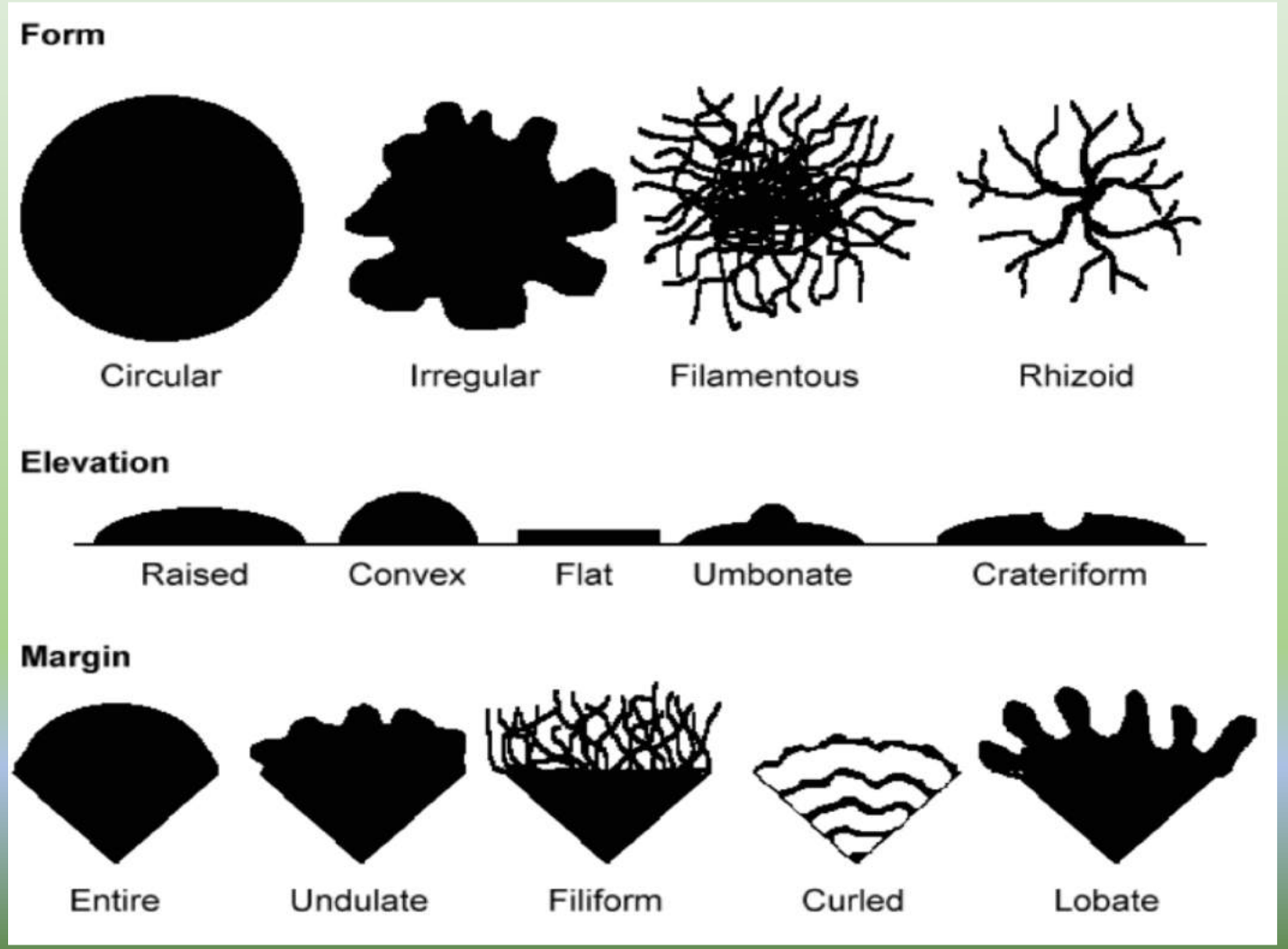
Detection of Fungi

Lab 8

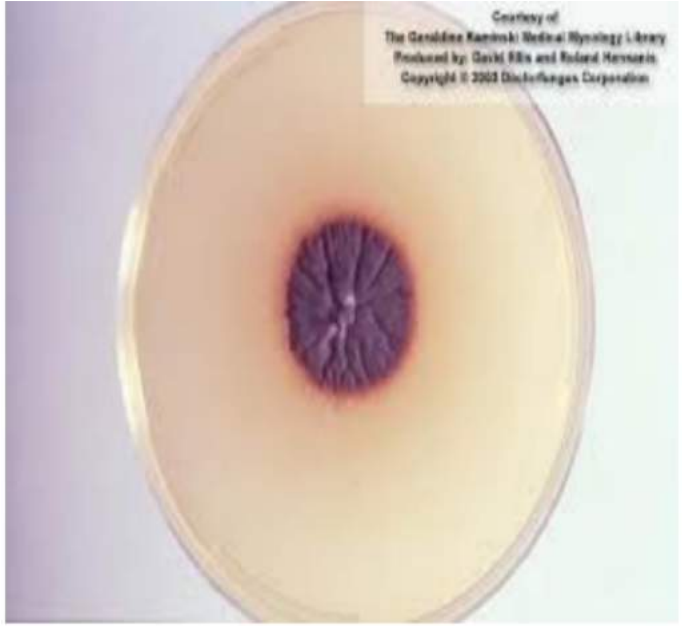
Colony Morphology (macroscopic features):

- **Surface topography** - some fungal colonies may be free growing, covering the entire surface of agar; others may grow in a restricted manner.
- **Surface texture** - cottony or wooly (floccose), granular, chalky, velvety, powdery, silky, glabrous (smooth, creamy), or waxy.
- **Pigmentation** - Fungi may be colorless or brightly colored. Color may be on fungus itself, on its sporulating apparatus, on the agar, or on the bottom of the colony (reverse pigmentation).

Colony Morphology (macroscopic features):



Granular/powdery



Wrinlkled

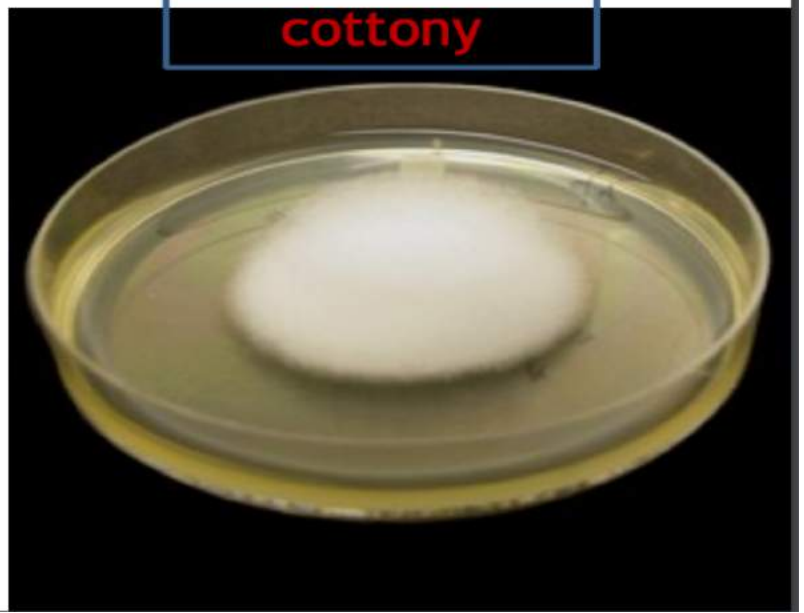
velvety

wolly

mucoid

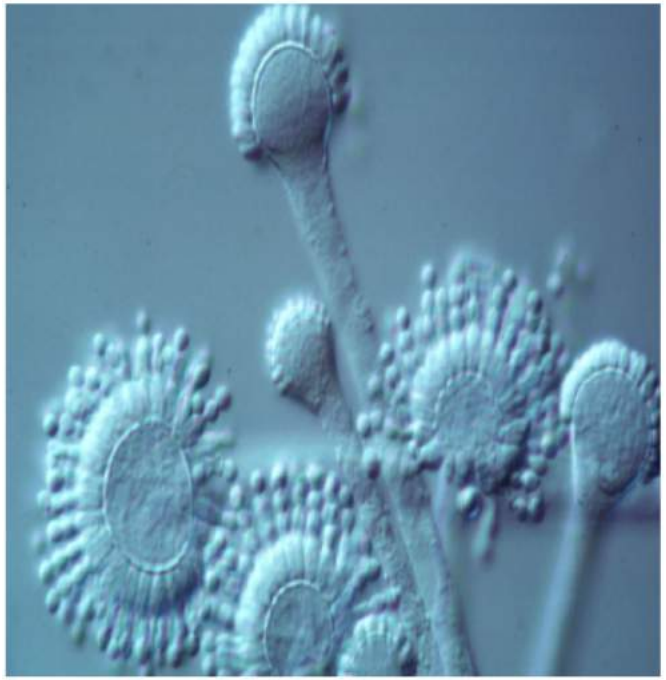
Fig. 3 : Candida Colonies

cottony

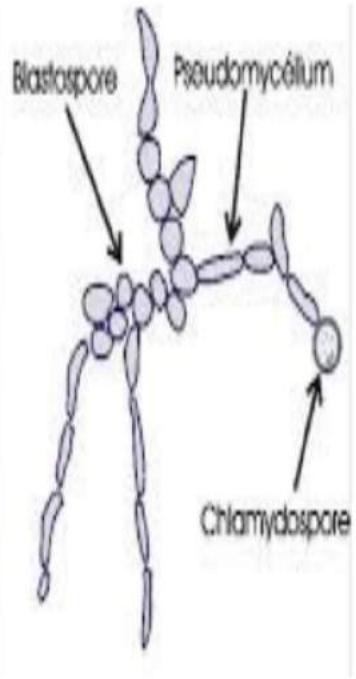


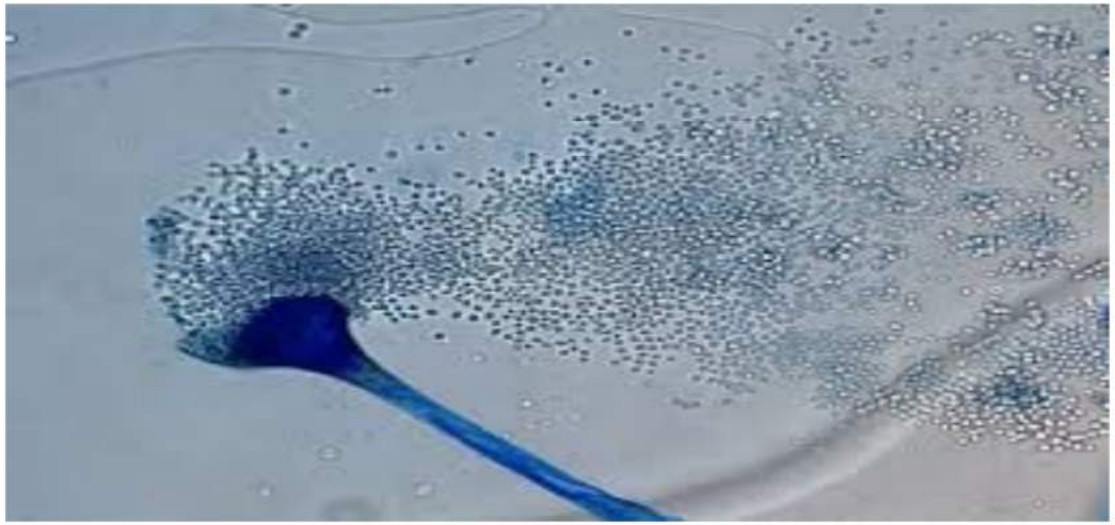
Microscopic observation

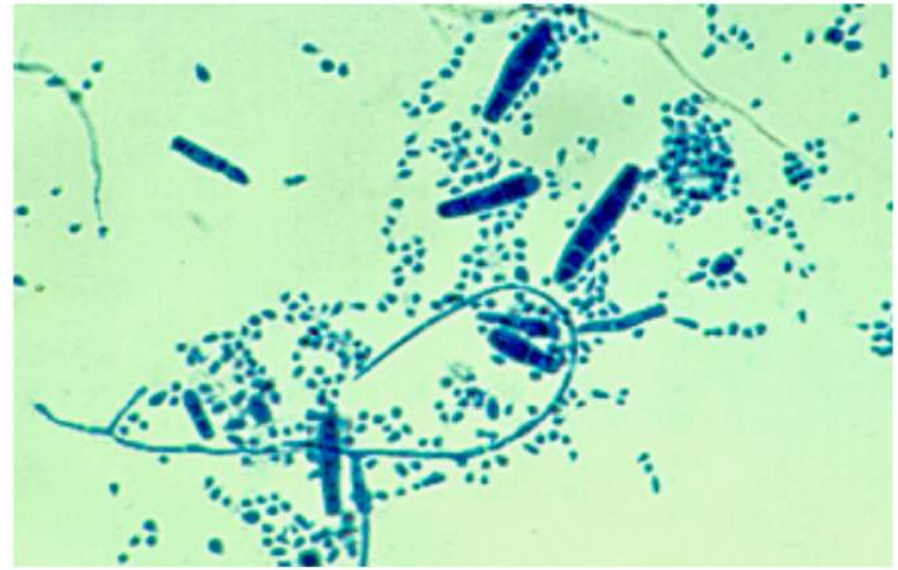
- Mycelium- Mold/yeast
- Hyphae – coenocytic/septate
- Asexual reproduction.-vegetative spores/ aerial spores or both
- Spores/conidia
- Blastospore, chlamydospores, arthospores, Macroconidia ,microconidia
- Colour of the hyphae




R. Mareda - Lycée Docteur Lacaux - Narbonne


Blastospore
Pseudomycélium
Chlamydospore





Method

Label	Under aseptic conditions, label the needed clean slides.
Add	Add a drop of water on the slide .
Transfer	By a sterile needle and a sterile forceps, transfer a part of the mycelium (along with its sporangium or spores) to the surface of the slide and mix it together with the stain drop.
Press	Press a cover on the top of the sample.
Examine	Examine the prepared silde under the microscope using the lower power (4x – 10x) then high power 40x.
Determine	Try to determine the type of mycelium (Sepetation and Branching) and the type of spores.
Draw	Draw a sketch of the microscopic field that identify your sample.

- https://www.youtube.com/watch?v=V3oALsDK8FY
- https://www.youtube.com/watch?v=OMIF1Elr9i4