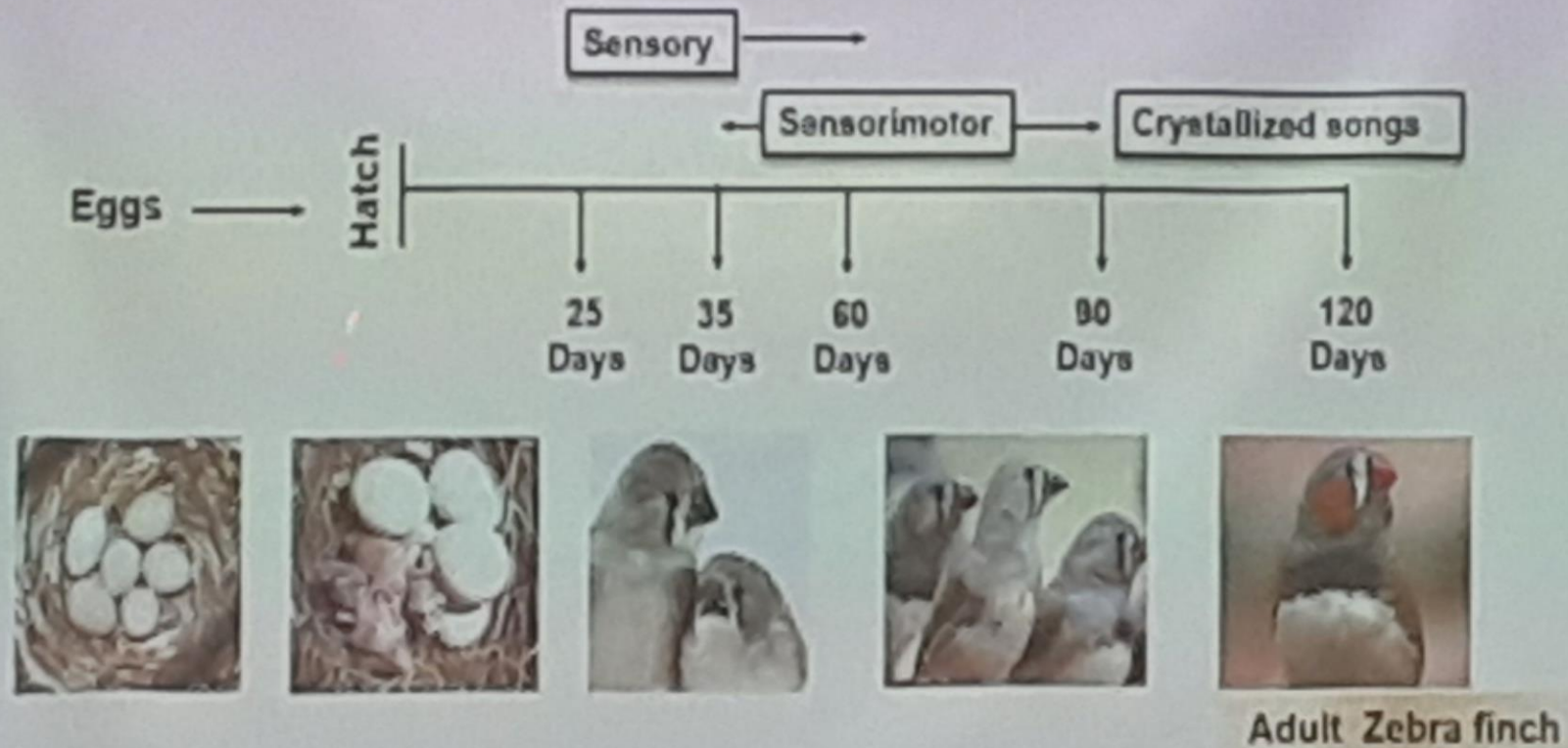


On June 12, 2023, **Dr. Sonika Charak**, RA II, presented her annual work seminar



Phases of Vocal Learning in Zebra finches





AIMS

1. To study the effects of antibiotics on learned vocalizations on male zebra finches using metabolomics and 16SrRNA sequencing.
2. To study the effect of antibiotic-induced microbiome depletion on vocal learning, social interaction and behaviour.
3. To study neuroanatomical changes in terms of neurogenesis and synaptogenesis following microbiome depletion in zebra finches.



Song Learning and Human Language Acquisition



Tutor

- Natural vocal learners
- Well defined Neural Circuit
- Behavioral Flexibility
- Sequenced Genome
- Comparative Approach
- Translational Approach

In both songbirds and humans, vocal learning

occurs during a sensitive period of development, and is influenced by both genetic and environmental factors.

• Requires specialized brain circuitry

• Requires specialized brain circuitry dedicated to the development and production of newly acquired vocalizations

Song Circuit



Human circuit



Parahit, S. Current Science 103: 1035 (2012)