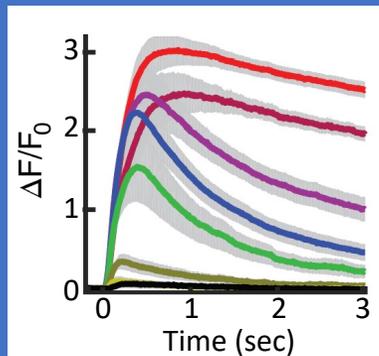


How is information processed in neuronal networks to drive behavior?

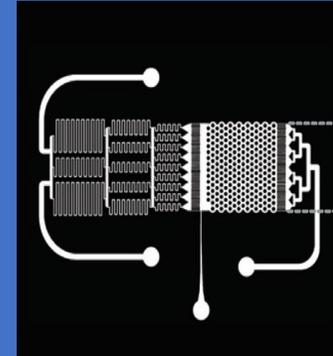
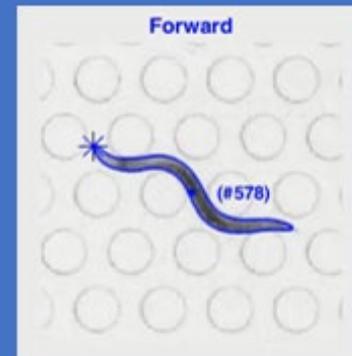
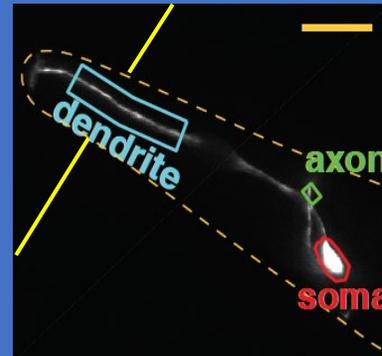
In the **Levy lab**, we use *C. elegans* nematodes to study the **molecular, physiological and computational aspects of sensation, decision making, learning and memory**. We use **multidisciplinary approaches** and techniques, including molecular and cellular biology, behavioral neuroscience, systems biology, computational biology, microscopy, microfluidics engineering and optogenetics.



$$I_F(t) \equiv - \int_{-\infty}^t dt' \exp\left(-\frac{t-t'}{\tau}\right) \frac{dF(c(t'))}{dt'}$$
$$T(t) = - \int_{-\infty}^t dt' \exp\left(-\frac{t-t'}{\tau}\right) \frac{dF(c(t'))}{dt'} + F(C(t))$$
$$T(t) = I_F(t) + F(C(t))$$

Activation threshold: $I_F(t) > C(t) - F(C(t))$

$$F(C) = K \left(1 - \exp\left(-\frac{C}{K}\right)\right)$$



We are recruiting motivated MSc and PhD students with background in biology, exact sciences or engineering

Contact us: **Sagi Levy**, Faculty of Biology,
Technion- Israel Institute of Technology
<https://sagilevy.net.technion.ac.il/>

levysagi@technion.ac.il

