

Grant Summary: Early Mitochondrial-Based Occupational Therapy Interventions

Principal Investigator: Mindy Dunlevy, OTR/L (Owner, Park Play Therapy Incorporated)

Co-Investigator & Advocate: Heather Hignite, OTR/L

This pilot project evaluates the impact of combining red light therapy, deuterium-depleted water, soil-based OT protocols, sound therapy, and blue light minimization as an early intervention for infants at risk of autism spectrum disorder. Twenty infants (12–18 months) will be randomized into intervention and control groups in a crossover design. Outcomes will be assessed with biomarker testing and standardized developmental measures. This research builds upon findings from mitochondrial dysfunction studies, photobiomodulation, and sensory-based occupational therapy protocols.