High-throughput measurement of gut transit time using larval zebrafish

*Transcript for animated figure (JOVE\_FINAL\_SCASSAR)*

* 0:00 to 0:10
  + On the day of the assay, larvae are fed food containing a fluorescent label. And as they eat that food, the label will accumulate in their gut.
* 0:11 to 0:20
  + After feeding, they are washed away from the food, and each larva is transferred into a well of a multi-well plate.
* 0:21 to 0:30
  + The well has a conical bottom to it, so that when fecal matter is voided, it falls to the center of the well.
* 0:31 to 0:40
  + Now remember, there are many larvae in the multi-well plate that can be monitored simultaneously using a plate spectrophotometer,
* 0:41 to 0:50
  + , which measures the amount of voided fecal matter, and as more is voided over time, the signal increases accordingly.
* 0:50 to 1:00
  + In this way, we have a high-throughput method for measuring gut transit.