

# Delivery to the Nervous System

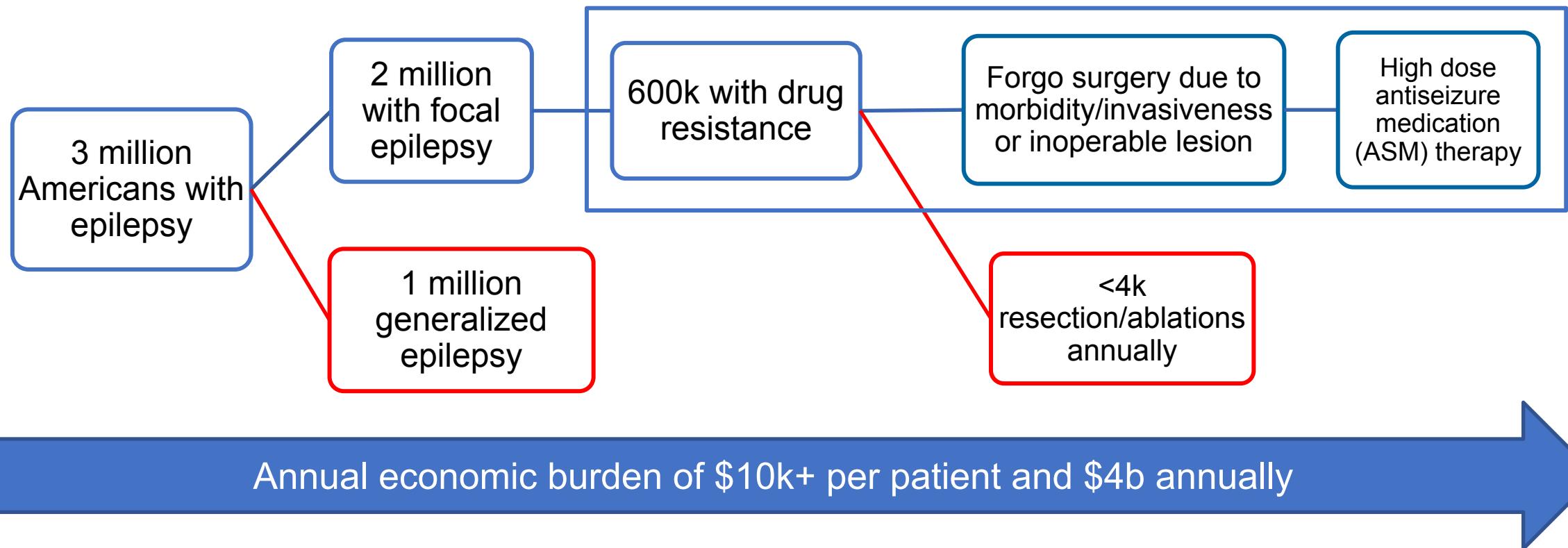
HANNAH JACKSON



INTEGRATING  
**Delivery Science**  
ACROSS DISCIPLINES



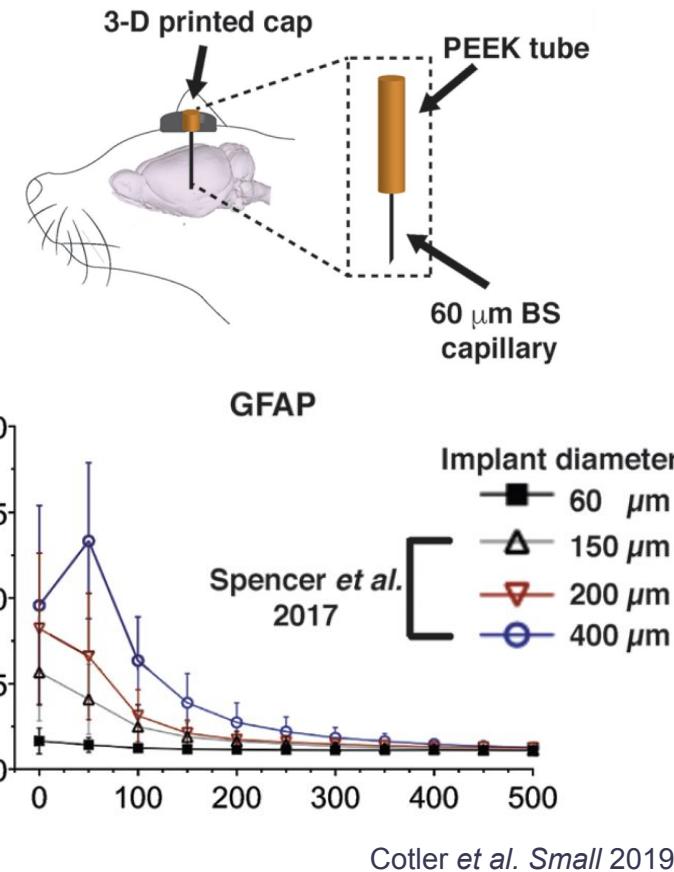
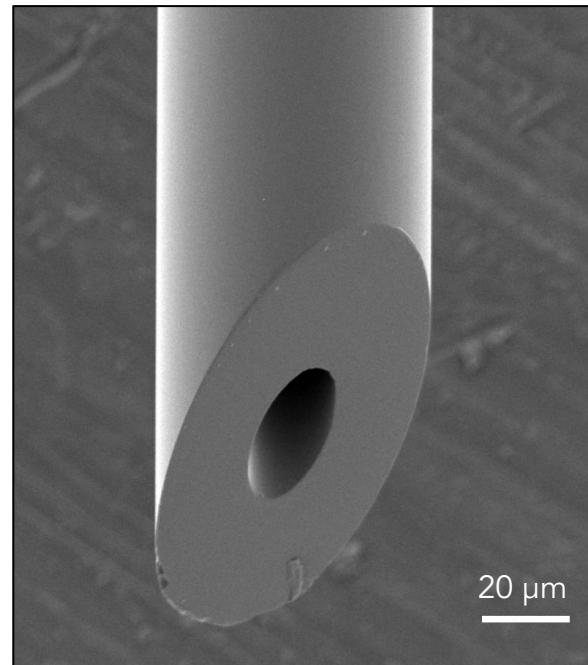
# Epilepsy has a large burden of disease with limited treatment options



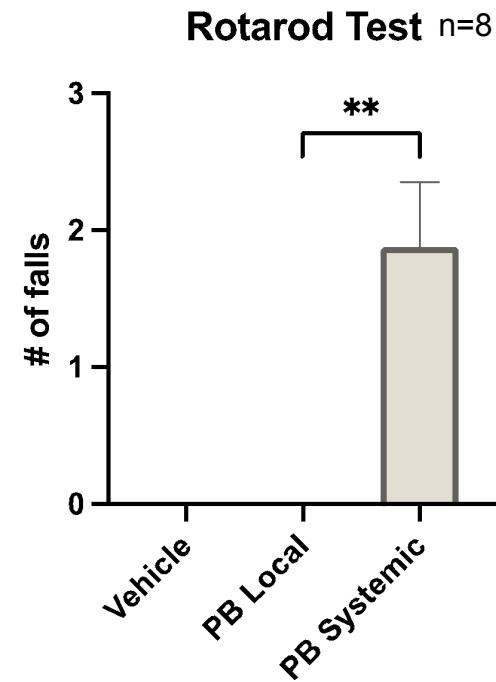
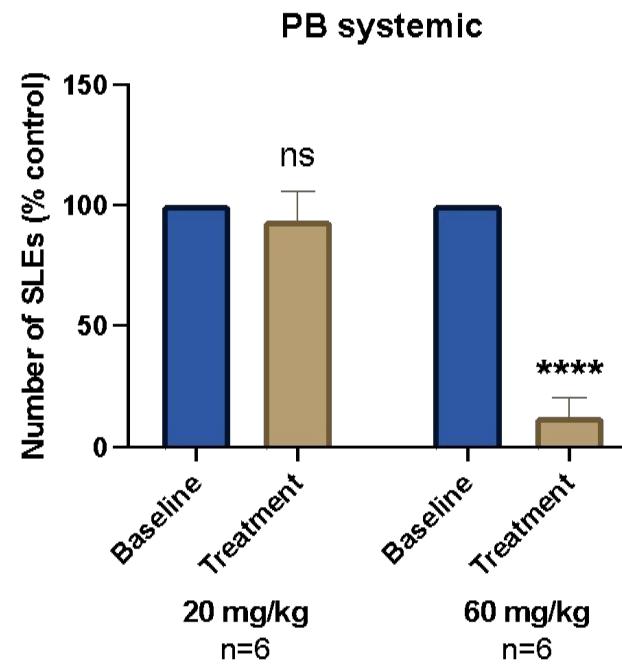
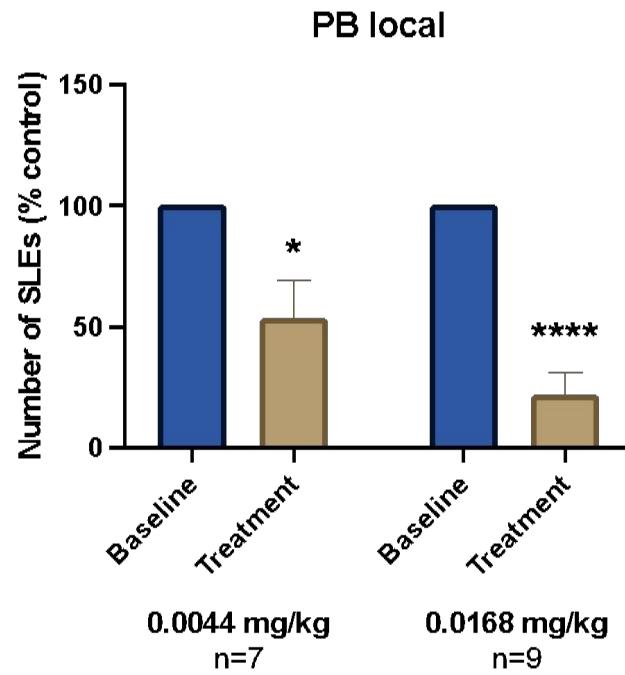
# Neural implant for local drug delivery to treat refractory epilepsy

Medical need: Minimally invasive non-ablative modalities to treat focal refractory epilepsy

Technology: Microdosing to seizure focus to provide non-ablative seizure suppression without drug adverse effects



# Local delivery of phenobarbital suppresses seizures in mice with no adverse effects



Results: 10,000-fold increase in therapeutic index

Jackson et al. Under review 2024