

Ministry of Higher Education and Scientific  
Research

Al -Mustaqbal University

Collage of medical and health techniques

Department of medical laboratories techniques



# 5<sup>TH</sup> LECTURE

## Yeast , Molds , Yeast Like Fungi

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2025-2024

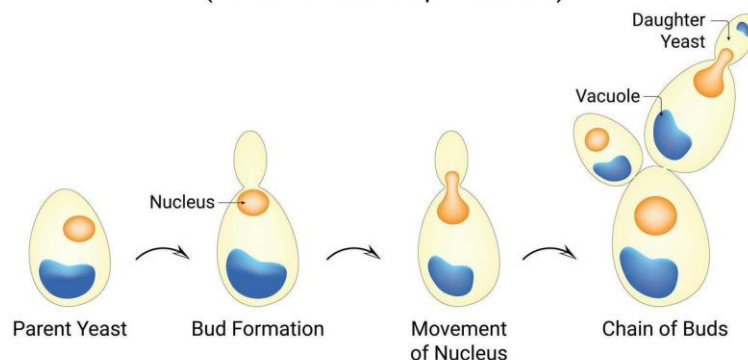
## Yeast and yeast like



1. Yeasts: are single celled fungi, adapted to liquids candidiasis or thrush is a fungal infection (Mycosis) of any of candida species all yeasts, of which *Candida albicans* is the most common. Thrush is commonly seen in infants [children]. Candida growth limited by human immune system. There are 13 types of candida.
2. Yeasts are reproduction asexually by binary fission or by budding small buds of apparent cell. Some species exhibit cell fusion between different meeting types.

## BUDDING

(Yeast Asexual Reproduction)



3. There are two types of fungi; 1- yeasts and 2- molds
4. Yeasts grow as single cells that produce by asexual budding.

5. An important exception is *Candida albicans* which is part of the normal human flora.
6. Some fungi reproduce sexually by mating and formation sexual spores e.g. 1- **Zygospores** 2- **Ascospores** and 3- **Basidiospores**
7. Zygospores are single large spores with thick walls; Ascospores are formed in a sac called ascus; and basidiospores are formed externally on the tip of a pedestal called a basidium. The classification of these fungi is based on their sexual spores. Fungi that do not form sexual spores are termed " imperfect " and are classified as fungi imperfection.
8. Most fungi propagate a sexually by forming " conidia " (a sexual spores) from the sides or ends of specialized structures.

The shape, **color**, and arrangement of conidia aid in the identification of fungi. Some important conidia are:

- 1- **Arthrospores**: which arise by fragmentation of the ends of hypha and are the mode of transmission of *Coccidioides immitis*.
- 2- **Chlamydospores**: which are rounded, thick – walled, and quite resistance (the terminal chlamydospores of *C. albicans* aid in its identification).
- 3- **Blastospores**: which are formed by the budding process by which yeasts produce a sexually [some yeasts; e.g. *C. albicans*, can form multiple buds that do not detach, thus producing sausage – like chain called pseudohyphae.