

Mouse model of *Staphylococcus aureus*- and *Pseudomonas aeruginosa*-induced neutrophilic chronic rhinosinusitis

Surgical procedure

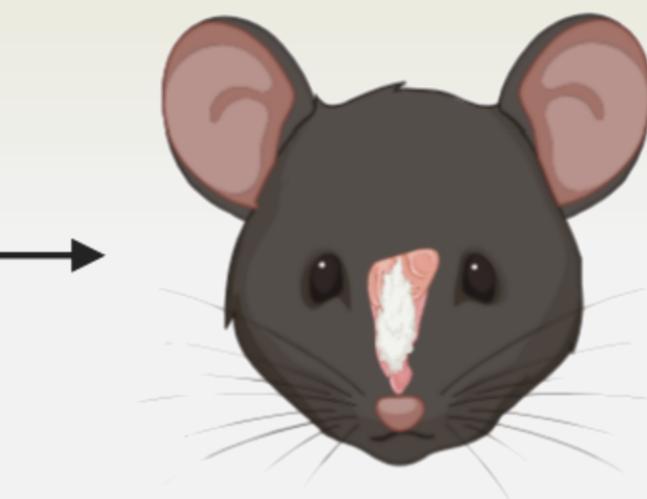
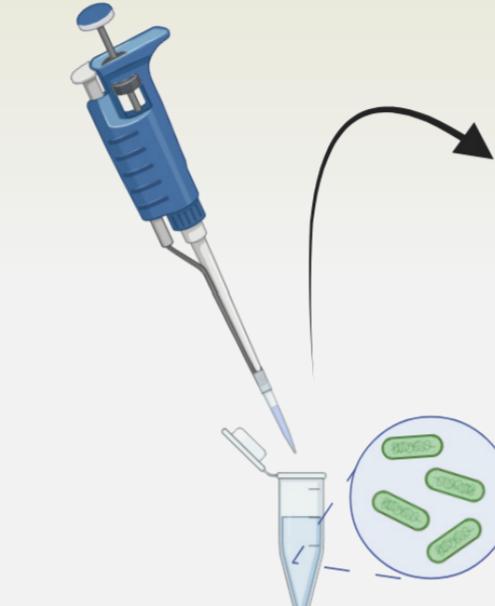
Incision

Drilling away left and right bone section and removal of the upper part of the septum

Bacterial inoculation of a pre cut-to-size nasal tampon

Placement of the bacterial-inoculated tampon in the nasal cavity

Skin suture and surgery recovery



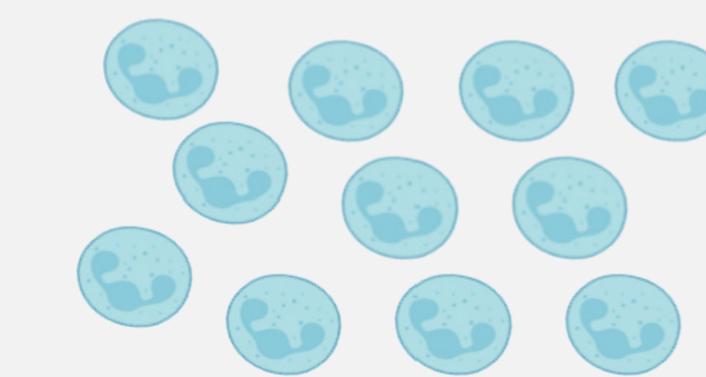
The bacterial-inoculated nasal tampon remains in situ until completion of the model



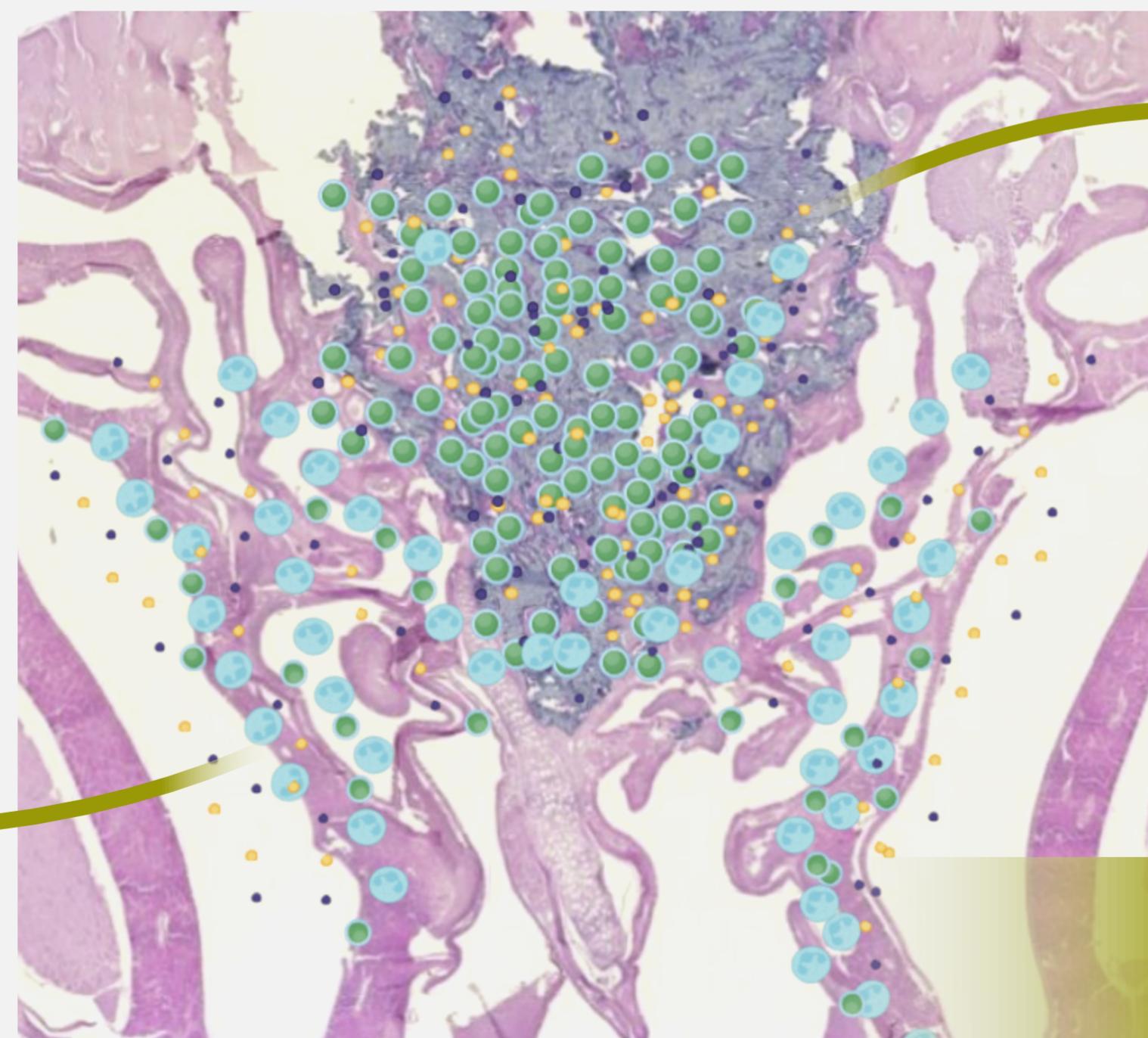
QR code shows detailed protocol + video of surgery

Mouse model of non-eosinophilic CRS

- Bacteria
- Non-Type 2 inflammatory mediators
- Neutrophil



**Neutrophilic influx
in maxillary sinus + nasal secretions**



**Non-Type 2 inflammatory mediators
in nasal secretions**

IL-1 β

TNF- α

MIP-2

IP-10

IL-17A/F

S. aureus and *P. aeruginosa* are potent inducers of neutrophilic inflammation in mice.

This model enables further study of non-eosinophilic CRS pathophysiology in vivo.

Staphylococcus aureus > *Pseudomonas aeruginosa* > *Streptococcus pneumoniae*