

# BioMolecular Imaging Poznań

Faculty of Biology, Adam Mickiewicz University

Dr Anna Kasprowicz

Prof. Przemysław Wojtaszek

Department of Molecular and Cellular Biology

# Laboratory of Electron and Confocal Microscopy



## 1. Examination of samples with:

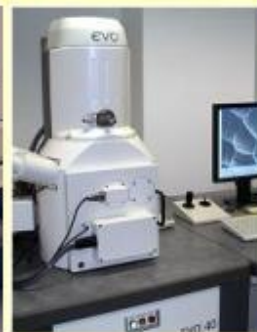
- ✓ transmission electron microscope
- ✓ extended variable pressure scanning electron microscope
- ✓ confocal laser scanning microscope
- ✓ stereomicroscope (with fluorescence and 3D analysis)

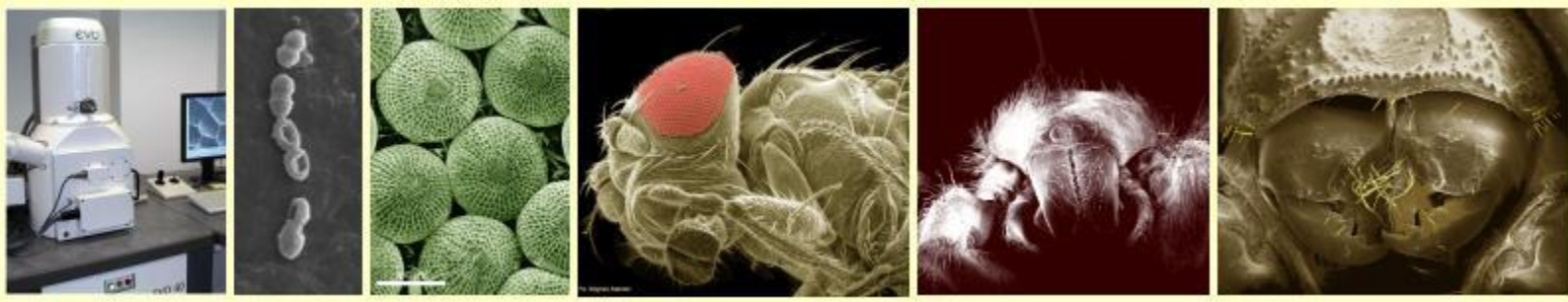
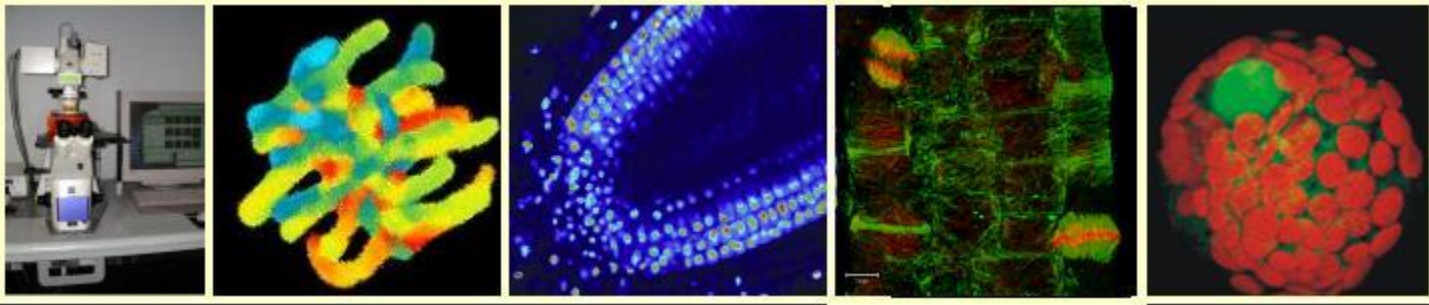
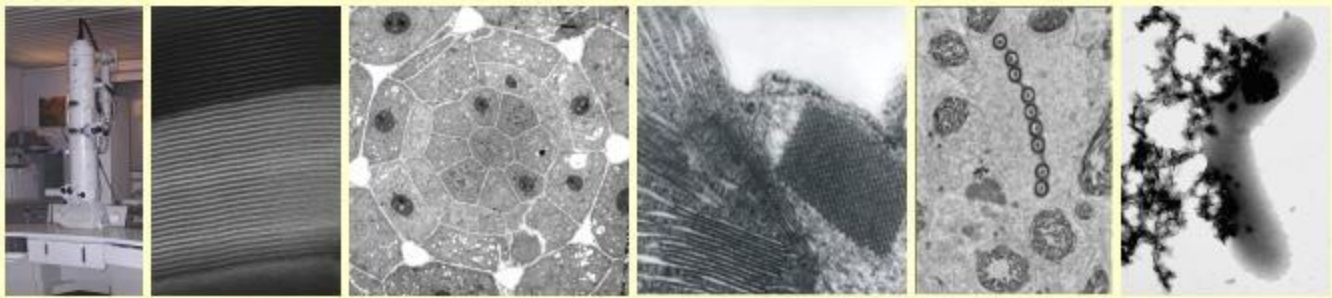
## 2. Cutting of ultra-thin sections, cryosectioning

## 3. Critical point drying

## 4. Sputter coating

## 5. Negative staining





# Microscopical Laboratory

## Institute of Molecular Biology and Biotechnology

---



Department of Molecular and Cellular Biology

Confocal system Nikon A1R-SI:

- ✓ 7 laser lines
- ✓ 2 scanning heads
- ✓ TIRF

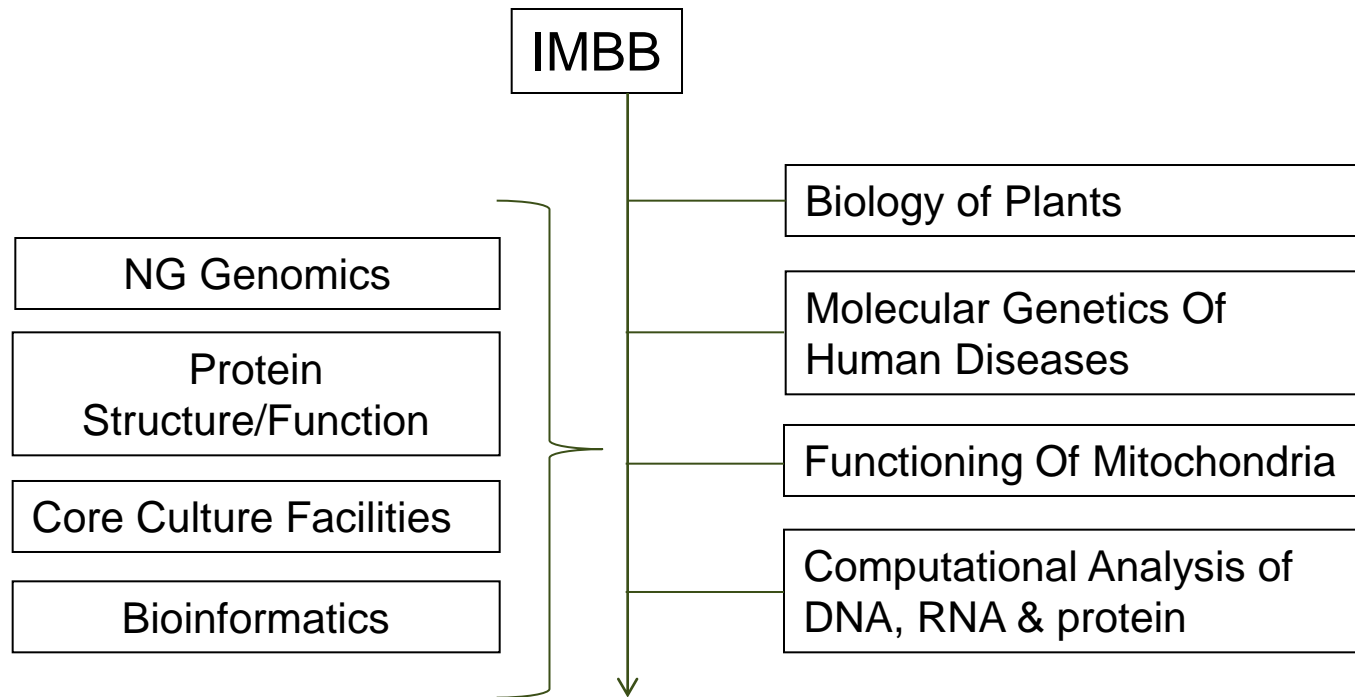


Lifetime and FCS system  
from PicoQuant



# IMBB future goal

---



Centre of Translational Genomics  
in Agriculture and Medicine

---



# Present and future directions

---

## ▶ Present:

- ▶ Utilization of imaging techniques for the digitalisation of natural collections – 3D scanning platform
  - ▶ Macroscopic with confocal head

## ▶ Future:

- ▶ Expansion of microscopic platform at the Faculty:
  - ▶ Confocal system with Raman spectroscopy
  - ▶ AFM + optical tweezers combined with confocal system
  - ▶ Cryoelectron tomography
  - ▶ Superresolution

