

**Vimala College (Autonomous)  
Thrissur**



**PG Department of Zoology**

**Standard Operating Procedure  
For  
BSc Zoology Practical**

**Funded by**

**DBT STAR College Scheme  
Department of Biotechnology  
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**June 2023**

Purchased item	Practical Core course title and code	Practical performed	SOP
Binocular compound microscope with inbuilt LED light	Core course practical- II: VZO6BPL2- Cell Biology and genetics	Giant chromosome study in the salivary gland of <i>Drosophila</i>	<p>Polytene chromosomes from <i>Drosophila</i> larval salivary glands have an unusually large size (visible under a typical cell-culture microscope). This is due to altered cell cycle processes that result in ~1,000 copies of each chromosome that do not segregate from each other</p> <p>SOP</p> <ol style="list-style-type: none"> <li>1. Dissect the salivary gland of the third instar in physiological saline.</li> <li>2. Place it in 1N HCl for 2–3 min.</li> <li>3. Transfer it to 2% Lacto Aceto orcein stain for 30 min.</li> <li>4. Squash it with freshly prepared 45% acetic acid.</li> <li>5. Seal the edges of cover slips with nail polish or wax.</li> </ol> <p>Observe under the microscope for polytene chromosome.</p>