

# Summary

Yeast cells, when growing on solid surfaces, form multicellular structures, colonies, with a characteristic organised [morphologies](#), formed during the division of non- motile yeast cells. Organisation of yeast colonies should, therefore be ensured by signals transmitted and received by dividing cells within a colony

In this regard, the yeast colony exhibits an analogy to embryogenesis of higher organisms,

One of the characteristic attributes of multicellular organisms is their ability to emit and receive signals over long distances. Yeast colonies use for the long-range inter-colony signalling a simple volatile compound ammonia, produced by colonies in pulses. Ammonia action results in synchronisation of the development in neighbouring colonies.

The transition of colonies from acidic phase to the phase of intense ammonia production (alkali phase) is connected with intensive metabolic changes.

In this regard volatile ammonia acts as starvation signal between colonies.

If we are able to influence cell communication for example by new antibiotics, we would protect ourselves against several mycoses.