

## **Short Professional Biography:**

**Cortnee Román, FNP-BC** is a board-certified Family Nurse Practitioner and Certified Multiple Sclerosis Nurse with over 15 years of neurology experience. She earned a Bachelor of Science in Nursing as well as a Master of Science in Nursing from Columbia University in the City of New York. She is completing a PhD in Biomedical Informatics at the University of Utah School of Medicine, focusing on clinical informatics for chronic disease management utilizing the latest advances in health management smartphone applications and digital testing platforms. She contributes to various clinical research projects as an investigator with Rocky Mountain MS Research Group, enhancing treatment options for patients with neurological conditions. She is a member of numerous professional organizations, including the International Organization of MS Nurses, the American Academy of Neurology, and the American Academy of Nurse Practitioners. She has authored multiple scientific publications and serves on the National MS Society's Mountain West Health Care Provider Council.

Since 2009, she has specialized in Multiple Sclerosis and other neuro-inflammatory diseases, blending the latest scientific advances with naturopathic, complementary, and alternative therapies to support whole-person care. She values working collaboratively to provide patient-centered care grounded in mutual trust. She is an institutional and national advocate for Nurse Practitioners and Physician's Associates as valued members of the healthcare team with unique and meaningful clinical and scientific insights.

## **Brief Description of Your Project:**

This project analyzes patient-generated data through a smartphone application, MS CareConnect. There is a vast knowledge gap about symptoms and disease progression between clinic visits. Better symptom tracking could help identify patients experiencing worsening disease activity, facilitate earlier intervention, and improve patient outcomes. Analysis and presentation of this information will help validate the use of digitized scales and performance metrics (testing such as timed 25-foot walk, Ishihara visual exams, and cognitive testing), symptom tracking, as well as validated survey data that is collected by patient driven platforms to reduce burden on clinical staff time and resources to gather this information. The main objective for this project is to structure and summarize the data and then apply clinical reasoning to help glean meaningful data points for current and future research endeavors.

This research will benefit patients by providing a free tool that gathers validated, structured, and aggregated data regarding their symptoms and experience between clinical visits to help inform their healthcare team more comprehensively. The smartphone application is free for patients to use and can give a visual representation of their symptoms to assist with pattern recognition and possibly identify triggering factors.

This research benefits clinicians by describing data to help inform clinicians and scientists of available and reliable methods and tools to gather real-world patient outcomes. This and other smartphone applications with clinician dashboards will help facilitate scientific inquiry into their clinical practice and participation in scientific presentations at congresses. This tool provides a free resource that they can recommend for structured data collection. Patients can send their information to their clinician's dashboard, which can be reviewed and analyzed individually or aggregated for all patients in that practice using the application. This could facilitate scientific participation by aggregating data at the practice level that would be ready for presentation as posters or presentations at scientific congresses or even journal article publications.