

آزمایشگاه مرجع سلامت



واحد استان کرمانشاه

اطلس انگل شناسی

گردآورندگان :

- .1. دکتر شهلا فارسی (مسول بخش انگل شناسی آزمایشگاه مرجع سلامت)
- .2. دکتر یزدان حمزوی (دانشیار انگل شناسی دانشگاه علوم پزشکی کرمانشاه؛ مسول فنی بخش انگل شناسی آزمایشگاه رفراونس کرمانشاه؛ و عضو جامعه آزمایشگاهیان ایران واحد استان کرمانشاه)

نمادهای روده ای انسان

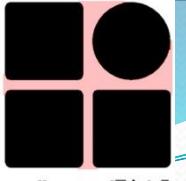
- آسکاریس لومبریکوئیدس
- کرم قلاب دار
- استرونژیلوئیدس استرکورالیس
- انتروبیوس ورمیکولاریس = کرمک
- تریکوسفال = تریکیوریس تریکیورا=کرم شلاقی
- دراکونکولوس مدیننسیس
- لارومهاجراحتایی (عامل : توکسوکارا)

Ascaris lumbricoides



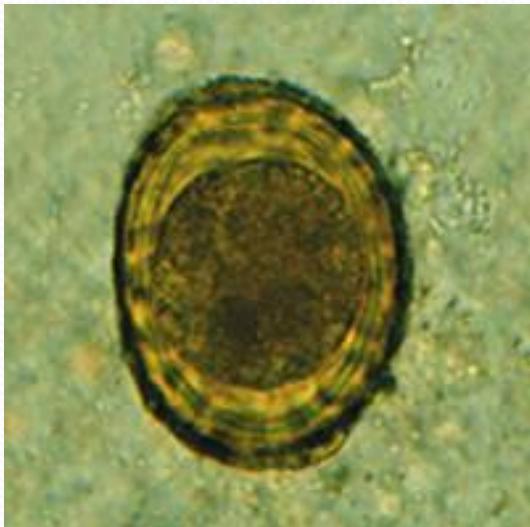
Egg containing a larva
which will be infective if
ingested)

- Two fertilized eggs



جمهوری اسلامی ایران

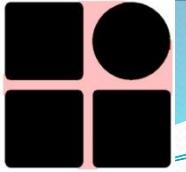
Ascaris lumbricoides



A fertilized *Ascaris* egg, still at the unicellular stage

Unfertilized and fertilized eggs (left and right, respectively)

Unfertilized egg with no outer mammillated layer (decorticated egg)



جمهوری اسلامی ایران

Ascaris lumbricoides



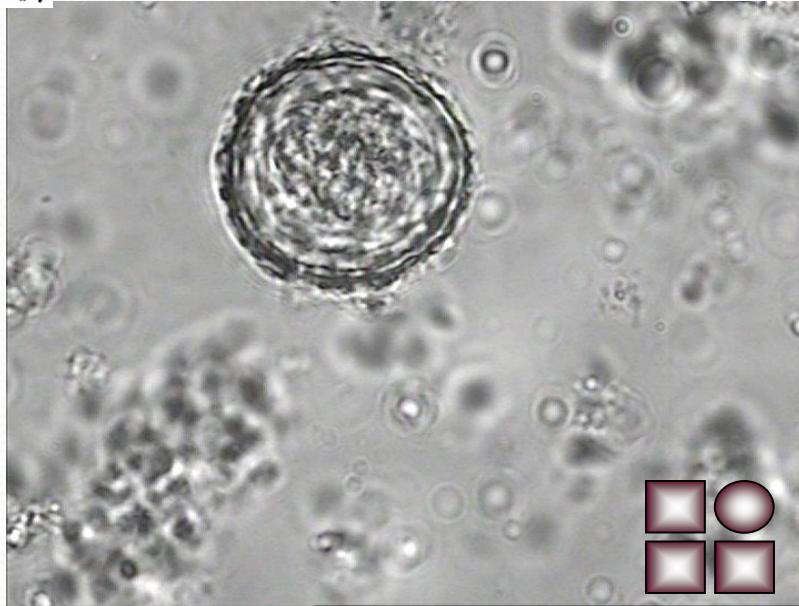
Egg containing a larva, which will be infective if ingested

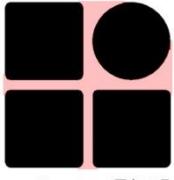
Larva hatching from an egg .

An adult *Ascaris* worm

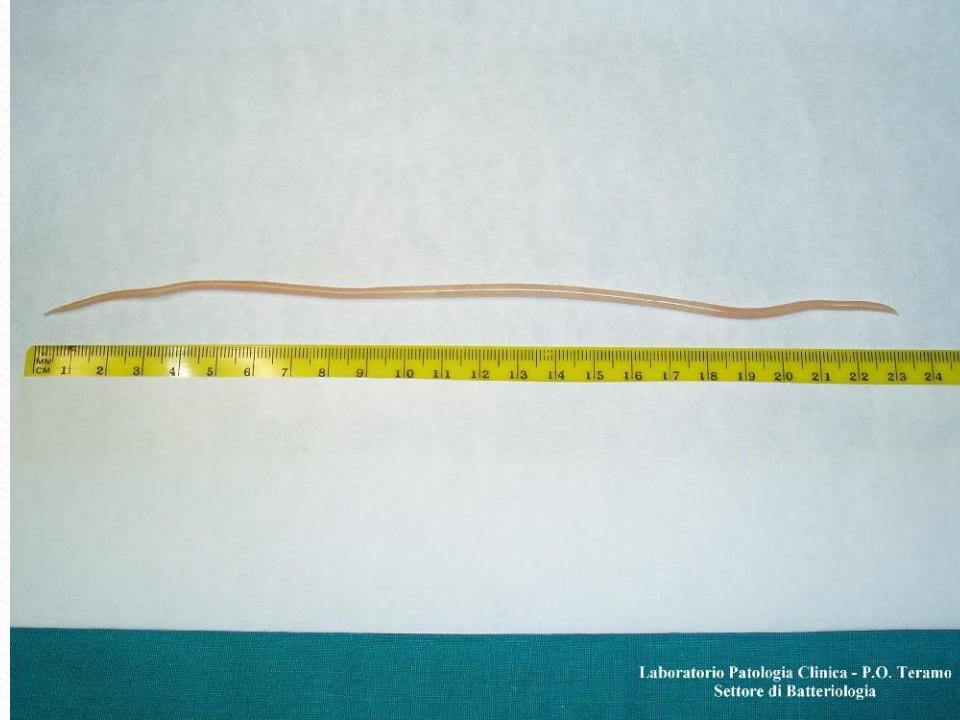


جمهوری اسلامی ایران



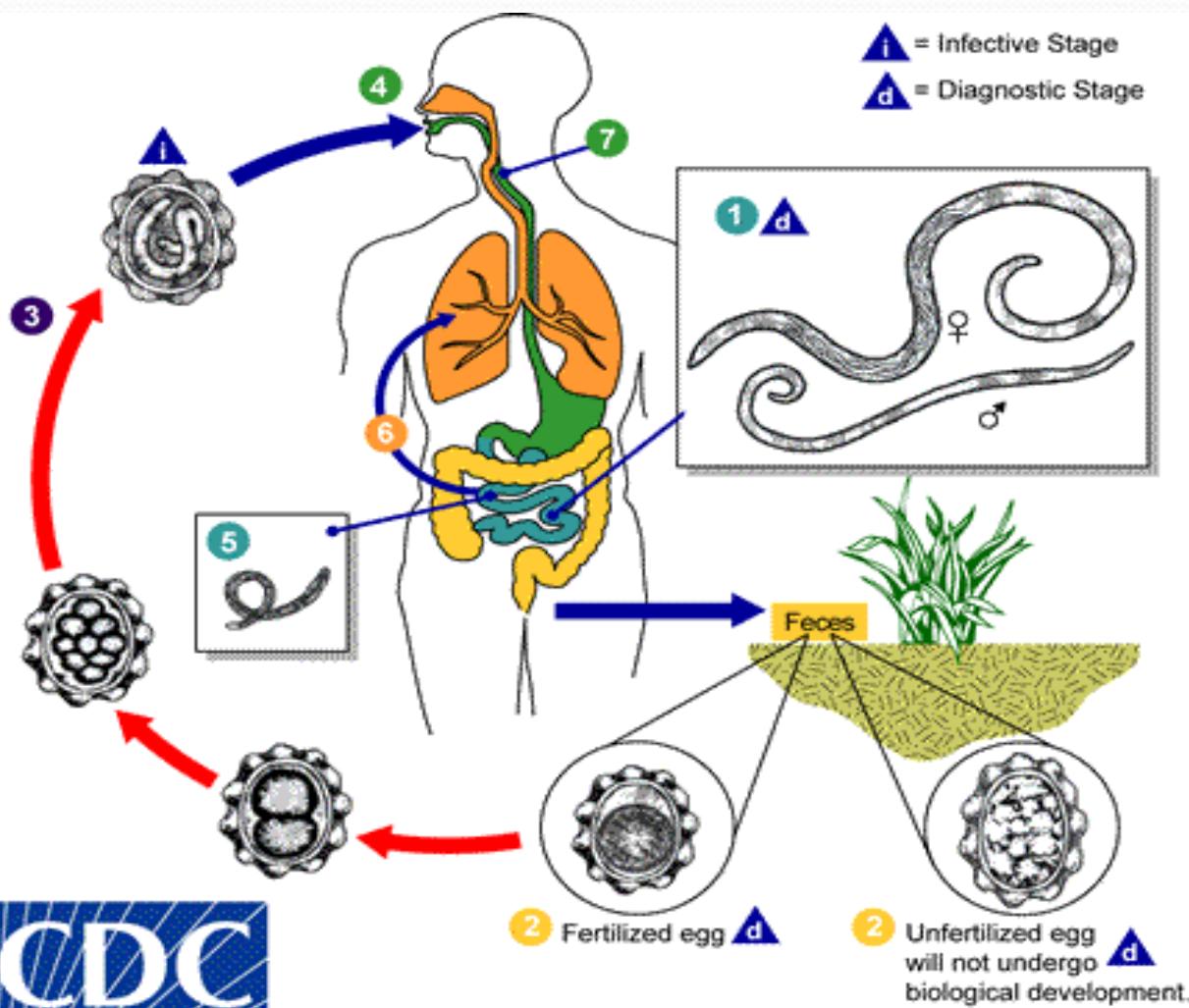


آزمایشگاه‌های ایران

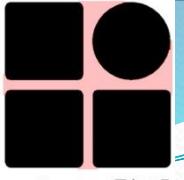




Life cycle of *Ascaris lumbricoides*.



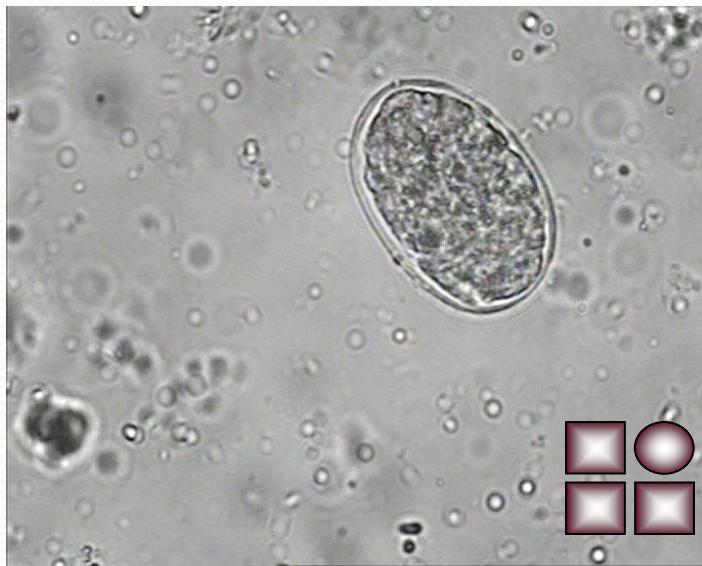
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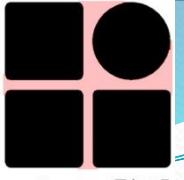


امیری
آزمایشگاهیهای ایران



Hookworm



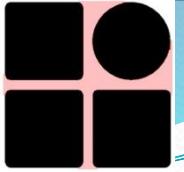


آزمایشگاه‌های
 MEDICAL LABORATORY



Hookworm



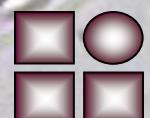


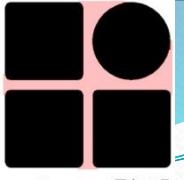
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Embryonated hookworm egg.

A,B: Hookworm rhabditiform larva (wet preparation).





جمهوری اسلامی ایران

Hookworm



Hookworm filariform larva (wet preparation)

Hookworm filariform larva
tail .

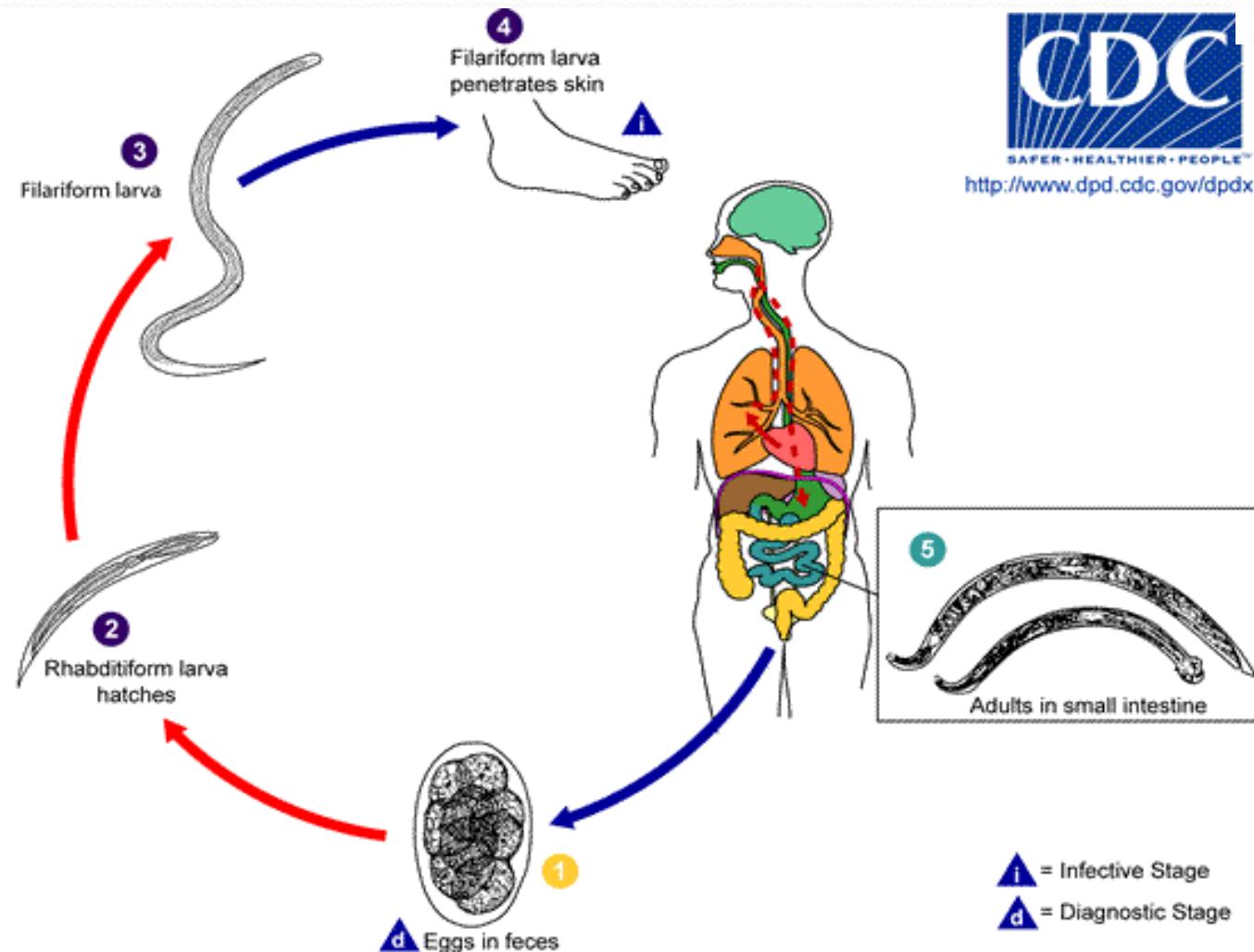




Life cycle of Hookworm



<http://www.dpd.cdc.gov/dpdx>



Strongyloides stercoralis



S.T.Larva



filariform larva tail.

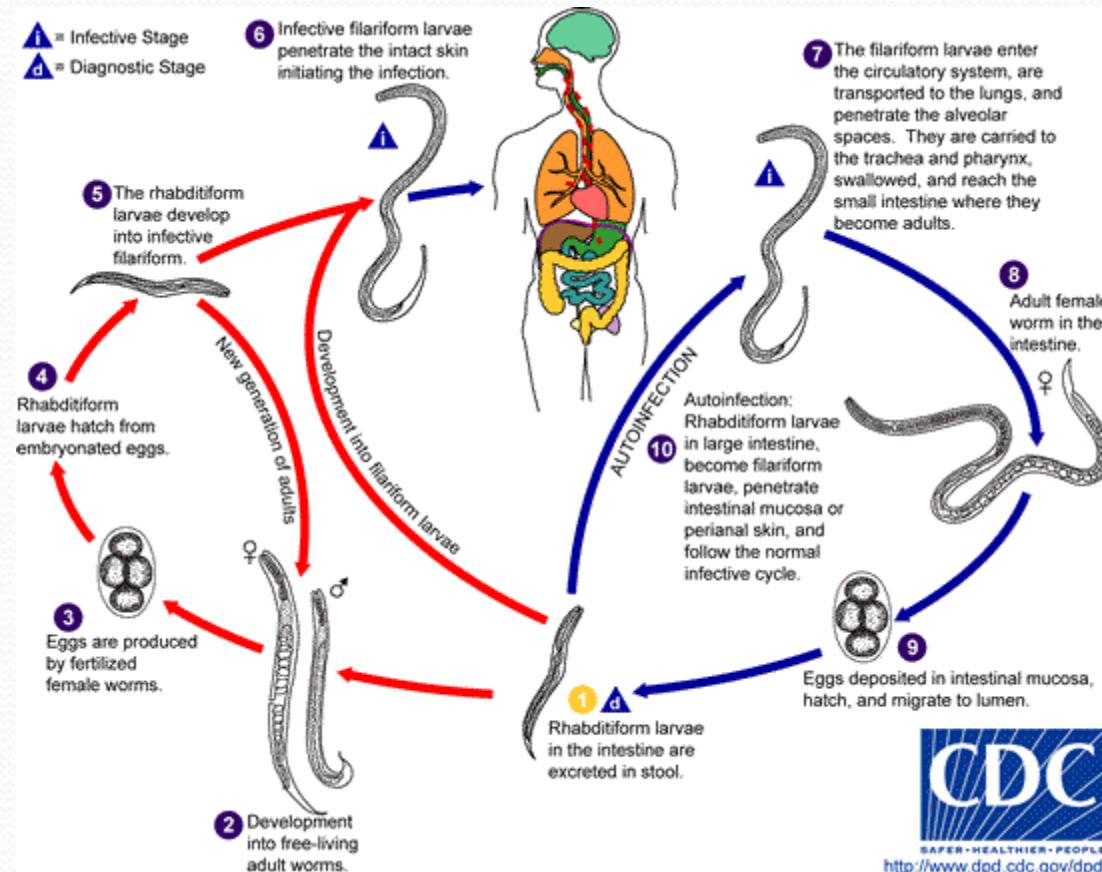
Adult Worm



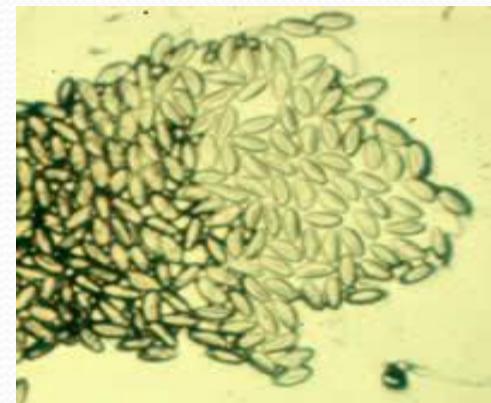
Adult Worm –white Arrow(Coli Cyst)



Life cycle of *Strongyloides stercoralis*

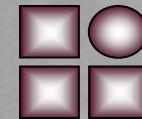


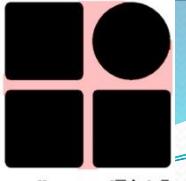
Enterobius Vermicularis eggs





Enterobius Vermicularis egg

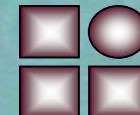




اممی ایرانی شناسی و آزمایشگاهی



Enterobius Vermicularis egg

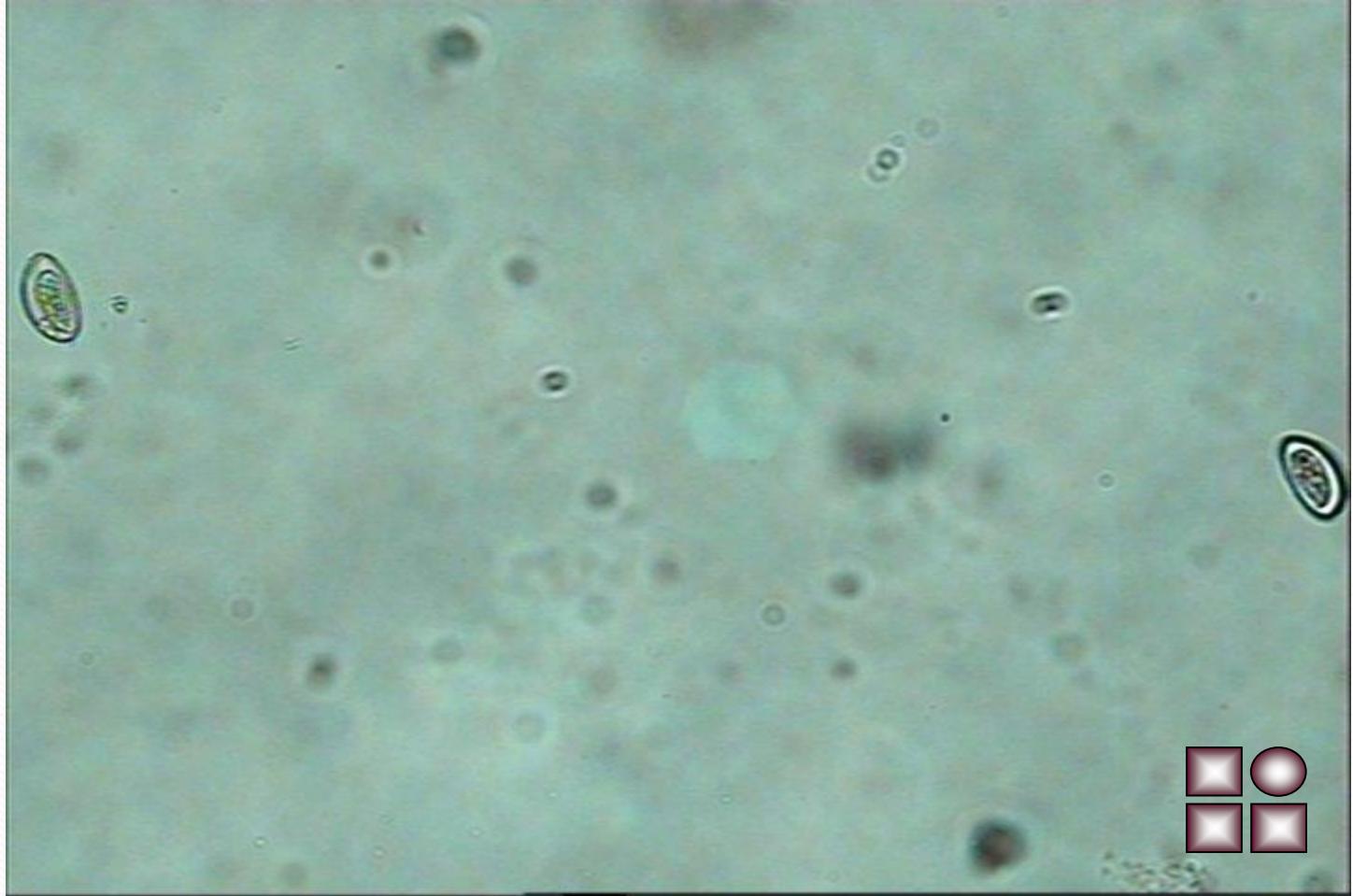


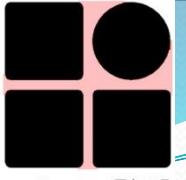
Enterobius Vermicularis eggs



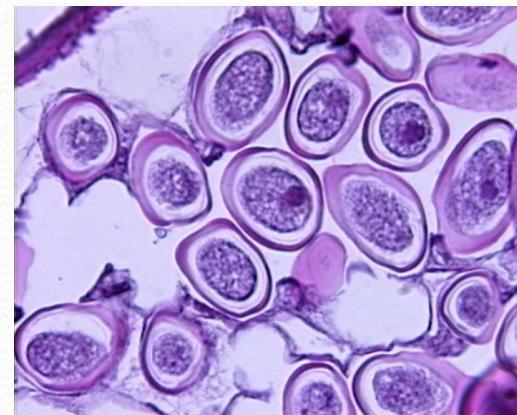
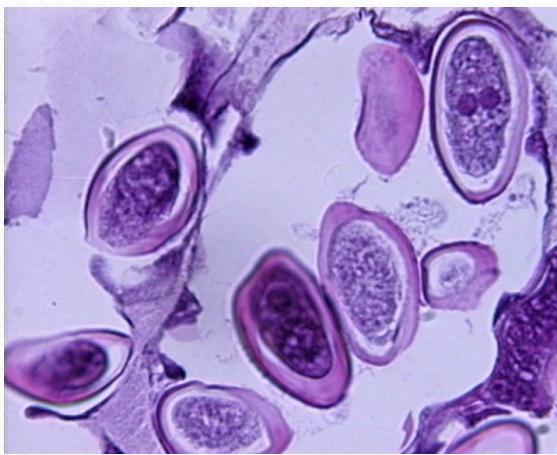
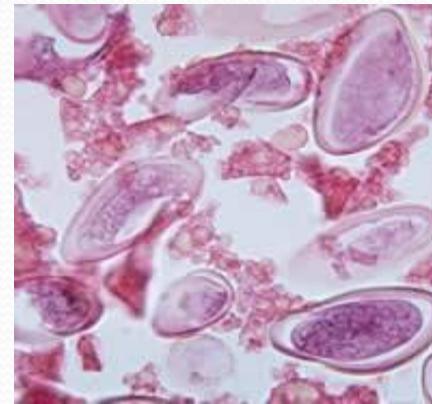


Enterobius Vermicularis eggs

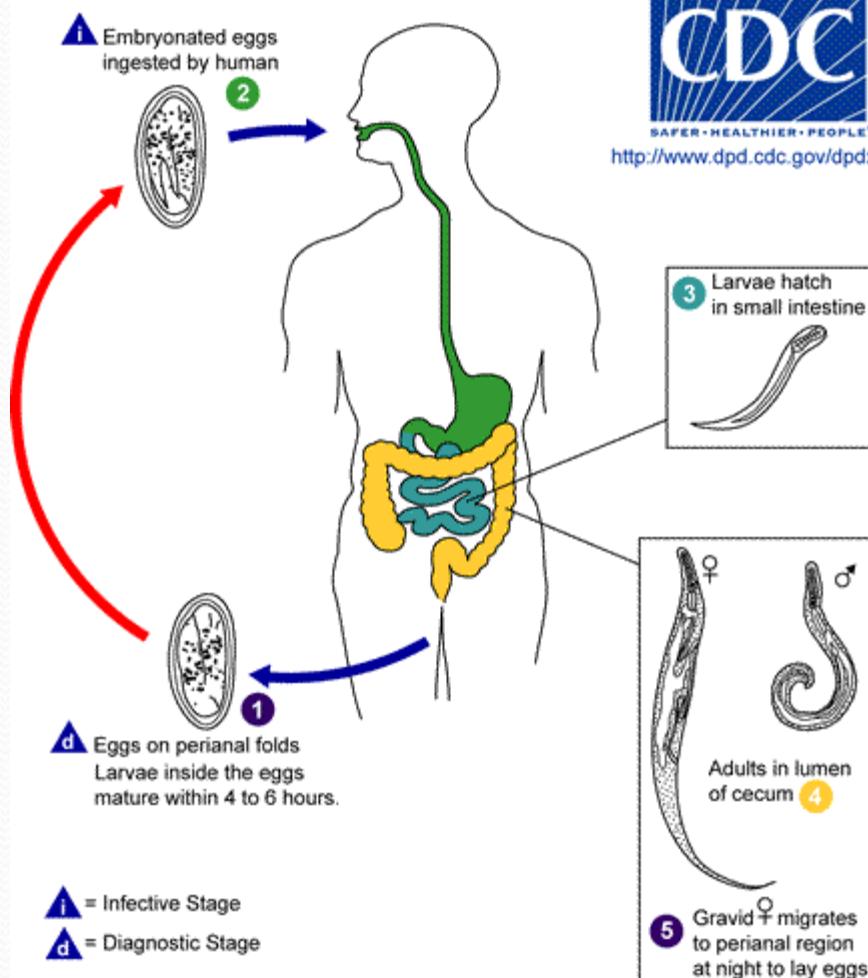




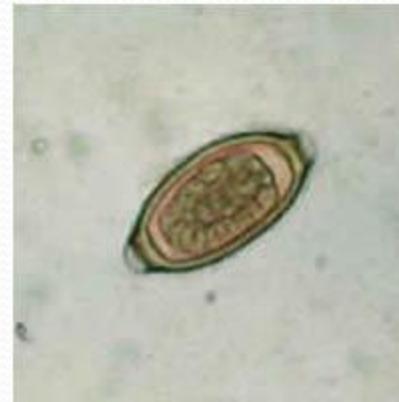
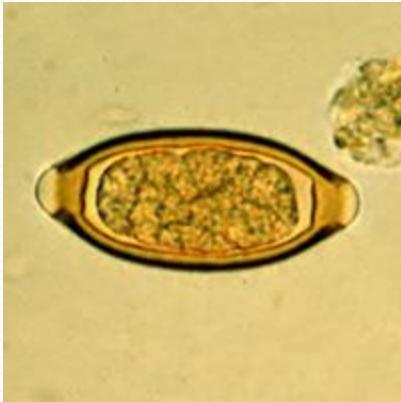
آزمایشگاه‌های
دستگاهی ایران



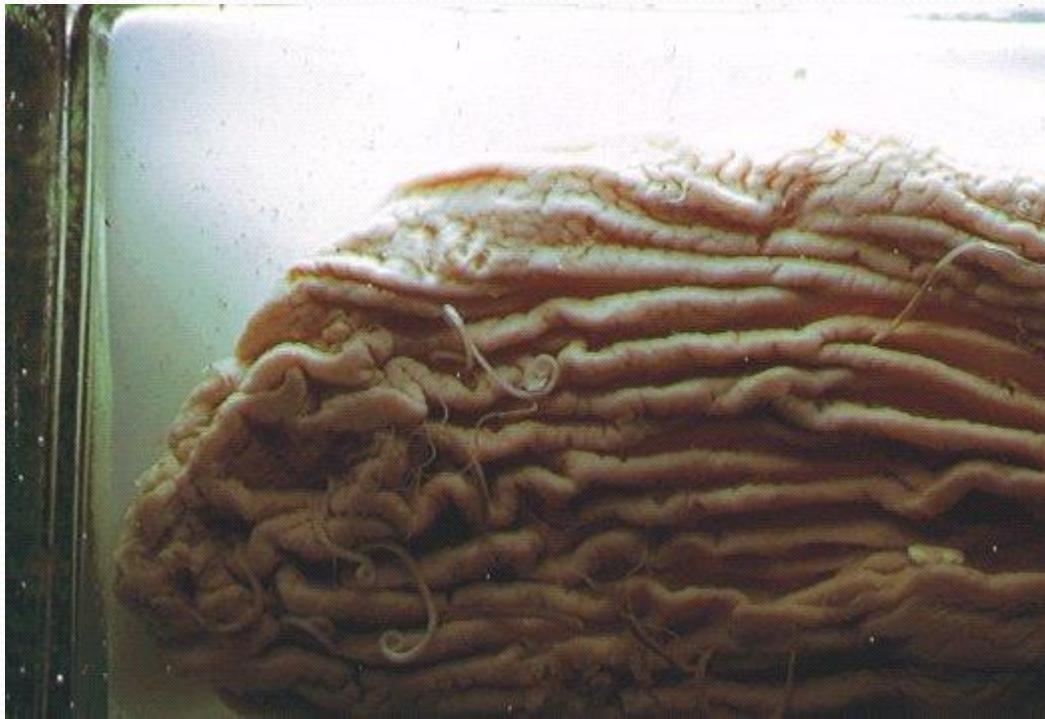
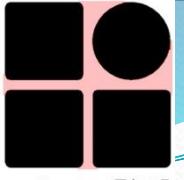
Life cycle of *Enterobius vermicularis*



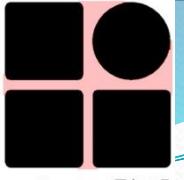
Trichuris trichiura eggs



Adult Worms



Trichuris trichiura
adults in gut (preserved post mortem specimen)



Trichuris trichiura egg

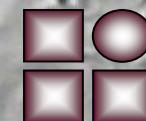


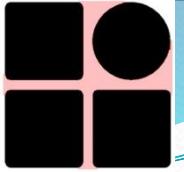


Atypical *Trichuris* sp. eggs.



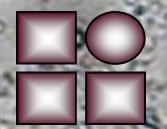
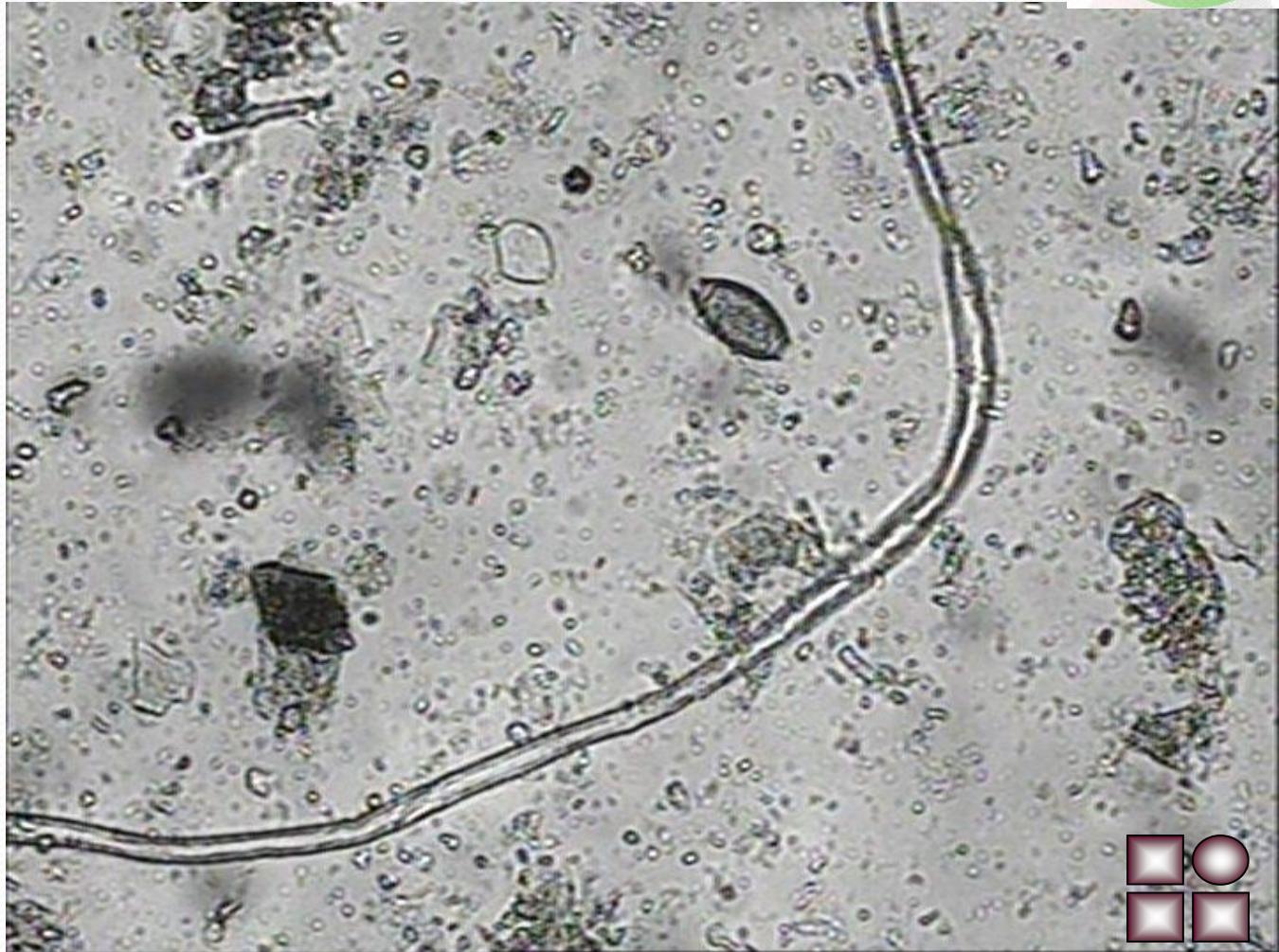
Trichuris trichiura egg





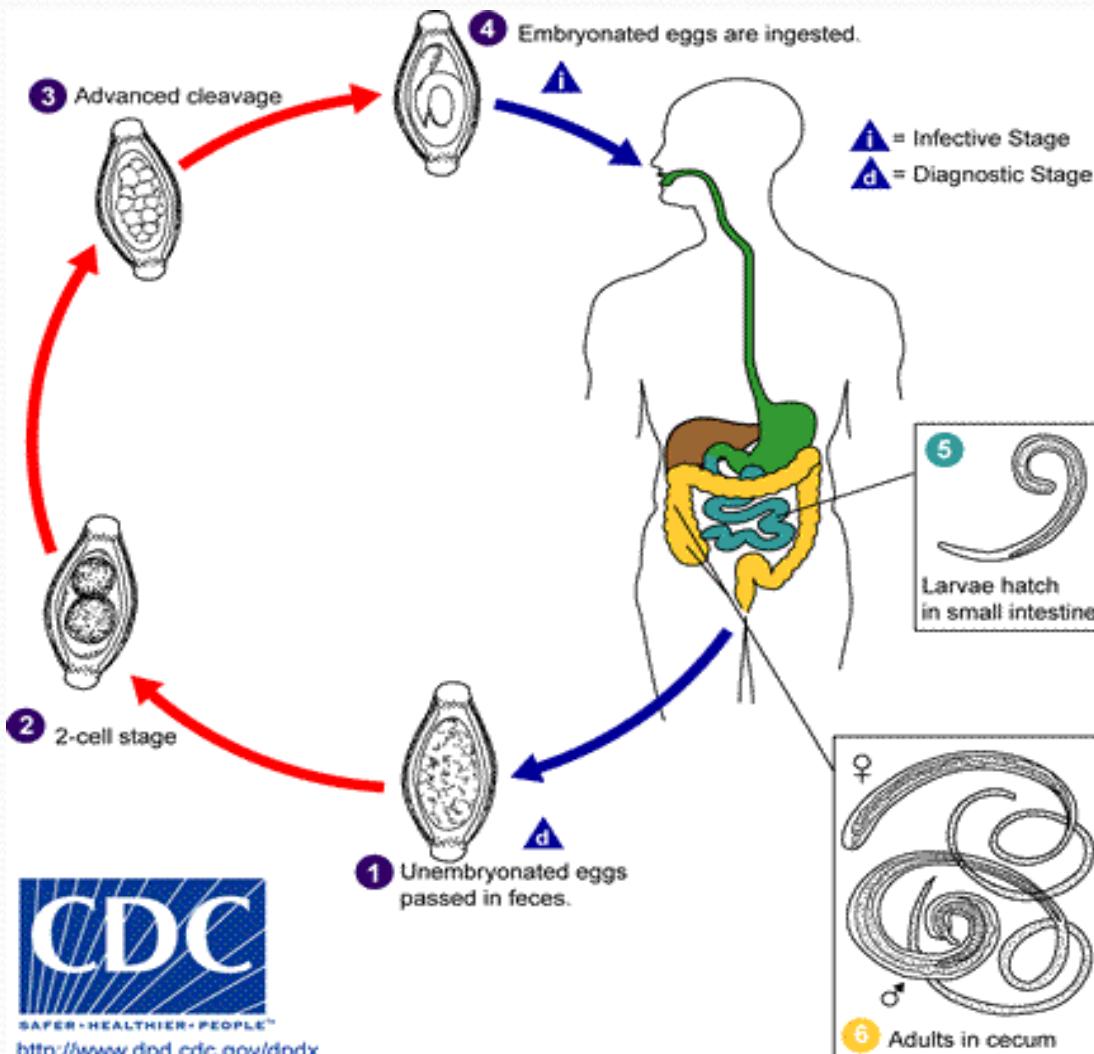
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Trichuris trichiura egg





Life cycle of *Trichuris trichiura*

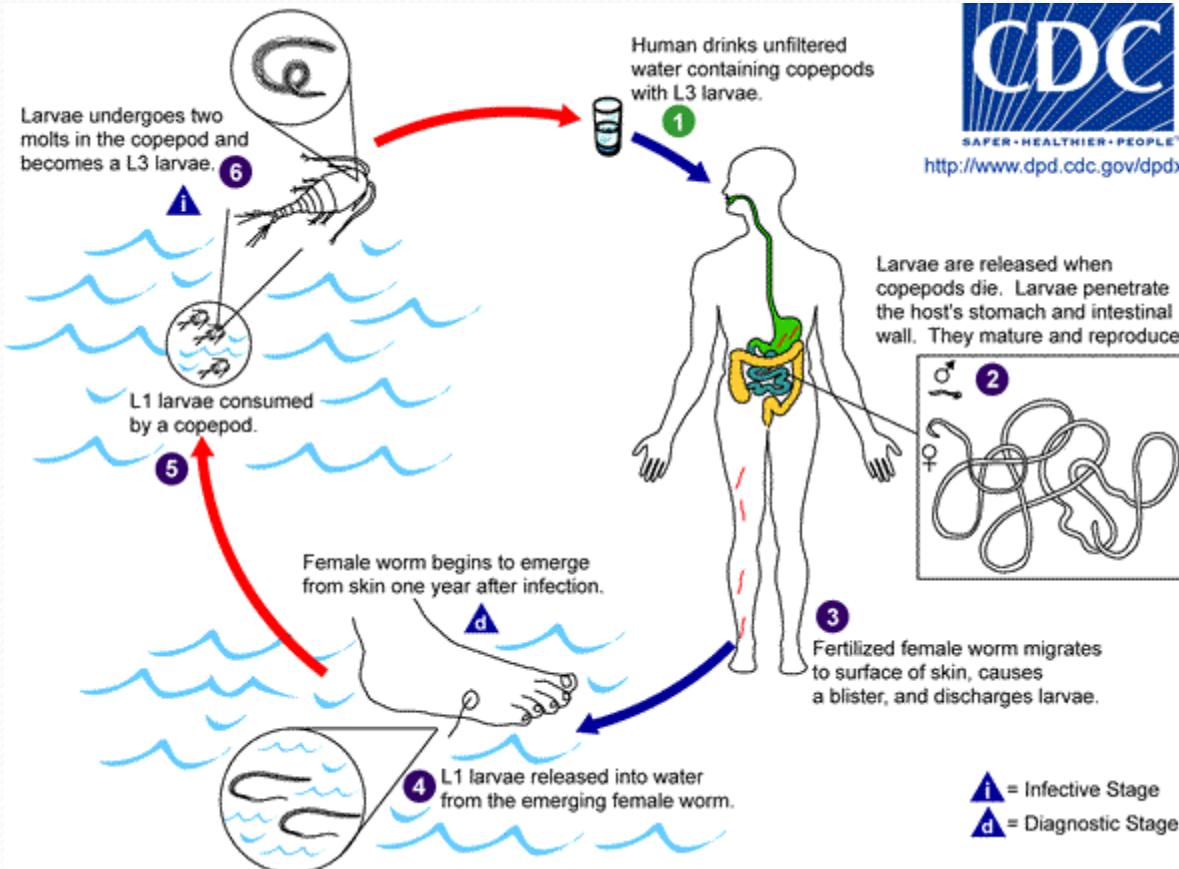


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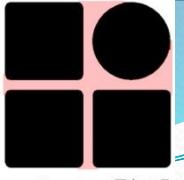
Dracunculus medinensis



Life cycle of *Dracunculus medinensis*

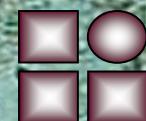


<http://www.dpd.cdc.gov/dpdx>



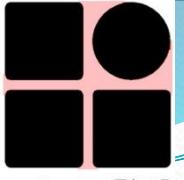
آزمایشگاههای ملی

لارو پیوک



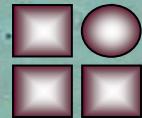
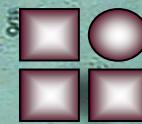
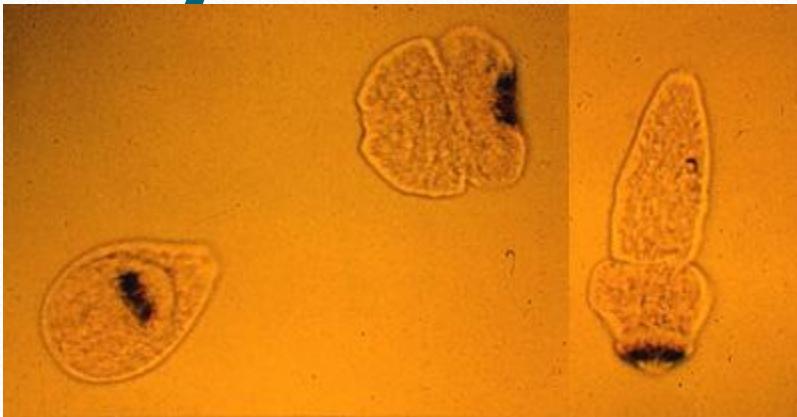
کرم های نواری انسان

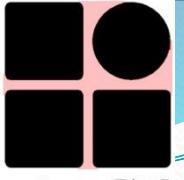
- اکینوکوکوس گرانولوزوس
- تپیا سازیناتا
- هیمنولیپیس نانا
- دیفیلوبوتریوم لاتوم = کرم نواری ماهی



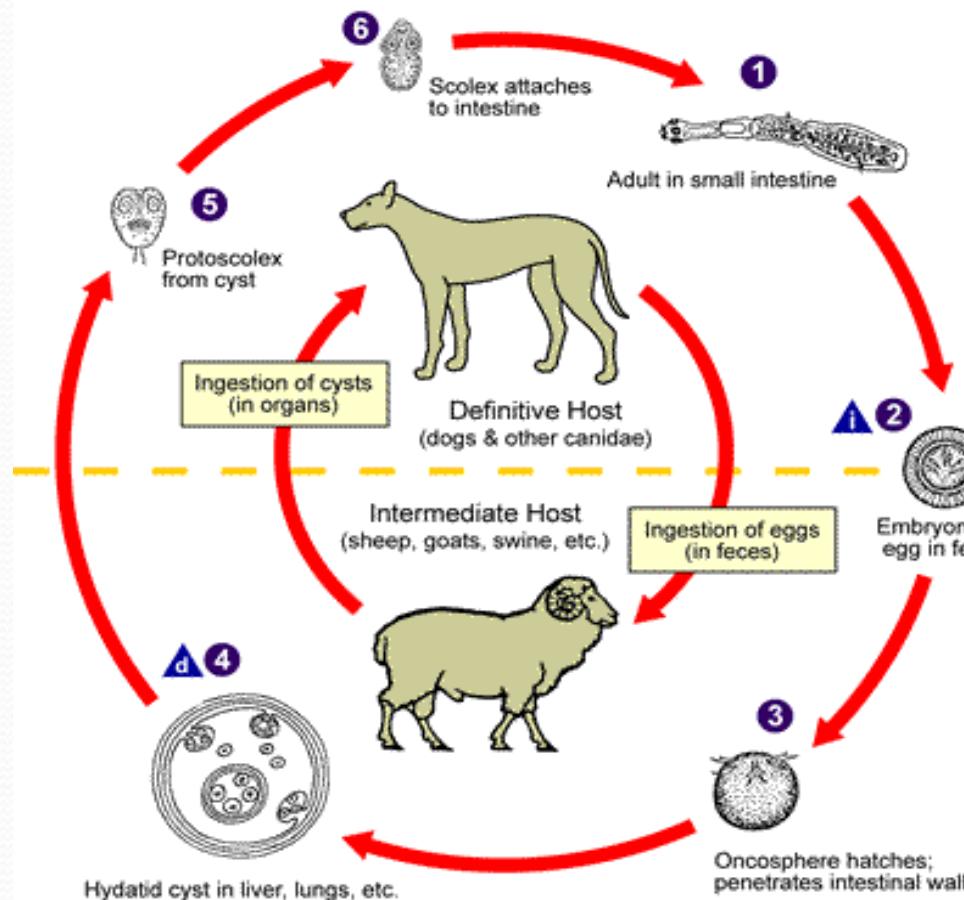
امم اسلامی
جمهوری اسلامی ایران

Hydatid sand

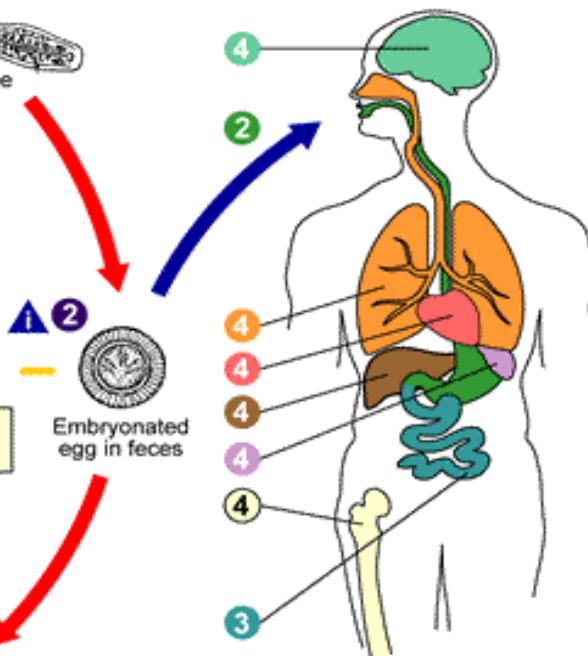




Life cycle of *Echinococcus*

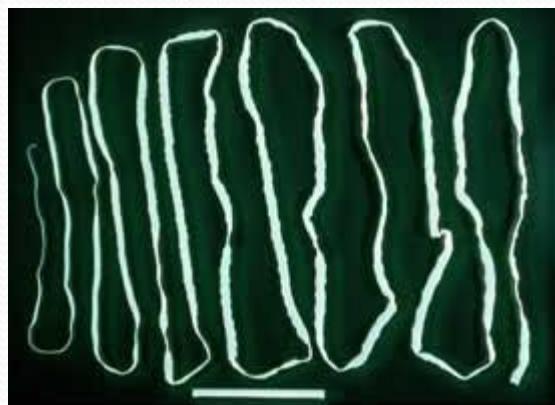
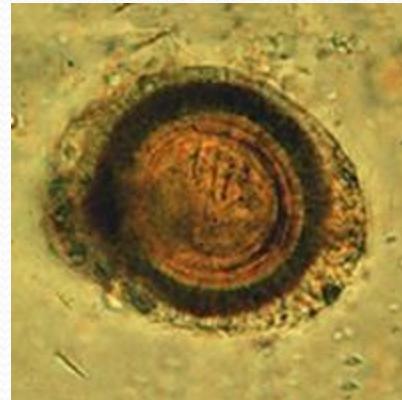


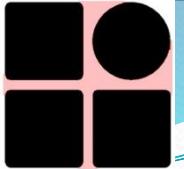
<http://www.dpd.cdc.gov/dpdx>



1 = Infective Stage
d = Diagnostic Stage

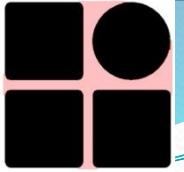
Taenia saginata T. solium



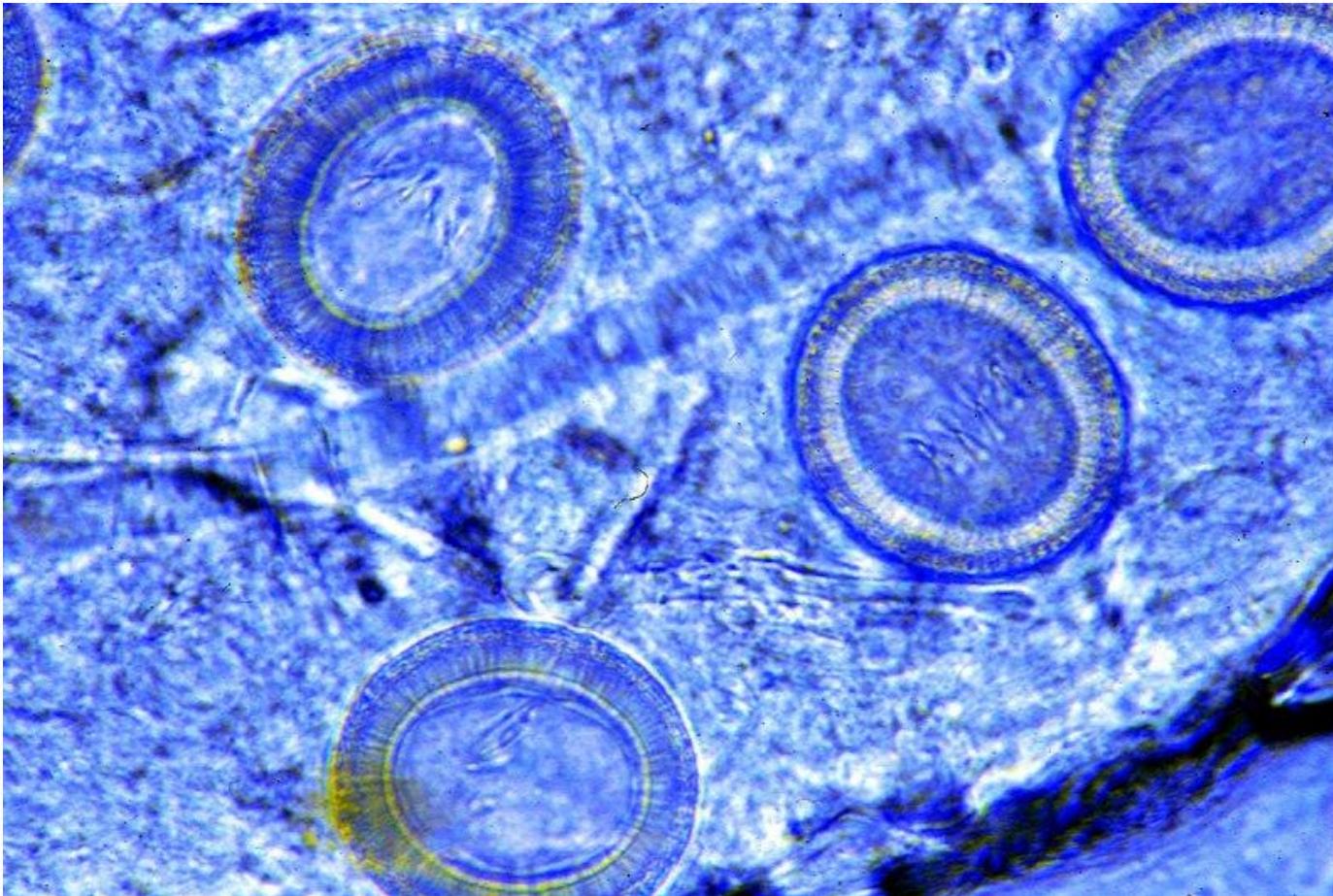


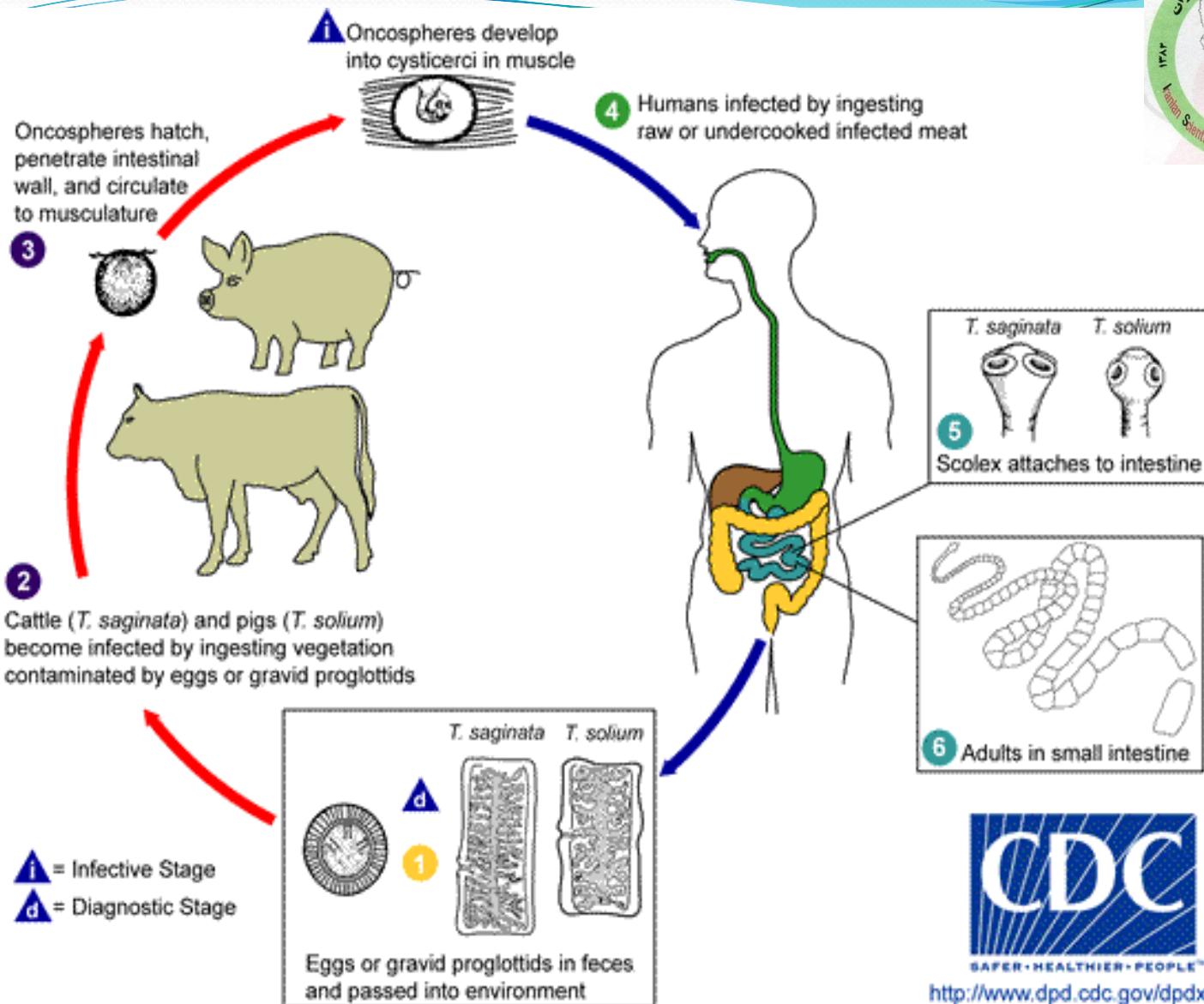
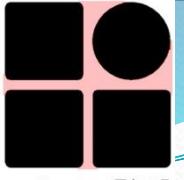
آزمایشگاههای
 MEDICAL LABORATORY



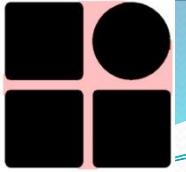


آزمایشگاه‌های
کلیینیکی ایران

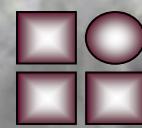


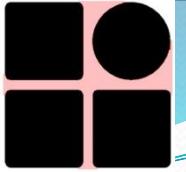


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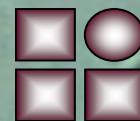


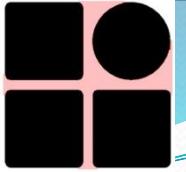
آزمایشگاه‌های
کلینیکی ایران





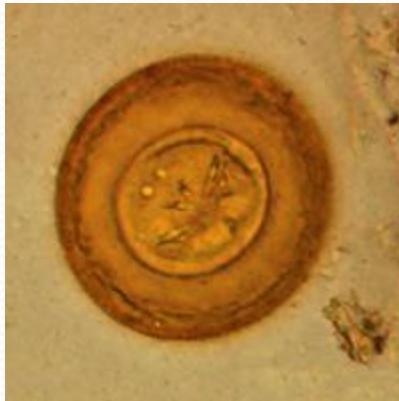
آزمایشگاه‌های
کلیینیکی ایران

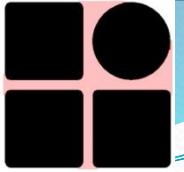




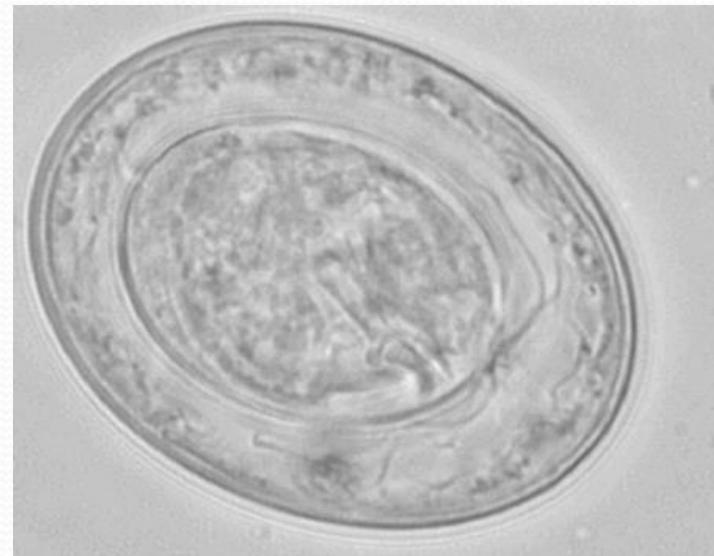
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Hymenolepis nana





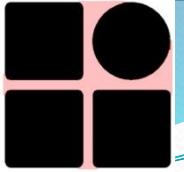
آزمایشگاه‌های
 MEDICAL LABORATORY



کرم‌های پن‌یافلوک‌های روده‌ای انسان

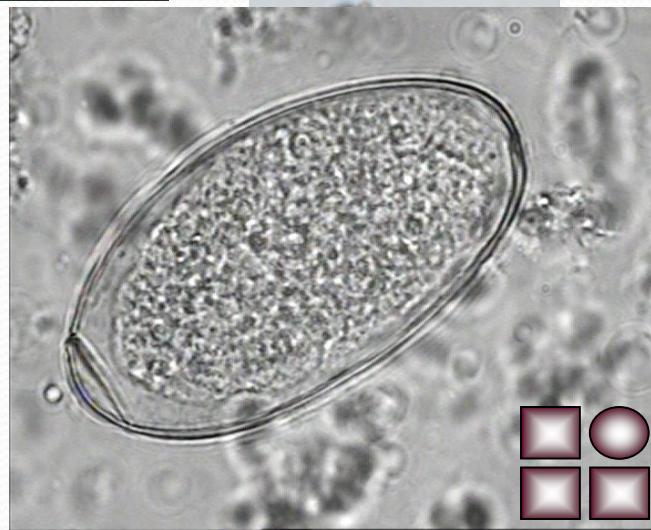
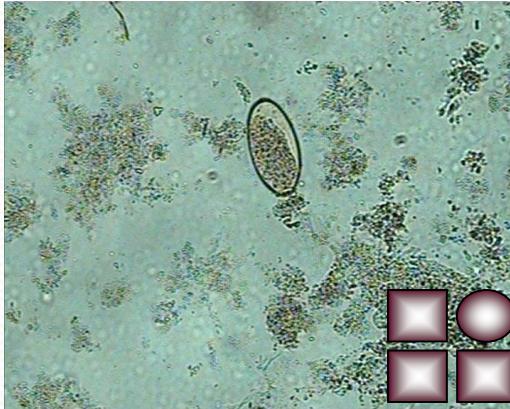
فاسیولا هپاتیکا = کرم کبدگو سفند = کپلک

دیکروسولیوم دندریتیکوم



جمهوری اسلامی ایران

Fasciola hepatica eggs

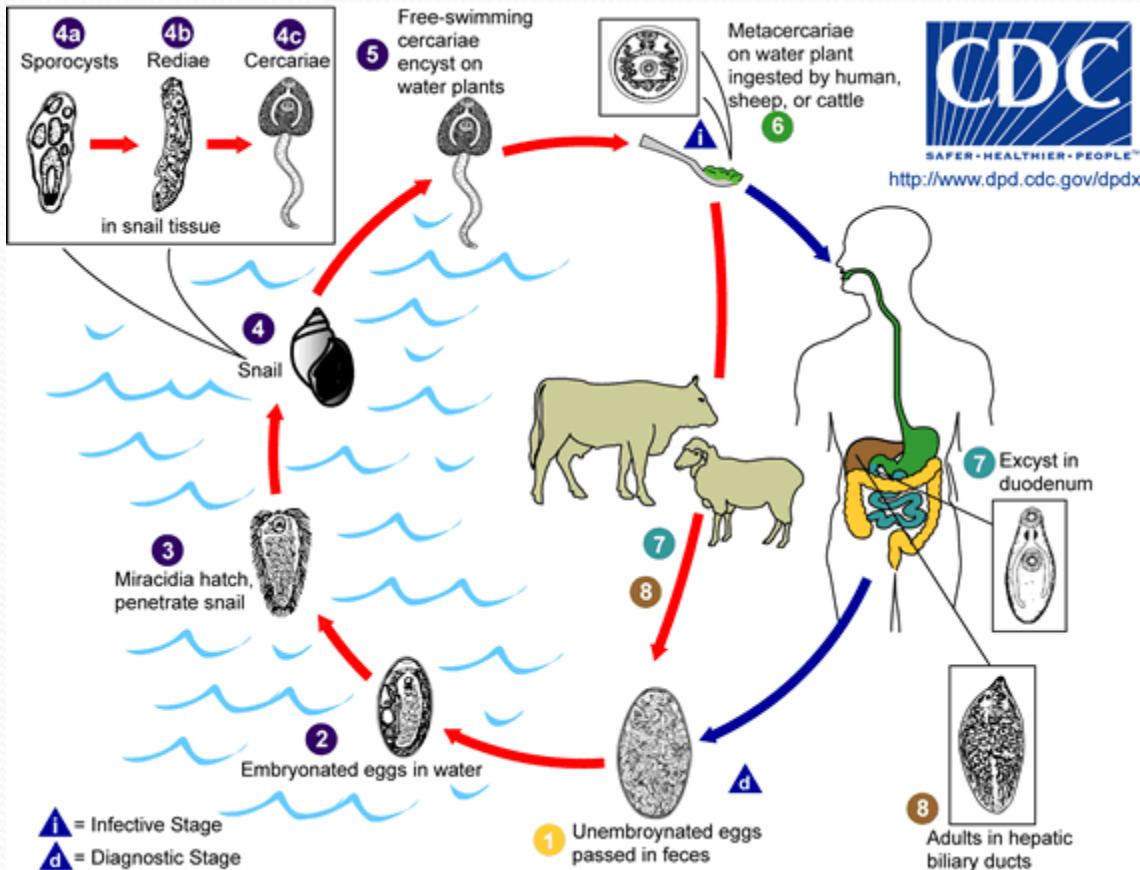


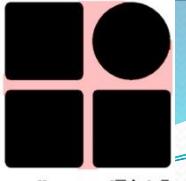


Fasciola hepatica&*Dicrostichum* *dendriticum* egg



Life cycle of *Fasciola hepatica*

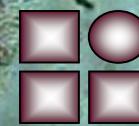
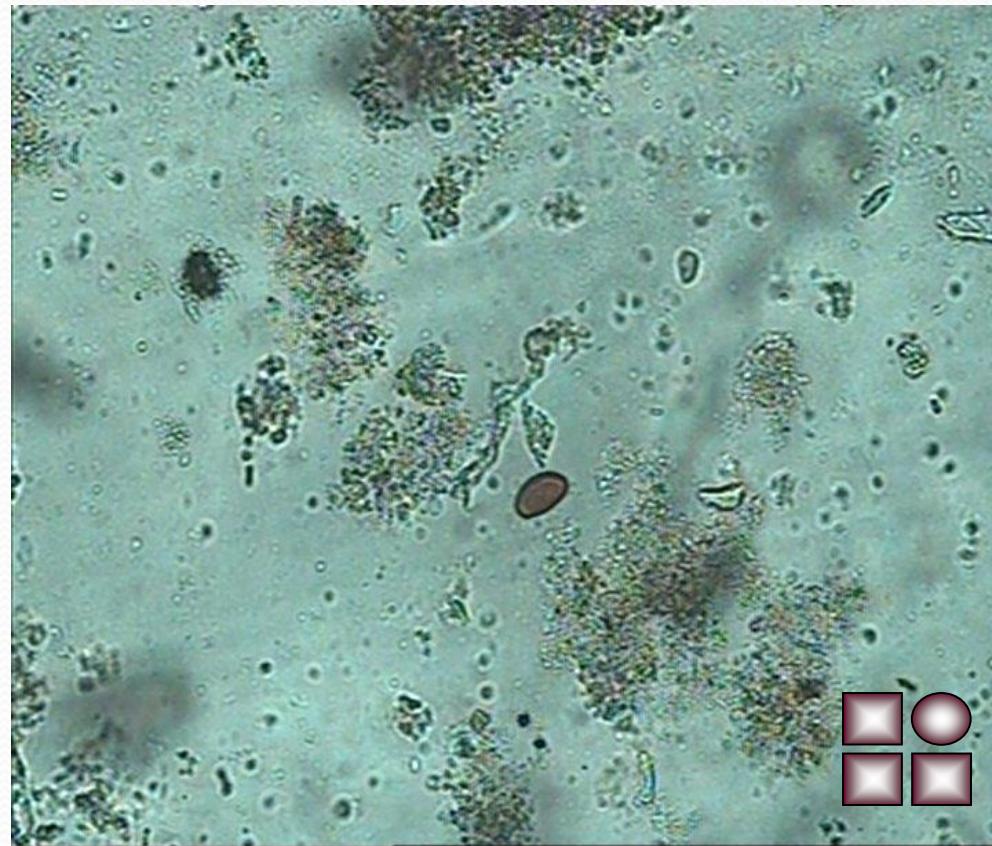




امیری
آزمایشگاهی
دستگاهی



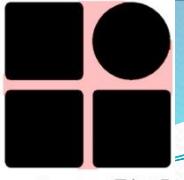
Dicrosolium dendriticum egg





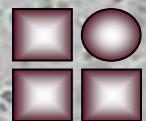
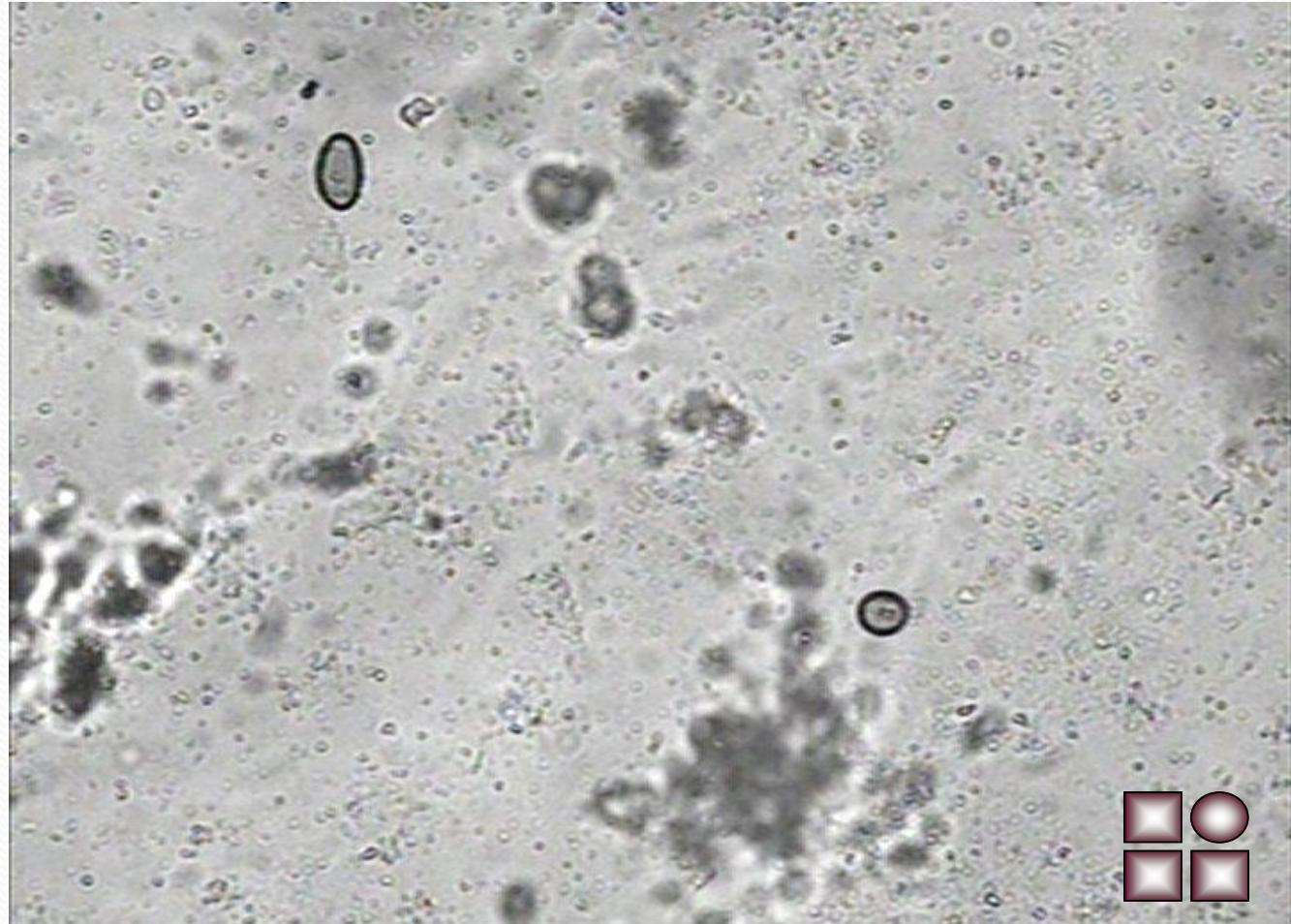
Dicrosolium dendriticum egg





جمهوری اسلامی ایران

Dicrosolium dendriticum egg





پن یافلوک های خونی انسان

شیستوزوما هماتوبیوم

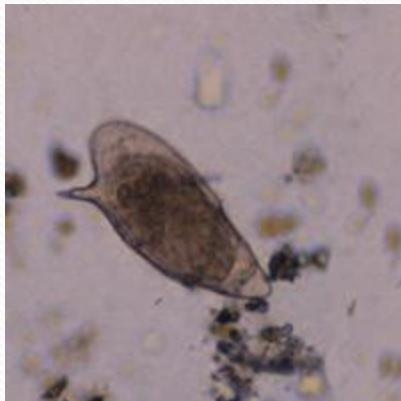
شیستوزوما مانسونی

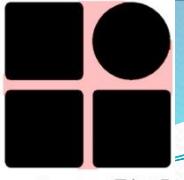
شیستوزوما ژاپونیکوم

Schistosoma haematobium eggs



Schistosoma mansoni eggs





اممی ایرانی شناسنامه آزمایشگاهیان ایران

Schistosoma japonicum eggs



A

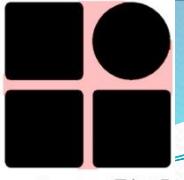


B



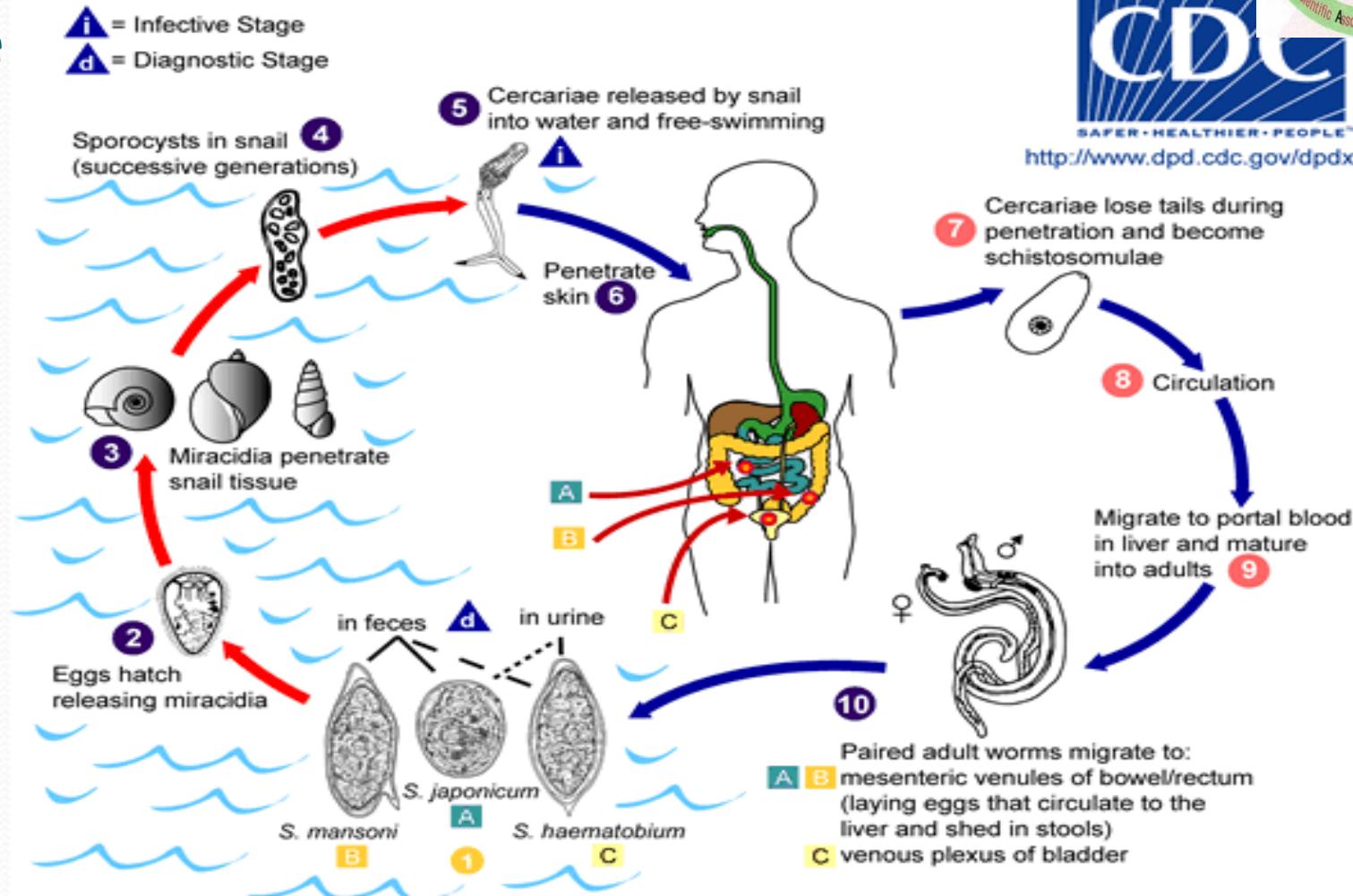
C

shows a visible spine The egg in Figure C



مملکتی عدیمی اندیشی

Life



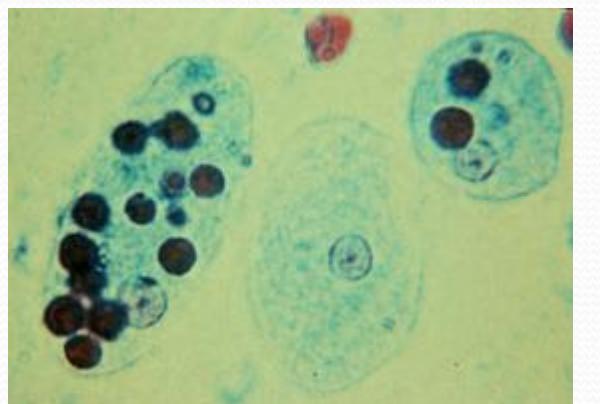
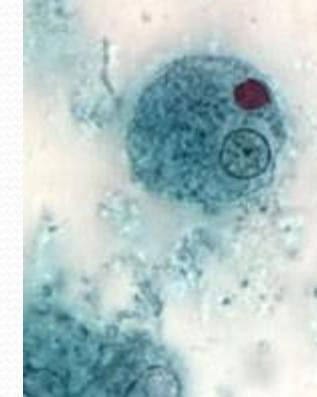
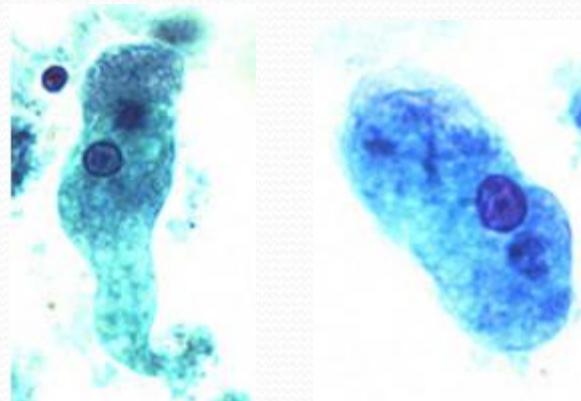
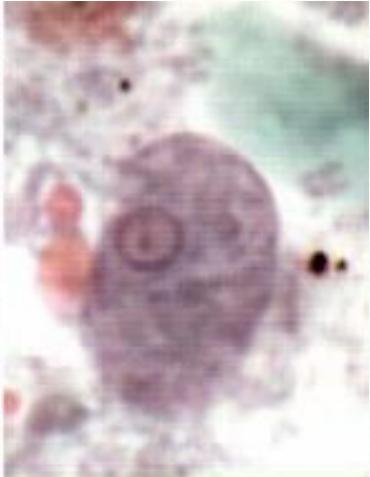
آمیب های روده ای انسان

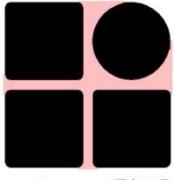
- # آنتاموبا هیستولیتیکا / آنتاموبا دیسپار
- # آنتاموبا کلی
- # آنتاموبا هارتمنی
- # اندولیماکس نانا
- # پداموبا بوتچلی
- # دآنتموبا فراجیلیس



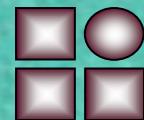
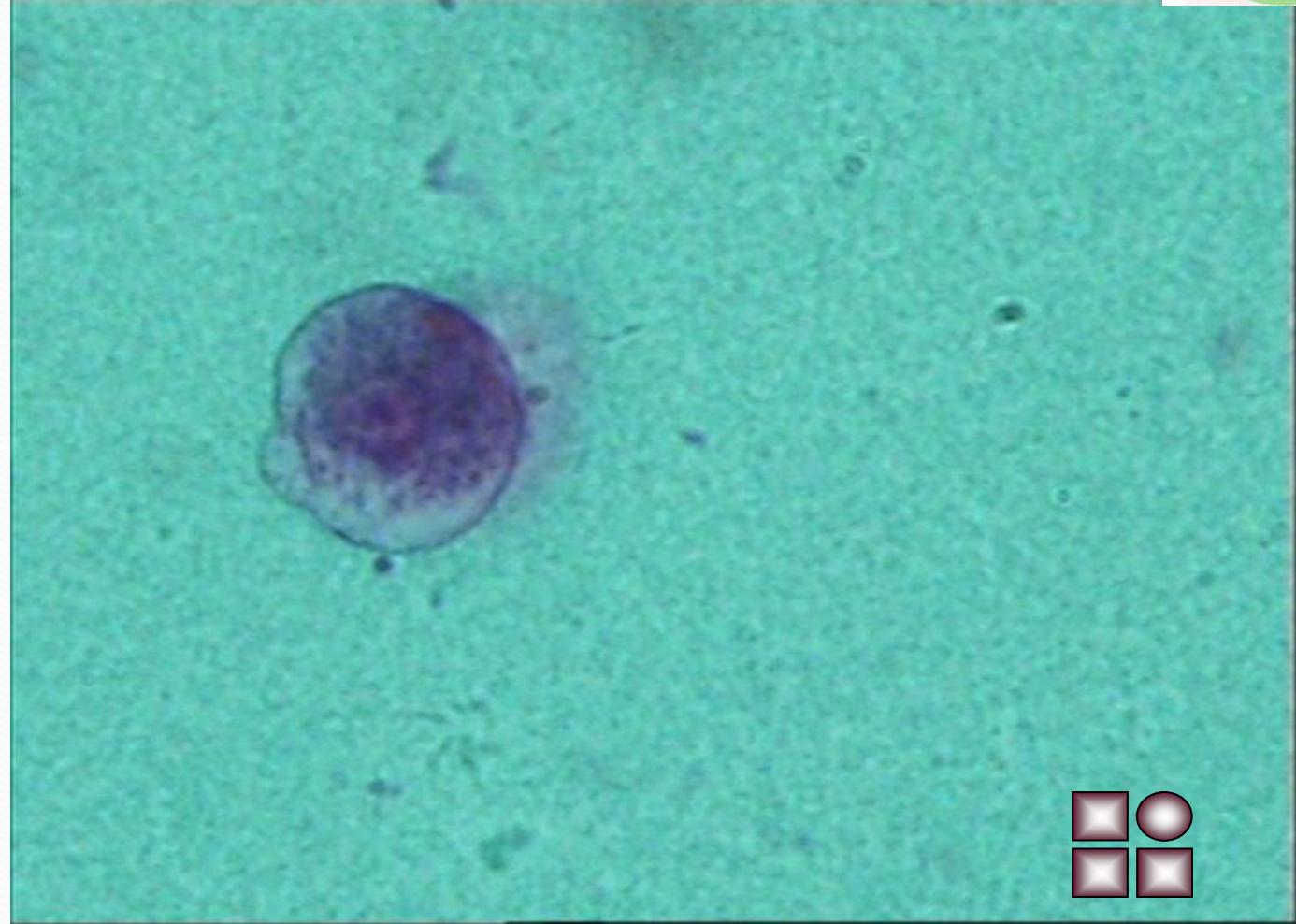
Trophozoites of

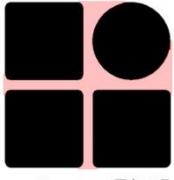
Entamoeba histolytica/E. dispar



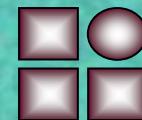


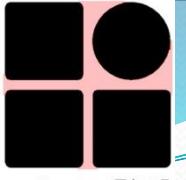
آزمایشگاه‌های ایران





آزمایشگاه‌های
کلیینیکی ایران





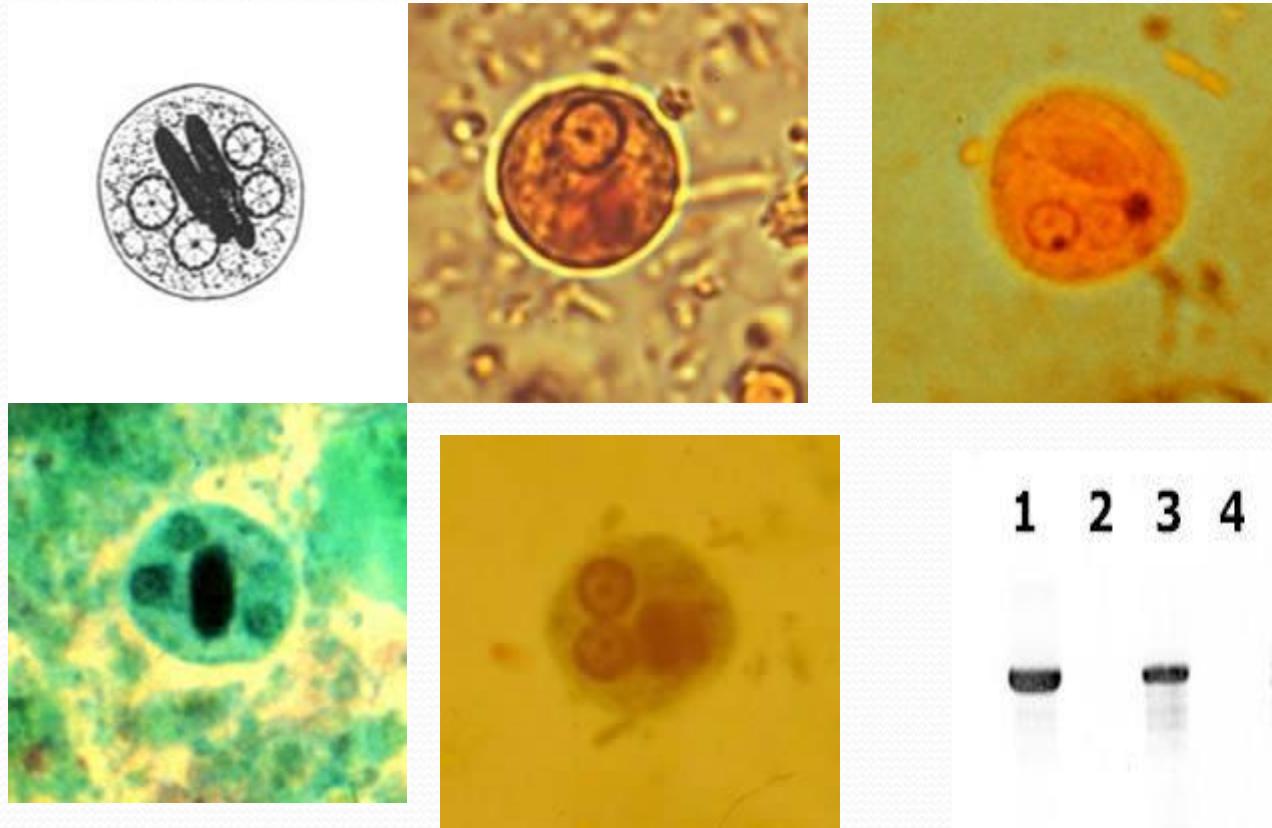
امنیت
جوده
کیفیت



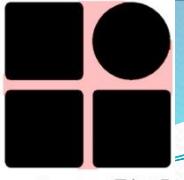
Laboratorio Patologia Clinica - P.O. Teramo
Settore di Batteriologia

omologato - bimbi e singoli esemplari
sigillabilità di scatole

Cysts of *Entamoeba histolytica/E. dispar*

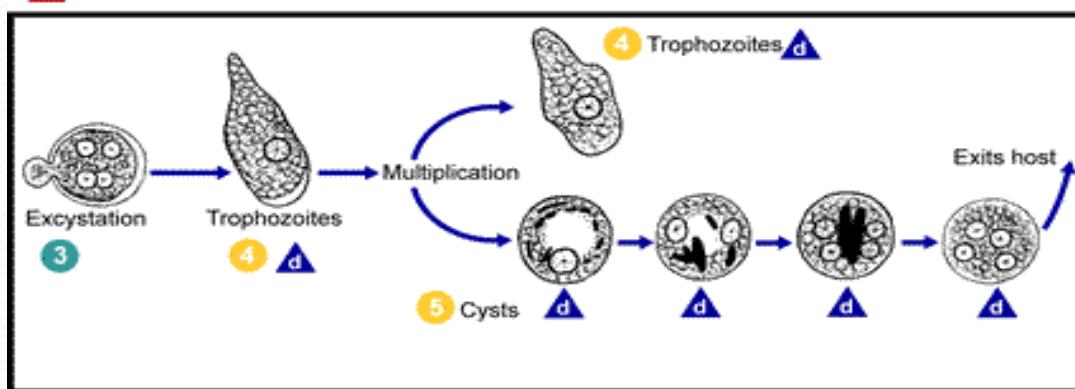
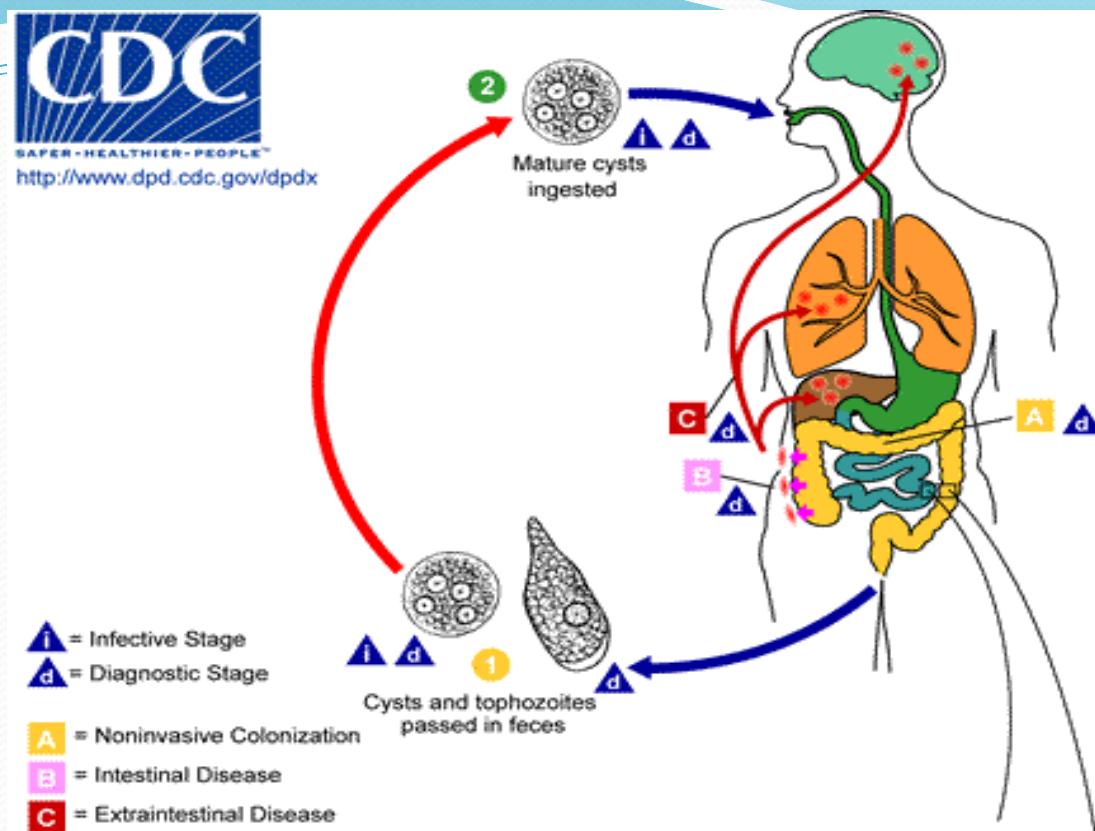


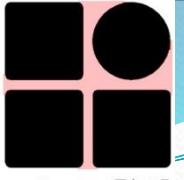
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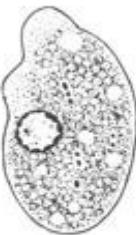
CDC
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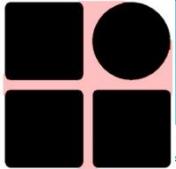
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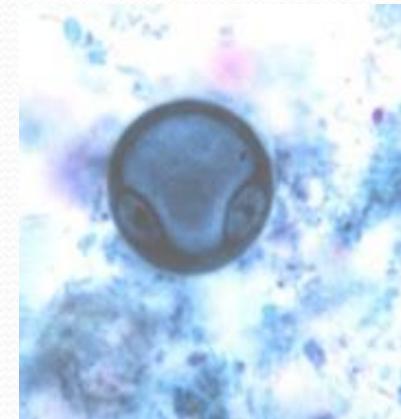
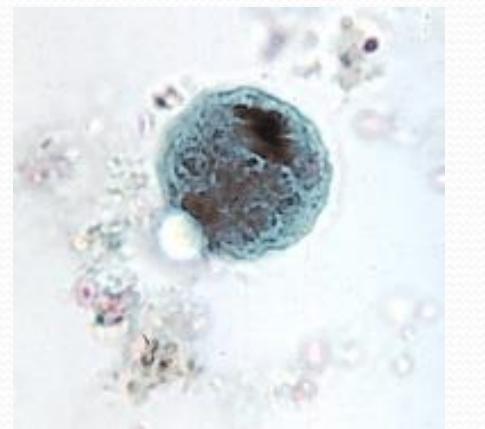


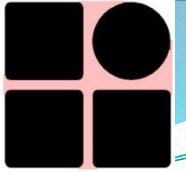
Entamoeba coli



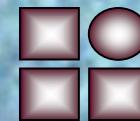
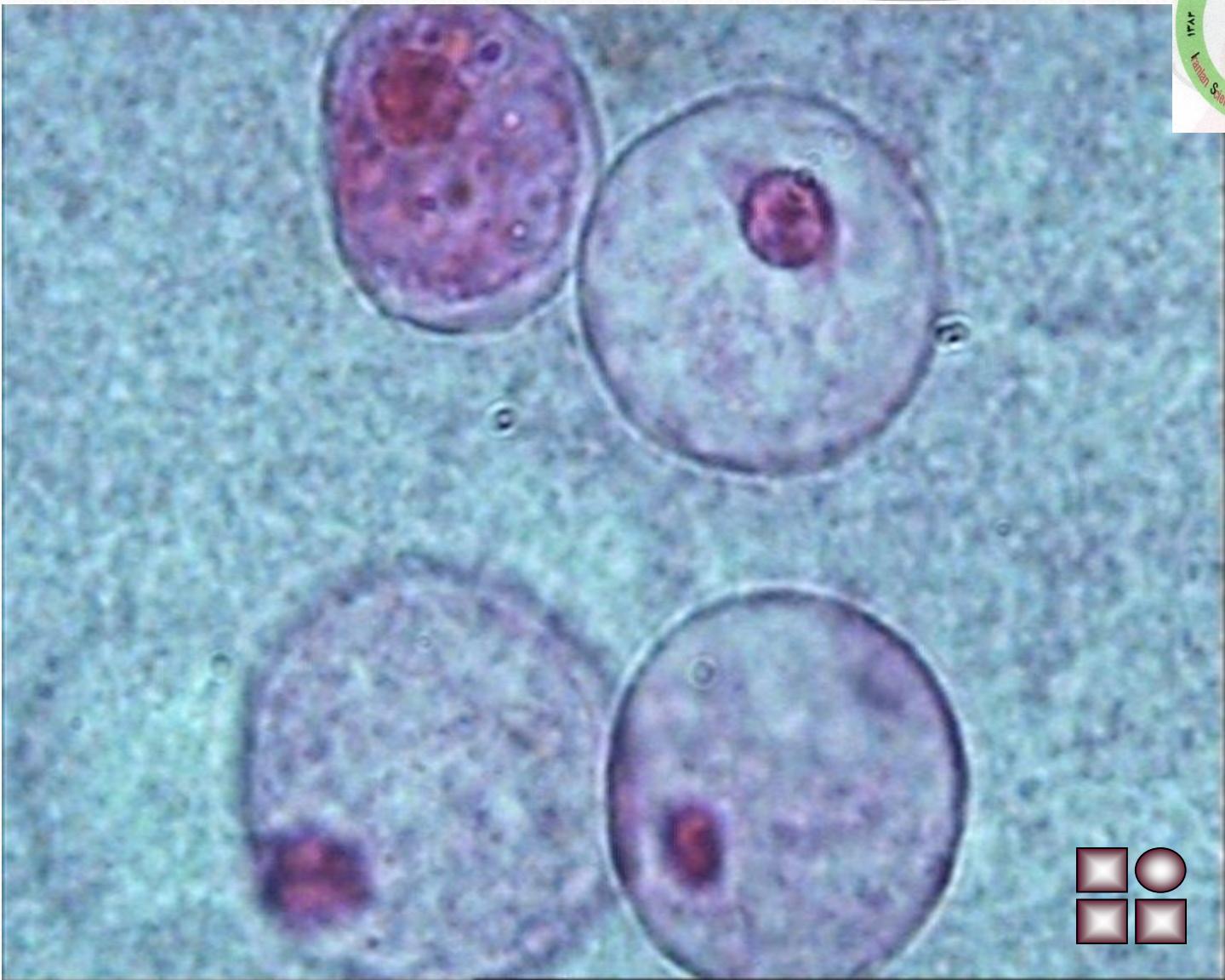


Cysts of *Entamoeba coli*



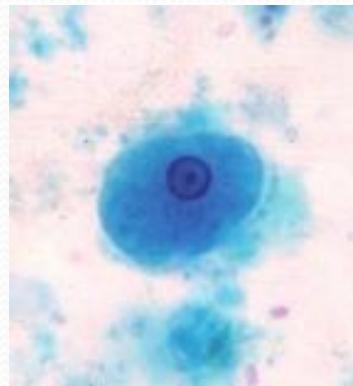
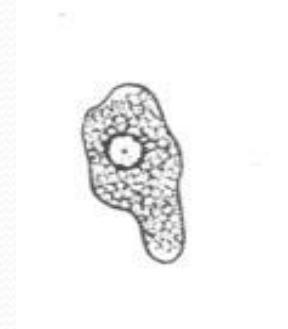


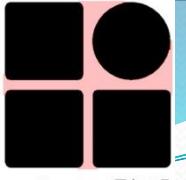
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Trophozoites of *Entamoeba hartmanni*



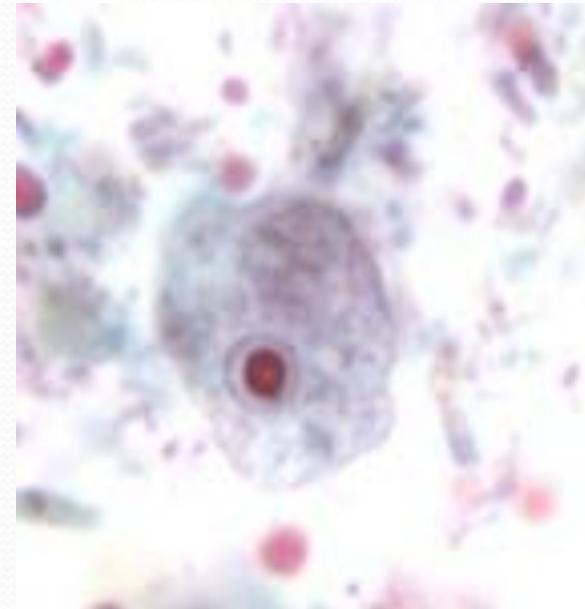
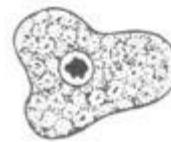


جمهوری اسلامی ایران

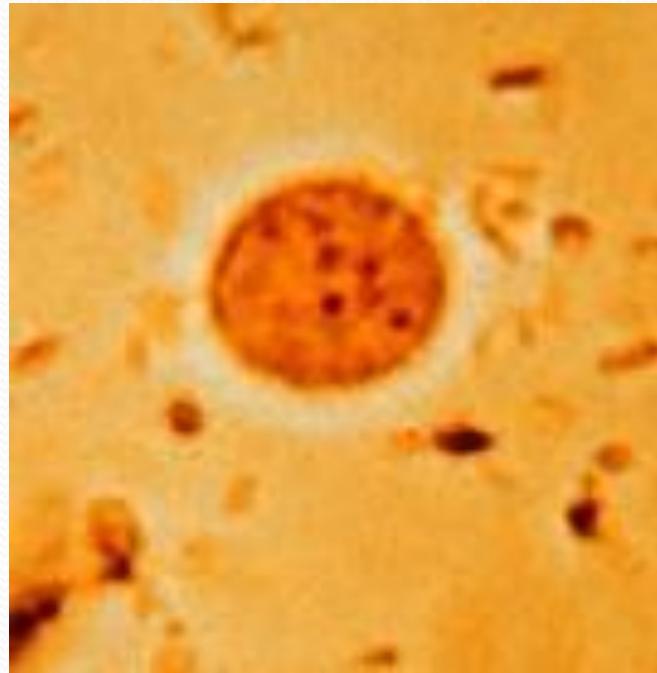
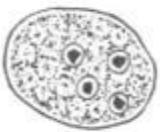
Cysts of *Entamoeba hartmanni*



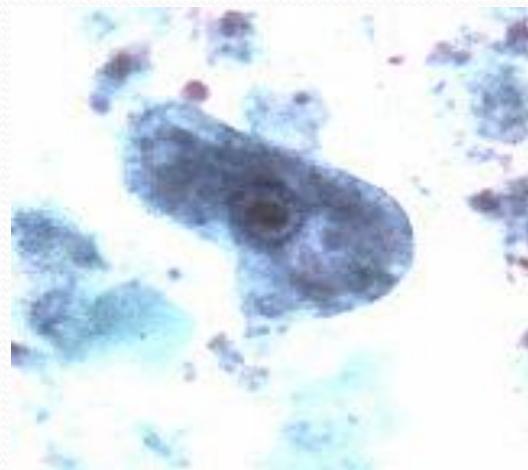
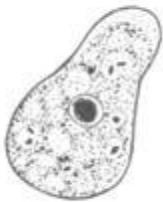
Endolimax nana trophozoites

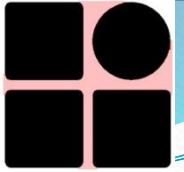


Endolimax nana cysts



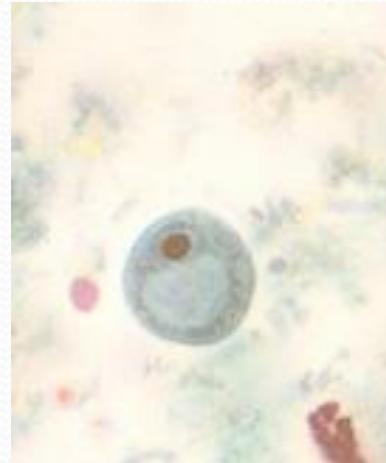
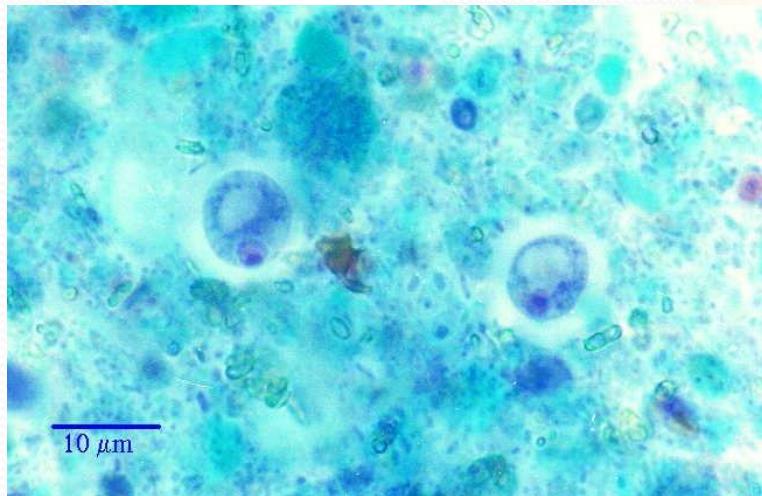
Iodamoeba buetschlii trophozoites

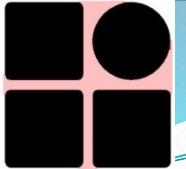




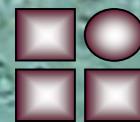
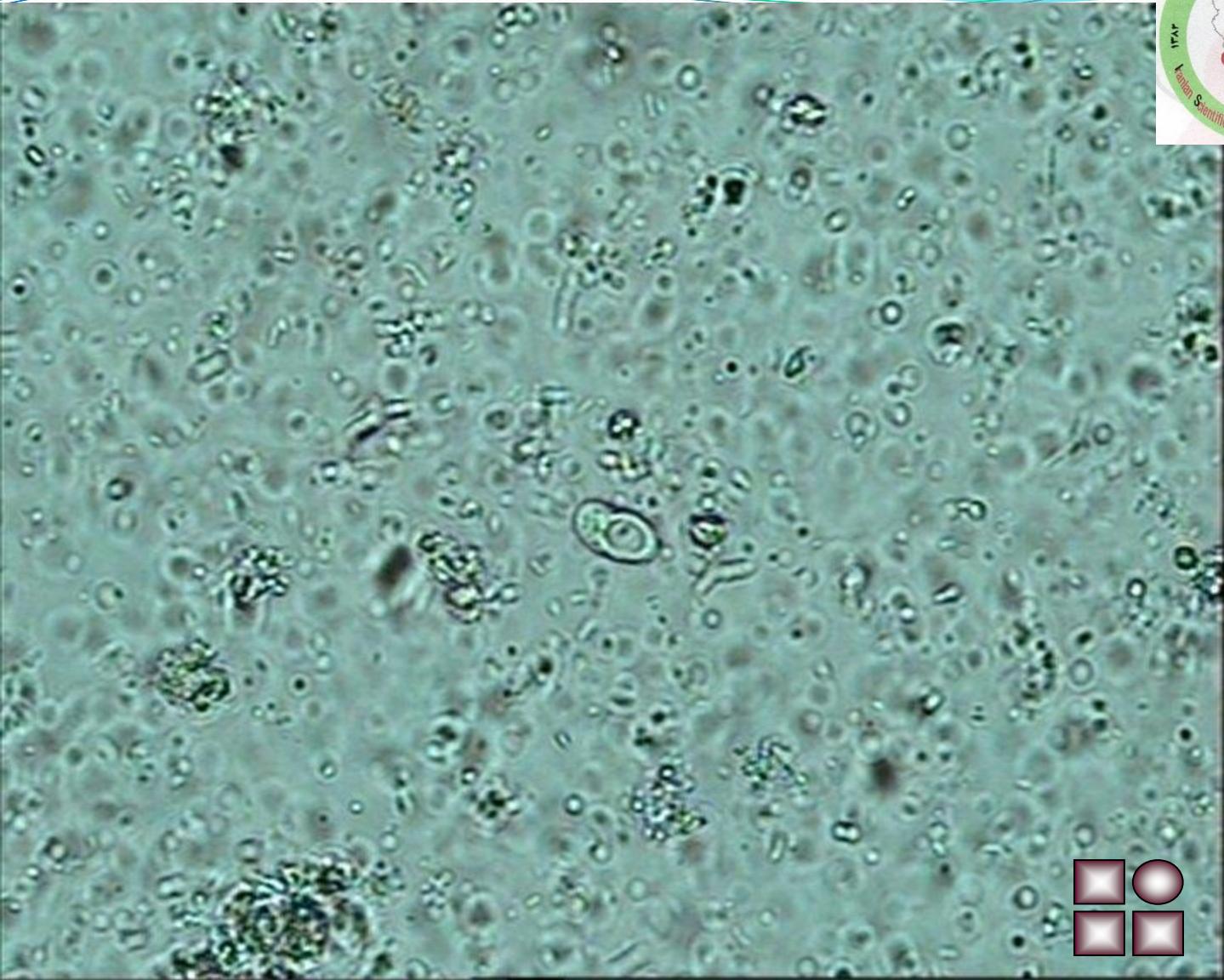
جمهوری اسلامی ایران

Iodamoeba buetschlii cysts



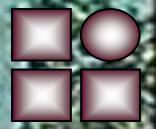
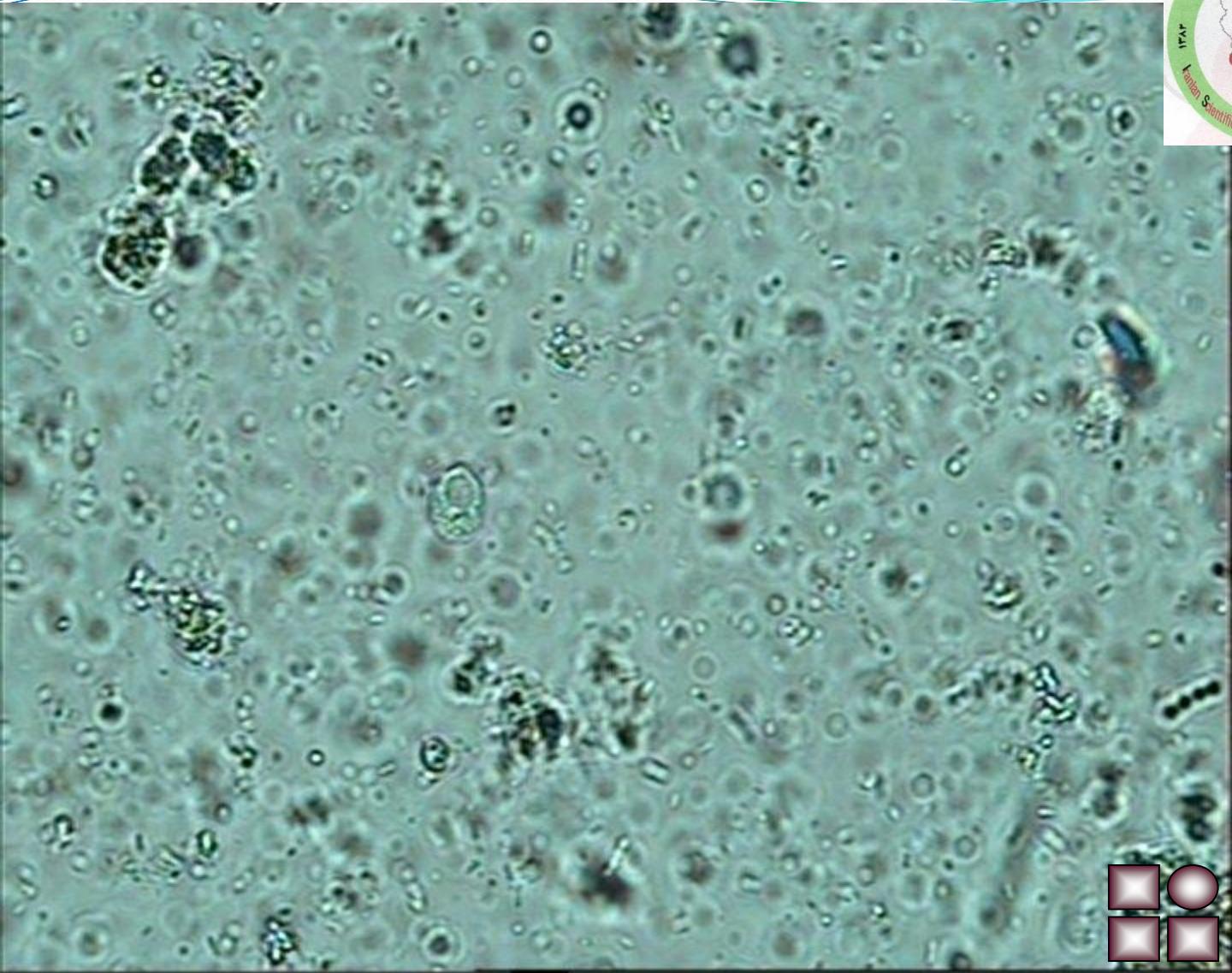


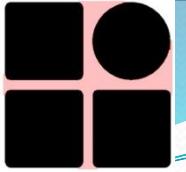
آزمایشگاه‌های
کلیمی ایران



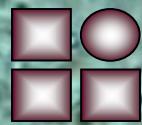
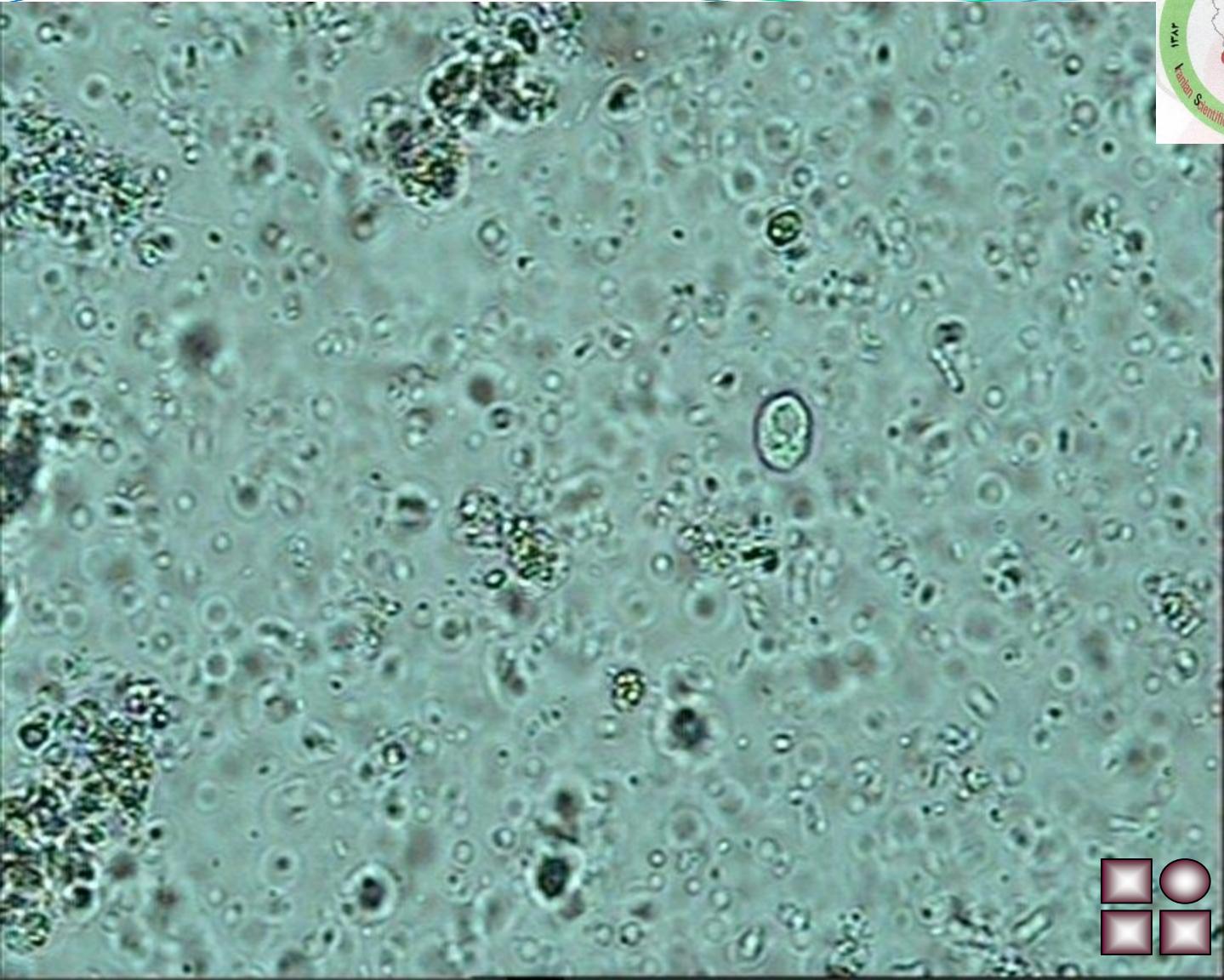


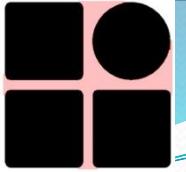
آزمایشگاه‌های
کلیینیکی ایران



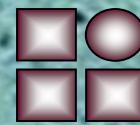
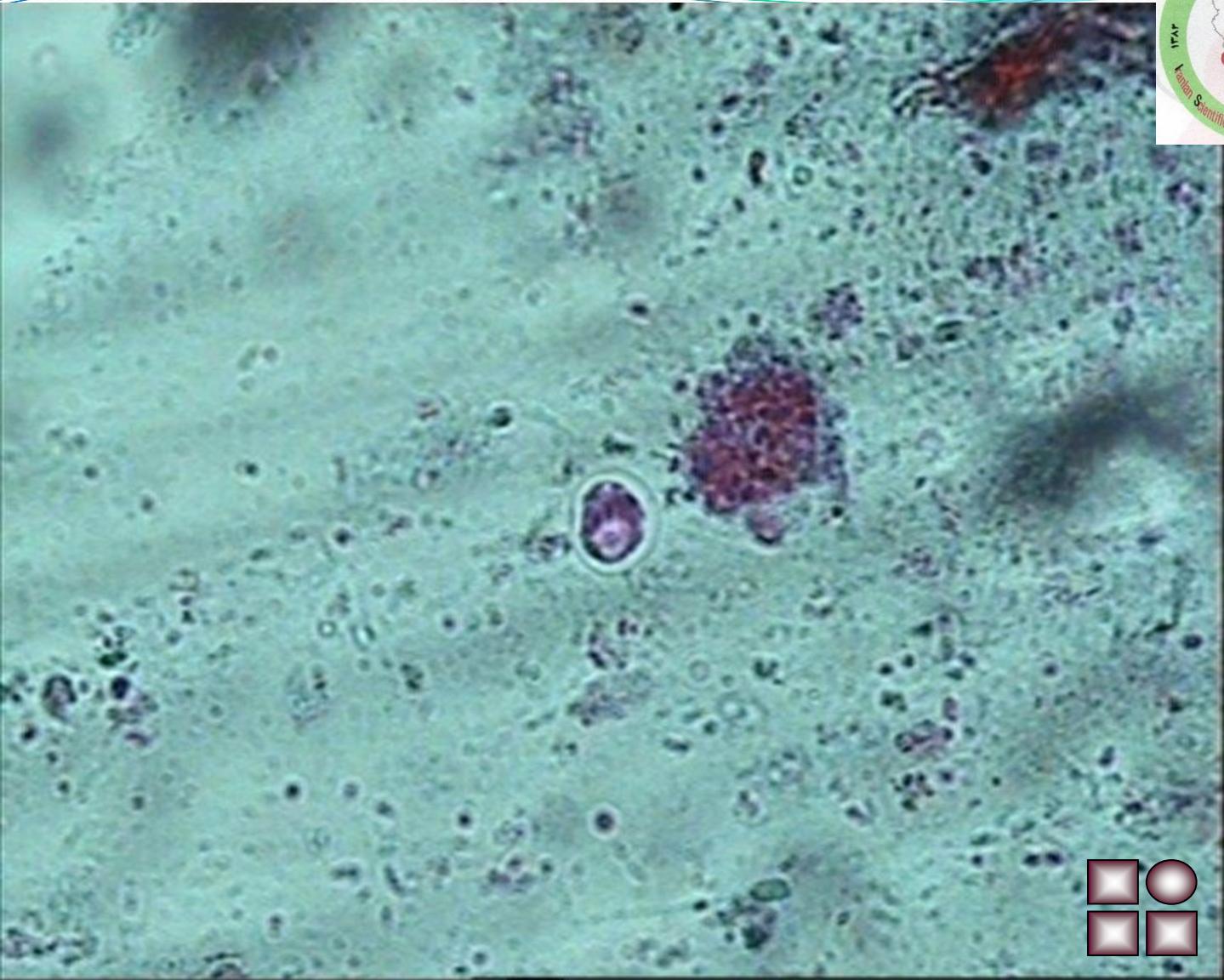


آزمایشگاهیهای ایران





آزمایشگاه‌های
کلیینیکی ایران

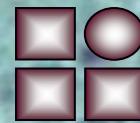
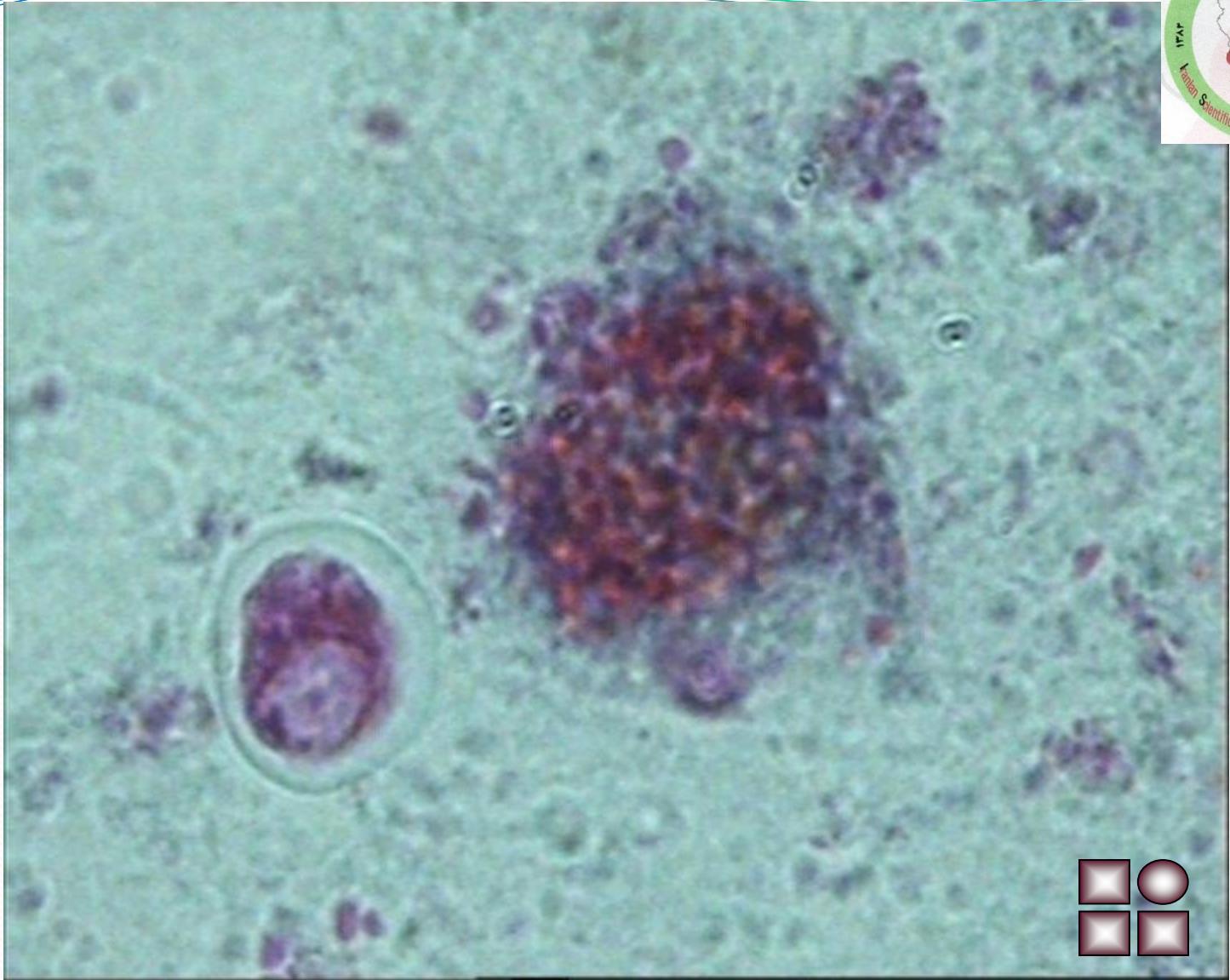


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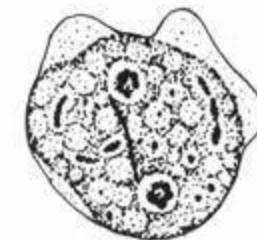
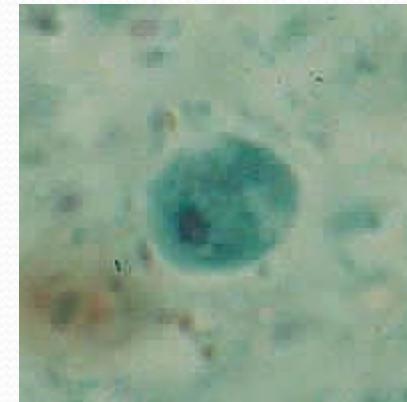
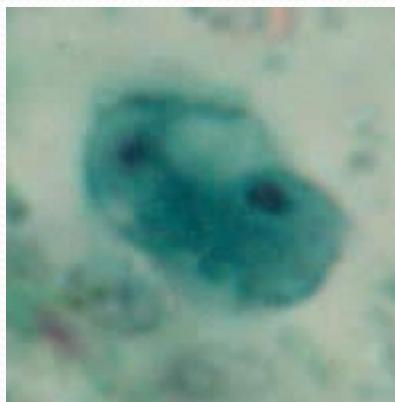
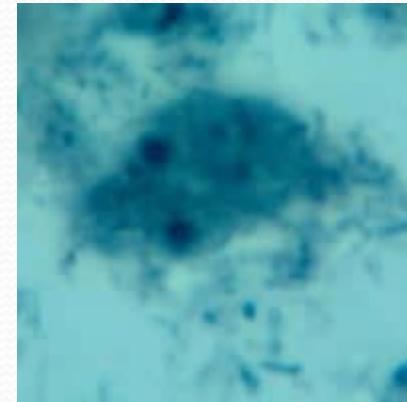
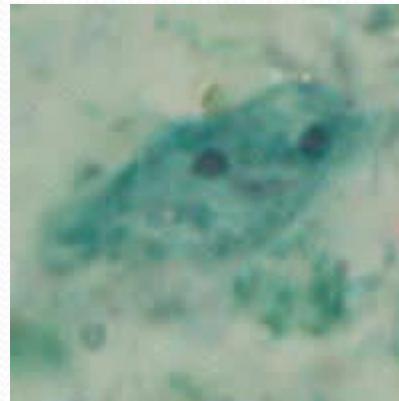
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آزمایشگاهیهای
کلینیکی ایران

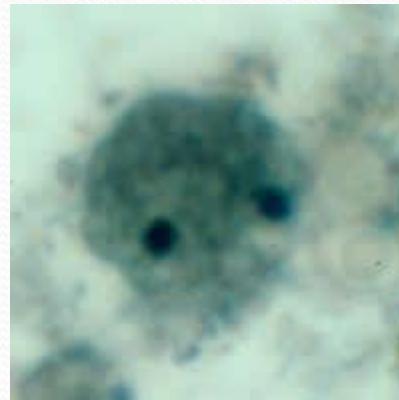
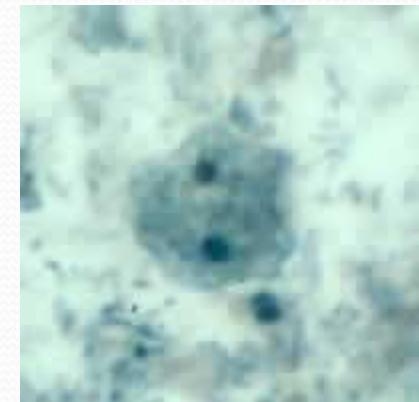
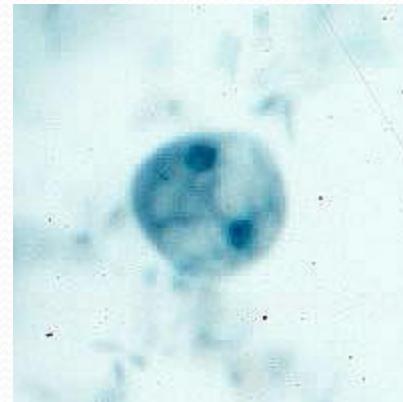


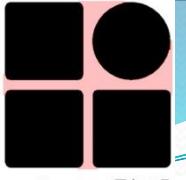
Die ntamoeba fragilis. has no cyst stage,
While most trophozoites are typically binucleate, some have only one
nucleus





Dientamoeba fragilis binucleated trophozoites





آزمایشگاههای ملی



آمیبهای بازندگی آزاد

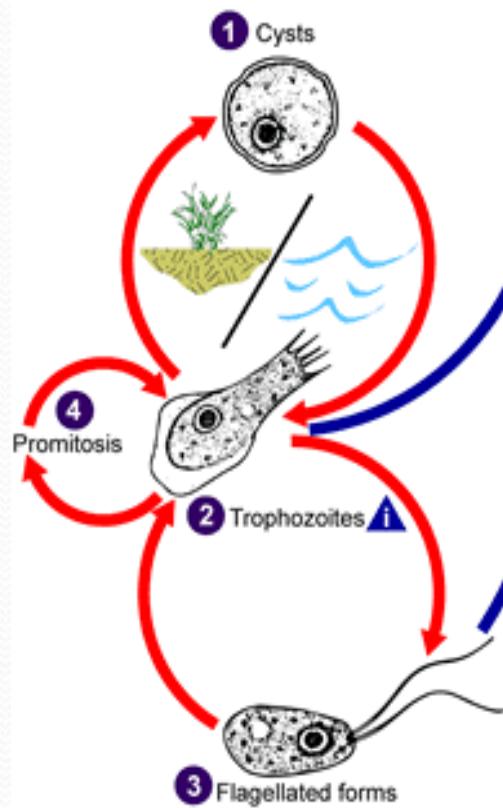
نگاری

آکانتوموبا

Naegleria fowleri

Enter through the olfactory neuroepithelium causing primary amebic meningoencephalitis (PAM) in healthy individuals

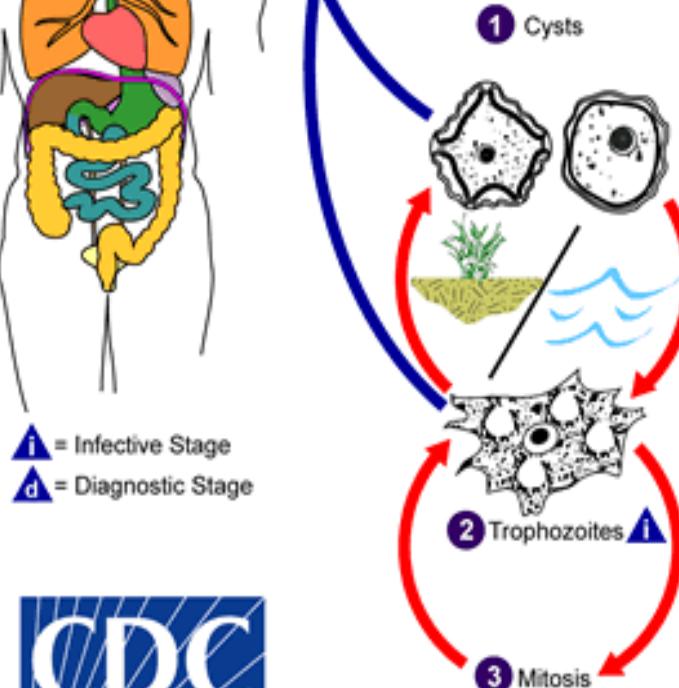
- d** Trophozoites in CSF and tissue
Flagellated forms occasionally in CSF



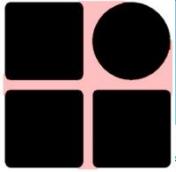
Acanthamoeba spp. and Balamuthia mandrillaris

Enter through lower respiratory tract or through ulcerated or broken skin causing granulomatous amebic encephalitis (GAE) in individuals with compromised immune system

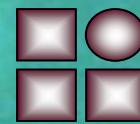
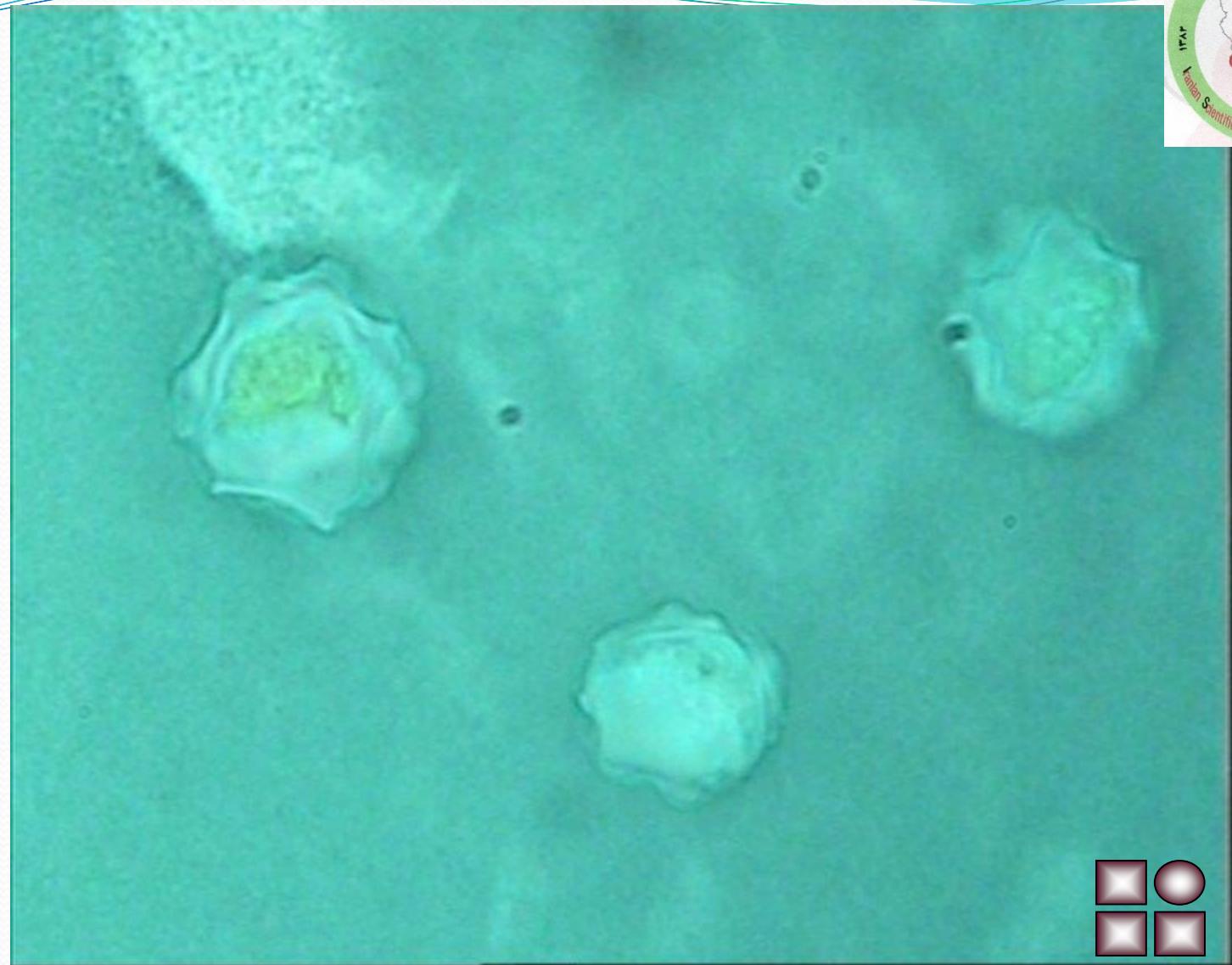
- d** Cysts and trophozoites in tissue

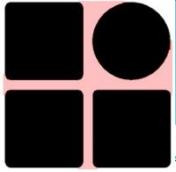


<http://www.dpd.cdc.gov/dpdx>

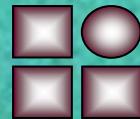
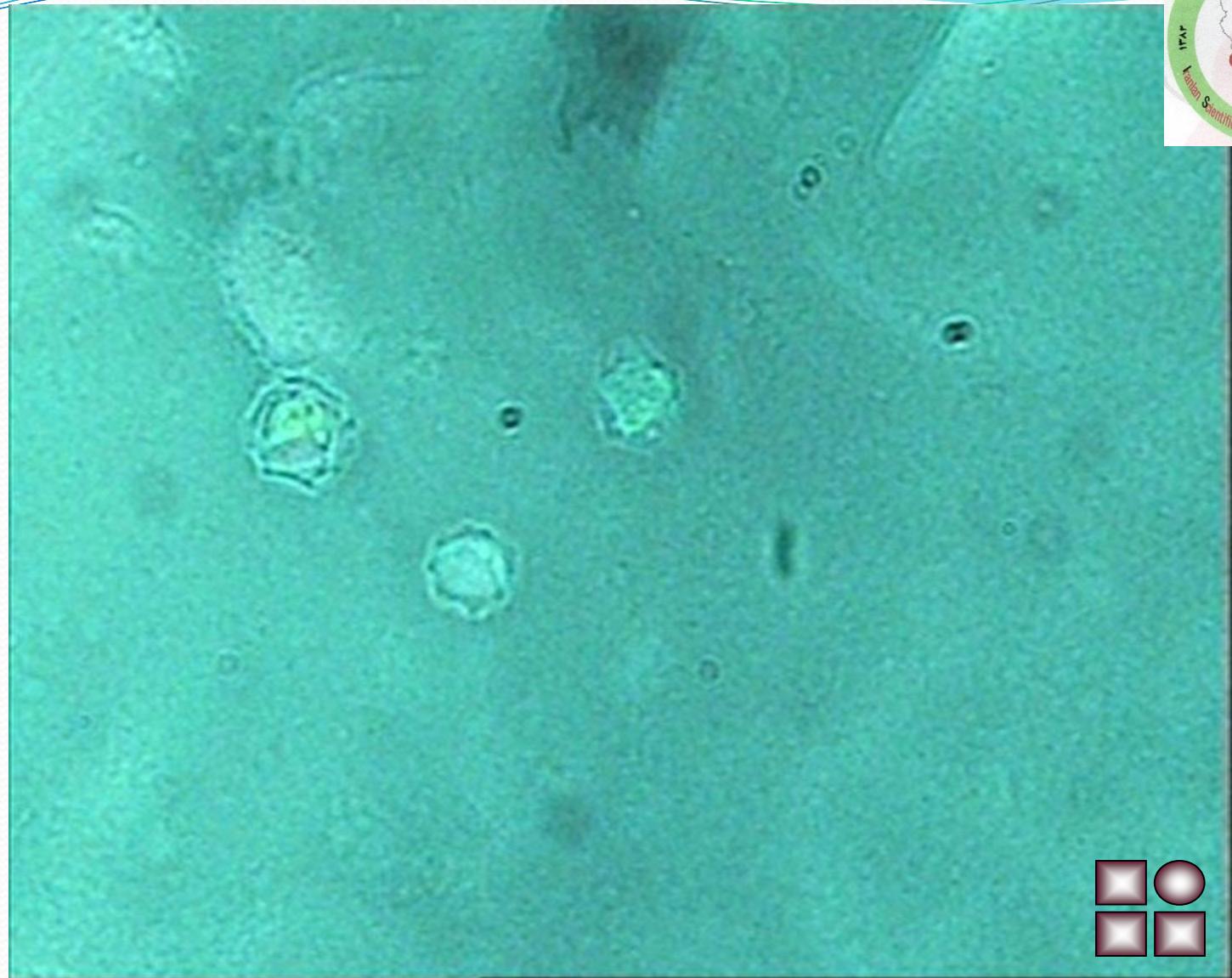


آزمایشگاه‌های
دستگاهی

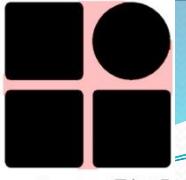




آزمایشگاه‌های ایران



2005



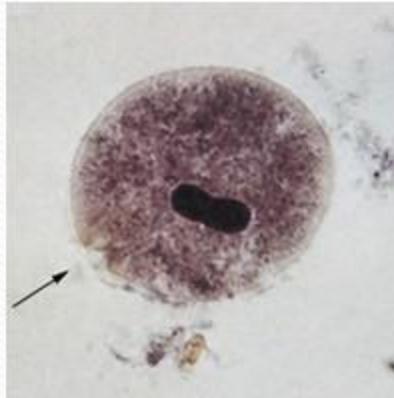
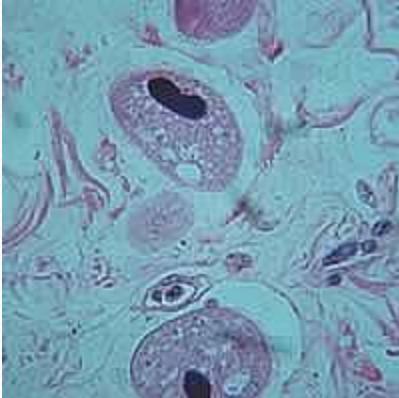
آزمایشگاه‌های معاشر



مژکداران

بالانتیدیوم کلی

Balantidium coli



***Balantidium coli* trophozoites in tissue, hematoxylin and eosin stain.**

***Balantidium coli* trophozoites.**

the presence of cilia on the cell surface

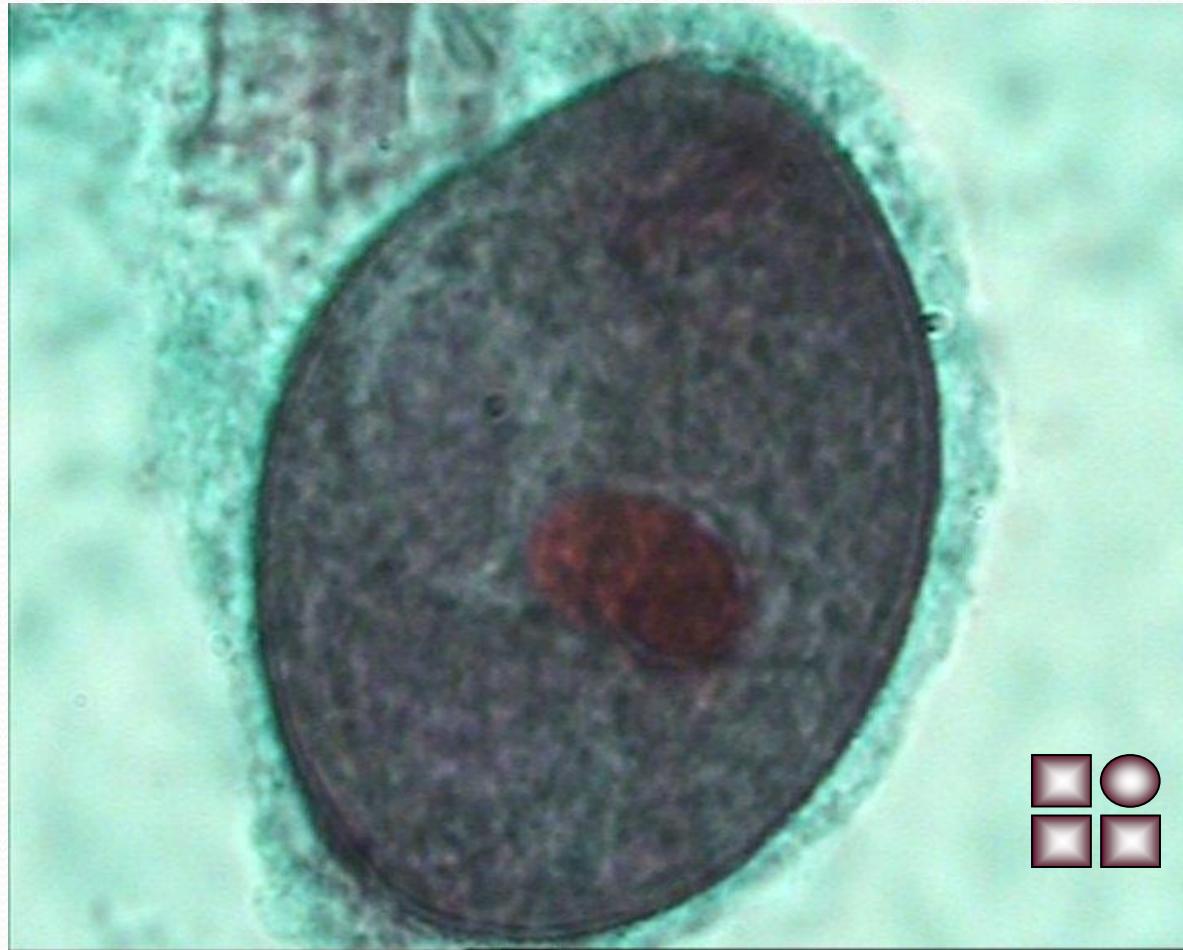
macronucleus which is often visible

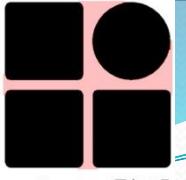
And a smaller

less conspicuous micronucleus



Balantidium coli trophozoites

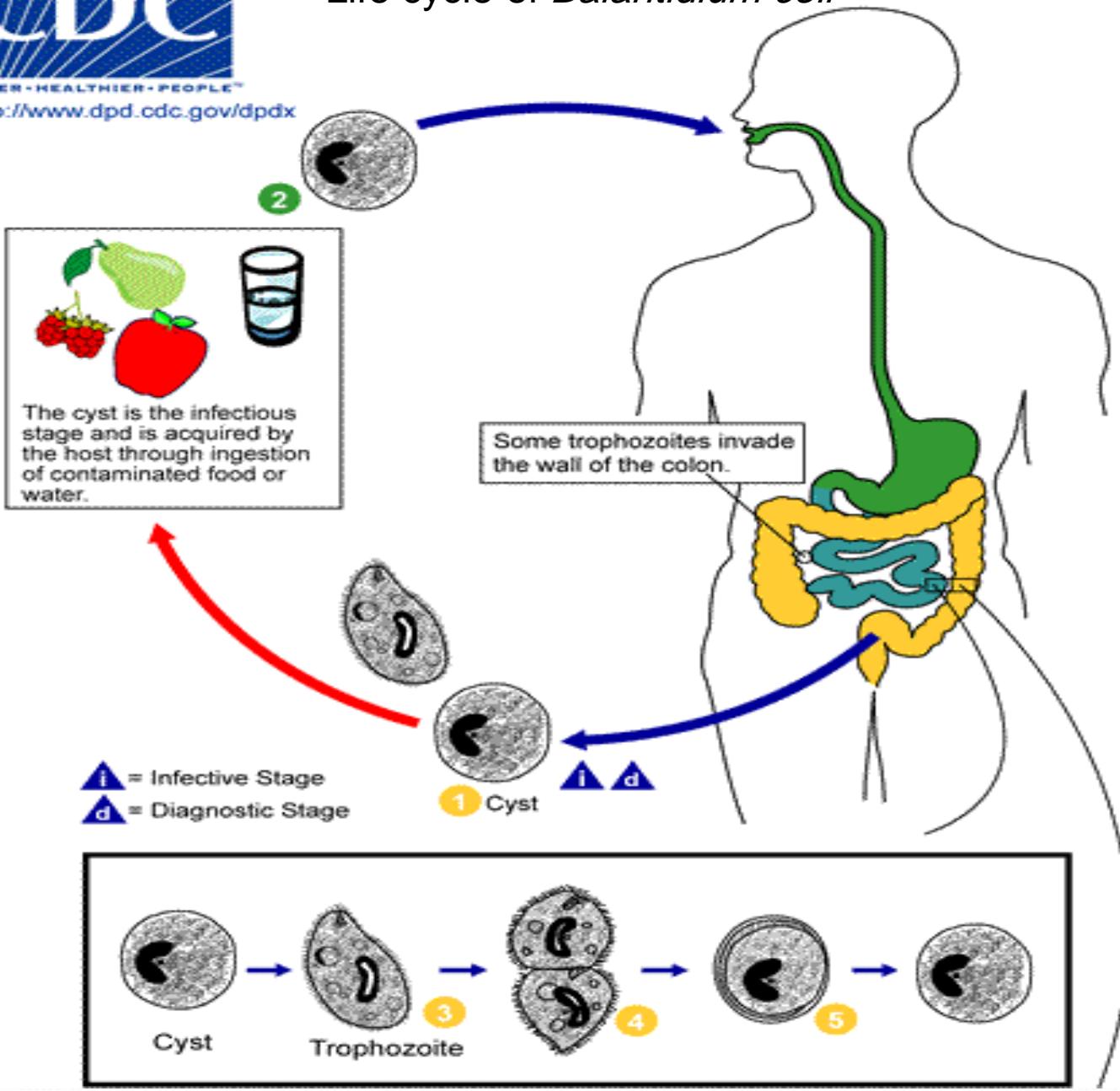




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<http://www.dpd.cdc.gov/dpdx>

Life cycle of *Balantidium coli*





تاژکداران

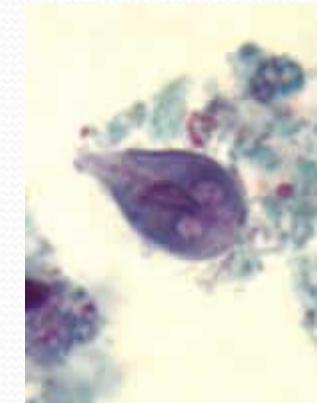
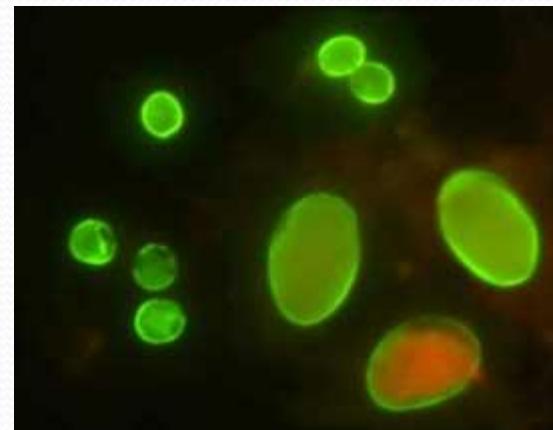
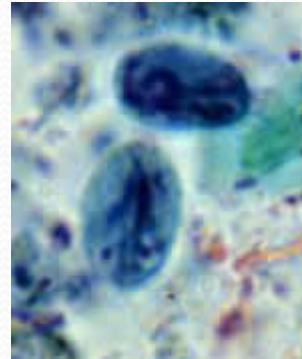


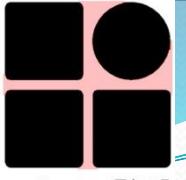
ژیاردیا لامبیا

تریکوموناس واژینالیس

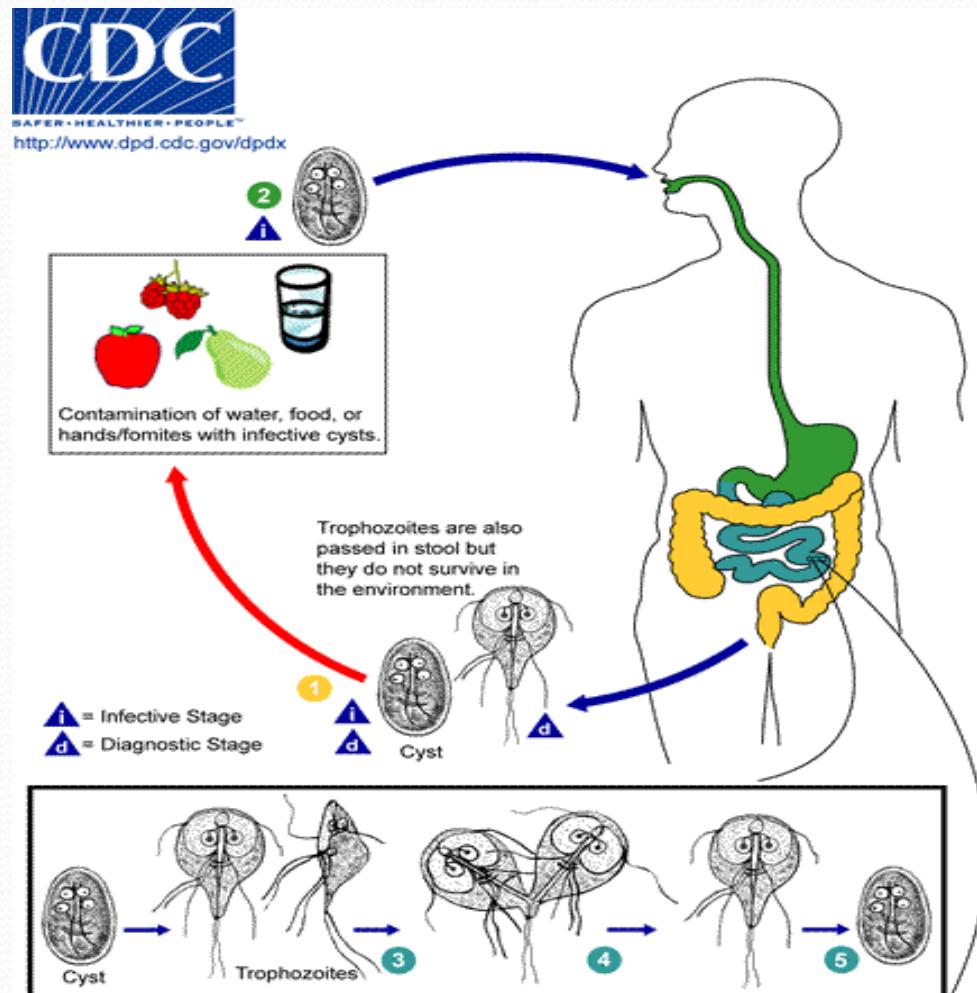


Cysts&Trophozoite of *Giardia intestinalis*





Life cycle of *Giardia intestinalis*





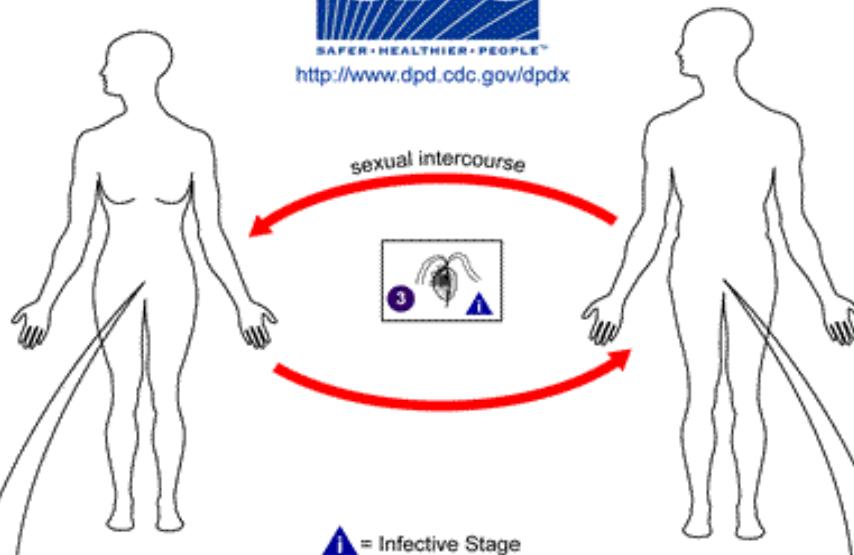
Life cycle & trophozoites

of *Trichomonas vaginalis*



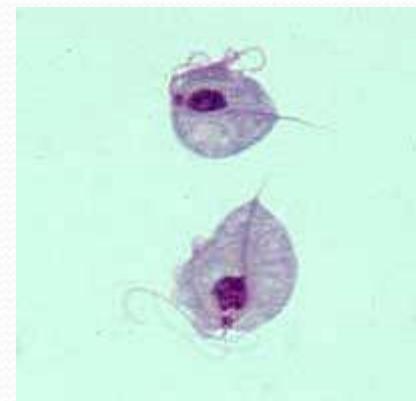
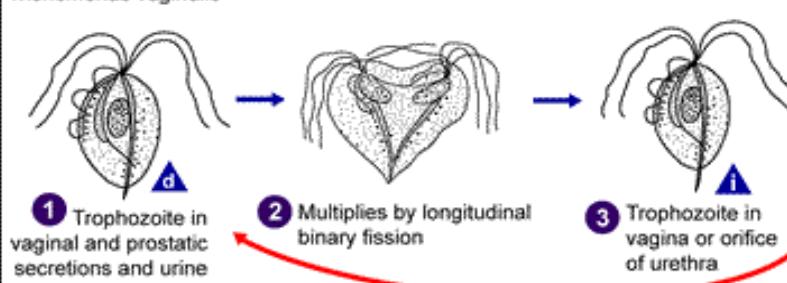
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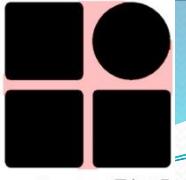
<http://www.dpd.cdc.gov/dpdx>



▲ = Infective Stage
d = Diagnostic Stage

Trichomonas vaginalis



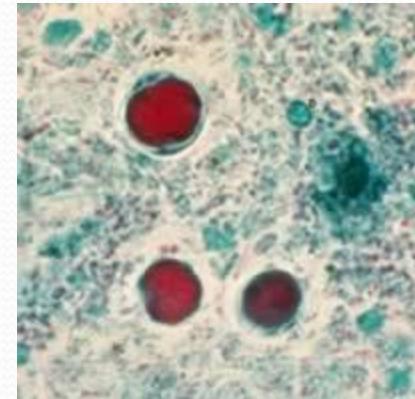
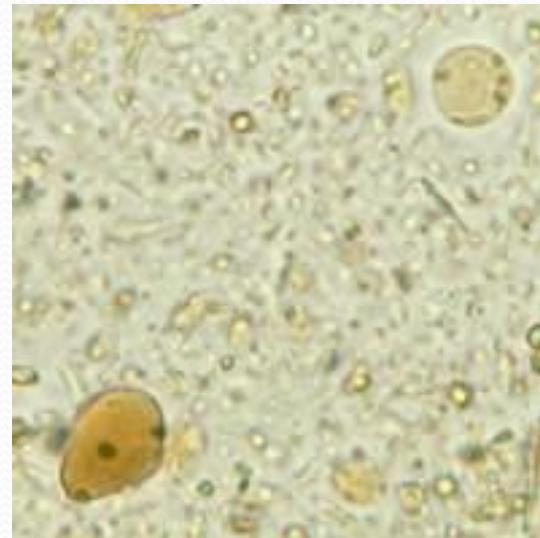
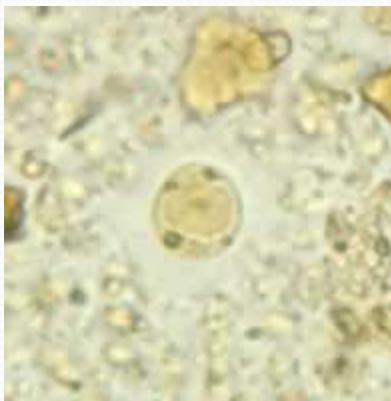
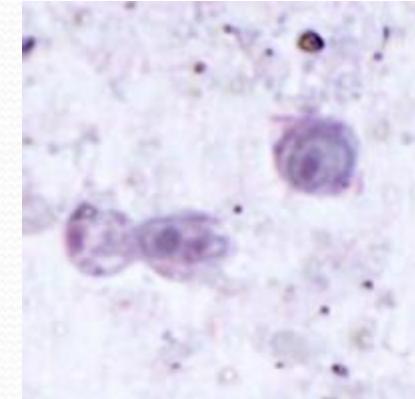
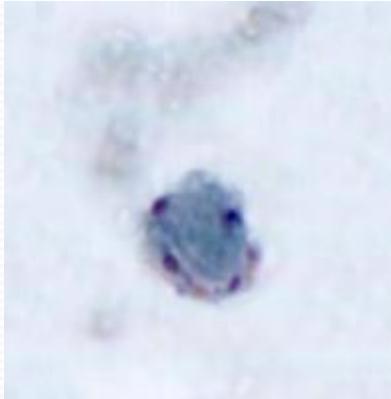


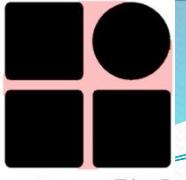
آزمایشگاه‌های معاشر



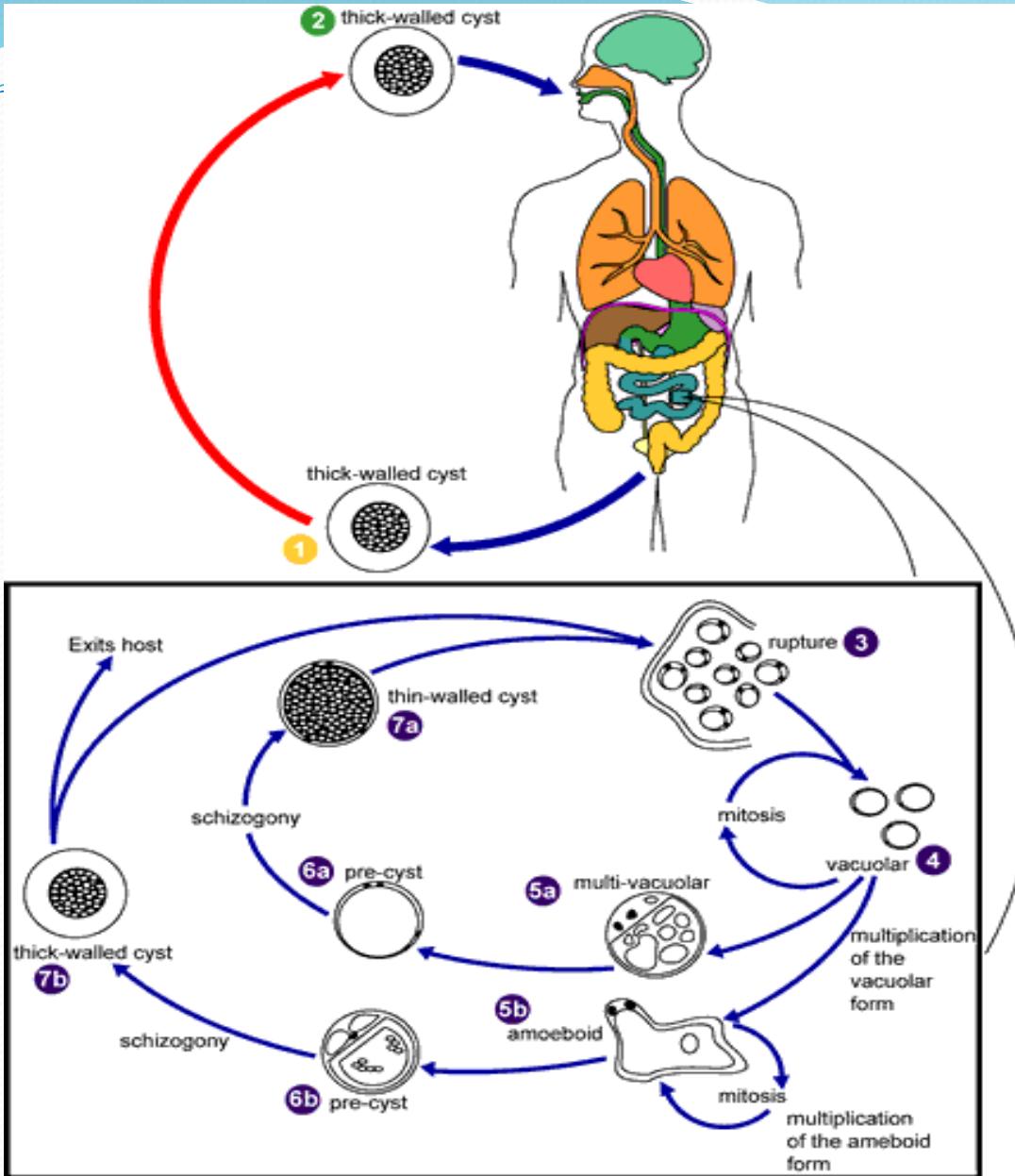
● بلاستوسیستیس هومنیس

Blastocystis hominis





جمهوری اسلامی ایران

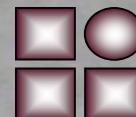
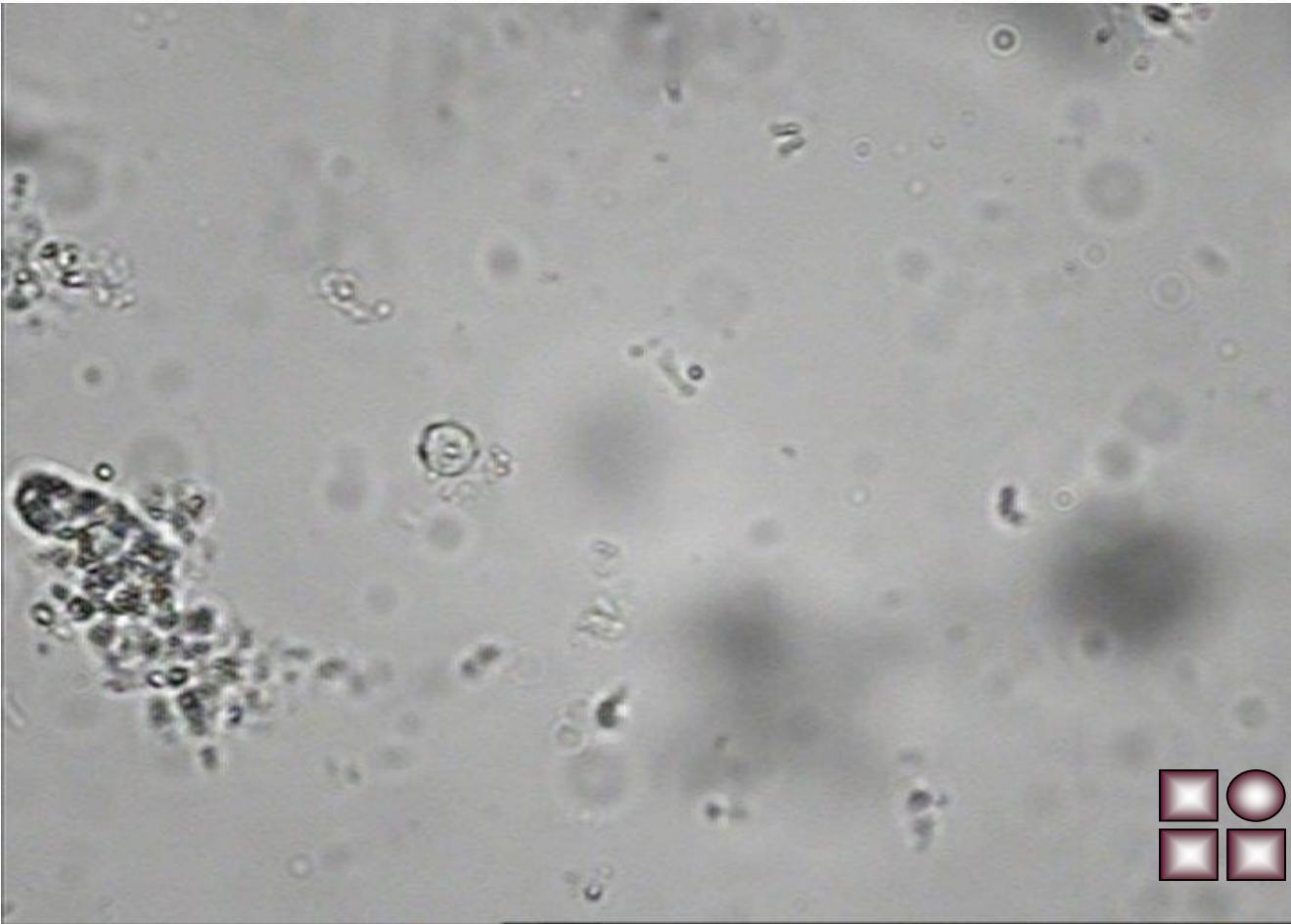


Proposed life cycle of *Blastocystis hominis*

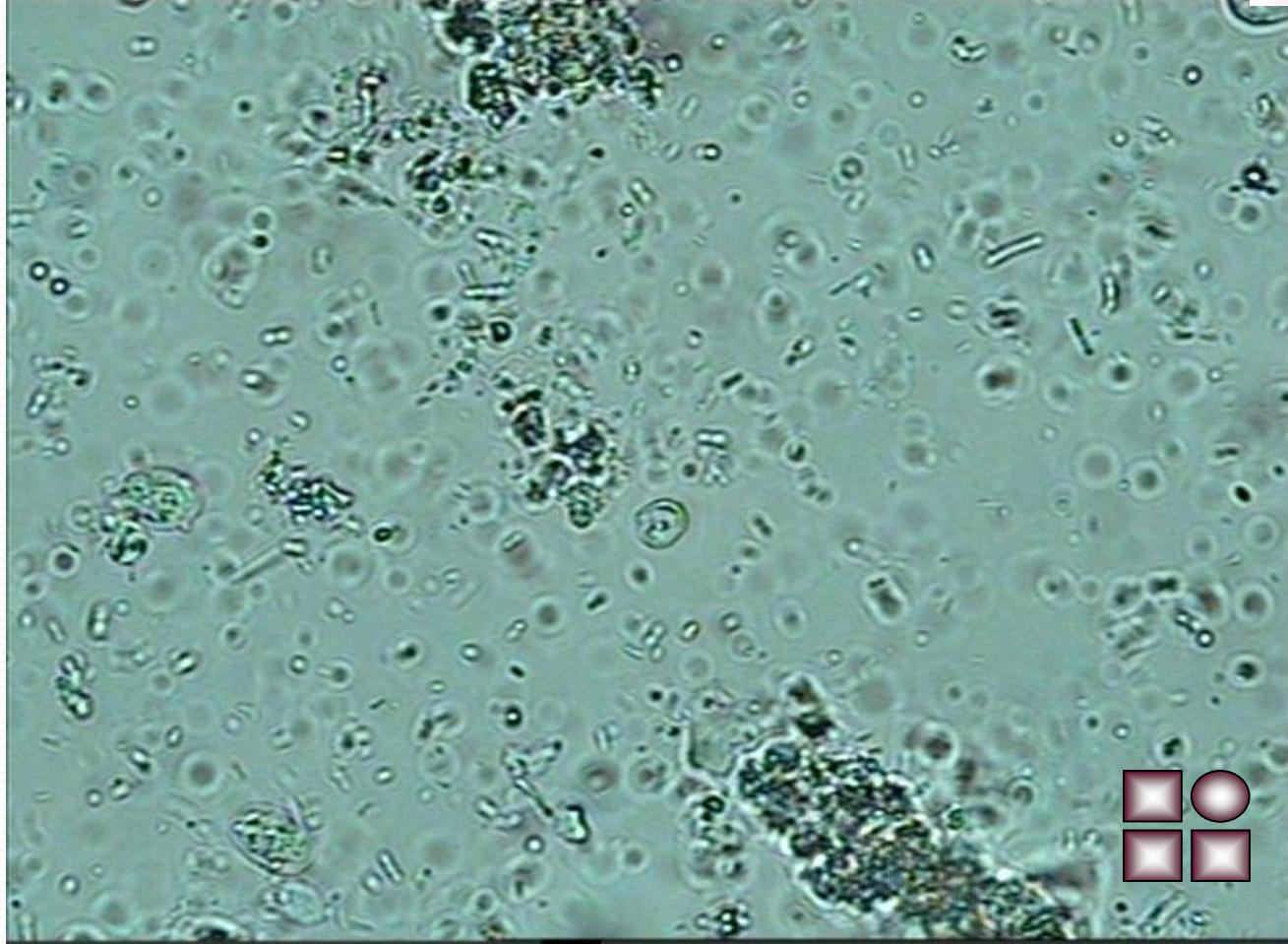


جمهوری اسلامی ایران

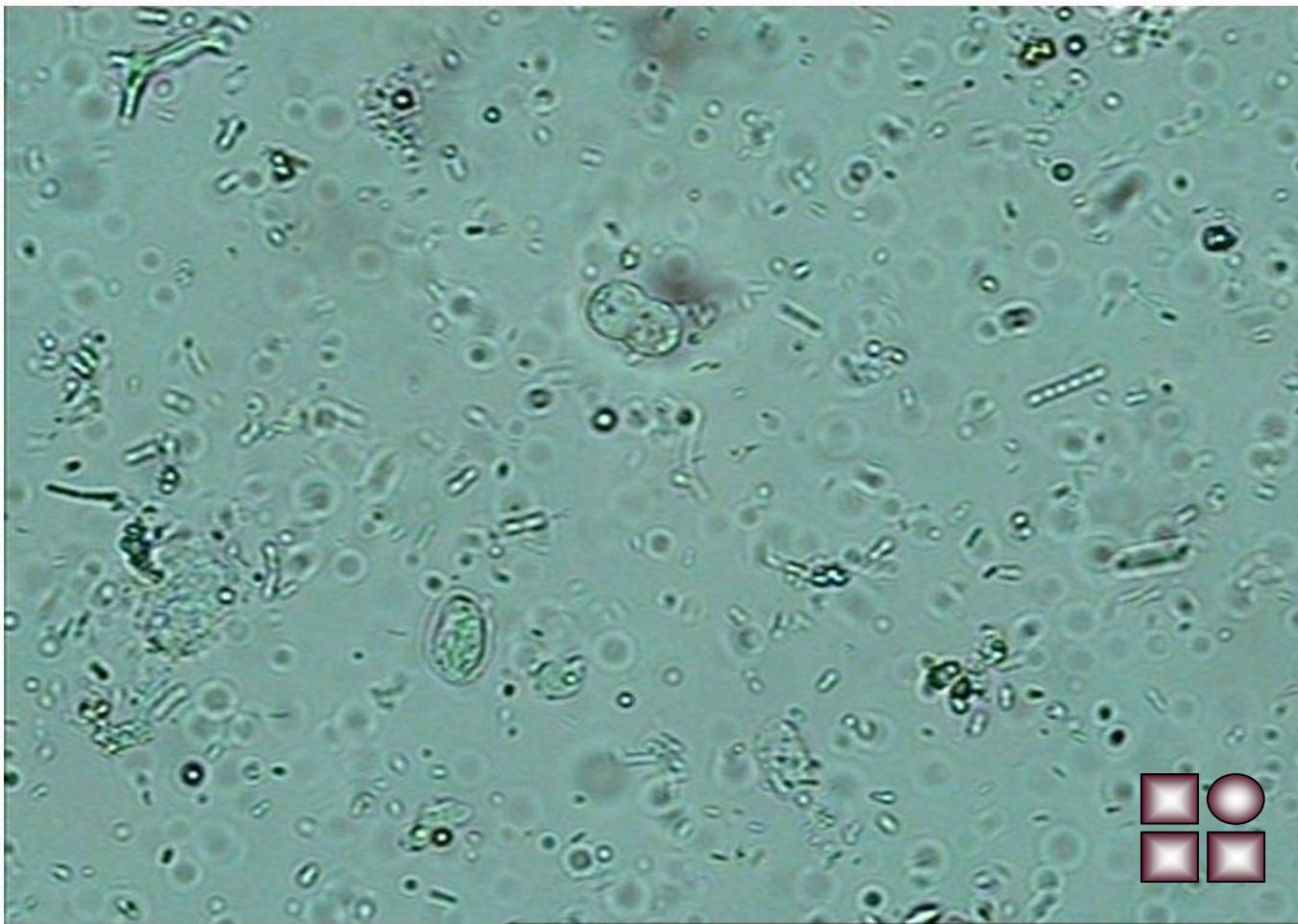
Diastocystis hominis

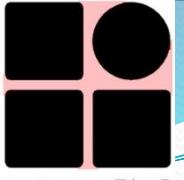


Blastocystis hominis



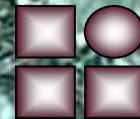
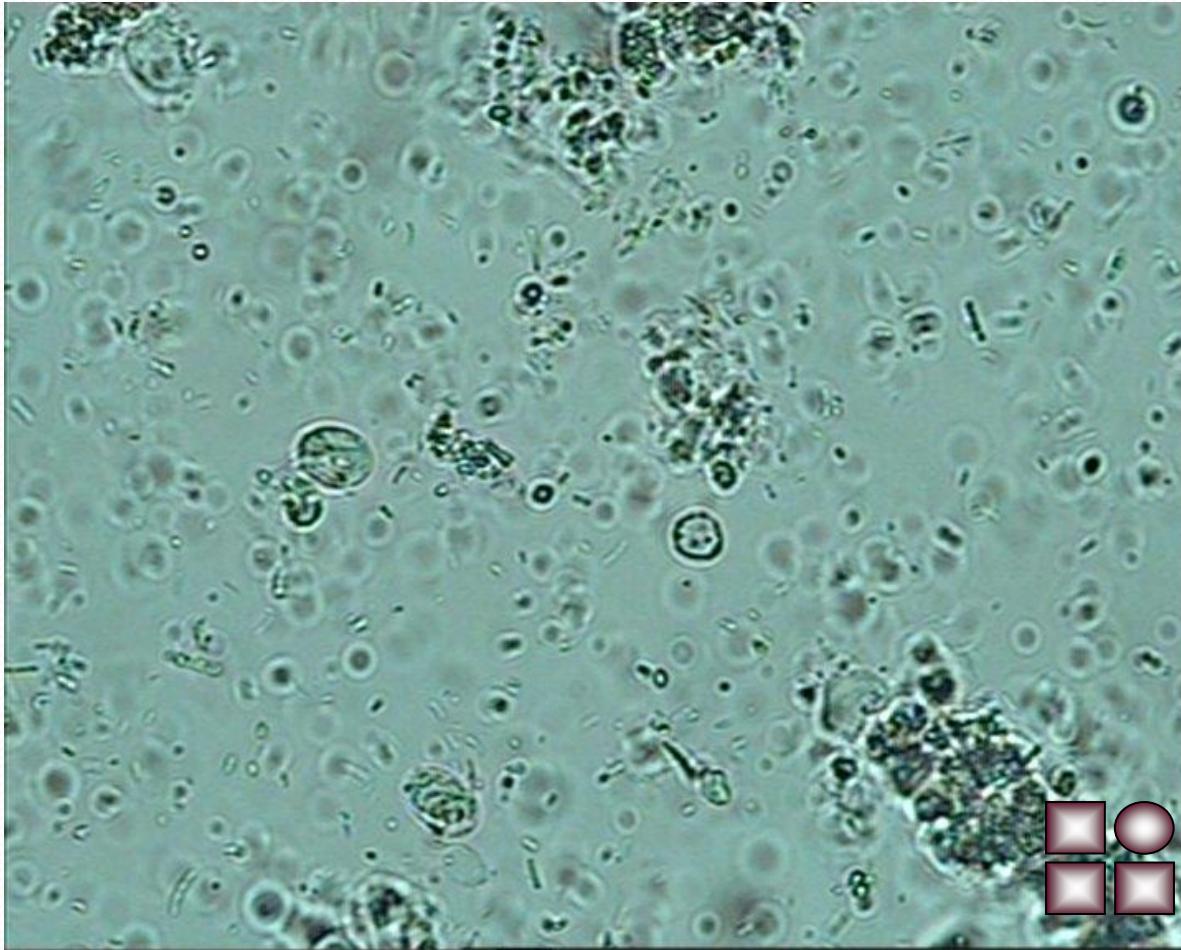
Cysts of Giardia & *Blastocystis hominis*





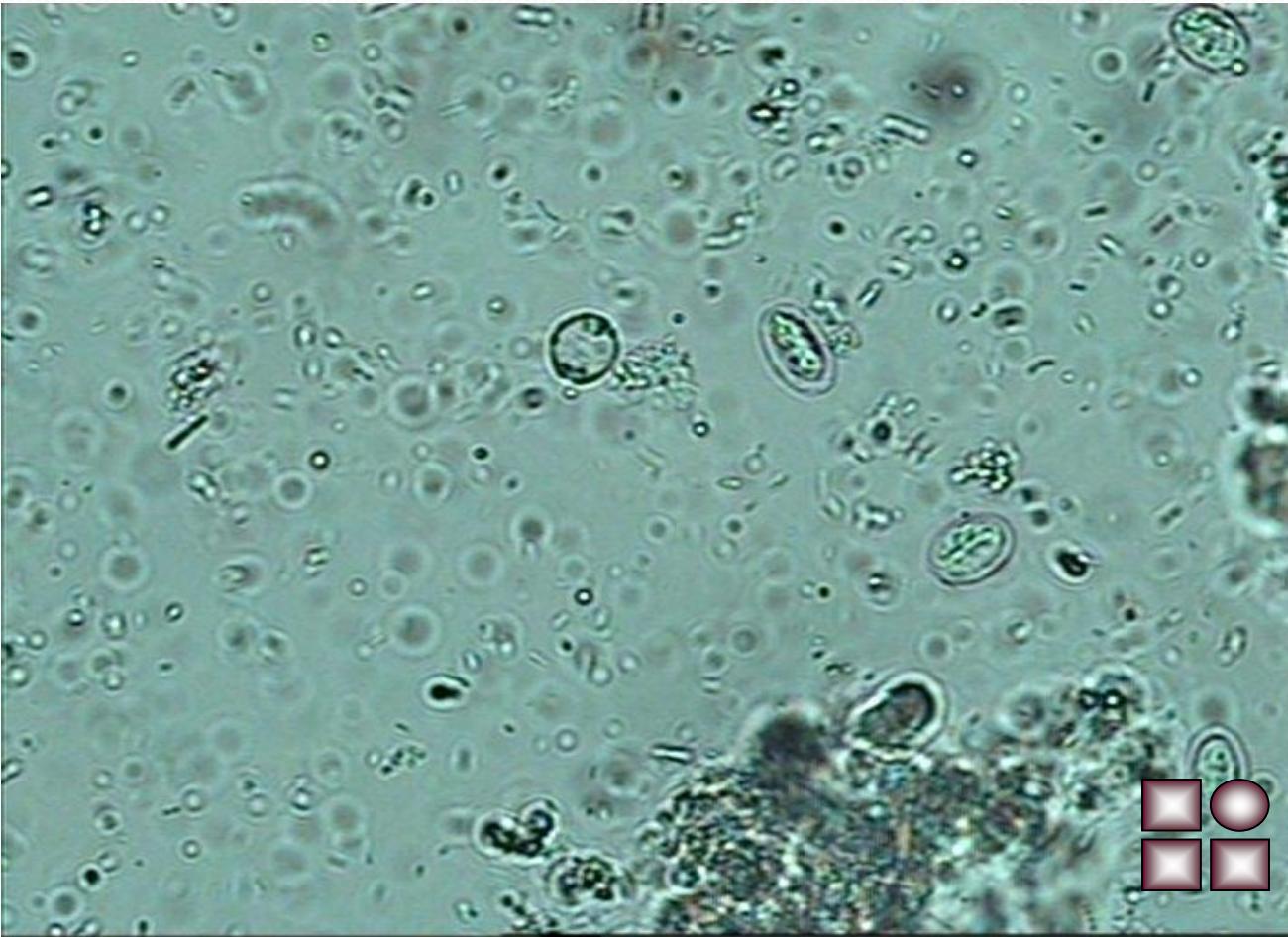
تمامی حقوق محفوظ است

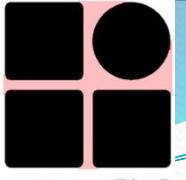
Blastocystis hominis&cysts of giardia





Cysts of Giardia & blastocystis Hominis



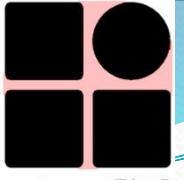


آزمایشگاههای مرجع اسلامی



کوکسیدیا

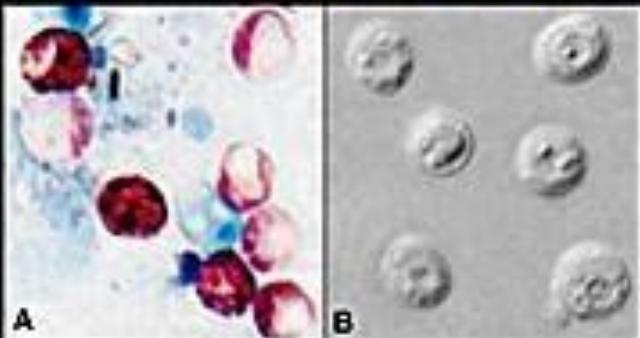
- کریپتوسپوریدیوم پارووم
- ایزوسپورا بلی
- سایکلوسپورا کایتنسیس
- سارکوستیتیس



جمهوری اسلامی ایران



Cryptosporidium parvum



A

B

Cyclospora spp.



Isospora belli

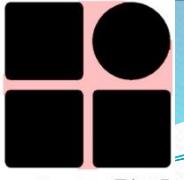


F

G

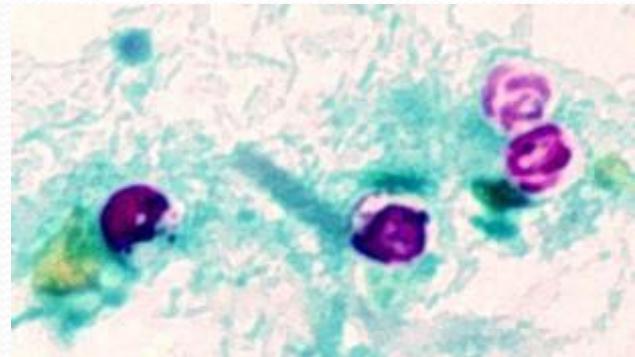
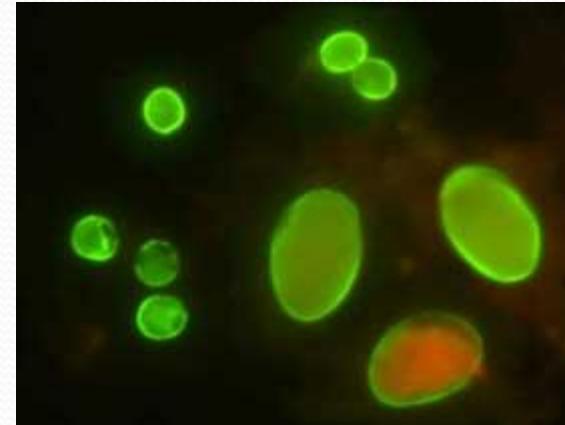
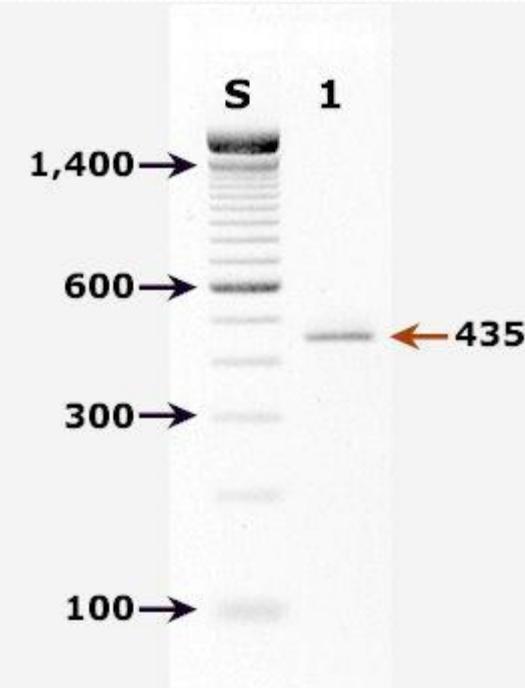
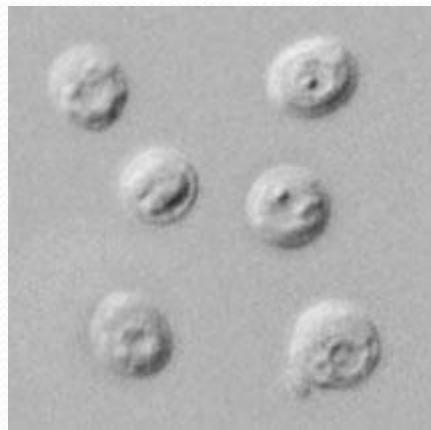
H

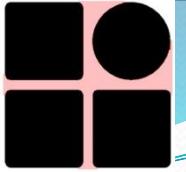
CDC
Centers for Disease Control and Prevention



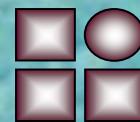
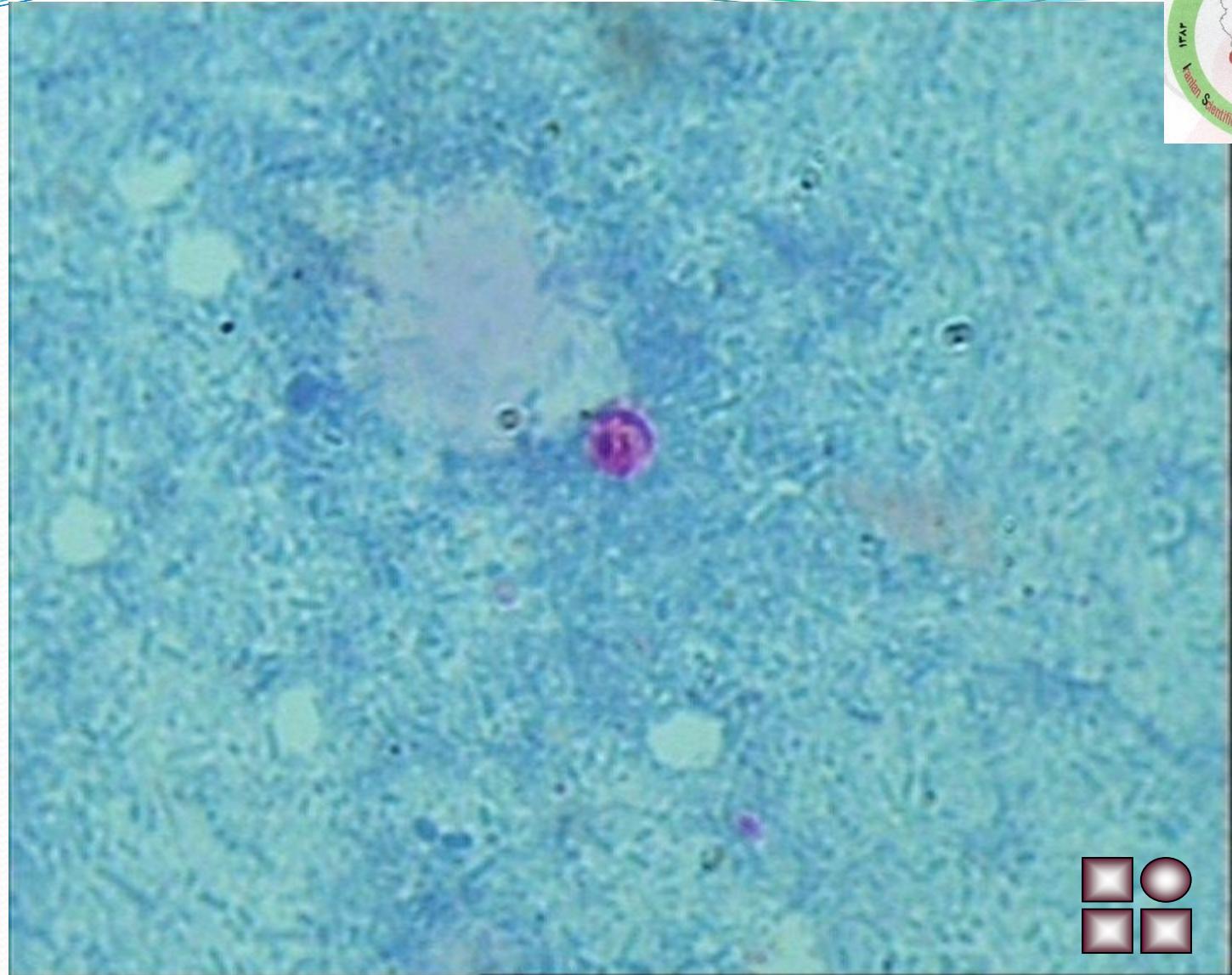
جمهوری اسلامی ایران

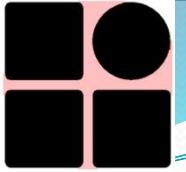
Oocysts of *Cryptosporidium parvum*



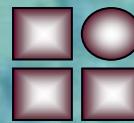
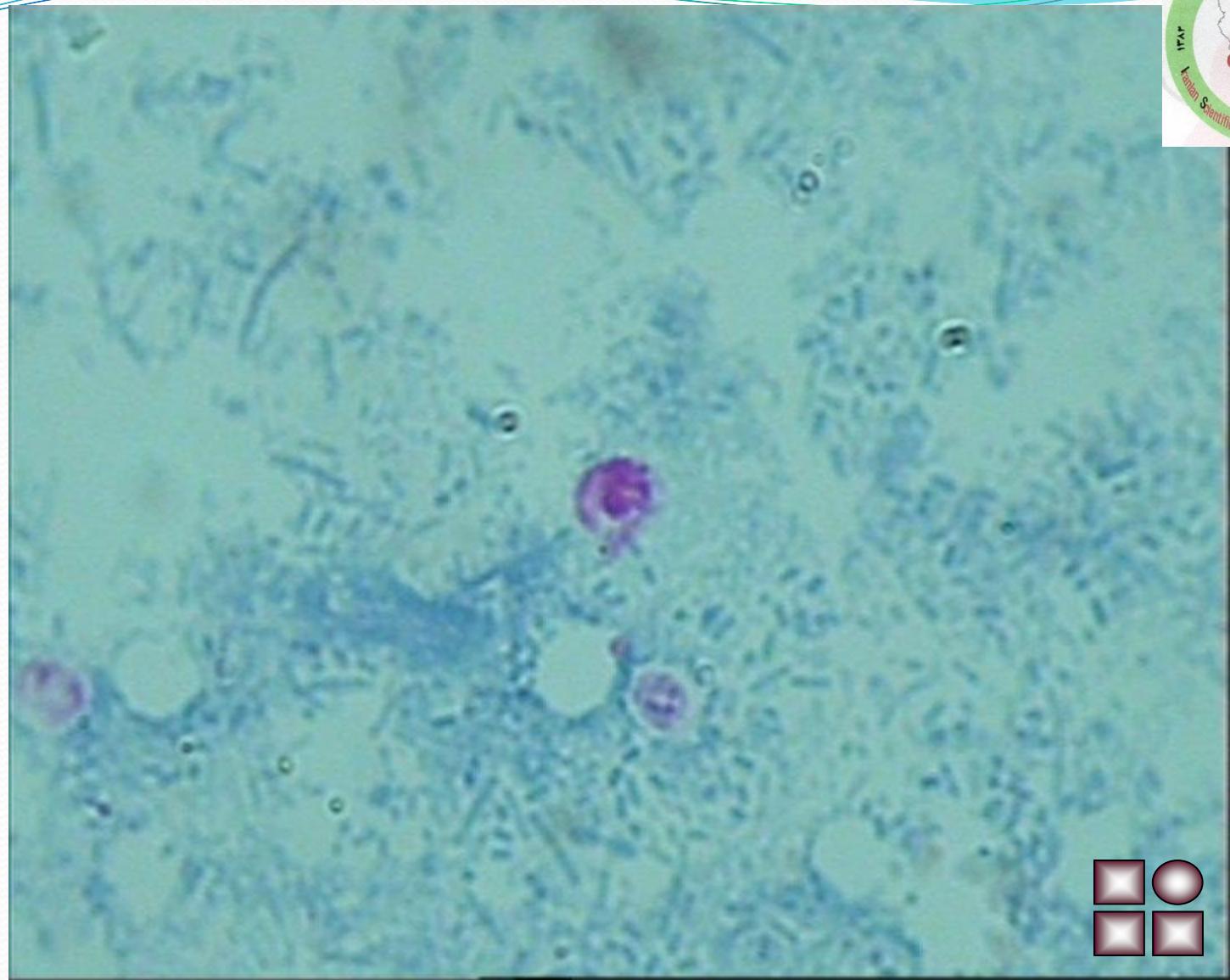


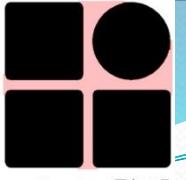
آزمایشگاه‌های
کلیینیکی ایران



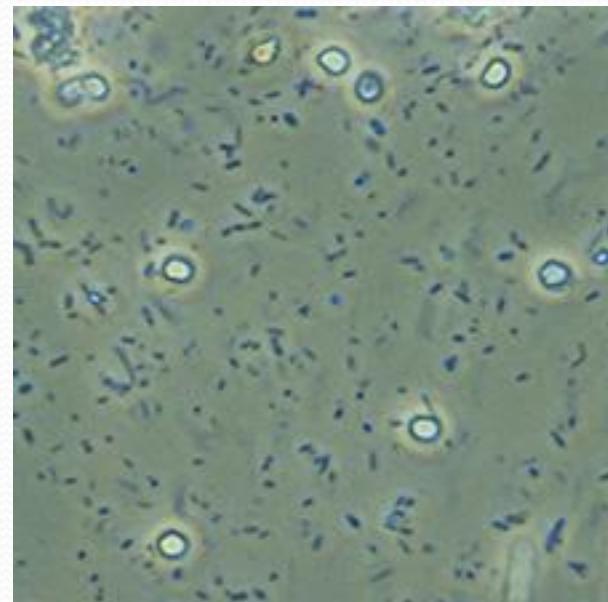
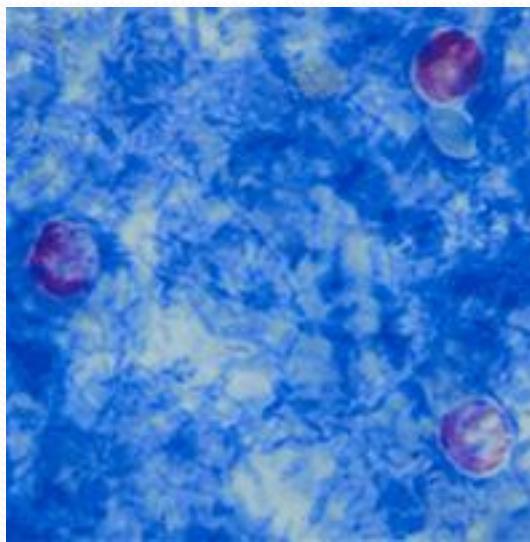


آزمایشگاه‌های ایران



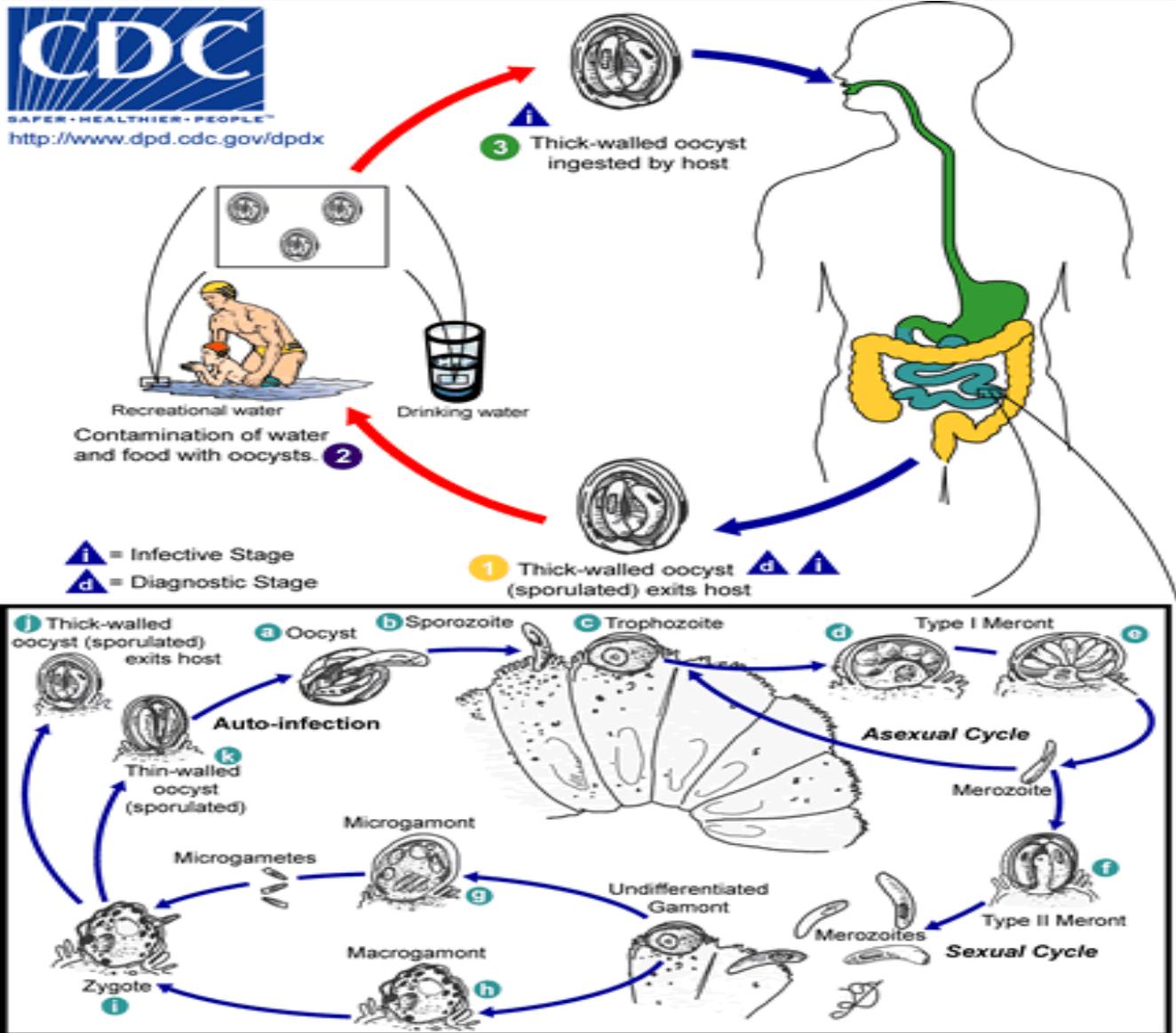


آزمایشگاه‌های
 MEDICAL LABORATORY



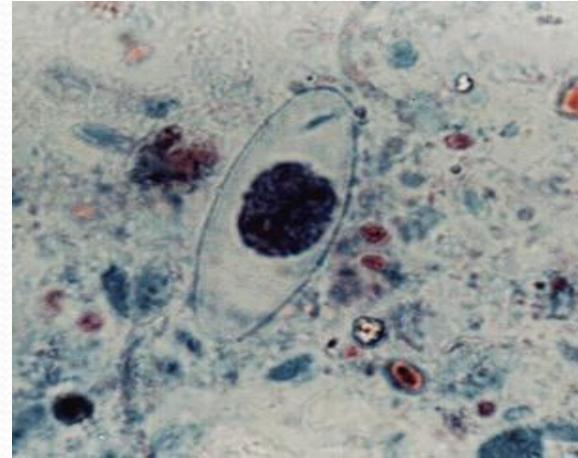
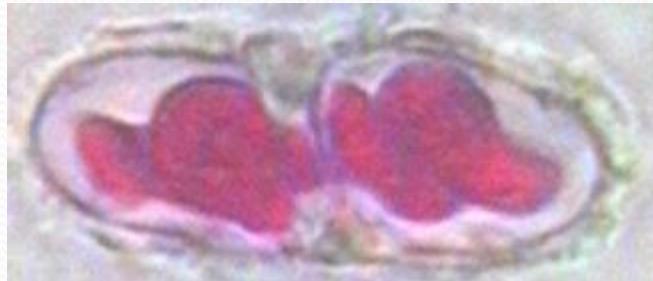


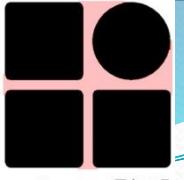
Life cycle of *C. parvum*





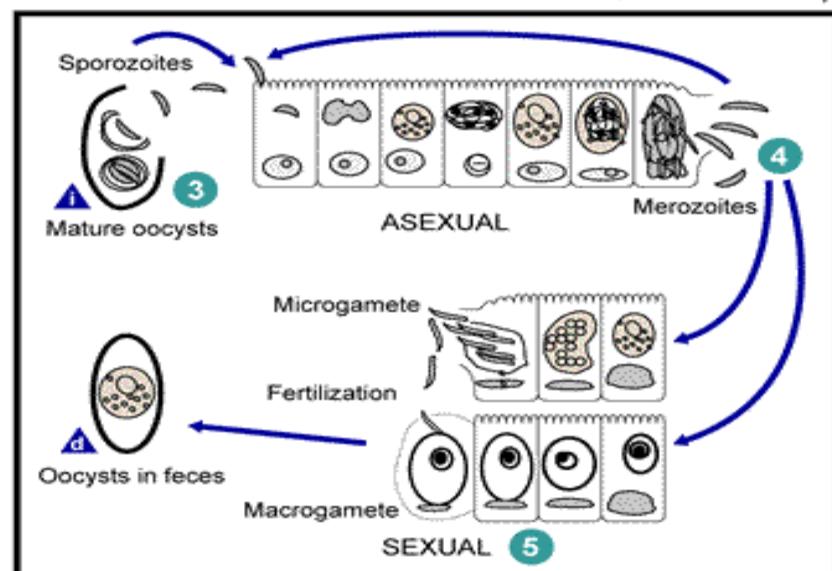
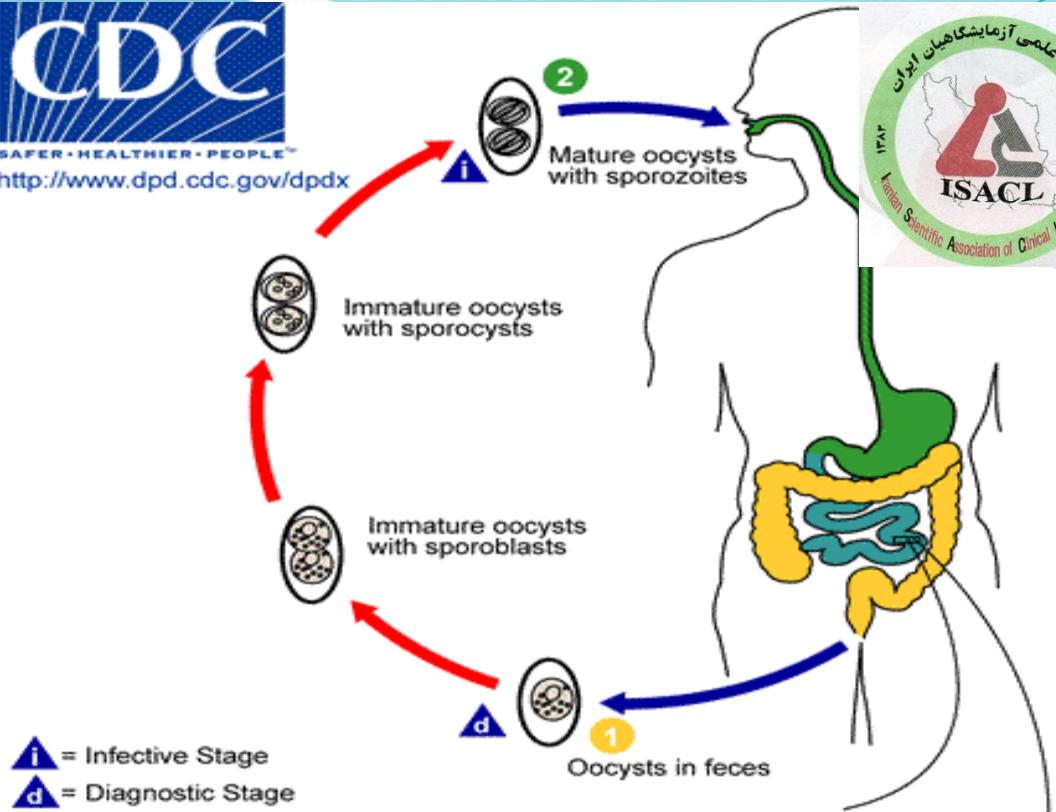
Isospora belli





تمامی حقوق محفوظ است

Life cycle of *Isospora belli*



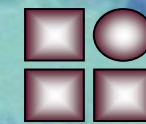
Oocysts of *Isospora belli*

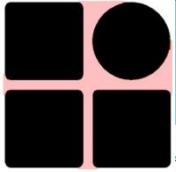




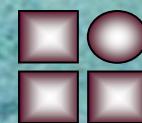
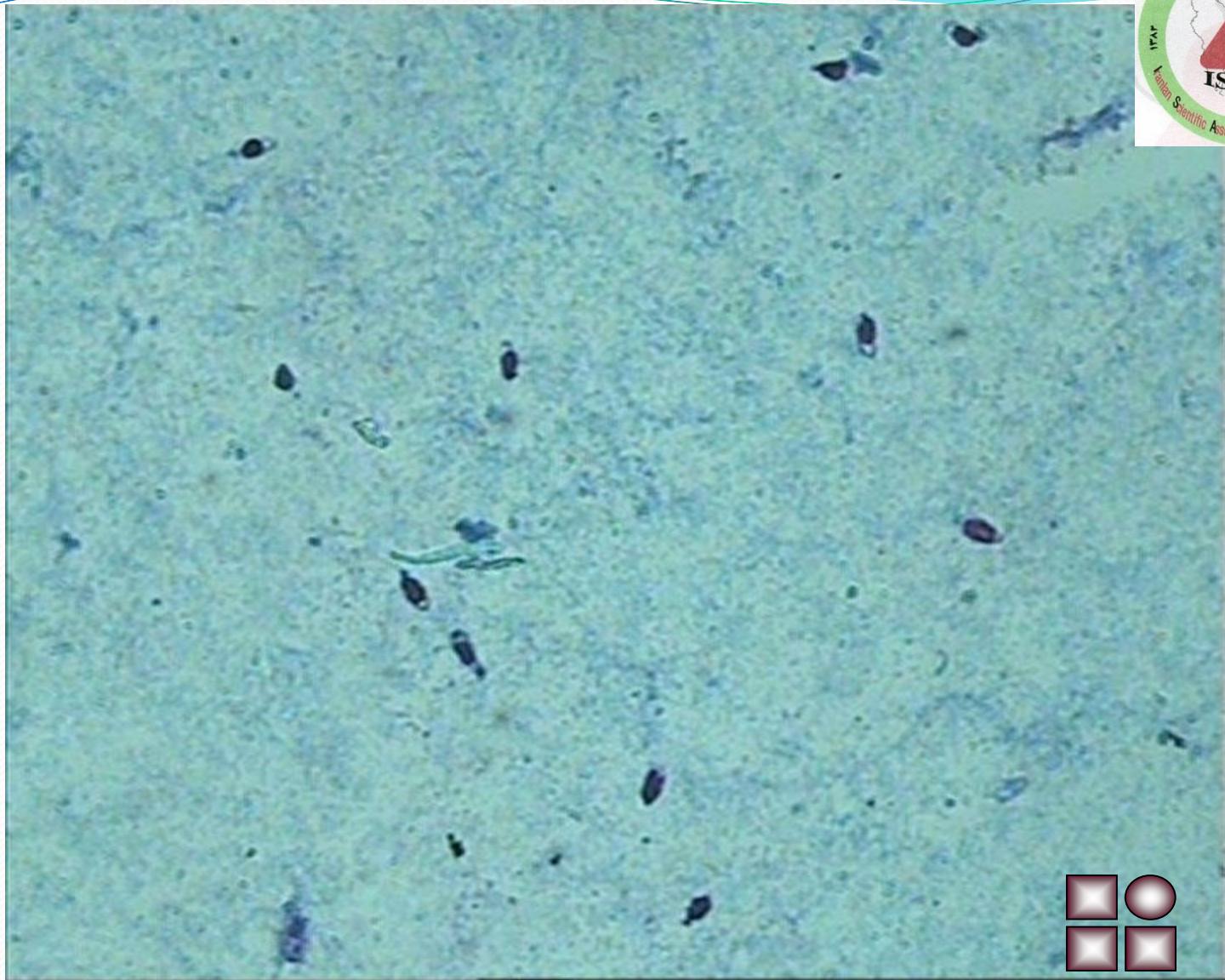
اممی ایرانی شناسنگرهای ملی

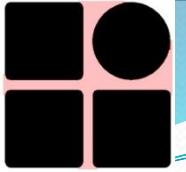
Oocysts of *Isospora belli*



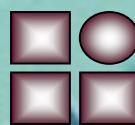
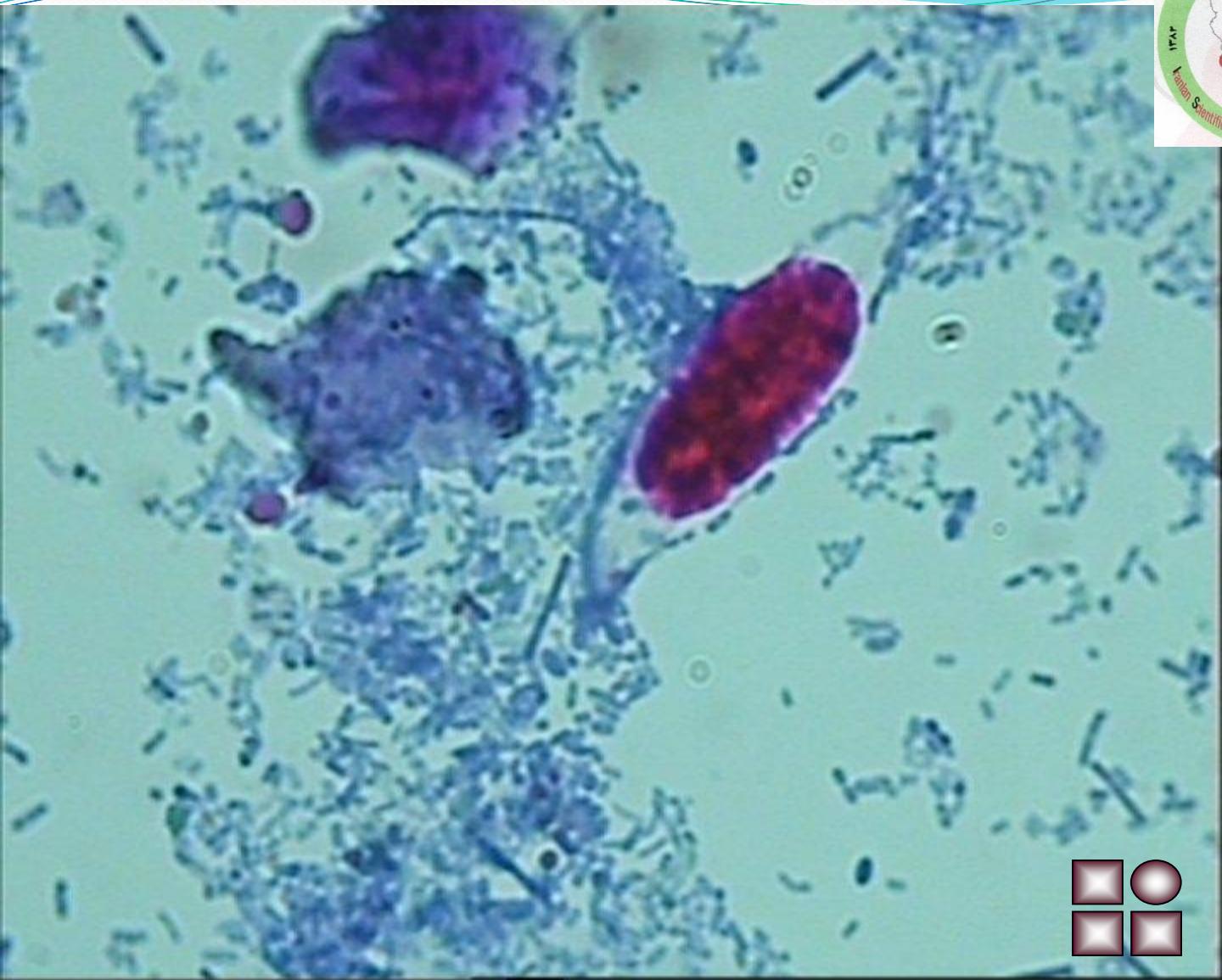


آزمایشگاه‌های
کلیینیکی ایران

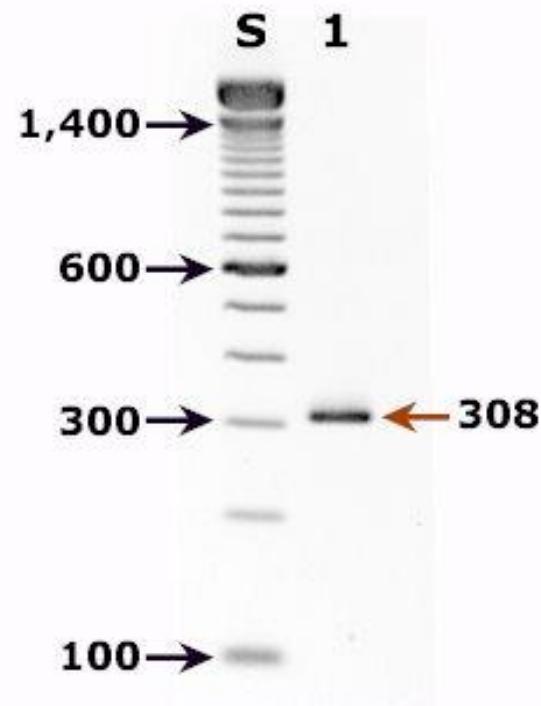
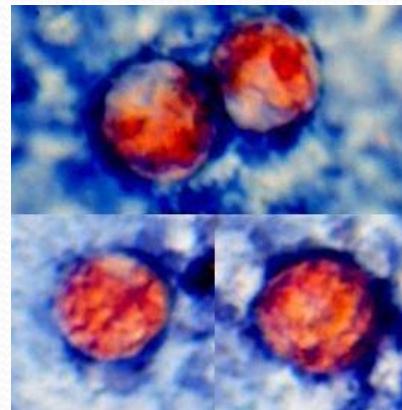
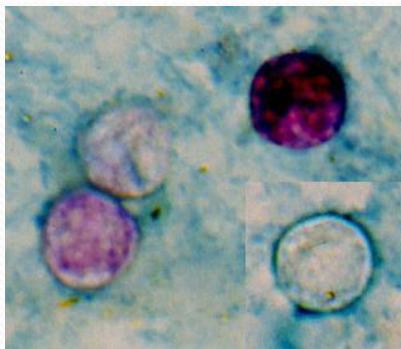


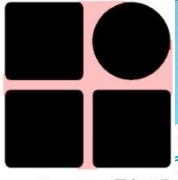


آزمایشگاه‌های
کلیینیکی ایران

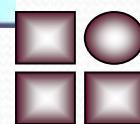
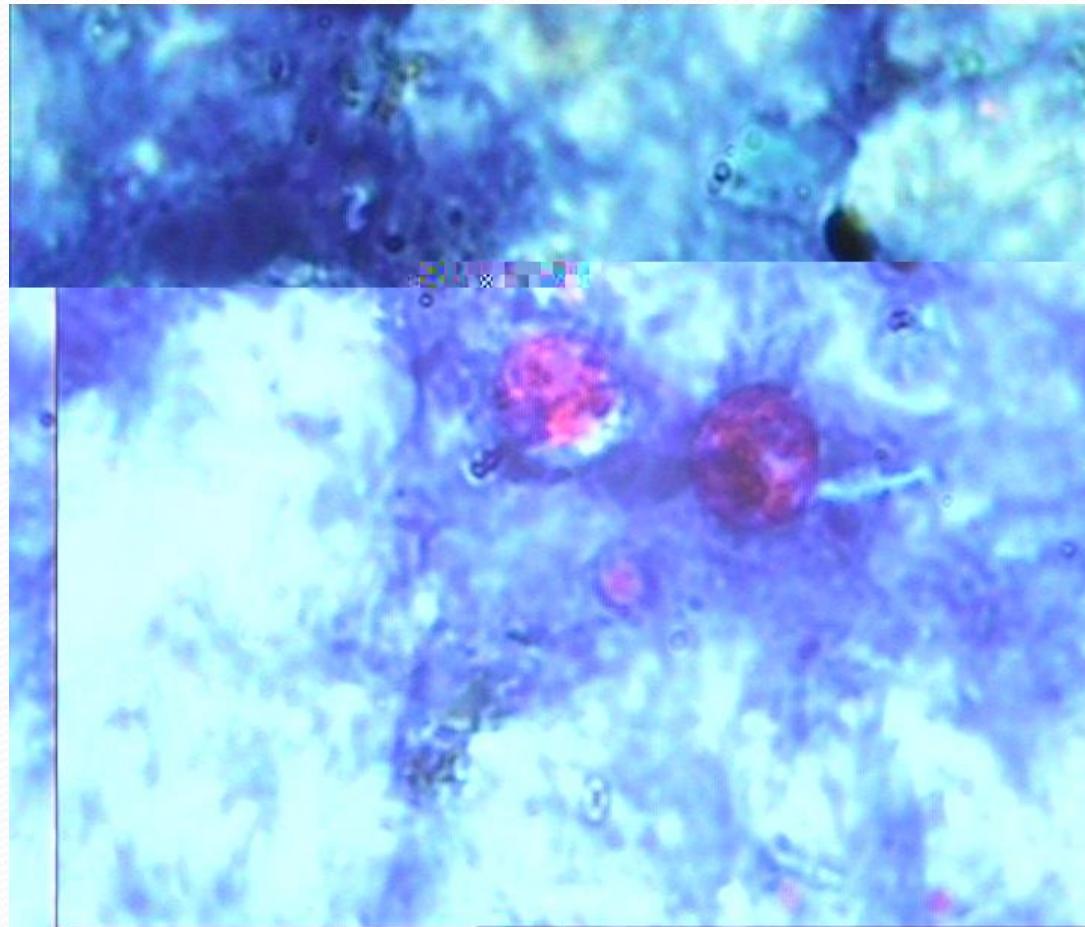


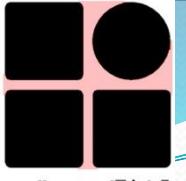
oocyst of *Cyclospora*





آزمایشگاه‌های
کلیینیکی ایران

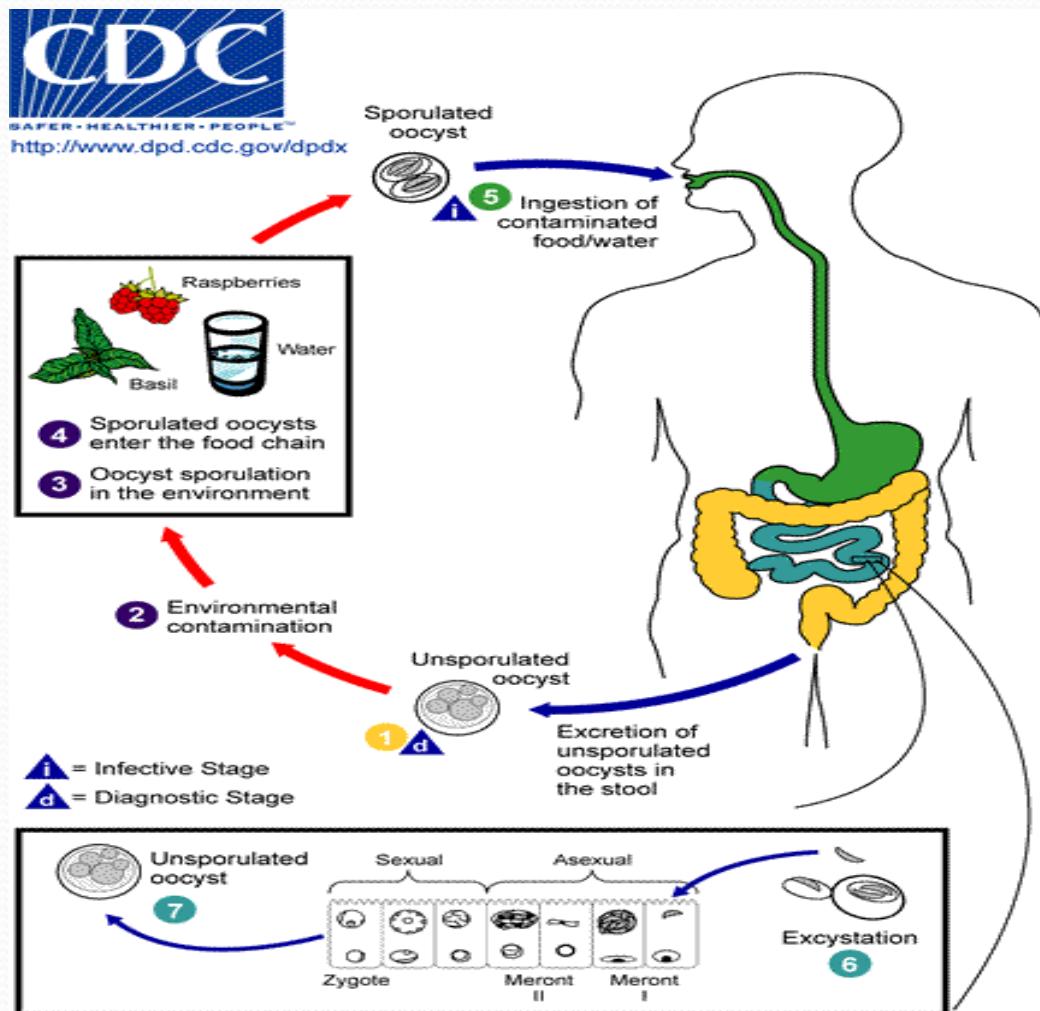




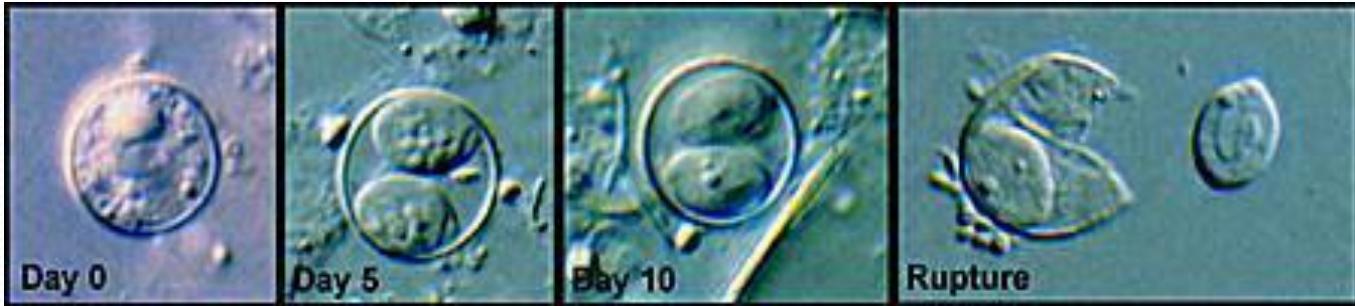
تمامی حقوق محفوظ است



Life cycle of *Cyclospora cayetanensis*



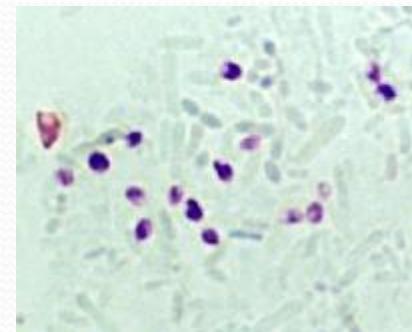
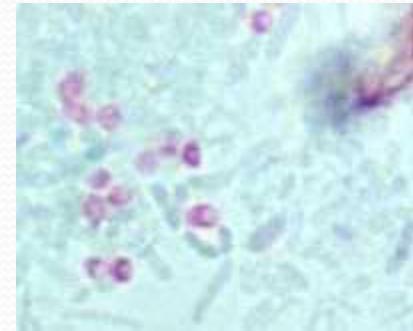
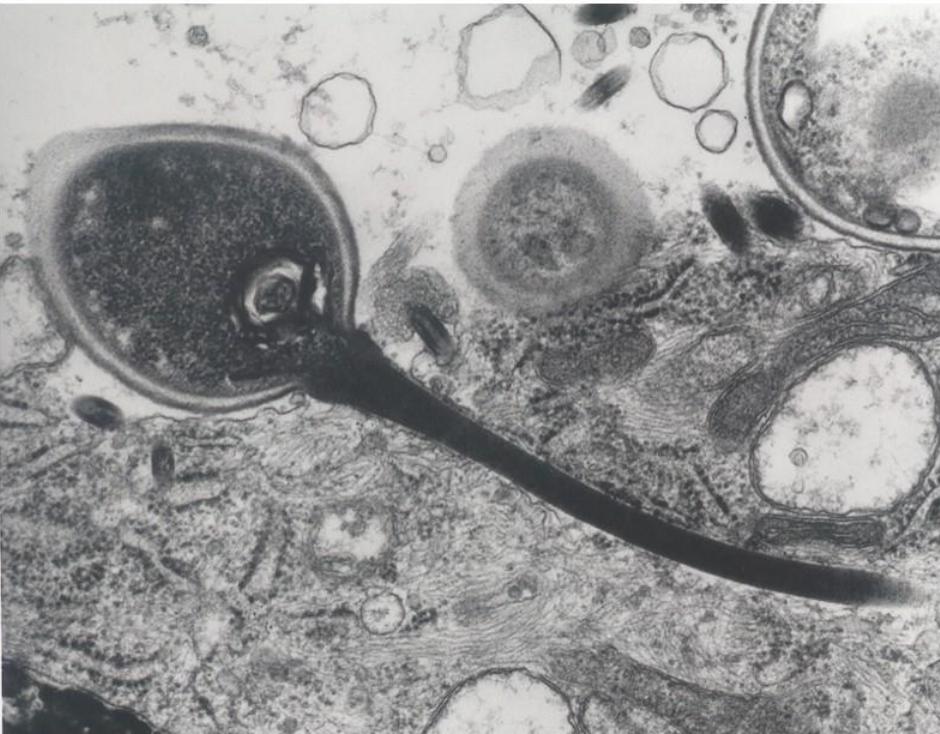
Sporulation of *Cyclospora oocysts*

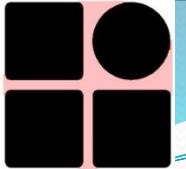




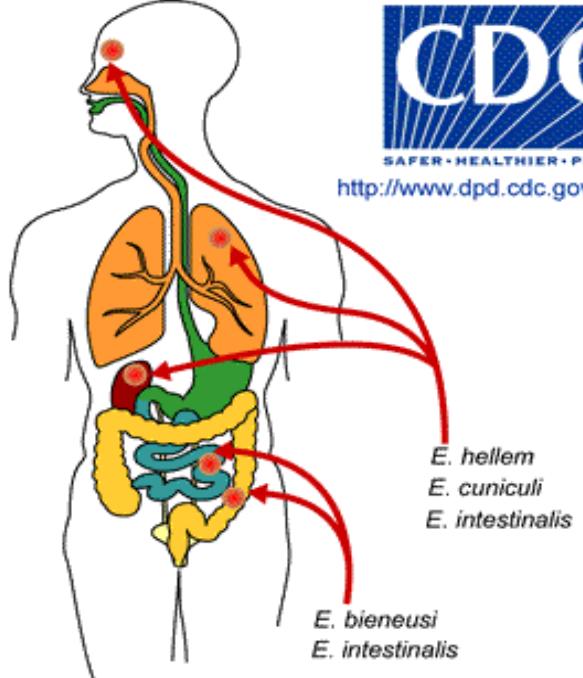
میکروسپوریدیا

microsporidian spores

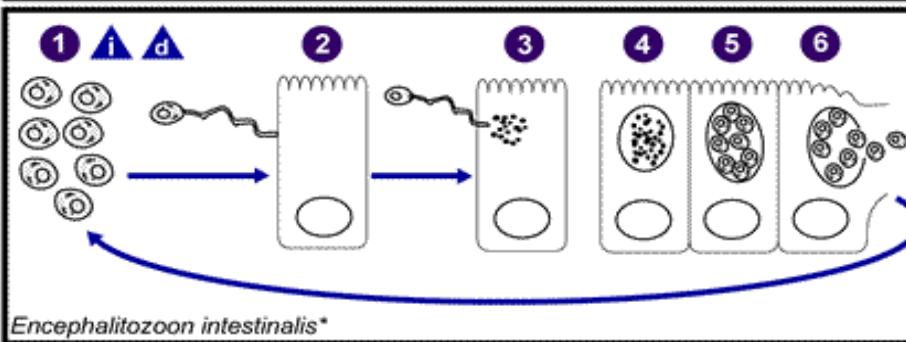
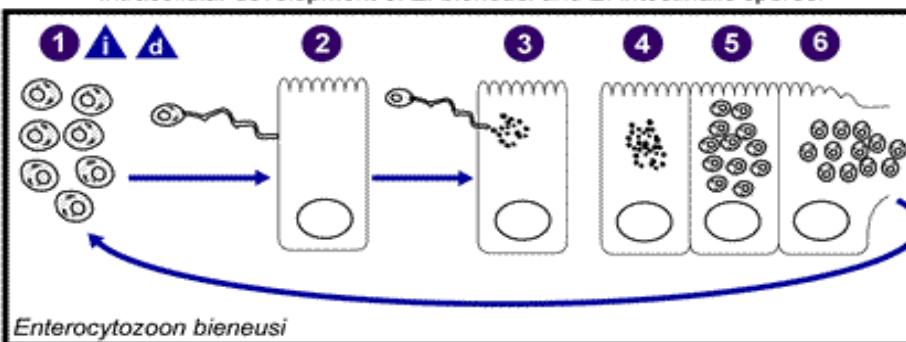




i = Infective Stage
d = Diagnostic Stage



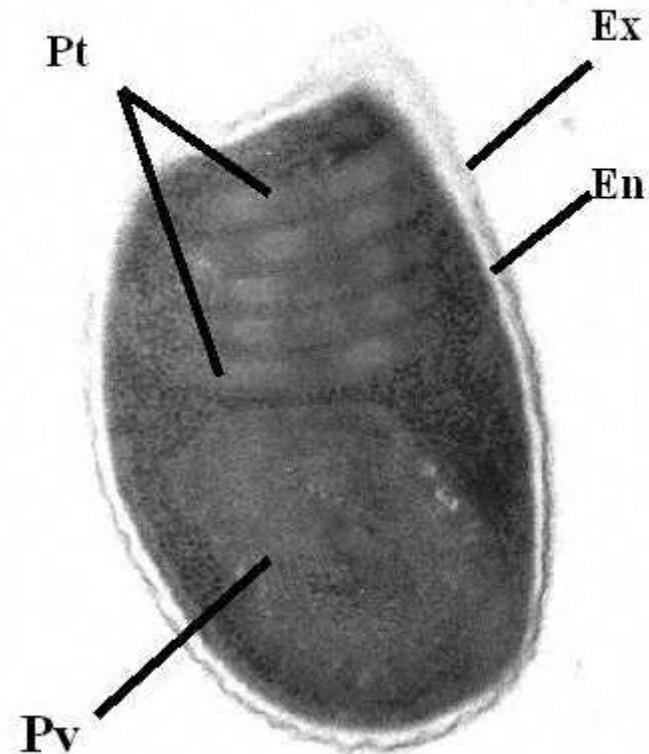
Intracellular development of *E. bieneusi* and *E. intestinalis* spores.



*Development inside parasitophorous vacuole also occurs in *E. hellem* and *E. cuniculi*.

Transmission electron micrograph showing ultrastructural features of a mature microsporidian spores

- Legend :
- Pt :Portion of coiled polar tubule
- Ex :Electron dense exospore
- En :Electron lucent endospore
- Pv :Posterior vacuole



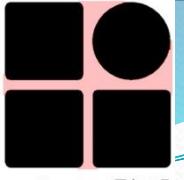
Scanning electron micrograph of a microsporidian spore with an extruded polar tubule inserted into a eukaryotic cell. The spore injects the infective sporoplasms through its polar tubule.



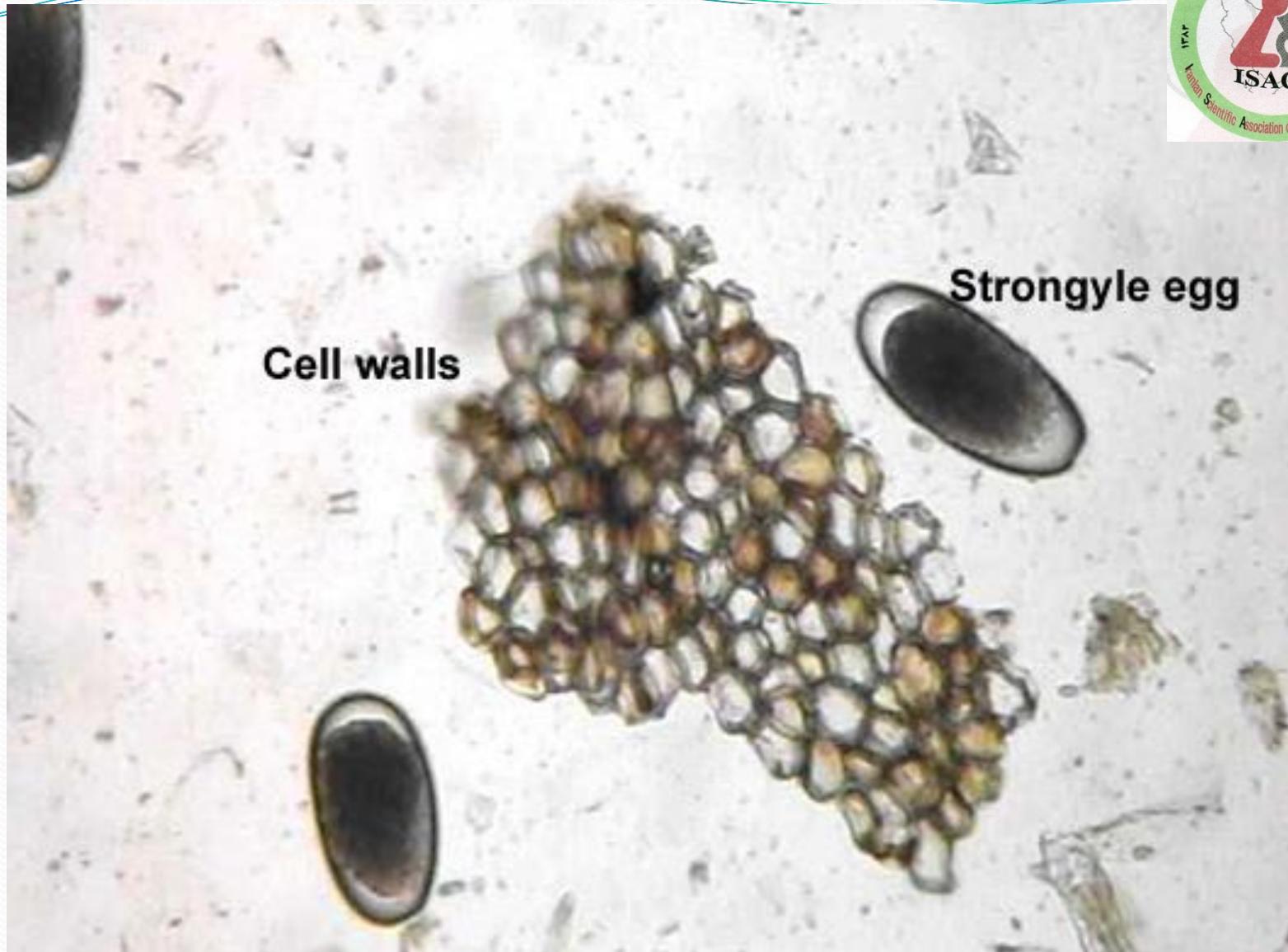


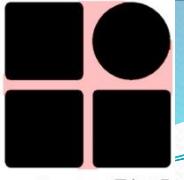
Artifacts

عناصر مشابه انگلها



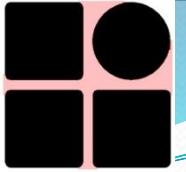
ارسالی ملی
آزمایشگاهیان ایران





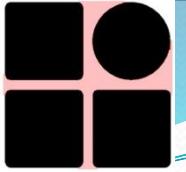
آزمایشگاه‌های ایران



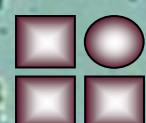


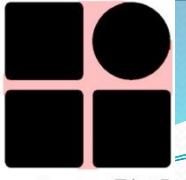
آزمایشگاه‌های
کلیمی





آزمایشگاه‌های
کلیینیکی ایران

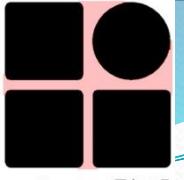


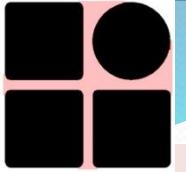


آزمایشگاه‌های
کلیینیکی ایران



Pollen grain

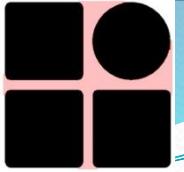




ارائه‌ی
امین

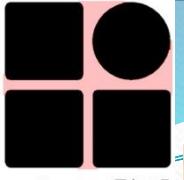


Pollen grain



متمام
آزمایشگاهیان ایران



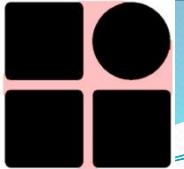


آزمایشگاه‌های ایران



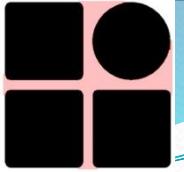
Air bubble

Plant hairs



اممی ایرانی اسکال





آزمایشگاه‌های ایران

