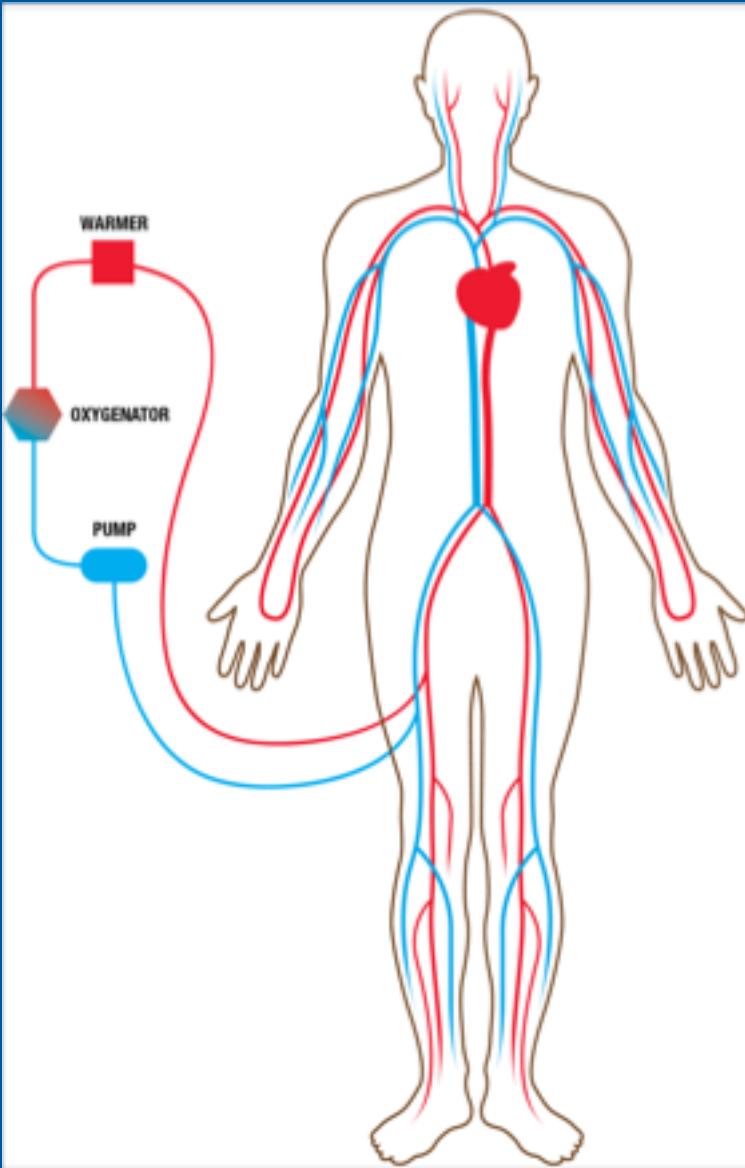
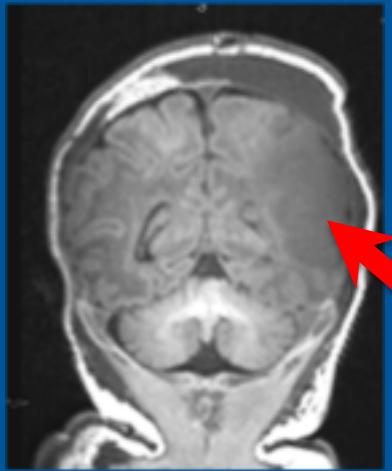


Real-time Risk Predictions of Neurological Injury in Pediatric Extracorporeal Membrane Oxygenation (ECMO) Patients

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- **Jeon Lee, PhD** - *UT Southwestern, Bioinformatics*
- **Rafe McBeth, PhD** - *UT Southwestern, Radiation Oncology*

November 10 2018

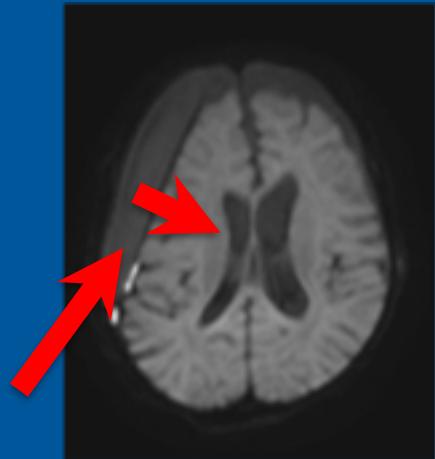




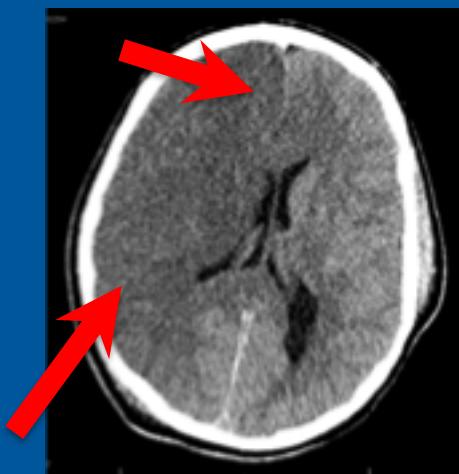
MCA territory stroke



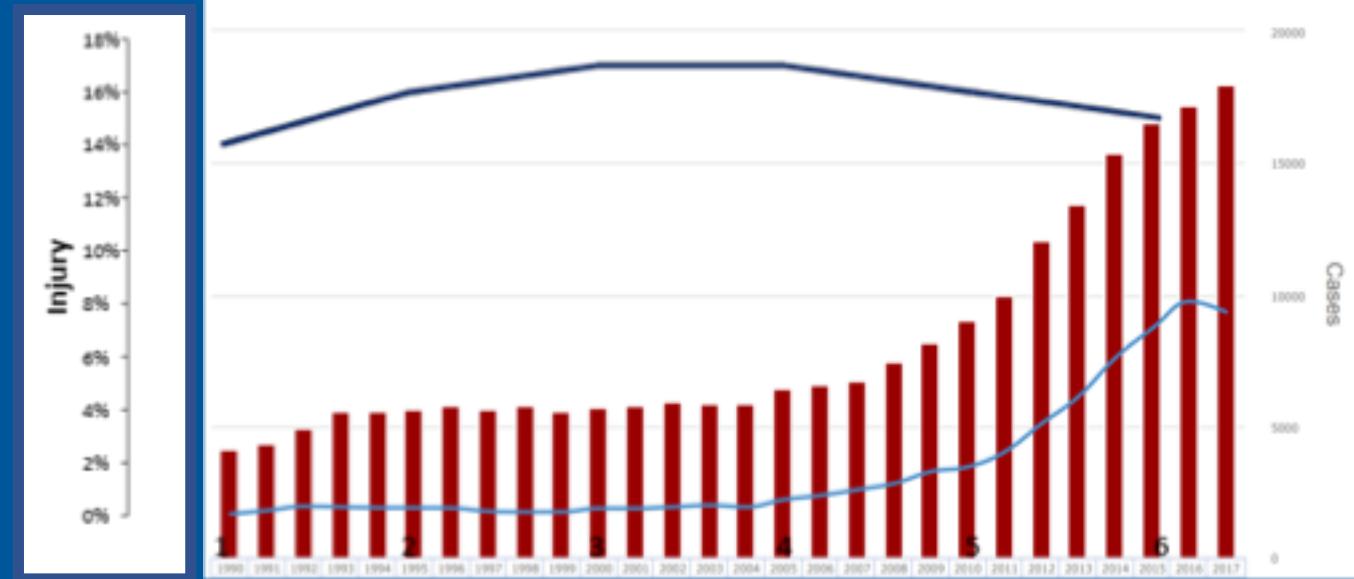
Cerebral Stroke



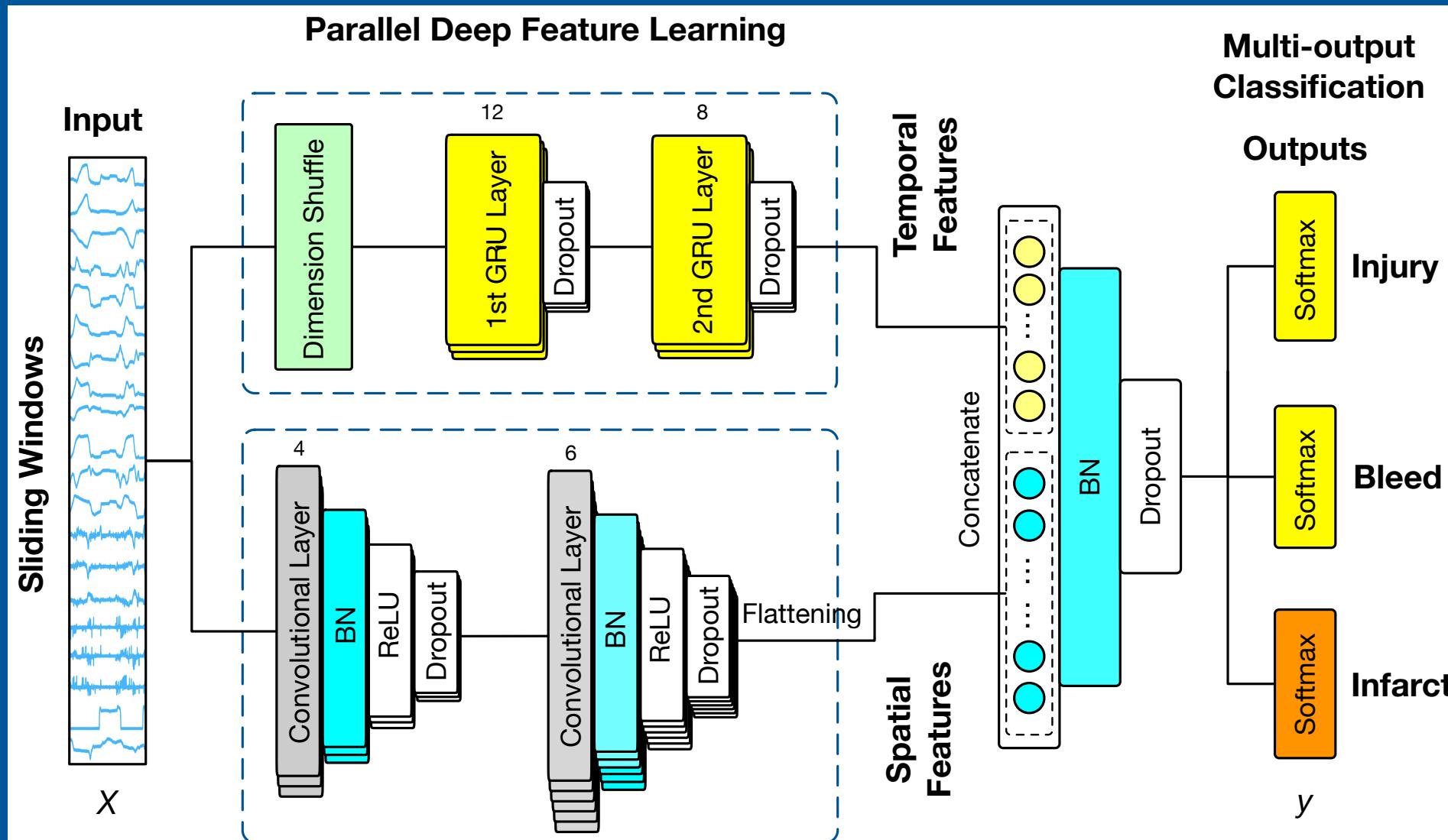
Subdural Bleed

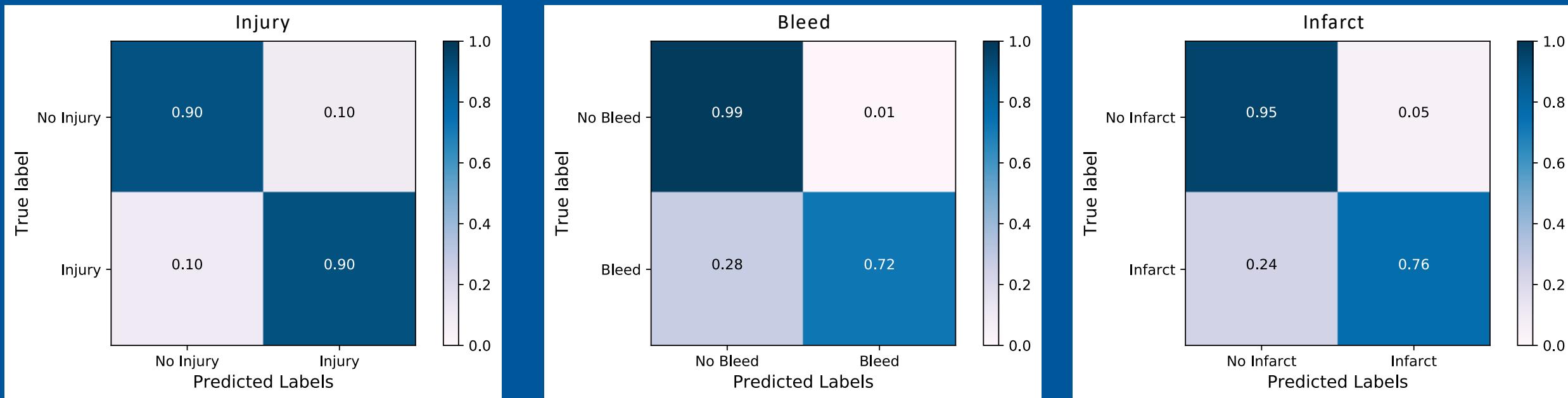


Stroke + Herniation

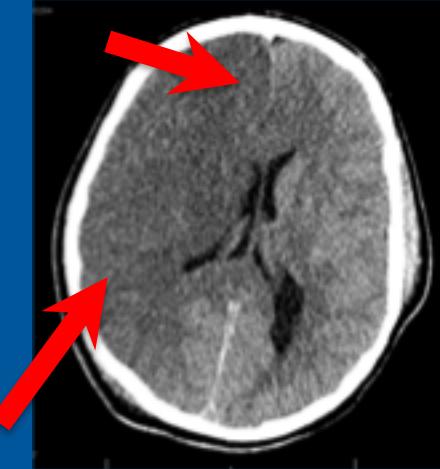
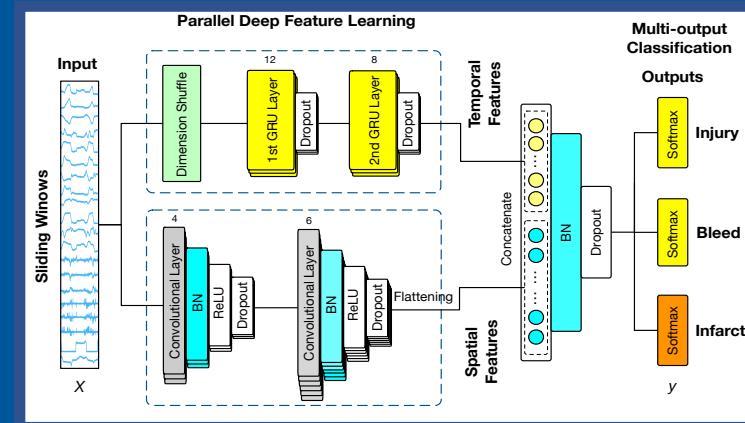


- 140 ECMO patients with known outcomes (**one of the largest**)
- 40 different types of clinical and lab parameters for each patient (per hour)
- >10,000 hours of data





Predicted Category	Accuracy of test data
Any Injury	0.90
Bleed	0.93
Infarct	0.89



This tool could allow us to make the first meaningful changes in ECMO patient's neurological outcomes in decades.

- <https://github.com/NCBI-Hackathons/EcM0del>