



Commonwealth Neurotrauma Initiative Trust Fund Advisory Board

Triennial Report SFY 2021 - 2023

**to the Governor and the Members of the General
Assembly of Virginia**

**Commonwealth of Virginia
Richmond
October 1, 2023**

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COMMONWEALTH OF VIRGINIA
DEPARTMENT FOR AGING AND REHABILITATIVE SERVICES

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October 1, 2023

MEMORANDUM

TO: The Honorable Glenn Youngkin
Governor of Virginia

Members of the House of Delegates and the Senate
Virginia General Assembly

FROM: Kathryn A. Hayfield
Commissioner, Department for Aging and Rehabilitative Services

SUBJECT: Triennial Report on Commonwealth Neurotrauma Initiative (CNI) Trust Fund

As Commissioner of the Virginia Department for Aging and Rehabilitative Services (DARS), I am pleased to present the CNI Trust Fund triennial report as required by the Code of Virginia in § 51.5-180. This report provides data on the operations and funding of the Commonwealth Neurotrauma Initiative Trust Fund during state fiscal years 2021, 2022, and 2023.

If you have any questions about the report, please do not hesitate to contact me.

Enclosure



COMMONWEALTH NEUROTRAUMA INITIATIVE (CNI) TRUST FUND

October 1, 2023

The Honorable Glenn Youngkin
Governor of Virginia
P.O. Box 1475
Richmond, VA 23218

RE: CNI Trust Fund Triennial Report

Dear Governor Youngkin;

It is with great pleasure on behalf of the Commonwealth Neurotrauma Initiative Trust Fund Advisory Board that I share with you and the people of the Commonwealth of Virginia this Triennial Report on the logistics, activities, and accomplishments of the CNI Trust Fund from July 1, 2020 to June 30, 2023. It has been and continues to be our privilege to support the efforts of the Commonwealth in helping to guide the use of the CNI Trust Fund to improve the lives and livelihoods of Virginians. As you will see, we have successfully stewarded the fund and leveraged the resources to a range of important and effective project and programs. Please do not hesitate to reach out to me and our board with any questions.

Sincerely,

David X. Cifu, M.D.
Chair, CNI Trust Fund Advisory Board

Associate Dean of Innovation and System Integration
Herman J. Flax, MD Professor and Chair, Department of Physical Medicine and Rehabilitation
Virginia Commonwealth University School of Medicine

Senior TBI Specialist, U.S. Department of Veterans Affairs

Principal Investigator,
Long-term Impact of Military-relevant Brain Injury Consortium - Chronic Effects of
Neurotrauma Consortium (LIMBIC-CENC) <https://www.limbic-cenc.org/>

COMMONWEALTH NEUROTRAUMA INITIATIVE (CNI) TRUST FUND

TRIENNIAL REPORT FOR STATE FISCAL YEARS 2021, 2022, 2023 (JULY 1, 2020 THROUGH JUNE 30, 2023)

The Code of Virginia § 51.5-180, requires the Commonwealth Neurotrauma Initiative (CNI) Trust Fund to “Report triennially on October 1, to the Governor and the General Assembly, aggregate data on the operations and funding of the Commonwealth Neurotrauma Initiative Trust Fund.”

BACKGROUND/PURPOSE

On July 1, 1997, Senate Bill 1132 established the CNI Trust Fund in the Code of Virginia. This bill authorized the CNI Trust Fund as a special non-reverting fund and the CNI Advisory Board as a permanent collegial body affiliated with the State Board of Health. Effective July 1, 1998, Senate Bill 484 provided that moneys in the CNI Trust Fund “shall be used solely to support grants for Virginia-based organizations, institutions, and researchers.”

Senate Bill 484 (1998) also created a mechanism for funding the CNI Trust Fund. Monies are deposited into the CNI Trust Fund pursuant to § 18.2-271.1 (E) of the Code of Virginia. If an individual’s privilege to drive is suspended, revoked, or disqualified, Virginia law (§§ 46.2-411, 18.2-271.1E, 46.2-333.1) requires the payment of the highest applicable fee to the Department of Motor Vehicles (DMV) prior to reinstatement of driving privileges. Of the total reinstatement fee, \$25 “shall be transferred to the [CNI] Trust Fund.”

As stipulated in § 51.5-179 of the Code of Virginia, forty-seven and a half percent (47.5%) of the trust fund is allocated for research on the mechanisms and treatment of neurotrauma and forty-seven and a half percent (47.5%) is allocated for rehabilitative services. Five percent (5%) of the total fund amount per year is used for administrative costs. DARS funds any costs in excess of the five percent (5%) total.

PROGRAM ADMINISTRATION

As the result of a statutory Code change in 2004, the Virginia Department for Aging and Rehabilitative Services (DARS) now provides staffing of the Governor-appointed CNI Trust Fund Advisory Board as well as management of the CNI Trust Fund Grants Program.

Since 2016, a full-time Program Specialist provides contract administrative support for the fund and staff to the CNI Trust Fund Advisory Board. In August 2022, Jacole Thomas joined DARS as CNI Program Specialist.

CNI TRUST FUND ADVISORY BOARD

Per the Code of Virginia (§ 51.5-180) the CNI Advisory Board consists of seven governor-appointed members. With the exception of the Commissioners of the Department of Health and DARS, who have no term limits, members are appointed to four-year terms according to the following categories:

1. One person licensed to practice medicine in Virginia experienced with brain or spinal cord injury,
2. One person licensed by a health regulatory board within the Department of Health Professions with experience in brain or spinal cord injury rehabilitative programs or services,
3. One Virginian with traumatic spinal cord injury or a caretaker thereof,
4. One Virginian with traumatic brain injury or a caretaker thereof,
5. One citizen-at-large who shall not be an elected or appointed public official,
6. The Commissioner of the Department for Aging and Rehabilitative Services (or designee) [serves in ex-officio role],
7. The State Health Commissioner (or designee).

The current Chair of the Advisory Board is Dr. David X. Cifu, M.D. of Richmond. A full list of the current CNI Advisory Board members is included in the Appendix.

GRANT FUNDING

Per the Code of Virginia, 47.5% of the trust fund is allocated for research on the mechanisms and treatment of neurotrauma and 47.5% is allocated for rehabilitative services.

Between July 1, 2020 and June 30, 2023, a total of \$2,261,825.10 was paid to CNI Trust Fund Program grantees.

During the reporting period State Fiscal Year (SFY) 2021-2023:

- Four (4) research grants that began during the previous triennial reporting overlap into this triennial period (see Table on pg. 6)
- One (1) services grant that began during the previous triennial reporting period overlaps into this triennial period (see Table on pg. 9 indicated with an asterisk)
- A Request for Proposals (RFP) was issued February 2021 for researching the mechanisms of neurotrauma and/or the treatment of neurotrauma. Seven (7) applications were received and four (4) awards made;
- A Request for Applications (RFA) was issued September 2022 for Community-Based Rehabilitative Programs and Services. Eleven (11) proposals were received and two (2) awards made;
- Two (2) grants were awarded as state match for Virginia's federal traumatic brain injury grant from the Administration for Community Living.

A summary of the grants funded is provided in the following tables. More detailed information about these grants is available on the DARS CNI website: <https://vacni.virginia.gov/>.

RFP #18-061 Grant Award Period: August 1, 2018 - July 31, 2021
Community-Based Rehabilitative Programs and Services Grants

Principle Investigator	Title	Summary
Virginia Commonwealth University Principal Investigator: Amy Armstrong, PhD <i>\$371,346 over 3 years</i>	“Enhancing Parenting Skills (EPS) of Civilians and Veterans with TBI and their Non-injured Partners”	Enhance Parenting Skills (EPS) of civilians and veterans with Traumatic Brain Injury and their non-injured partners: A service-based program.
Virginia Commonwealth University Principal Investigator: Christine Groah, MEd <i>\$447,379 over 3 years</i>	“Project Achieve”	Use cognitive support technology to assist women veterans and service members with Traumatic Brain and/or Spinal Cord Injuries to achieve postsecondary education and careers.
Virginia Commonwealth University Principal Investigator: Melody Mickens, PhD / Zina Trost, PhD <i>\$443,808 over 3 years</i>	“Virginia Spinal Cord Injury Outreach and Services Clearinghouse”	Create a registry for collecting and monitoring the characteristics of Virginians with Spinal Cord Injury and their outcomes.
Brain Injury Connections of the Shenandoah Valley Principal Investigator: Cynthia Noftsinger <i>\$260,246 over 3 years</i>	“Looking Out for Little Brains”	Comprehensive pediatric case management to build the capacity of our local community to better respond to children (and their families and caregivers) who have sustained a brain injury, and support partner organizations who provide complementary resources.

RFA #262-90012 GRANT AWARD PERIOD: November 18, 2021 – September 30, 2024**Research Grants**

Researcher	Title	Summary
Virginia Commonwealth University Principal Investigator: Carrie Peterson, PhD <i>\$450,000 over 3 years</i>	“Immersive Virtual Reality and Noninvasive Spinal Stimulation to Promote Arm Function in Individuals with Tetraplegia”	Develop a home-based rehabilitation program to improve upper limb function for individuals with cervical spinal cord injury (SCI). Test the safety, feasibility, and initial efficacy of the home-based rehabilitation, which consists of non-invasive spinal cord stimulation combined with upper limb exercises guided in a virtual reality environment.
Virginia Commonwealth University Principal Investigator: Andrew Ottens, PhD <i>\$449,460 over 3 years</i>	“The Biofluid Peptidome for Novel Diagnostic and Prognostic Facilitation of TBI Care”	Test the hypothesis that TBI generated waste peptides have diagnostic utility in the acute ICU setting to stratify injury severity and predict secondary insults using urine as an alternative, noninvasive, diagnostic medium. Completing this project will substantially advance this innovative biomarker.
Virginia Commonwealth University Principal Investigator: Amol Karmarkar, PhD <i>\$449,415 over 3 years</i>	“Transitions and Disparities in Care and Outcomes (TDCO) for Neurotrauma”	Evaluate when and how transitions across healthcare settings occur for people with Traumatic Brain Injury and Spinal Cord Injury; how COVID-19 impacted these transitions; and health outcome disparities between public versus private health insurance.
Sportable Principal Investigator: Shelley Sowers <i>\$449,979 over 3 years</i>	“Developing and Testing the Efficacy of Targeted Wellness Training in Children and Adults with SCI, TBI and other Trauma-related Disability Participating in a Recreational Sports Program”	Collaborative two-part investigation to develop and test the feasibility of ease of delivery, preferred materials, and acceptance by participants of a disability-specific wellness program. Then investigate the added value and effectiveness of this directed and individualized wellness training on individuals with physical disabilities who are participating in structured, recreational sports programs.

RFA #CTR010038 and #CTR010039 GRANT AWARD PERIOD: January 12, 2023 – December 31, 2025
Community-Based Rehabilitative Programs and Services Grants

Researcher	Title	Summary
Anderson Music Therapy Services Principal Investigator: Noel Anderson <i>\$325,760 over 3 years</i>	“Music Therapy for TBI & SCI Survivors”	Utilize outpatient individual and group music therapy services to address the sensori-motor, communication, cognitive, and social-emotional aspects of Traumatic Brain Injury and Spinal Cord Injury. Conduct online and in-person music therapy support groups for family members to support caregivers’ psychological wellness, as this has a significant impact on the survivor.
Sportable Principal Investigator: Caitlyn Berry <i>\$450,000 over 3 years</i>	“Reducing Barriers to Participation in Adaptive Sports & Wellness Programs for Underserved Individuals with SCI and/or TBI to Enhance Health and Wellness”	Implement a barrier-reduction program to grow participation of athletes with Spinal Cord Injury and/or Traumatic Brain Injury within Sportable programs by 25 participants from underserved populations within 36 months.

***Commissioner Approved Grant for Community-Based Rehabilitative Programs and Services February 1, 2020 - January 30, 2022**

Principle Investigator	Title	Summary
United Spinal Association of Virginia Principal Investigator: Richard Bagby, Executive Director <i>\$120,150 over 2 years</i>	“SCI/D Peer Mentor and Family Support Program”	Expand organizational capacity to build the Peer Mentor and Family Support Program in order to educate and empower those affected by spinal cord injury or disability; provide long-term practical and emotional support for individuals with a spinal cord injury and families as they move toward independence and healing.

Grants Made as Match for Federal TBI Funding (August 1, 2021 – July 31, 2023)

Principle Investigator	Summary
Virginia No Wrong Door \$110,000 per year over three years. Draws down a total of \$330,000 in federal funds through the 2021-2026 Virginia TBI grant.	Increase awareness of and access to community resources for individuals living with brain injury and their families/caregivers; link the state-funded brain injury providers to other community resources through electronic referrals; embed a brain injury screener within Virginia Easy Access to link individuals who may have had a brain injury to follow up services.
Brain Injury Association of Virginia (BIAV) \$20,000 per year over three years. Draws down a total of \$60,000 through the 2021-2026 Virginia TBI grant	Create educational materials about brain injury for mental health and substance use disorder professionals in community and facility-based programs; develop and promote caregiver resources for family members of people living with brain injury including two new support groups for caregivers in unserved areas.

COVID-19 IMPACT

Due to COVID-19 related restrictions interfering with CNI Trust Fund Program grantee activities, all active grantees were allowed a no-cost six (6) month extension. These extensions were voted on and approved by the CNI Advisory Board during the September 18, 2020 Board meeting. This allowed each research grantee an extension to complete their work between November 1, 2021 and May 30, 2022.

FINANCIAL STATUS

The CNI Trust Fund receives revenue from DMV fees to reinstate a license after it has been suspended, revoked, or disqualified.

For the three-year reporting period SFY21 – SFY23:

- \$2,202,872 was transferred into the Trust from DMV
- \$2,261,825 was paid to active grantees

<u>Expenses</u>	2021	2022	2023	Total
Grants	\$ 726,490	\$ 541,322	\$ 994,013	\$ 2,261,825
DARS Admin	\$ 33,702	\$ 39,694	\$ 51,380	\$ 124,776
DMV Admin	\$ 0	\$ 0	\$ 9,057	\$ 9,057
Total	\$ 760,192	\$ 581,016	\$ 1,054,450	\$ 2,395,658
<u>Revenue</u>	-	-	-	-
DMV Fees	\$ 728,689	\$ 757,278	\$ 716,905	\$ 2,202,872
Interest	\$ 18,847	\$ 5,824	\$ 56,627	\$ 81,298
Total	\$ 747,536	\$ 763,102	\$ 773,532	\$ 2,284,170

NOTE: This includes only current year revenue and expenses and does not include the principal in the trust. The purpose of the trust is to create a reserve to allow for consistent funding of CNI projects regardless of DMV fees.

At the end of SFY23, the balance in the trust was \$3,040,449. In SFY24 CNI anticipates funding \$686,212 in current grants and awarding up to \$300,000 in new grant awards.

PROGRAM ADVANCEMENT

- In SFY 2023 the CNI Trust Fund Advisory Board reviewed current spending and six-year projected expenditures to assess opportunities to increase the number of grants awarded. Using these projections, the CNI Program Specialist developed a grant schedule which was approved by the CNI Trust Fund Advisory Board at their March 17, 2023 meeting. The Advisory Board plans to make up to 10 grants between SFY 2024 and 2027 equaling an approximate maximum of \$4,500,000.
- Noting an increase in newer applicants with less experience in grant writing, but with interesting proposals, program staff began holding feedback sessions for applicants who were not awarded grants. The goal is that they will reapply in the future with more successful proposals. The first general Information Feedback Session was held on March 3, 2023, followed by several individual sessions.
- At the March 17, 2023 Advisory Board Meeting, the Advisory Board agreed to release a Request for Applications (RFA) in the fall of 2023. This RFA will allow either Research or Services proposals, with priority given to applications that include services or translational research that address health equity for individuals with spinal cord injury, traumatic brain injury, or both.
 - Health equity proposals must focus on disparities in health and its determinants that adversely affect individuals with spinal cord or traumatic brain injury. Obstacles may include economic level, gender equity, race, ethnicity, disability, and social determinants of health including lack of access to good jobs with fair pay, quality education, housing, safe environments, transportation, and health care.
 - Translational research is defined, for the purpose of this RFA, as research that seeks to produce more meaningful, applicable results that directly benefit human health and move discoveries into community-based practice and improve health and wellness outcomes.

PRESENTATIONS TO THE CNI TRUST FUND ADVISORY BOARD

During the reporting period, the CNI Trust Fund Advisory Board heard presentations from grantees as well as Virginia-based subject matter experts on brain injury.

Date	Grantee	Presentation
12/3/2021	Christine Groah and Stephanie Lau, VCU Rehabilitation Research and Training Center	Project Update: "Project Achieve"
12/3/2021	Sara Link, DARS	Project Introduction: <i>No Wrong Door</i> - information about the project as part of the Federal TBI grant.
3/11/2022	Cindy Noftsinger, Executive Director Brain Injury Connections of the Shenandoah Valley	Final Report: "Looking Out for Little Brains- Comprehensive Pediatric Case Management"
3/11/2022	Amol Karmarkar, Professor VCU	Project Update: "Transitions and Disparities in Care and Outcomes for Neurotrauma"
3/11/2022	Caitlyn Berry, Health & Wellness Outcomes Manager, Sportable	Request: Modify project activities. Sportable found a curriculum that met the needs of their project and therefore did not need to develop a curriculum of their own
03/17/2023	Dr. Stephanie Lau, Transition Training Associate, VCU	Final Report: "Project Achieve"
06/16/2023	Noel Anderson, Certified Music Therapist, Anderson Music Therapy Services (AMTS)	Project Overview: "Music Therapy for TBI & SCI Survivors"

PRODUCTS DEVELOPED FROM CNI FUNDED GRANTS

Virginia Commonwealth University,
Principal Investigator: Zina Trost, PhD
"Virginia Spinal Cord Injury Outreach and Services Clearinghouse"

As a result of this study and grant a website was created that serves as a Virginia spinal cord injury outreach and services database. <https://vasci.org/>

GRANTEE SUCCESS STORIES

Virginia Commonwealth University
"Project Achieve"

The purpose of the project was to provide specialized services to assist women with traumatic brain injury (TBI) and/or spinal cord injury (SCI) who are pursuing post-secondary education or training. A total of seventeen students enrolled: 13 TBI, 2 SCI, 2 TBI/SCI.

Feedback from Participants:

- "Very appreciative of check-ins, and maintain momentum on larger projects. The tools (strategies and apps) were helpful. Many of these I never knew existed. This made me more comfortable seeking out additional services and supports. It made me realize that there were services out there for my situation that I never knew about. Made me feel and realize that I wasn't alone--this made a huge difference to me emotionally. I used to think I was just different or alone. I have grown a lot in one semester and feel like I am a better student now."
- "Project Achieve has definitely help improve my quality of life and enhanced my confidence in myself working towards my Master's degree in Social Work. My first semester prior to enrolling in the project, I was struggling and was considering dropping out of the program because of the challenges I faced with memory, organization, and time management. Once I was enrolled in Project Achieve, my support grew as well as resource availability and my knowledge/awareness of how to address challenges in my program with being connected with my case manager and working with the SAEI for support. I had a great experience and I wish the project was extended until I complete my program next year. Thank you for your support and help building my confidence with technology and academically."

Sportable

“Developing and Testing the Efficacy of Targeted Wellness Training in Children and Adults with SCI, TBI and other Trauma-related Disability Participating in a Recreational Sports Program” (MENTOR Cohort)

By: Ricky Jones

I’m pedaling down a scenic trail, feeling the wind on my face, and experiencing a sense of freedom I haven’t felt in years. A decade ago, I didn’t think this would be possible again after a tractor-trailer accident nearly took my life. I’m still dealing with multiple injuries including head trauma, chronic pain, and navigating life with a prosthetic leg and wheelchair. And I wasn’t ready to give adaptive sports a try. Until last summer.

Discovering Sportable was a game-changer.

Before my accident, I enjoyed cycling, so I decided to try Sportable’s cycling program. I hadn’t had any experience with accessible equipment before. Sportable had a variety of bikes and I was fitted with a hand cycle that met MY needs. The people out there were really helpful. Once I found the right cycle, I tackled the Capital Trail at self-propelled speeds I hadn’t experienced in years. I was hooked. Each session I got better and my endurance increased. In spite of my challenges, I found ways to push myself. I asked myself ‘what’s next?’

My grandson is my shadow. He tags along with me when I volunteer at Sportable Spokes practice. It was never my plan but I think I’ve become somewhat of a role model for them. They all want to shoot the basketball. When they get frustrated, whether it’s basketball or life in general, I tell them, ‘Shoot for the moon. Even if you miss, you’ll be among the stars!’

I’ve also recently gotten involved with rowing and just competed in my first-ever para competition – the Erg Sprints 2023 in Alexandria. I brought the gold medal for the PR3 Masters 1000 Meter home to my grandson.

I’ve enjoyed so many new sports with Sportable but it’s the MENTOR program that really taught me so much. It’s an 8-week virtual wellness program for people with mobility limitations. I’ve tried virtual things in the past... it didn’t work out. This is a comfortable pace and it works! The instructors are there with you, explaining and showing. The passion they have for what they are doing and how they relate to the participants—you can feel the care and sincerity with what they’re doing.

I learned so much about exercise, nutrition, and breathing. I’ve been trying to implement the breathing exercises when I am at the YMCA and when I’m erging with Sportable. The breathing exercises have really helped with endurance. I don’t get winded the way I used to. This program has connected me to a community of people I didn’t know existed. I’ve made some great friendships with people who have a shared experience. I’ve lost 50 pounds. I’m spending less time using my wheelchair and more time walking with my cane.

An injury is never expected... the will to get better and the will to live is still there. It is a continuous climb, but you keep going. I’m not out of the woods, but it’s all about how it is managed. When I’m up, I take advantage of the moments and opportunities—and a lot of that is because of Sportable.

APPENDIX – CNI ADVISORY BOARD MEMBERS FY23

David X. Cifu, MD, Chair Person licensed to practice medicine in Virginia experienced with brain or spinal cord injury	Richmond, VA	July 2020 – June 2024 (2 nd Term)
Raighne "Renny" Delaney, Esq Virginian with traumatic brain injury or a caretaker thereof	Arlington, VA	July 2020 – June 2024 (2 nd Term)
Richard Bagby Virginian with traumatic spinal cord injury or a caretaker thereof	Richmond, VA	July 2021 – June 2025 (1 st Term)
David Reid, Psy.D Person licensed by a health regulatory board within the Department of Health Professions with experience in brain or spinal cord injury rehabilitative programs or services	Charlottesville, VA	July 2021 – June 2025 (2 nd Term)
Josh Sloan Citizen-at-large who shall not be an elected or appointed public official	Richmond, VA	July 2021 – June 2025 (1 st Term)
Kathryn Hayfield, Commissioner Virginia Department for Aging and Rehabilitative Services	Henrico, VA	Ex-officio
Heather Board, MPH Commissioner's Designee, Virginia Department of Health	Richmond, VA	Standing Member