

MOUTH EPITHELIAL CELLS.

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INTRODUCTION:

As amateur microscopists many of us wonder what to see under the lenses of the microscope.

Is it necessary to get cultures or to buy samples that cost several dollars just for a few of them?

If possible it is an option, but if not it is possible to get lots of samples at home and some from the inside us such as MOUTH EPITHELIAL CELLS.

A cell is the minimal expression of life, there are two main types both prokaryote and eukaryote i.e. bacteria in all their forms and the rest of known cells respectively because the second group is divided into animal, vegetable and fungal cells.

Ours belong to animal cells therefore they are eukaryote.

Nevertheless, what are epithelial cells as our title states? They are cells everywhere on the body and I said "on" because these are the cells lining every cavity, organ or surface of the body including the mouth in this case where we are taking samples from.

DEVELOPMENT:

What is needed to get a sample of mouth epithelial cells?

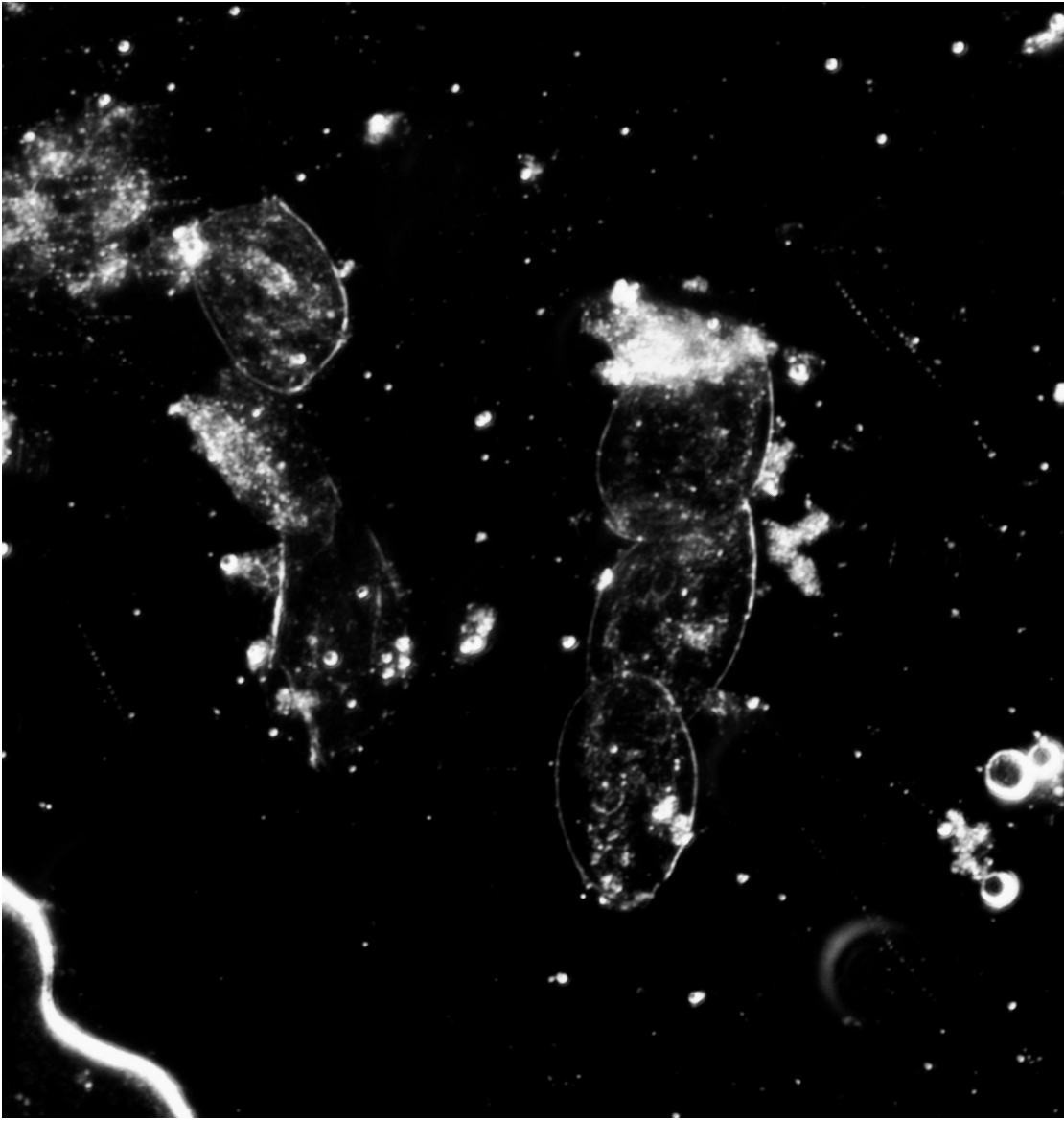
Just a very small drop of saliva from somebody's mouth and that's all. (If cell density low, try gentle scraping of the inside of the cheek with a clean, blunt object such as a teaspoon handle and dabbing the deposit on a slide.)

The next step is to place it on a slide and cover it with a cover slide and place under the lenses of the microscope and observe it, they look beautiful on a darkfield or on a brightfield or on an oblique illuminated back ground.

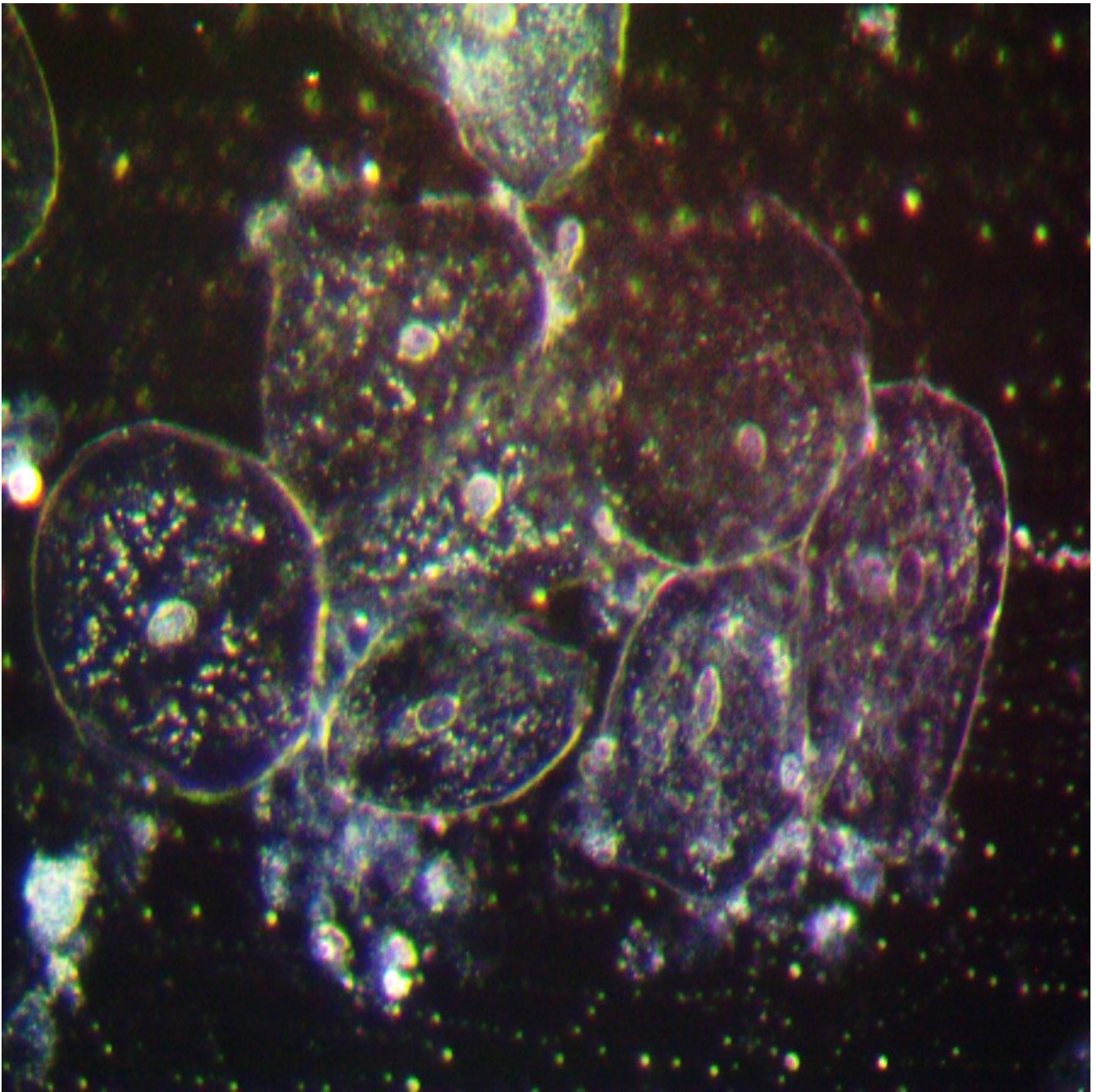
They can be optically stained.

But if it is wanted, a sample of epithelial cells can be stained and kept to study them further.

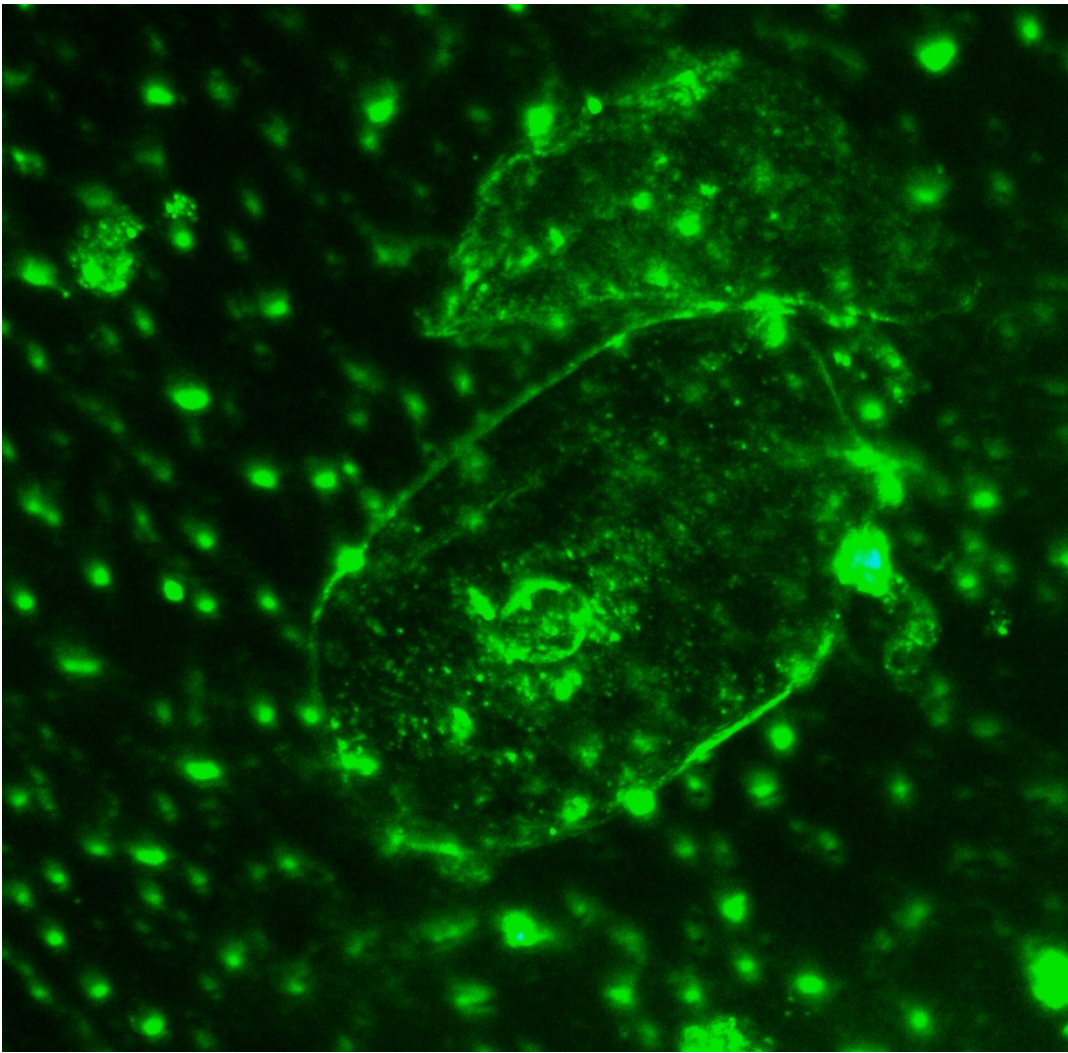
RESULTS:



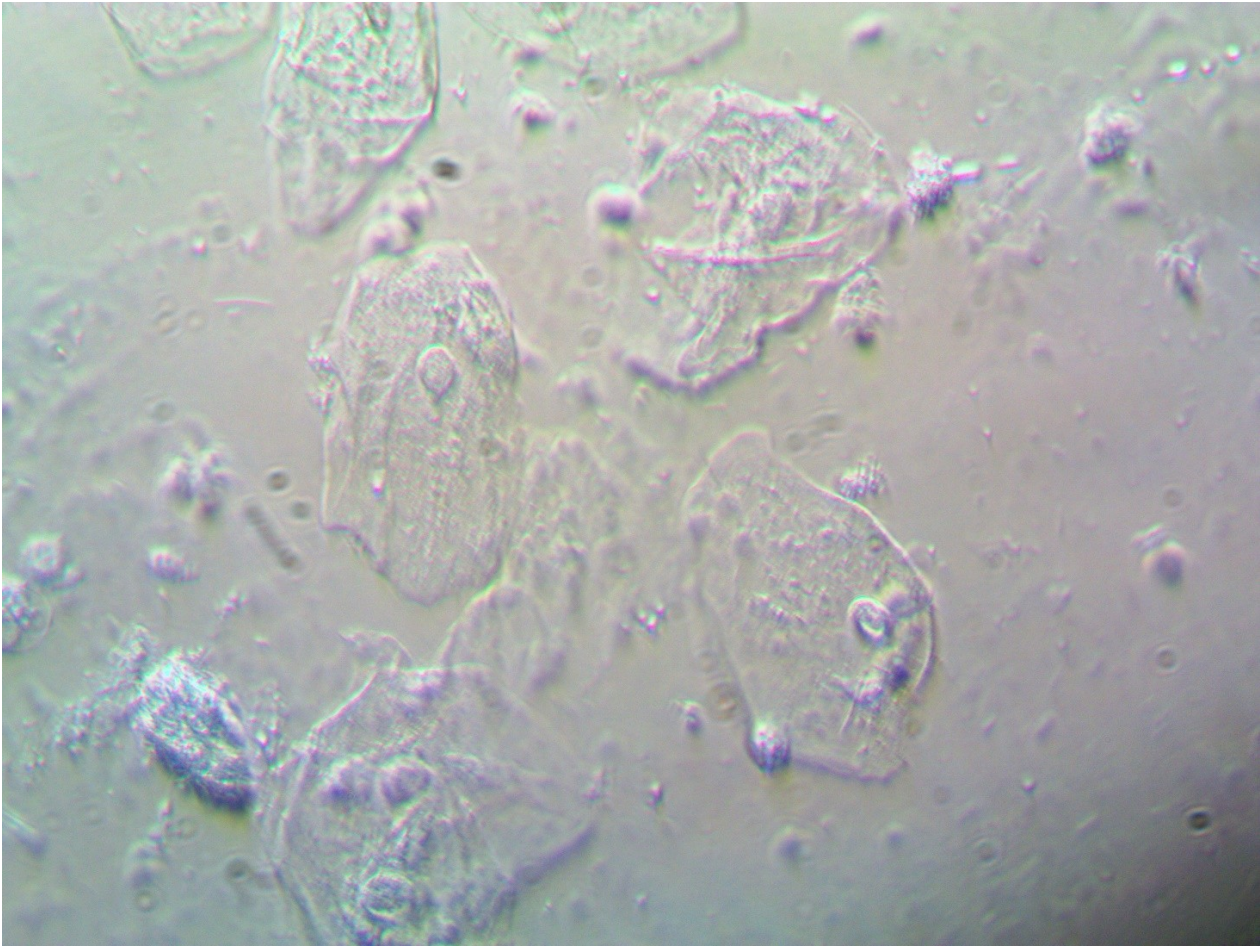
10x darkfield



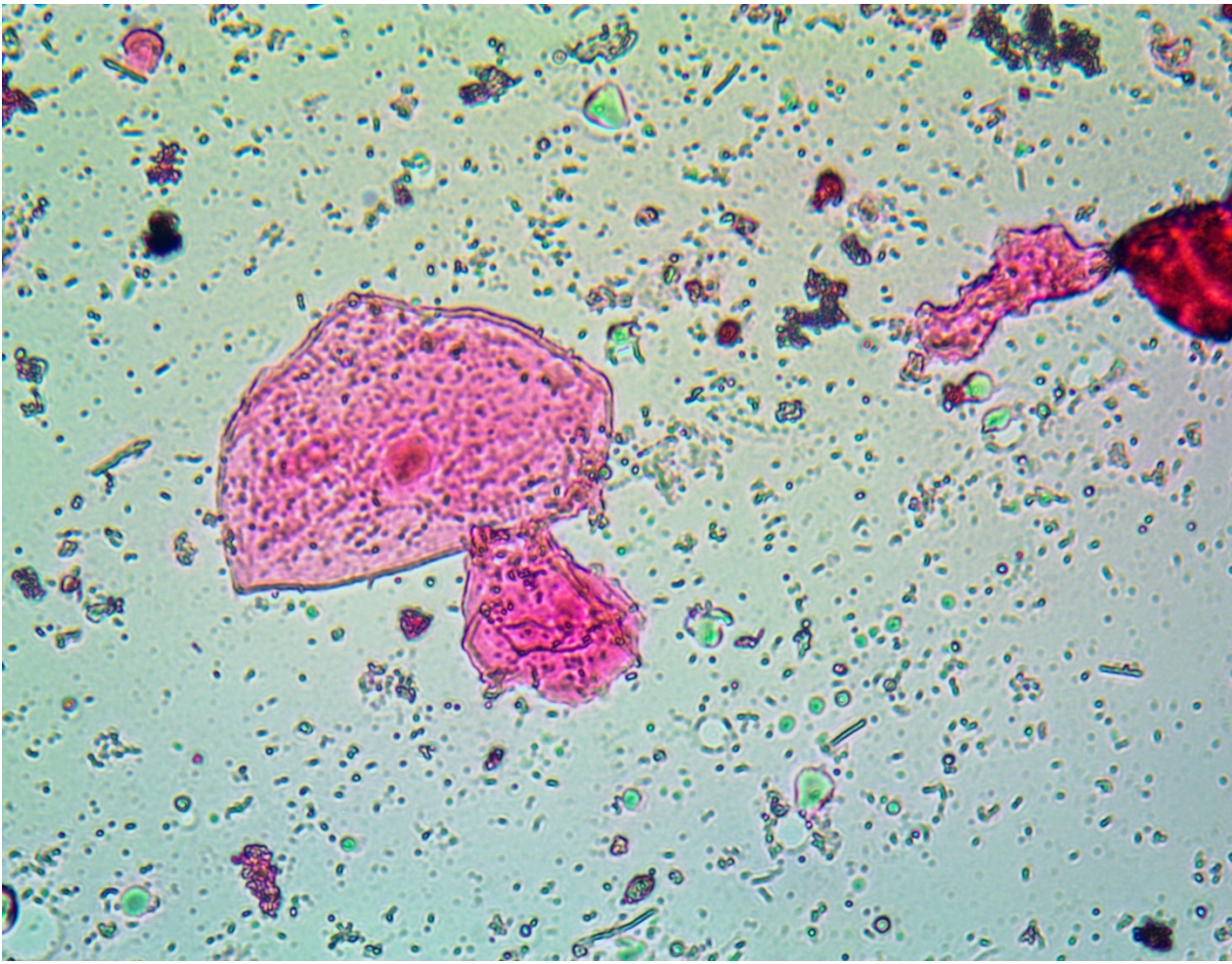
40x darkfield



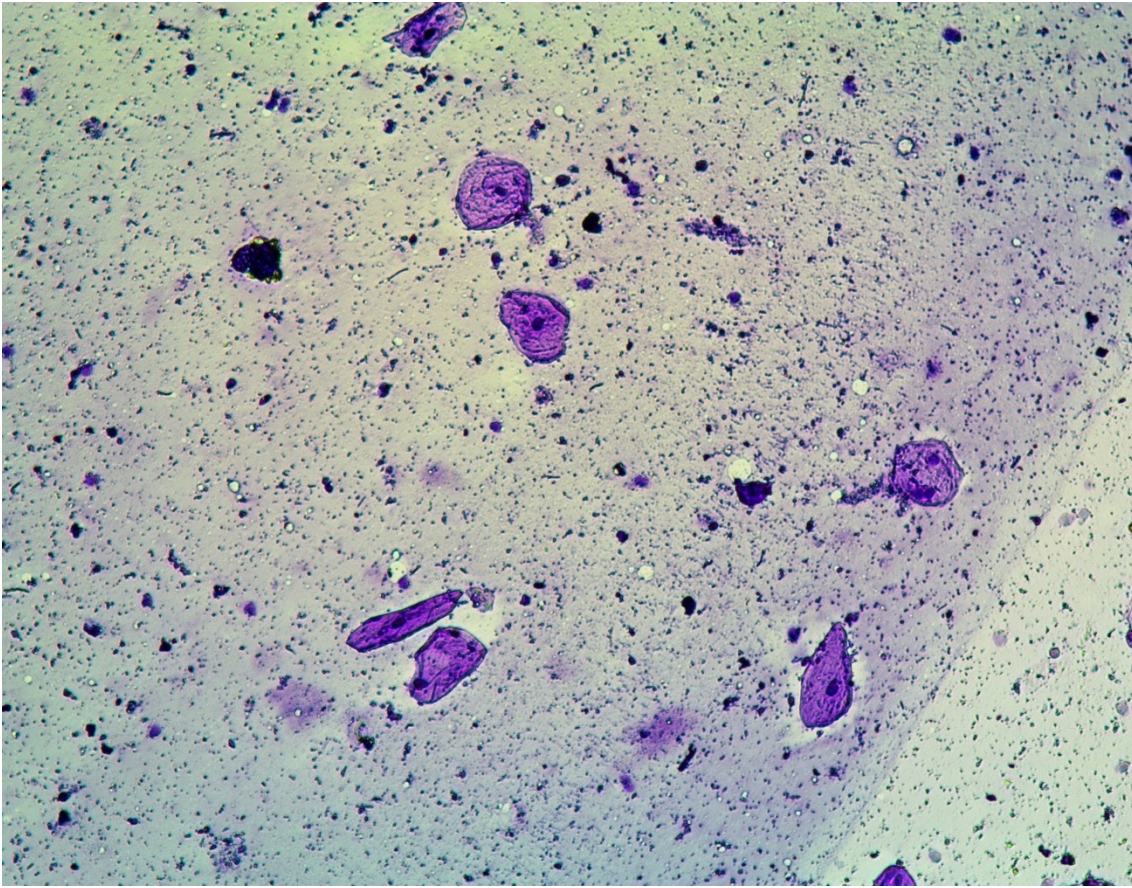
40x optically stained with camera functions producing DIY fluorescence



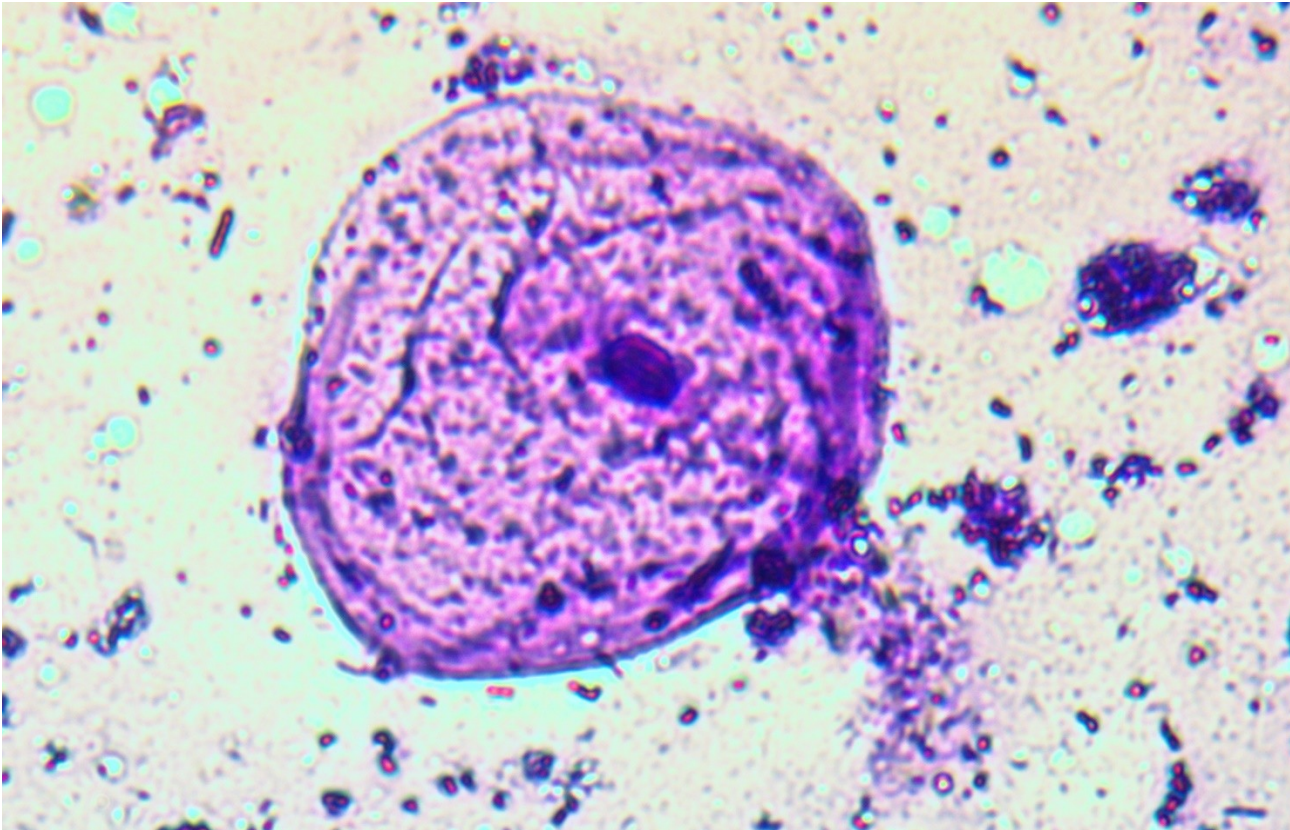
40x oblique illumination



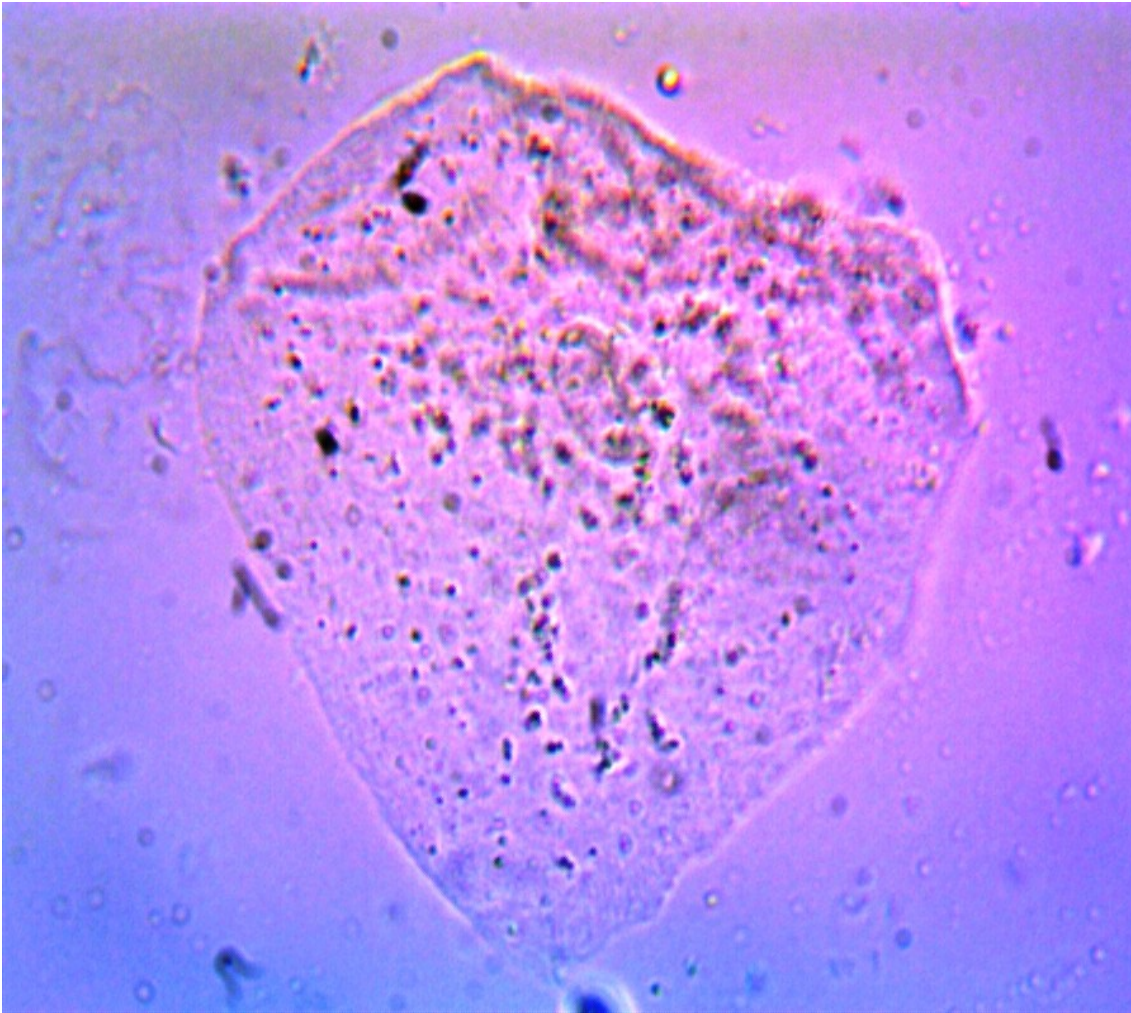
40x bright field erythrosine staining



10x brightfield stained with gentian violet



40x brightfield stained with gentian violet



100x brightfield optically stained

CONCLUSION:

If we want to study cells, this is a very good option to do it and at hand, because mouth epithelial cells are a very “flexible” sample.

Nobody should miss the opportunity to observe and capture them in photographs.

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(Above in anti-spam format. Copy string to email software, remove spaces and manually insert the capitalised characters.)

Published in the October 2017 issue of *Micscape* magazine.

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