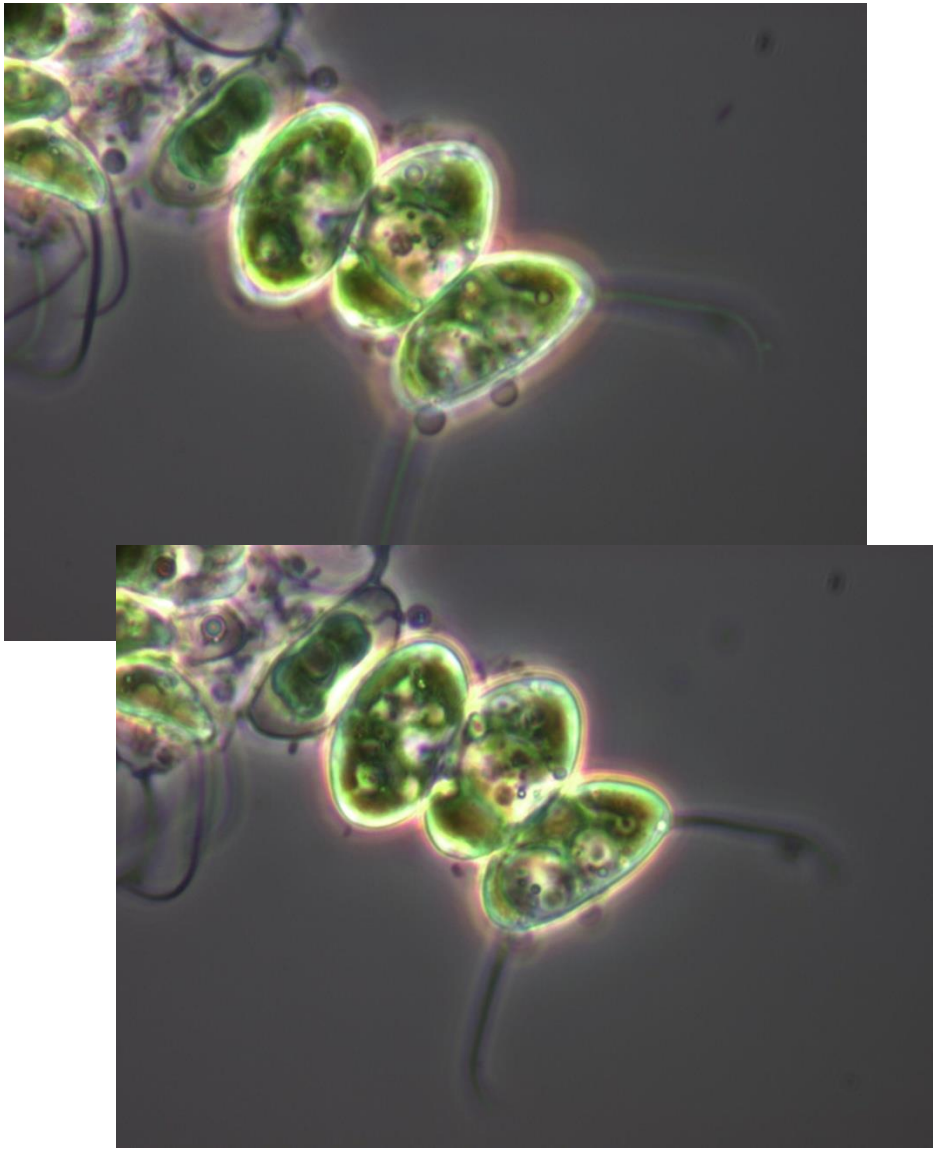
Preliminary TEM Investigation of FD104 (Pearl) parasitizing SEO107



FD104

Sal- All of the following have come from FD104-1;

FD104-2/FD104-3 did not yield as much info;

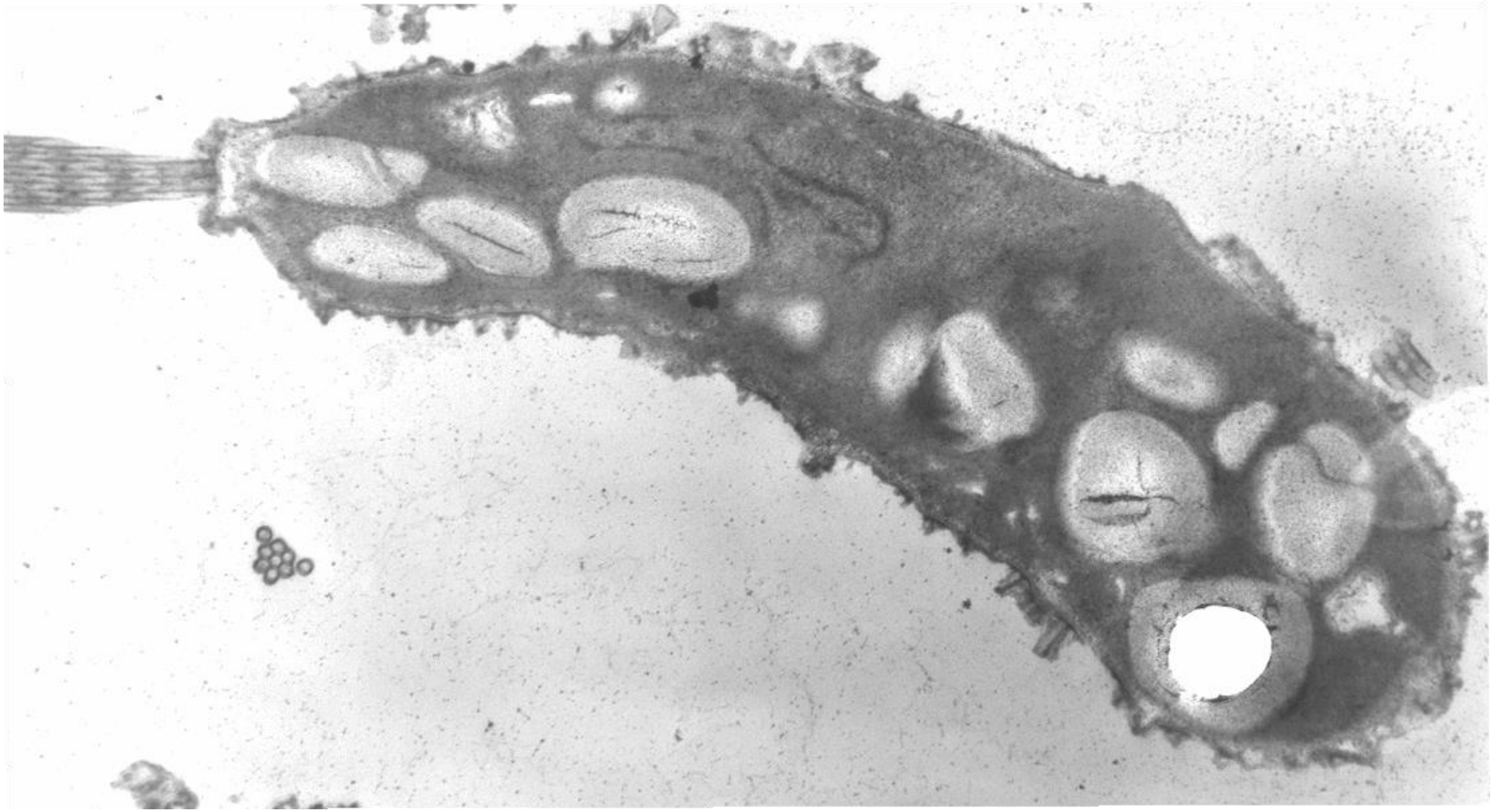
I did not fix FD104-4 – FD104-6, being “filthy” with a lot of other organisms.

The first week of the sequential fix of infection of FD104 (days 2-8, 14, 21, 28) is completed, going into the oven today, ready for observations by Monday next week.

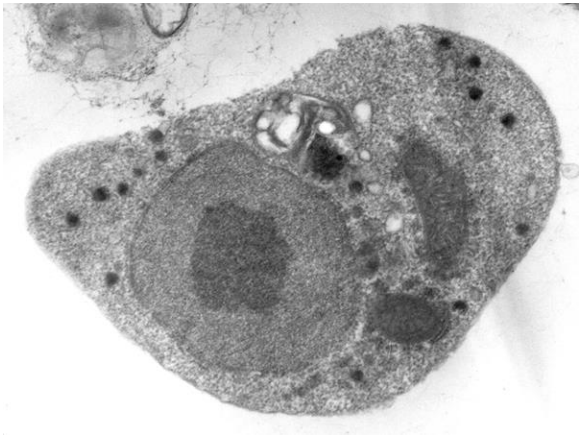
FD104

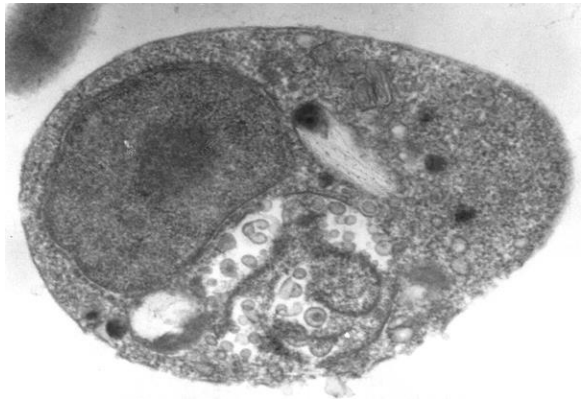
- This preliminary investigation confirms Sal's observations via LM. Good work, Sal.

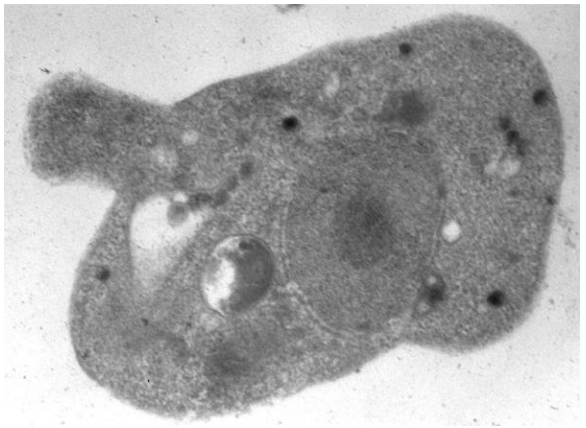
Healthy FD104

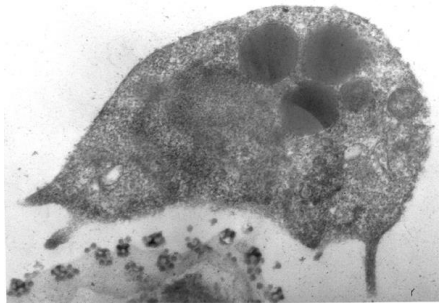


Amoeboid aplanospores

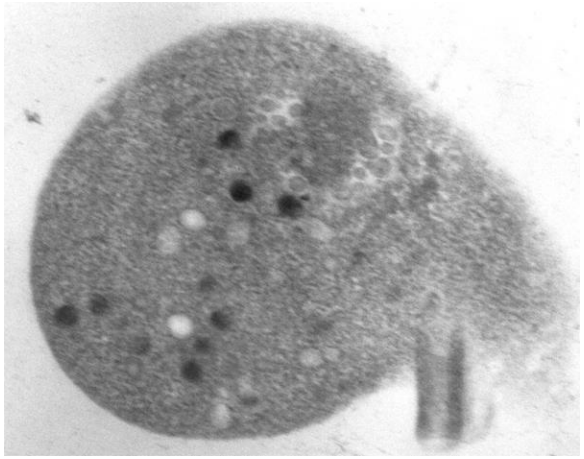


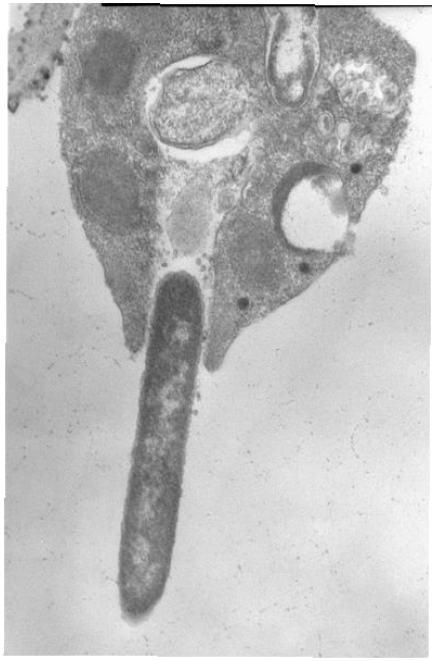






I don't know, yet.....



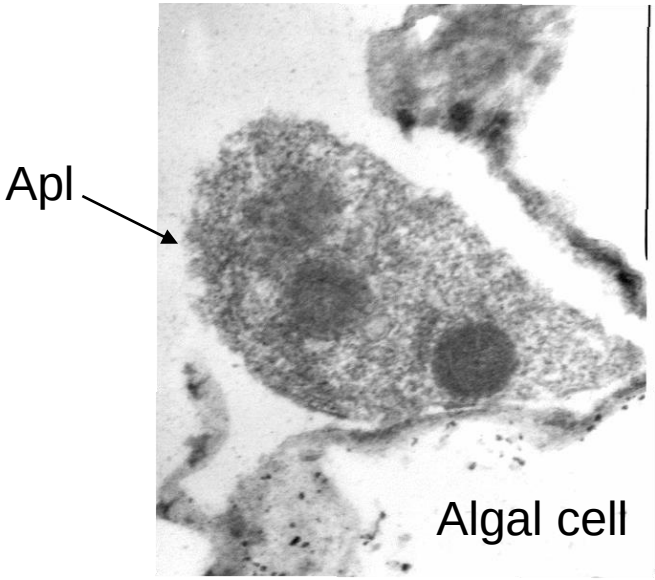


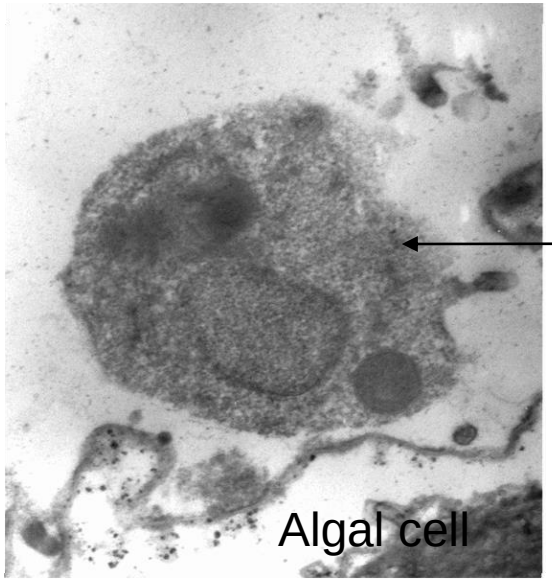
I don't know, yet

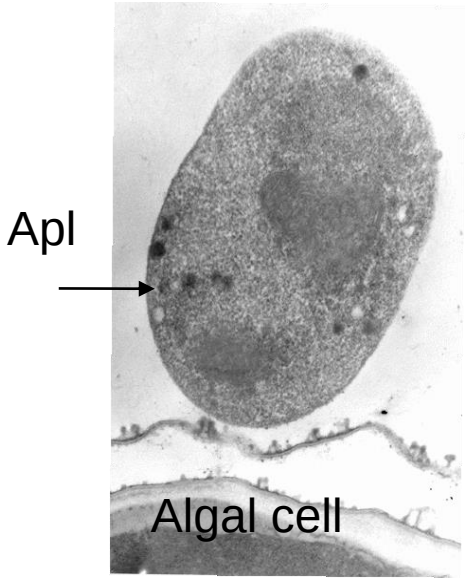
I don't know what the prominent, rod-like structure is, but I don't think it is the amoeboid cyst feasting on a bacterium;

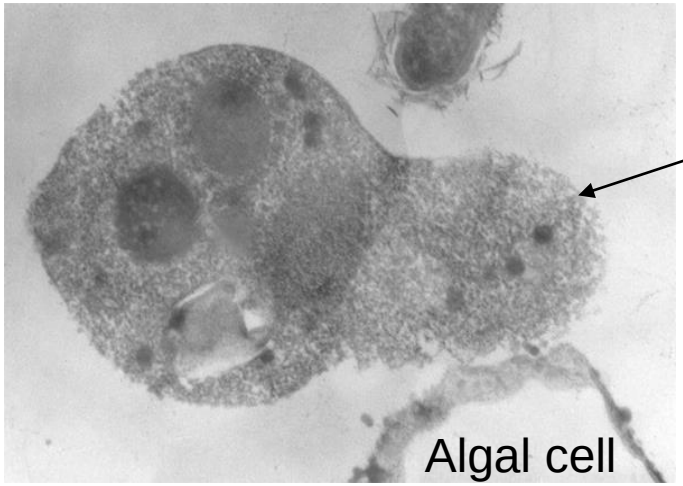
It may be a bold appendage or rudder-like structure. Hope to see more of this in early infection stages next week.

Aplanospores “docking” with alga

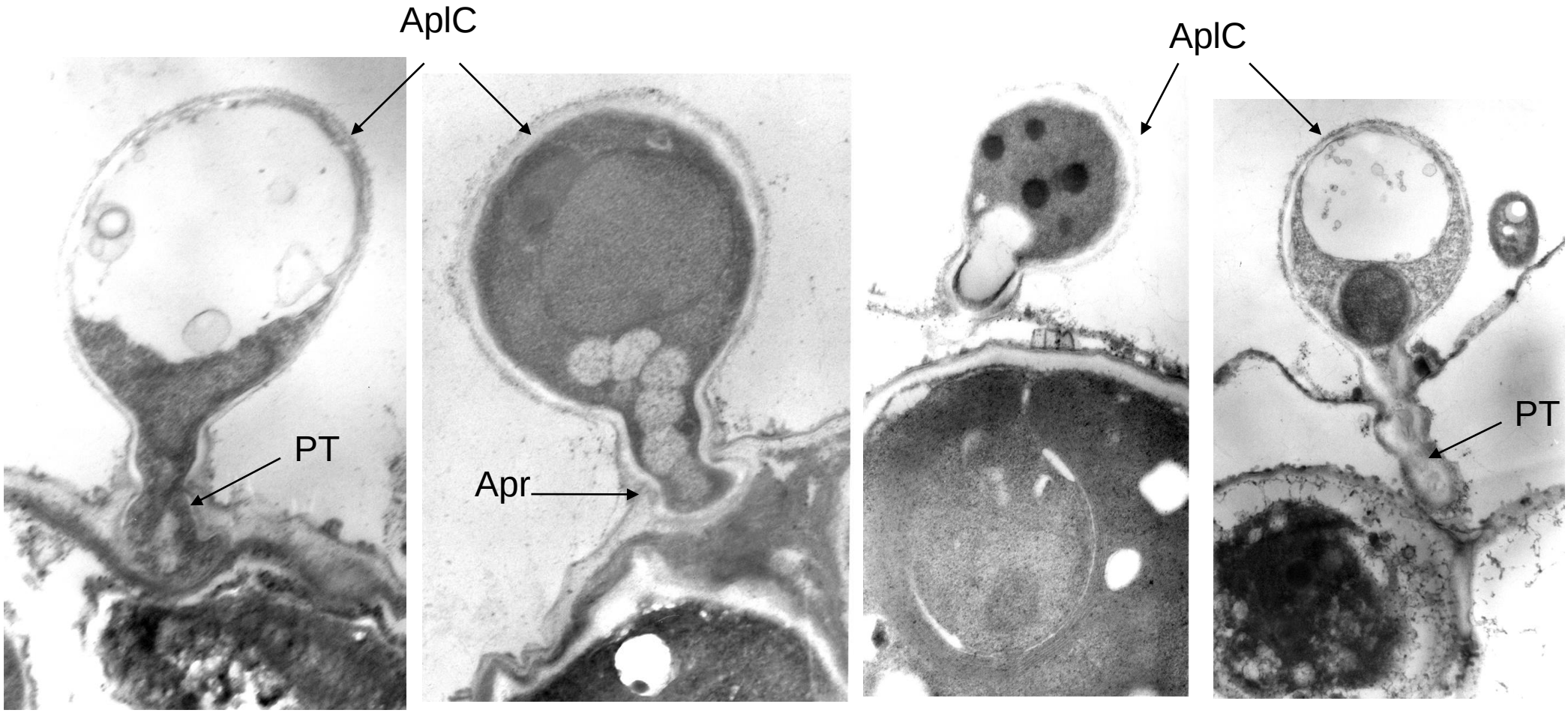






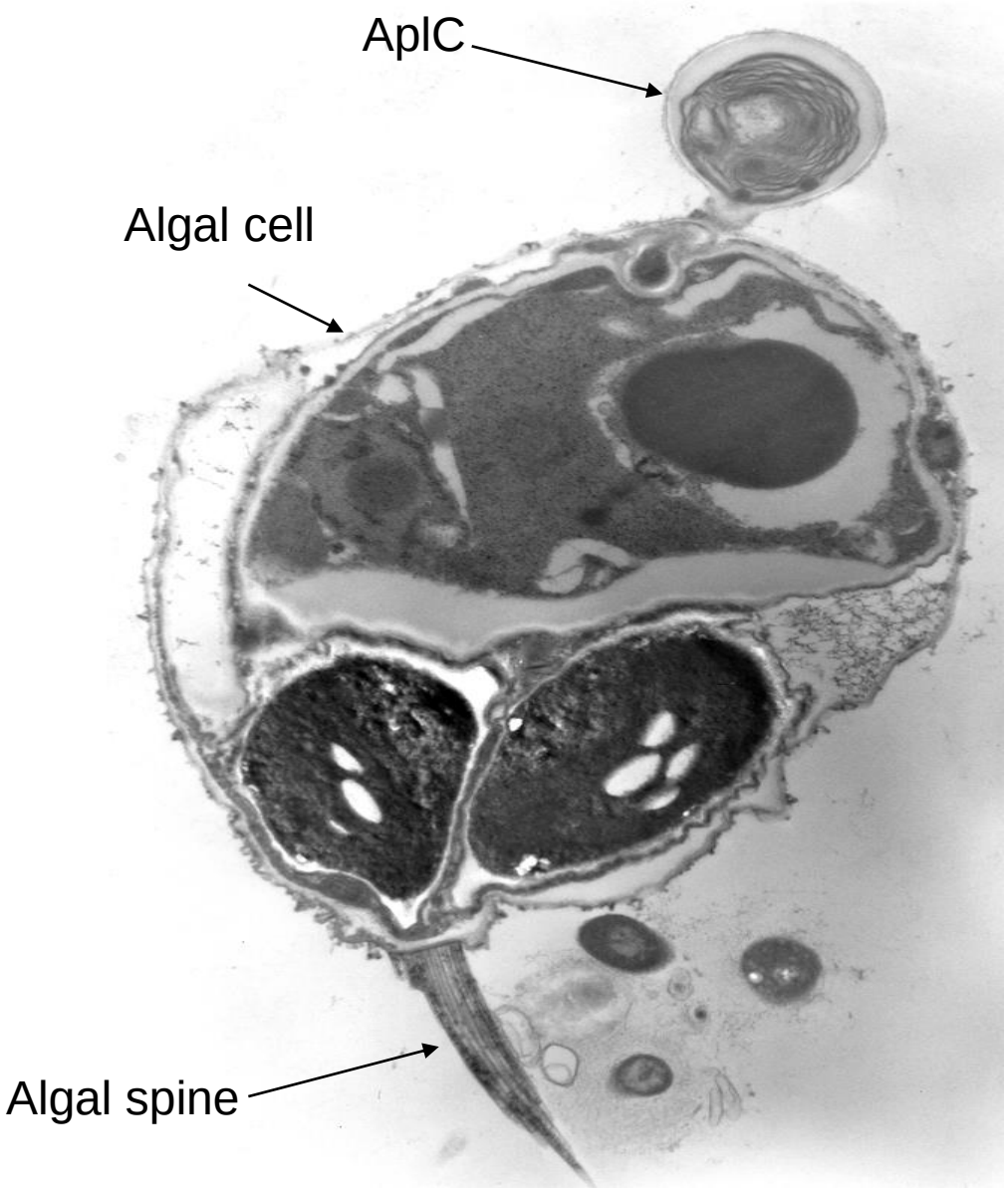


Encysted aplanospores: look familiar?



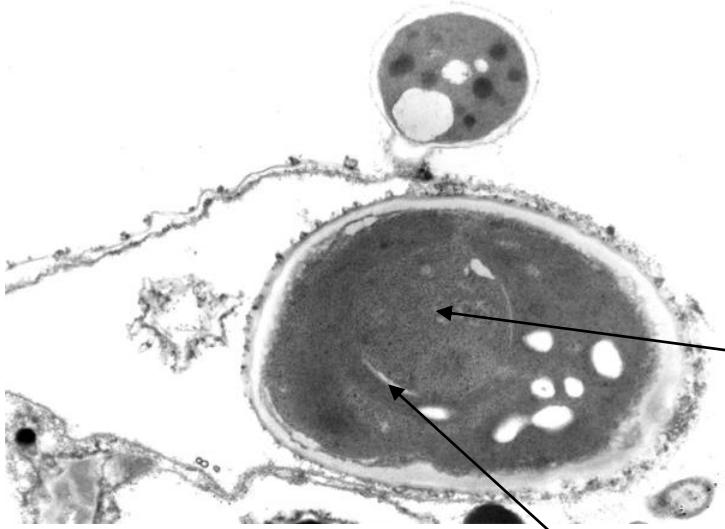
AplC, Aplanospore cyst; PT, penetration tube; Apr, Appressorium

Infection

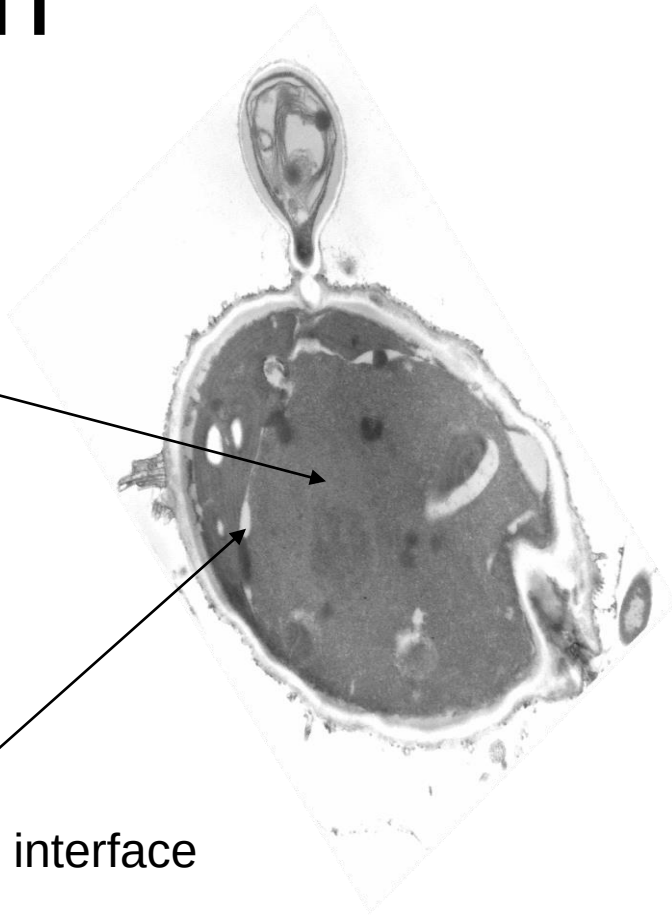


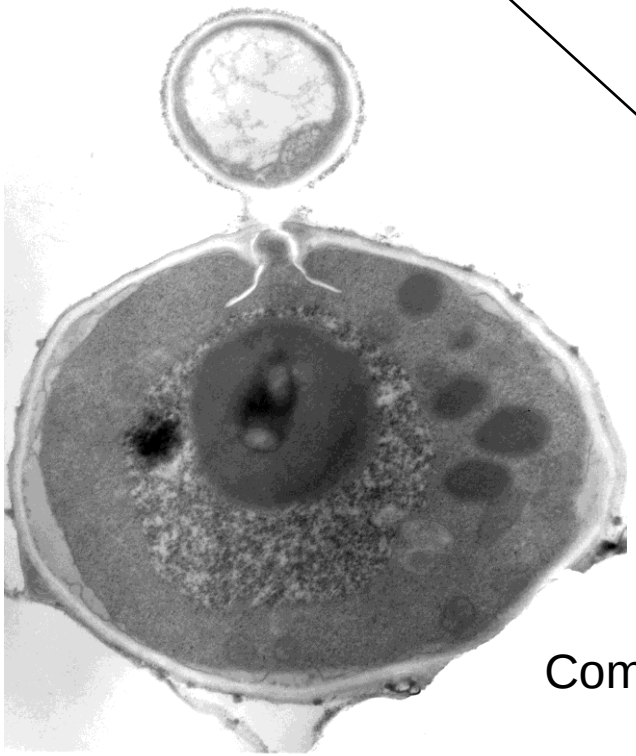
Algal spine

Infection



Parasite protoplast



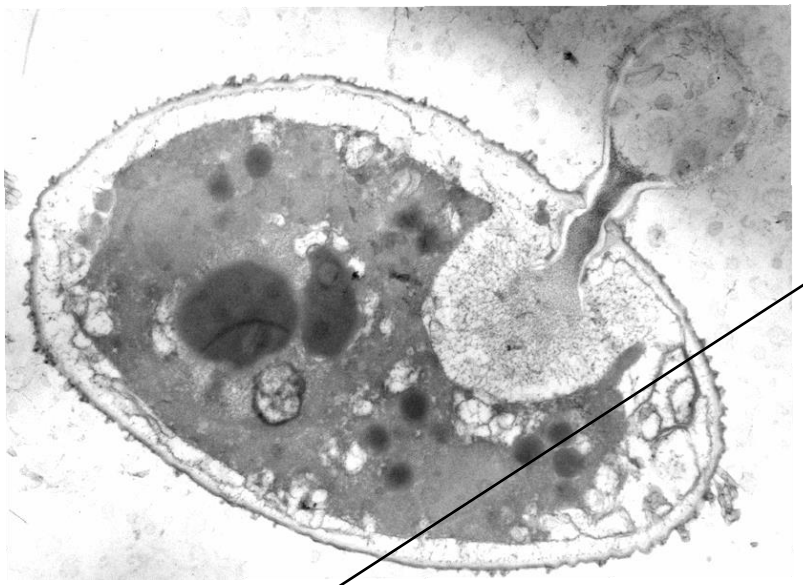


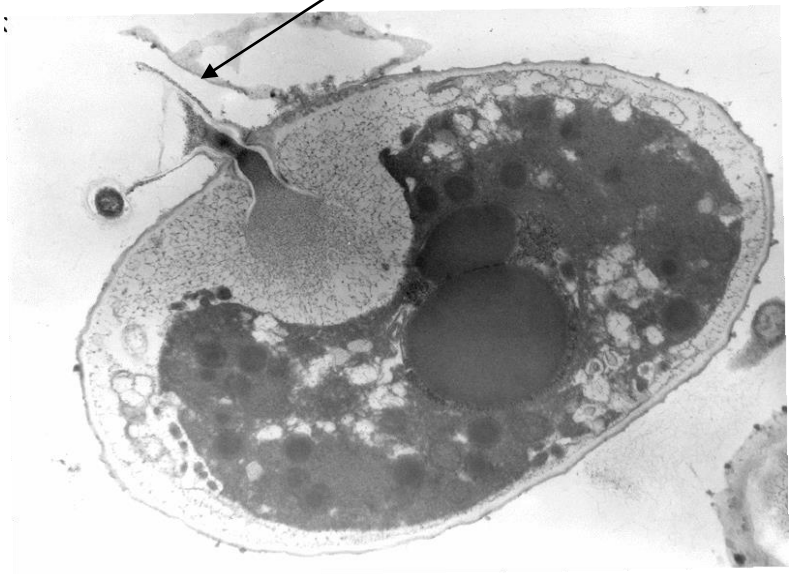
Host/parasite interface evident

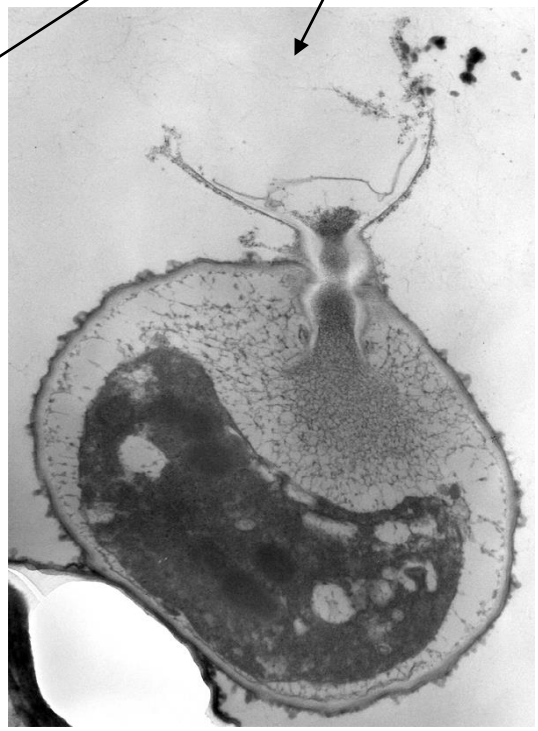
Complete infection

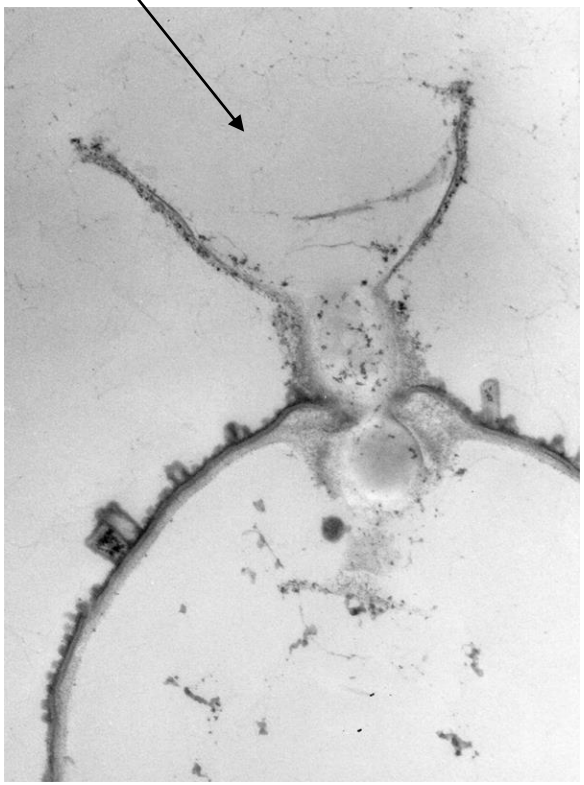
Late infection

Apical ½ of AplC wall breaks down









Preliminary assessment

This parasite is not FD01 *Amoeboaphelidium protococcarum;*

I do not think FD104 is *Aphelidium* (propagates via uniflagellate zoospores);

I do not think FD104 is *Pseudaphelidium* (propagates via zoospores and amoebae).

No indication of flagellated zoospores thus far.

Preliminary assessment

This parasite appears to have a life history similar to that of *A. protococcarum,* which may indicate that similar remedies are applicable.

This may be a typical Cryptomycota life cycle (FD01, Rozella, FD104), if indeed this parasite is genetically a member of Cryptomycota