**Please choose your subject and report your choice by October 15. Max 3 students for each subject.**

**Feel free to suggest other subjects of interest**

**RESEARCH ASSAYS SUBJECTS**

1. In vivo Ca2+ measurements  **­**
2. Intracellular organelles as Ca2+ homeostasis regulators: focus on mitochondria
3. Mechanosensitive channels: new data
4. New advancements in Ca2+ fluorescence indicators
5. Application of Atomic Force Microscopy in life science
6. Optogenetics technique in life science
7. Chemogenetic technique in life science
8. Intracellular channels
9. Role of TRP channels in cell physiology: focus on one particular aspect such as: Cell migration; Cell proliferation; Sensory perception
10. Hodgkin and Huxley mathematical model
11. ER-mitochondria interactions: physiological role
12. Non pore function of ion channels
13. Voltage gated channels in non excitable cells
14. Photodynamic therapy: physical and molecular mechanisms
15. Mechanical forces and their role in cell behavior