



CNTR Progress Report

December 2020

MISSION

The mission of the Coalition for National Trauma Research (CNTR) is to enhance trauma research in the U.S. by advocating for sustainable research funding commensurate with the burden of disease, coordinating research efforts across professional organizations that span the continuum of injury care, and strengthening the infrastructure for multicenter investigation.

LEADERSHIP & MEMBERSHIP UPDATE

After serving as the administrative support behind the CNTR since its founding 2014, the National Trauma Institute (NTI) formally restructured as CNTR in 2020, with the support of the Boards of Directors of all original CNTR member organizations (AAST, EAST, NTI, ACS-COT, WTA). This move allows the CNTR staff to focus on the larger objectives of the coalition and to engage additional trauma-related organizations to work on mutual goals.

Five organizations signed on as **Core members** of CNTR: American Association for the Surgery of Trauma (AAST), American Burn Association (ABA), American College of Surgeons Committee on Trauma (ACS-COT), Eastern Association for the Surgery of Trauma (EAST), and Western Trauma Association (WTA). Core members provide annual support to advance trauma research through CNTR with dues of \$35,000.

Core membership accrues the following member benefits:

- Leadership at the helm of the only organization working toward the goal of federal funding for trauma research commensurate with its massive toll on society and lifting all stakeholders in the trauma research environment
- Increased opportunities and support for the members of the core organizations to participate in trauma research—since CNTR’s founding, hundreds of trauma investigators and stakeholders have engaged in our studies, infrastructure projects, committee work, and advocacy activities
- Research mentorship for members of the organization—including collaboration with senior investigators, guidance through the grant application process, administrative support, technical expertise and national networking. Support is targeted to mid-career investigators who seek to transition from K awards to R01 awards, from bench to bedside research, or from single-center to multi-center projects
- Representation on CNTR’s Scientific Advisory Committee, evaluating new proposals and innovative projects and identifying opportunities for participation
- Accesss to the National Trauma Research Repository for data sharing and secondary analysis
- Accesss to the ACS-COT’s Trauma Quality Improvement (TQIP) platform as a framework for data collection
- Participation in research development and advocacy training seminars
- Amplification of member research publications on the CNTR blog and across social media accounts



New **Stakeholder members** include the American Trauma Society (ATS), Orthopedic Trauma Association (OTA), Society of Trauma Nurses (STN), and the Military Health System Strategic Partnership at the American College of Surgeons (MHSSPACS). All bring unique strengths and a variety of invested groups to the CNTR mission. Stakeholder members have access to many of the benefits listed above and may serve on CNTR committees. In addition, each Stakeholder member organization names one representative to the CNTR Advisory Council. Stakeholder members provide annual support to advance trauma research through CNTR with dues of \$5,000.

The final membership category is **Affiliate member**—a no-cost option that enables mission-adjacent organizations to signal their support for the coalition and keeps them informed on CNTR activities. Affiliate membership confers no advisory or governing role, but affiliates may join CNTR in its advocacy activities. We encourage this level of membership for smaller organizations and those that represent patients and survivor groups. To date, organizations joining at this level include the American Association of Neurological Surgeons and Congress of Neurological Surgeons (AANS/CNS), National Blood Clot Alliance (NBCA), North American Thrombosis Foundation (NATF), Society of Critical Care Medicine (SCCM), and Trauma Center Association of America (TCAA).

Following the restructuring of CNTR in 2020, a new Board of Directors was established, with members appointed by the leadership of the Core organizations.

BOARD MEMBER	ROLE	MEMBER ORG
Eileen Bulger, MD, FACS	Chair	ACS-COT
Ben Zarzaur, MD, MPH, FACS	Vice-Chair	EAST
Rachael Callcut, MD, FACS	Secretary/Treasurer	AAST
Angela Gibson, MD, PhD, FACS	Member	ABA
Elliott Haut, MD, PhD, FACS	Member	EAST
James Holmes, MD, FACS	Member	ABA
Bellal Joseph, MD, FACS	Member	WTA
Raminder Nirula, MD, MPH, FACS	Member	AAST
Ronald M. Stewart, MD, FACS	Member	ACS-COT

The CNTR Board of Directors [hosted a webinar](#) in November to provide more information about CNTR and its mission, inviting individual investigators as well as organizations that might be interested in joining. More than 150 professionals attended.

CNTR SCIENTIFIC ADVISORY COMMITTEE (SAC)

Over the course of 2020, CNTR’s Scientific Advisory Committee supported the submission of 11 grant applications and letters of intent, with four receiving funding (newly funded studies are indicated in the list below), and the remaining pending review at DoD, NIH and PCORI. Projects under review include: a virtual reality training module, a burn treatment study, a geriatric trauma research network, support for a scientific meeting on advances in VTE prophylaxis, and development of infrastructure to support PCORI applications through a patient engagement award. Several other grant proposals are in development.



SAC seminars on a range of research topics are open to all CNTR members. Following a SAC Research Methodology Conference hosted by the American College of Surgeons – Committee on Trauma in 2019, the SAC published four papers in the February 2020 issue of *Trauma Surgery and Acute Care Open* related to the future of national trauma research:

- [Building the Future of National Trauma Research](#)
(Price, Kozar*#^, Bulger*#, Jurkovich*#^ and the CNTR SAC)
- [Alternative Clinical Trials Design](#)
(Harvin+#, Zarzaur*#^, Nirula*^, King, Malhotra*^ and the CNTR SAC)
- [Dissemination, Implementation, and De-Implementation: The Trauma Perspective](#)
(Ho*#, Dicker*^, Haut*# and the CNTR SAC)
- [Patient-Centered Outcomes Research and the Injured Patient: A summary of application](#)
(Godat*+, Jensen*#, Stein*#^ and the CNTR SAC).

[KEY: *AAST member, +ABA member, #EAST member, ^WTA member]

SAC MEMBER	MEMBER ORG
Rosemary Kozar, Chair	CNTR
Todd Costantini	AAST
Ram Nirula	AAST
Marie Crandall	AAST
Ajai Malhotra	AAST
James Holmes	ABA
Tina Palmieri	ABA
Carl Schulman	ABA
Deb Stein	ACS-COT
Sam Arbabi	ACS-COT
Avery Nathens	ACS-COT
Elliott Haut	EAST
Jason Smith	EAST
Ben Zarzaur	EAST
Michelle Price	CNTR
Mitchell Cohen	WTA
Rochelle Dicker	WTA
Bellal Joseph	WTA

CNTR Equity, Diversity & Inclusion Committee

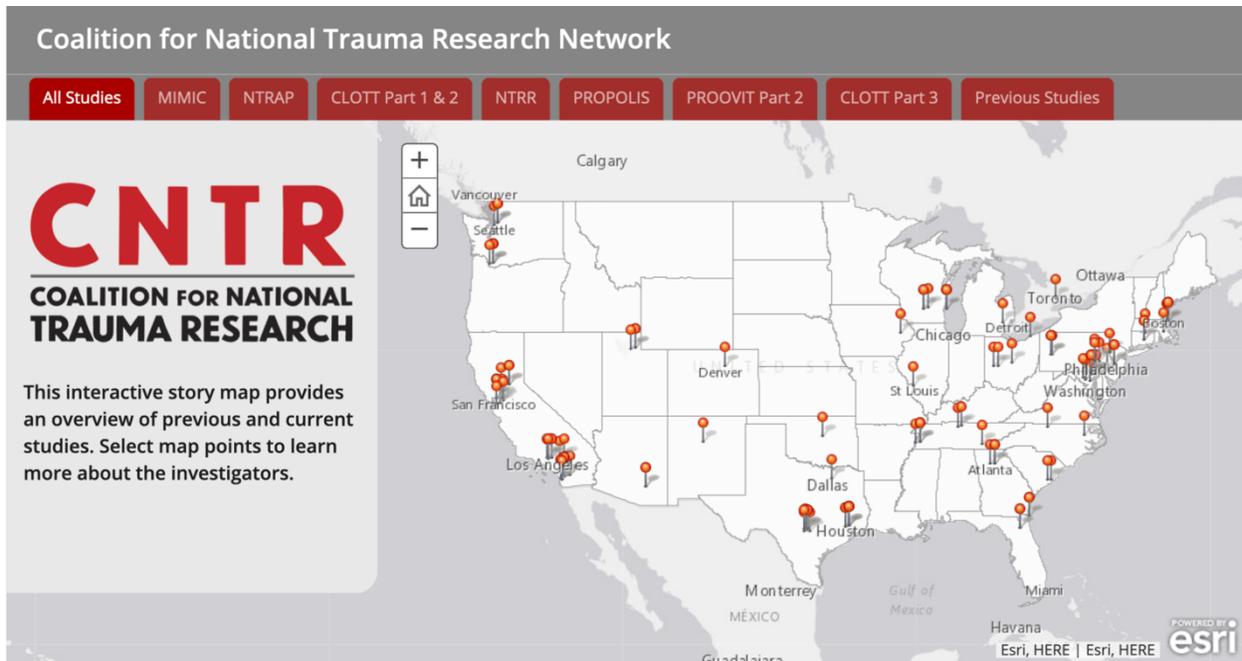
The Board established the Equity, Diversity & Inclusion (EDI) Committee to ensure that issues related to EDI are addressed within CNTR as well as the entire trauma research community. The committee will advise the Board of Directors and the SAC to ensure that all aspects of EDI are considered in the development of research proposals and grant applications. It will also be charged with developing a mentorship program for underrepresented minority investigators interested in clinical trauma research. The Board is accepting nominations from core members now to serve on this committee, looking

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TRAUMA RESEARCH

specifically for researchers who are at least mid-career, possess strong mentoring capabilities, and have a background in either health disparities or underrepresented minority trauma/burn research. This group will start its work in Spring 2021.

CNTR RESEARCH NETWORK



CNTR PROJECT UPDATE



National Trauma Research Repository (NTRR)

The NTRR was established with the support of the Department of Defense (DoD) to serve as a repository for data from multicenter trauma clinical trials to support the development of common data elements and provide the opportunity for secondary data analyses across comparable study populations. The infrastructure has been established based on initial grant funding, led by Dr. Don Jenkins, and dozens of investigators have agreed to upload study data. We are currently seeking maintenance funding for the NTRR through the Combat Casualty Care Research Program. This project is currently operating under a no-cost extension. For more information on the Repository, visit NTRR-NTI.org.



National Trauma Research Action Plan (NTRAP)

Awarded a \$2.7 million contract by the DoD and led by Dr. Eileen Bulger, the NTRAP project consists of three Aims and is proceeding on target. To date, 10 of the 11 Aim 1 Delphi consensus panels have completed their gap analyses of military and civilian trauma research to identify priorities across the continuum of

care. Involving roughly 400 trauma care providers across all medical specialties, these panels have generated thousands of research questions and prioritized those questions in greatest need of study. Manuscripts for Aim 1 are now being prepared for publication. Aim 2 is to define optimal metrics to assess long-term functional outcomes in injured patients following hospital discharge. The Aim 2 Patient-Reported Outcomes panel consists of about 50 trauma care providers, patients and advocates who have so far evaluated 75 PROs and nearly 200 Patient-Reported Outcome Measures (PROMs) mapping to those PROs deemed most important. Work on NTRAP's Aim 3—Identification of trauma research regulatory barriers, development of best practices for investigators, and collaboration with federal entities to define optimal endpoints for clinical trauma research—began in summer 2020. Dr. Michelle Price is leading this Aim, and we are currently conducting a scoping review to determine the relevant regulatory barriers for panel members to consider. Recruitment of the Aim 3 panel begins in Spring 2021; and we welcome those interested in participating to contact us.



Multi-Institutional Multidisciplinary Injury Mortality Investigation in the Civilian Pre-Hospital Environment (MIMIC)

Funded with a \$4 million grant from the DoD and led by Col. Brian Eastridge, MD, the MIMIC project is a review of 3,000 pre-hospital deaths in six diverse sites across the country, with the aim to determine survivability by mechanism of injury as well as appropriateness of EMS response and care delivered. Currently, we are in Round 7 of 10 total rounds of case reviews. Data abstraction at medical examiner sites and GIS coding is now complete. AIS, and ICD coding of study cases continues in the REDCap system. Reviewers have so far evaluated 1,750 cases.



CLOTT Multicenter Investigations of Pulmonary Embolism

With \$4.2 million in DoD funding and led by Dr. Peggy Knudson, the CLOTT group (Coalition of Leaders in post-Traumatic Thromboembolism) has completed Part 1, a study focusing on the significance of incidentally discovered pulmonary thrombi after injury as well as the role of fibrinogen breakdown in the development of post-traumatic Pulmonary Embolism. Part 1 enrolled approximately 7,770 patients. Data analysis for Part 1 is underway while enrollment for Part 2 will continue in 2021. CLOTT Part 2 has to date enrolled 231 patients.



CLOTT 3 – VTE Prophylaxis Education (2020 study)

Led by Dr. Elliott Haut, this is a 10-center implementation study with a \$1.4 million award from the Patient-Centered Outcomes Research Institute (PCORI) to determine the success of nurse and patient education programs in preventing deadly blood clots. Trauma patients may survive their initial severe injuries only to succumb to blood clots when they refuse or miss doses of the drug that prevents them—something that happens at a rate nearly 50% higher than other medications. This project, which taps trauma investigators in the CLOTT study group, and which we call CLOTT 3, will study whether educating nurses and patients on the importance of venous thromboembolism (VTE) prophylaxis administration can reduce this troubling trend and save lives. Once the proof of concept is determined within the 10 trauma centers taking part in the study, the education tool will be tailored for different healthcare settings and implemented nationwide.



PROOVIT 2/Humacyte (2020 study)

Co-PIs Drs. Todd Costantini and Joe DuBose were awarded \$0.7 million in DoD funding for this study involving seven sites and mining the PROOVIT (PROspective Observational Vascular Injury Treatment) database to provide real-world comparator data for Humacyte's Human Acellular Vessel in patients with traumatic vascular injury study. Study initiation activities (site subcontracting and human subjects protection approval) are underway.

Plasma Resuscitation without Lung Injury (PROPOLIS) (2020 study)

Led by Dr. Leopoldo Cancio and awarded \$2.5 million in DoD funding, the Plasma Resuscitation Without Lung Injury PROPOLIS is a prospective, randomized, controlled, multi-center trial of resuscitation using pathogen-reduced plasma in patients with acute burns to determine if resuscitation volumes and complications can be reduced. Study initiation activities (site subcontracting and human subjects protection approval) are underway.

Bridging the Gaps: Individual and Community-Level Risk Factors for Non-Lethal Firearm Injuries in the U.S. (2020 study)

With a \$0.7 million grant from the National Center for Gun Violence Research, CNTR member organization ACS-COT is launching a multi-center prospective study to improve understanding of the individual and community-level risk factors for non-lethal firearm injuries in the U.S. The study will rely on the infrastructure of the American College of Surgeons Trauma Quality Improvement Program (TQIP) to develop a nationally representative dataset of non-lethal firearm injuries for investigation. A CNTR firearm injury prevention research scholar will work alongside primary investigators Dr. Avery Nathens and Dr. Deborah Kuhls.

SUMMARY

The success realized by the Coalition for National Trauma Research in 2020 speaks to the salience of our mission, the formidable commitment of our member organizations, and the expertise of our seasoned staff. We are indebted to the leadership shown by our founding organizations, which provided the sturdy platform on which CNTR's new structure sits. They envisioned a broad trauma research community, working together across disciplines and the spectrum of care, uniting around a message and an agenda to draw attention and resources to this massive public health priority. We are grateful for the financial commitment of our Core and Stakeholder members, as well as the support of our Affiliates, as we strive to build the infrastructure supporting multicenter investigation that will ultimately advance the care of our patients.

For more information, contact: Research@NatTrauma.org