

Wenche Eikrem, Mikel Latasa, Khadidja Romari,
Florence LeGall and Daniel Vaultot

RCC 446

a new heterokont flagellate in the

Roscoff collection isolated by

Florence LeGall

from the English Channel;

”Florenciella legallia”



Analysis of the 18S rRNA
molecule identifies this
organism as a
dictyochophyte



Stramenopiles - tripartite hairs

Division Heterokontophyta

Class Dictyochophyceae

Order Dictyochales

Order Pedinellales

Order Rhizochromulinales



O. Pedinellales

Body scales

Flagella

Chloroplasts

Tentacles



Apedinella



Pseudopedinella



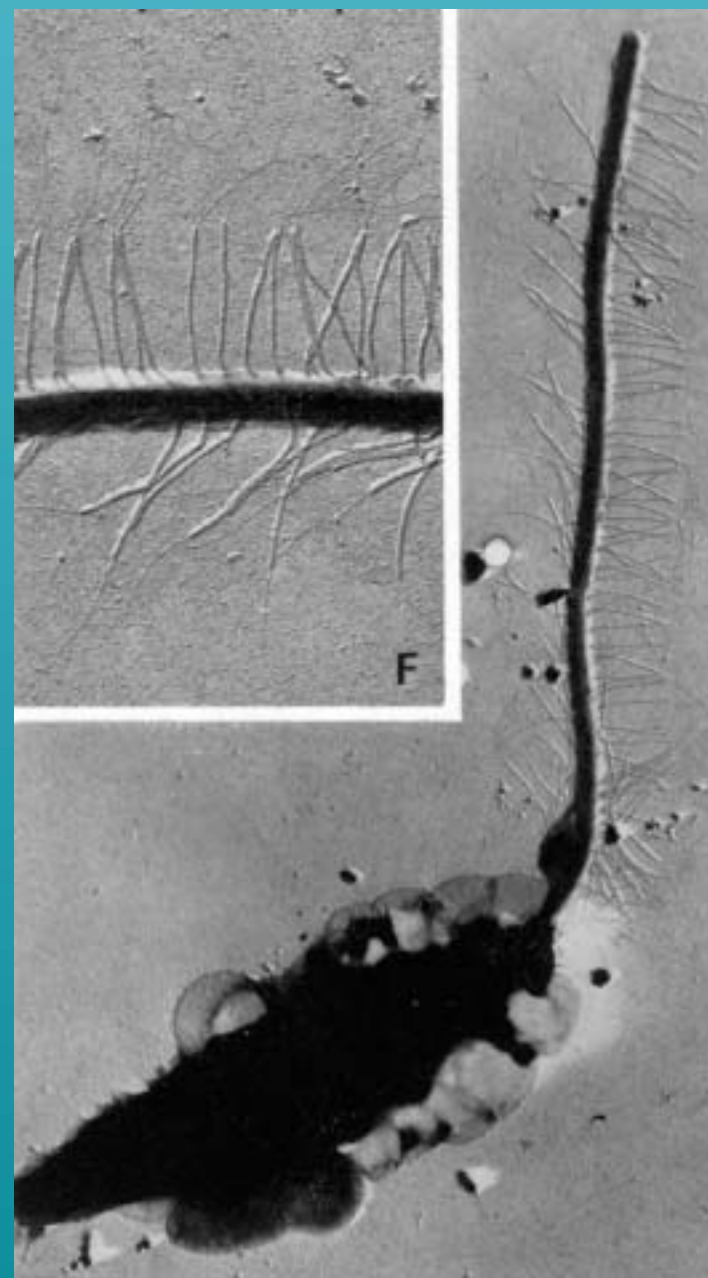
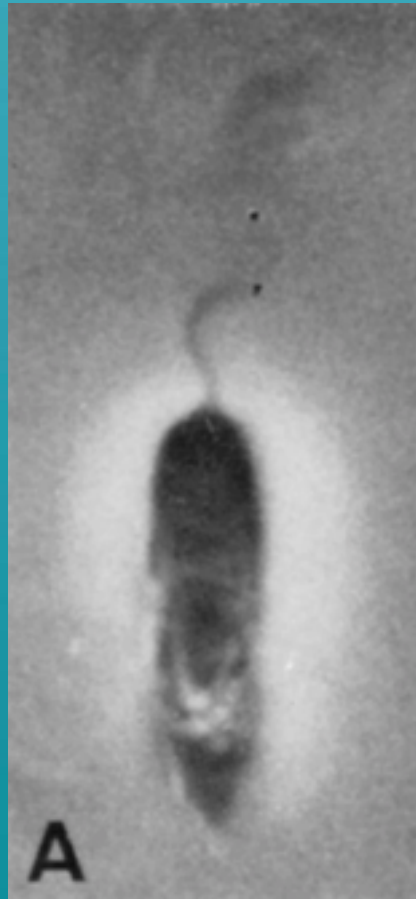
O. Rhizochromulinales

Flagella

Tentacles

Chloroplasts

Amoeboid stage



Hibberd &
Chrétiennot-
Dinet 1979

Rhizochromulina marina

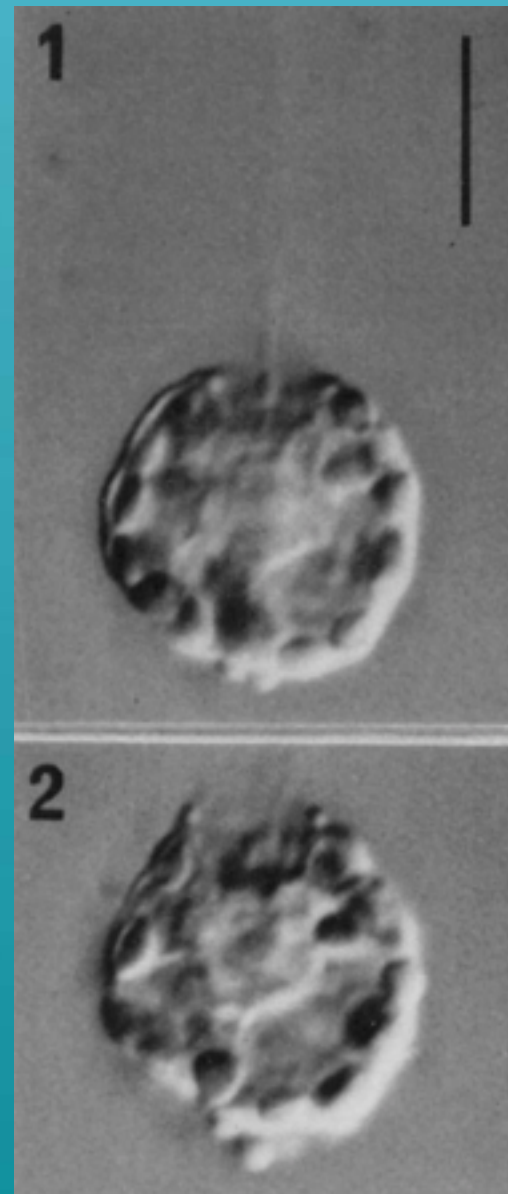
D. Dictyochales

Skeleton

Flagella

Chloroplasts

Tentacles



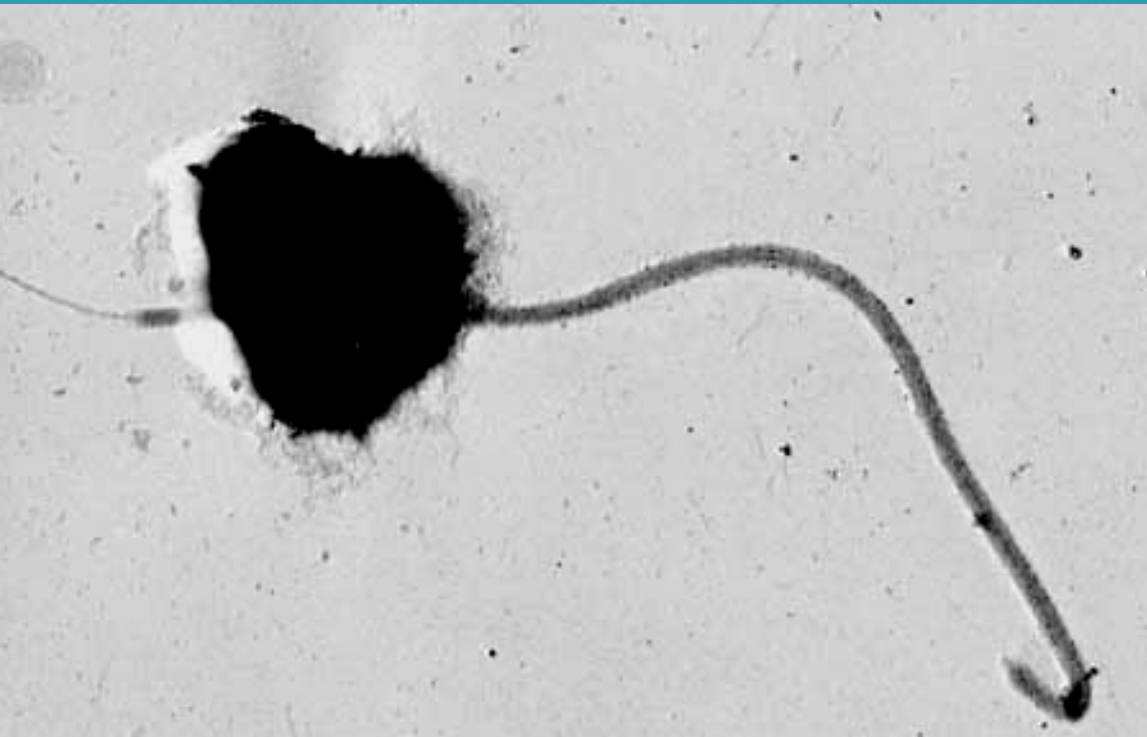
Moestrup &
Thomsen
1990

Dictyocha speculum





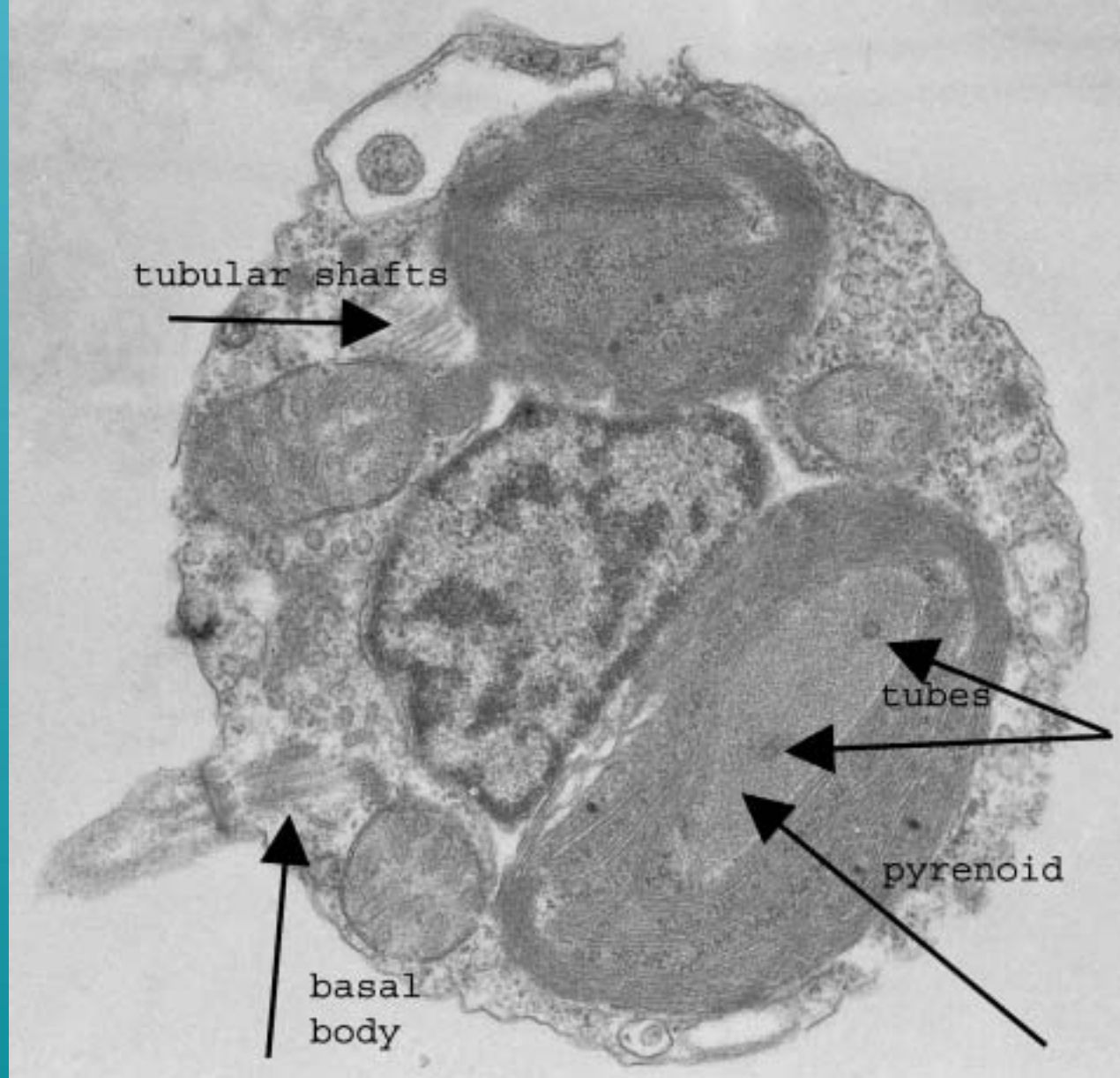
Uranyl acetate stain

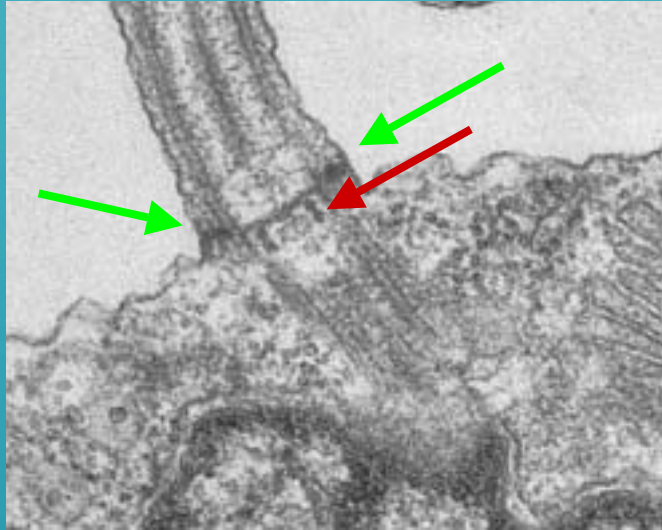


Whole-mounts

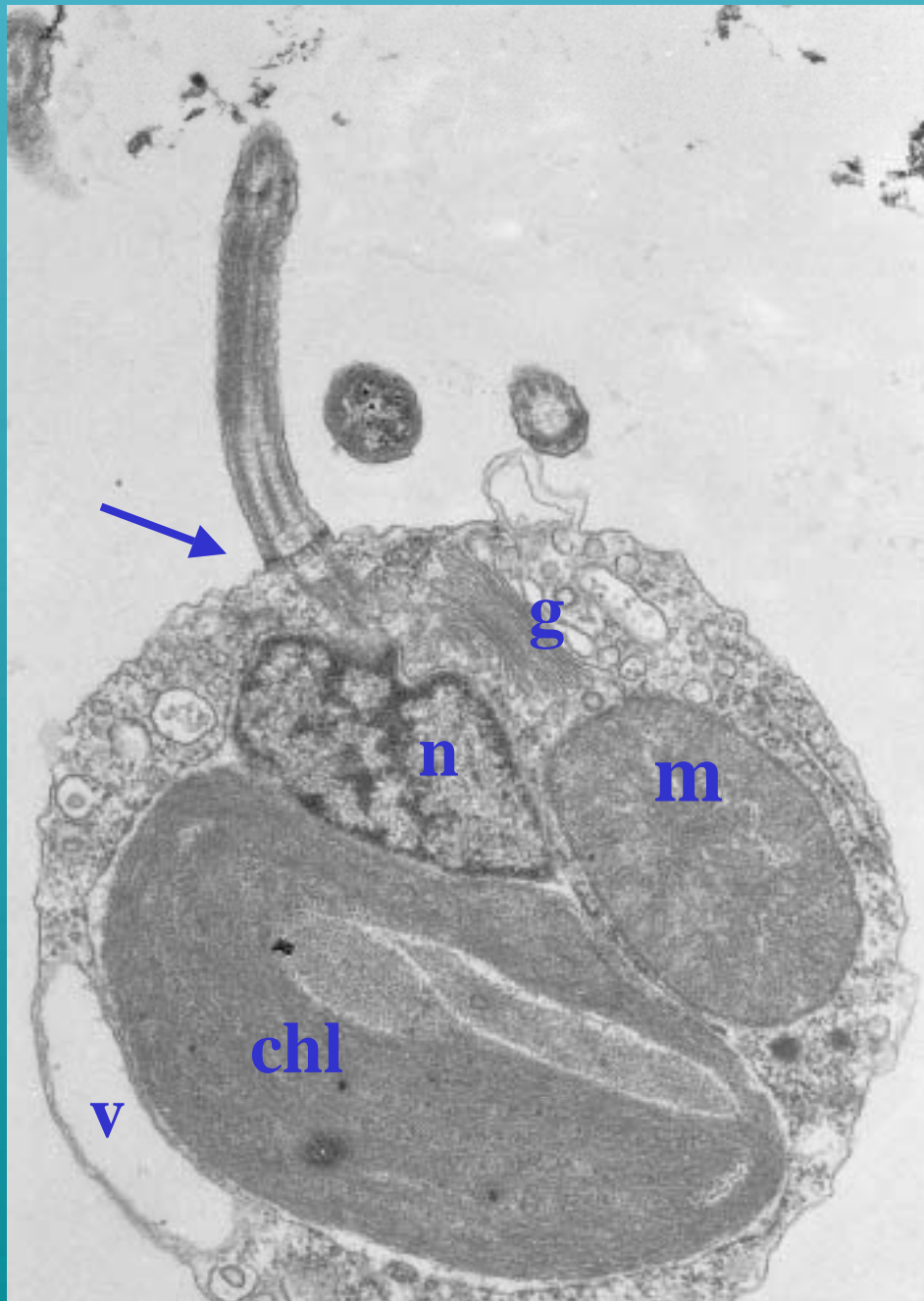
Shadow-cast with
gold/palladium

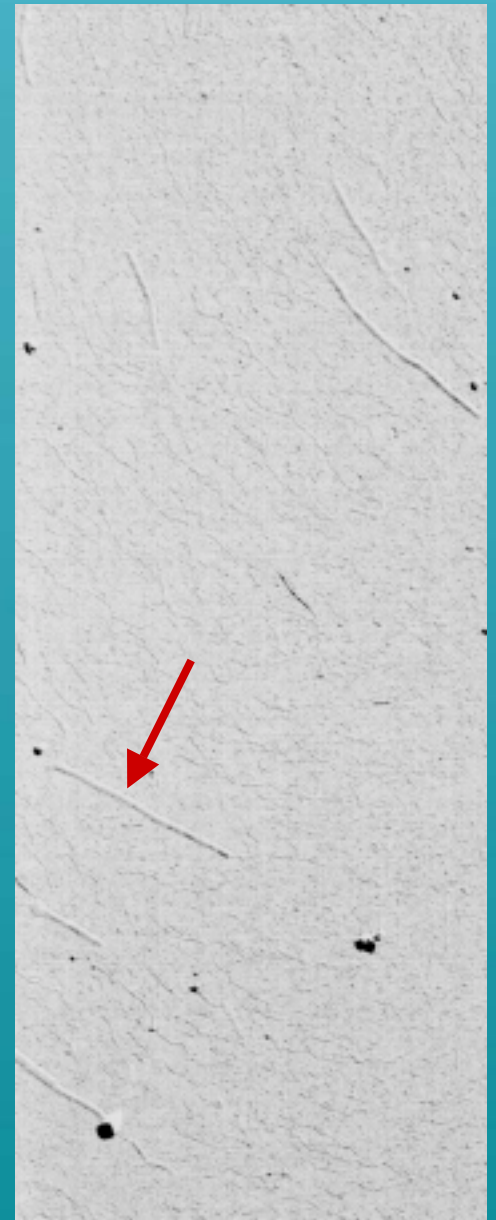
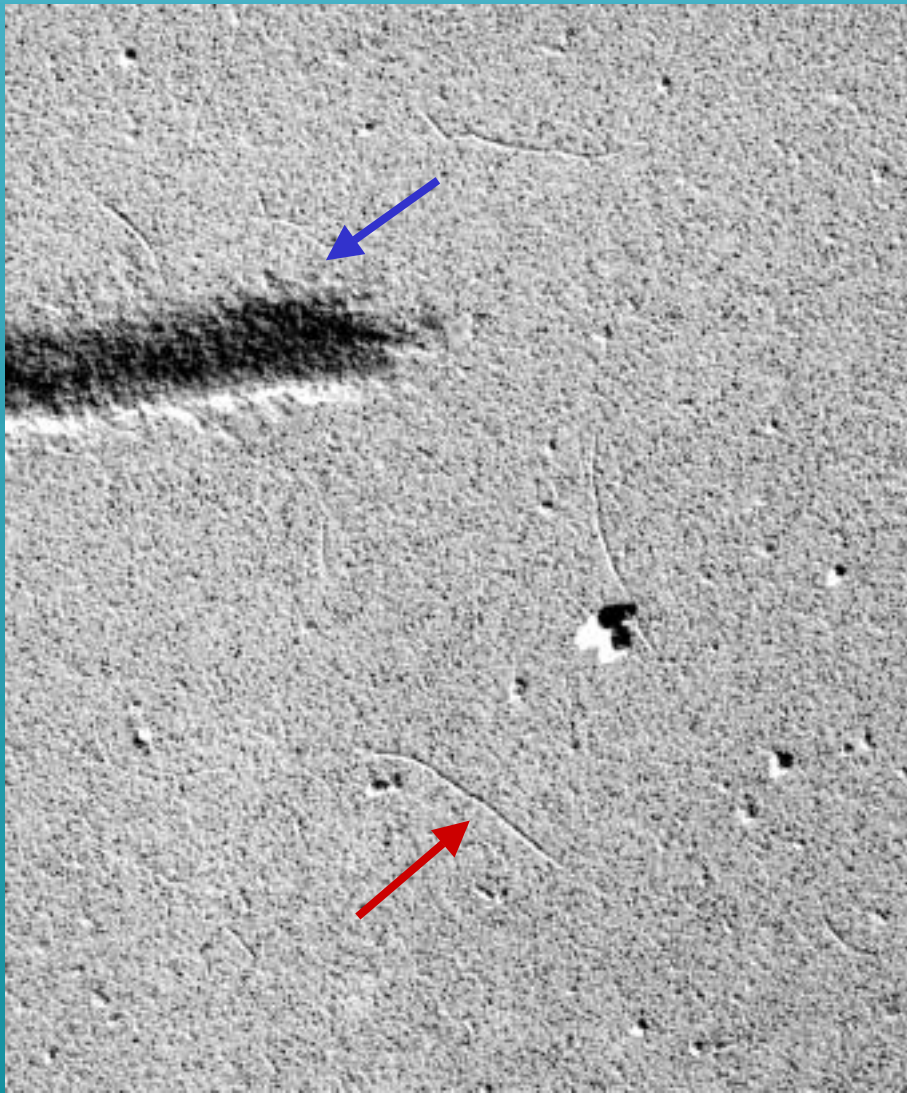
Thin- sections





Flagellar transition zone





Flagellar hairs





Chloroplast-nucleus connection



Multinucleate
stage
or dividing
cell





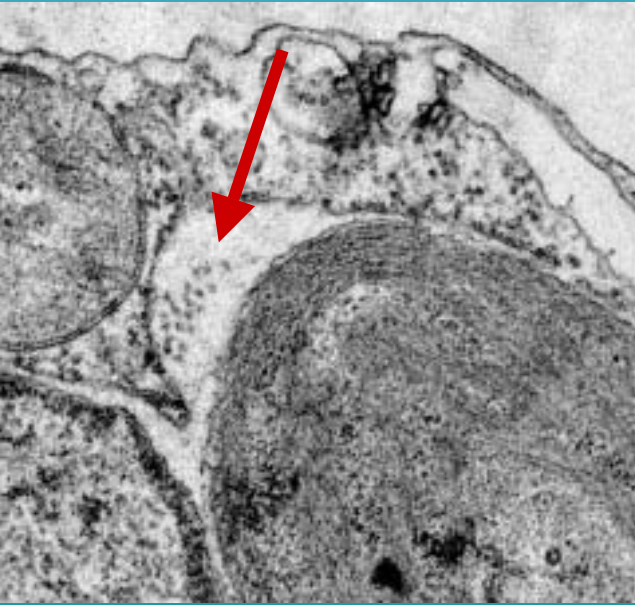
Chloroplast with girdle lamella



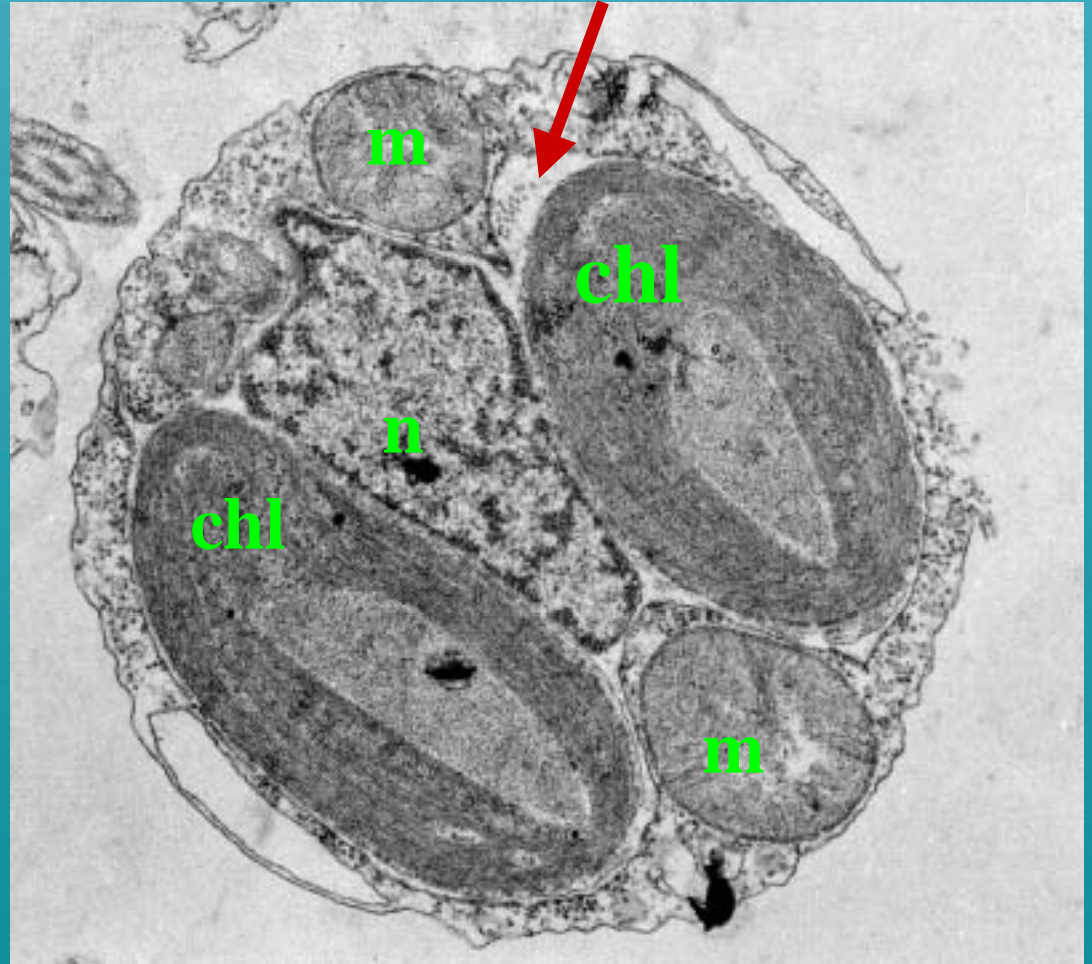
Basal body
fitting into
depression
in nucleus



Cell with two chloroplasts and tubular hairs in periplastidal compartment



Detail with tubular hairs



- **Two flagella**
- **Tubular hairs**
- **No mikrotubular roots**
- **Fiber roots**
- **2 gyre helix**
- **No rhizoplast**
- **Basal body in a depression of the nucleus**
- **Chloroplast with girdle lamella**
- **Outer chloroplast membrane**

continuous with nucluar membrane



