

Abstract Submitted
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A Cable Equation Model of Electrical Signal Transmission in Non-uniformly Deformed Nerve Cells¹ EMILY HENDRYX, Angelo State University — In order for the human body to function, neurons must be able to properly transmit electrical signals. One method of modeling this voltage flow is through the cable equation. Assuming that an aneurysm or tumor is present, we modify the cable equation to account for radially asymmetric deformation of a dendrite. Through this modification, we hope to improve our current understanding of overall brain function in the presence of neuronal deformation.

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