Supporting Online Material for

*Dm*SAS is required for sialic acid biosynthesis in cultured *Drosophila* third instar larvae *CNS* neurons

Annelise E. von Bergen Granell[*], Karen B. Palter[+], Ihan Akan[+], Udayanath Aich[⊥], Kevin J. Yarema[⊥], Michael J. Betenbaugh[#], William B. Thornhill[ϕ] and Esperanza Recio-Pinto[*,ω]

[*]Department of Anesthesiology, New York University Langone Medical Center, NY, NY 10016

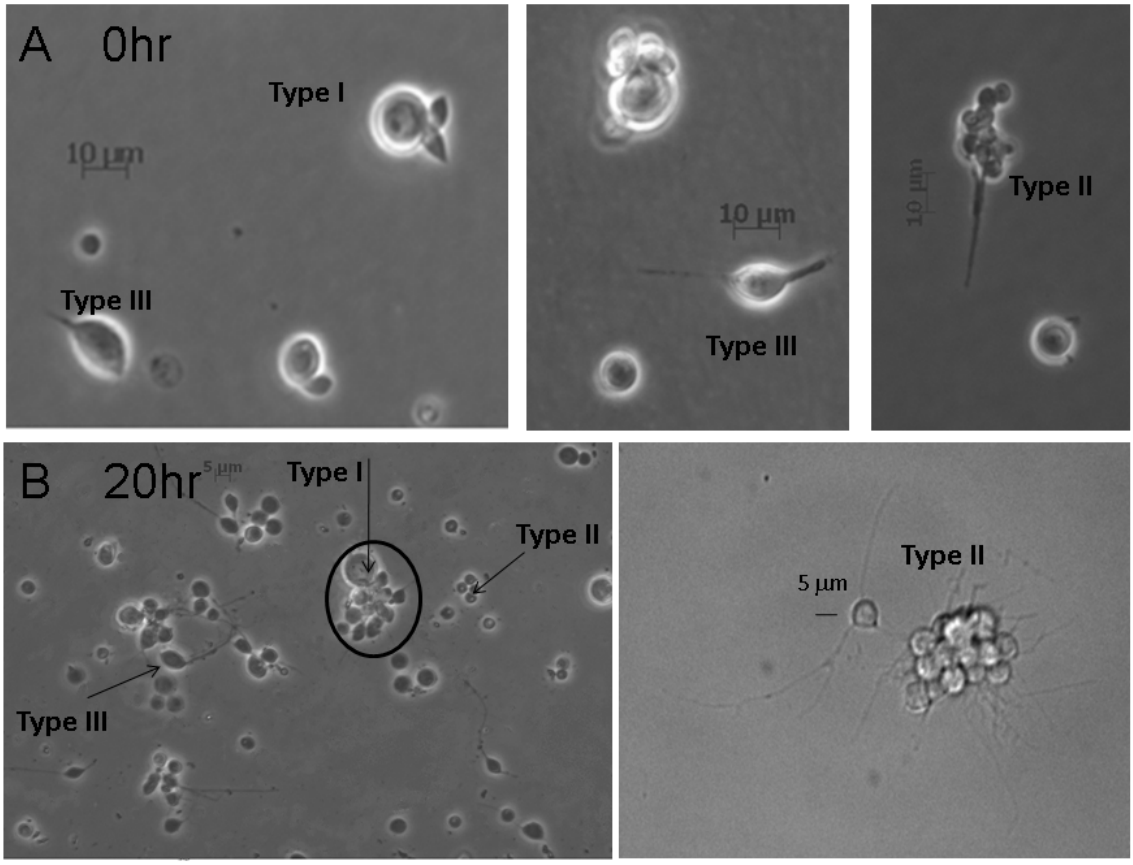
[+]Department of Biology, Temple University, Philadelphia, Pennsylvania 19122

[⊥]Department of Biomedical Engineering, The Johns Hopkins University, Baltimore, MD 21218

[#]Department of Chemical and Biomolecular Engineering, The Johns Hopkins University, Baltimore, MD 21218

[ϕ]Department of Biological Sciences, Fordham University, Bronx, NY 10458

[ω]Department of Pharmacology, New York University Langone Medical Center, NY, NY 10016



Supplemental Figure S1: Neuronal cultures. Light microscopy pictures of live cultures from dissociated third instar larvae CNS (1.25CNS/coverslip) cultured in serum-containing medium (40x objective). (A) Freshly dissociated CNS cells (< 1h) in which we can identify the 3 types of cells that have been previously described(*1*). Type I, or Neuroblast-like, with a diameter of ≥8µm, and we confirmed that these cells undergo asymmetrical division (data not shown). Type II, which are small cells (2-3µm diameter) and usually display processes following dissociation. And Type III, oval or spindled-shaped cells (4-10µm diameter), with thick and short processes. (B) After 20 h, cultures show that most of the type II and type III cells displayed neuritic outgrowth that continue to extend and branch with time.

1. Wu, C. F., Suzuki, N., and Poo, M. M. (1983) Dissociated neurons from normal and mutant Drosophila larval central nervous system in cell culture, *J Neurosci 3*, 1888-1899.