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A population of G2-arrested cells are selected as sensory organ precursors for the interommatidial bristles of the *Drosophila* eye

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ABSTRACT

Cell cycle progression and differentiation are highly coordinated during the development of multicellular organisms. The mechanisms by which these processes are coordinated and how their coordination contributes to normal development are not fully understood. Here, we determine the developmental fate of a population of precursor cells in the developing *Drosophila melanogaster* retina that arrest in G2 phase of the cell cycle and investigate whether cell cycle phase-specific arrest influences the fate of these cells. We demonstrate that retinal precursor cells that arrest in G2 during larval development are selected as sensory organ precursors (SOPs) during pupal development and undergo two cell divisions to generate the four-cell interommatidial mechanosensory

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