

Gene guiding retinal development is found

by UPI

MEMPHIS - U.S. medical scientists have identified the gene that's responsible for retinal development. St. Jude Children's Research Hospital investigators said their genetic discovery helps answer a long-standing question about the eyes of vertebrates, and might translate into a deeper understanding of how genes coordinate the complex process of eye formation and how a rare pediatric eye cancer progresses. Working with mice, the researchers found a gene called N-myc coordinates the growth of the retina and other eye structures. Until their study, the researchers said nearly nothing was known about the molecular mechanisms responsible for properly sizing the retina. "This represents the first example of a role for a Myc gene in retinal development," Michael Dyer, the study's first author, said. "On the basis of our data, we propose that N-myc plays a central role in coordinating retinal proliferation with eye growth during development." The scientists said Myc genes are also proto-oncogenes -- genes in which a mutation enables them to transform normal cells into cancerous ones. Malfunctioning N-myc genes are often associated with pediatric neural cancers, including neuroblastoma, medulloblastoma and retinoblastoma. The research is detailed in the journal *Genes & Development*.

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