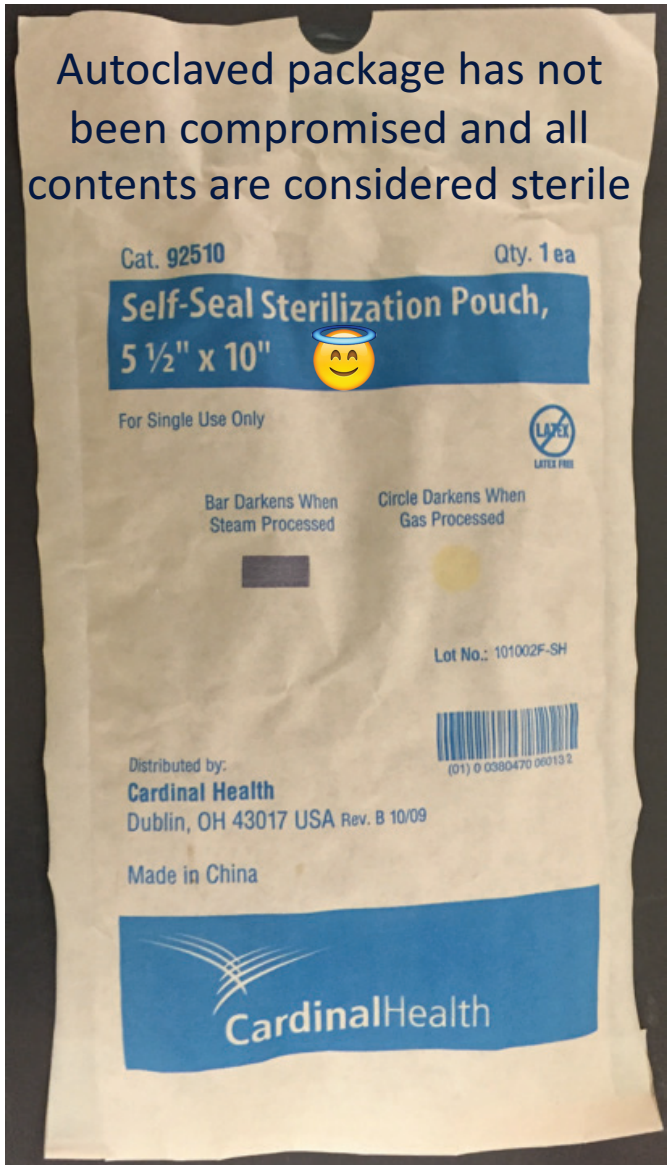
Only a few instruments should be placed in the hot bead sterilizer to properly sterilize instrument tips

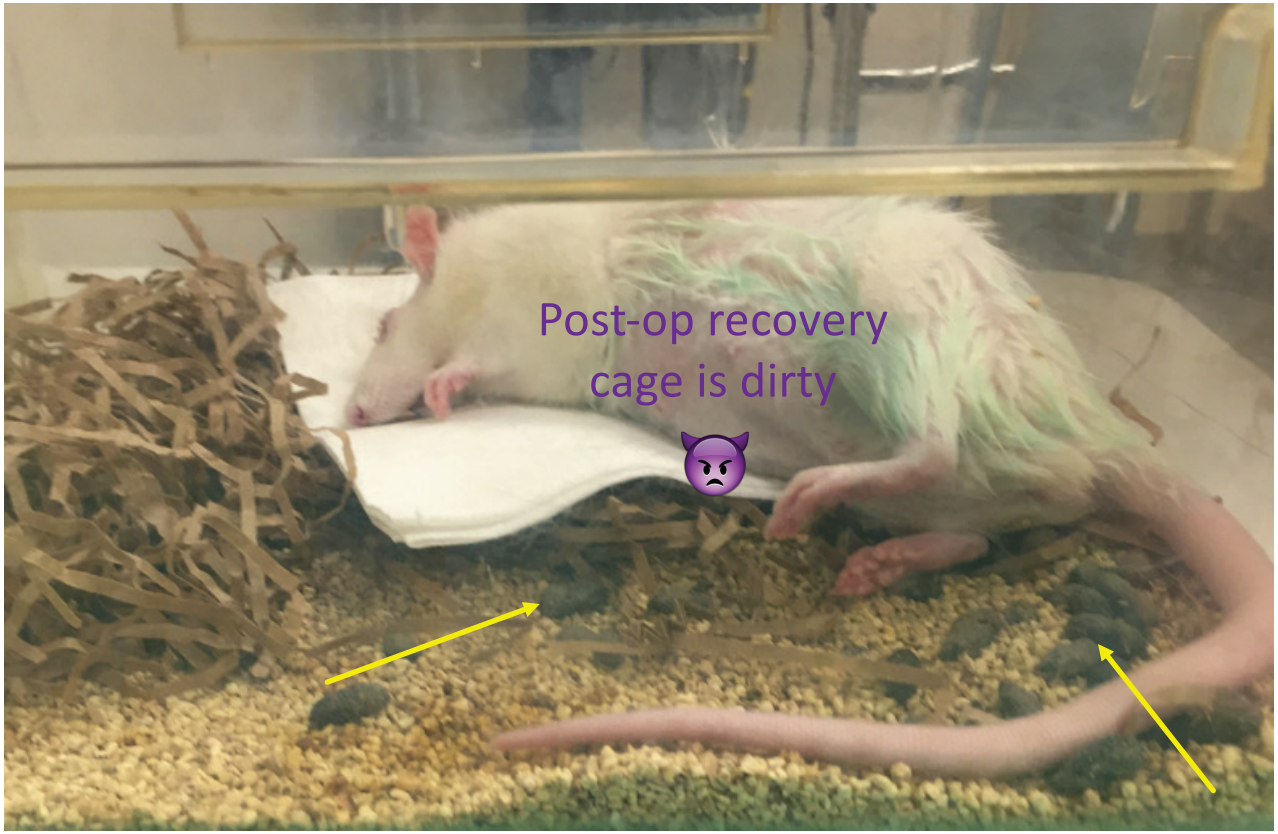

Sterile Side
Non-Sterile Side
Suture and thumb forceps crossing over into non-sterile field


Suture and all instruments are within the sterile field
Sterile Side
Non-Sterile Side


Autoclaved package is compromised – torn package renders items non-sterile
Cat. 92510
Qty. 1 ea
Self-Seal Sterilization Pouch, 5 ½" x 10"
For Single Use Only
LATEX FREE
Bar Darkens When Steam Processed
Circle Darkens When Gas Processed
Lot No.: 101002F-SH
(01) 0 0380470 06013 2
Distributed by:
Cardinal Health
Dublin, OH 43017 USA Rev. B 10/09
Made in China
CardinalHealth

Autoclaved package has not been compromised and all contents are considered sterile

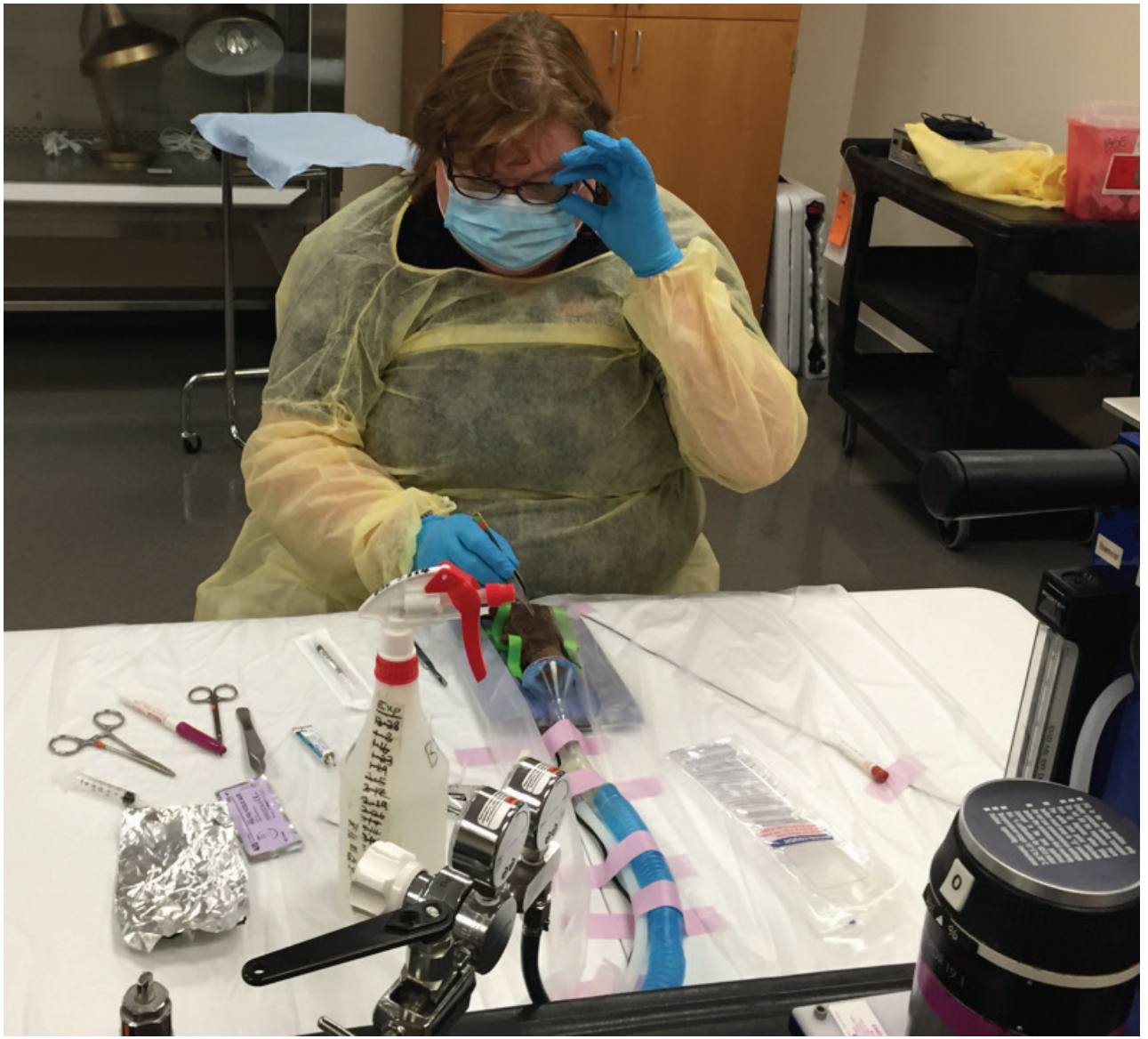



Post-op recovery
cage is dirty


Post-op recovery cage is clean, which decreases the potential for post-op infections

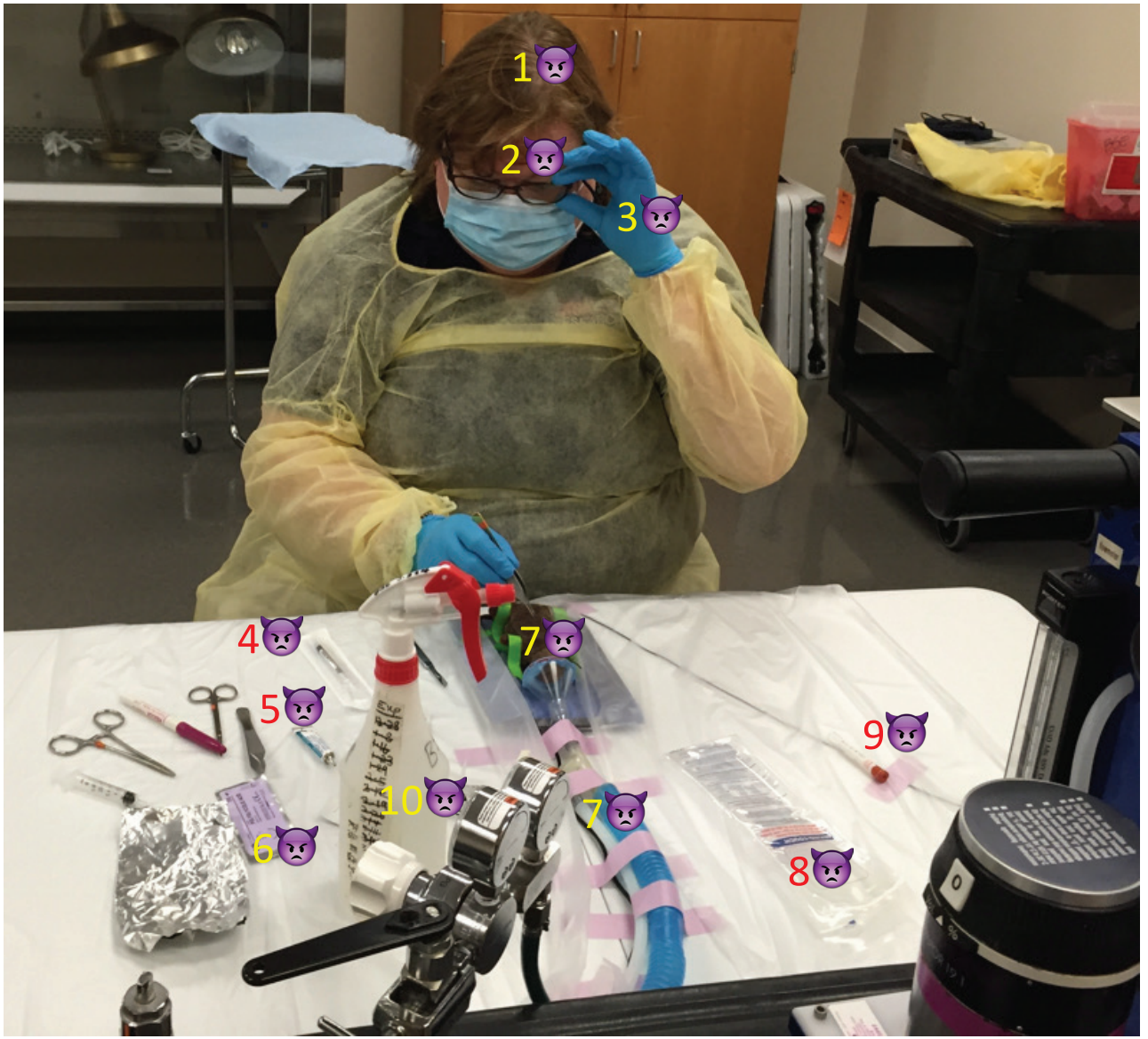
There are many devils in this picture. See if you can identify them before going to the next slide

😈



Here are the devils:

1. Not wearing hair cover
2. Touching contaminated object (glasses) with gloves
3. Using non-sterile (nitrile) gloves
4. Syringe outer package on sterile field
5. Tube of ophthalmic ointment on sterile field
6. Suture outer package on sterile field
7. Anesthesia tube & animal not covered with sterile drape
8. Sterile glove outer packaging on sterile field
9. Red top blood tube on sterile field
10. Disinfectant bottle on sterile field

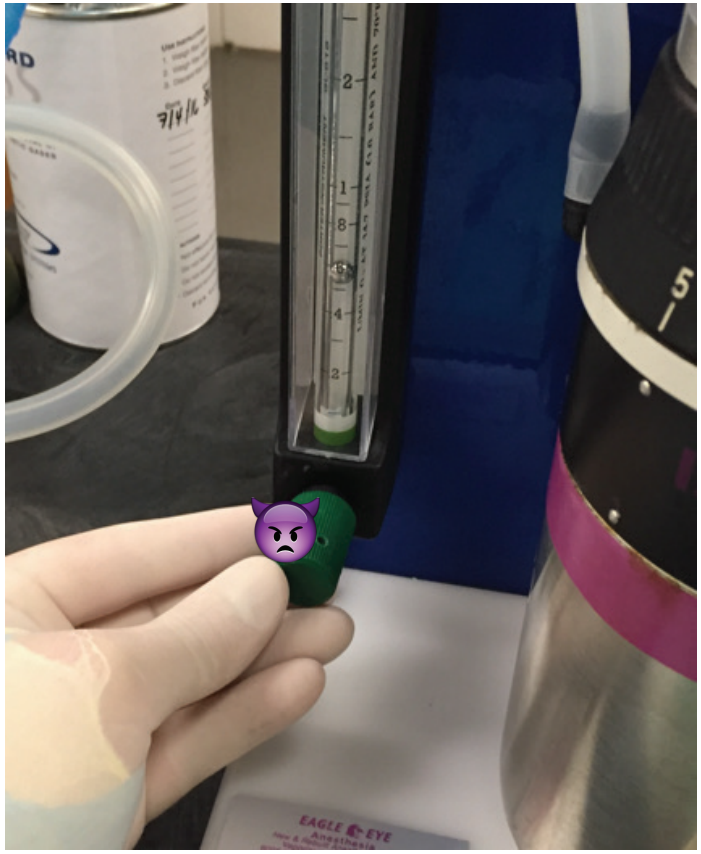


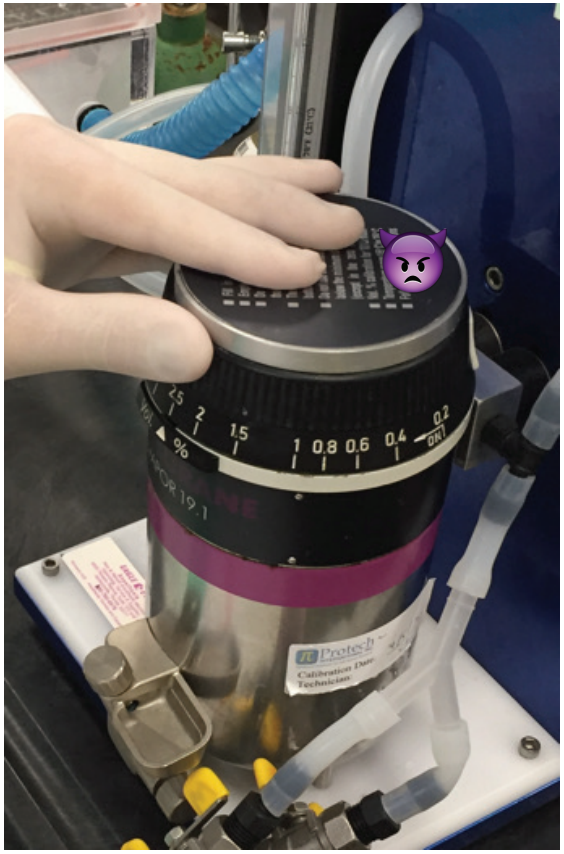
The Solo Surgeon

- Frequently investigators assign surgery duties to a member of their lab without additional help. The lab member ends up performing every aspect of the surgery alone
- So what happens if non-sterile items such as the anesthesia dial, stereotaxic apparatus knobs, light handles and microscope dials have to be manipulated during surgery?
- The next slides provide practical solutions to the “Solo Surgeon”

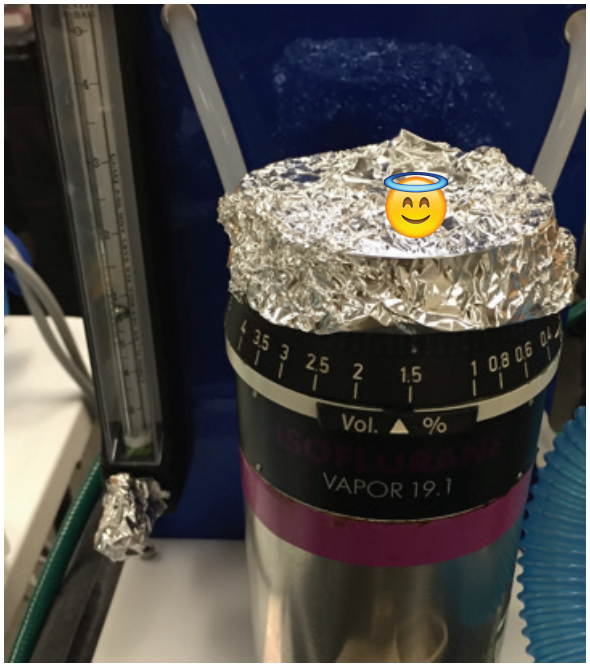
Surgeon touching non-sterile parts with sterile gloves

😈

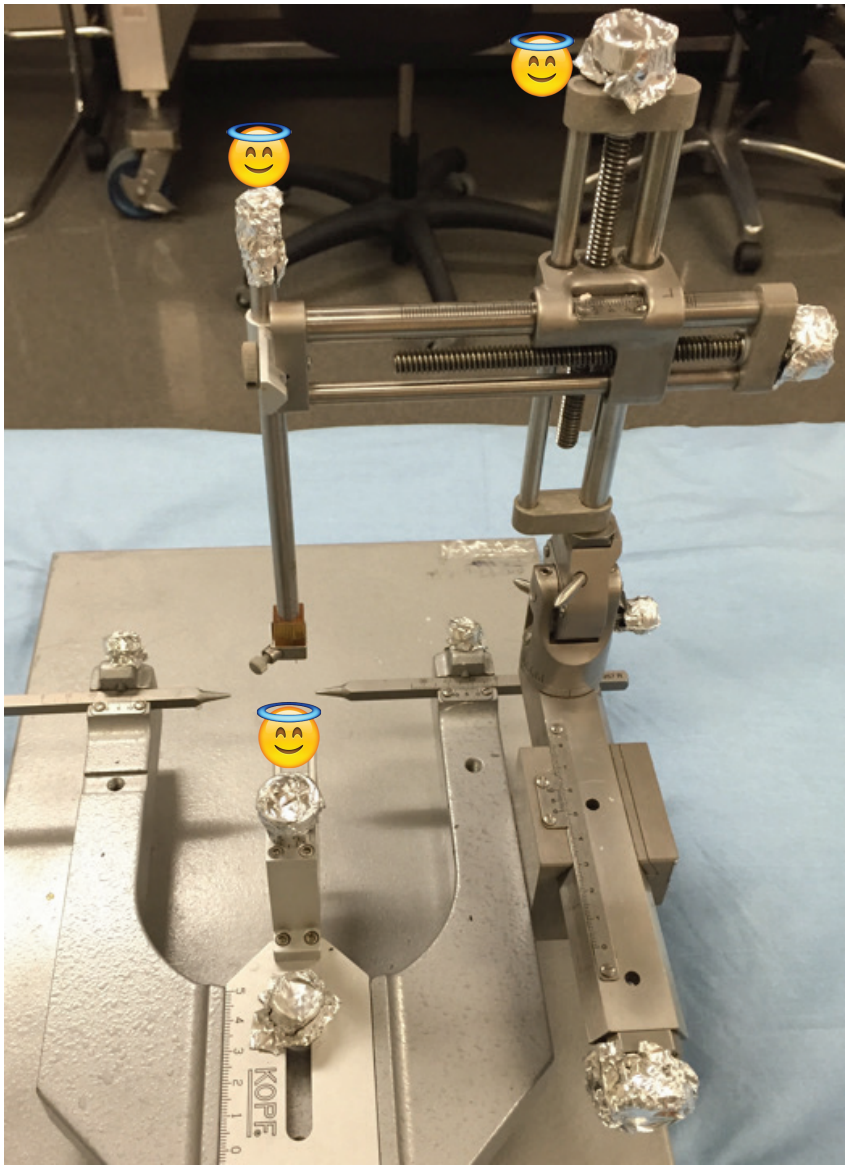




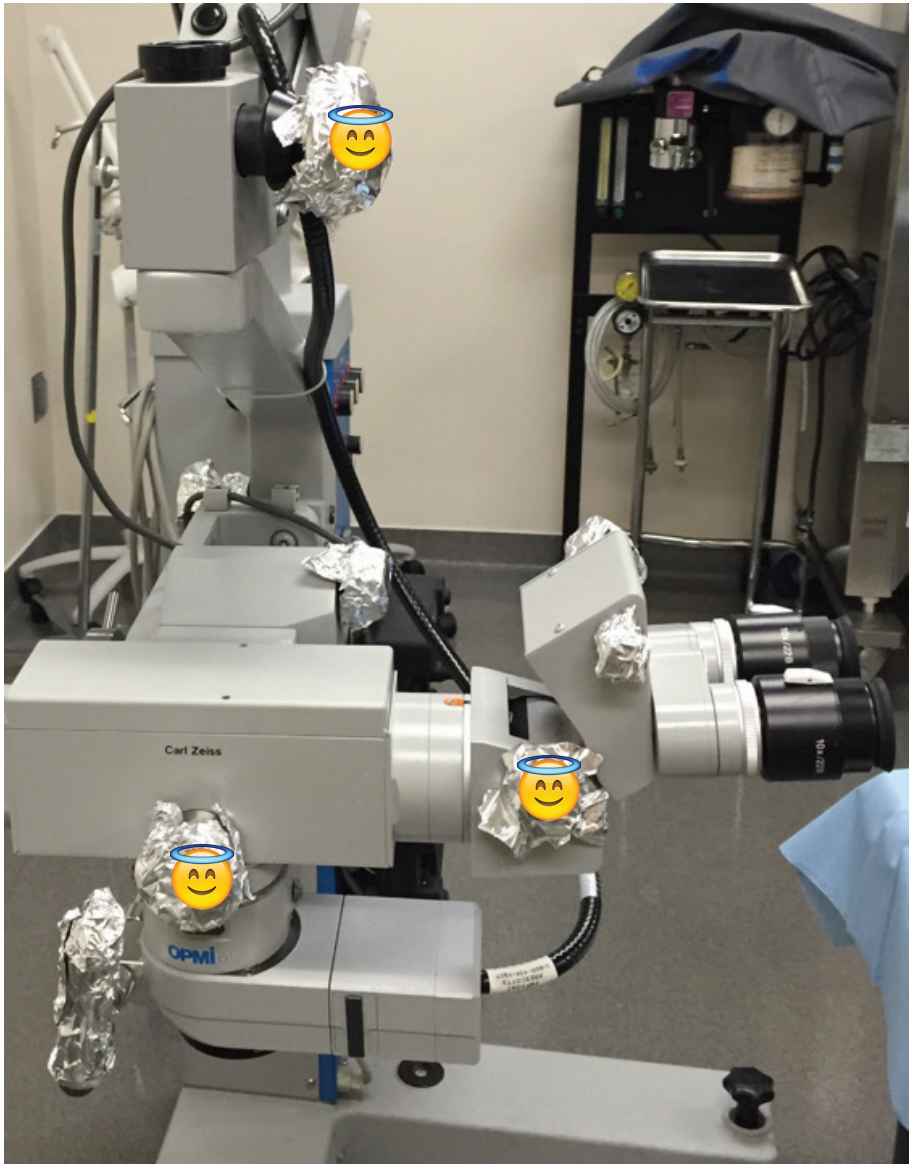
Covering the anesthesia machine dials with Press’n Seal or autoclaved aluminum foil prevents cross-contamination of the surgical wound



Covering parts of the stereotaxic apparatus that need to be manipulated with Press’n Seal or autoclaved aluminum foil prevents cross-contamination of the surgical wound



Covering knobs of the surgical microscope with Press’n Seal or autoclaved aluminum foil



Covering light handles with Press’n Seal or autoclaved aluminum foil