Presented by Eydie Kendall, PT, PhD, PCS

New advances in genetics/genomics and epigenetics/epigenomics have had a bigger transformative effect on healthcare delivery than any other basic science over the past two decades. From the completion of the Human Genome Project to development of pharmacogenetics, precision medicine, and CRISPER-CAS 9, real advances for genetic diseases are here or on the horizon. Since the addition of genetics to the entry-level educational requirements for Doctors of Physical Therapy in 2016, the role and scope of our profession is still being defined. This course provides a review of basic background in genetic concepts, updates on current genetic-based medical interventions, implications for clinical practice with emphasis on pediatrics, and the opportunity to explore PT's role in the implementation of genetics-informed healthcare.

Objectives:

- Describe the recent advances in genetic and epigenetic understanding with respect to movement and disability
- Define some of the major concepts that determine translation from genetic mutation to clinical manifestation
- Apply knowledge of genetics and epigenetics to current clinical practice in pediatrics and other patient populations
- Discuss implications of genetics-based prescriptive healthcare interventions on prognosis and dosage
- Explore the role pf physical therapy within the healthcare team for patients with genetic syndromes and conditions

Eydie Kendall is a faculty member with the Doctor of Physical Therapy Program at Plymouth State University. She currently teaches genetic content in two courses, from an organismal adaptation perspective as well as clinically oriented pediatric interventions. She has taught genetics to students in a variety of healthcare, nursing, and rehabilitation programs, for over twenty years. She is a certified clinical specialist in pediatrics and has extensive intervention experience with children with pathologies of genetic etiology.

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