



# BlueStain<sup>®</sup> GLOBAL

Where Science meets Business

2024



# BlueStain® GLOBAL

BlueStain Global Ltd is a distinguished company headquartered in London, United Kingdom. It was founded through a strategic collaboration between CESPÚ Diagnóstico, a prominent healthcare provider based in Portugal, and IKAR Arabia, a leading entity operating out of the United Kingdom.

This partnership leverages the unique strengths and expertise of both organizations, aiming to deliver innovative solutions and services on a global scale. BlueStain Global Ltd is committed to excellence, driven by a shared vision to advance industry standards and contribute meaningfully to the sectors it serves.

## BlueStain® GLOBAL





# CESPU Diagnóstico, S.A.



CESPU Diagnóstico, is part of Portuguese CESPU Group, which is a Higher Education Institution that has been training highly qualified health professionals for over 40 years.

CESPU Diagnóstico, is a company created as a startup within the scope of the innovation developed in the IUCS research centers (initially called Targetalent) for the transfer of innovation. It resulted from a scientific research project, through which a new methodology for cytological diagnosis was developed, based on cytology and applied to telepathology.

The mission of CESPU Diagnóstico is to develop, implement, manufacture, and make available to the market medical devices in the diagnostic area based on cytological and molecular studies. The vision is to be a reference company, in the area of research, providing products and services that meet the requirements of manufacturing, clinical and laboratory diagnosis. Each partnership/business relationship is assured by commitment, rigor and quality, which are an integral part of the company.



# IKAR Holdings



KAR Arabia Investment Group is one of the vertical operating groups, belonging to IKAR Holdings, which is a multi-tiered group headquartered in London, encompassing more than 40 companies – spanning across 14 different sectors and geographical regions.

IKAR Holdings is a distinguished ecosystem of entrepreneurs, innovators, and investors from around the world that spans across a wide variety of industries and sectors. Our mission revolves around the commitment to empower growing business and emerging leaders globally.

IKAR Holdings is a multi-tiered group headquartered in London, encompassing more than 40 companies – spanning across diverse sectors and geographical regions. Its structure is reinforced by a network of external global partnerships and steered by a leadership team composed of accomplished business executives with established track records of success, united with the insights and expertise of senior figures from the political and public sectors.



# Leadership

## Board of Directors



**Prof. Fernando Ferreira**  
Chairman of the Board – CEO,  
CESPU Diagnóstico



**Mario Diel**  
Independent Member – Chairman,  
IKAR Arabia Investment Group



**Sertan Ayçiçek**  
Independent Member – Deputy Chairman,  
IKAR Arabia Investment Group



**Kerem Etkin**  
Member – Director,  
BlueStain Global



# Leadership

## Executive Board



**Prof. Manuel Freire-Garabal y Núñez**  
Chief Executive Officer, BlueStain  
Global



**Semih Ayçiçek**  
Chief Financial Officer, BlueStain  
Global

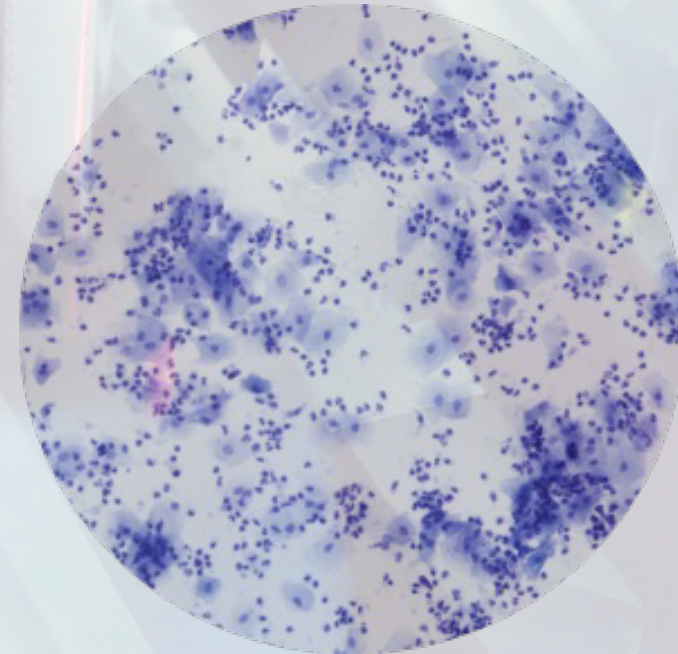


**Paula Melo**  
Chief Operating Officer, BlueStain  
Global



# Point of care solution

- Fast
- No lab
- Simple
- Everyone
- Logistic free
- Best executive cost





# Advantages

- Fewer repetitions – Better accuracy
- Less anxiety – Faster results
- Simplified Diagnostic – No logistic
- Better hope of life – Quick start of treatment
- Save lives – Early diagnosis







- In vitro diagnostic medical device
- Stain all types of cytology specimens in just 2 minutes!

This provides a fully scalable and logistics-free turn-key solution for point-of-care cancer screening in a population scale.



# Protocol stain





# Blue Stain®

Blue Stain® uses a specialized cytopathology stain combined with an advanced technology to rapidly issue results



Each kit is used by the Dentist to sample one oral lesion in each patient

- After performing the test the cytology is digitized and sent to our certified pathology expert center

- Results are supplied back to the Dental professional within the time frame of the appointment (less than 1/2h) in a report format

BlueStain® GLOBAL



<b>BlueStain®</b>	<b>Papanicolaou Stain</b>
<ul style="list-style-type: none"><li>• Point-of-care</li><li>• Simpler (1 reagent and tap water)</li><li>• Doesn't need a lab</li><li>• Stain rejection is lower because is only 1 reagent and tap water (less money spend)</li><li>• Lower environmental footprint</li><li>• Not carcinogenic</li><li>• Quick (2 <u>minutos</u>)</li><li>• Doesn't need logistic</li><li>• No need for qualified professional</li></ul>	<ul style="list-style-type: none"><li>• No point-of-care</li><li>• Complex with multiple steps (10 reagents)</li><li>• Needs a lab</li><li>• Stain rejection is higher because are 10 reagents and tap water (16 times more money spend)</li><li>• Higher environmental footprint</li><li>• Carcinogenic (because of <u>Xilol</u>)</li><li>• Long protocol (<math>\pm 30</math> minutes)</li><li>• Needs logistic</li><li>• Need qualified professional</li></ul>



# Value proposition

○ Time to results

**BlueStain<sup>®</sup>** 30 min. vs **Competitors** 3 weeks

○ Laboratory needs

**BlueStain<sup>®</sup>** No vs **Competitors** Yes

○ Executive Cost

**BlueStain<sup>®</sup>** Cheap vs **Competitors** 3X

○ Sustainability

**BlueStain<sup>®</sup>** Yes vs **Competitors** No





# Point of care solution

solution could provide immediate feedback within the same visit. Thus, there is a strong need for technology-driven solutions that can precisely and rapidly diagnose the entire spectrum of oral epithelial dysplasia (OED) and oral squamous cell carcinoma (OSCC) using minimally invasive sampling at the POC.

[Cancer Cytopathol.](#) 2020 Mar; 128(3): 207–220. Published online 2020 Feb 7. doi: [10.1002/cncy.22236](https://doi.org/10.1002/cncy.22236)

PMCID: PMC7078980 | PMID: [32032477](https://pubmed.ncbi.nlm.nih.gov/32032477/)

## Point-of-care oral cytology tool for the screening and assessment of potentially malignant oral lesions

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# Oral Cytology

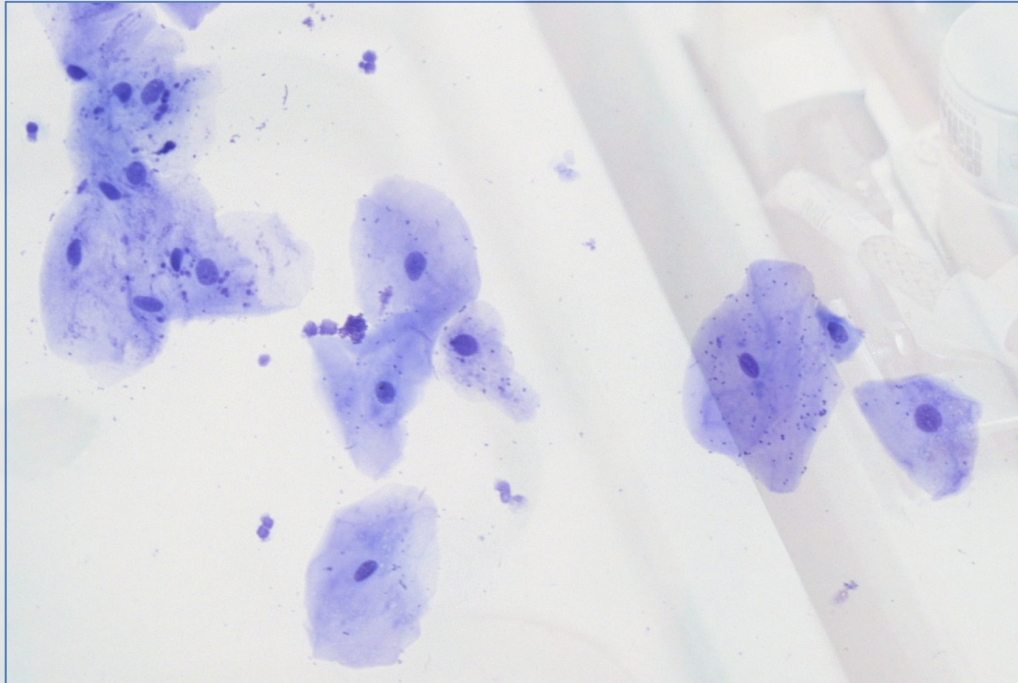


Fig. 1 – Exfoliative cytology of the normal oral mucosa stained with the BlueStain® method (400x)

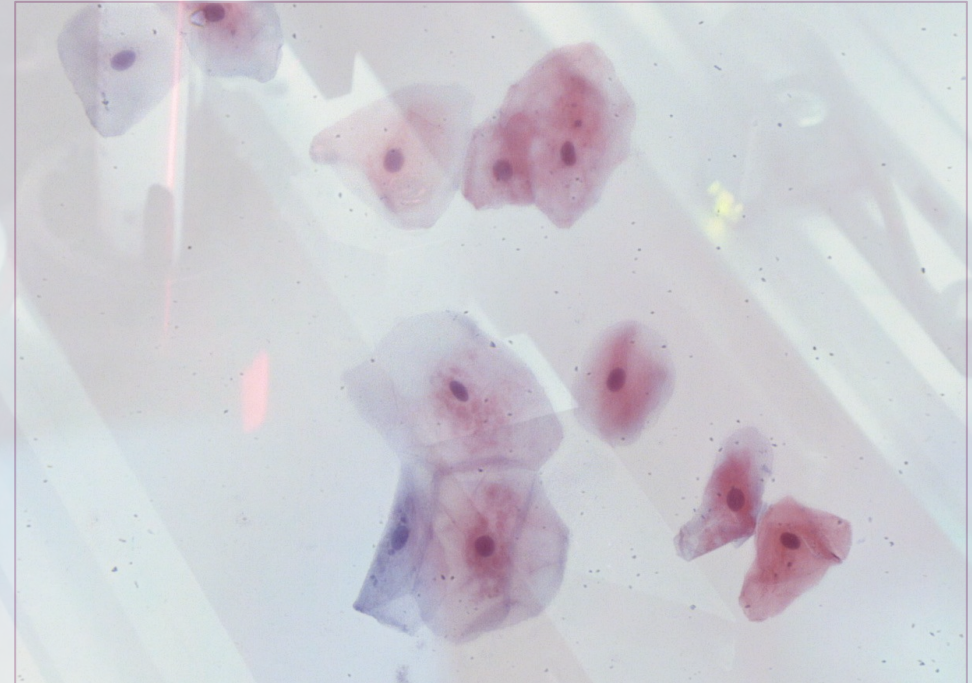
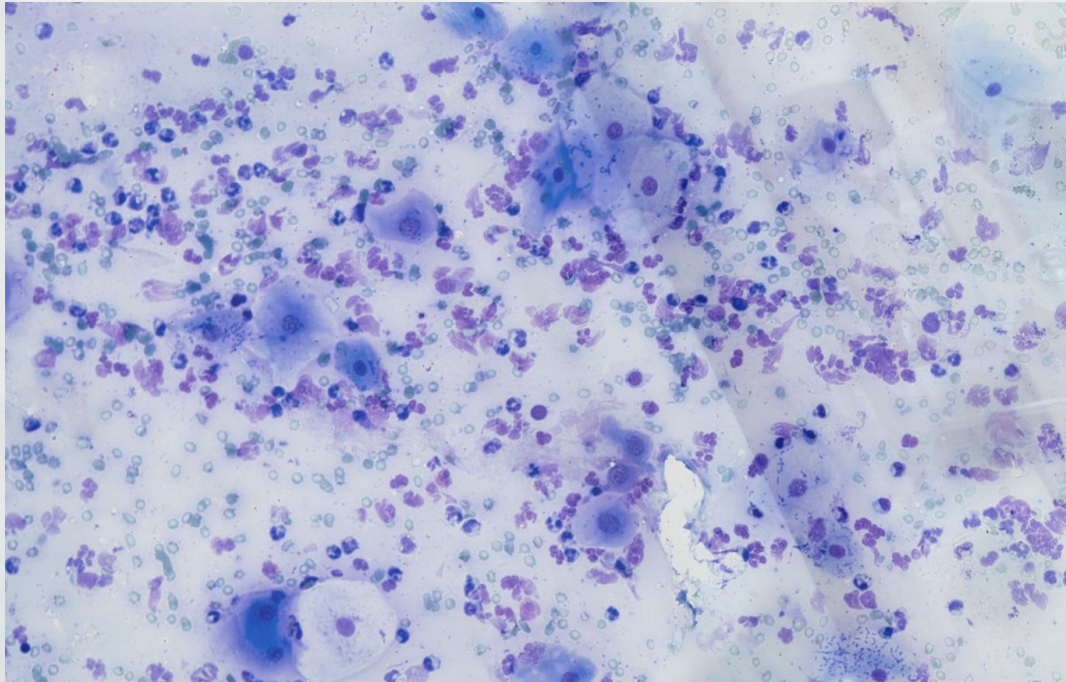


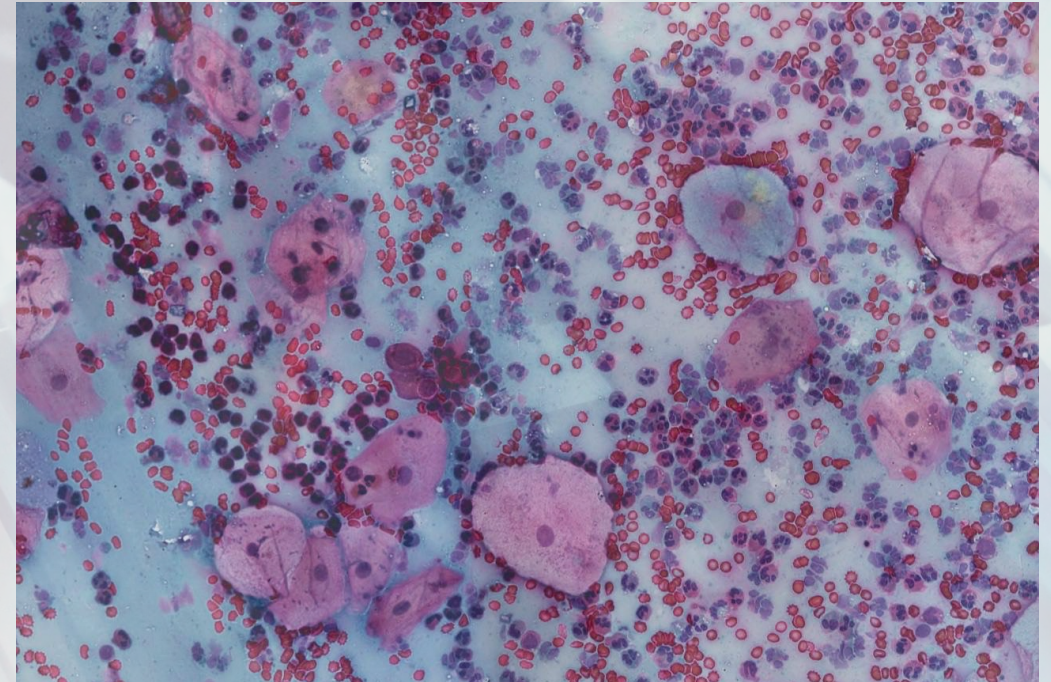
Fig. 2 – Exfoliative cytology of the normal oral mucosa stained with the Papanicolaou method (400x)



# Oral Cytology



**Fig. 3 – Exfoliative cytology of the oral mucosa – squamous cell carcinoma - stained with the BlueStain® method (200x)**



**Fig. 4 – Exfoliative cytology of the oral mucosa – squamous cell carcinoma - stained with the Papanicolaou method (200x)**



# Oral Cytology

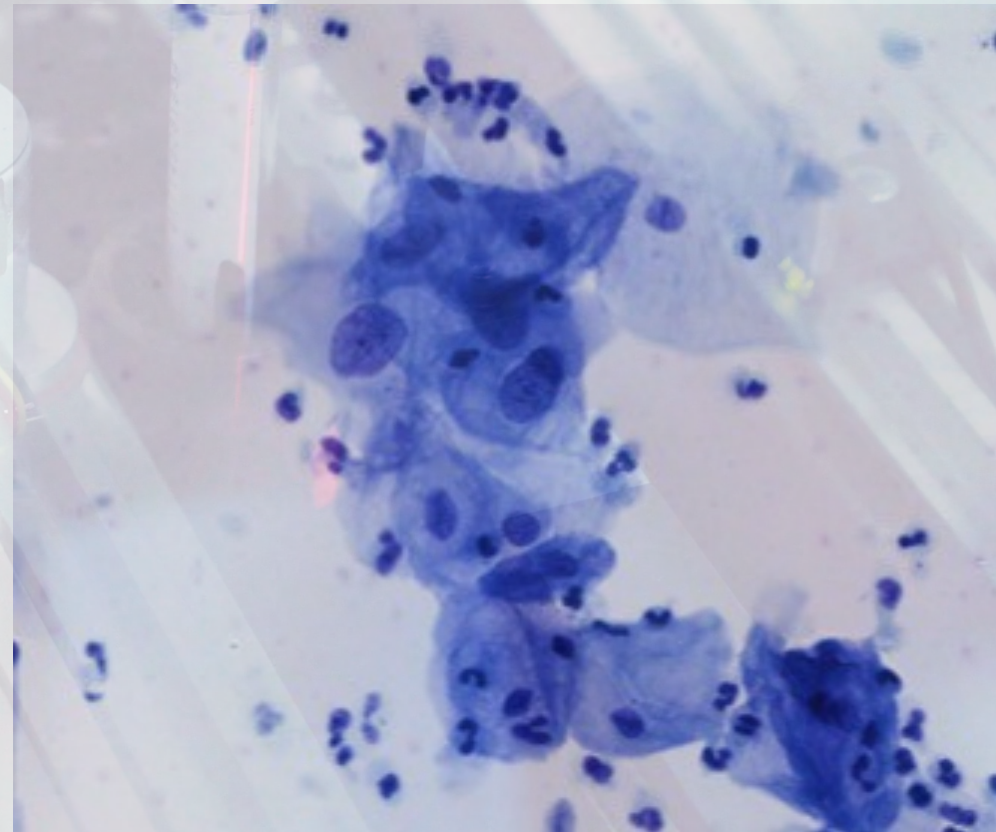
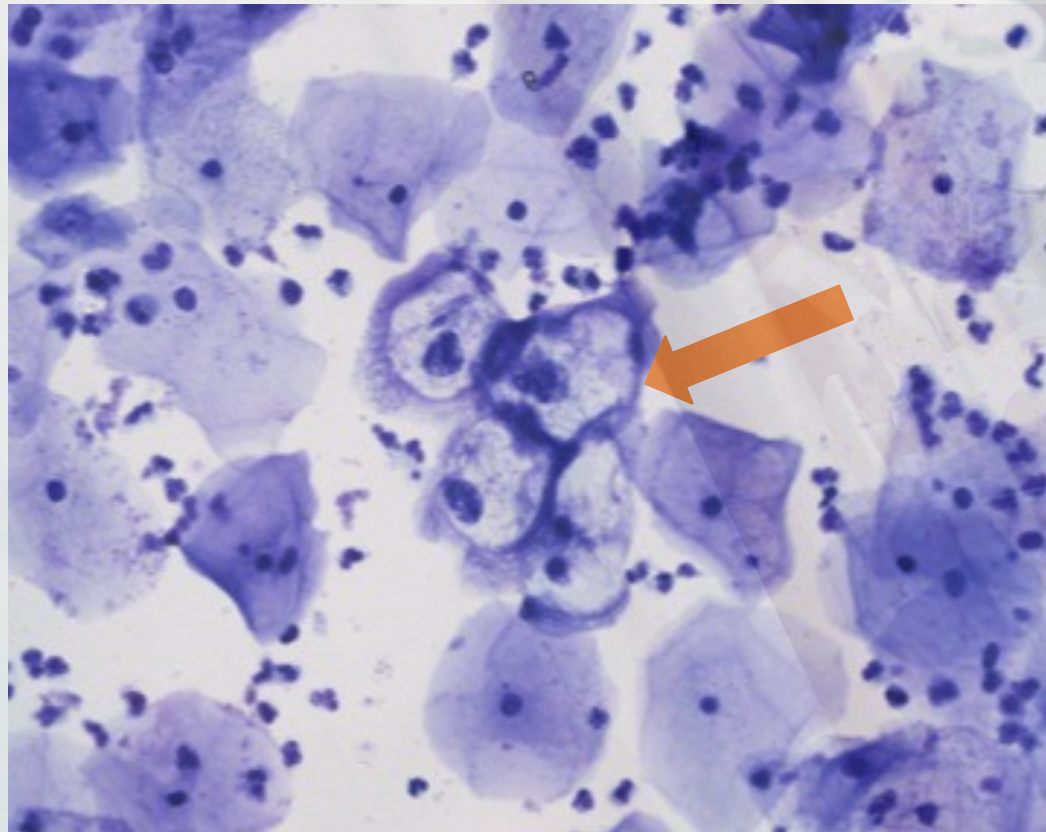
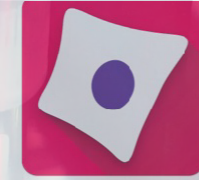


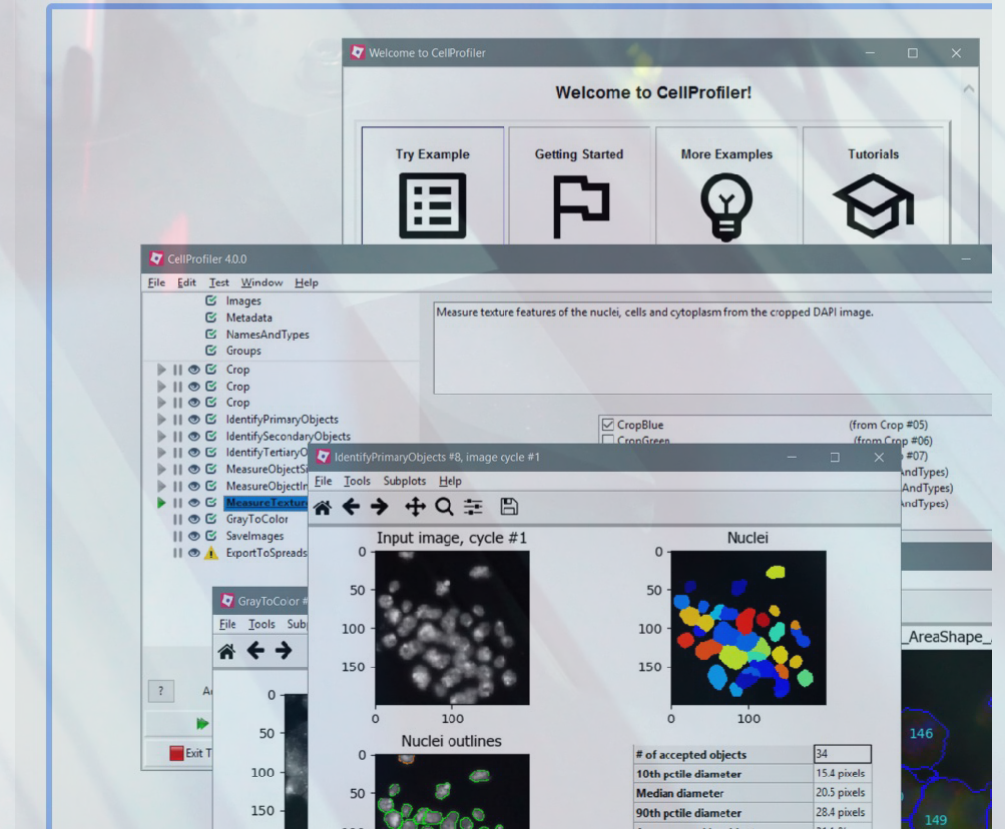
Fig. 5 – Gynecological cytology - stained with the BlueStain® method (400x)  
koilocytes suggestive of HPV



# Digital pathology



CellProfiler™  
cell image analysis software





# Intellectual property and quality

## Patent



National & European Patent applications submitted

## EU mark

EU

EU Declaration of Conformity

## ISO certification



NP 4457 (certified)

EN ISO 13485 and EN ISO 9001 (implemented)





# Scientific evidence

Acta Cytologica

## Techniques

Acta Cytologica  
DOI: 10.1159/000527347

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## A New Cytology Staining Method: A Fast Approach for Rapid On-Site Evaluation on Thyroid Fine-Needle Aspiration Cytology

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### Keywords

Thyroid fine-needle aspiration · Rapid stain · Rapid on-site evaluation · Diff-Quik · BlueStain<sup>®</sup>

scale from 1 to 3, representing poor, average, and good, respectively. **Results:** The quality index was slightly better for BlueStain<sup>®</sup> (53% vs. 47%) but not significantly different between the two stains. BlueStain<sup>®</sup> provides better details in

Sensitivity: 94.4%  
Specificity: 98.1%



# Blue Stain®



## Green Solution

# We reduce 90% of pollutants



# Blue Stain®

## DIGITAL CYTOLOGY FOR CANCER DETECTION

awards



Winner  
2014



2015



2015



EXPO  
2020  
DUBAI  
UAE



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