

Samčí gametofyt

Rostlinná embryologie 2021 – Hana Cempírková



Jak vznikají
tyčinky?

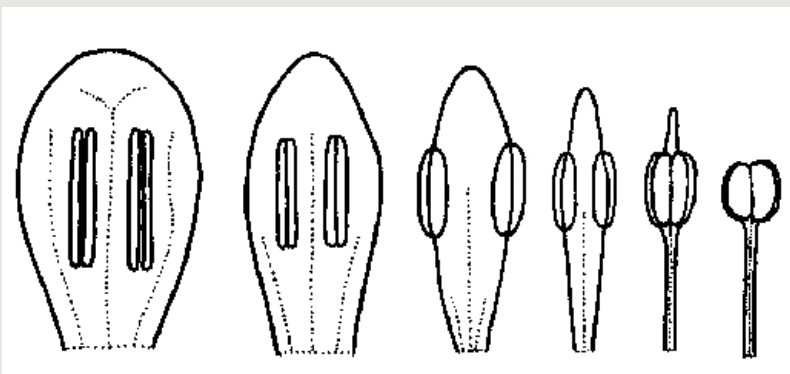
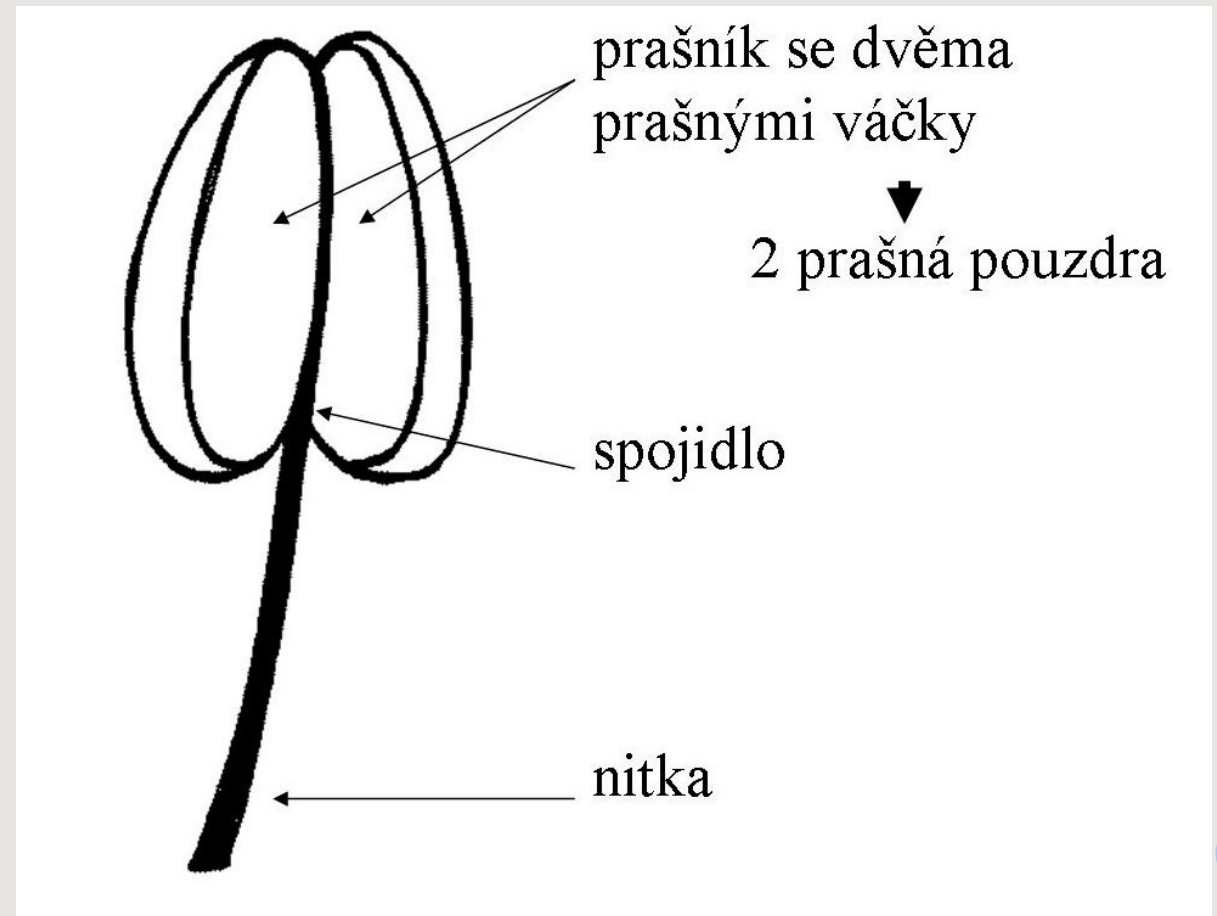
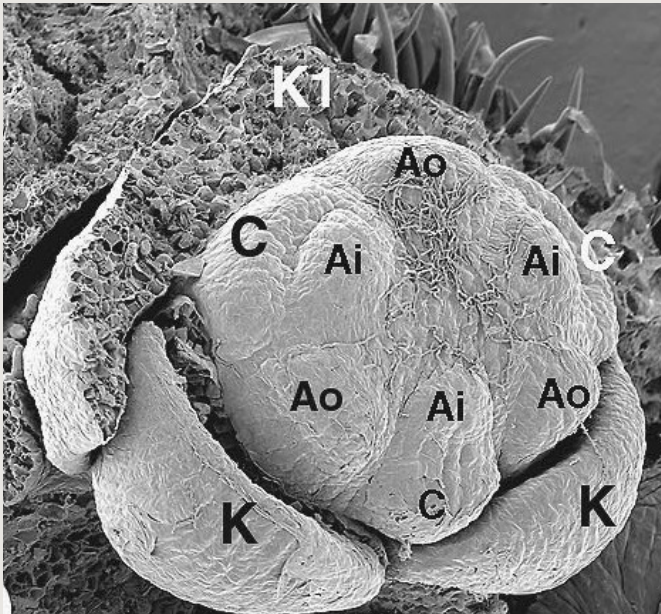
Jak vzniká pyl?

Jak vypadá
pylové zrno
zblízka?

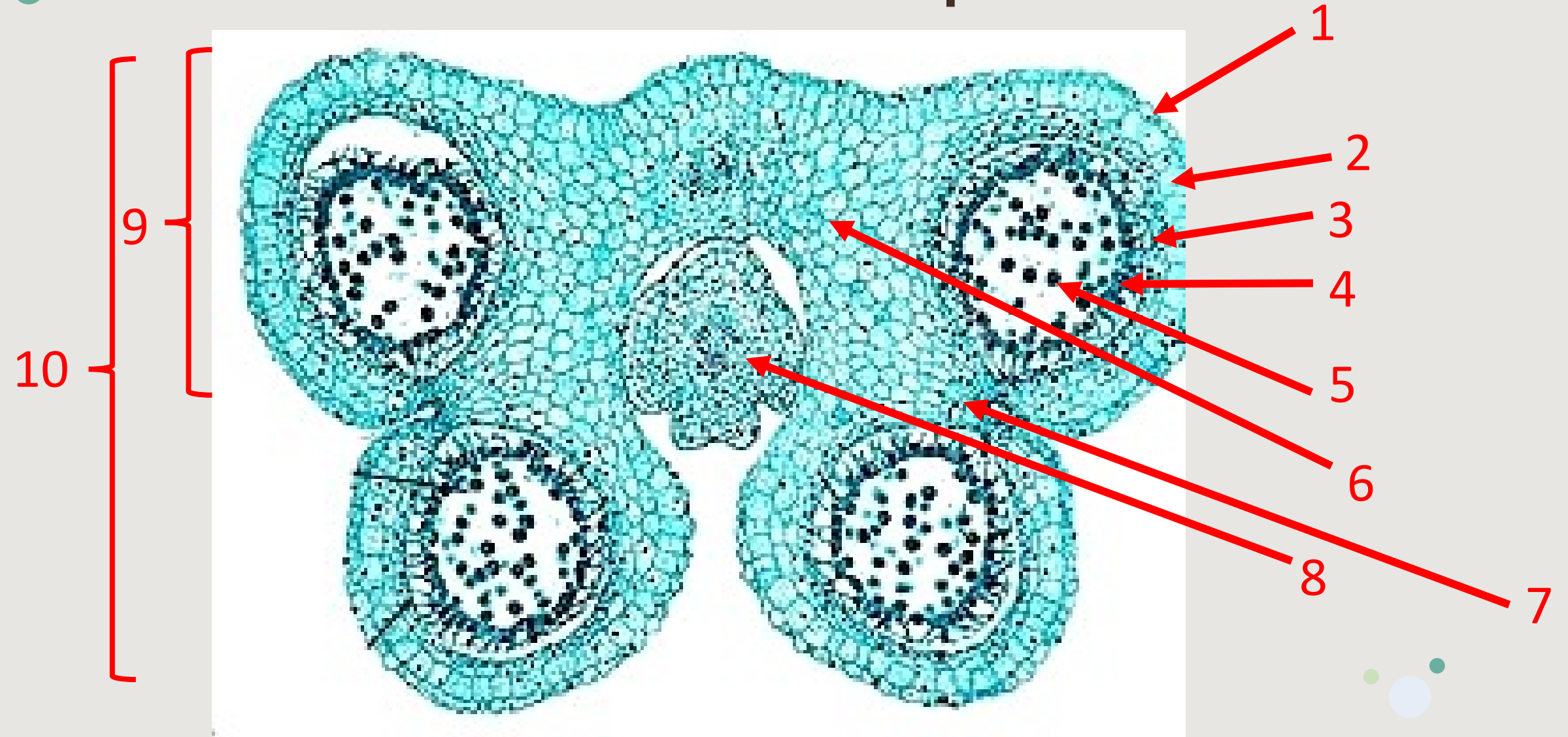


Tyčinka – samčí rozmnožovací orgán

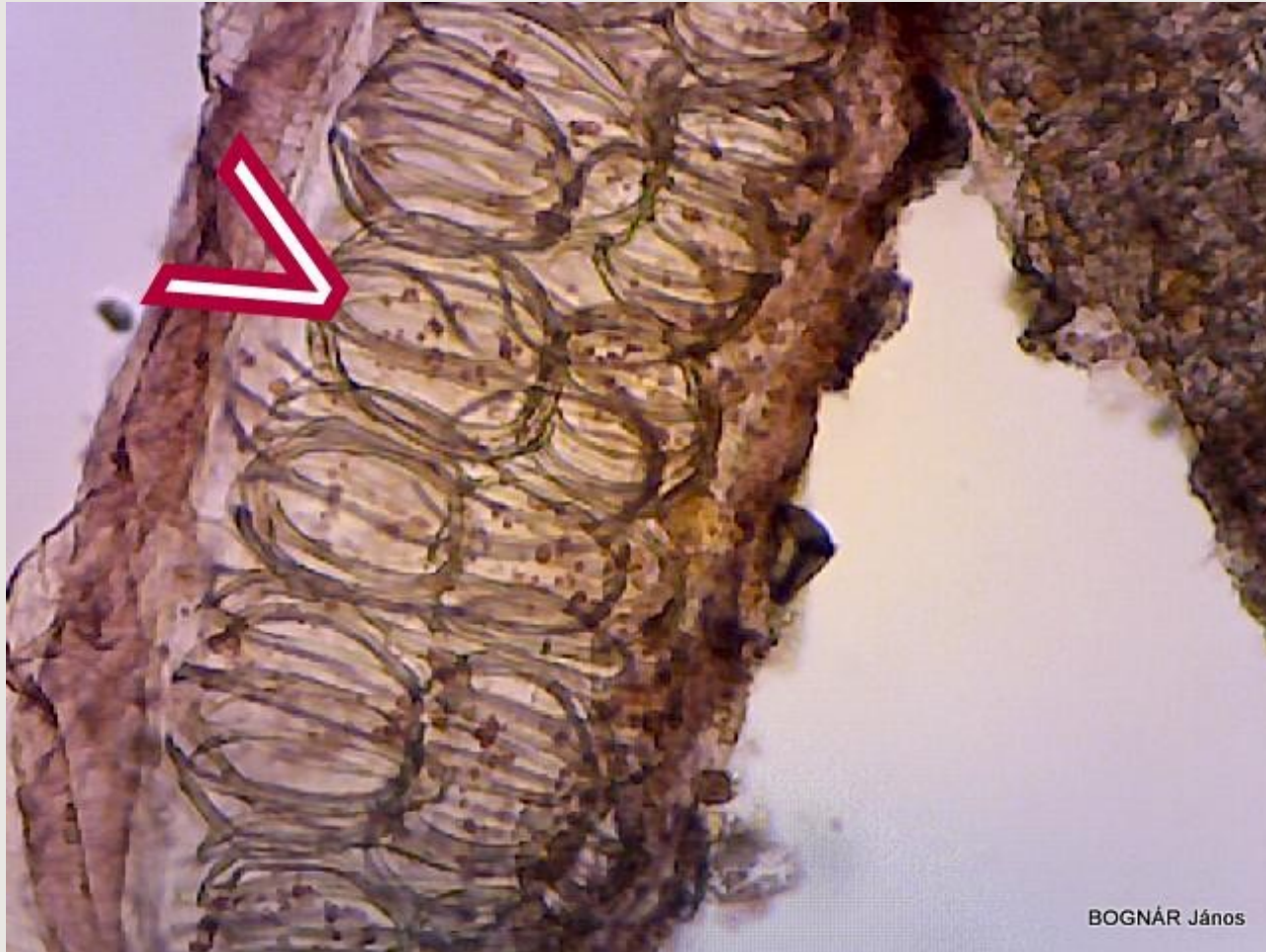
Androeceum – soubor tyčinek



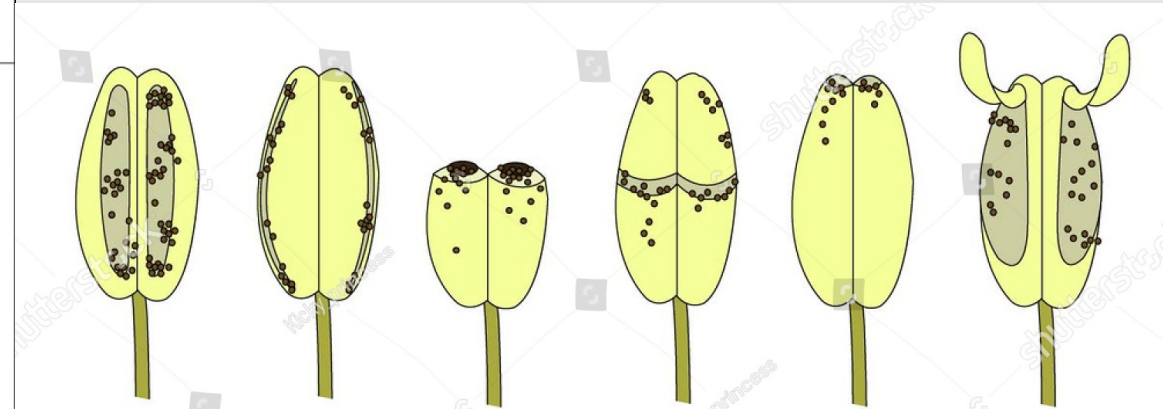
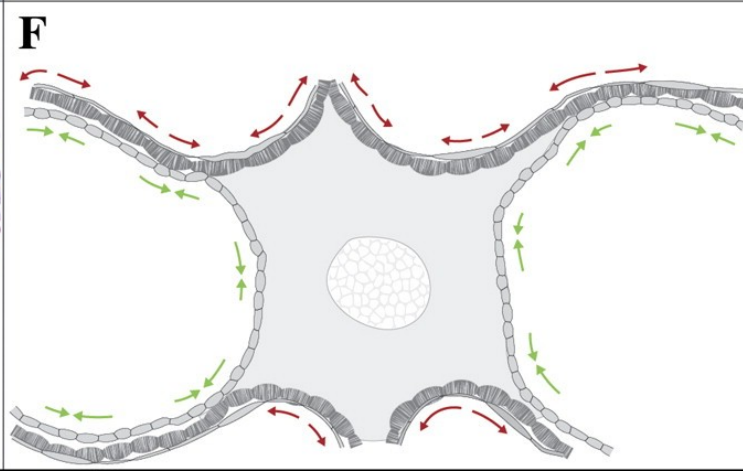
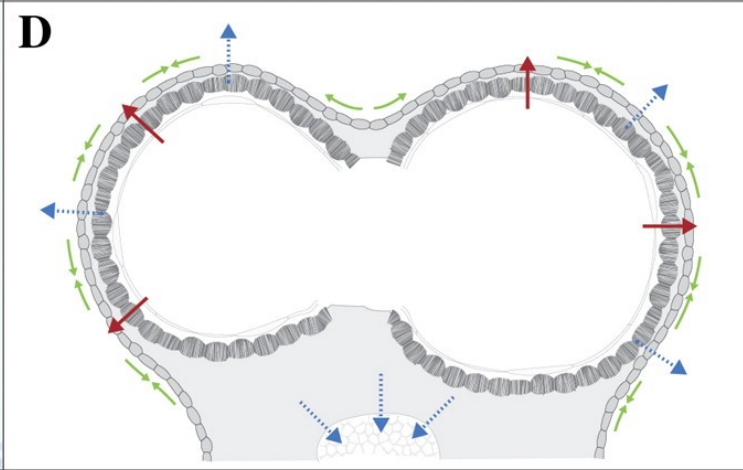
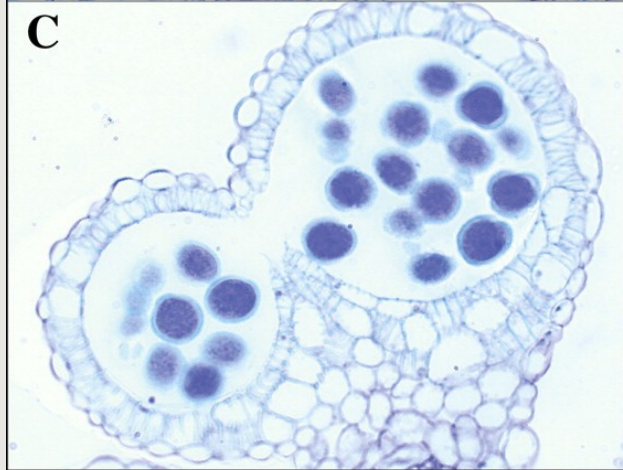
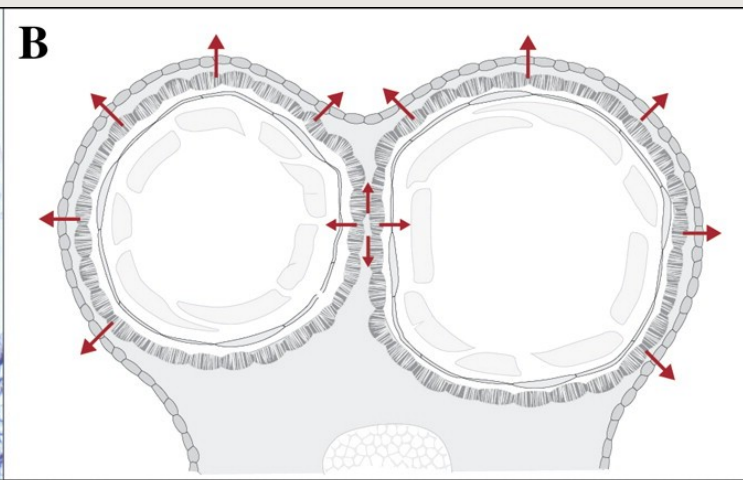
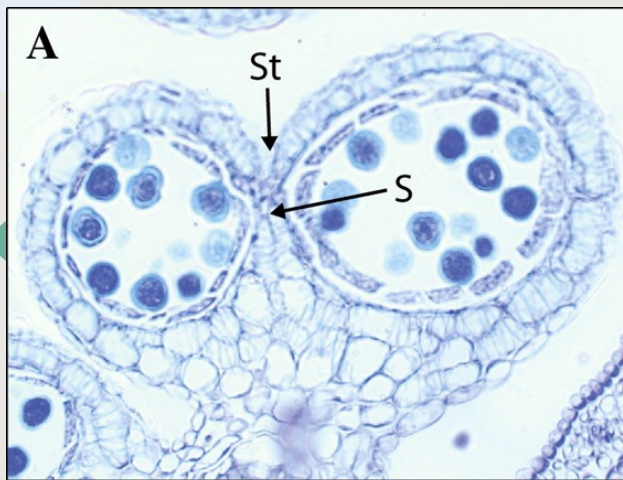
Anatomická stavba prašníku



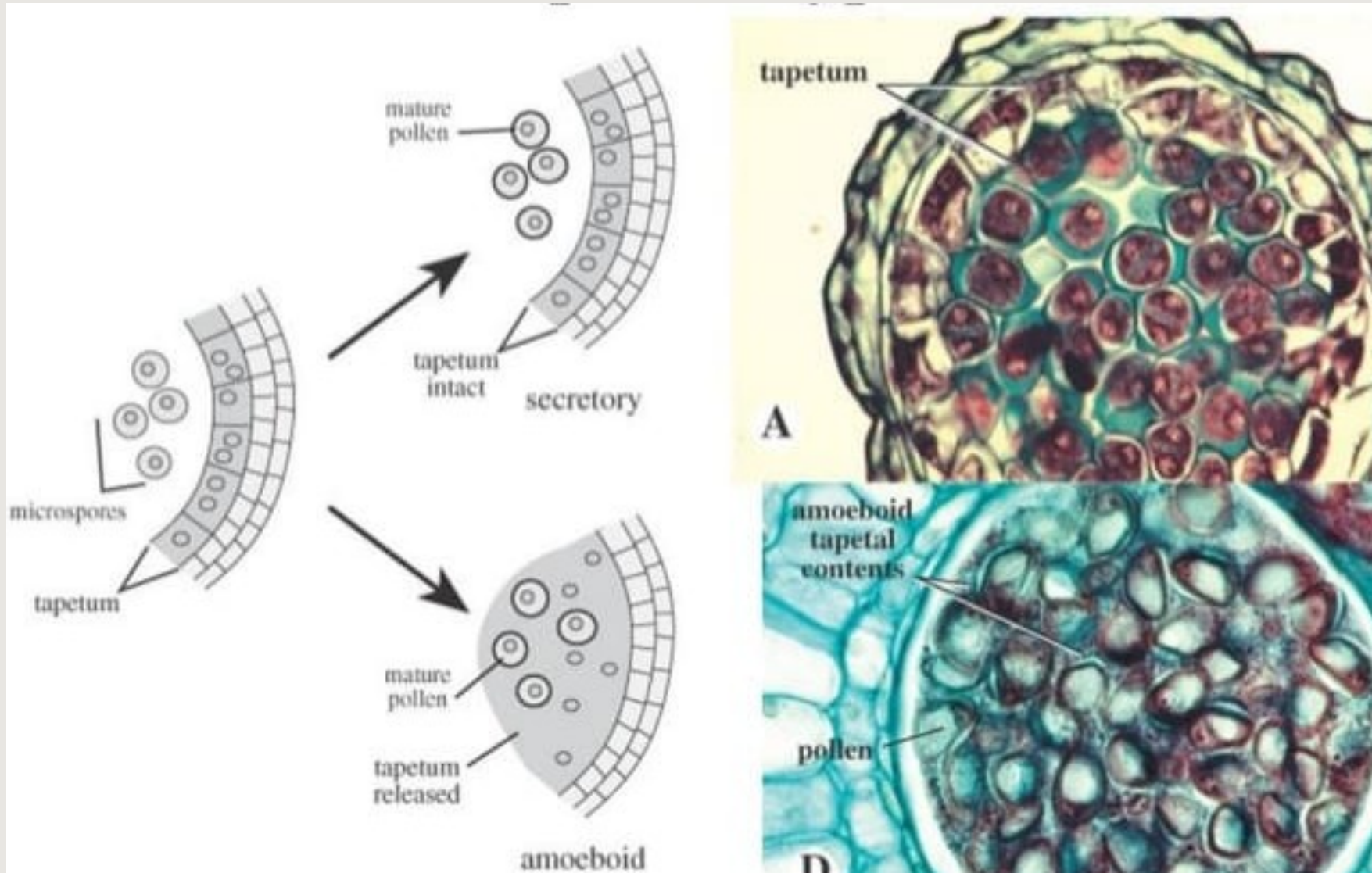
Endothecium



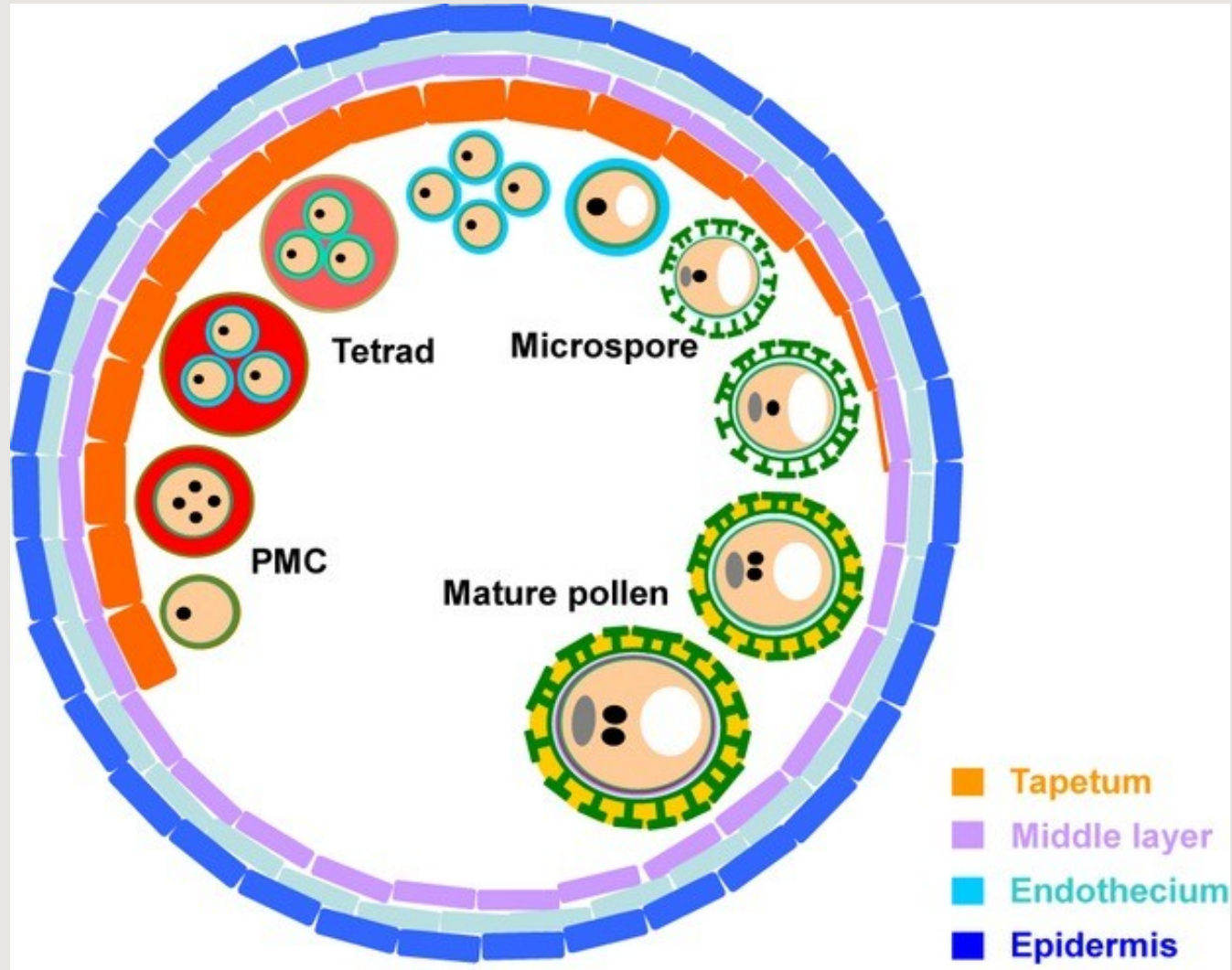
Dehiscence prašníku

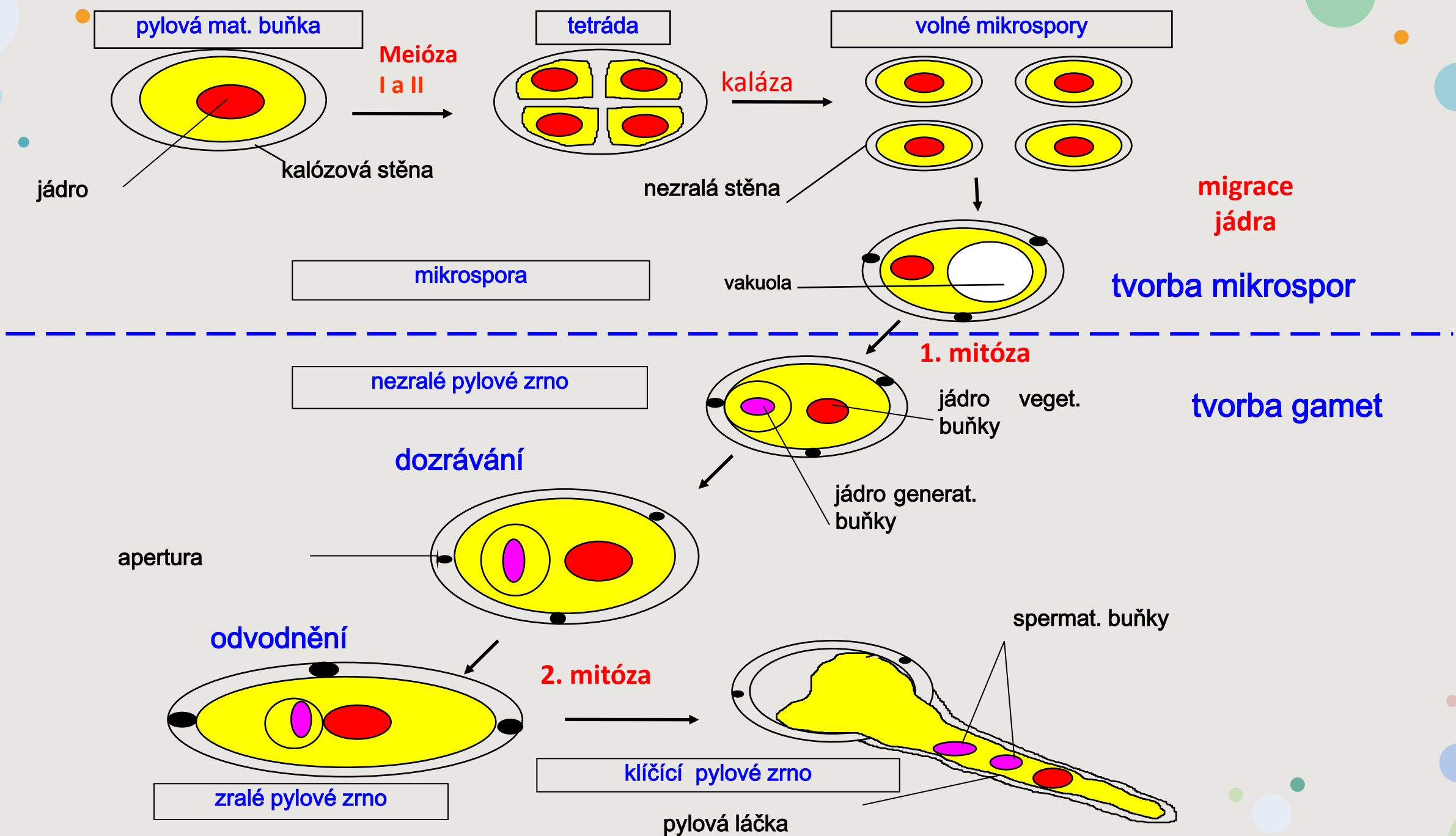


Tapetum – žlaznaté a améboidní



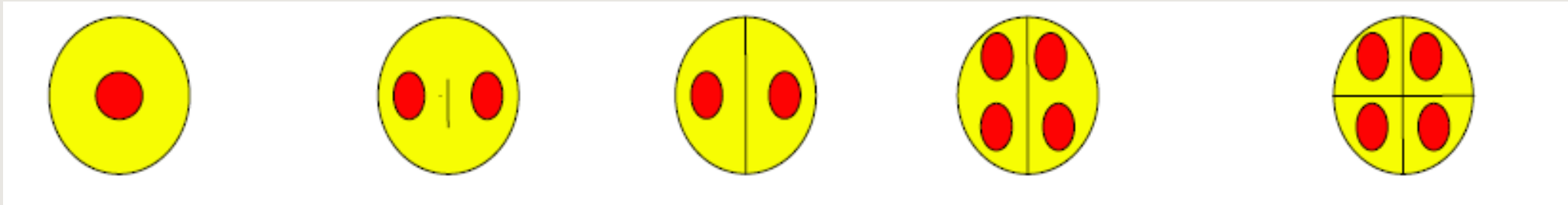
Vývoj tapeta je synchronizovaný z vývojem mikrospor



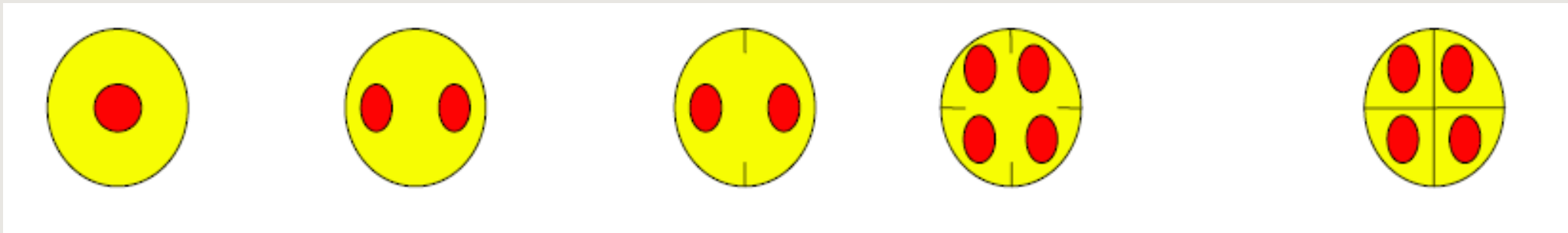


Typy tvorby tetrad

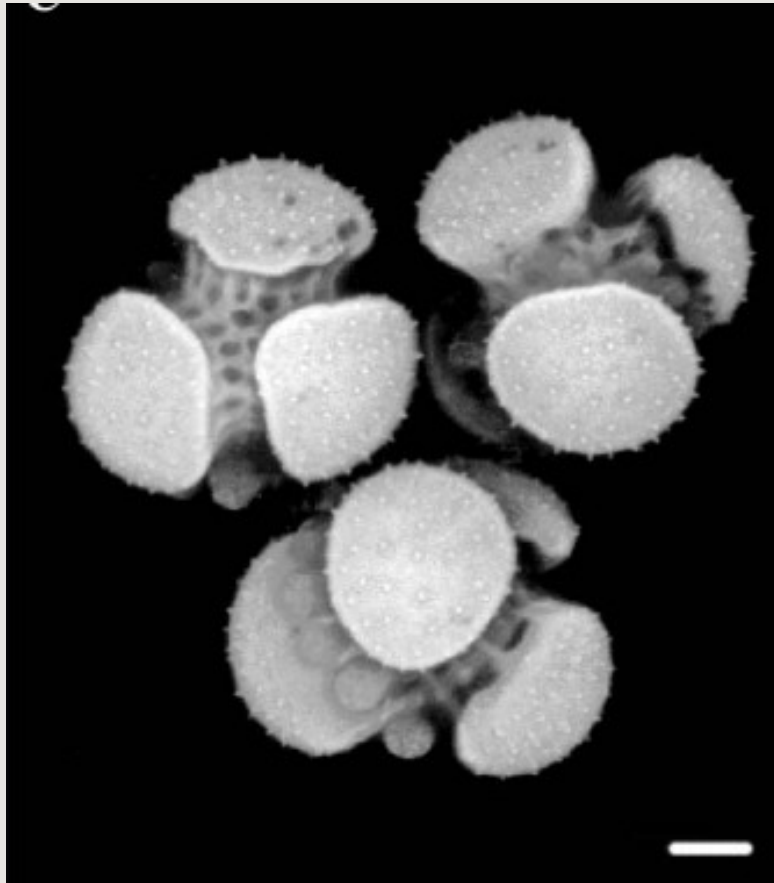
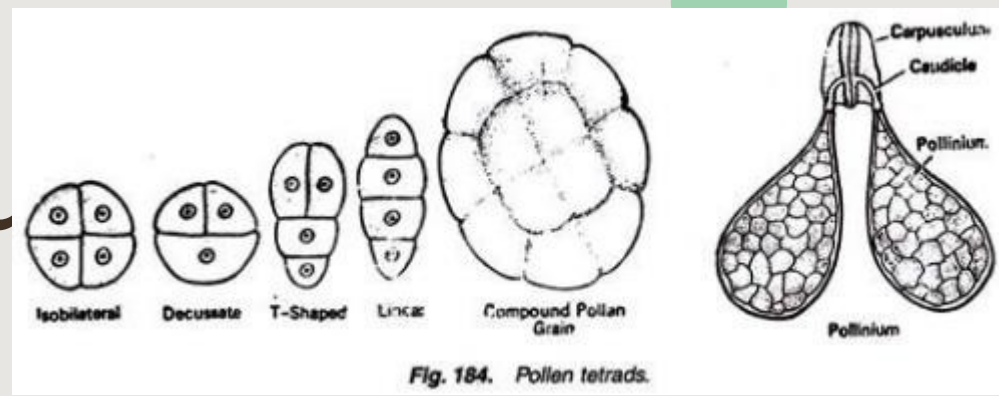
sukcesivní typ



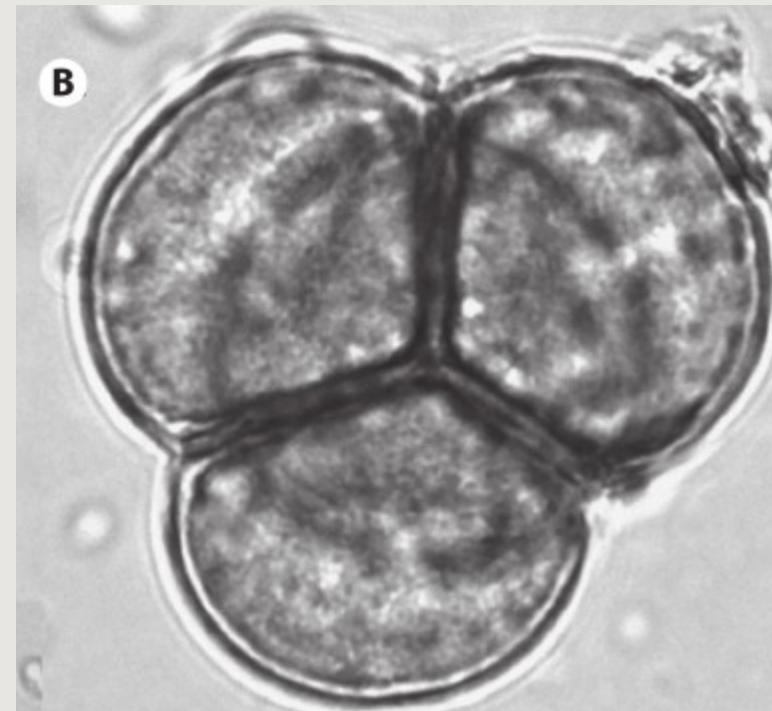
simultánní typ



Přirozené tetrády pylu

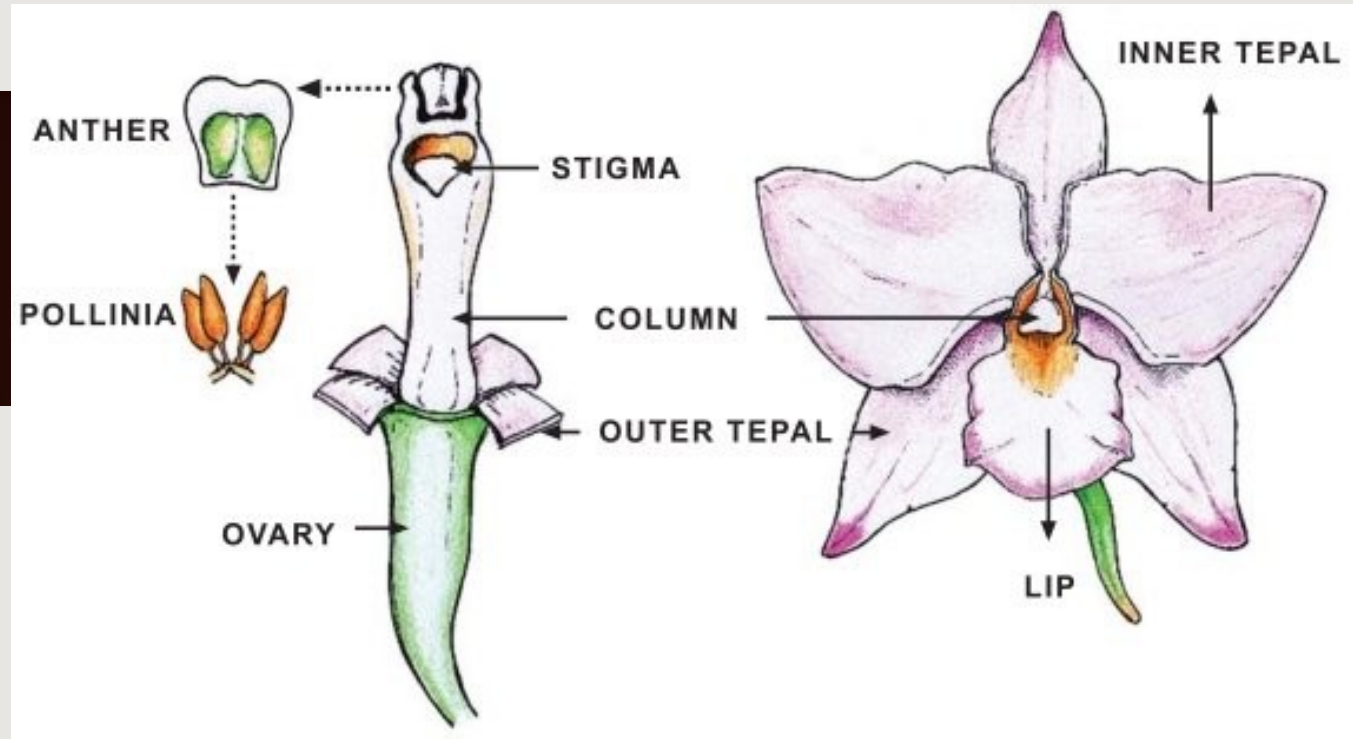


Drosera (rosnatka)

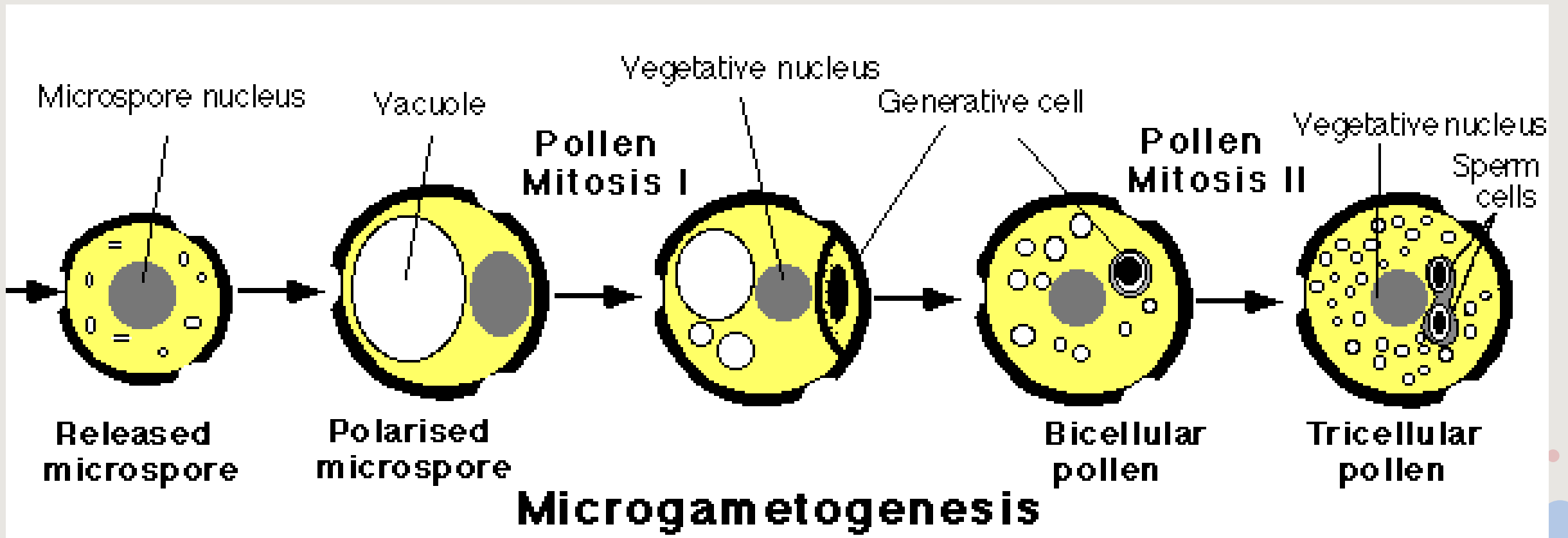


Ericaceae (vřesovité)

Polinárium (brylky) orchidejí



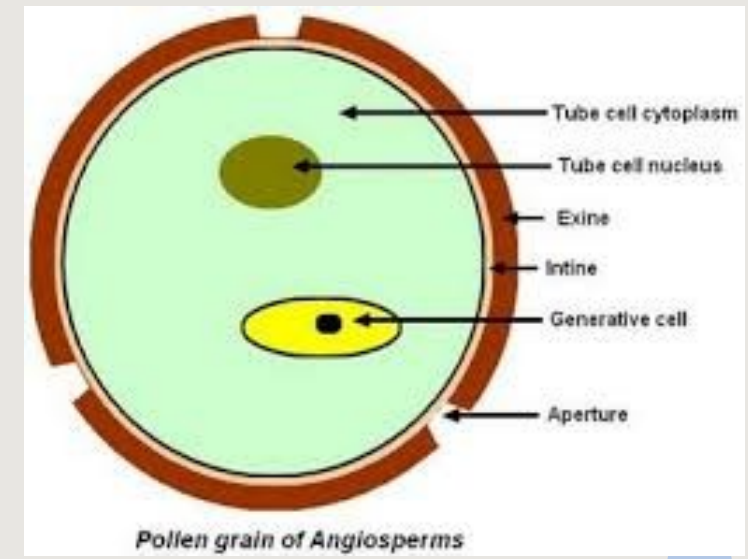
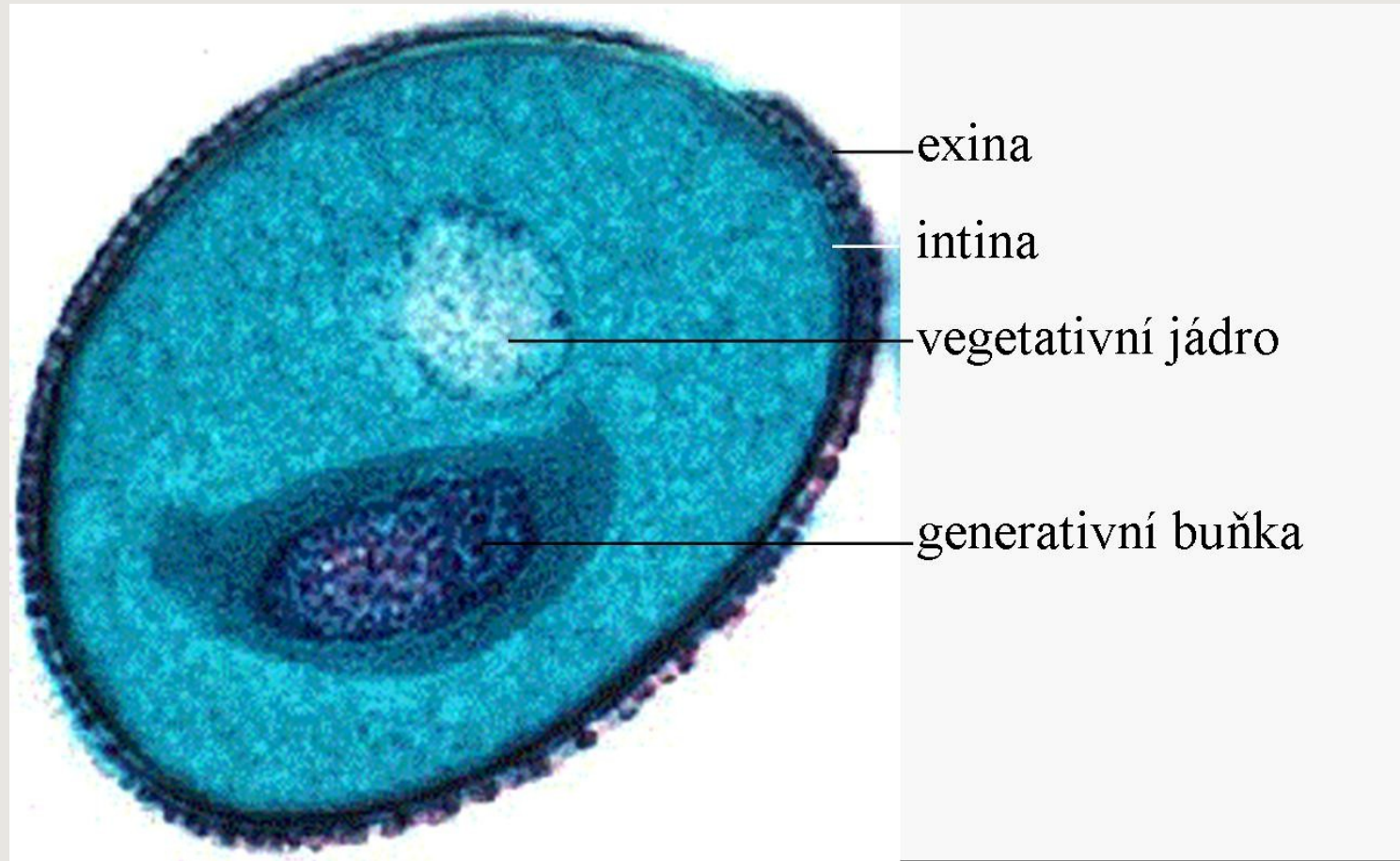
Dvojbuněčný a trojbuněčný pyl



Přestávka



Stavba pylového zrna



Klasifikace pylových zrn NPC

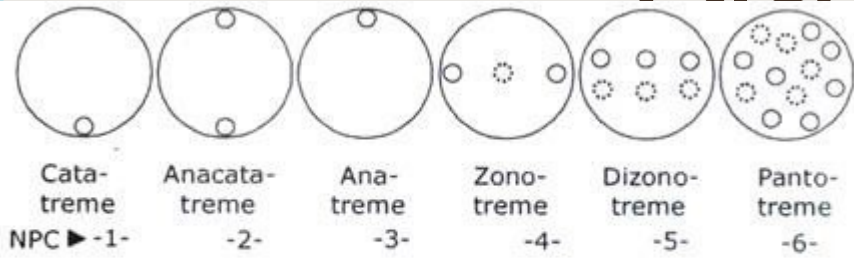


Figure 4.26

Number of apertures (N)▶	Ditrema 2 --	Tritrema 3 --	Tetatrema 4 --
Zonoporate NPC (-44)▶	244 Di-zonoporate Ex. <i>Colchicum</i>	344 Tri-zonoporate Ex. <i>Betula</i>	444 Tetra-zonoporate Ex. <i>Alnus</i>
Zonocolpate NPC (-43)▶	243 Di-zonocolpate Ex. <i>Tofieldia</i>	343 Tri-zonocolpate Ex. <i>Acer</i>	443 Tetra-zonocolpate Ex. <i>Hippuris</i>
Zonocolporate NPC (-45)▶	245 Di-zonocolporate Ex. <i>Justicia simplex</i>	345 Tri-zonocolporate Ex. <i>Lippia alba</i>	445 Tetra-zonocolporate Ex. <i>Rumex</i>

Figure 4.28
 Diagrammatic representation of NPC of some pollen in polar view.

Number of apertures (N)▶	Pentatrema 5 --	Hexatrema 6 --	Polytrema 7 --
Zonoporate NPC (-44)▶	544 Penta-zonoporate Ex. <i>Alnus</i>	644 Hexa-zonoporate Ex. <i>Ulmus</i>	744 Poly-zonoporate
Zonocolpate NPC (-43)▶	543 Penta-Zonocolpate	643 Hexa-Zonocolpate	743 Poly-Zonocolpate
Ex. Labiatae, Rubiaceae			
Zonocolporate NPC (-45)▶	545 Penta-zonocolporate Ex. <i>Viola</i>	645 Hexa-zonocolporate Ex. <i>Sanguisorba officinalis</i>	745 Poly-zonocolporate Ex. <i>Utricularia</i>

Figure 4.29
 Diagrammatic representation of NPC of some pollen in polar view.

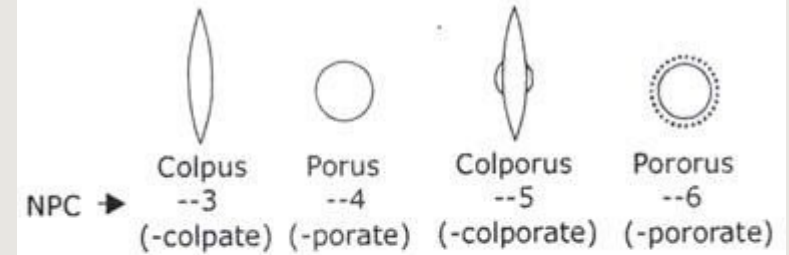


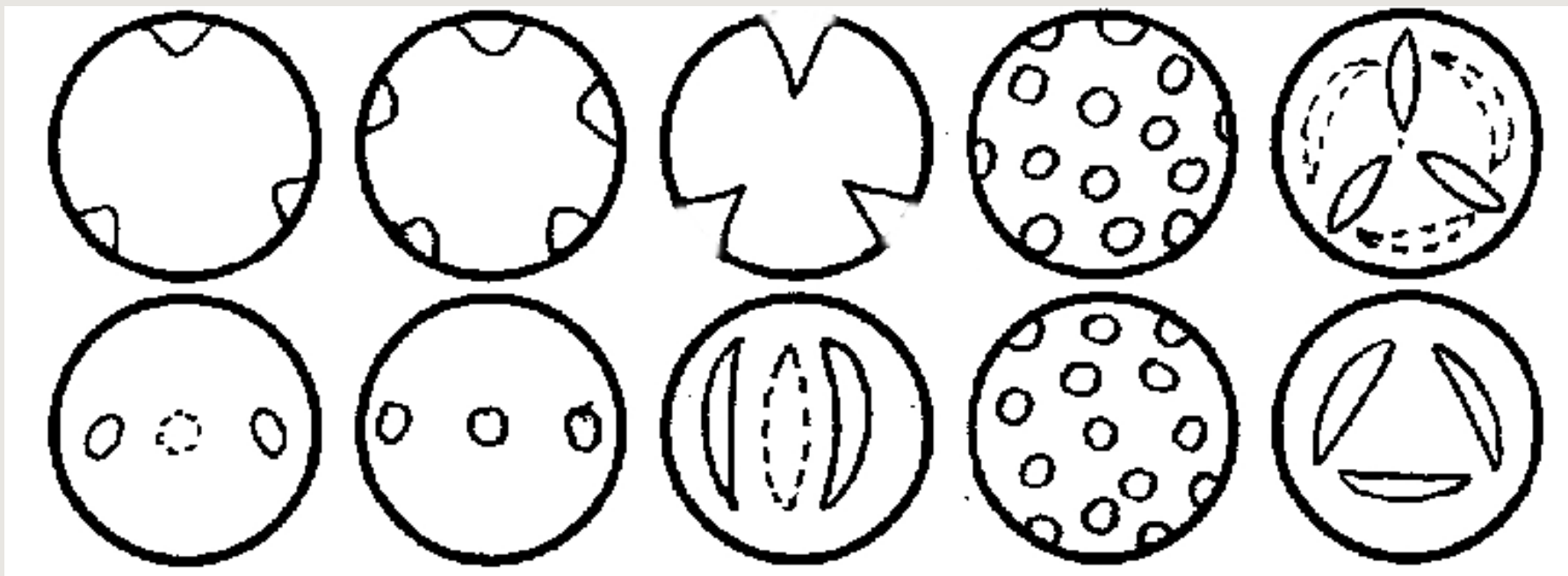
Figure 4.27

Schematic representation of character (C) of some apertures present in a pollen grain and its number in NPC. Dotted line indicates different plane of focus.

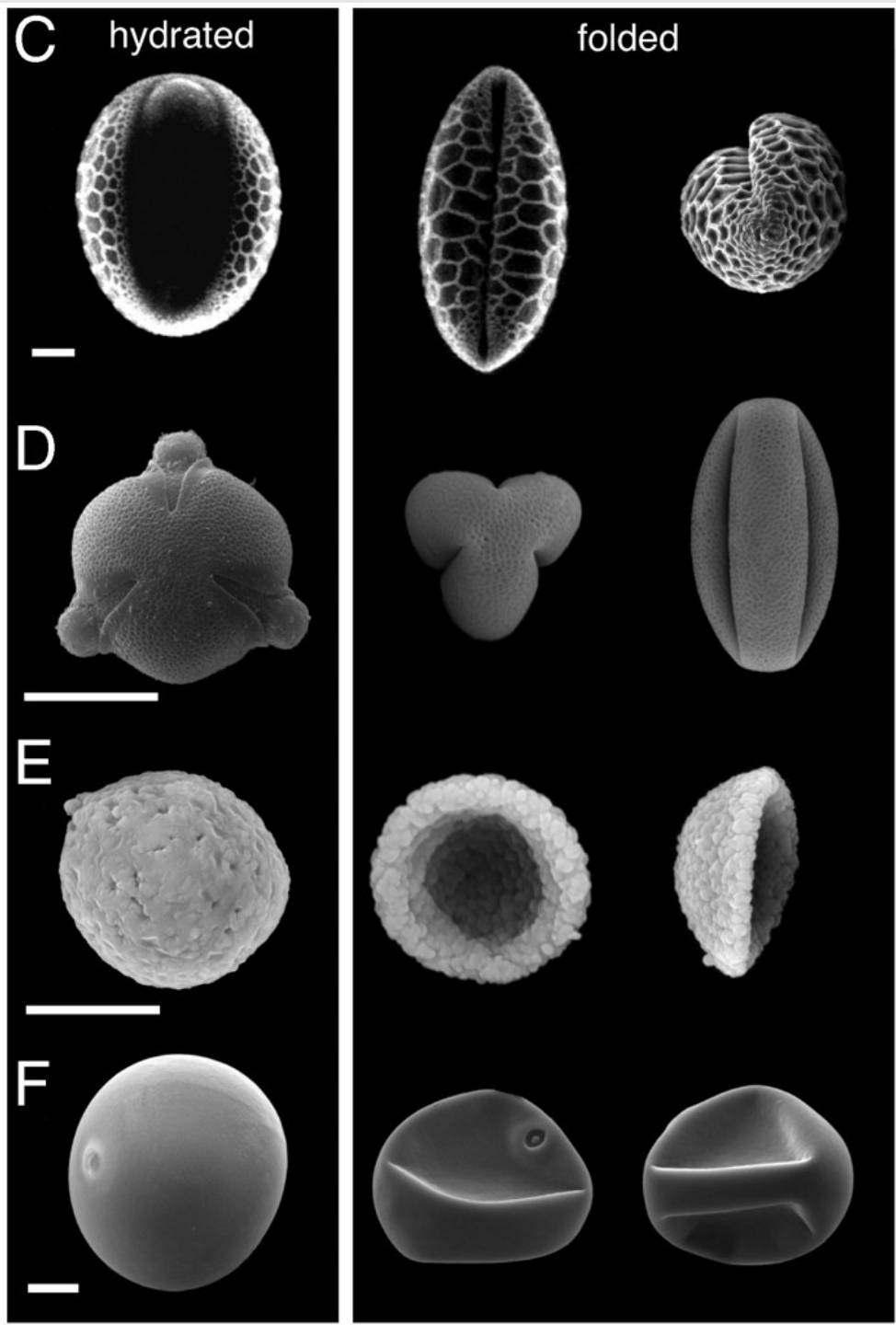
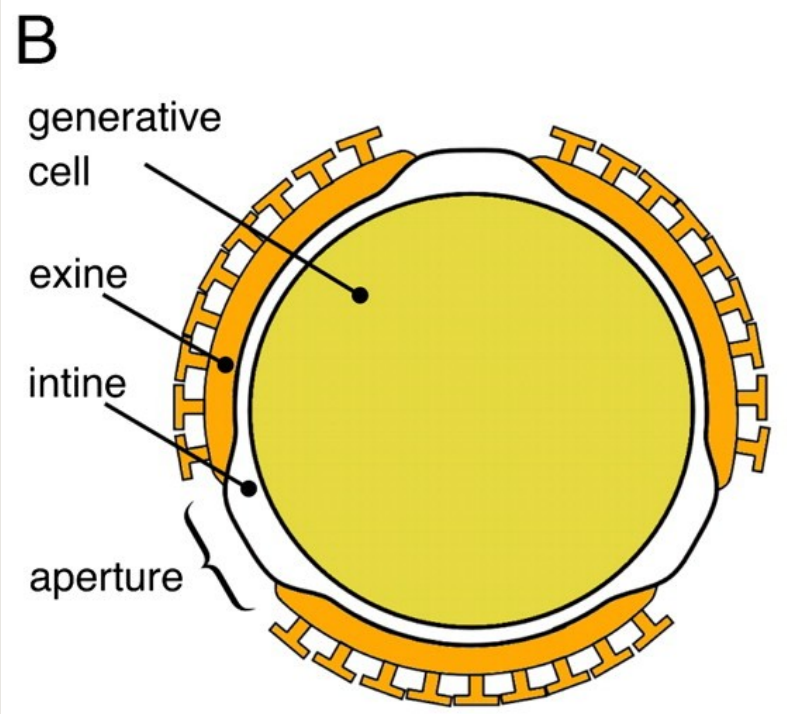
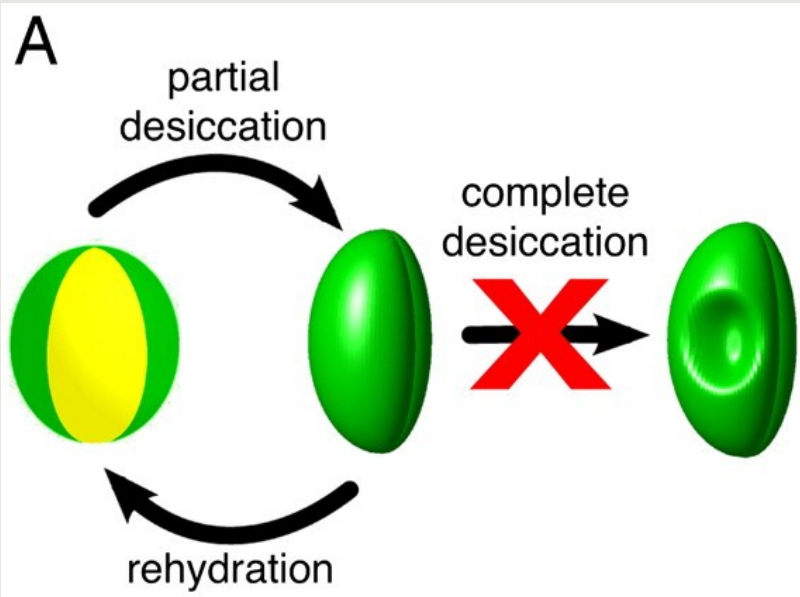
Number of apertures (N)▶	Pentatrema 5 --	Hexatrema 6 --	Polytrema 7 --
Pantoporate NPC (-64)▶	564 Penta-pantoporate Ex. <i>Plantago</i>	664 Hexa-pantoporate Ex. <i>Plantago</i>	764 Poly-pantoporate Ex. <i>Chenopodium</i>
Pantocolpate NPC (-63)▶	563 Penta-pantocolpate	663 Hexa-pantocolpate	763 Poly-pantocolpate Ex. <i>Polygonum amphibium</i>
Pantocolporate NPC (-65)▶	565 Penta-pantocolporate	665 Hexa-pantocolporate Ex. <i>Polygonum oxyspermum</i>	765 Poly-pantocolporate

Figure 4.30
 Diagrammatic representation of NPC of some pollen in equatorial view. Dotted lines indicate different plane of focus.

Příklady různých typů pylových zrn



- 1 - trizonoporátní (bříza)
- 2 - pentazonoporátní (olše)
- 3 - trizonokolpátní (javor, tabák)
- 4 - polyantoporátní (merlík, tykev)
- 5 - hexapantokolpátní (kuřinka)



Sporoderma – stěna pylového zrna

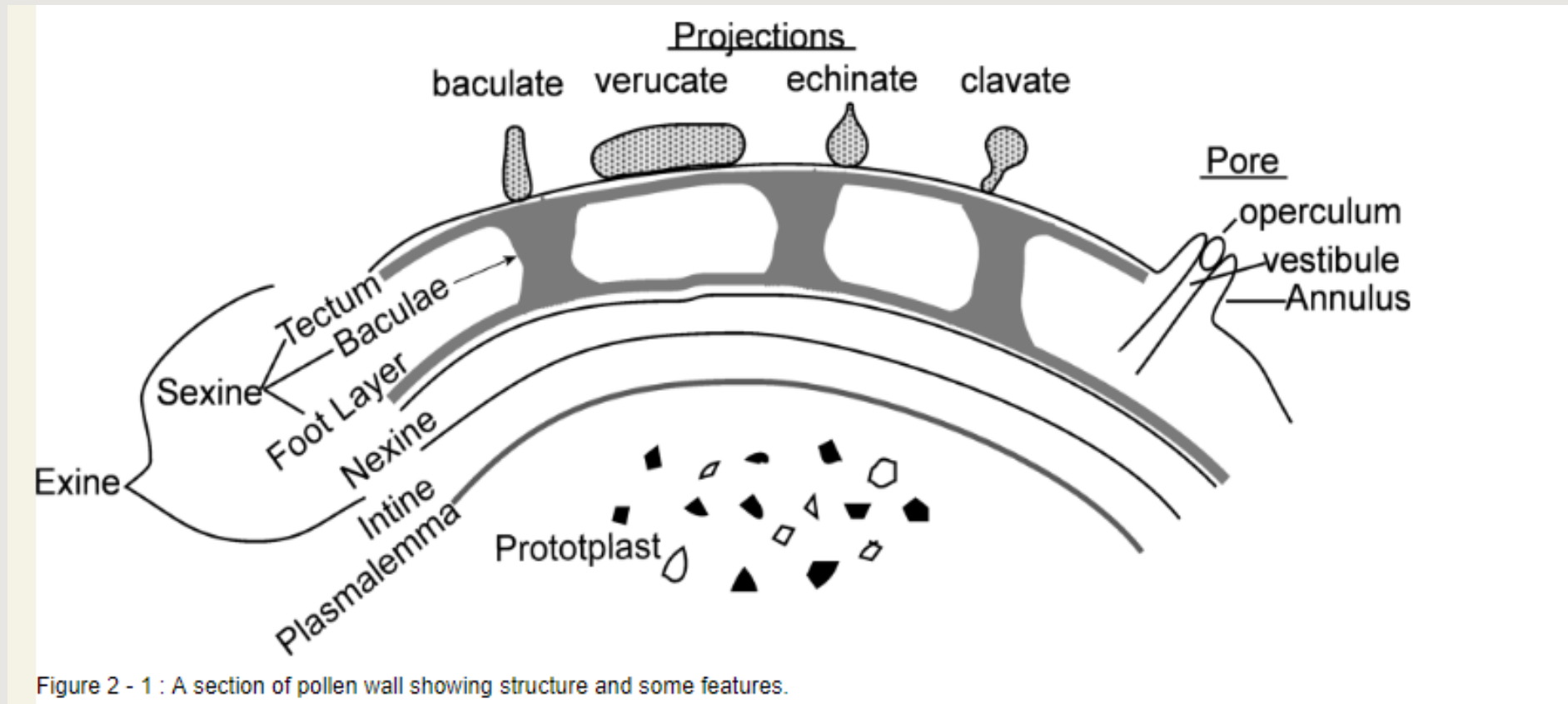


Figure 2 - 1 : A section of pollen wall showing structure and some features.

Stavba exiny pylového zrna pelyňku (*Artemisia*)

ektexina

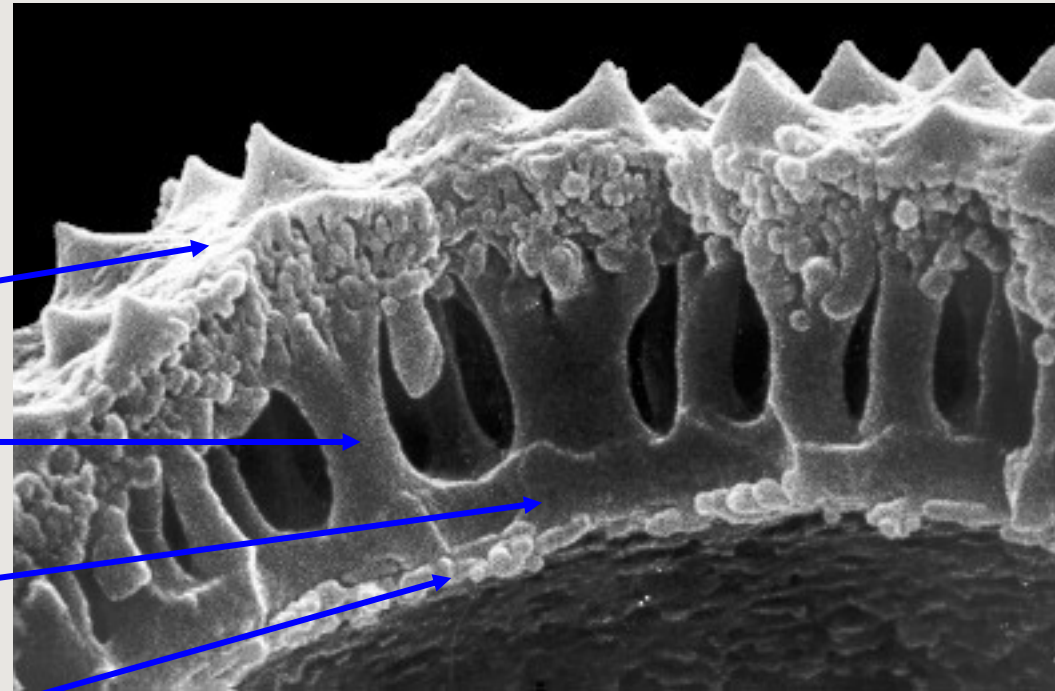
tektum

bakuly

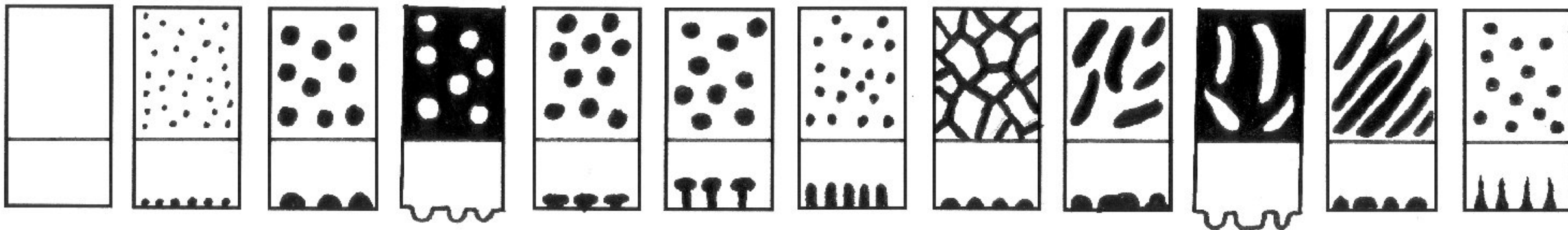
základní vrstva

endexina

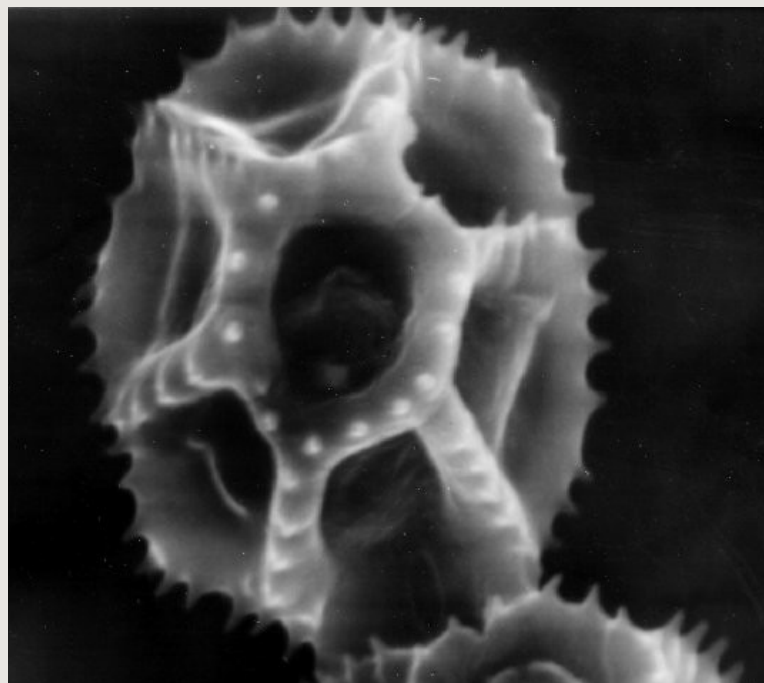
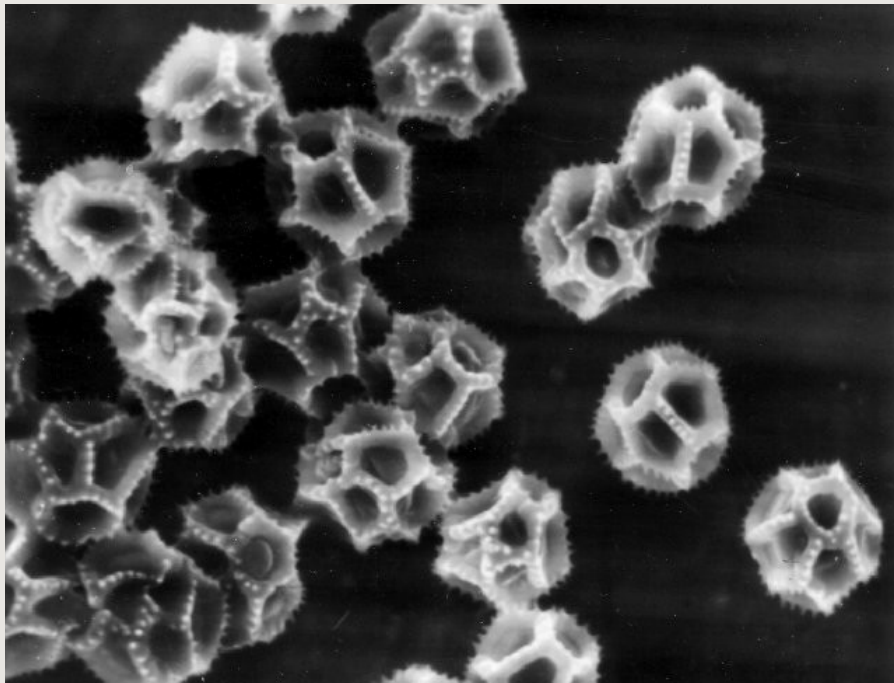
lamelární vrstva



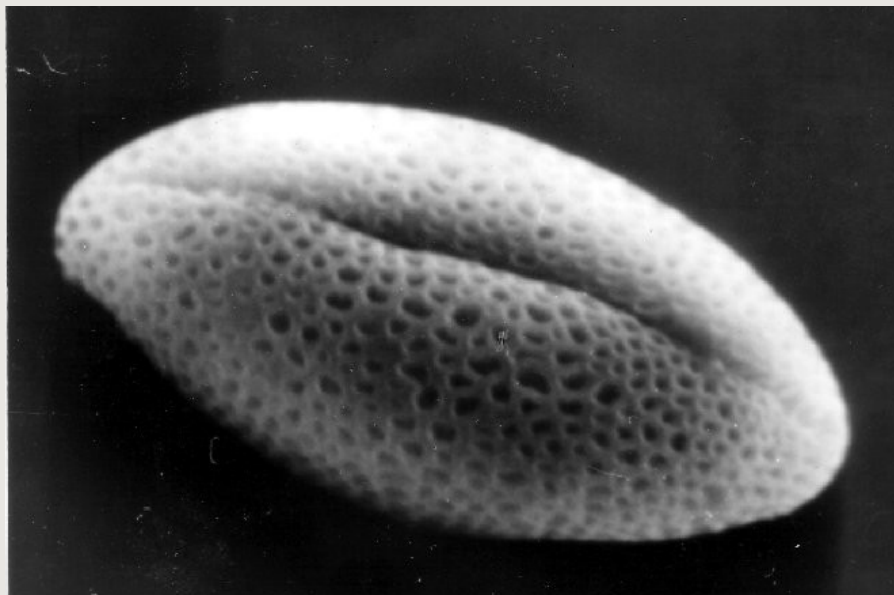
Příklady typů skulptur (ornamentace) exiny:



psilátní granulátní verukátní foveolátní gemátní klavátní bakulátní retikulátní rugulátní fosulátní striátní echinátní

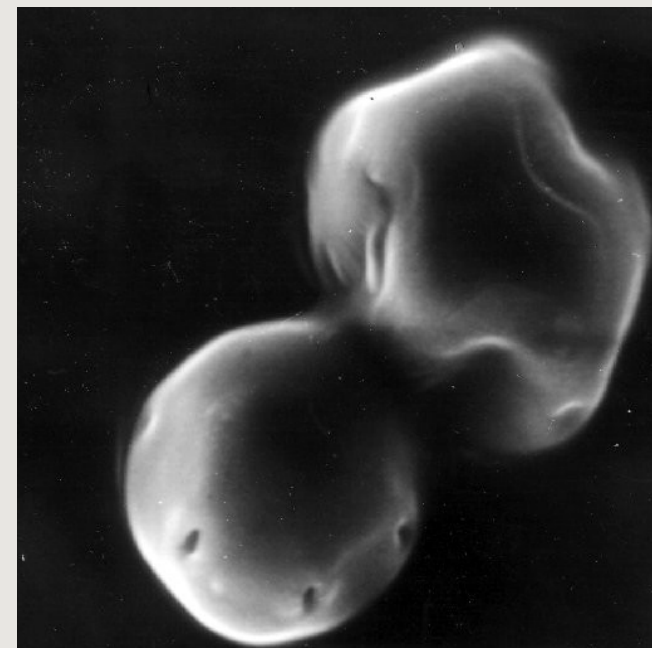


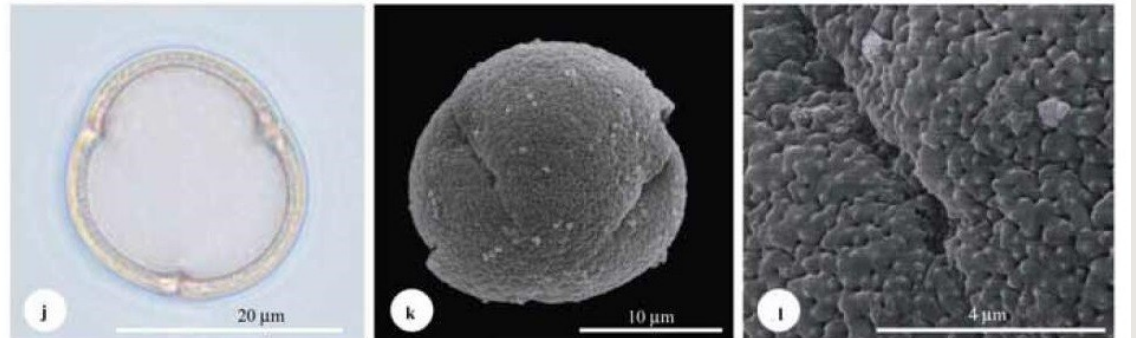
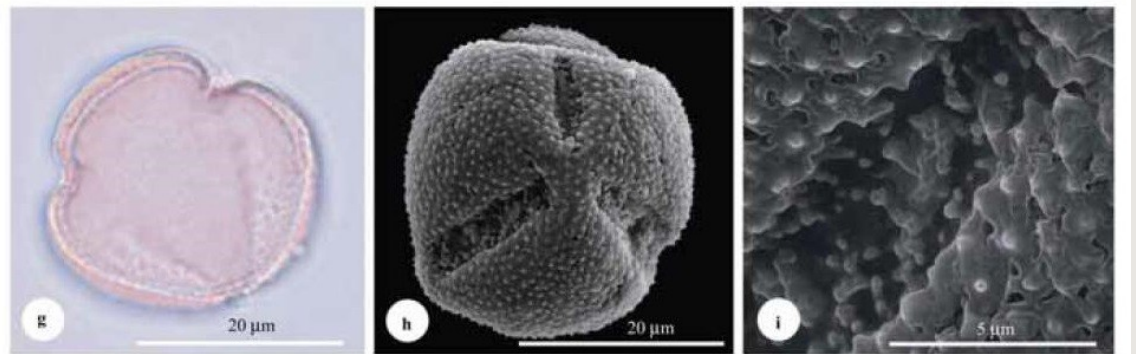
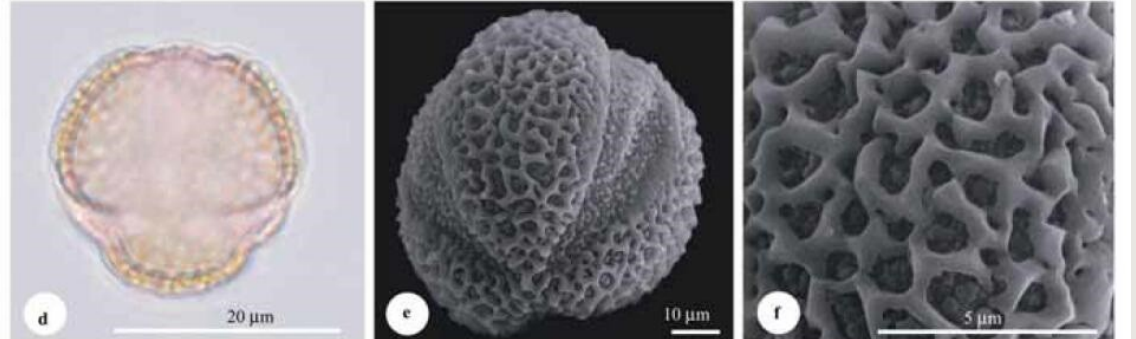
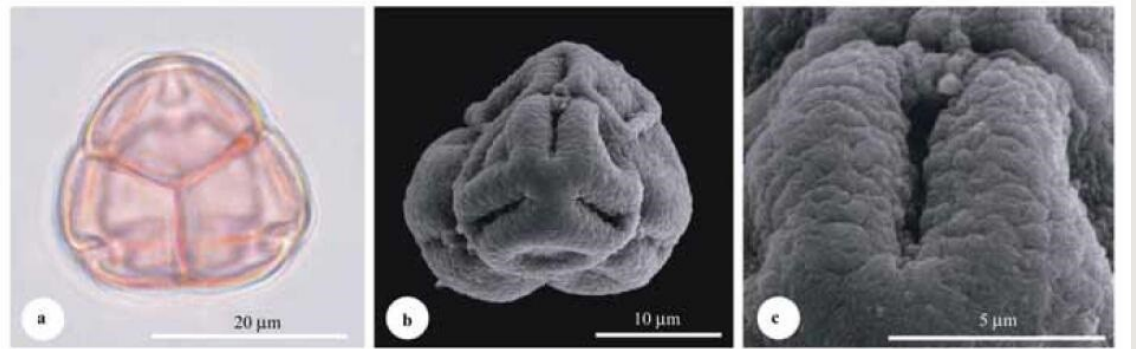
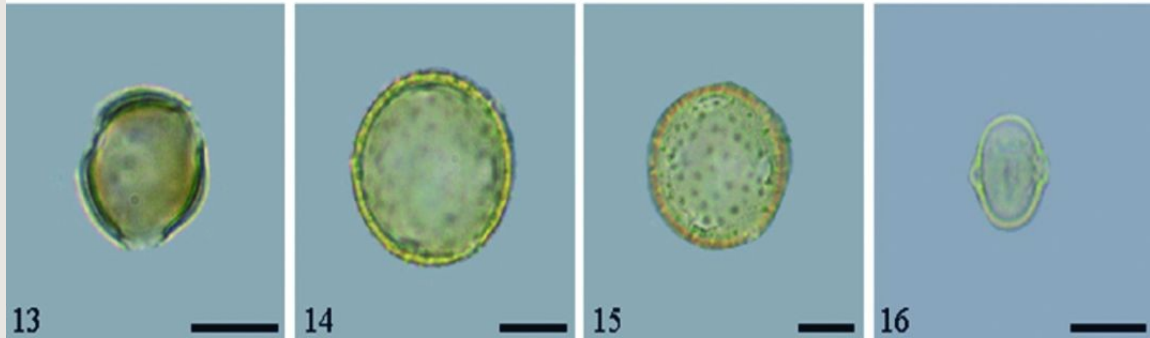
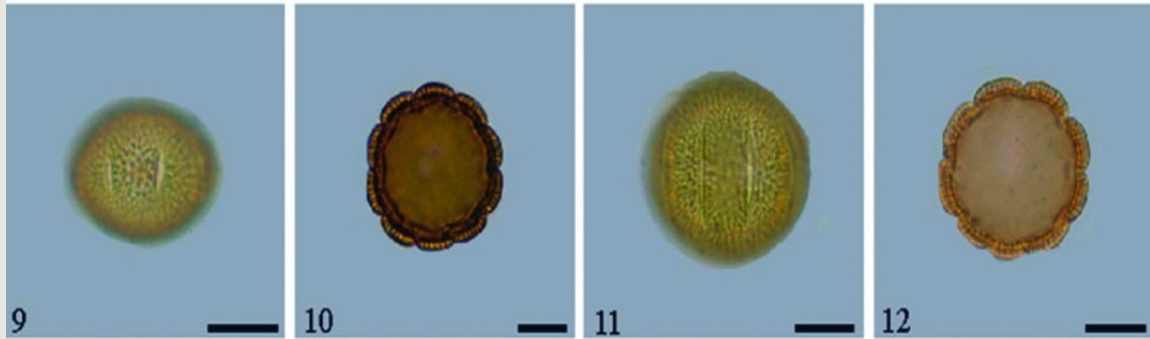
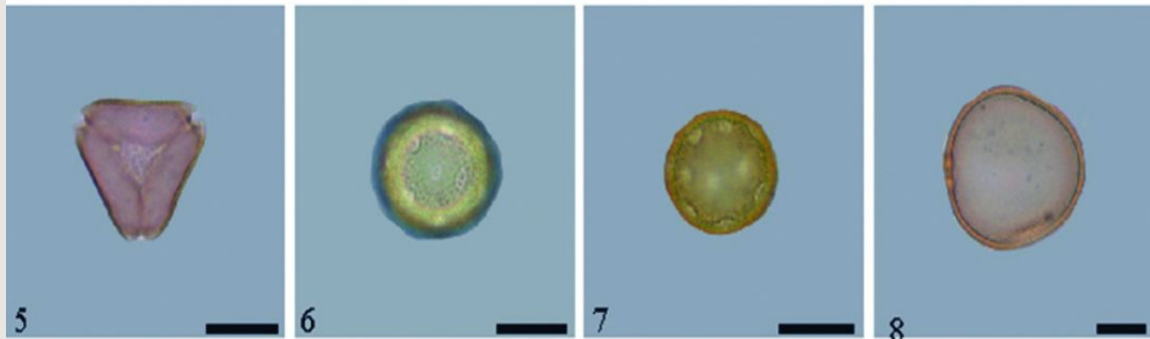
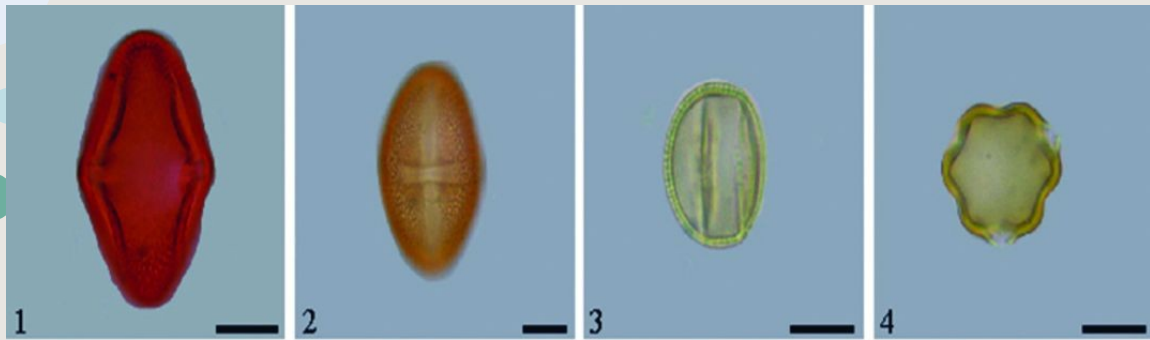
fenestrátní pylová zrna
locika kompasová
(*Lactuca serriola*).



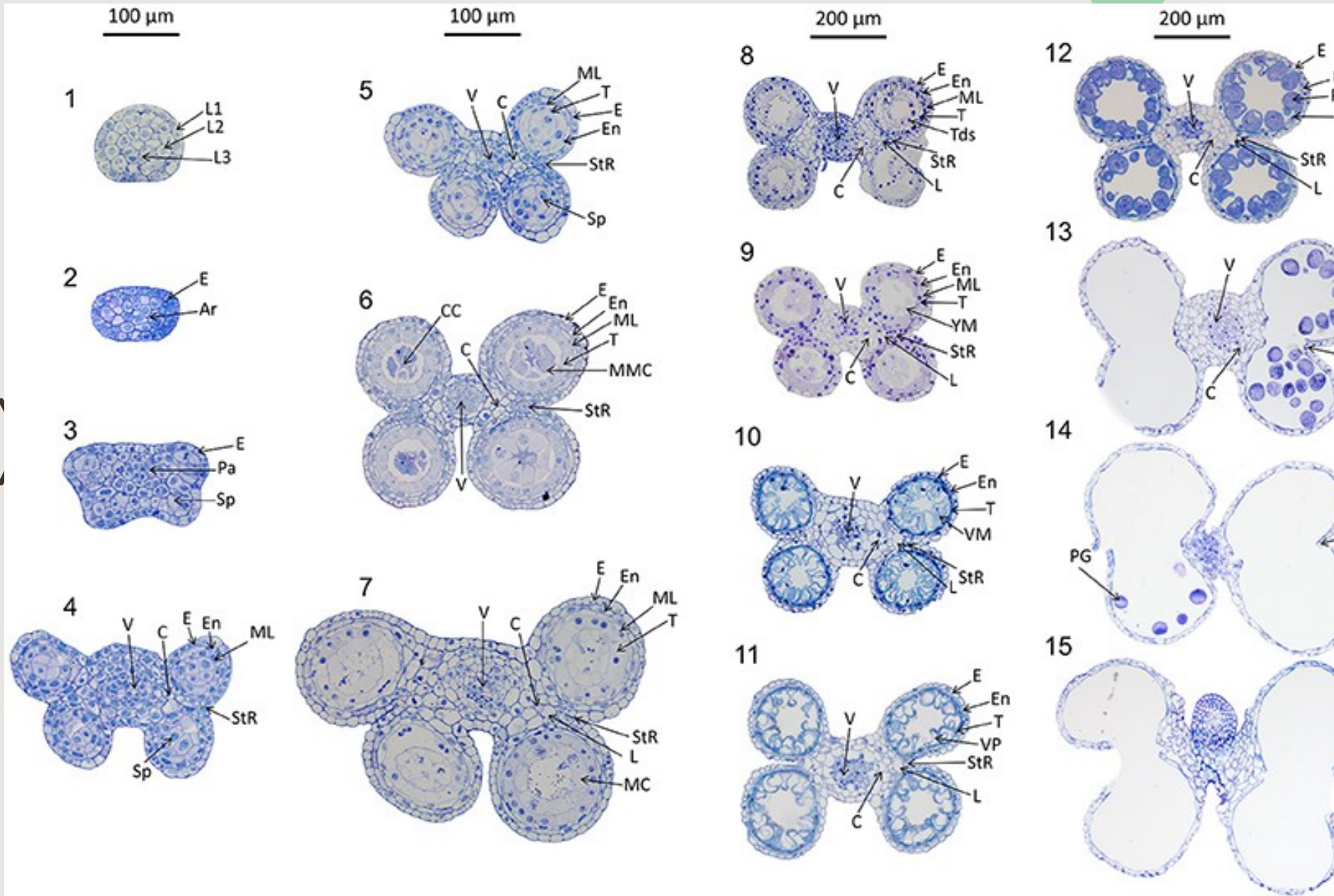
kolpátní pylové zrna
s povrchem retikulátním
brukev řepka olejka
(*Brassica oleracea*)

pentazonokolpátní pylové zrna
olše zelené (*Alnus viridis*)

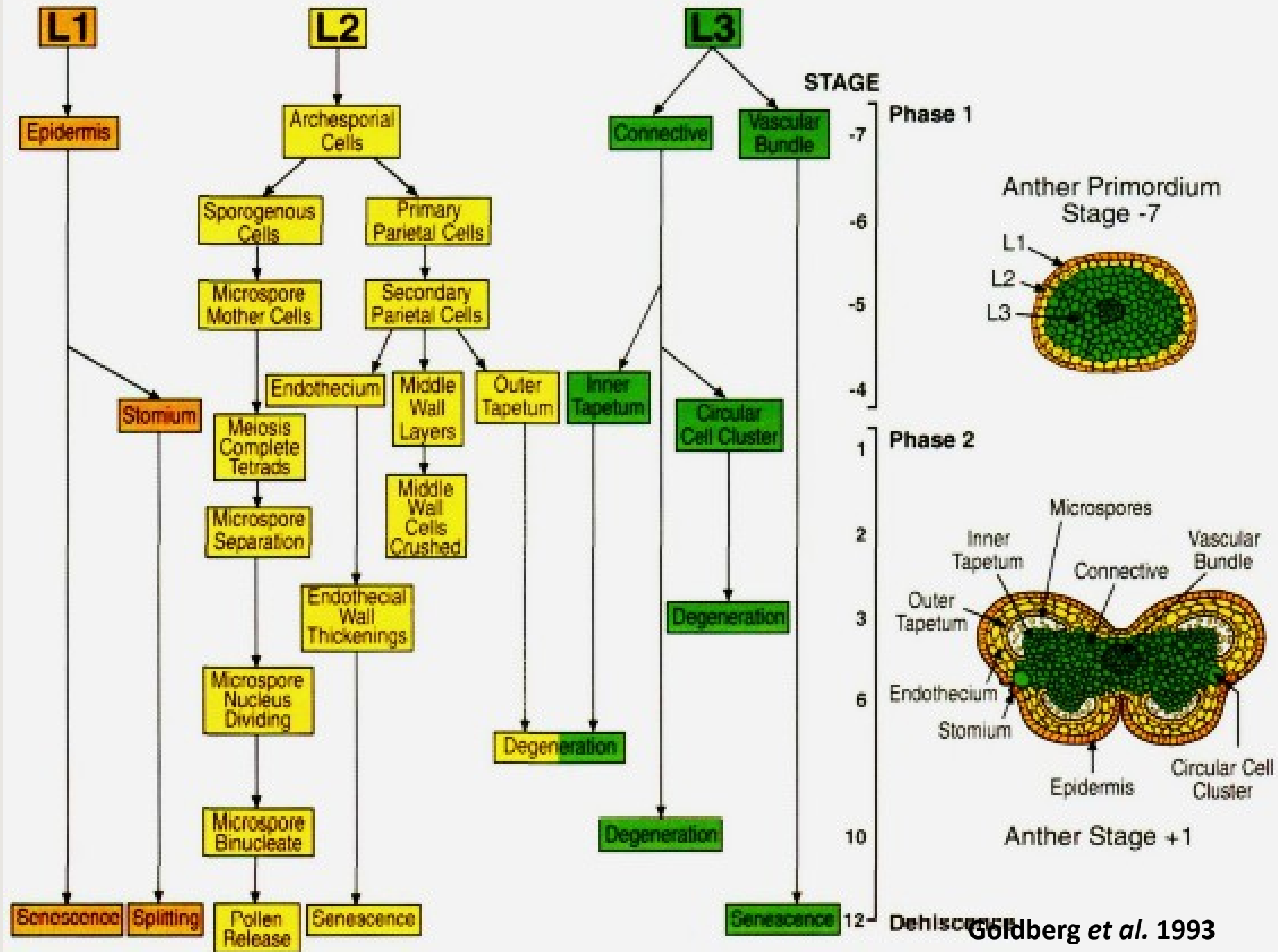




Vývoj prašníku (*Triticum aestivum*)



Vývoj prašníku tabáku



Shrnutí

