

Salahaddin university

Dr. Sarween O. Taha

PHD. Molecular microbiology

Lab 6

soil microbiology practical

second stage/Environmental science

Isolation and Identification of Fungi



What are Fungi

- One of the 6 kingdoms
- Eukaryotes
- Cell Walls of chitin
- Heterotrophs
- Decomposers & Parasites
- Reproduce with spores sexually and asexually
- Multicellular except for unicellular yeast cells
- Grow in moist, warm places.



1. Air- borne fungi

- As we know fungi are present in air in spore shape but sometimes we find hyphae in air.
- The mainly **function** of spores is conserve of species and distribution.

2. Soil Fungi

- There are many techniques for studying soil fungi and the chose of method are based on the aim of studying.
- To collect the sample you must take 10- 15 cm of soil approximately 50- 100 gm by clean trowel then store the sample in clean bag.

=

Sub culturing

- make a subculture from old colonies of fungi as follows:
 - Obtain a metal loop or needle and flame it until it turns red hot.
 - Wait for about 10 seconds for the loop or needle to cool down.
 - Using the loop or needle according to which you will transfer, remove an isolated colony of fungi.
 - Aseptically transfer the cell colony into the nutrient media.
 - Incubate the plate at room temperature for the next week.

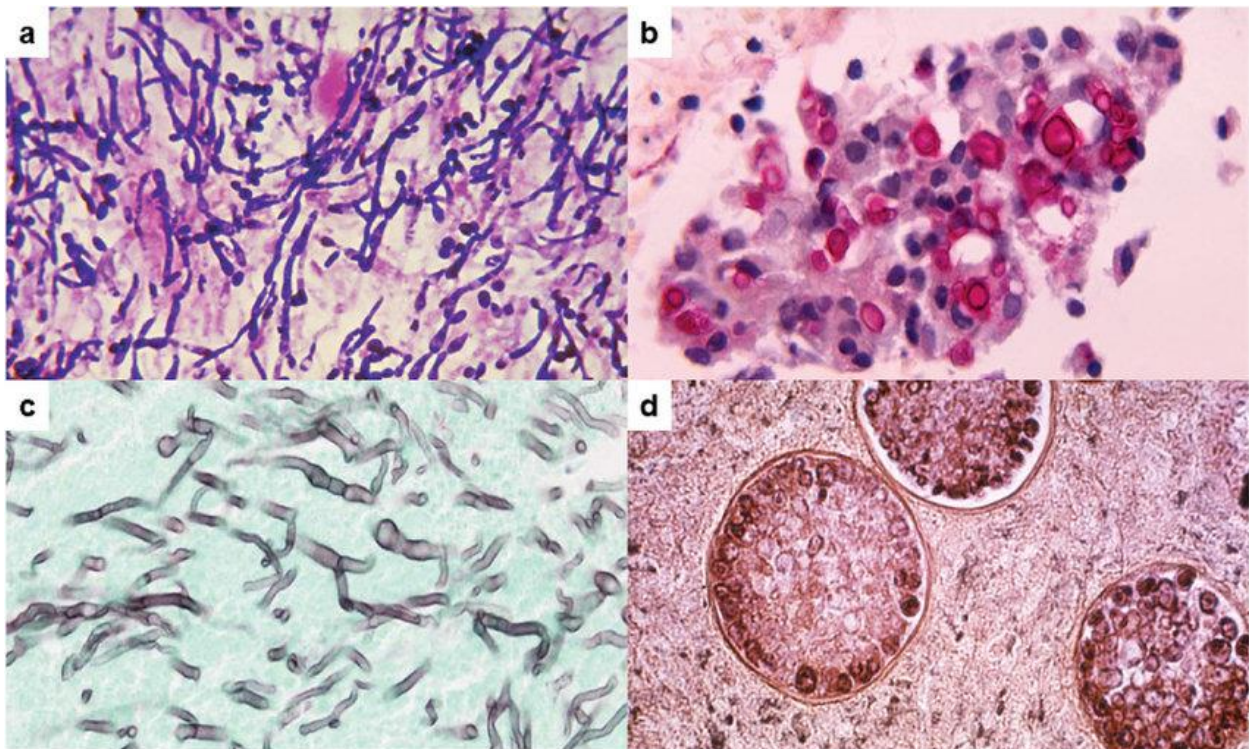


Stain use for fungus

Lacto phenol cotton blue stain

Method

- Place a drop of stain on slide and in this gently tease small portion of culture using a mounting needle.
- Place a No 1 cover slip on top avoiding formation of air bubble and remove **excess stain around the edges of the cover slip.**
- Examine under microscope.**



Examples of fungal under microscope.