

STAINING OF PATHOGENIC FUNGI WITH TRYPAN BLUE

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SUMMARY

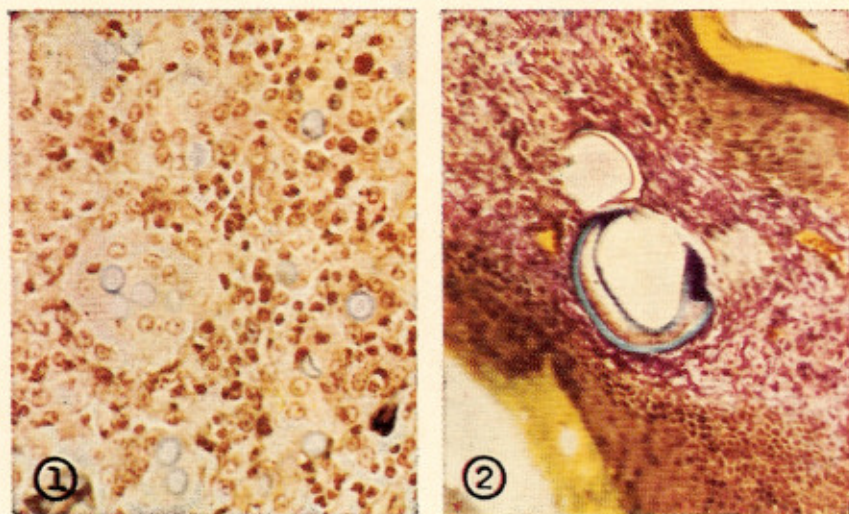
Trypan blue can be applied directly to paraffin sections as a routine staining method for fungus capsules. The preparations can afterwards be stained with Van Gieson's for a background stain. The fungus capsules stain deep blue.

Although there have been many methods described to stain fungus capsules or membranes (CAWLEY et al.¹; PIMENTA DE MELLO et al.²; GRIDLEY²; SAMPAIO et al.⁴; and others), some of them are either cumbersome and/or expensive.

Recently in our laboratory, we have been using trypan blue to stain fungus capsules with excellent results. The results obtained are shown in Figs. 1 and 2.

Procedure — Routinely prepared paraffin sections of material fixed in 10% formalin are brought to water and stained from 10 to 30 minutes in 1-3% trypan blue in distilled water and counterstained with Van Gieson.

Preparations are washed in distilled water, dehydrated in the alcohols, cleared and covered in the usual manner.



Fungus capsules stained with trypan blue. Van Gieson's counterstain.
Fig. 1 — Experimental Jorge Lôbo's infection in tortoise. Fungi capsules blue. 360 x. Fig. 2 — *Rhinosporidium seeberi* capsules deep blue. 90 x.

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Results and comments — Capsules and membranes of the fungi are stained deep blue.

The method is very simple, inexpensive and reliable.

RESUMO

Coloração de fungos patogênicos com azul tripan

O azul tripan pode ser usado diretamente em cortes de parafina como método de rotina para coloração de cápsulas de fungos. Os cortes podem ser corados em seguida pelo Van Gieson, como contraste. As cápsulas dos fungos coram-se em azul celeste.

REFERENCES

1. CAWLEY, E. P.; WHEELER, C. E.; McMANNUS, J. F. A. & FRENCH, A. J. — Use of

Ritter and Oleson staining method for demonstration of fungi in paraffin sections. *Arch. Path.* (Chicago) 58:94-97, 1954.

2. GRIDLEY, M. F. — *Manual of Histologic and Special Technics*. Washington, Armed Forces Inst. Path., 1957.
3. PIMENTA DE MELLO, R.; PIMENTA DE MELLO, L. & PEREZ, A. — Identificação de cogumelos patogênicos por meio da coloração ácido periódico-Schiff. *Mem. Inst. Oswaldo Cruz* 53:519-528, 1955.
4. SAMPAIO, M. M.; DIAS, L. B. & SILVA, D. B. — Staining of pathogenic fungi with Gomori's Aldehyde-Fuchsin in both old and new sections. *Stain Tech.* 43:307-309, 1968.

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