

3V: Parenhimska, provodna, mehanička i sekretorna tkiva

PREPARATI:

- 1) Zatvoreni kolateralni provodni snopić (stablo kukuruza, *Zea mays*)
- 2) Otvoreni kolateralni provodni snopić (stablo paviti, *Clematis vitalba*)
- 3) Radijalni provodni snopić (korijen perunike, *Iris germanica*)

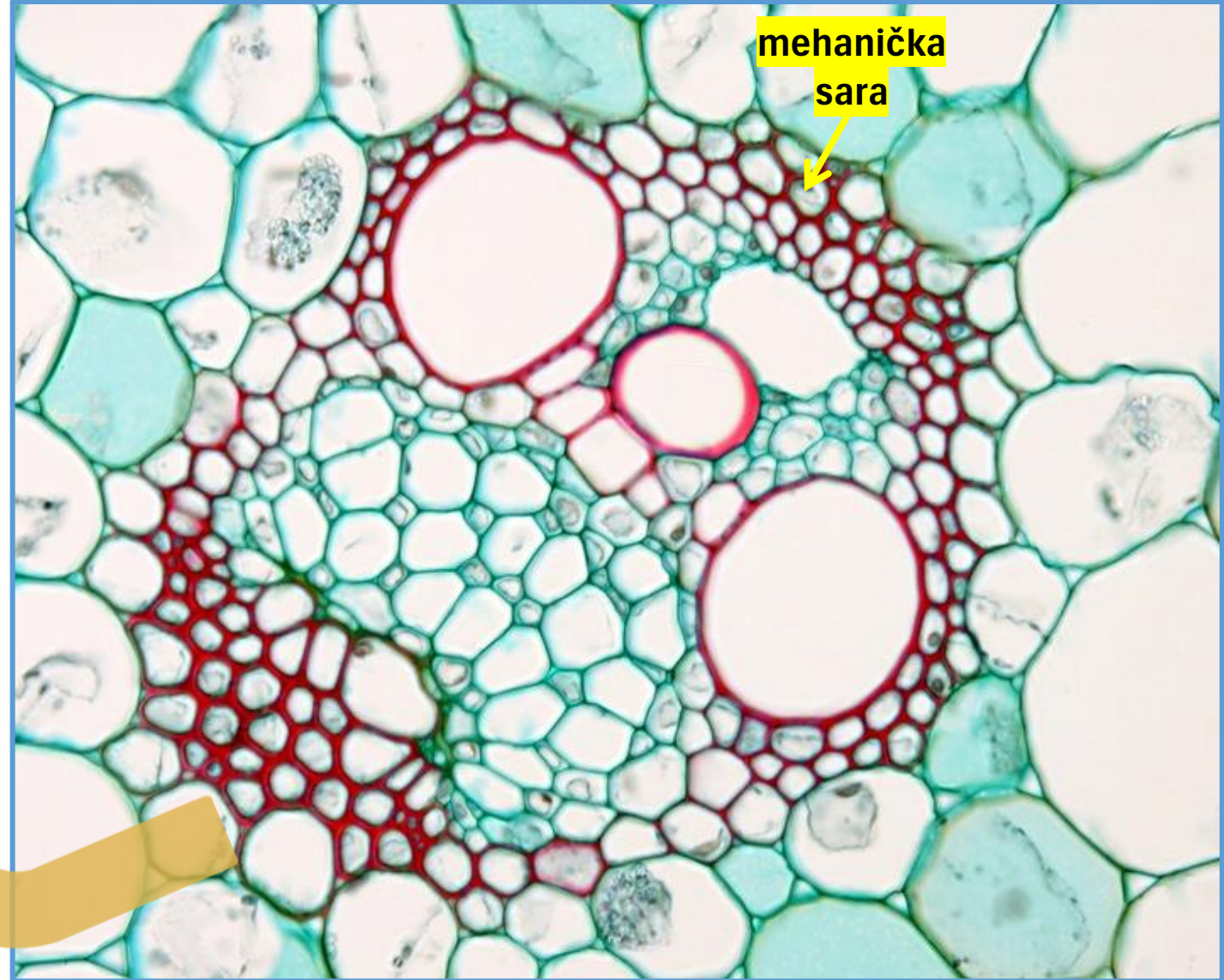
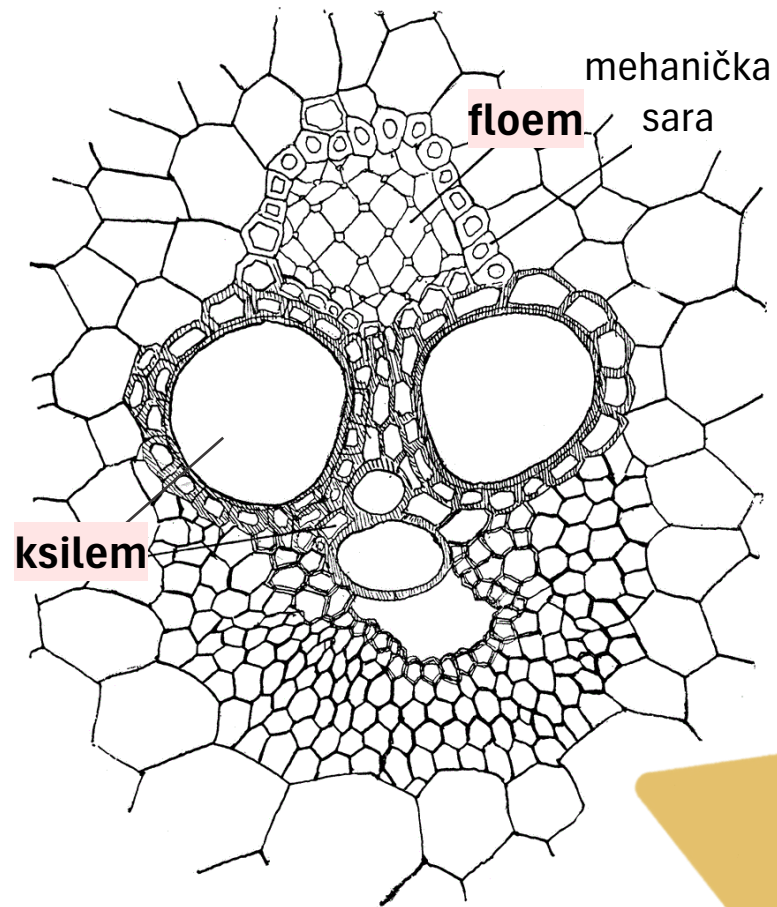
Mijat Božović

BOTANIKA

materijal za laboratorijske vježbe

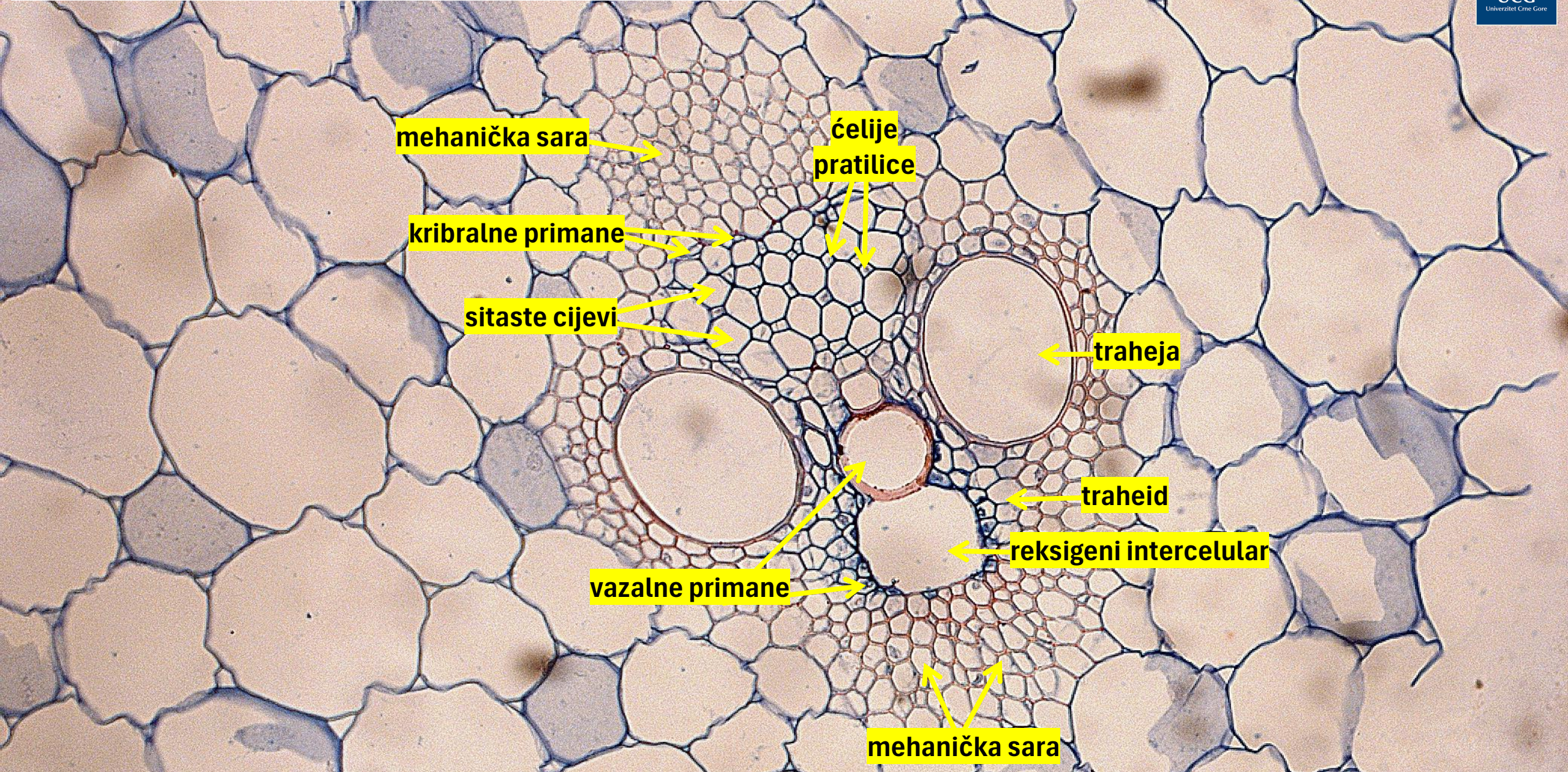


1) Zatvoreni kolateralni provodni snopić

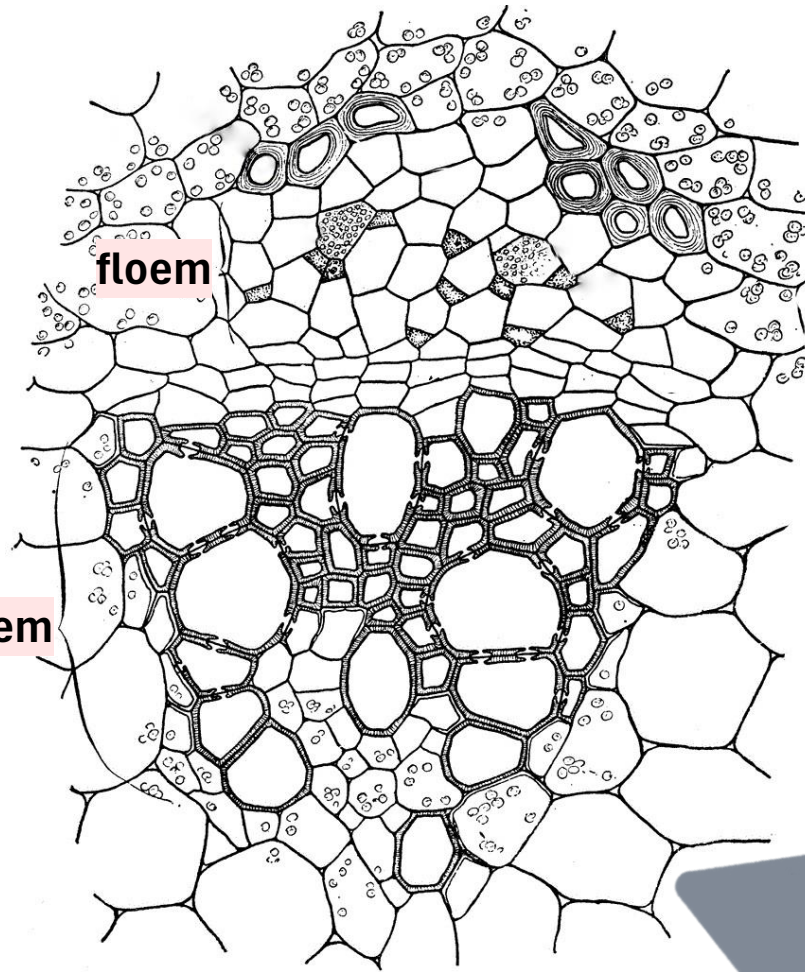


kukuruz
(*Zea mays*)

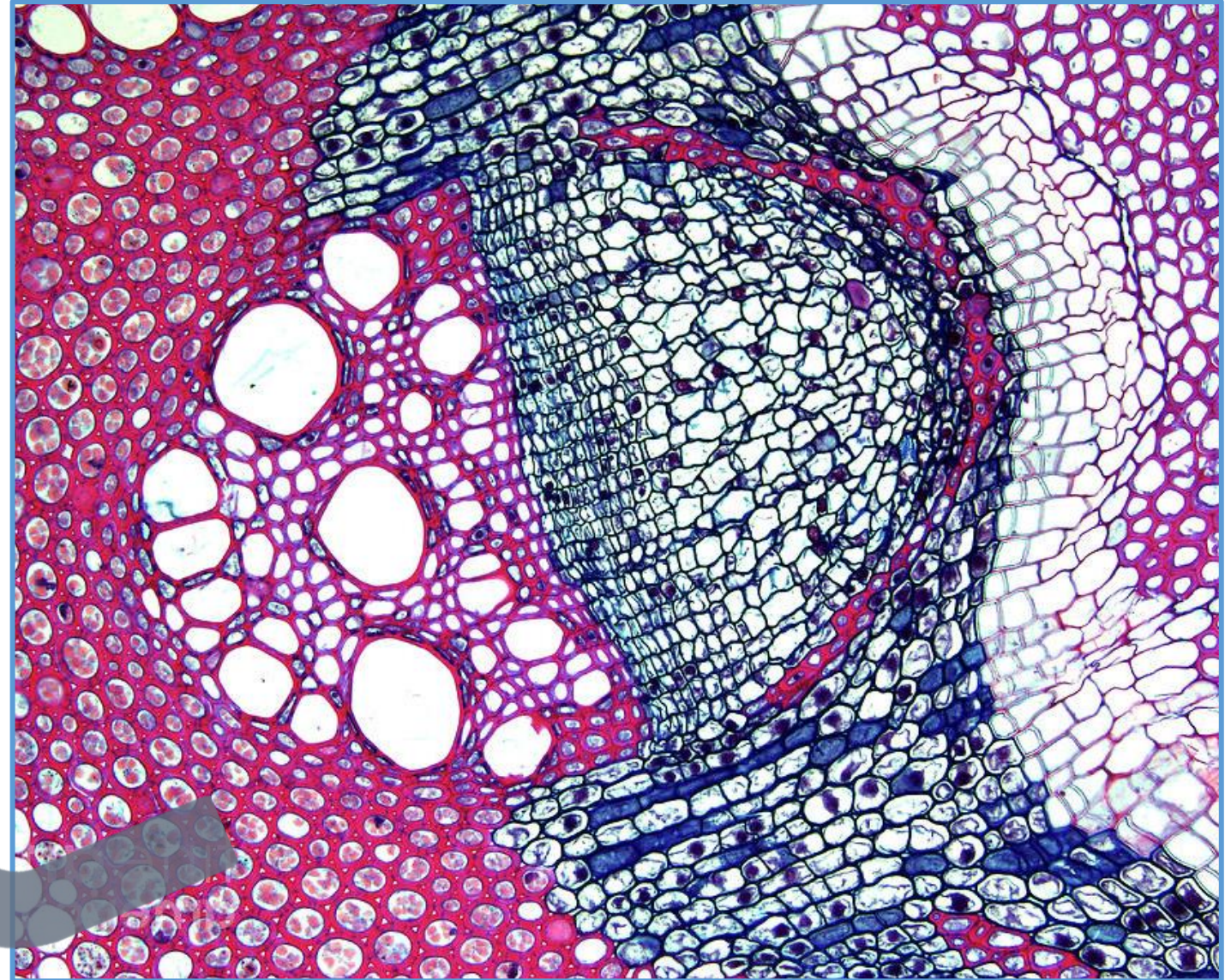
zatvoreni kolateralni provodni snopić u stablu kukuruza



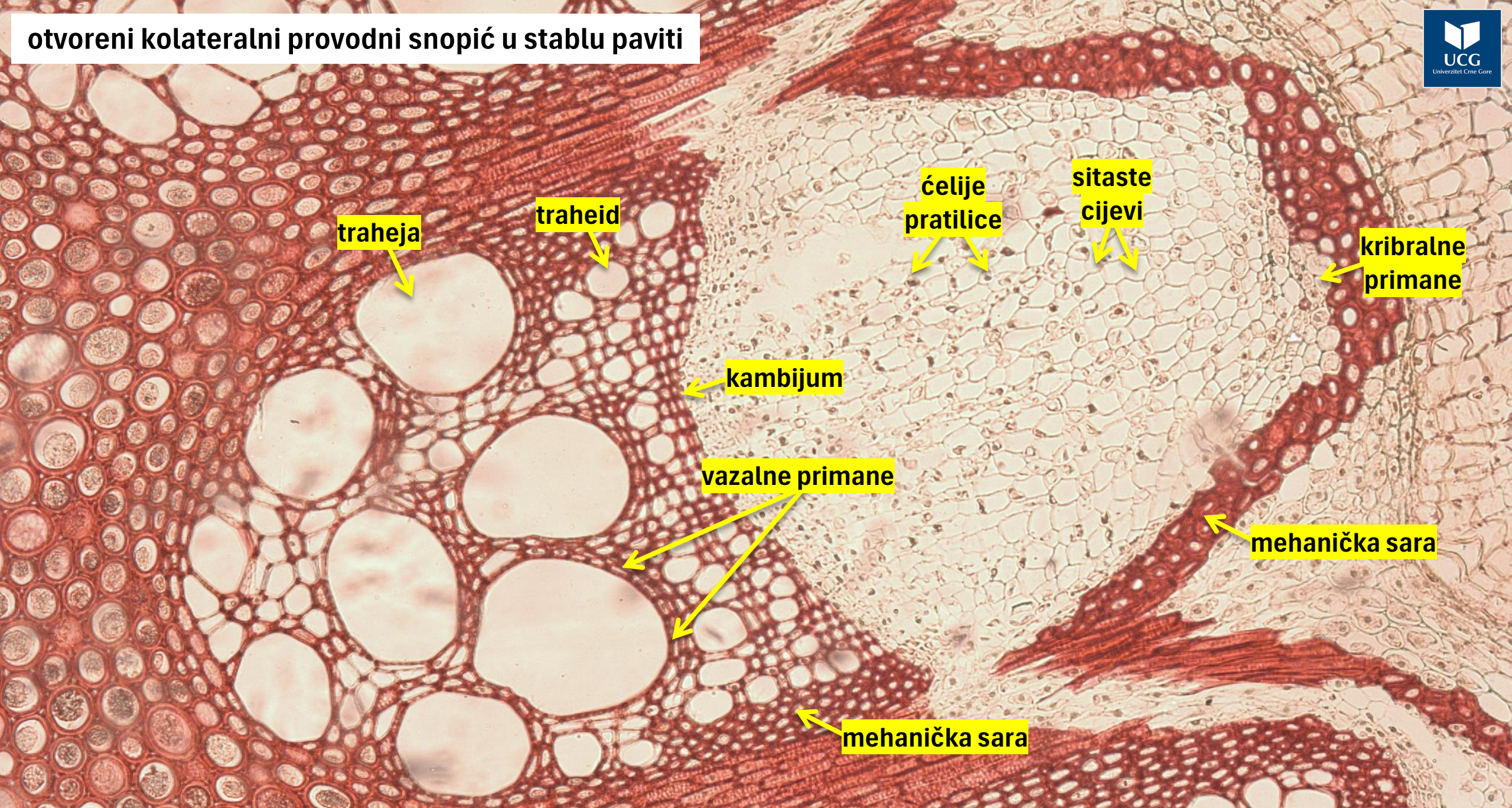
2) Otvoreni kolateralni provodni snopić



pavit
(*Clematis vitalba*)



otvoreni kolateralni provodni snopić u stablu paviti



traheja

traheid

ćelije
pratilice

sitaste
cijevi

kribralne
primane

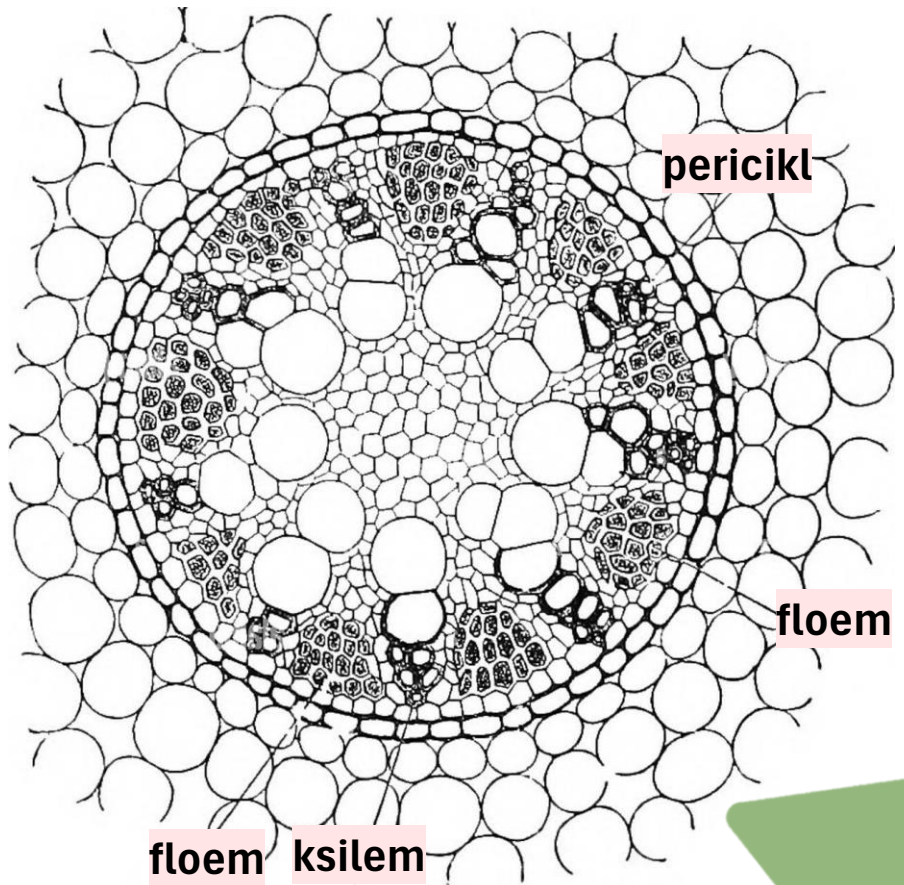
kambijum

vazalne primane

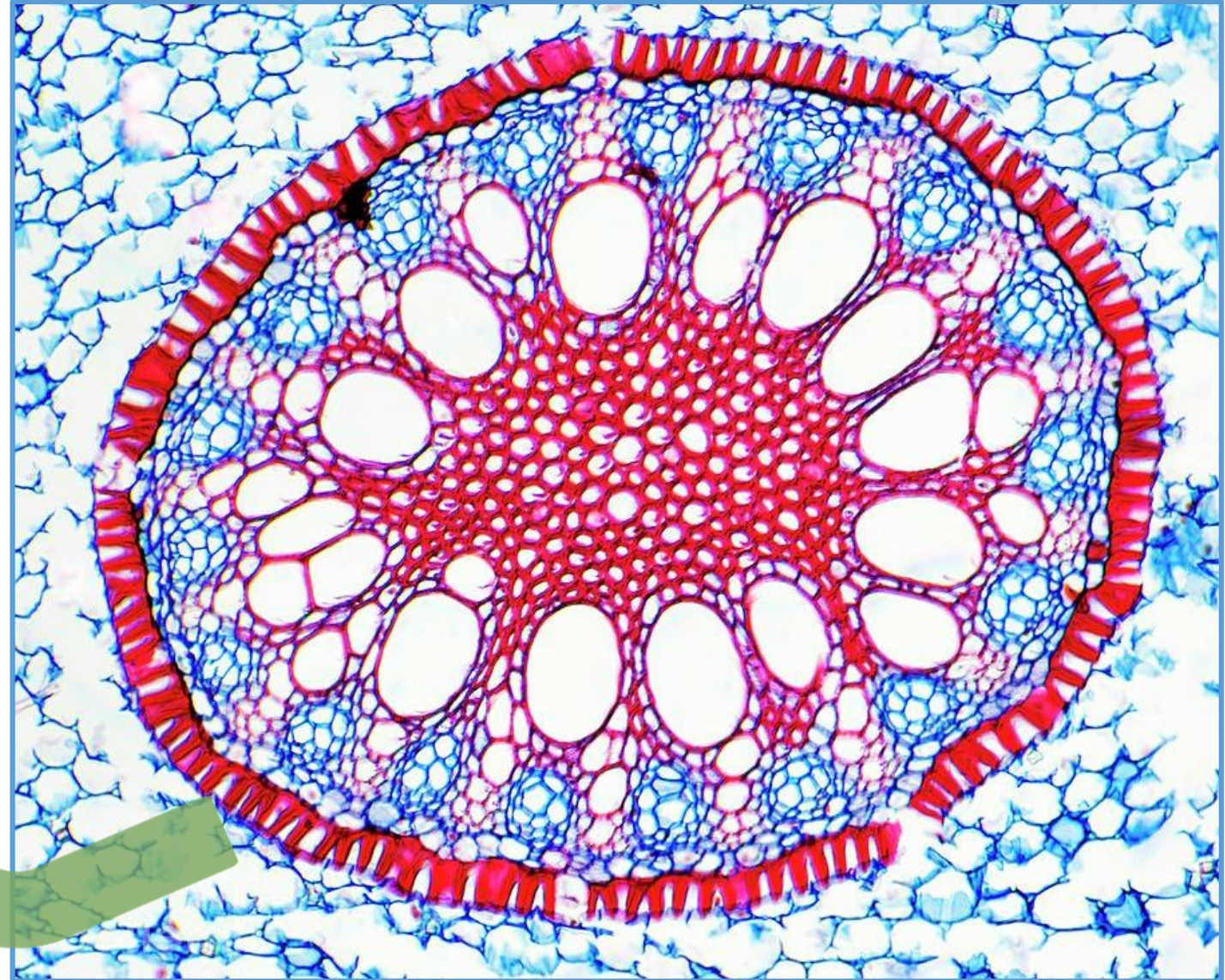
mehanička sara

mehanička sara

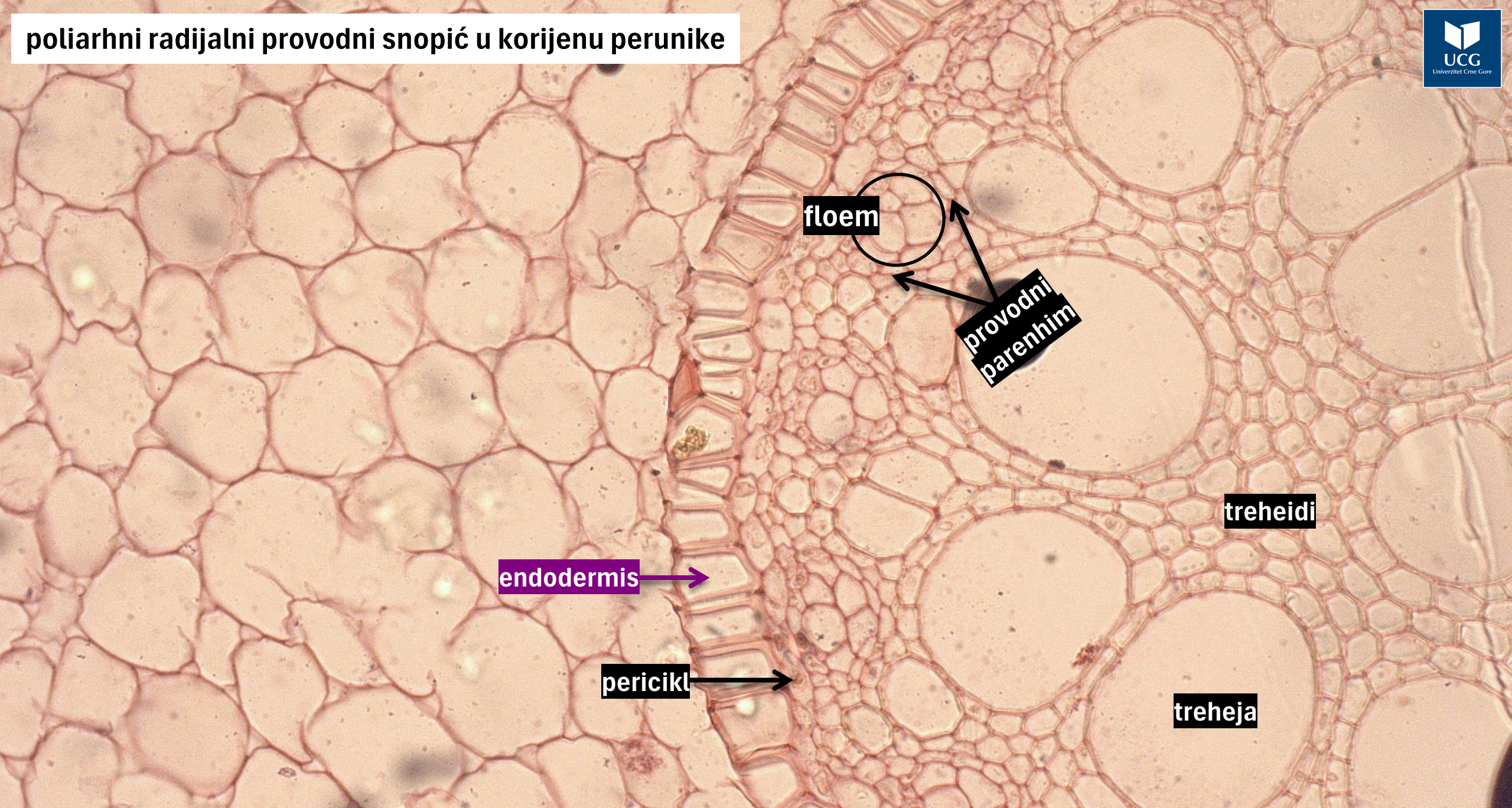
3) Radijalni provodni snopić



perunika
(*Iris germanica*)



poliarhni radijalni provodni snopić u korijenu perunike



floem

**provodni
parenhim**

treheidi

endodermis

pericikl

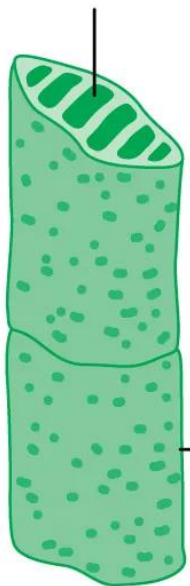
treheja

DODATAK 1:

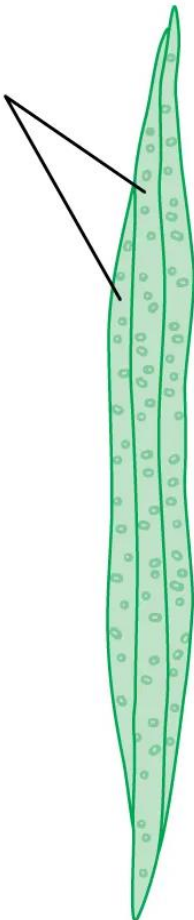
- 1) Čelijski elementi ksilema i floema**
- 2) Tipovi provodnih snopića: raspored ksilemskih i floemskih djelova**
- 3) Organizacija ksilemskih i floemskih ploča u radijalnom provodnom snopiću**

1) Čelijski elementi ksilema i floema

perforacije na poprečnom zidu



traheid



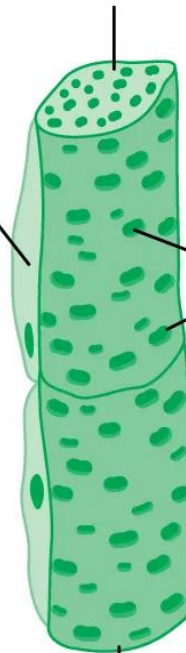
član traheje

drveno vlakno



ćelija pratilica

sitasta ploča



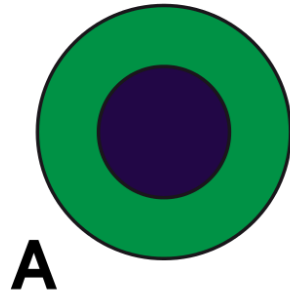
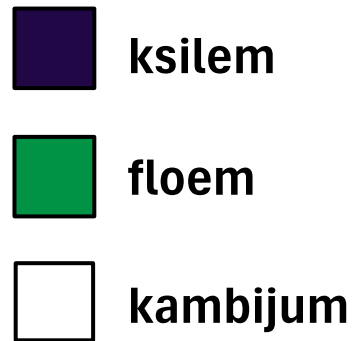
perforacije na bočnom zidu

član sitaste cijevi

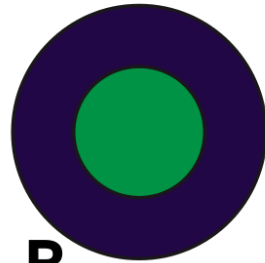
likino vlakno



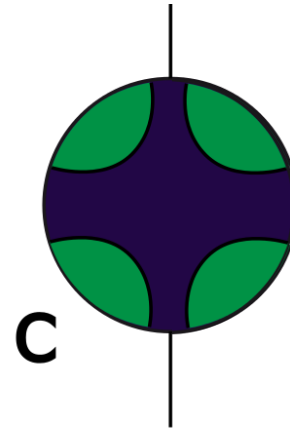
2) Tipovi provodnih snopića: raspored ksilemskih i floemskih djelova



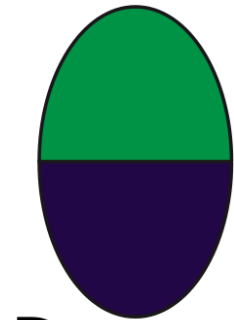
A



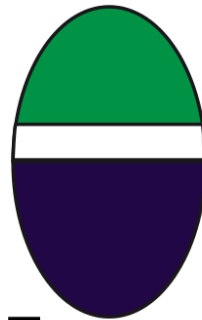
B



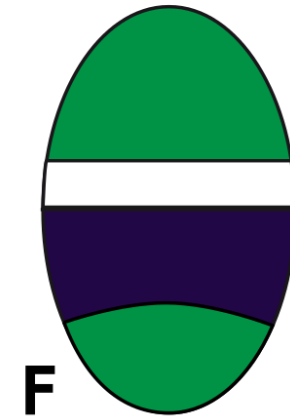
C



D



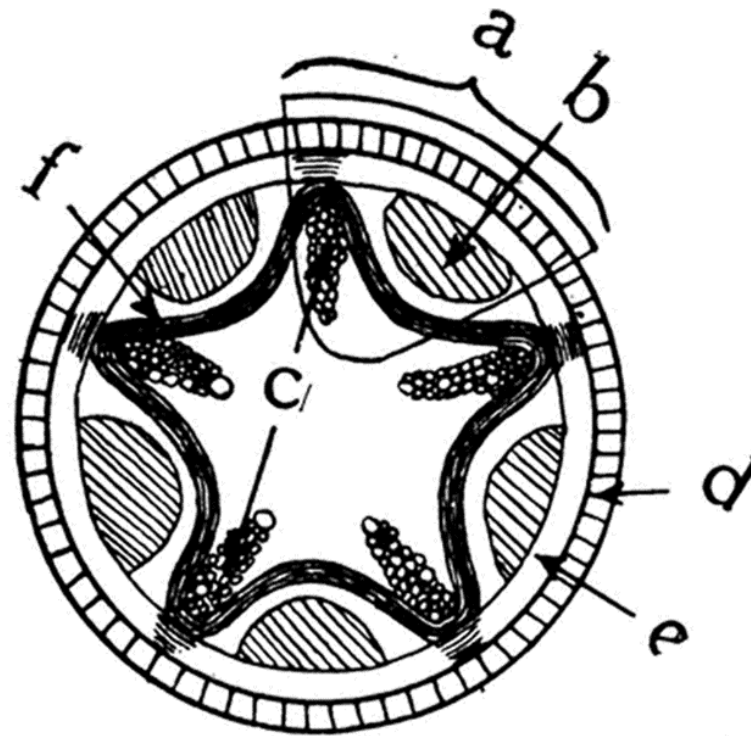
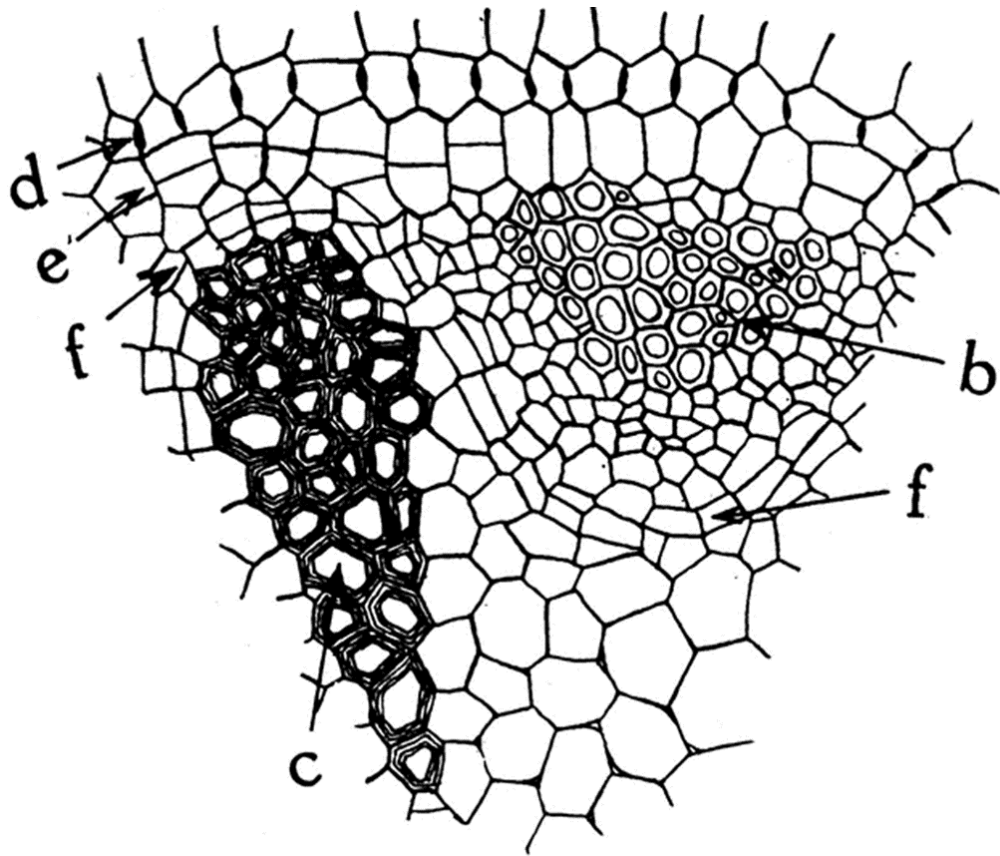
E



F

- A: amfikribralni**
- B: amfivazalni**
- C: radijalni**
- D: zatvoreni kolateralni**
- E: otvoreni kolateralni**
- F: bikolateralni**

3) Organizacija ksilemskih i floemskih ploča u radijalnom provodnom snopiću



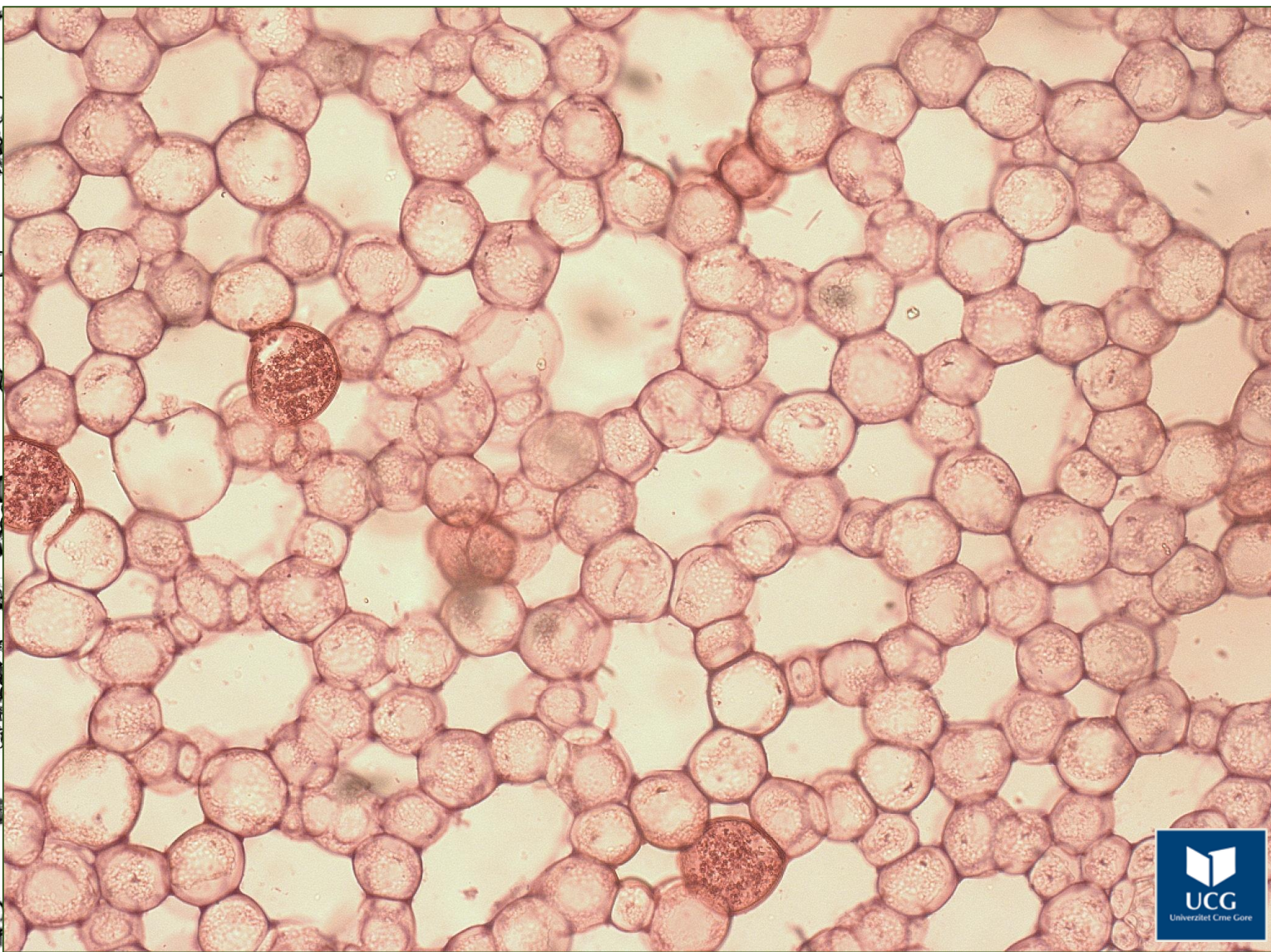
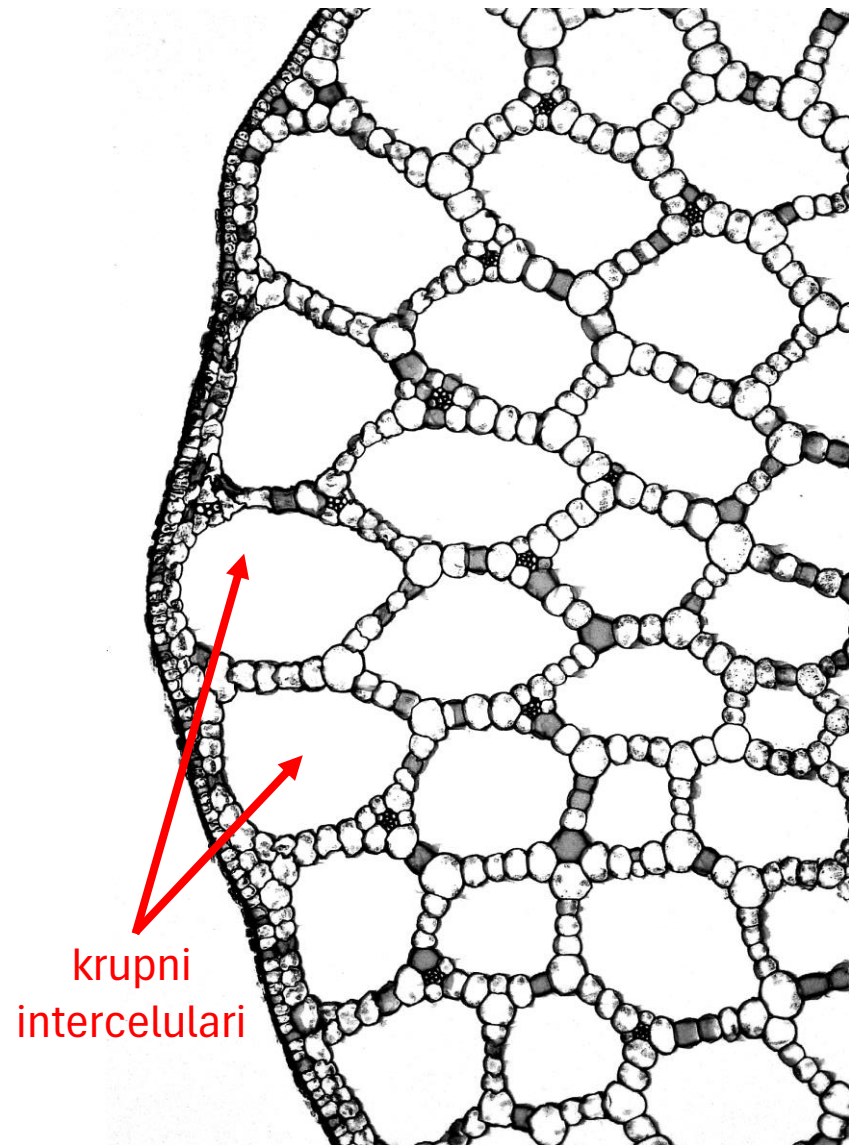
- a: par ksilem-floem
- b: floemska ploča
- c: ksilemski elementi
- d: endodermis
- e: pericikl
- f: provodni parenhim

DODATAK 2:

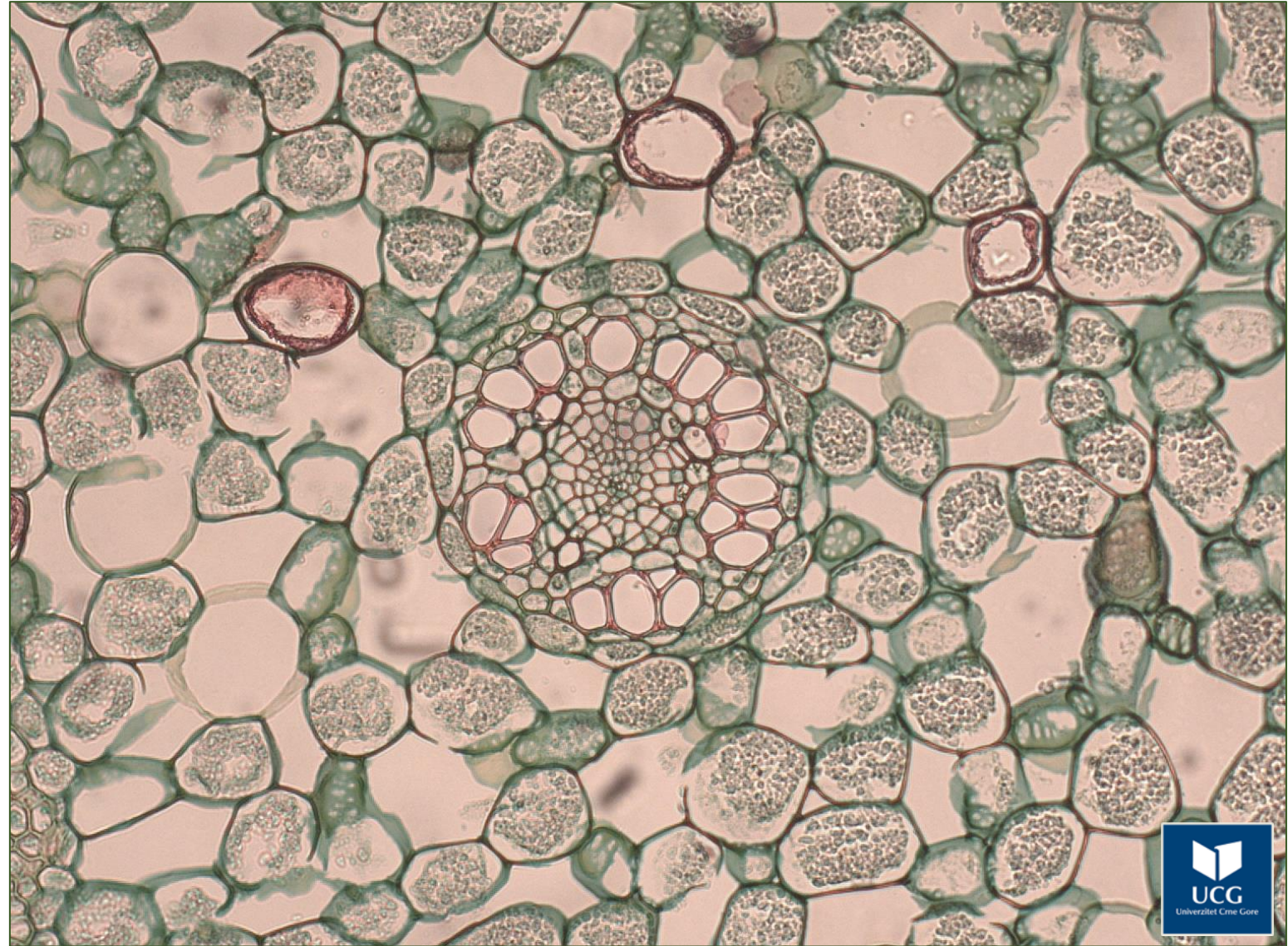
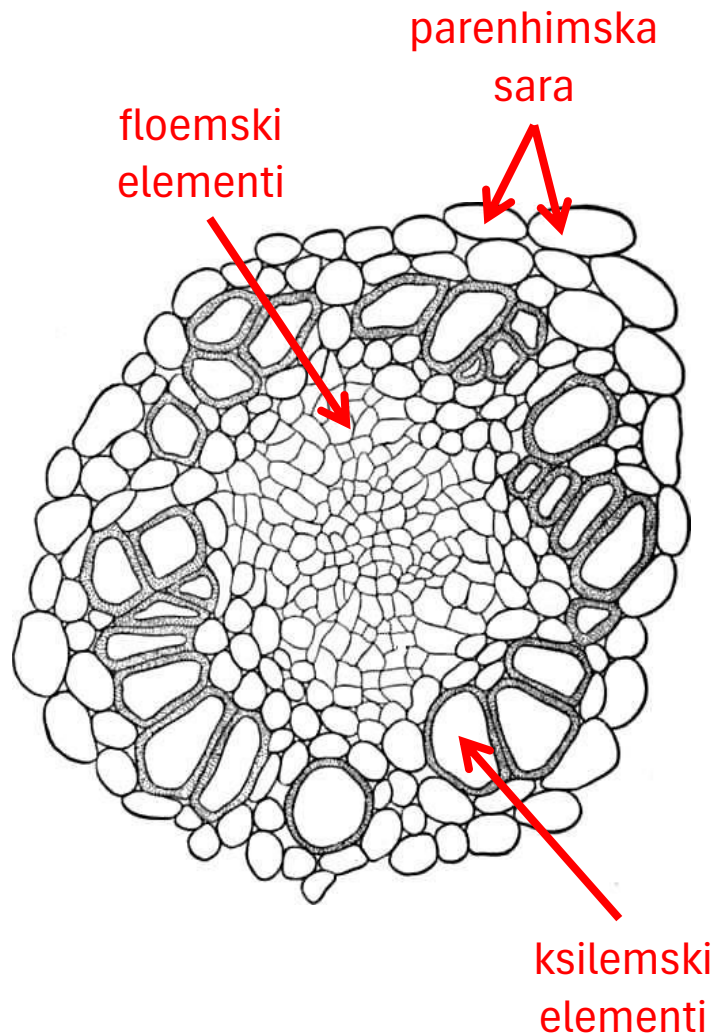
Šeme i mikroskopski preparati za prepoznavanje:

- A) Aerenhim u rizomu idiota (*Acorus calamus*)**
- B) Amfivazalni provodni snopić u rizomu idiota (*Acorus calamus*)**
- C) Amfikribralni provodni snopić u rizomu bujadi (*Pteridium aquilinum*)**
- D) Bikolateralni provodni snopić u stablu tikve (*Cucurbita pepo*)**
- E) Tetrarhni radijalni provodni snopić u korijenu ljutića (*Ranunculus* sp.)**
- F) Uglasti kolenhim u stablu mrtve koprive (*Lamium purpureum*)**
- G) Sklerenhim u stablu tikve (*Cucurbita pepo*)**
- H) Trihosklereid u listu lokvanja (*Nymphaea alba*)**
- I) Smolni kanal i hlolenhim u iglici bora (*Pinus* sp.)**

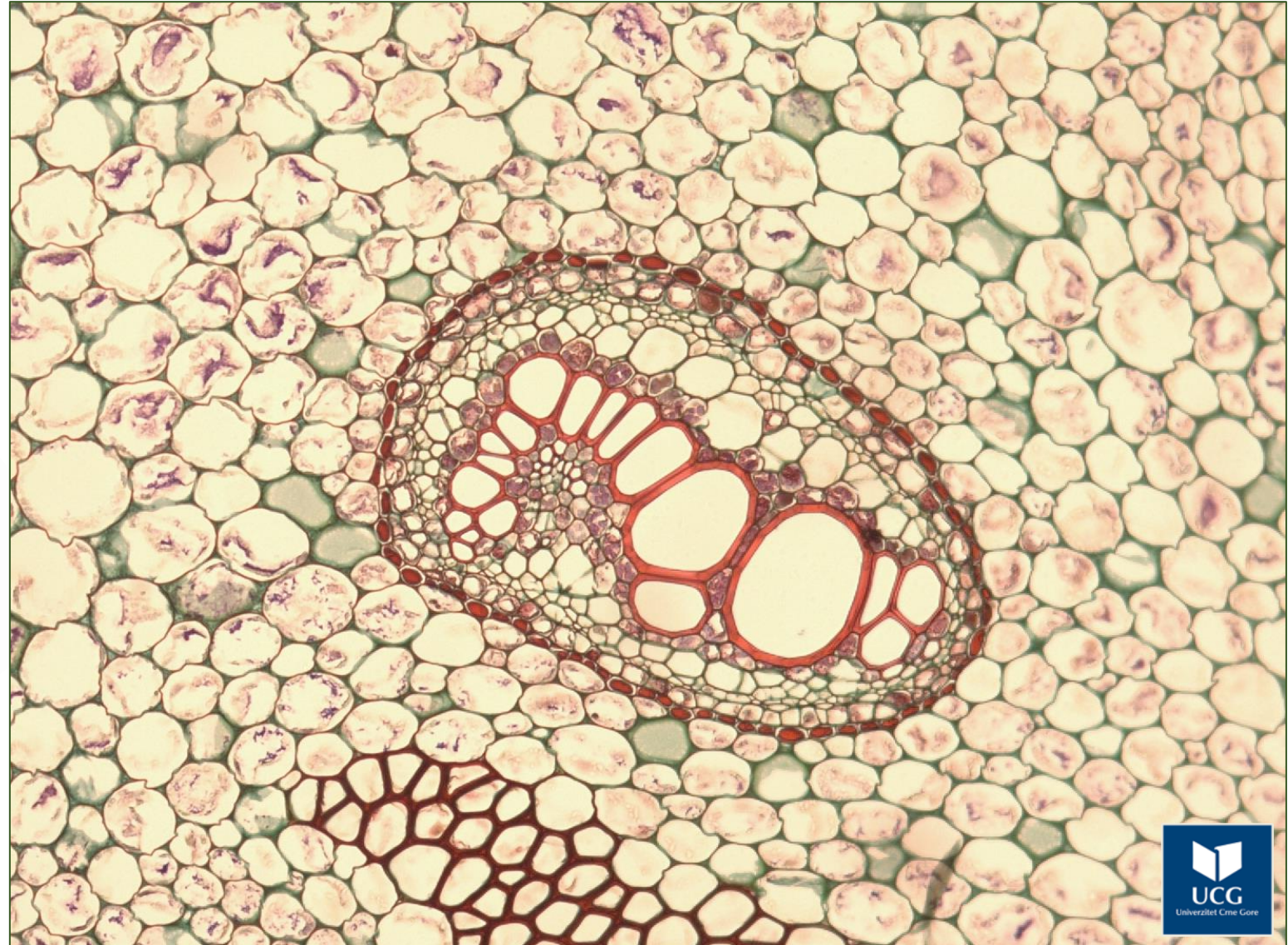
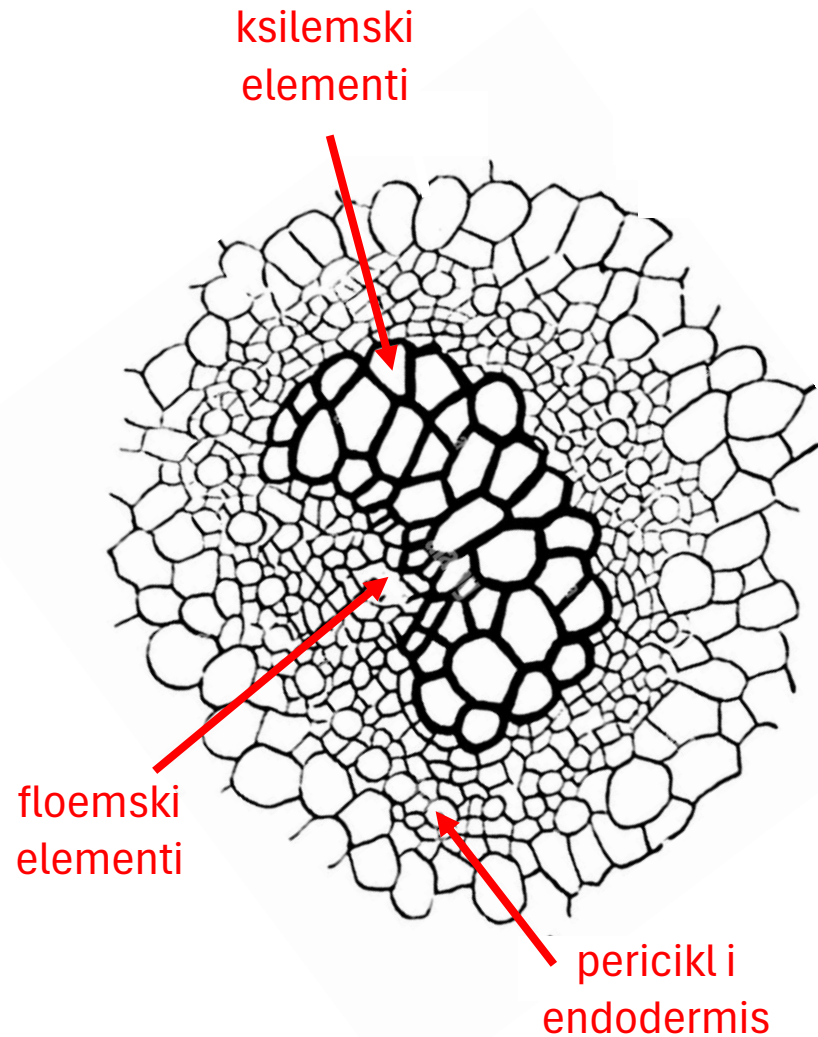
A) Aerenhim u rizomu idirota (*Acorus calamus*)



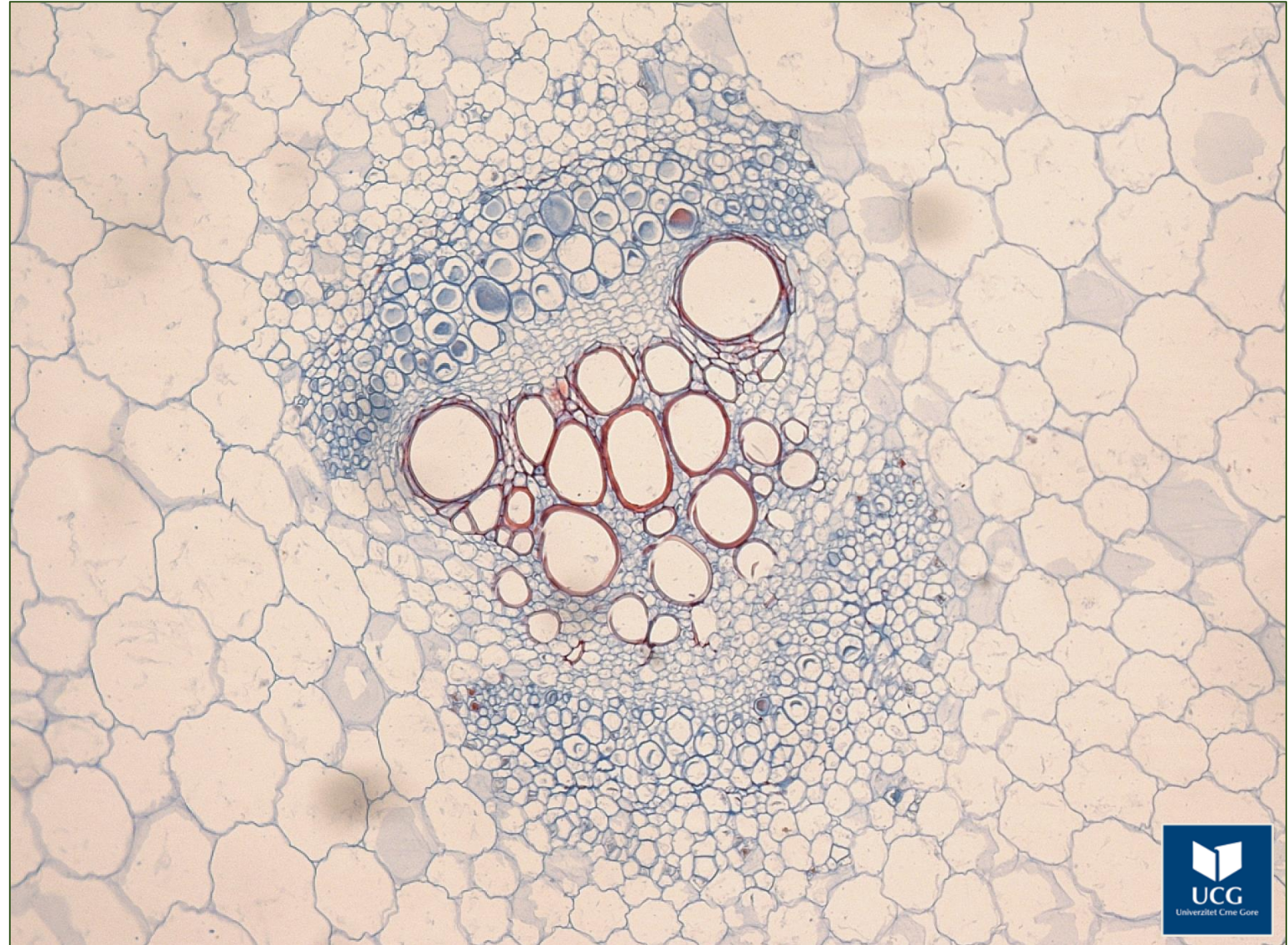
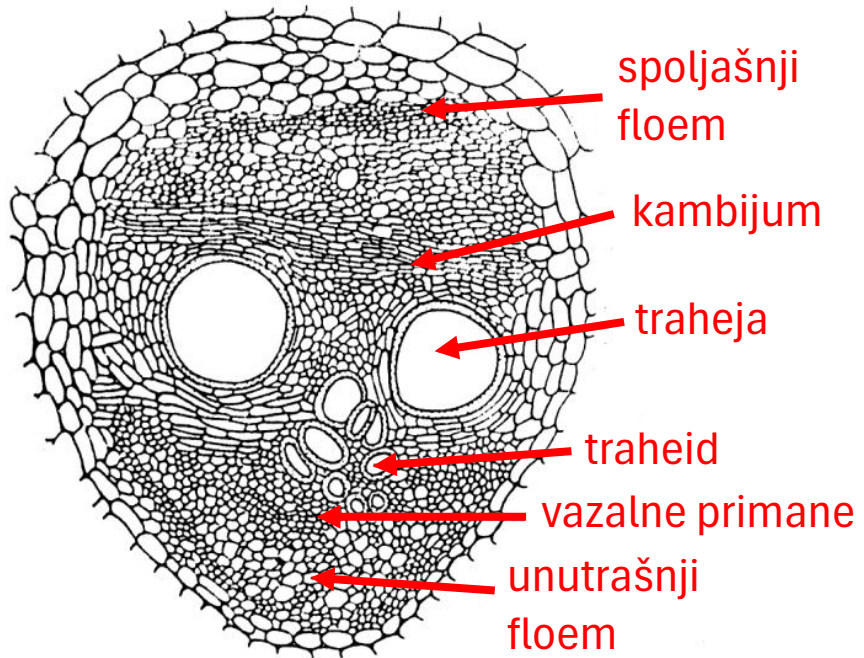
B) Amfivazalni provodni snopić u rizomu iđirota (*Acorus calamus*)



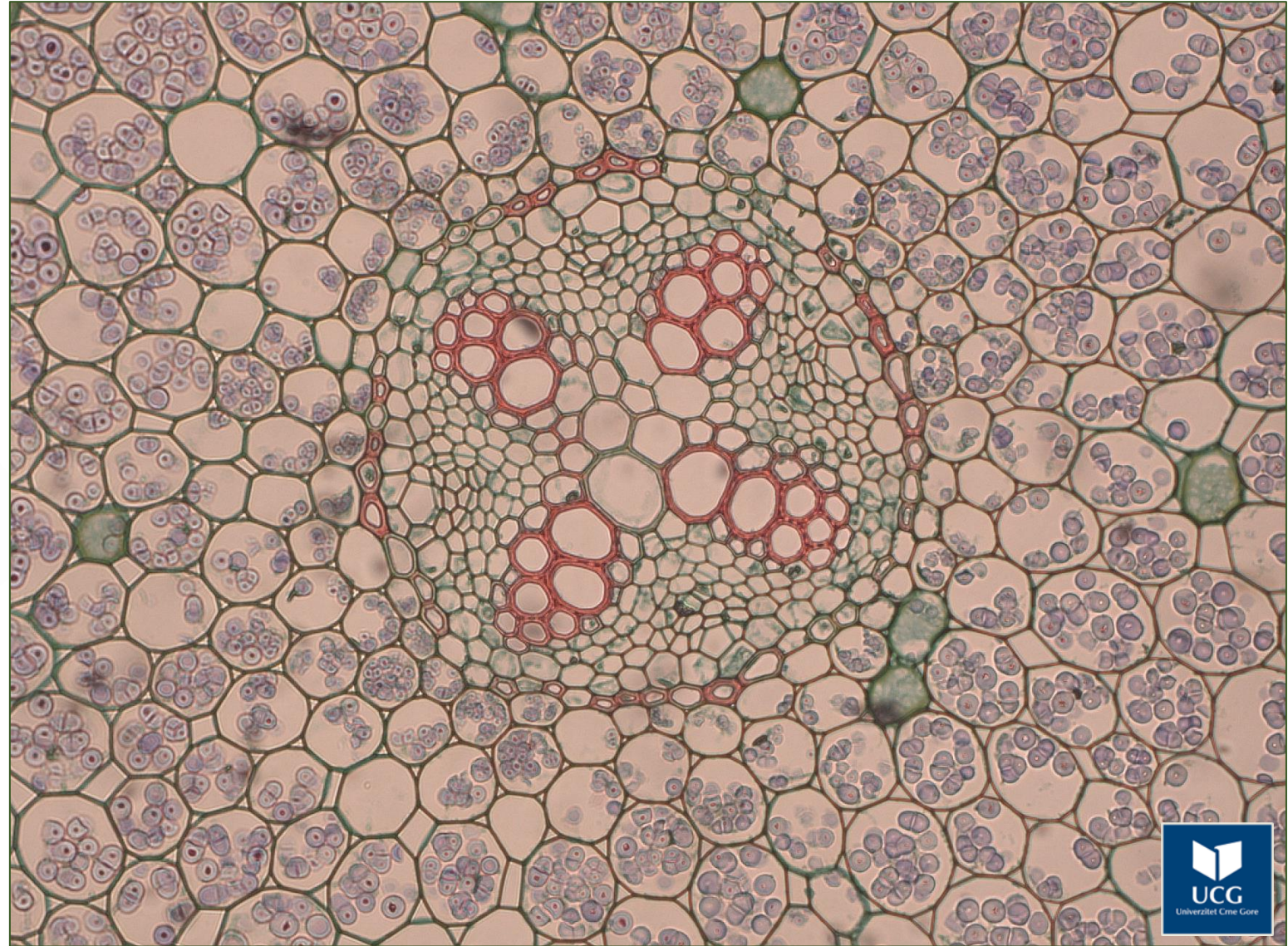
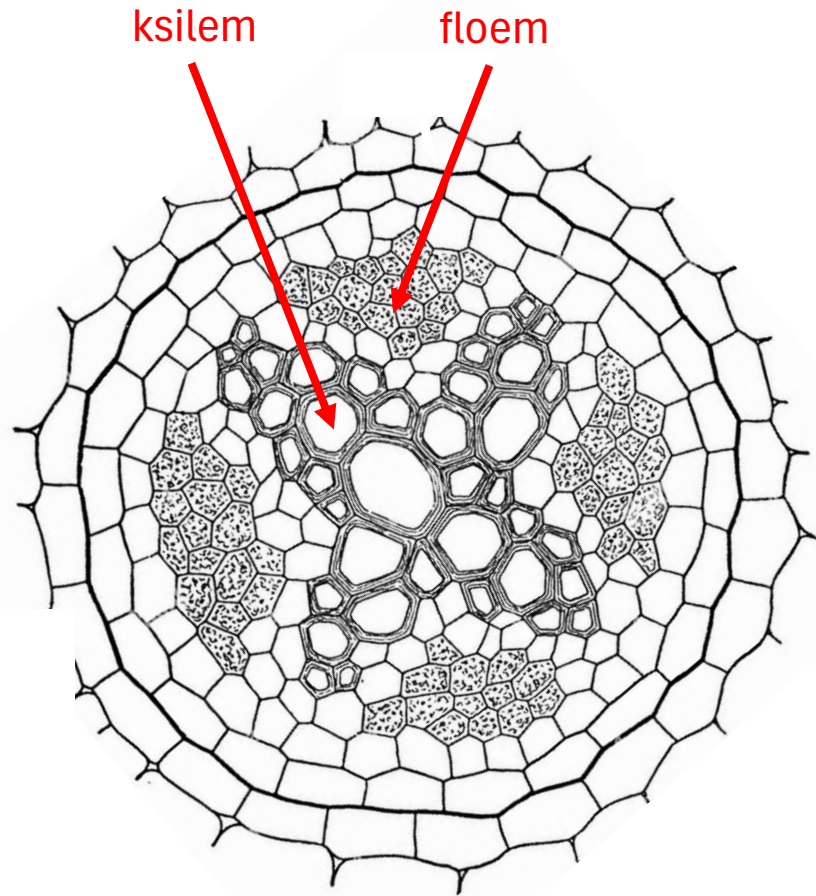
C) Amfikribralni provodni snopić u rizomu bujadi (*Pteridium aquilinum*)



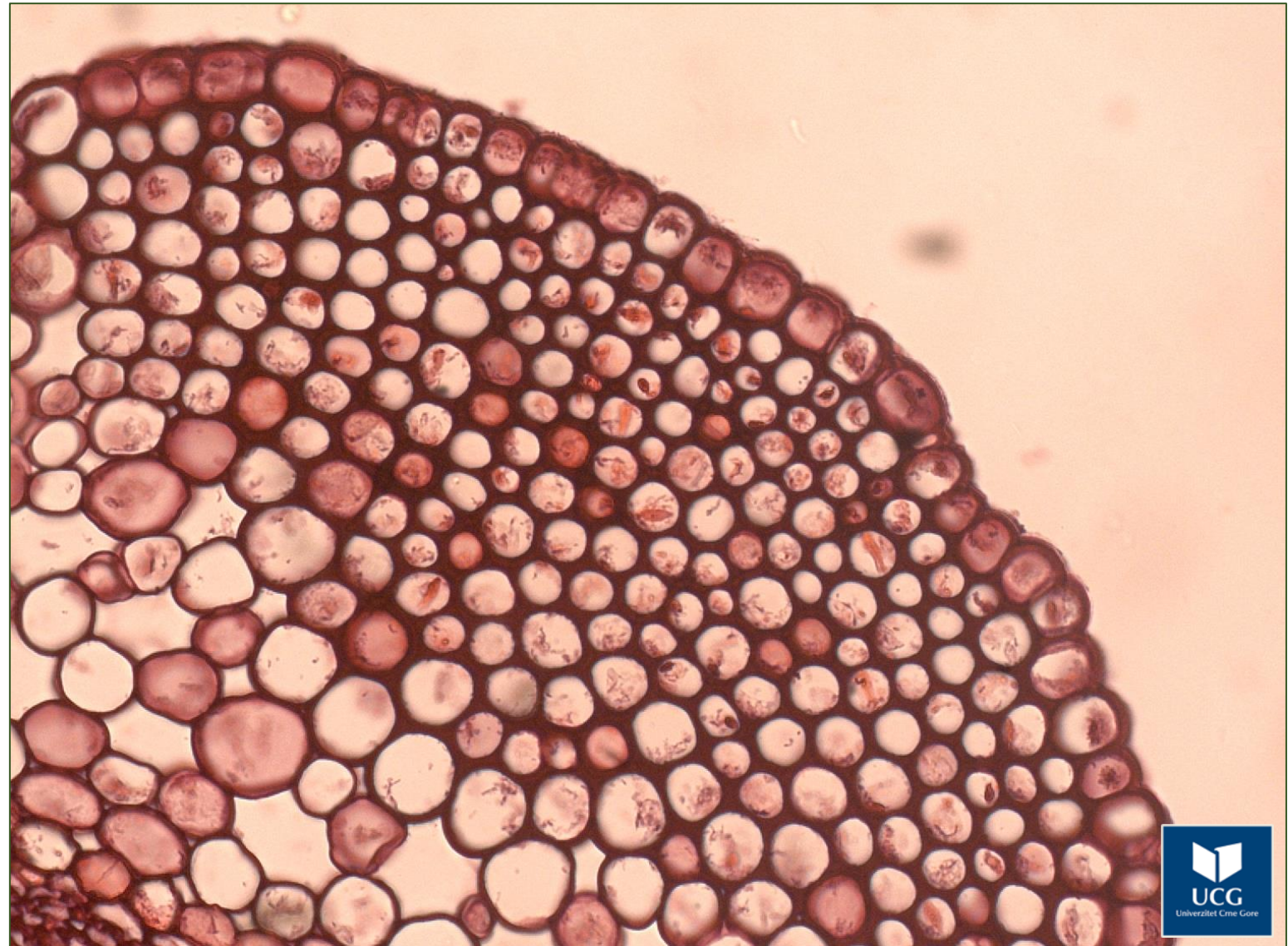
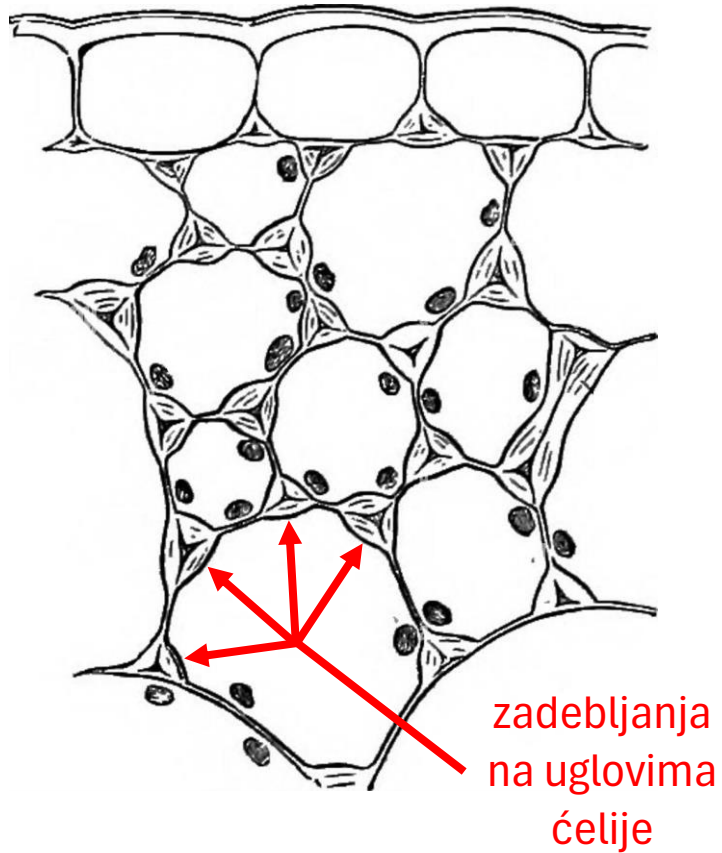
D) Bikolateralni provodni snopić u stablu tikve (*Cucurbita pepo*)



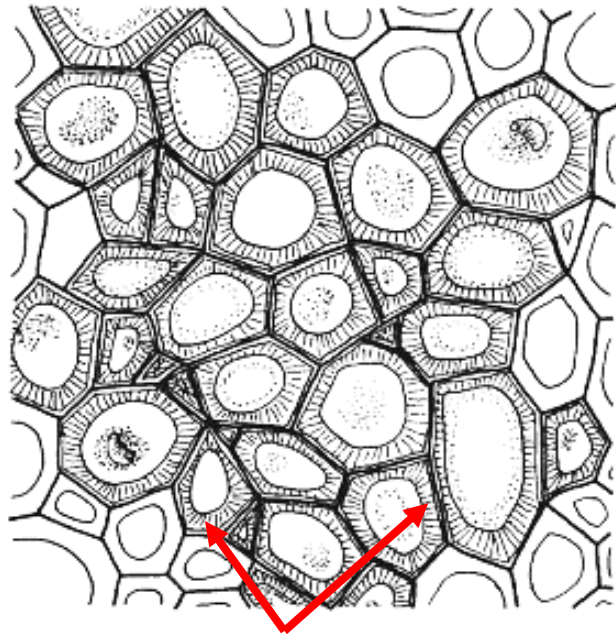
E) Tetrarhni radijalni provodni snopić u korijenu ljutića (*Ranunculus* sp.)



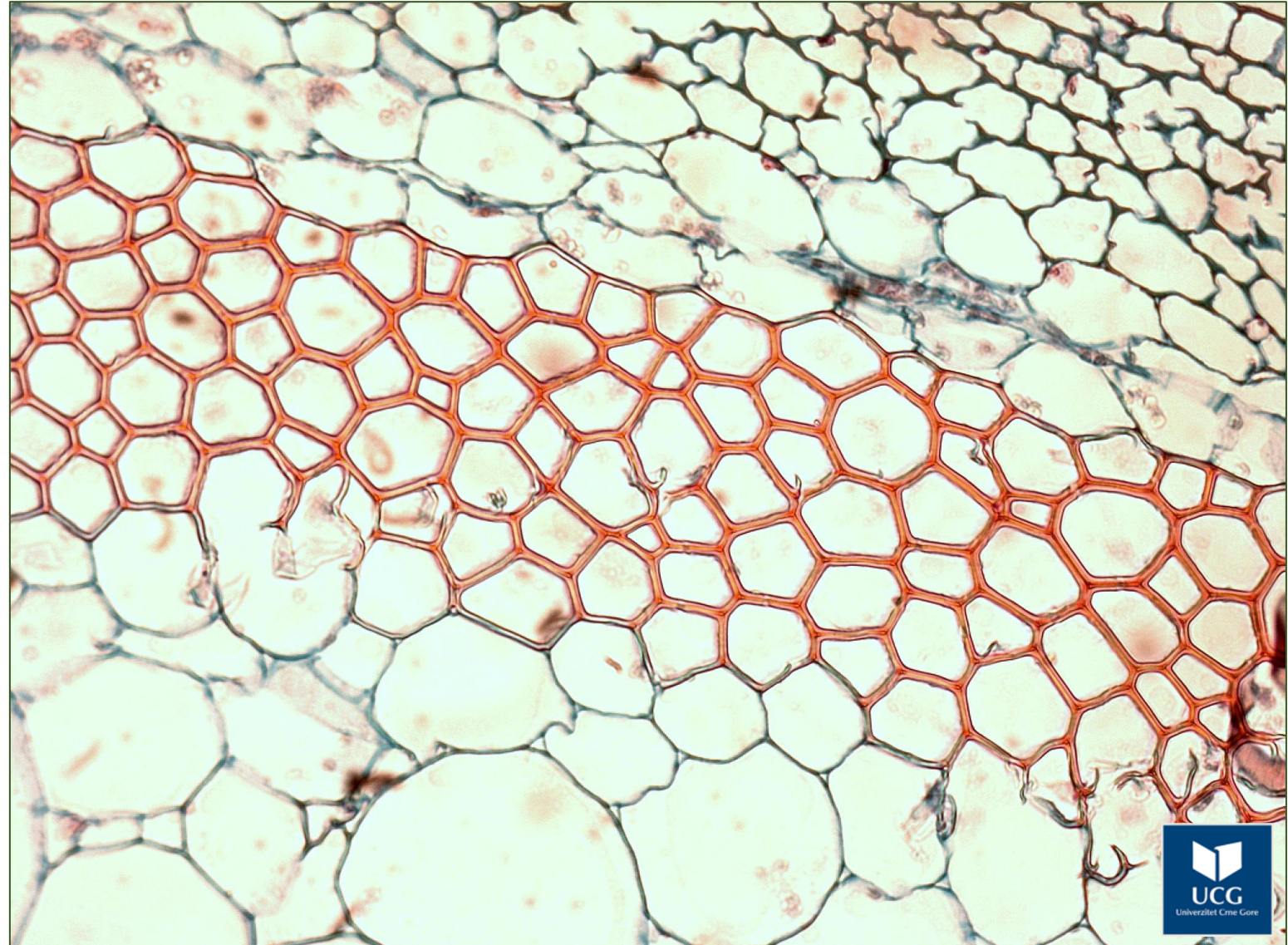
F) Uglasti kolenhim u stablu mrtve koprive (*Lamium purpureum*)



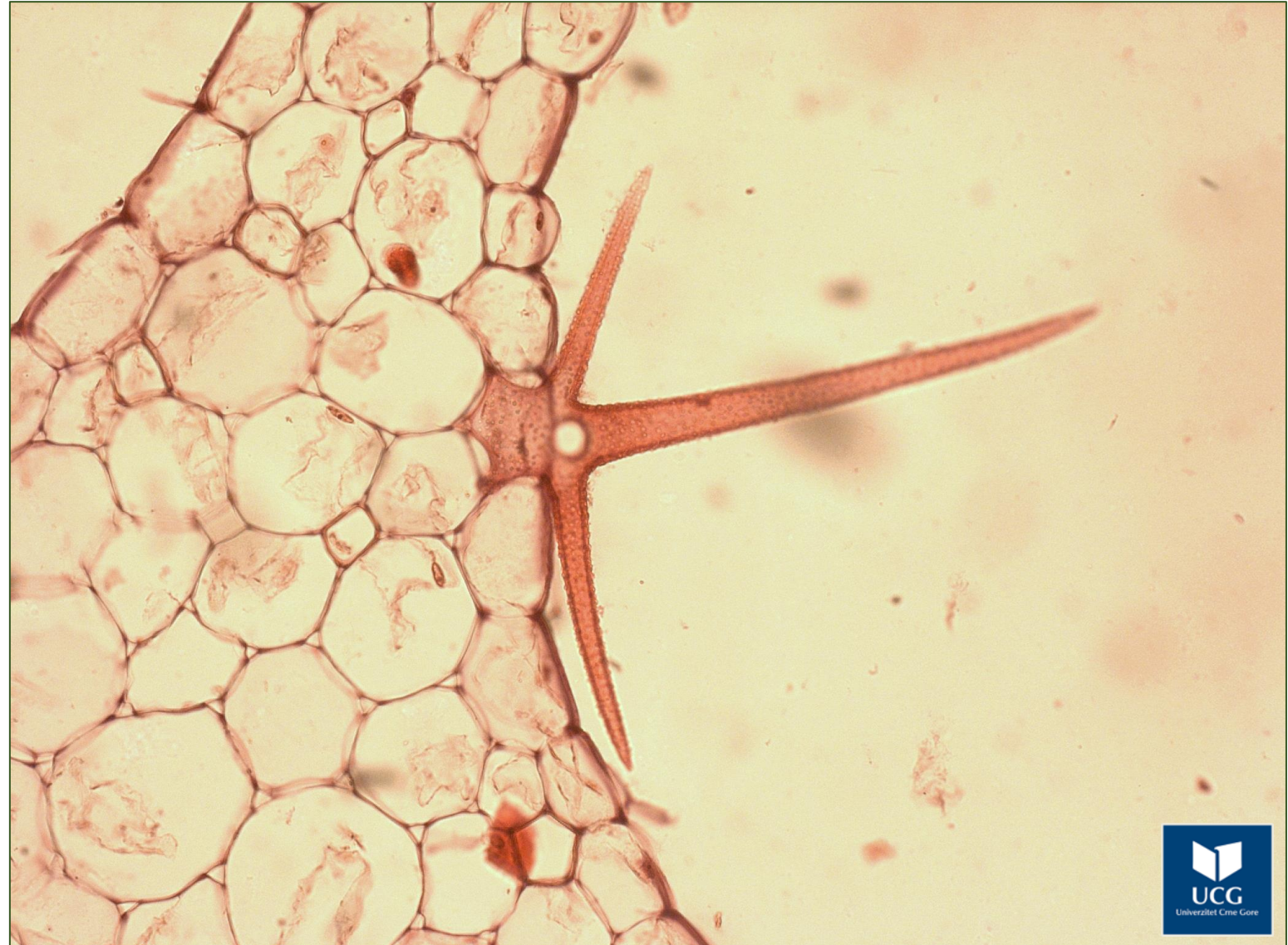
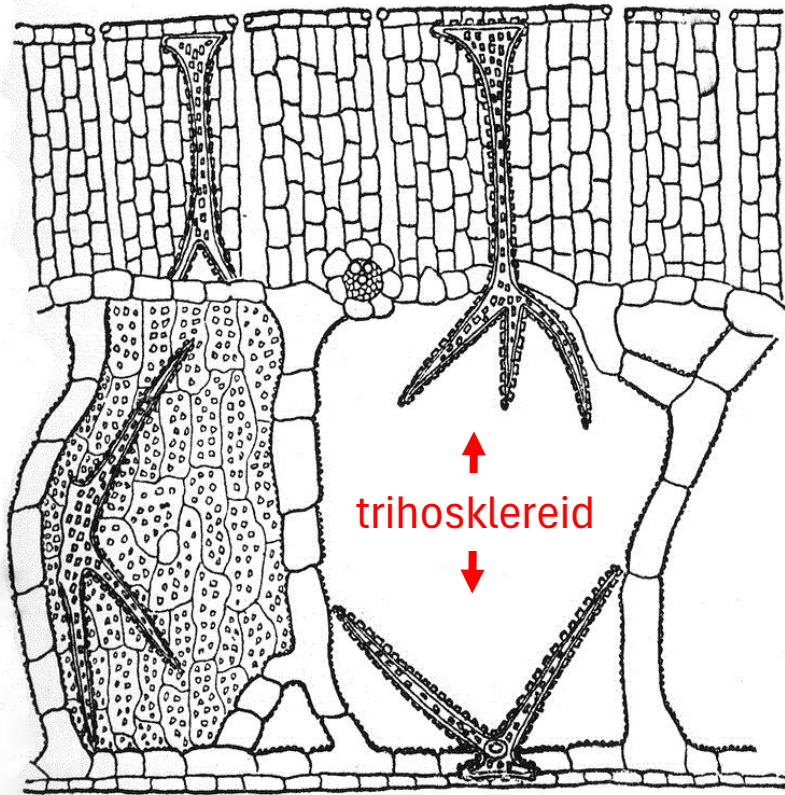
G) Sklerenhim u stablu tikve (*Cucurbita pepo*)



ravnomjerno
zadebljali
ćelijski zidovi



H) Trihosklereid u listu lokvanja (*Nymphaea alba*)



I) Smolni kanal i hlarenhim u iglici bora (*Pinus* sp.)

