



# North Carolina Center for Optimizing Military Performance™

Unifying, accelerating, and  
delivering innovations in  
military health and performance



To truly optimize military performance, you must look at the whole human to understand how physical, cognitive, and psychological health factors influence the overall well-being of Service members. And more than just understanding these factors, you must be able to put innovations related to these factors into practice.

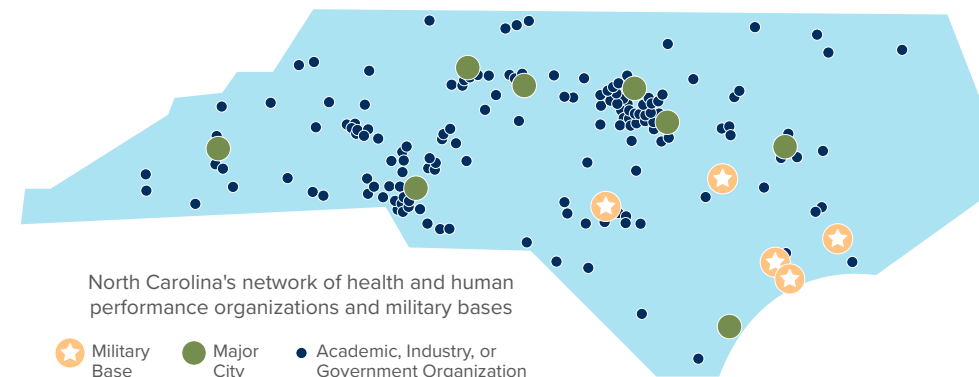
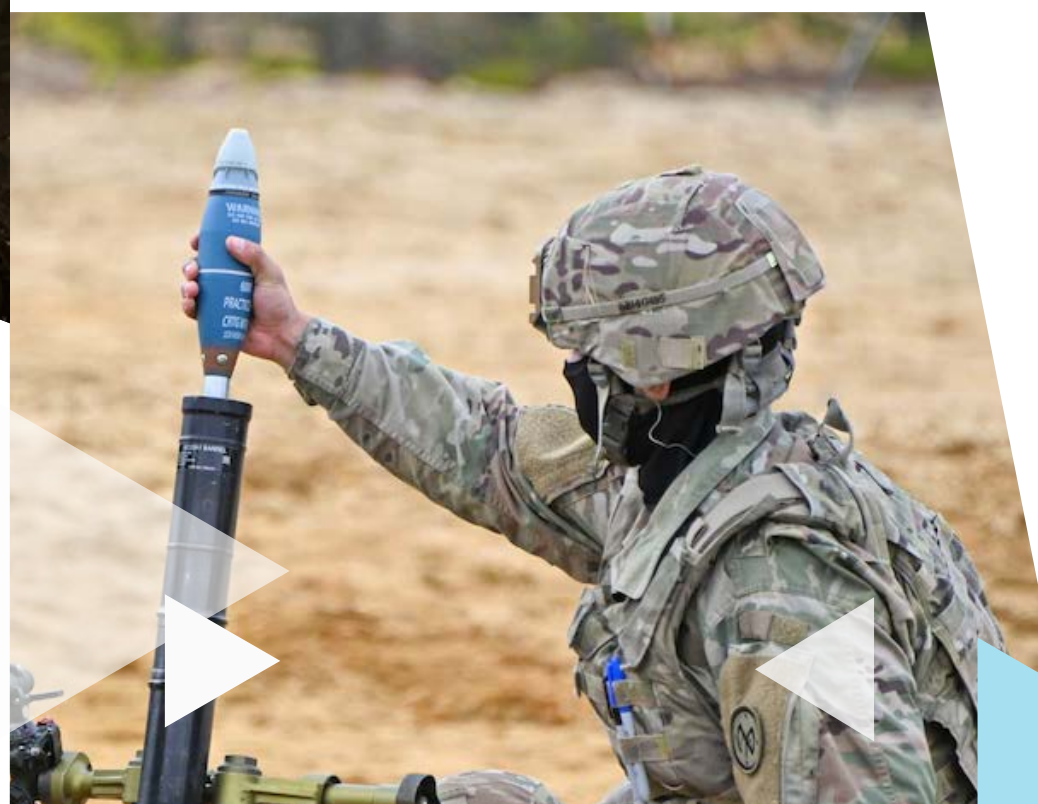
The North Carolina Center for Optimizing Military Performance (NC-COMP) is a trusted partner to Department of Defense (DoD) agencies. Utilizing our demonstrated successes, we serve as a centralized gateway for military partners to access cutting-edge research and technology development in human performance and influence efforts that result in capabilities for mission effectiveness.

## How We Support Service Members

NC-COMP relies on its expansive network of partners for research and development, facilitation of problem solving, and data-driven decision making. This approach allows for accelerated deployment of innovative solutions directly to Service members.

### NC-COMP Impact

- **Connective Tissue** – We link together expertise from world-class researchers, curriculum developers, trainers, and evaluators, as well as across sites and other DoD efforts.
- **Continuity** – Our team is involved from start to finish and has the historical knowledge even as military leaders/personnel rotate.
- **Capabilities** – Our comprehensive materials, industry knowledge, and research expertise allow for rapid, independent, and integrated delivery of capabilities and dynamic recommendations.



## Collaborations and Partnerships

The NC-COMP team comprises scientists, engineers, technologists, clinicians, and entrepreneurs.

### Founding Members

- **RTI International** has expertise in DoD consortium management, data collection and management, and research efforts in collaboration with DoD units and facilities—including Womack Army Medical Center.
- **The Fort Liberty Research Institute**, a program of The Geneva Foundation, partners with Combatant Commands and Womack Army Medical Center to support command-directed research for Service member readiness, resilience, treatment, and rehabilitation.
- **North Carolina Biotechnology Center** partners with North Carolina's life science companies, researchers, and military representatives to identify and develop novel technologies that protect Service members.
- **University of North Carolina System** partnership with USASOC and Army Research Office for more than 13 years, providing research and educational support through basic and applied research, student internships, engineering design projects, faculty subject matter expertise, and custom-designed educational programming.

### Defense Partners

Include the following:

- Womack Army Medical Center
- Warfighter Brain Health Program Management Office (WBH PMO)
- 18th Airborne Corps
- 82nd Airborne Division
- U.S. Army Special Operations Command (USASOC)

# NC-COMP Team

## Core Expertise

- Consortium management
- Intergrating teams and team building
- Technology scouting
- Concept of operations/employment (CONOPS/ CONEMP) development
- Sleep measurement and management
- Cognitive skill training (augmented-, virtual-, and mixed-reality gaming)
- Exercise science
- Mental fitness/resilience
- Microbiomes
- Nutrition
- Pharmaceuticals
- Epidemiology
- Nutraceuticals
- Genomics
- Kinesiology and biomechanics
- Physical and occupational therapy
- Strength and conditioning
- Wearables
- Energy harvesting
- Extreme environmental physiology
- Data science, artificial intelligence, and machine learning
- Data collection and management

## Key Resources

- Partnership to 16 UNC System schools, Duke University and Wake Forest University
- Extensive network of Biotech companies
- Proven relationships with operational and medical leaders at Ft Bragg and beyond
- Experience with DoD medical research and development funding organizations and mechanisms
- Remote test facility with 156,000 ft<sup>2</sup> of floor space and 50 acres of unrestricted airspace, validated parachute drop zones, and 2,000 acres of outdoor training space
- Hypobaric and hyperbaric chamber complex
- Protective clothing and smart materials test labs, including a dedicated wind tunnel aerosol exposure facility for full-scale aerosol challenge tests of military and first responder protective garments
- Manufacturing clusters with 600+ biotechnology and 600+ textile companies
- 10,000 ft<sup>2</sup> human performance facility focused on research-based human performance development

## Sample Outcomes

- Increased collaboration
- Reduced stovepipes
- Faster decision making
- More accurate decisions
- Increased cognitive abilities and capacities
- Increased mental resilience
- Increased power
- Increased speed
- Increased stamina
- Improved sleep
- Enhanced injury recovery
- Comprehensive rehabilitation
- Stress reduction
- Enhanced diving/altitude performance



*This is not an exhaustive list of NC-COMP partners. Contact us for more information on all partner teams.*

## Contact Us

Have a challenge we can help solve? Reach out to our team for more information or to discuss a partnership.

**Dennis McGurk, PhD, COL (Ret.)**  
RTI DoD STRATEGIC ACCOUNT EXECUTIVE

✉ [dmcgurk@rti.org](mailto:dmcgurk@rti.org)

☎ 919.541.7210

➡ [rti.org/NC-COMP](http://rti.org/NC-COMP)



**North Carolina Center for Optimizing Military Performance™**

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