- Exclusion Criteria -

- Clinical, demographic or other characteristic that precludes dx, tx or follow-up:
  - -Systemic sepsis at screening
  - -SBP < 90 mmHG for two consecutive readings at least 5 min apart prior to randomization
  - -SaO2 < 90% on FiO2 > 0.5 for two consecutive readings at least 5 min apart prior to randomization
  - -PaO2/FiO2 ratio < 150
  - -Known pre-existing neurologic disease (ex.TBI, stroke, neurodegenerative disorder with confounding neurologic deficits)
  - -Known inability to perform ADLs without assistance prior to injury
  - -Known active drug/alcohol dependence that would interfere with physiological response to PbtO2 tx
  - -Non-survivable injury
  - -Pregnancy
  - -Prisoner or ward of state
- Bilaterally absent pupillary response in the absence of paralytic medication
- Contraindication to the placement of intracranial monitors, (ex. uncorrectable coagulopathy)
- Treatment of brain tissue oxygen values prior to randomization (monitor can be placed prior to randomization, but readings must be masked to clinical team)
- Planned use of devices which may unblind treating physicians to brain tissue hypoxia
- Presence of “BOOST Trial Declined” on any medical alert tag/bracelet

Emergency 24-Hour Study Hotline:

855-4-BOOST3 (855-426-6783)