Group 9 1-min Teaser:
Predicting Hemorrhage Related Outcomes with CT Volumetry for Traumatic Hemothorax

- **Students:** Benjamin Albert, Chang Yan, Gary Yang

- **Mentors:** Dr. David Dreizin, Dr. Mathias Unberath

Objective

Predict combined target for hemothorax patients:
   requires massive transfusion OR patient dies

Dataset

Labels:

- 62 negative, 15 positive (77 total)
- 12 transfusions, 8 deaths

Features:

- Age
- Sex
- Injury Type (blunt / penetrating)
- Heart Rate
- Systolic BP
- Lactate
- **Hemothorax Volume (different methods of calculating)**

Naive Bayes Results

Volume method	MCC	auROC	auPRC (neg)	auPRC (pos)
Manual (Low / Medium / High)	0.658	0.914	0.977	0.795
Deep Segmentation Network (0.61 Dice)	0.631	0.933	0.983	0.783