
CDKL5 Program of Excellence 2024 Pilot Grant Program

Project Title: “Profiling CDKL5 signaling landscape at the synapses”

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The devastating disease CDKL5 Deficiency Disorder (CDD) is linked to loss-of-function mutations in a protein kinase called CDKL5. Unfortunately, it has remained largely unclear about the function and network CDKL5 is involved and the molecular mechanism by which loss of CDKL5 function leads to CDD. The goal of this proposal is to advance our understanding of CDKL5 function and enable efficient therapeutic development by applying state-of-the-art systems biology technologies to profile CDKL5-modulated signaling pathways, identify important interacting partners at the neuron synapse, and to provide novel molecular targets for drug development.