

Filo: ASCOMYCOTA

- filo monofilético
- com cerca de 64 000 espécies*
- 75% das espécies de fungos descritas
- unicelulares ou filamentosos ou dimórficos
- hifas com septos perfurados
- formam ascos
- fósseis datados de 1 bilhão de anos

saprófitos

necrotróficos

parasitas

simbiontes mutualísticos

associação com algas com cerca de 40% das espécies

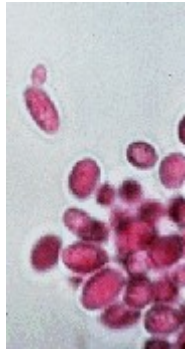
associação com plantas terrestres

digerem celulose



* <http://www.davidmoore.org.uk/>

ALIMENTOS



Sacharomyces cerevisiae

fermento

morchela



trufa

Tuber melanosporum

MODELOS

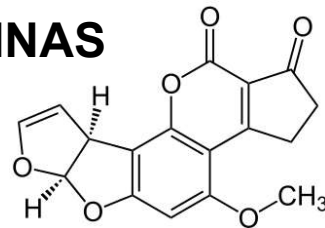
Neurospora crassa

PATÓGENOS

Candida albicans



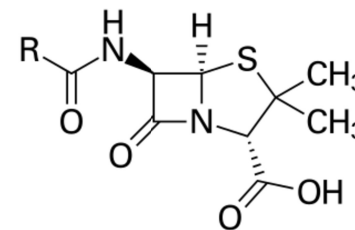
TOXINAS



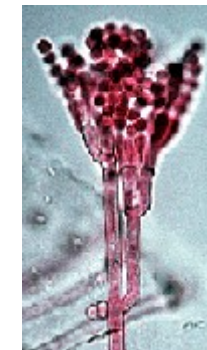
Aspergillus flavus

aflatoxinas

MEDICAMENTOS



Penicillium chrysogenum



Filo Ascomycota

anamorfa + teleomorfa = holomorfa

base de dados que relaciona anamorfos com seu teleomorfo

<http://www.cbs.knaw.nl/databases/anateleo.htm>

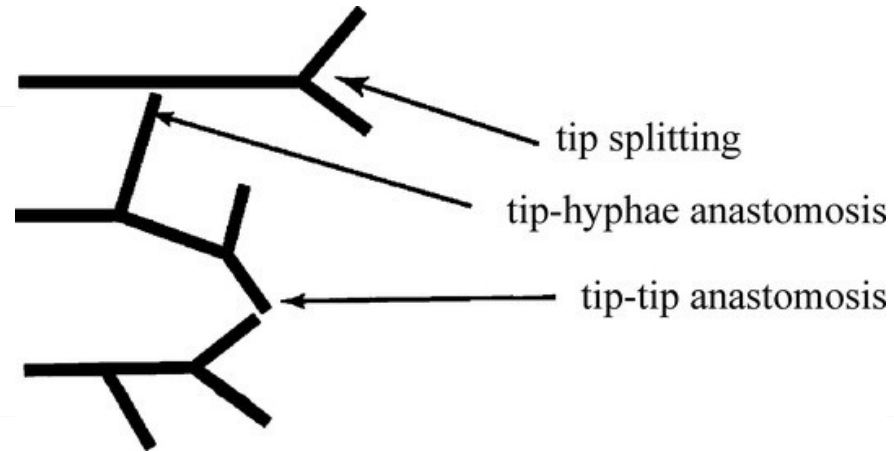


ASCOMYCOTA

filamentosos

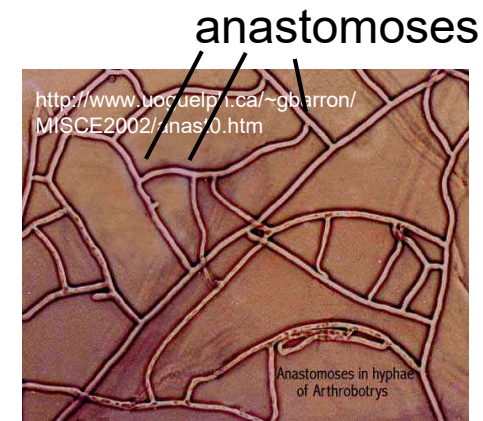
Hifas:

- ramificadas
- com anastomoses frequentes
- células mono ou multinucleadas
- com septos perfurados



As hifas formam um micélio que pode ser:

- homocariótico
 - heterocariótico (formado após anastomose)
- sendo que os diferentes núcleos as vezes não se dividem na mesma velocidade



Caraterísticas marcantes:

hifas septadas

movilidade das organelas por entre as células

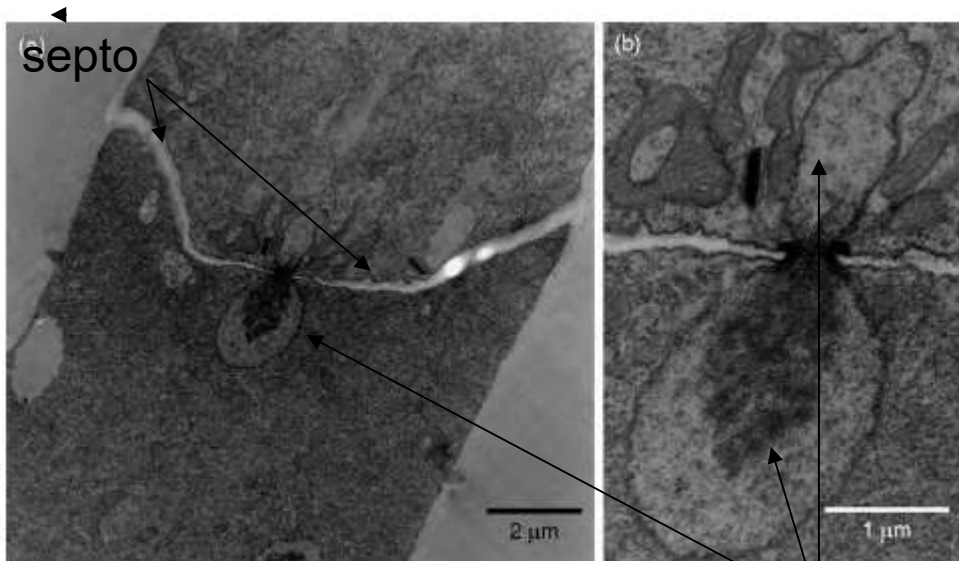
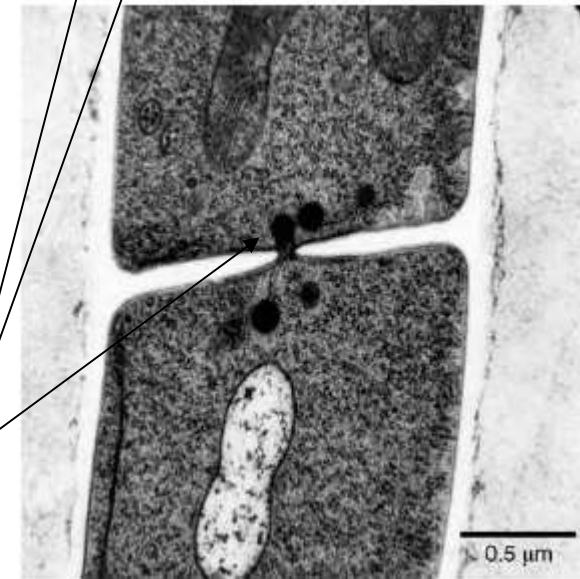
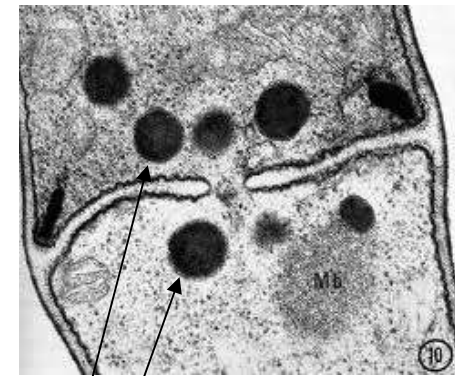


Fig 8.2 Nucleus of *Botrytis cinerea* passing through a septal pore. (a) View of the entire hyphal diameter; (b) Close up. Note the constricted appearance of the nucleus.

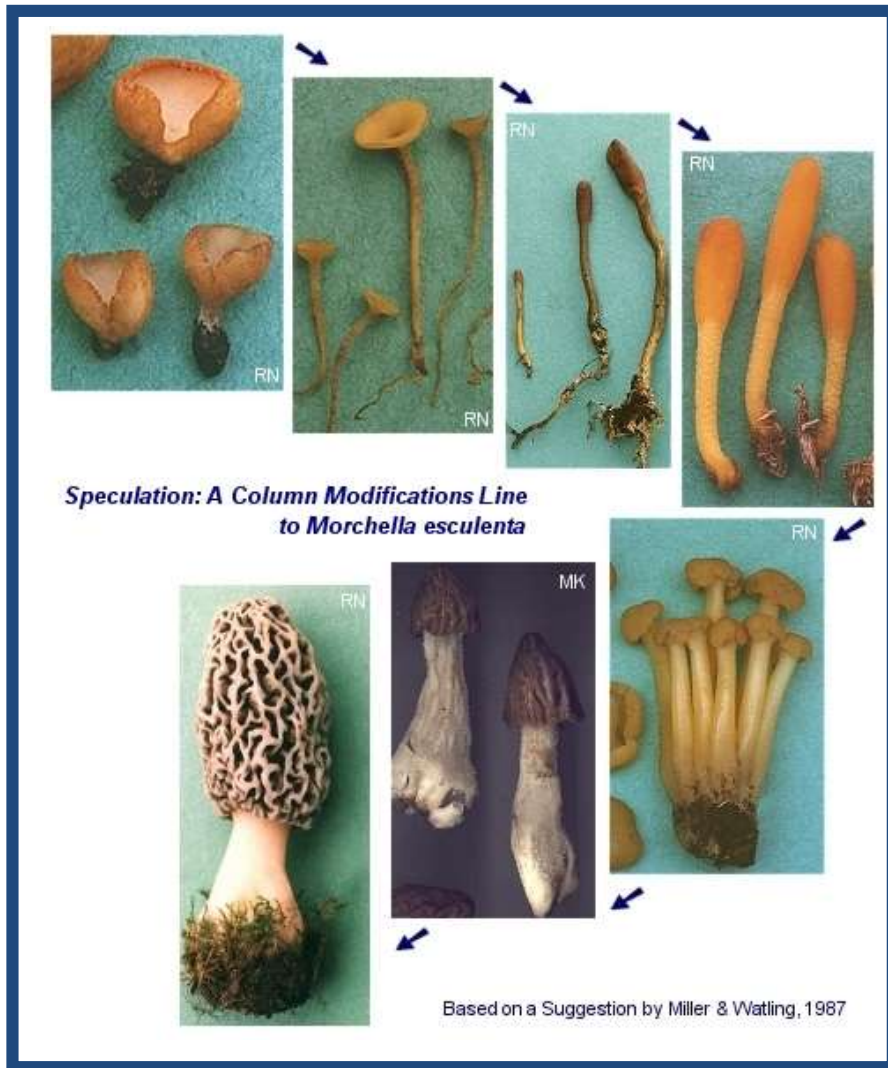
núcleo

corpos de Woronin
(proteína)



Pode haver mais de um núcleo por célula

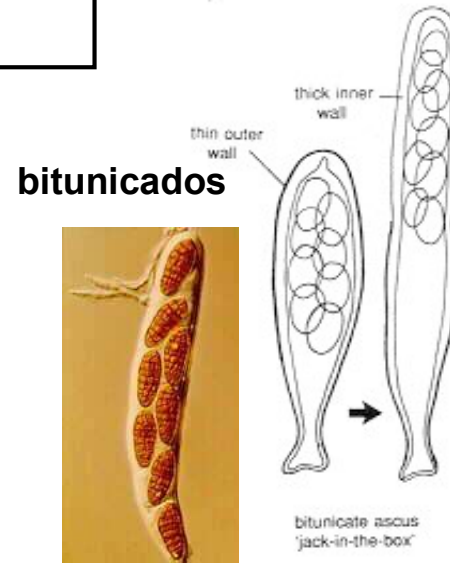
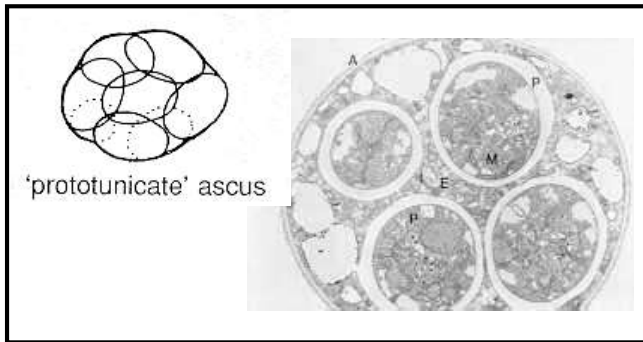
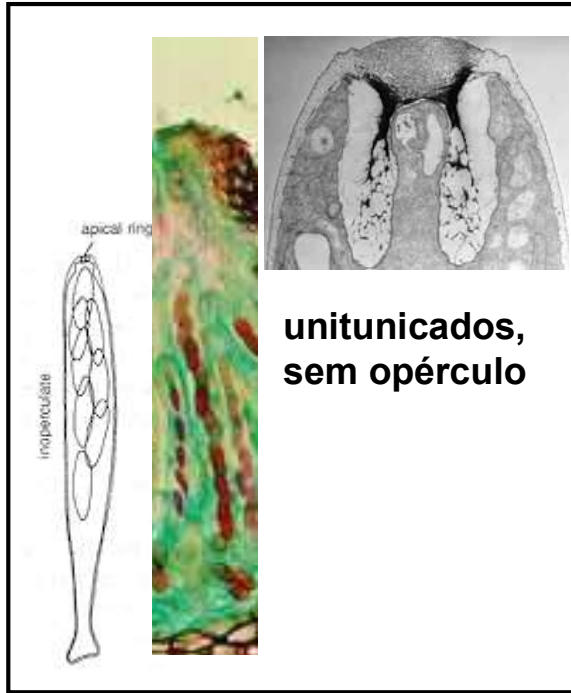
Teorias sobre a evolução do ascocarpo



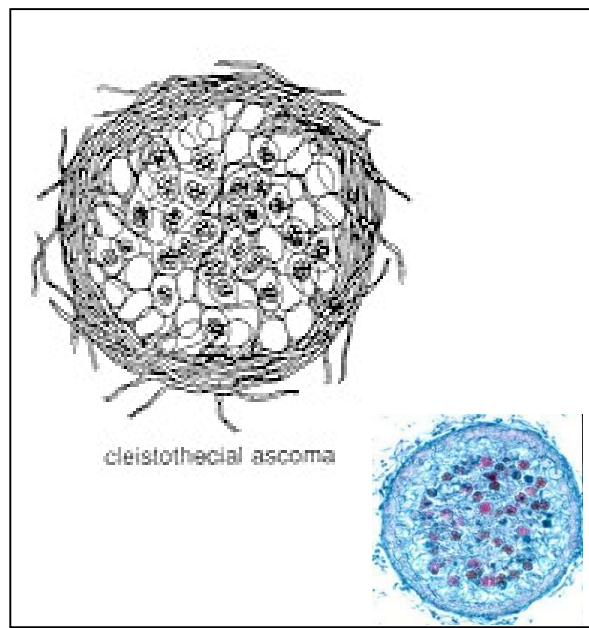
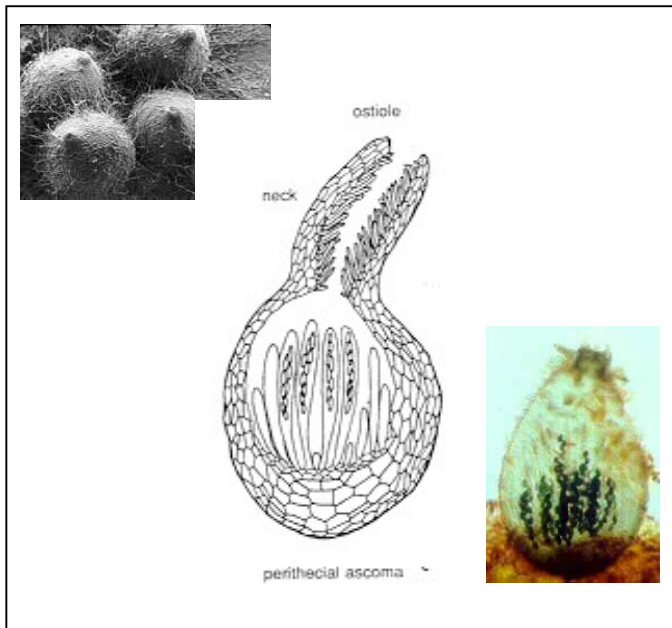
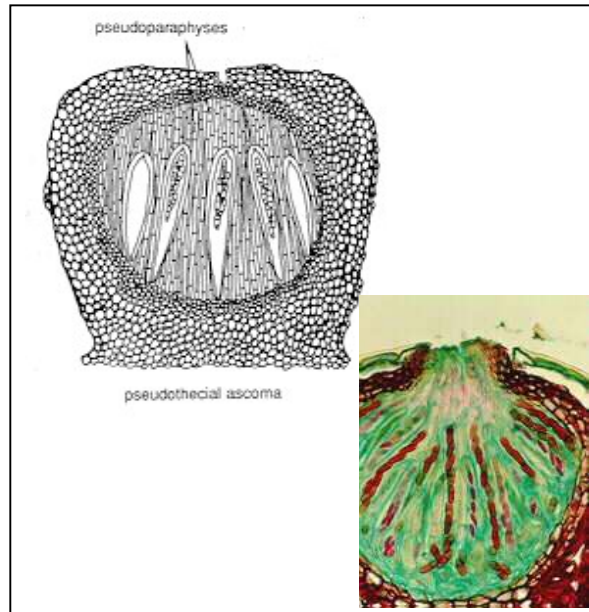
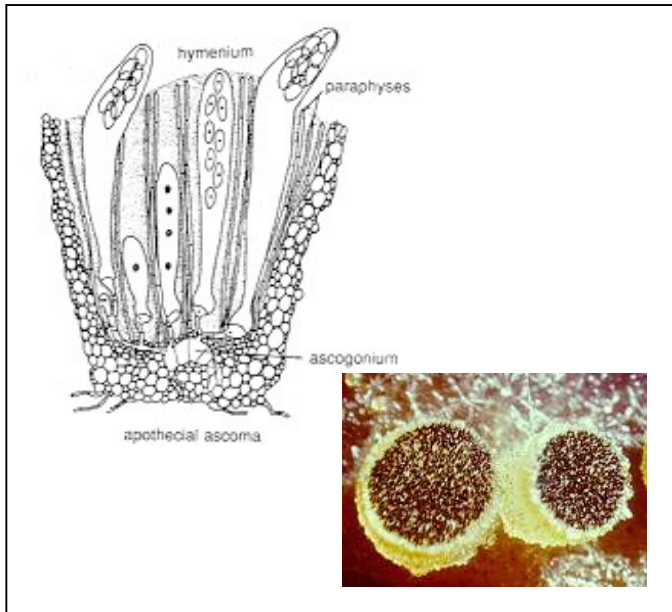
alternativa sugerida pela biologia molecular:



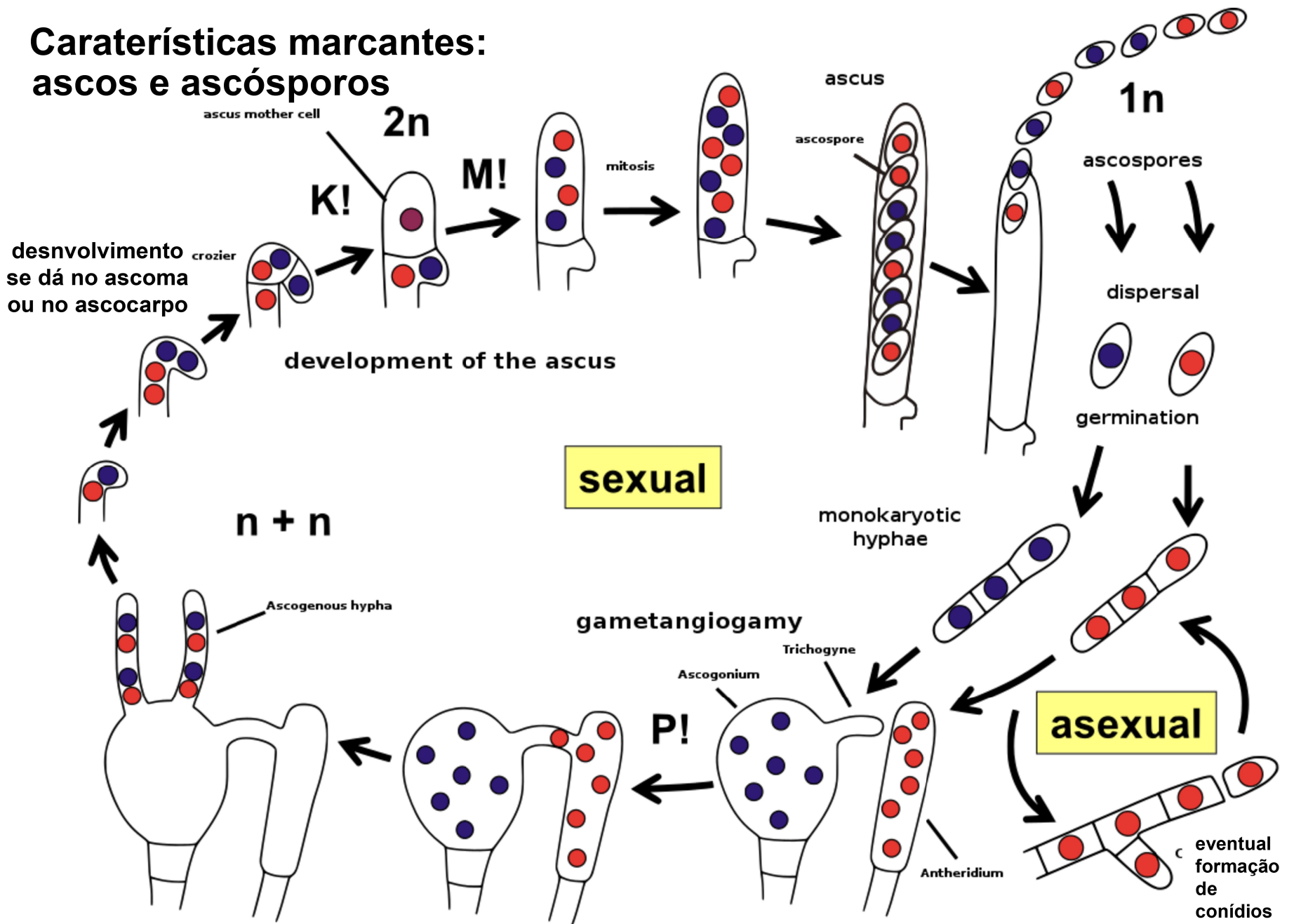
Diferentes tipos de ascos



conjuntos de ascos

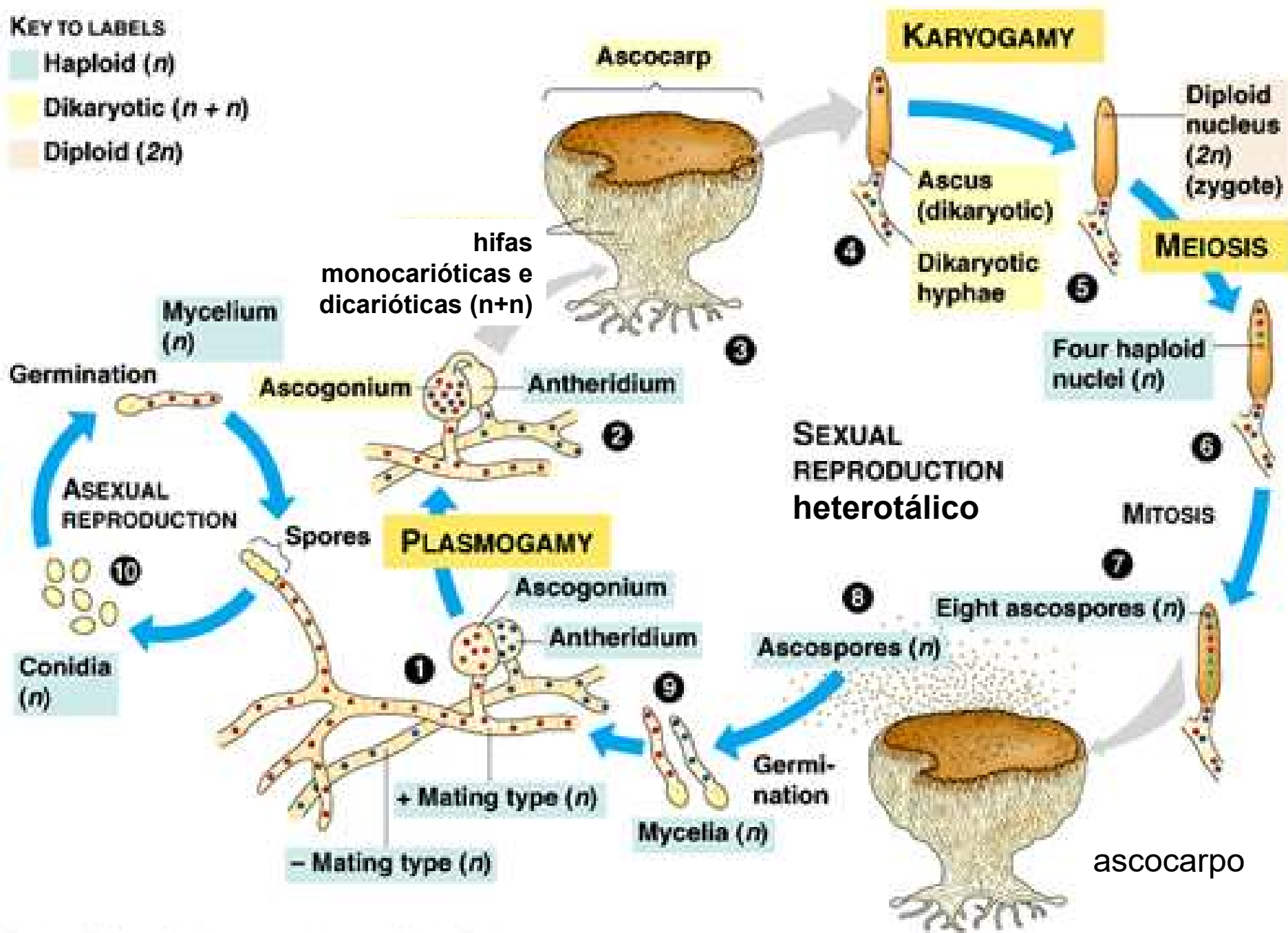


Caraterísticas marcantes: ascos e ascósporos



KEY TO LABELS

- Haploid (n)
- Dikaryotic ($n + n$)
- Diploid ($2n$)

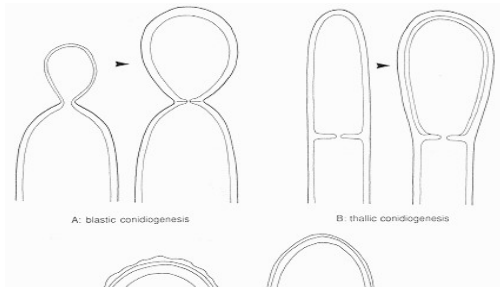


ASCOMYCOTA

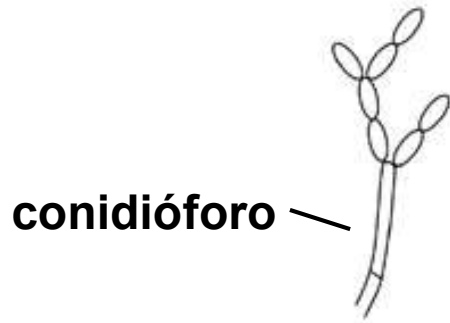
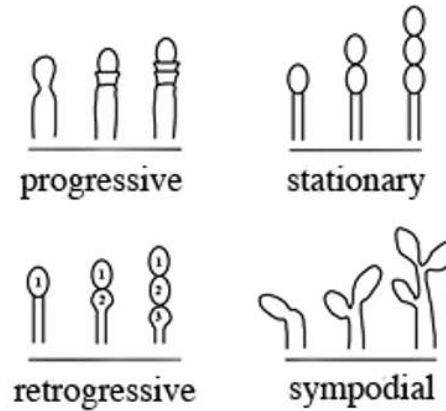
reprodução assexuada

conídios: esporos produzidos de forma assexuada (conidiogênese)

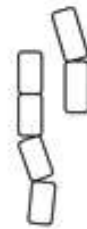
principal forma de dispersão do fungo



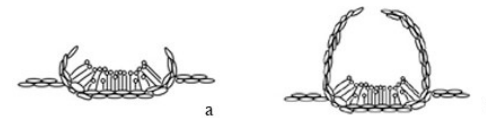
célula
conidiogênica



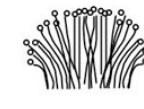
blástica



tálica



conidiomas



c

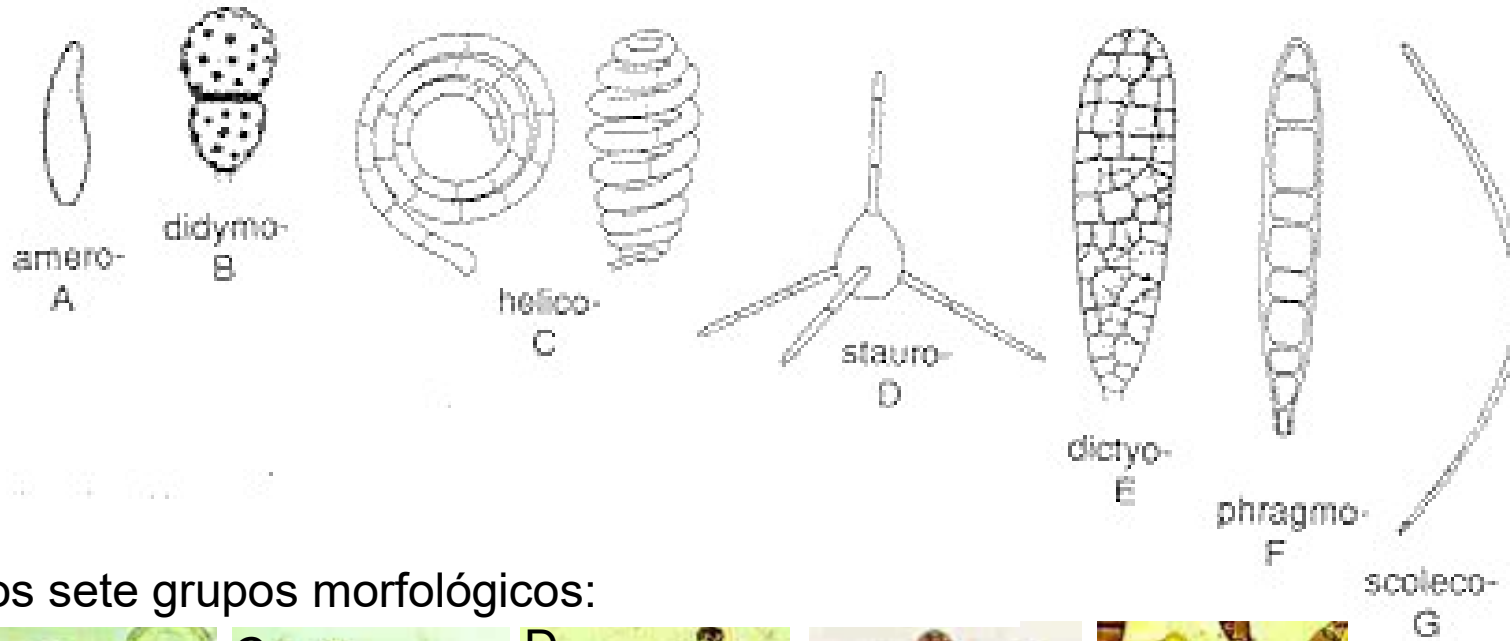
d

Conídios

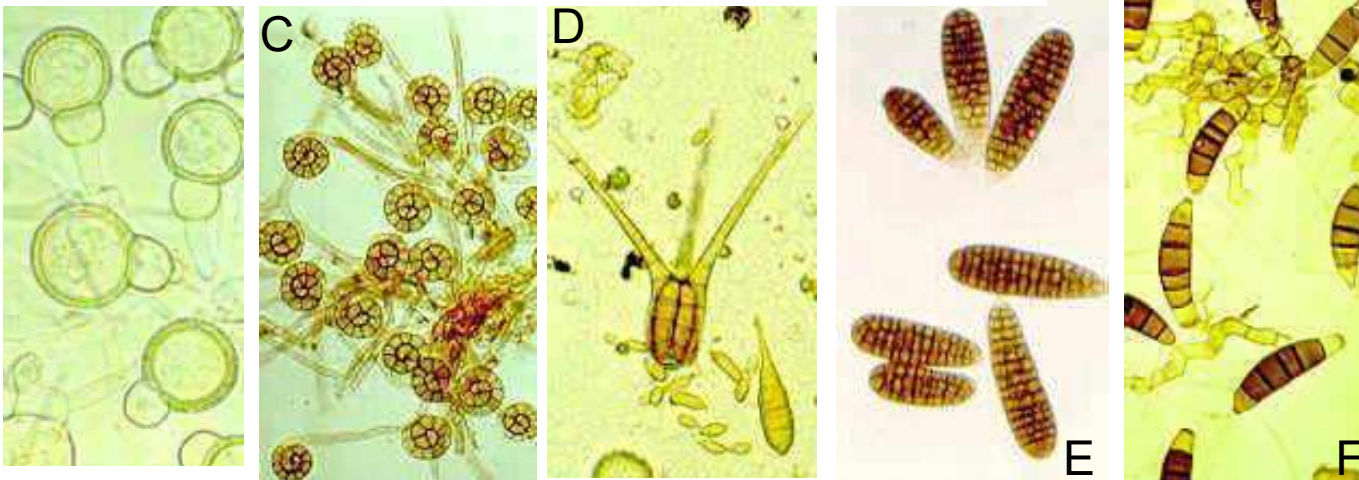
esporos – estruturas de resistência

dispersão:

- ar, água
- vetores animais



os sete grupos morfológicos:



Leveduras:

fungos unicelulares que se multiplicam por brotamento ou divisão

muitas vezes dimórficos

Candida albicans

