

# FISH Analyse des mukosalen Biofilms

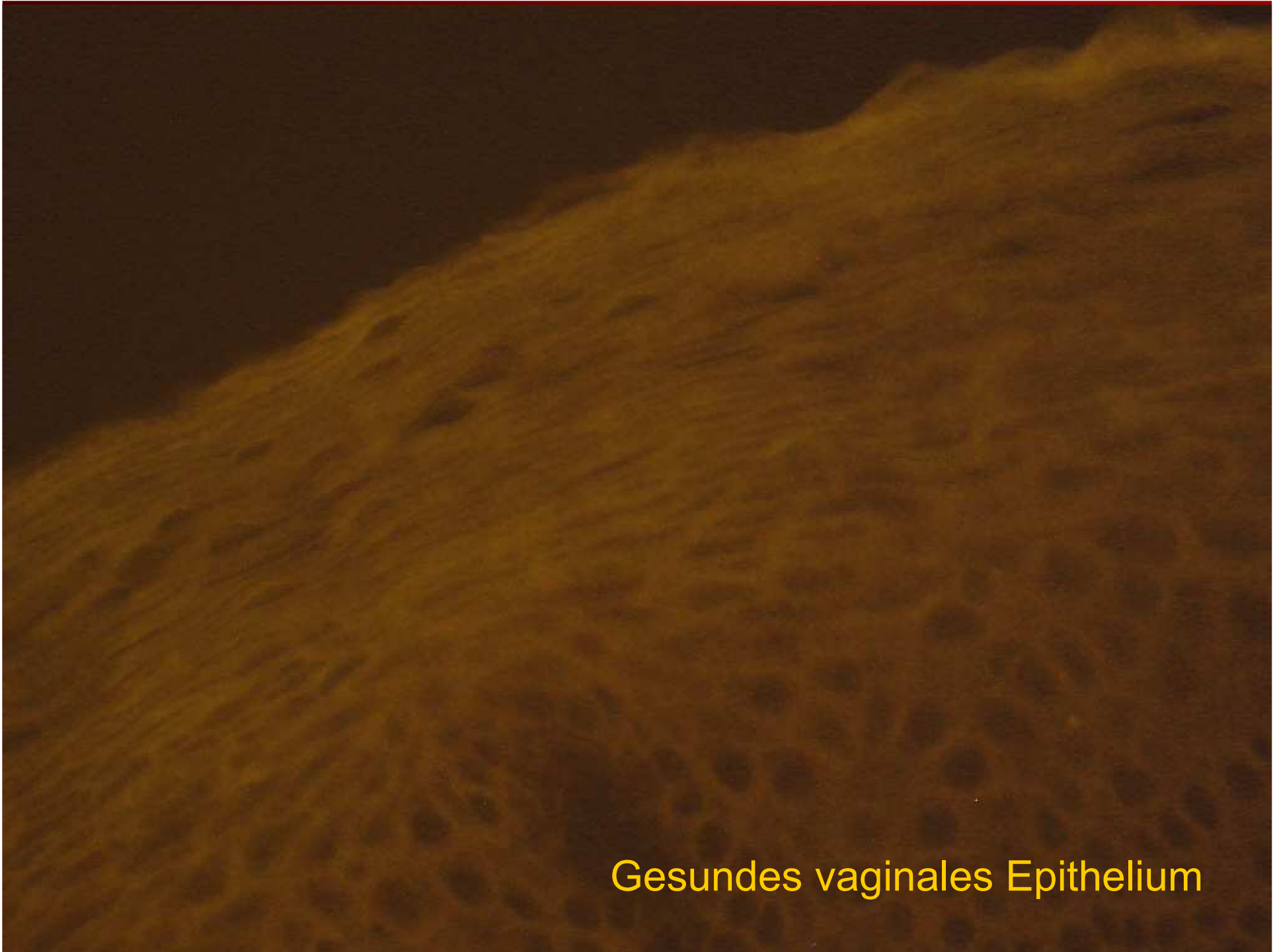


Eub338  
Alf1b  
Eva42a  
Gam42a  
Ebac  
Ecl531  
Y16s-69  
Srb385  
Sgd  
Hly-1  
Arc1430  
HGC  
LGC  
Sfb  
Erec  
Lach  
Ehal  
Chis150  
Clit135  
Lab158  
Strc493  
Enc131  
Efaec  
Ato291  
Cor653  
Ecy1  
Phasco  
Veil  
Rbro, Rfla  
UroA, UroB  
Ser1410  
Bif164  
CF319a  
Bac303  
Bfra602  
Bdis656  
Fprau  
Dss658  
Arch915

mit r-RNA komplementären Sonden




Gesundes vaginales Epithelium



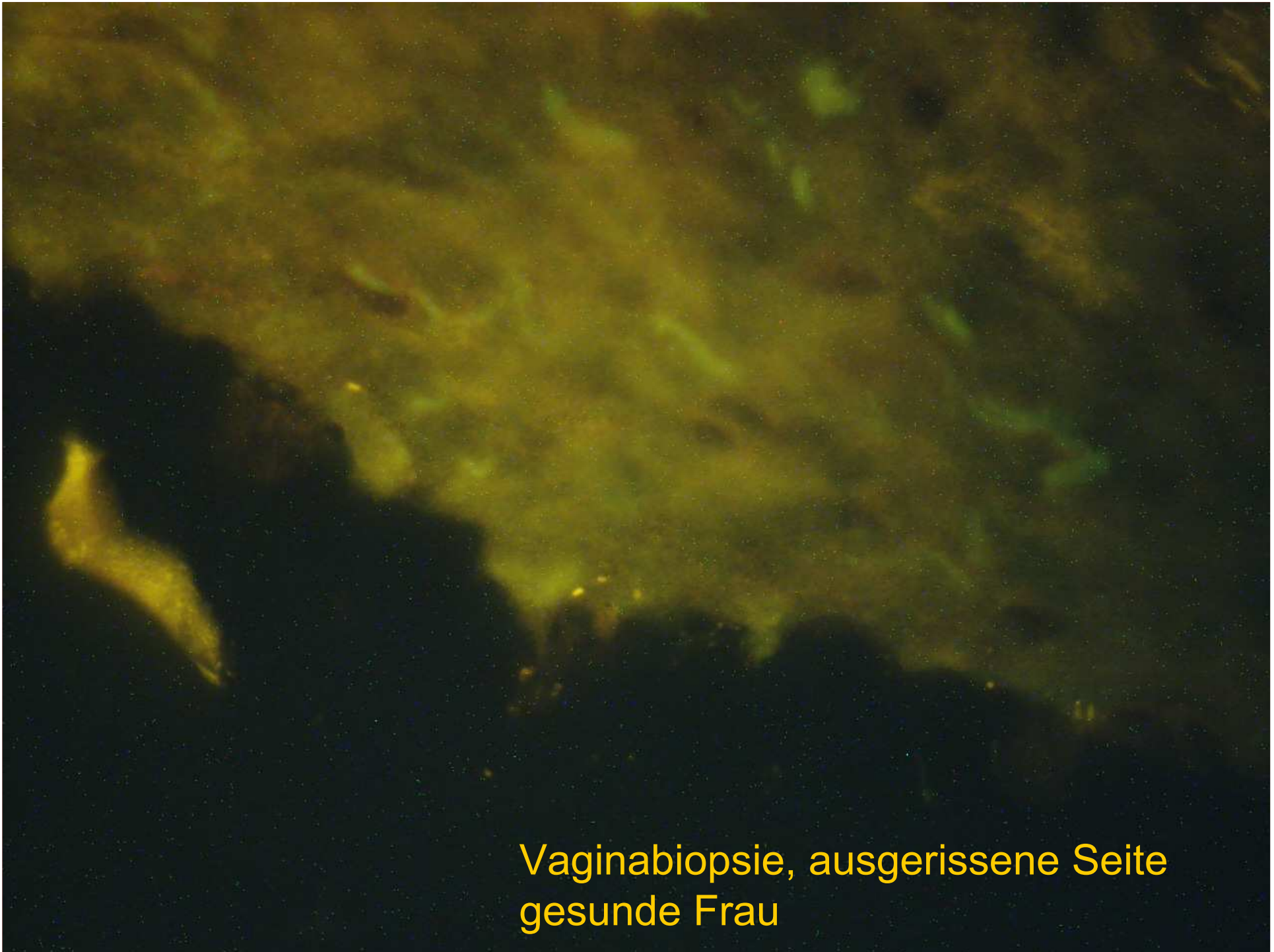
Gesundes vaginales Epithelium



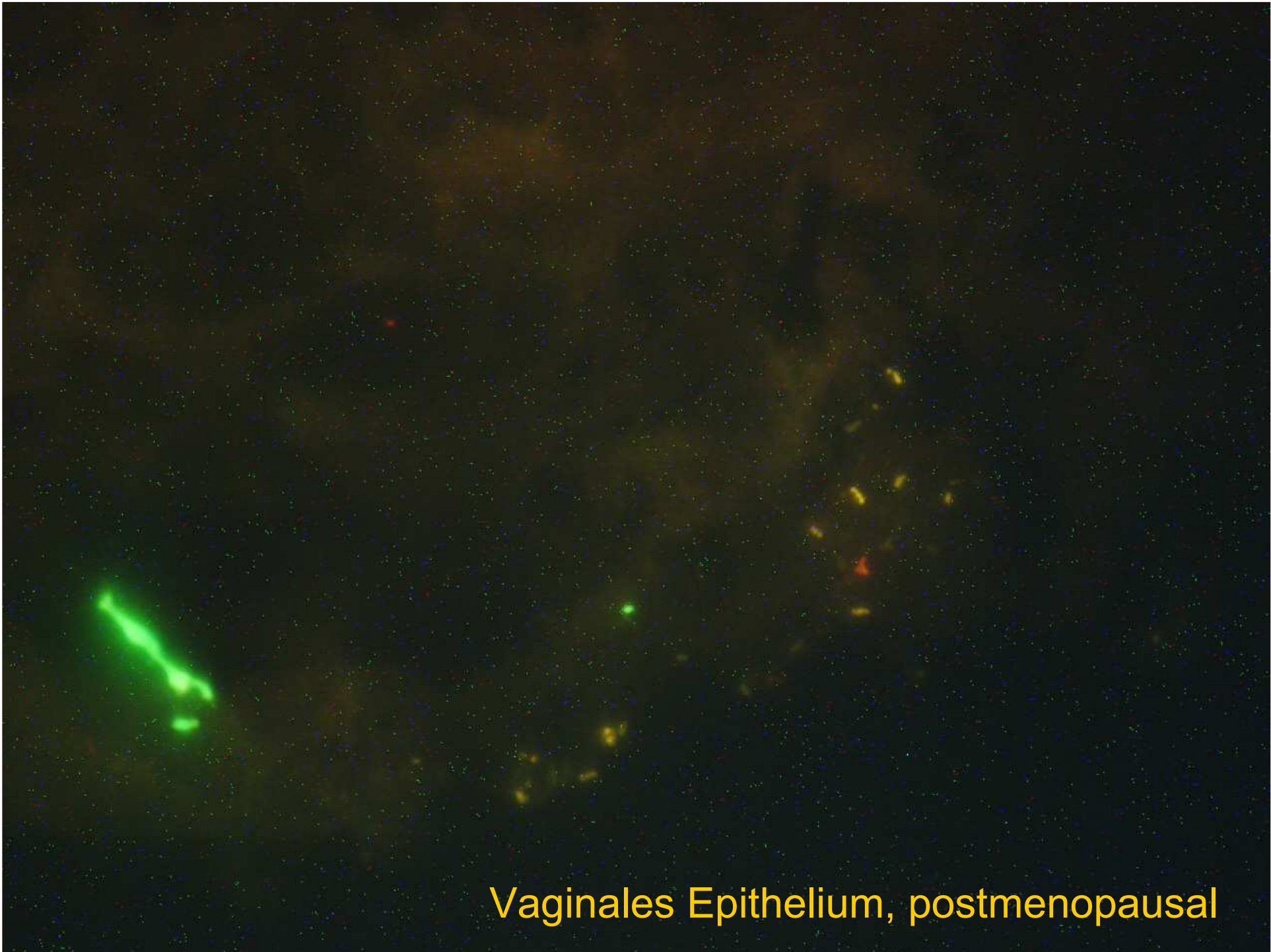
Gesundes vaginales Epithelium

A microscopic image of a vaginal biopsy specimen. The tissue is stained, showing a complex, layered structure. The surface appears irregular and torn, with various cellular and fibrous components visible. The overall color is a mix of light and dark brown tones, typical of histological staining.

Vaginabiopsie, ausgerissene Seite  
gesunde Frau



Vaginabiopsie, ausgerissene Seite  
gesunde Frau

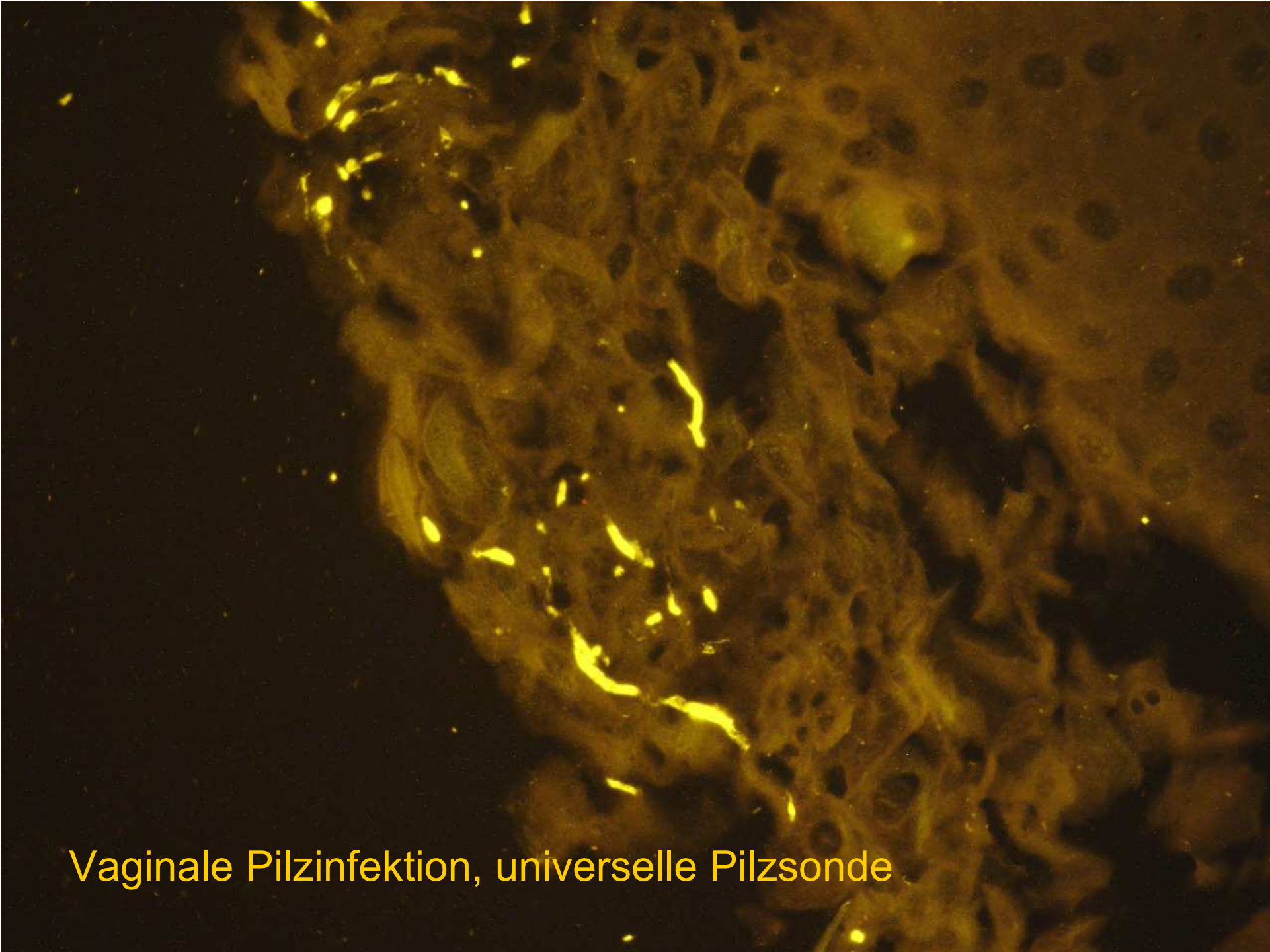


Vaginales Epithelium, postmenopausal

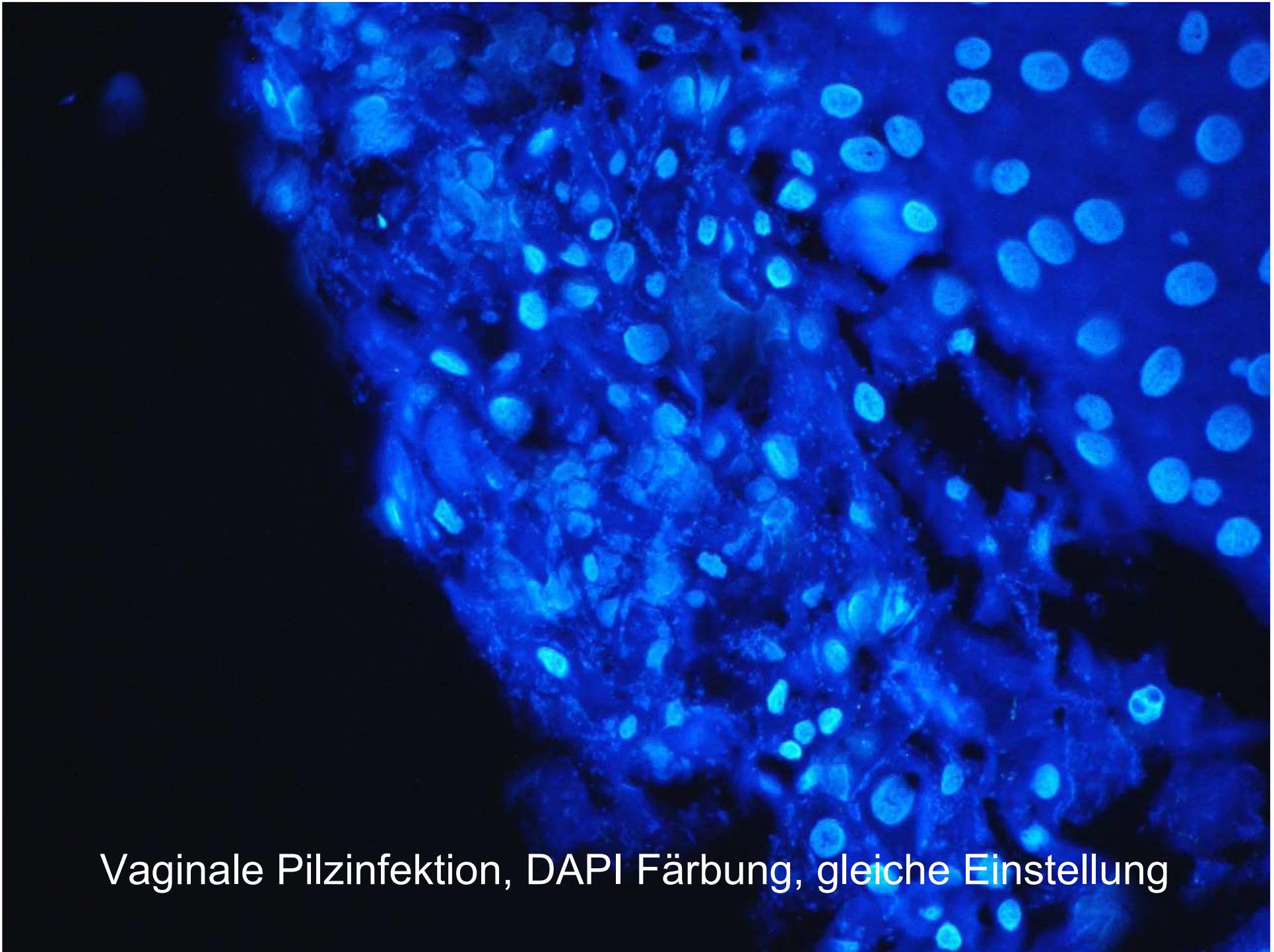


Vaginabiopsie, ausgerissene Seite  
postmenopausal

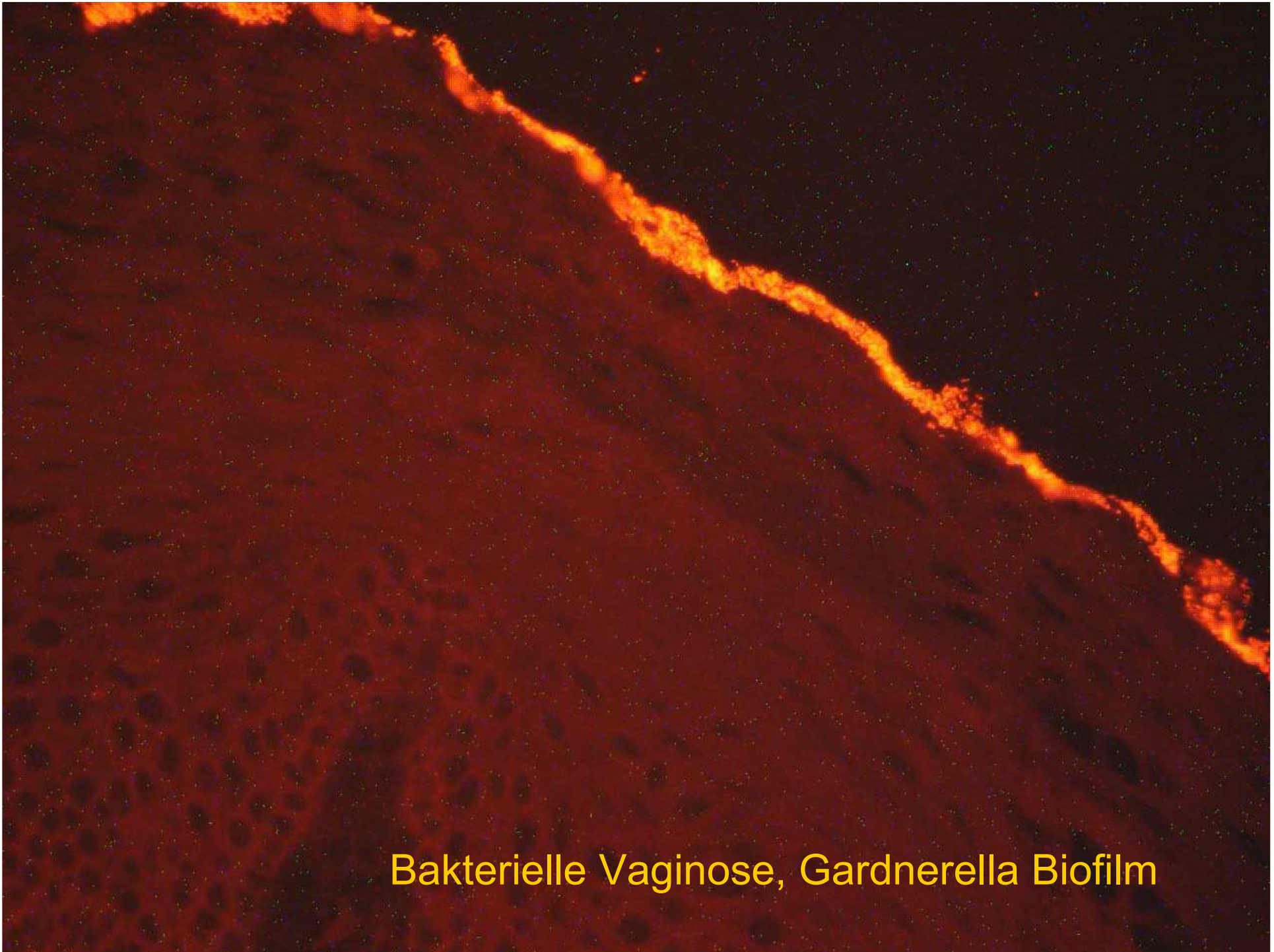




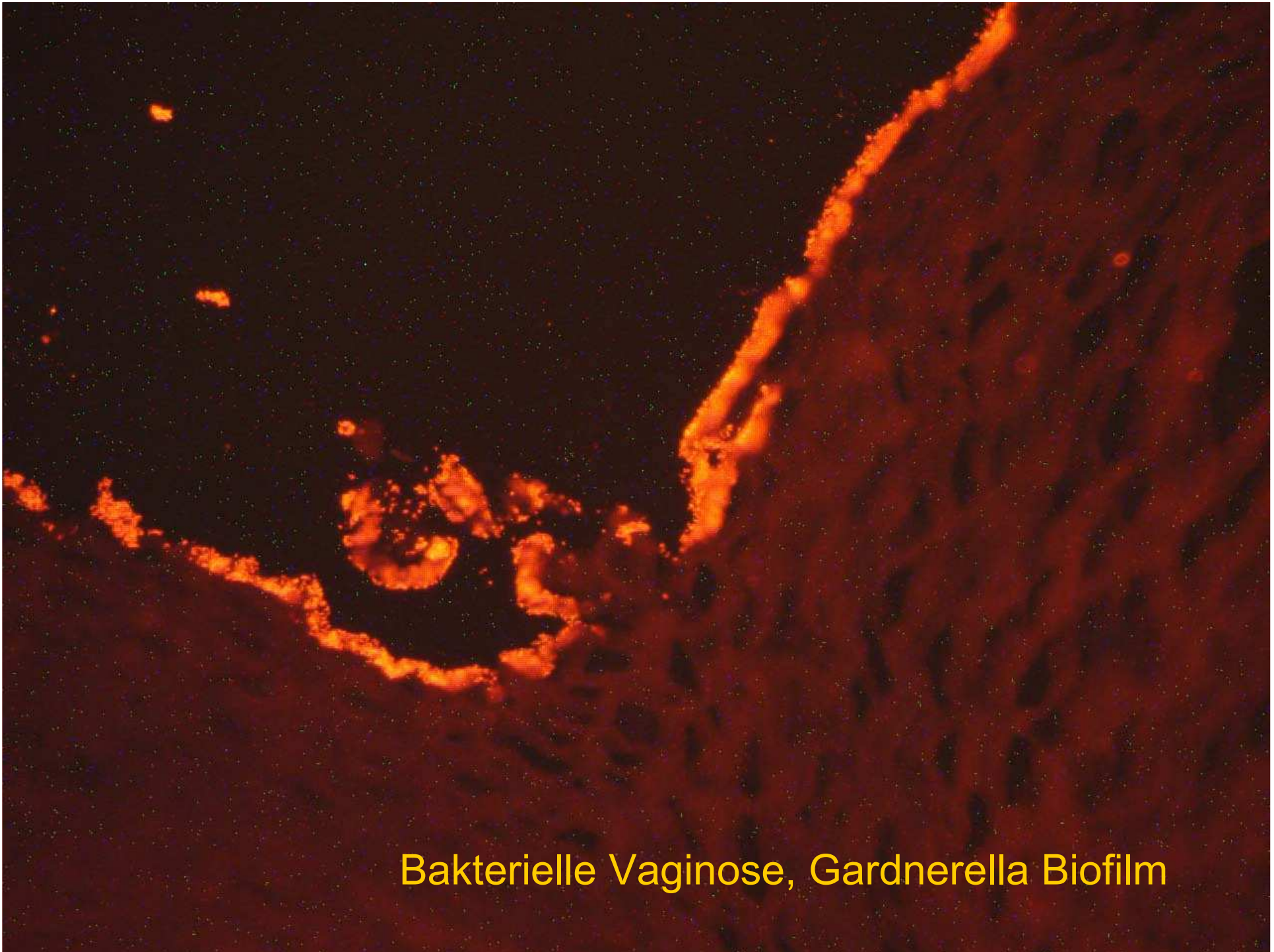
Vaginale Pilzinfektion, universelle Pilzsonde



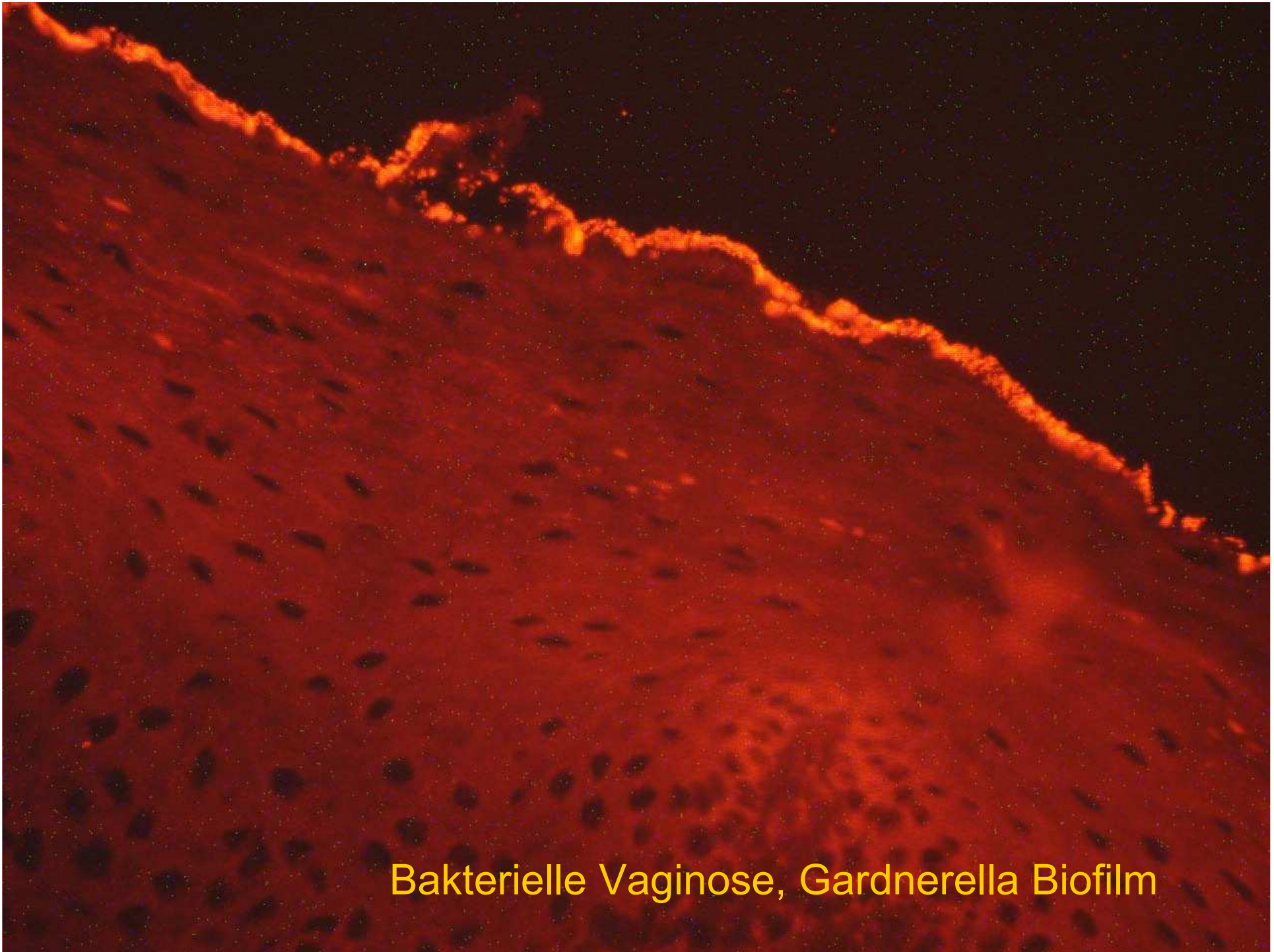
Vaginale Pilzinfektion, DAPI Färbung, gleiche Einstellung



Bakterielle Vaginose, Gardnerella Biofilm



Bakterielle Vaginose, Gardnerella Biofilm



Bakterielle Vaginose, Gardnerella Biofilm



Lactobacilli im gleichen mikroskopischen Bild

	Gesund		BV	
	Max. Konzentration ml	Vorkommen	Max. Konzentration ml	Vorkommen
<b>Alle</b>	<b>10<sup>9</sup></b>	<b>40%</b>	<b>10<sup>11</sup></b>	<b>100%</b>
<b>Gardnerella (Gard 5)</b>	<b>10<sup>7</sup></b>	<b>10%</b>	<b>10<sup>11</sup></b>	<b>100%</b>
Atopobium (Ato)	10 <sup>7</sup>	8%	10 <sup>10</sup>	60%
Lactobacillus (Lab)	<b>10<sup>9</sup></b>	<b>40%</b>	<b>10<sup>9</sup></b>	<b>80%</b>
Coriobacterium (Cor)	10 <sup>7</sup>	5%	10 <sup>8</sup>	17%
Enterobacteriaceae (Ebac)	0	0	10 <sup>6</sup>	10%
Bacteroides (Bac)	0	0	10 <sup>6</sup>	5%
Veillonella (Veil)	0	0	10 <sup>6</sup>	8%
Cytophaga-Flavobacteria (CF)	0	0	10 <sup>6</sup>	10%
Clostridien (Clit, Chis, Erec)	0	0	10 <sup>6</sup>	3%
Fusobacterien (Fus)	0	0	10 <sup>6</sup>	5%



Bakterielle Vaginose, modifizierte Gramfärbung





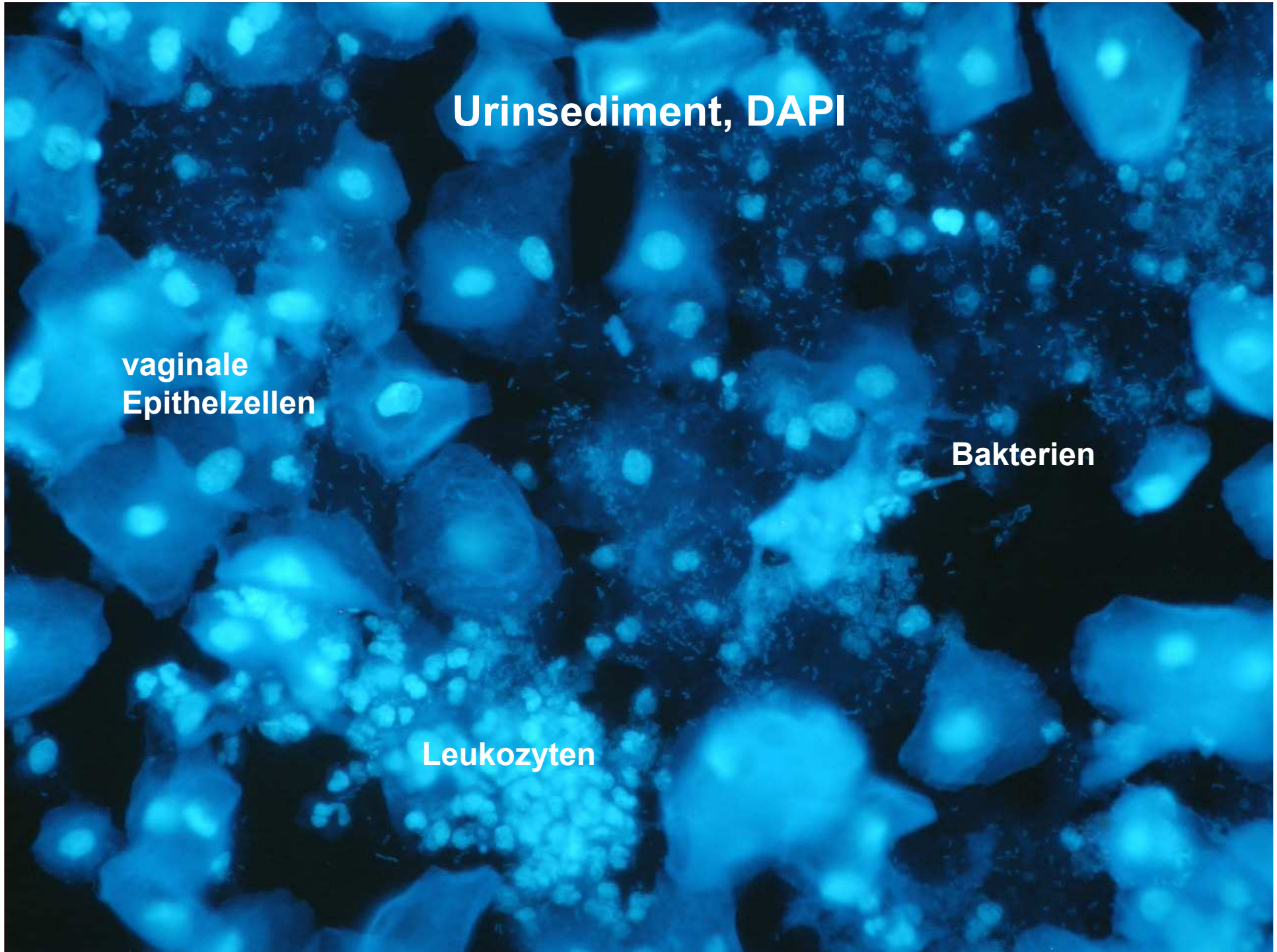
Bakterielle Vaginose, modifizierte Gramfärbung

# Urinsediment, DAPI

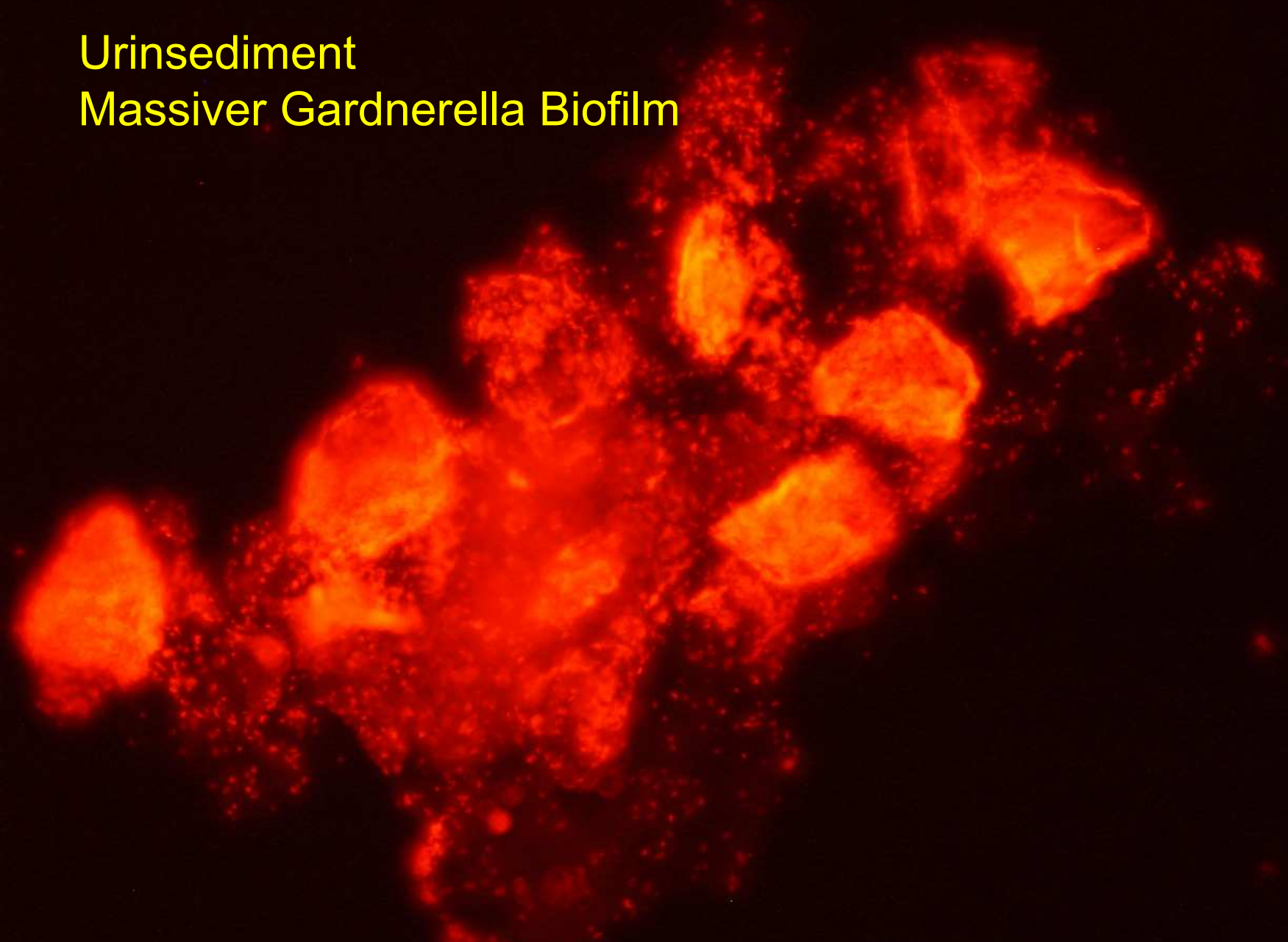
vaginale  
Epithelzellen

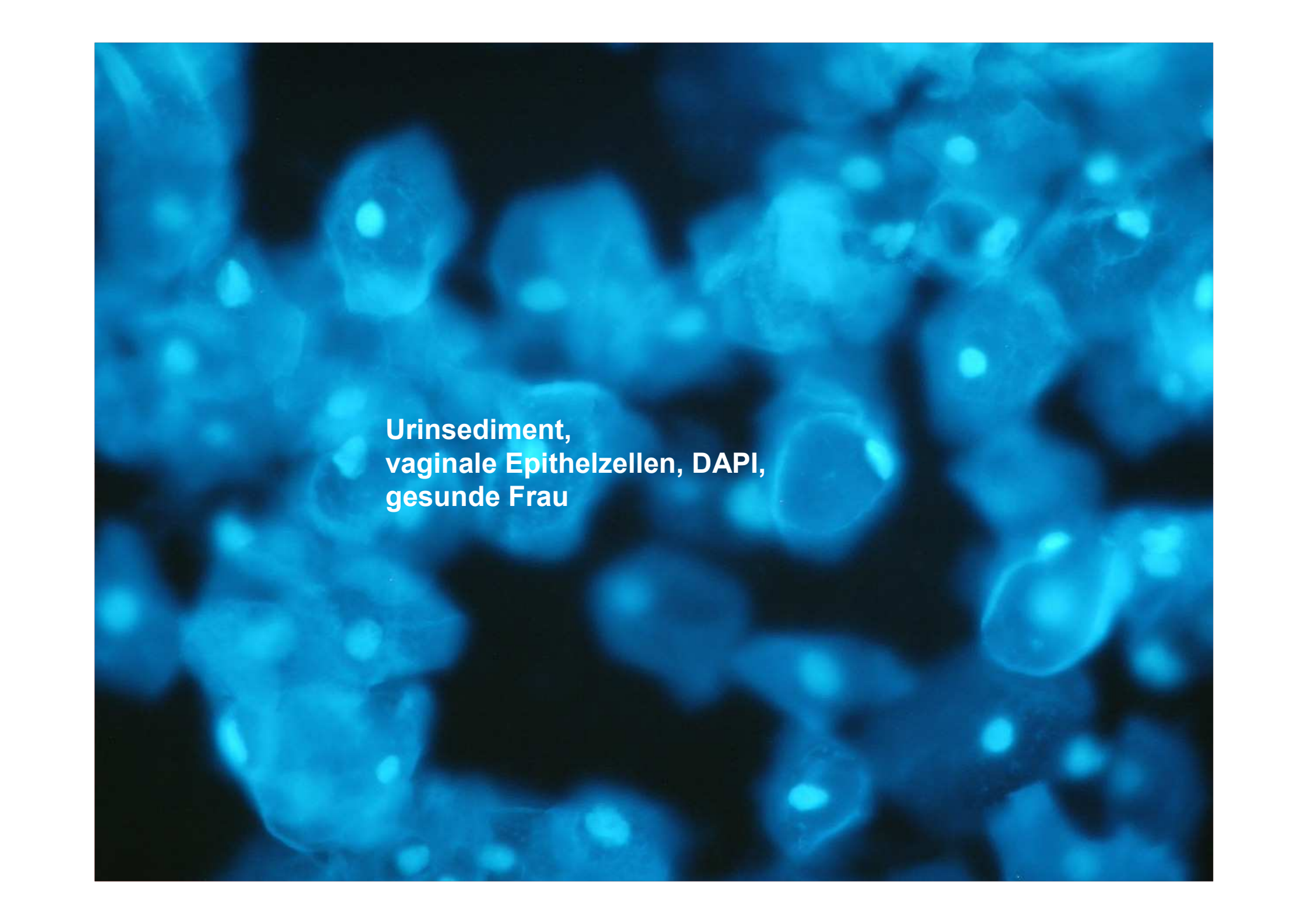
Bakterien

Leukozyten

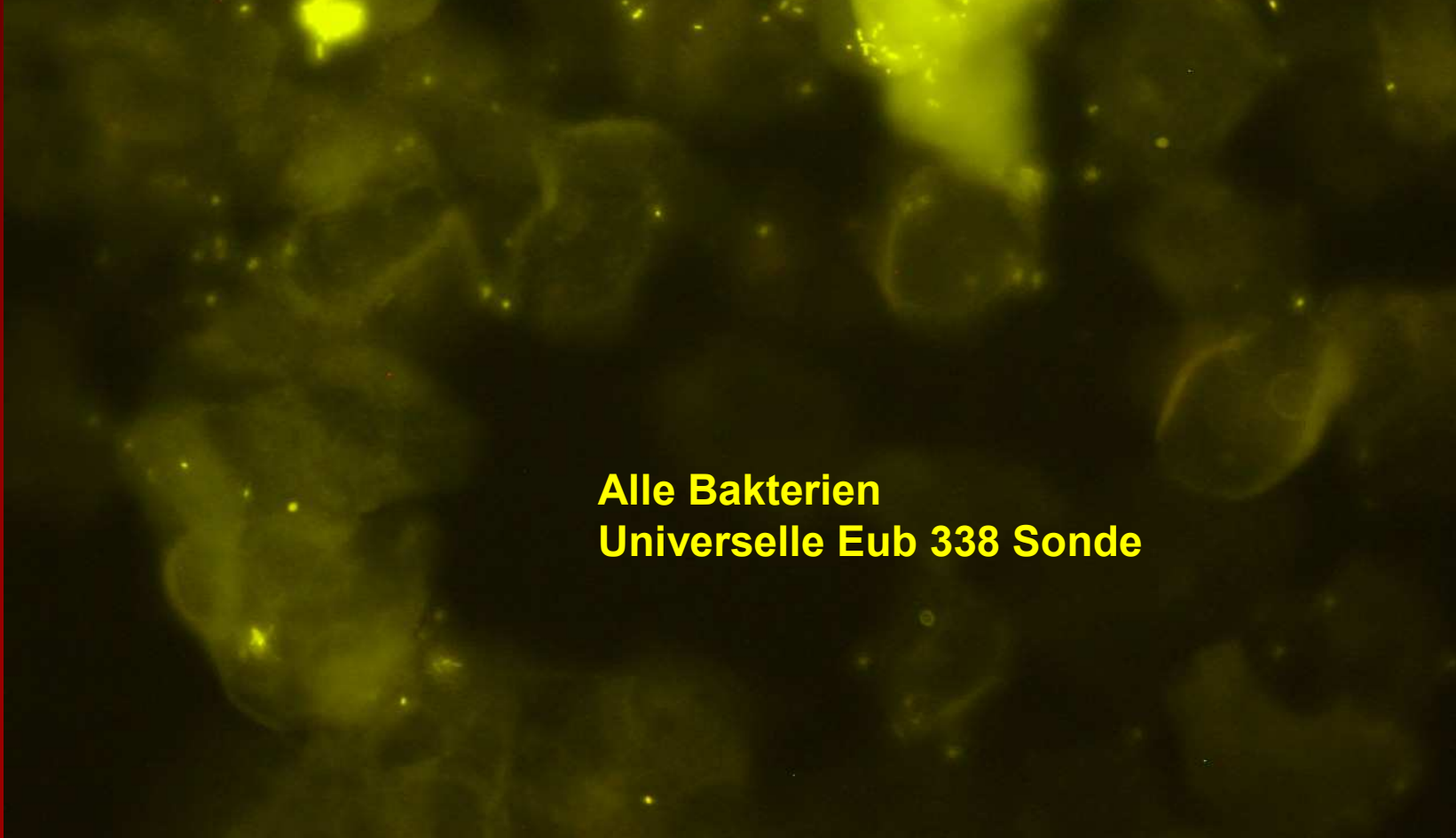
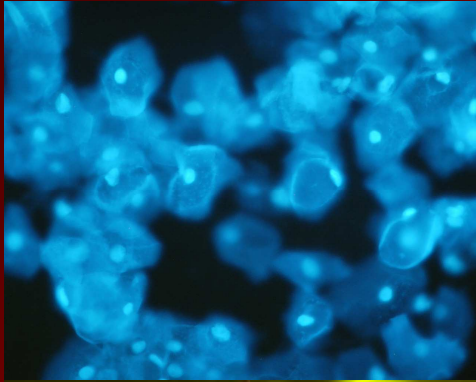


Urinsediment  
Massiver Gardnerella Biofilm

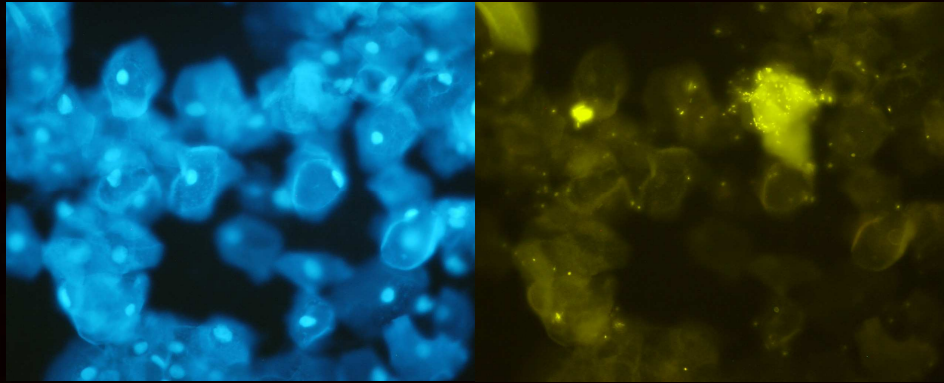




Urinsediment,  
vaginale Epithelzellen, DAPI,  
gesunde Frau

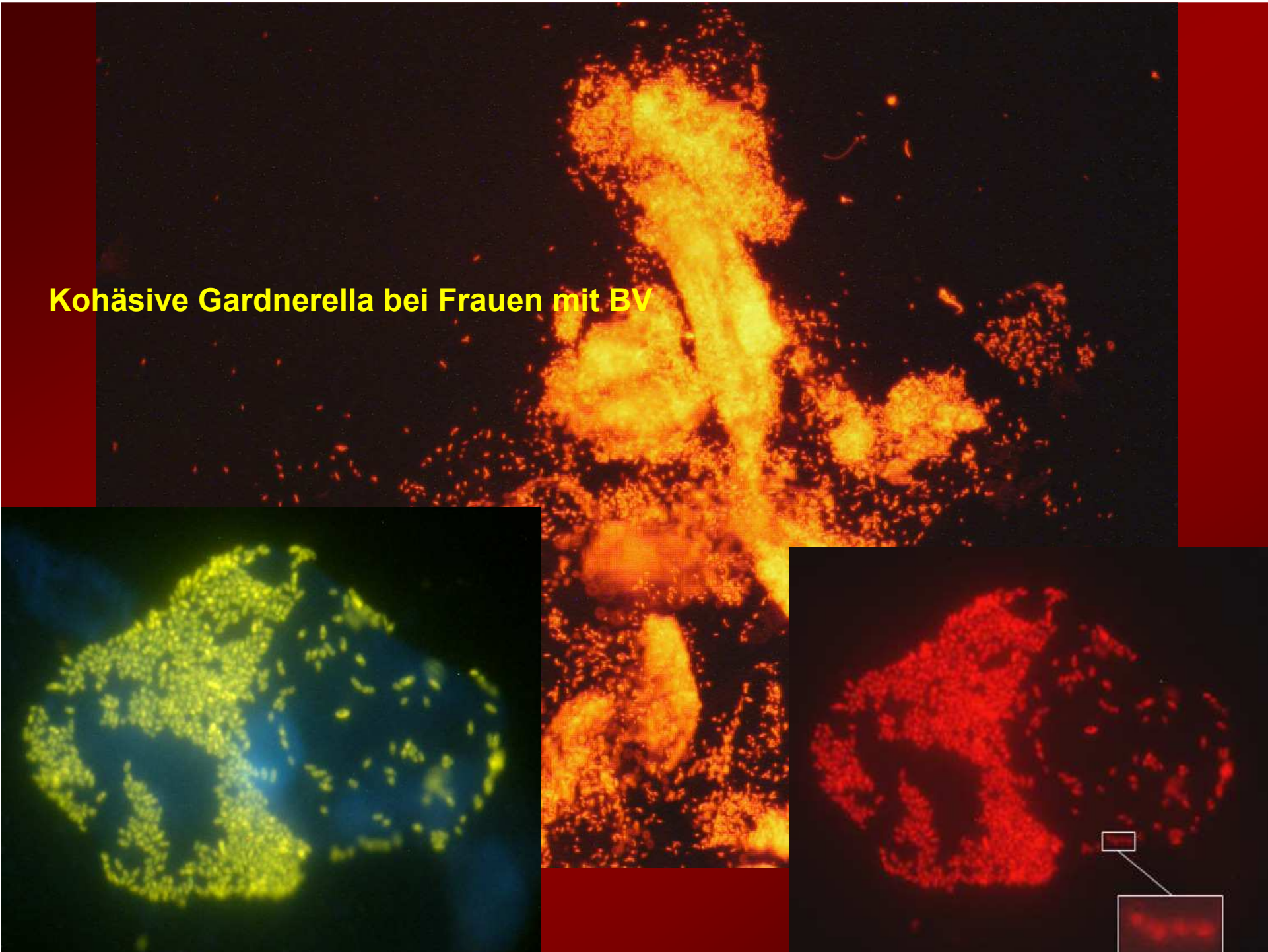


**Alle Bakterien  
Universelle Eub 338 Sonde**



**Solitäre Gardnerella (rote Fluoreszenz) im Verhältnis zu allen  
Bakterien und vaginalen Epithelzellen**

**Kohäsive Gardnerella bei Frauen mit BV**



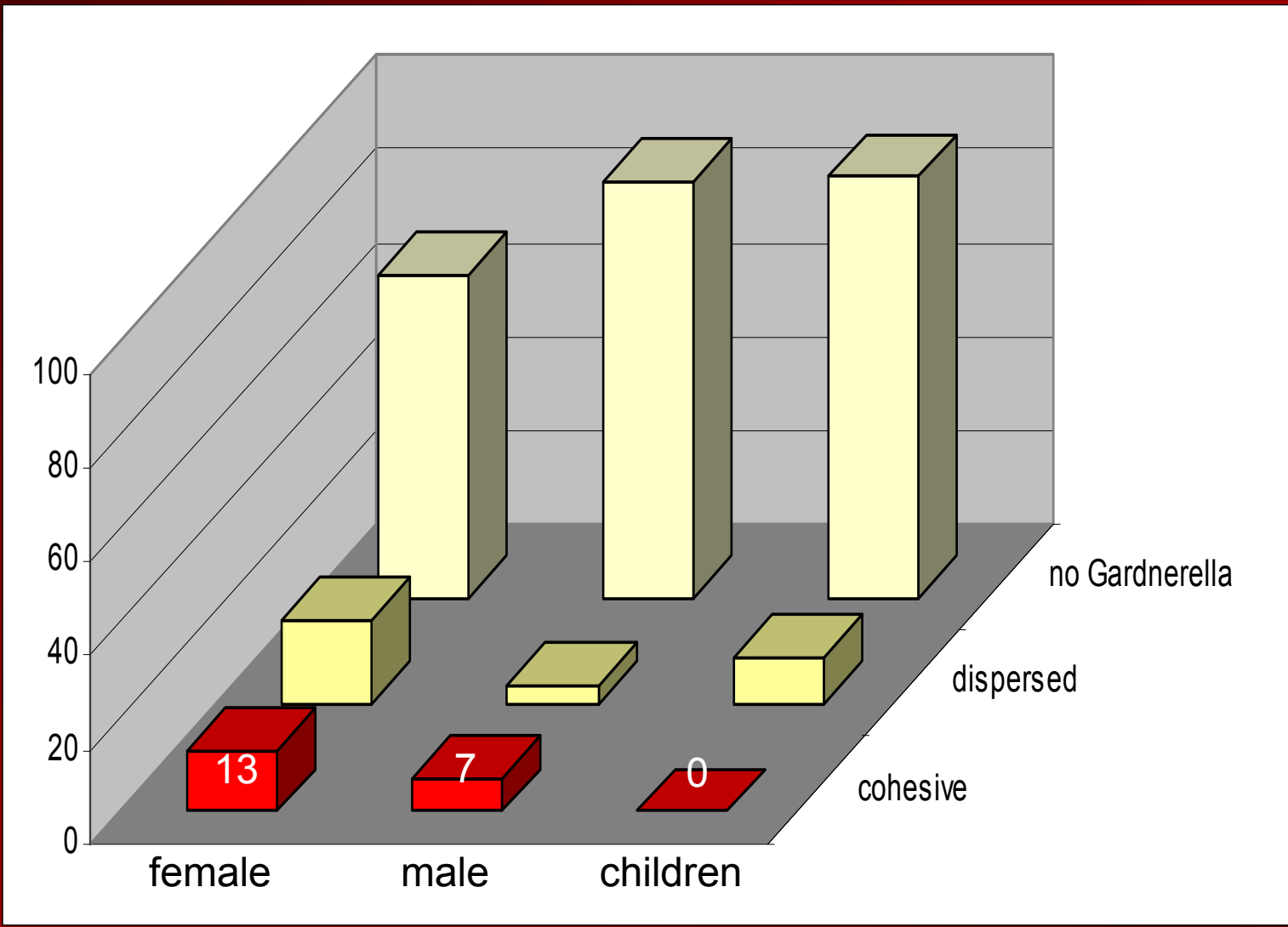


**Mehrfarben-FISH: Gardnerella rot, Lactobacilli orange  
Symptomatische BV**

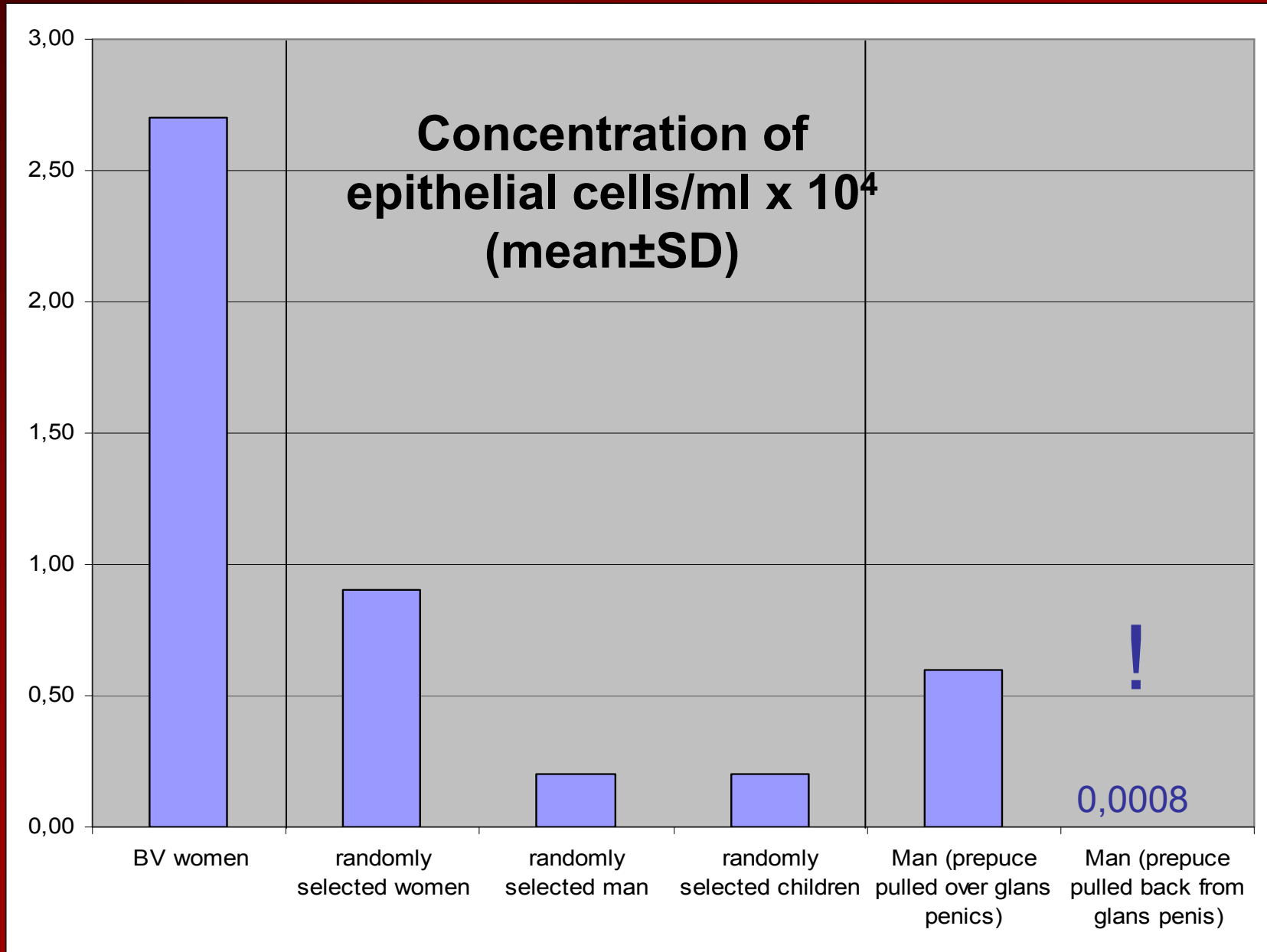


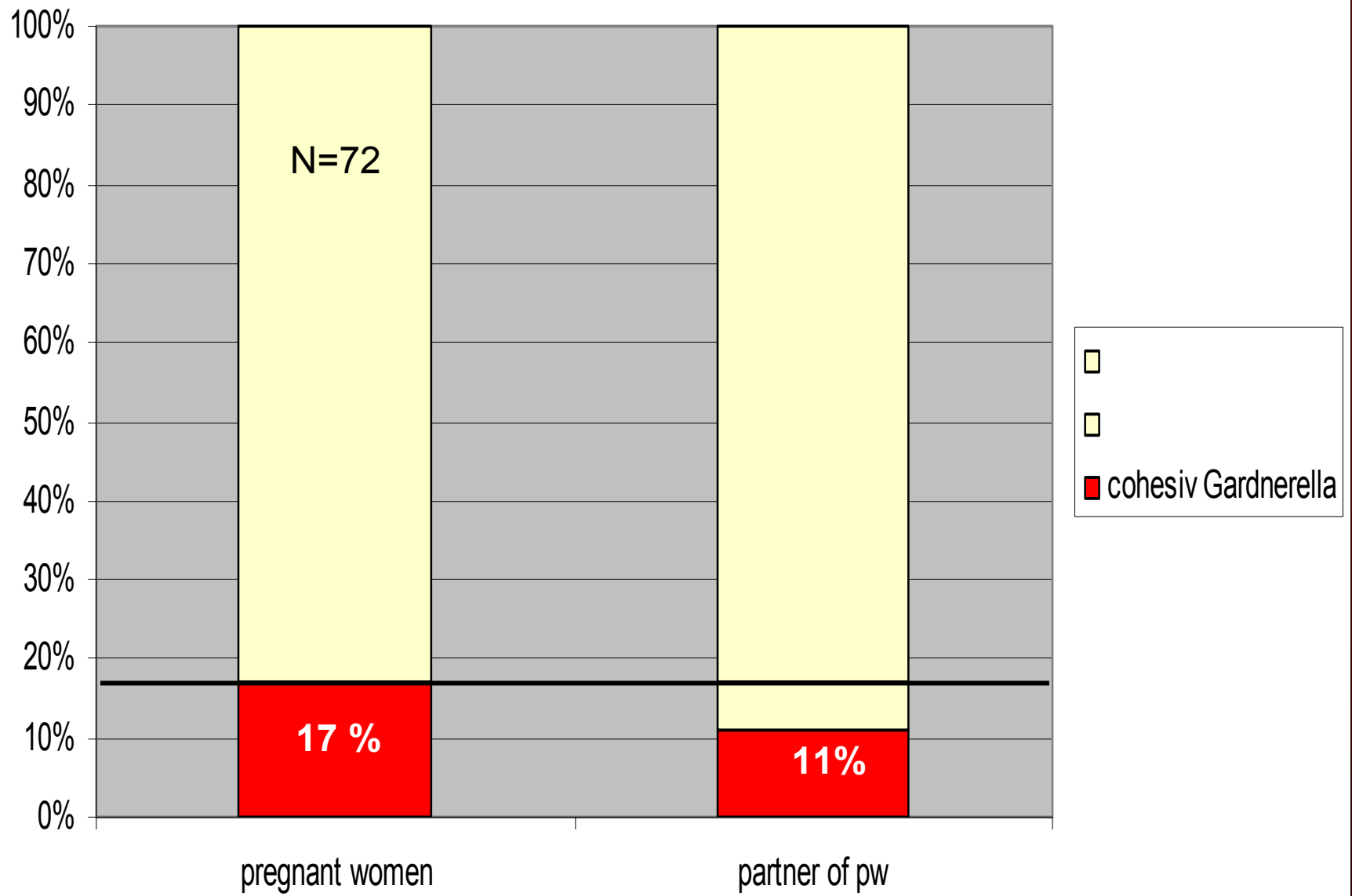


**Zellen im Urin, Gardnerella Sonde, gesunder Mann**

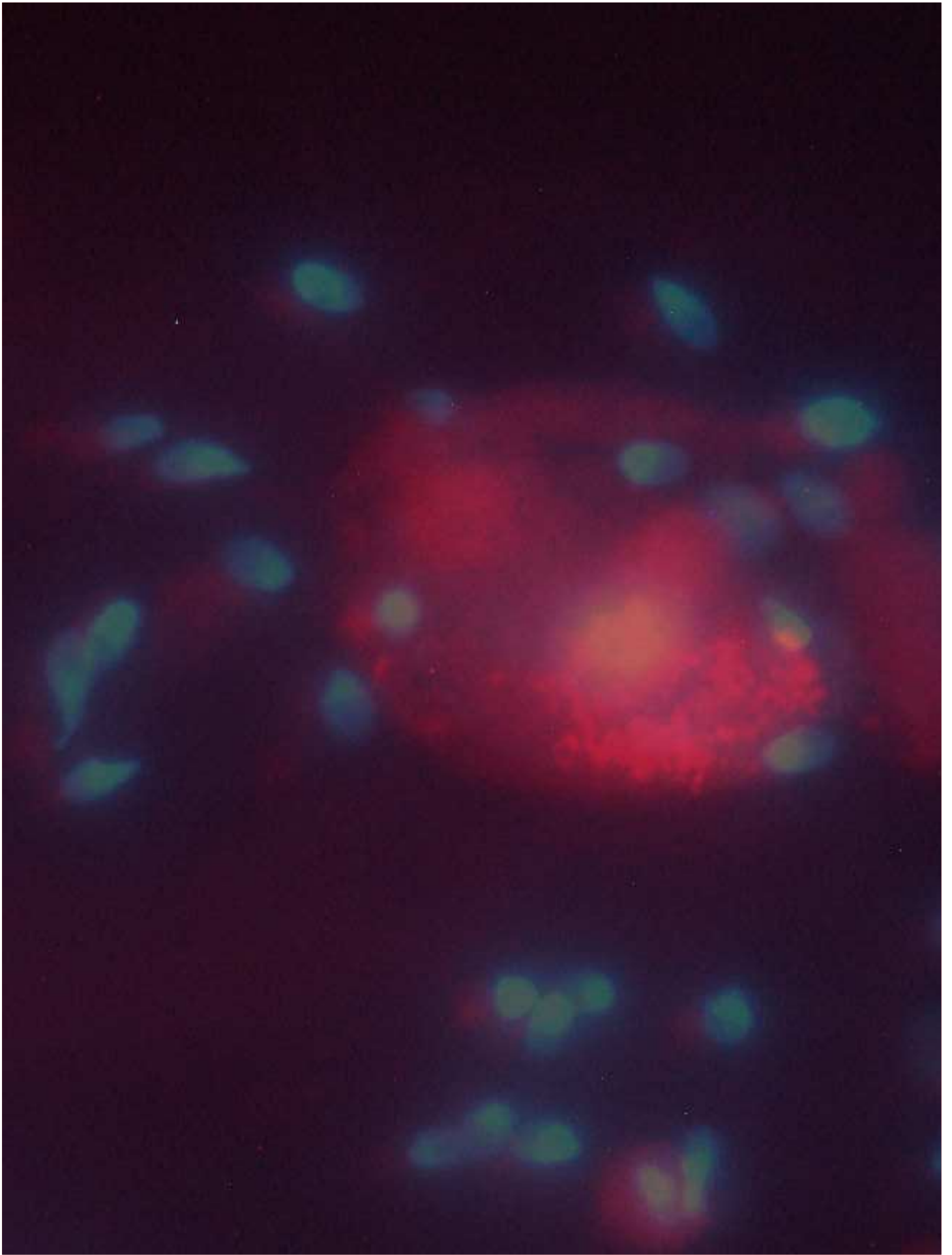


*G. vaginalis* in Urinproben von unausgewählten stationären Patienten

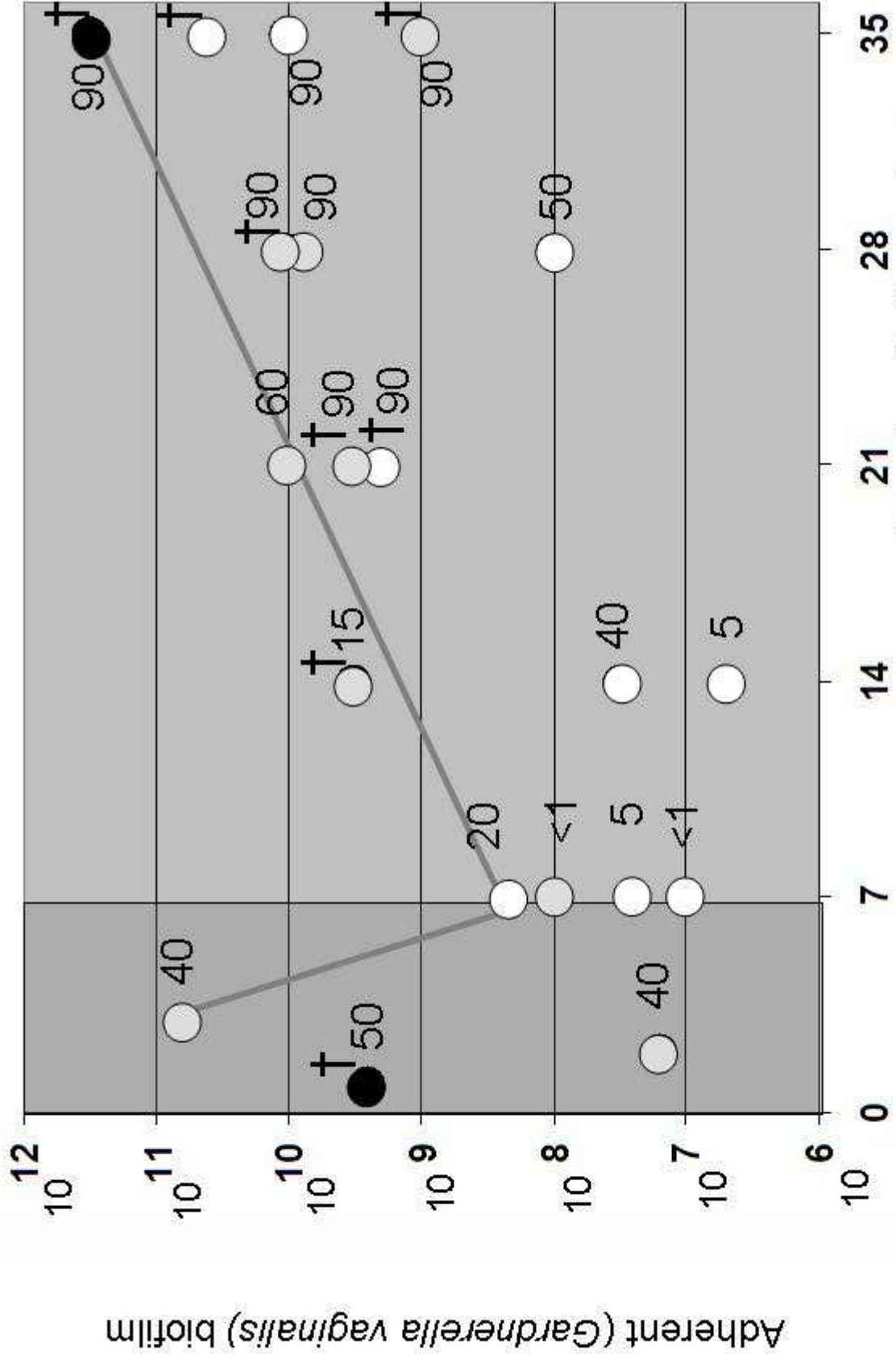




# Fertilisierung



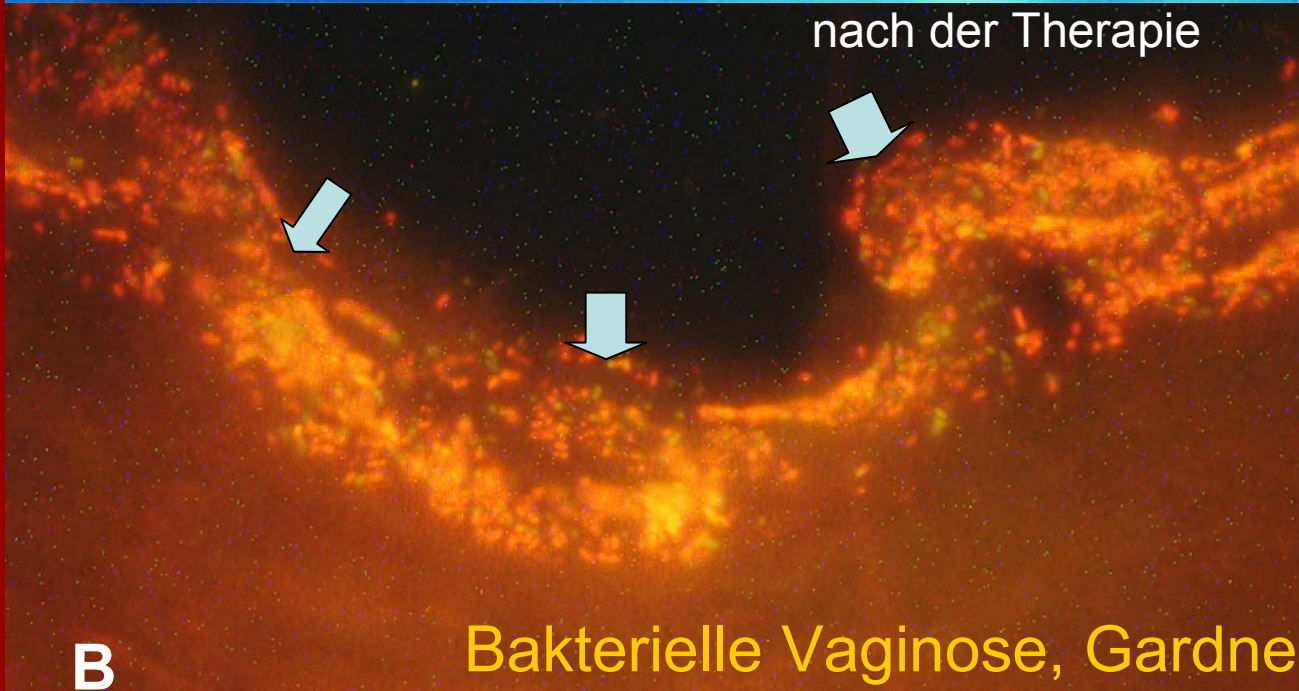
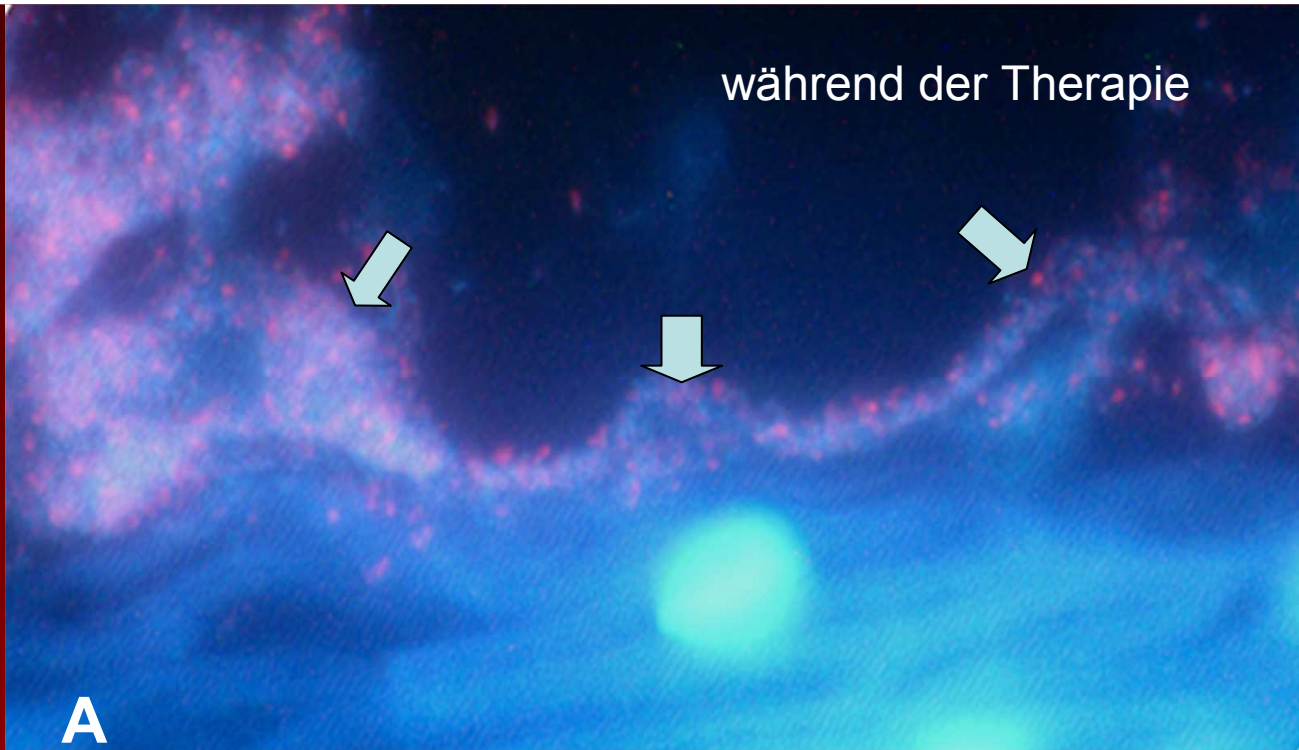
# Behandlung



● pH ≥ 6, clue cells    ○ 5 ≥ pH < 6, disturbed flora    ○ pH < 5 no abnormality

1-90 Percent of DAPI stained bacteria, which positively hybridize with universal bacterial probe



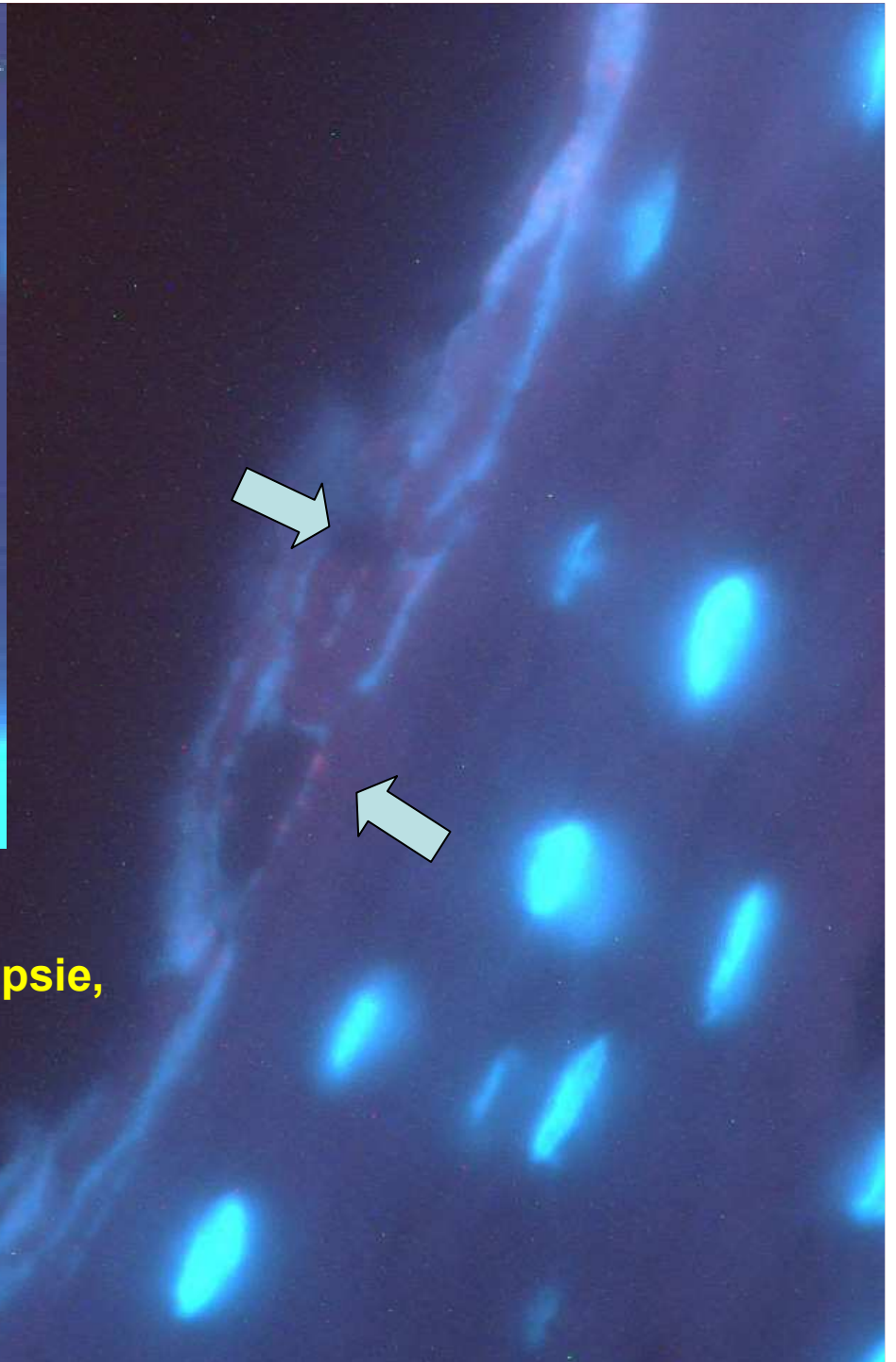
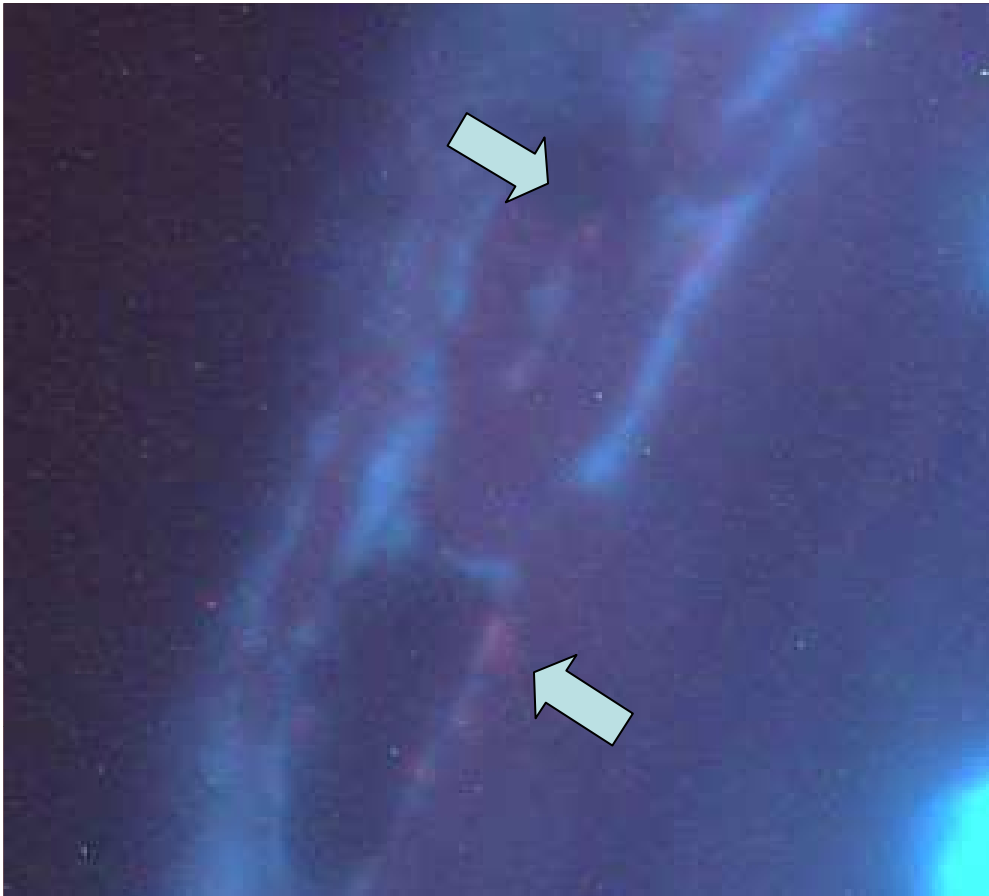


Bakterielle Vaginose, Gardnerella Biofilm

**Avalox**

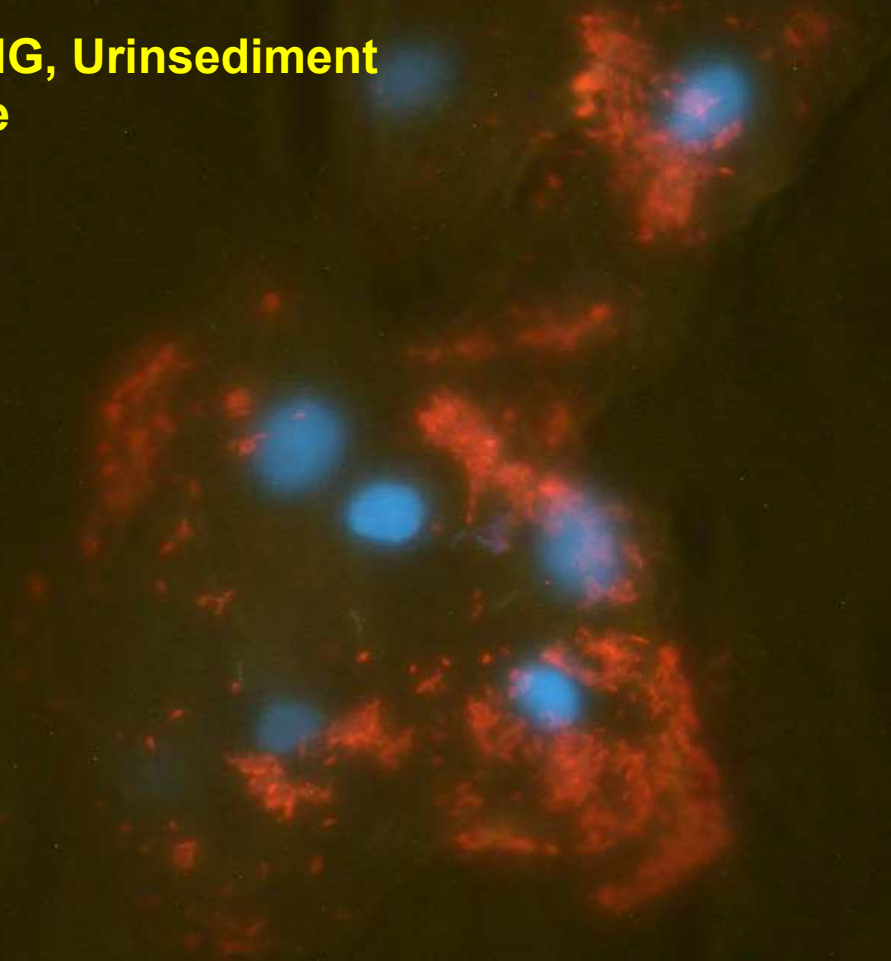


**A Patient NG, Urinsediment vor Avaloxtherapie**

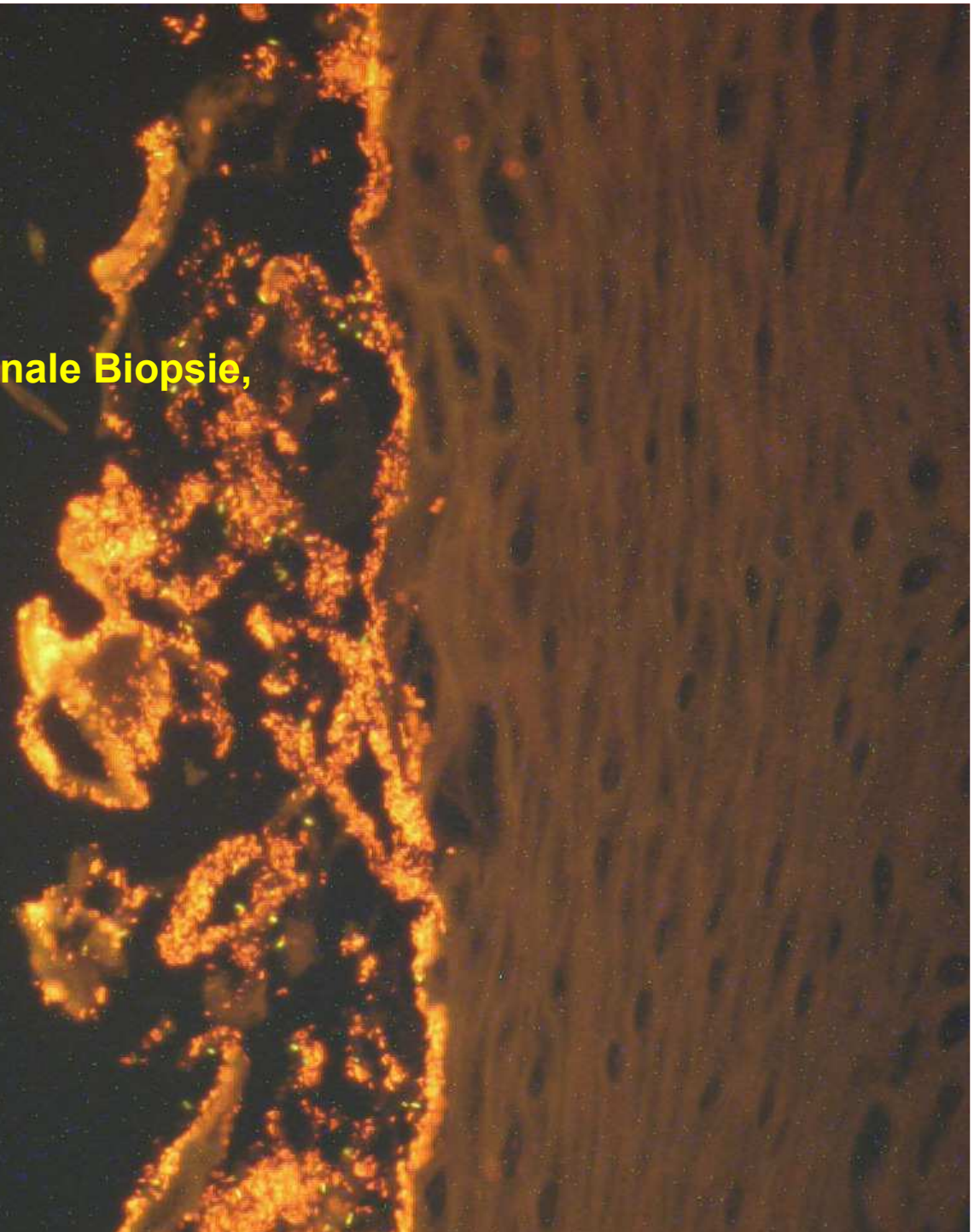


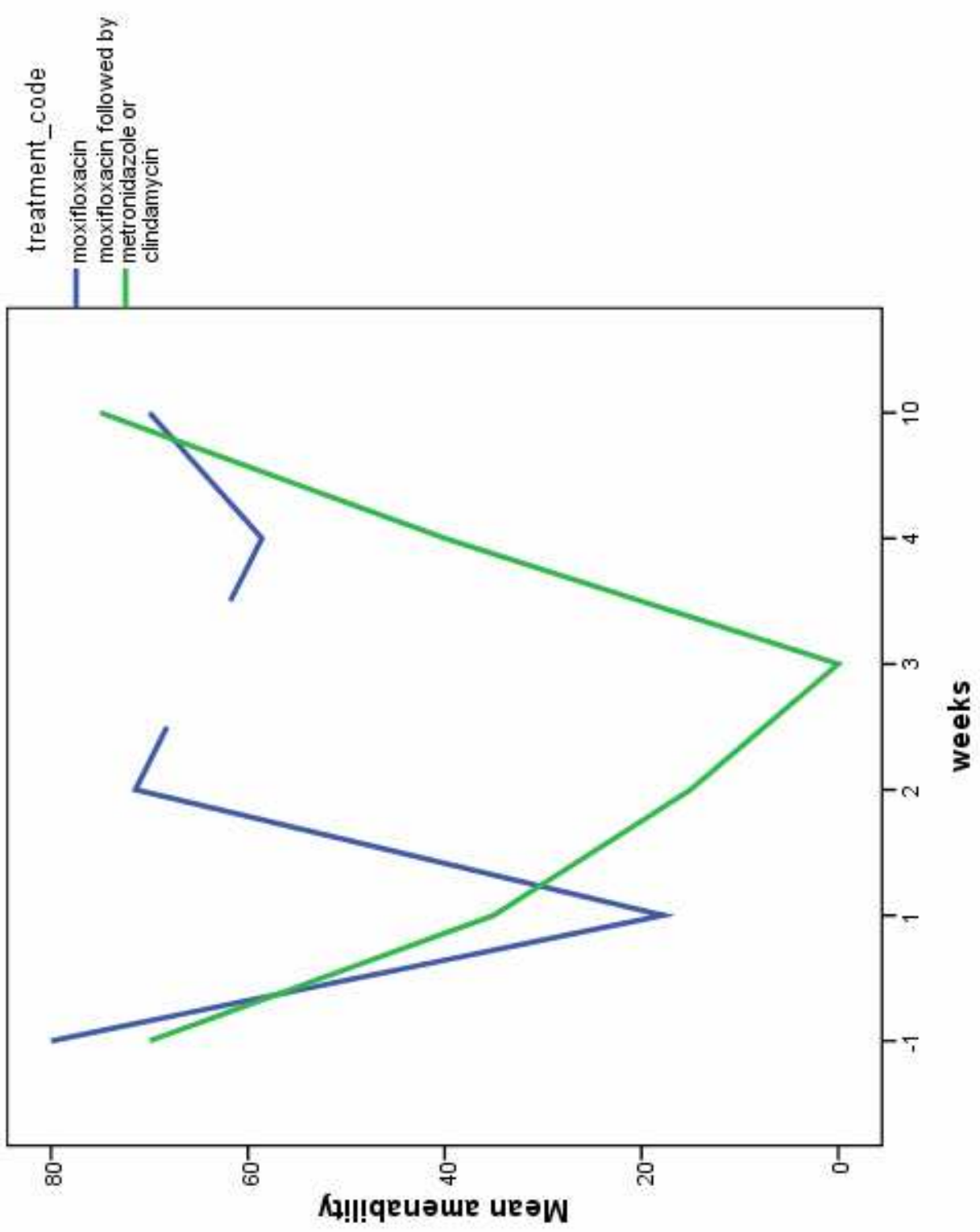
**B** Patient NG, vaginale Biopsie,  
Tag 5 Avaloxtherapie

**C**      **Patient NG, Urinsediment**  
**3. Woche**



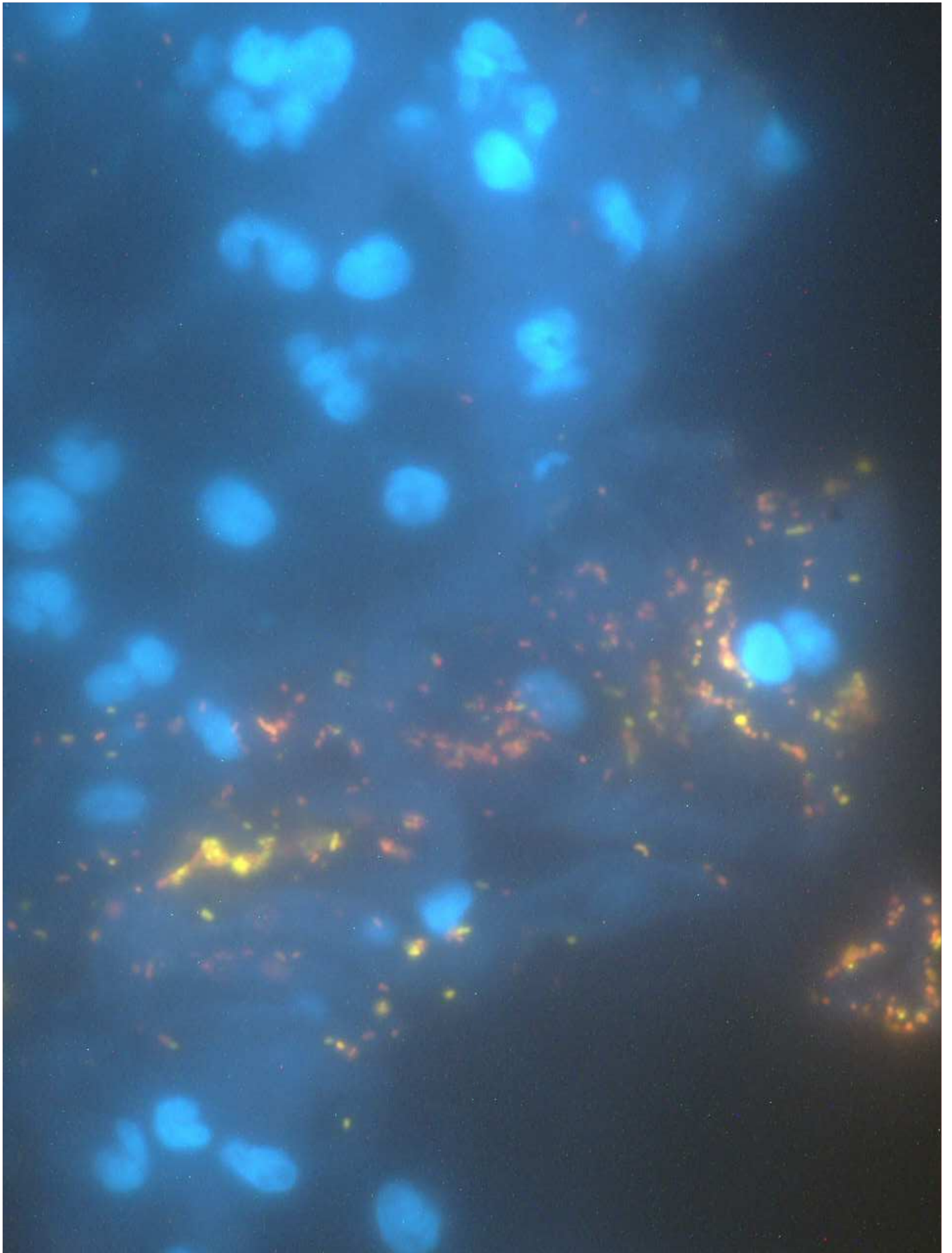
**D** Patient NG, vaginale Biopsie,  
12. Woche

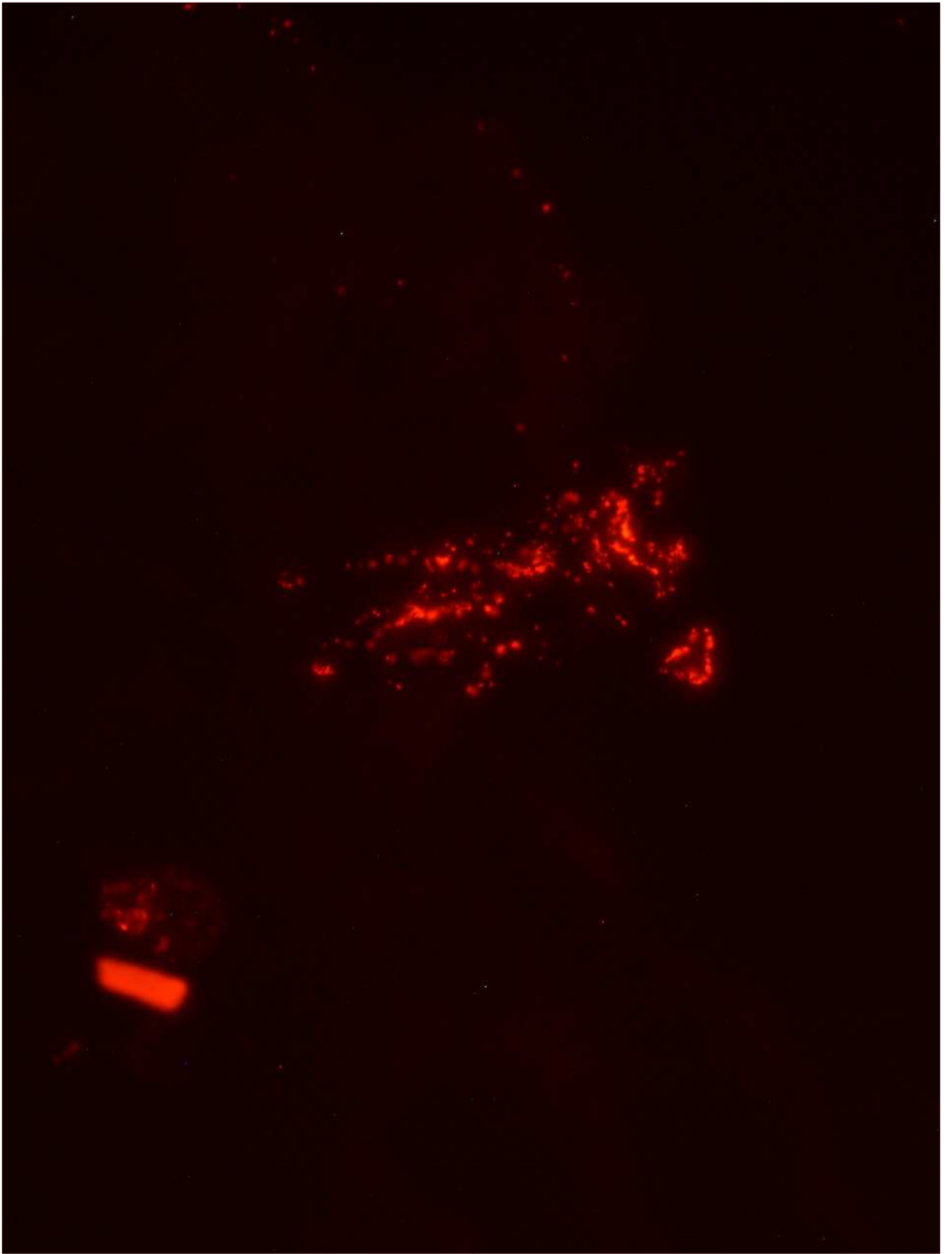




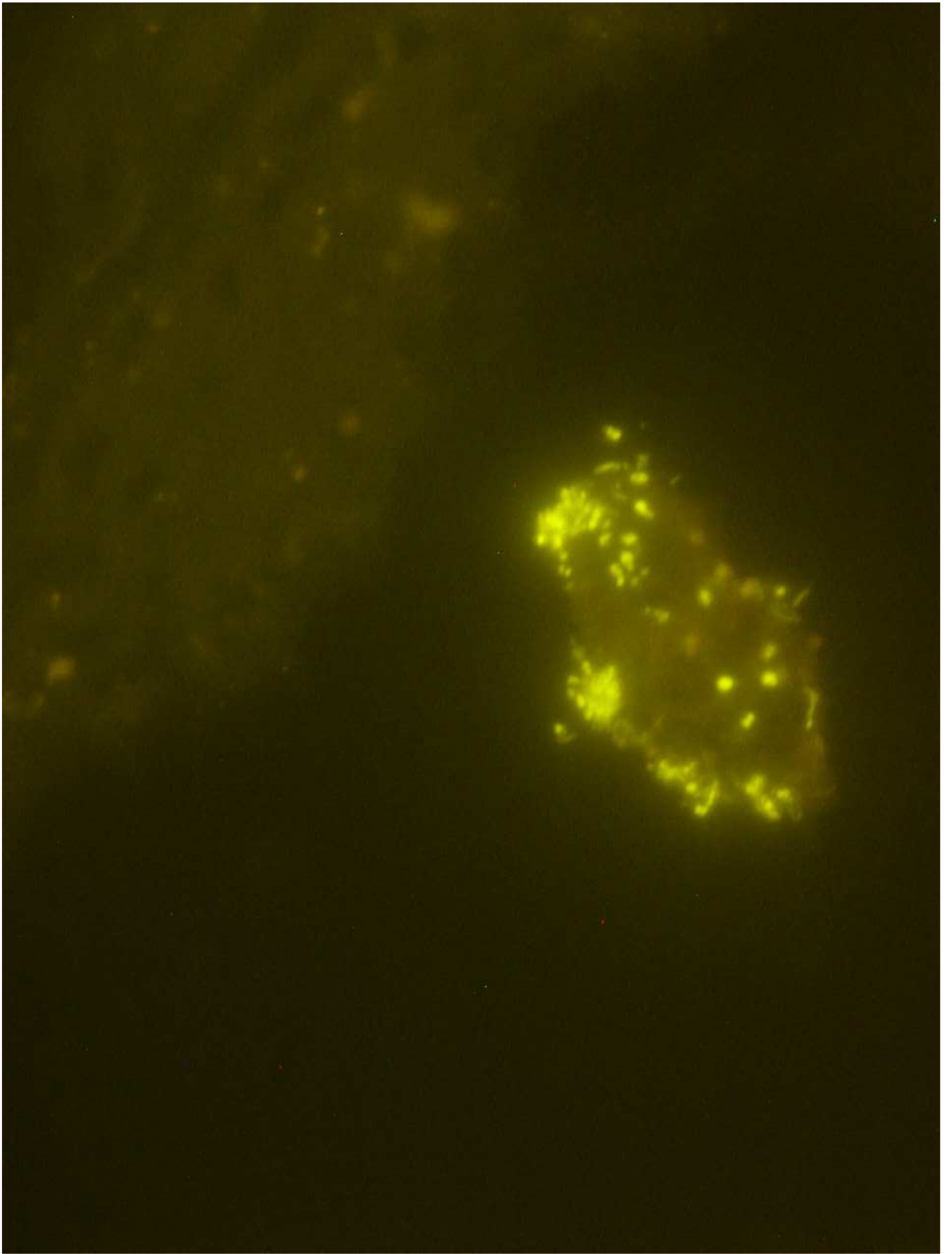
Uterus

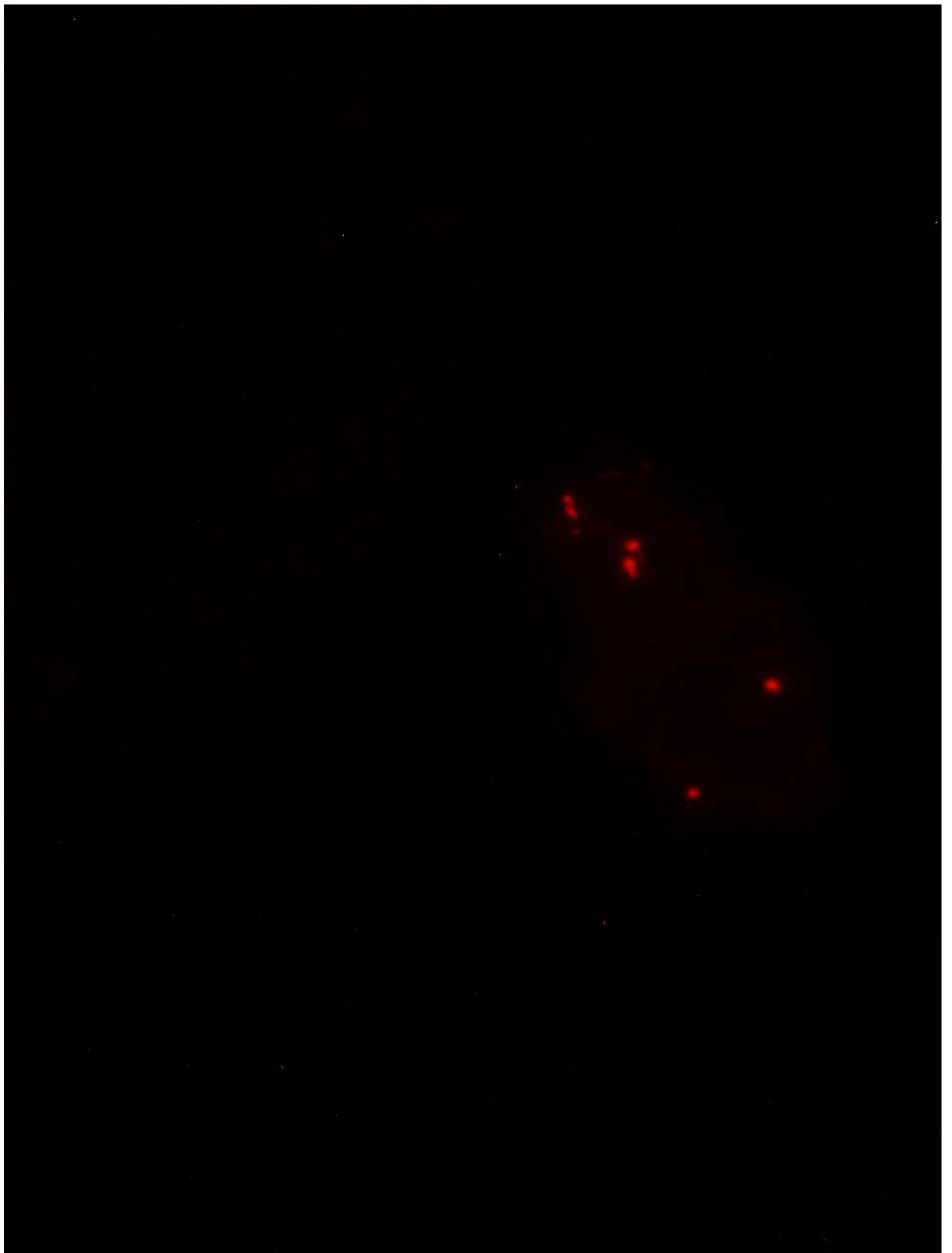




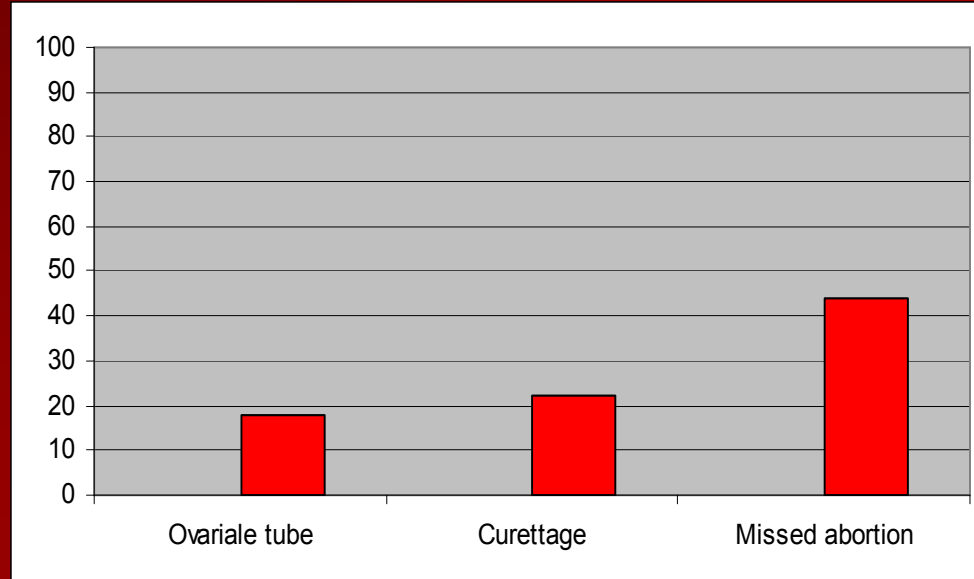


Tube

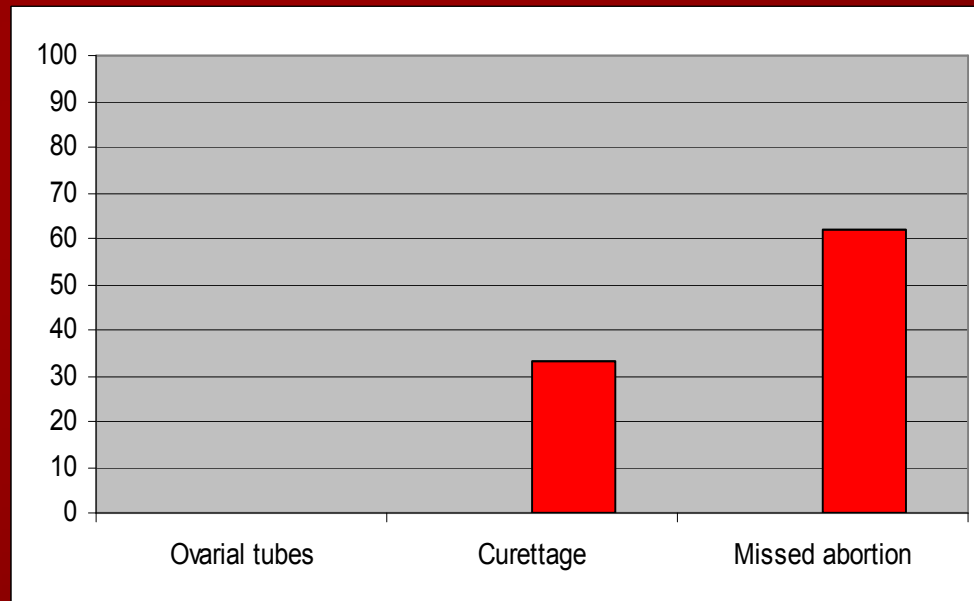




## Häufigkeit von BV bei Frauen mit Eingriffen

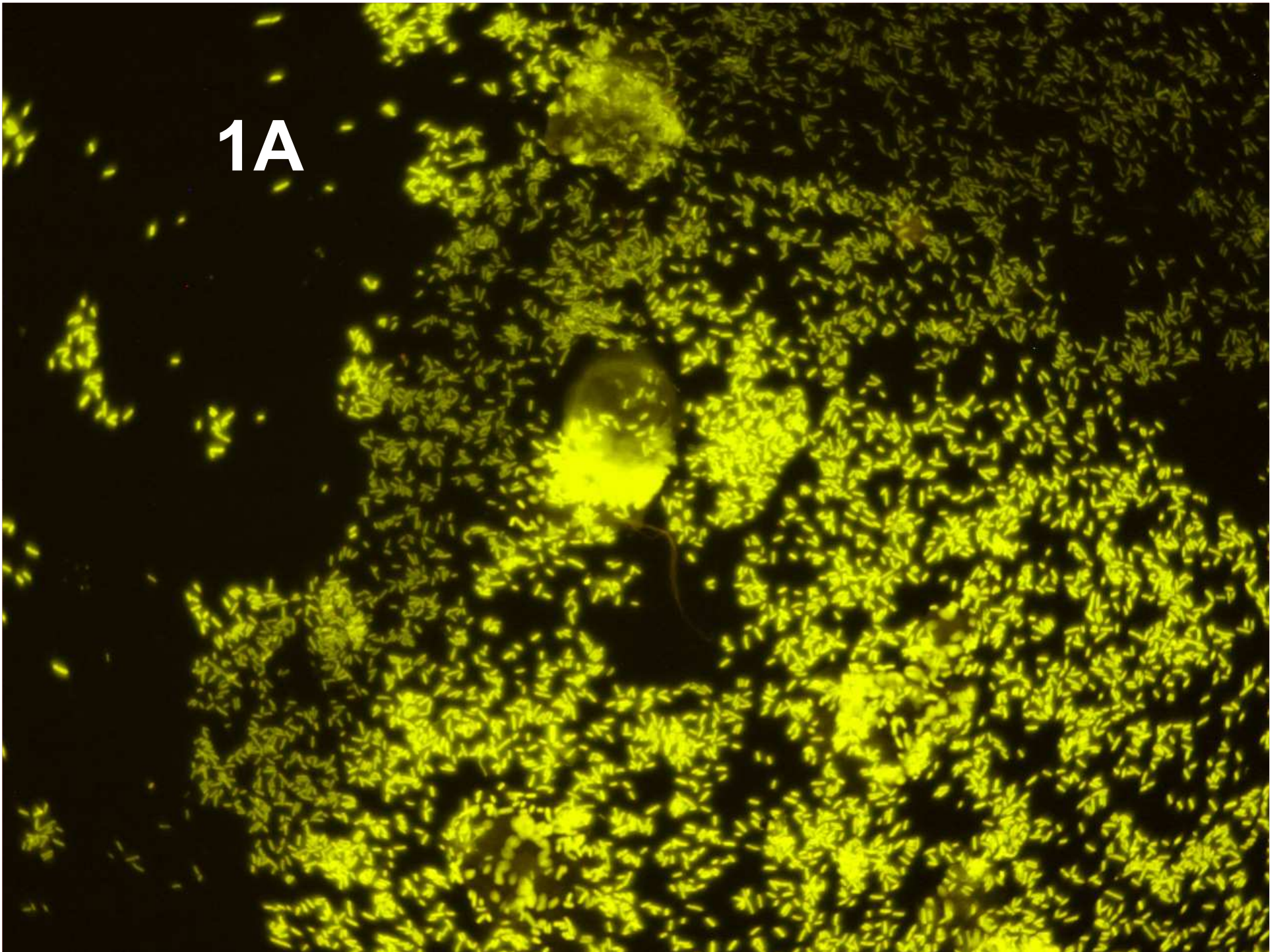


## Häufigkeit von Gardnerella im Uterus oder OT bei Frauen mit BV



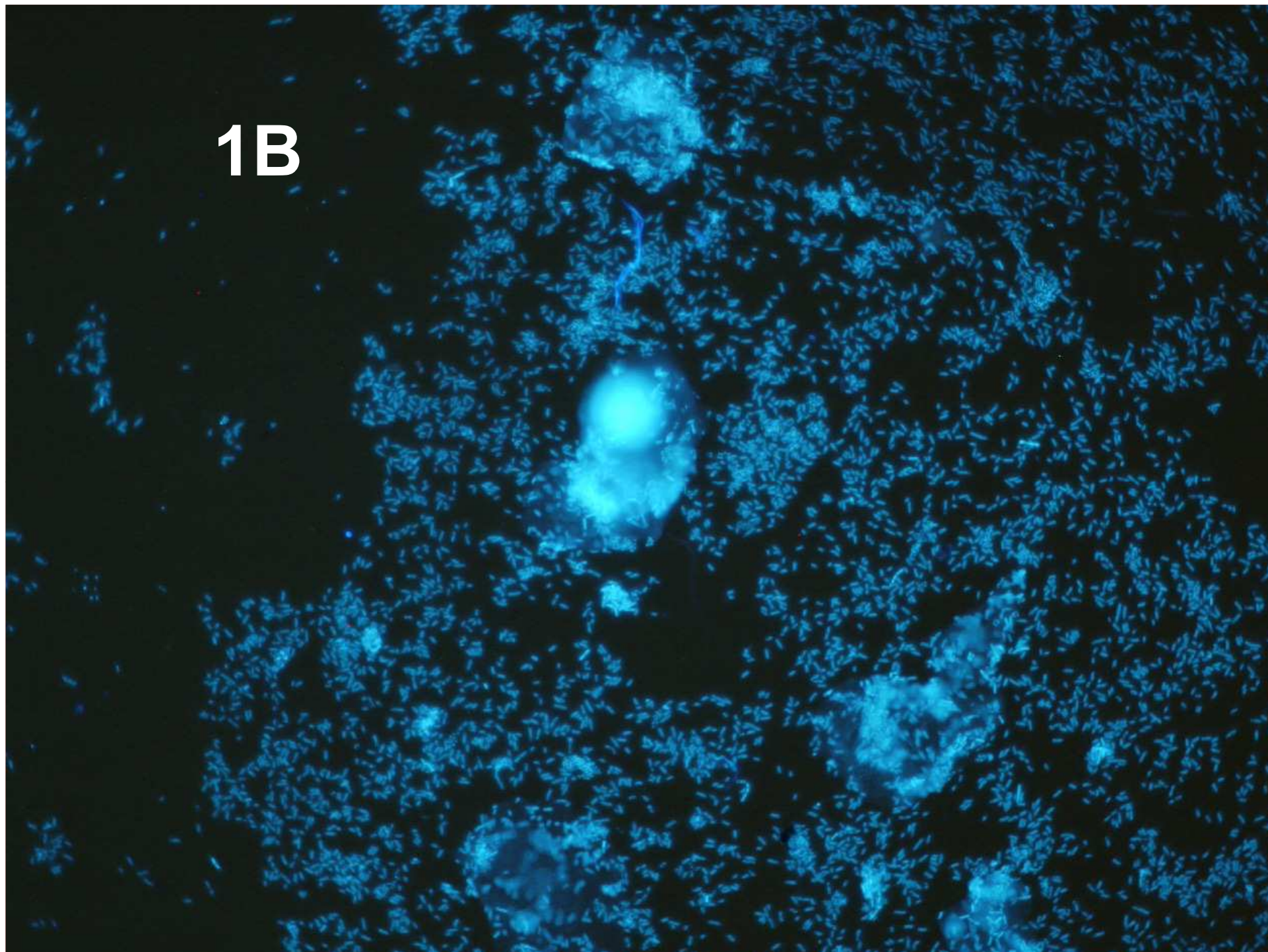
# Zystitis

1A

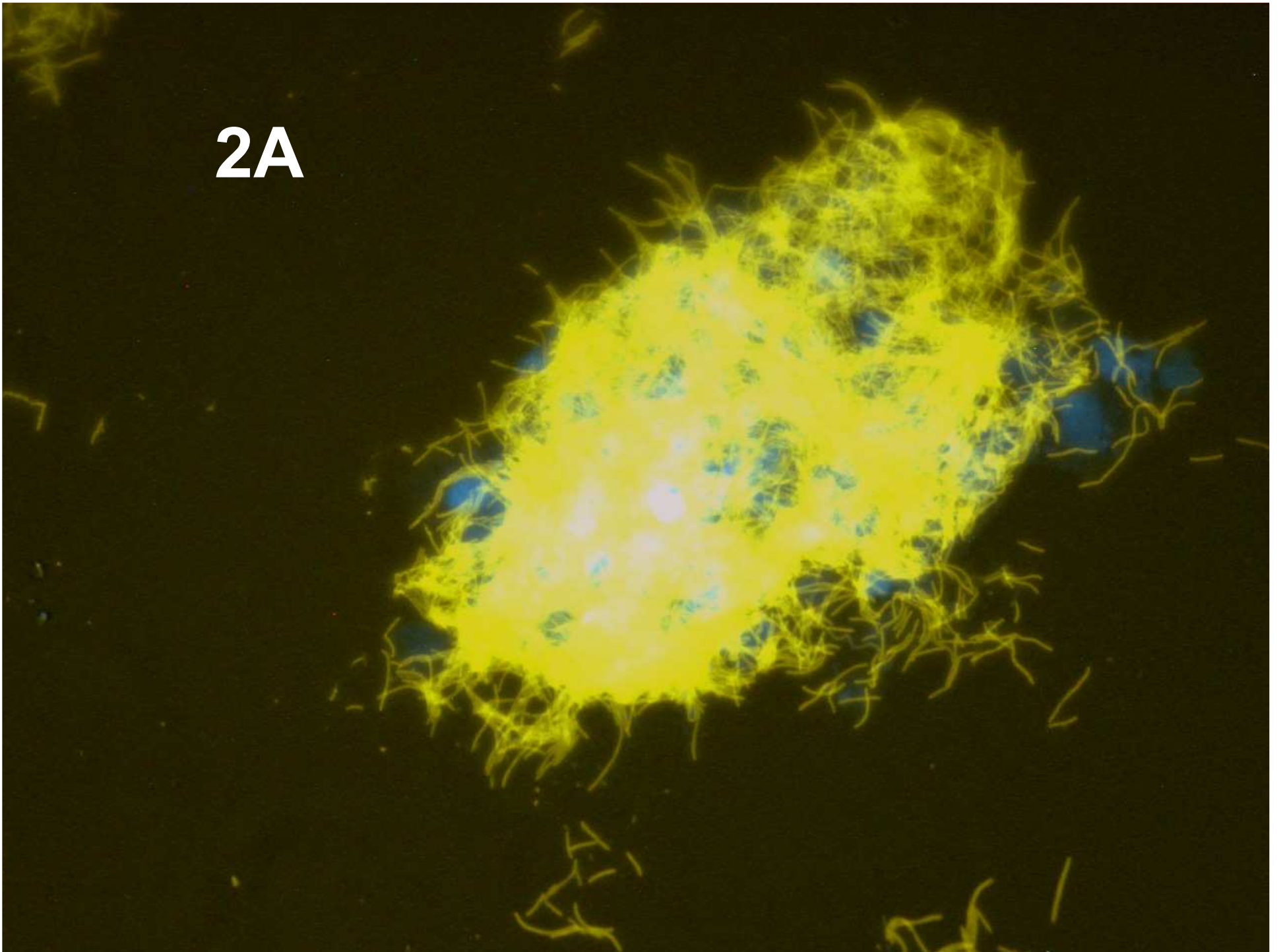




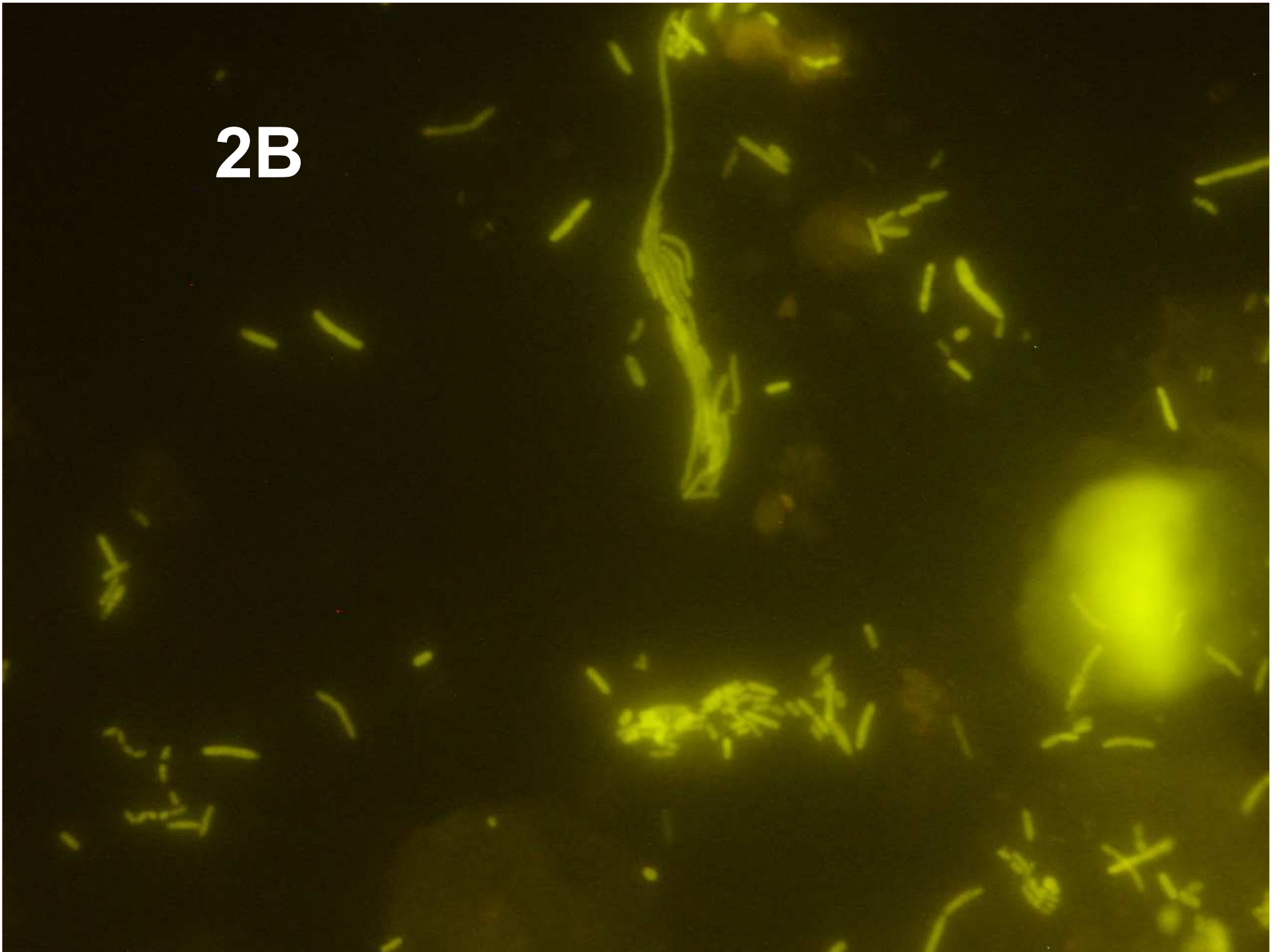
1B



2A

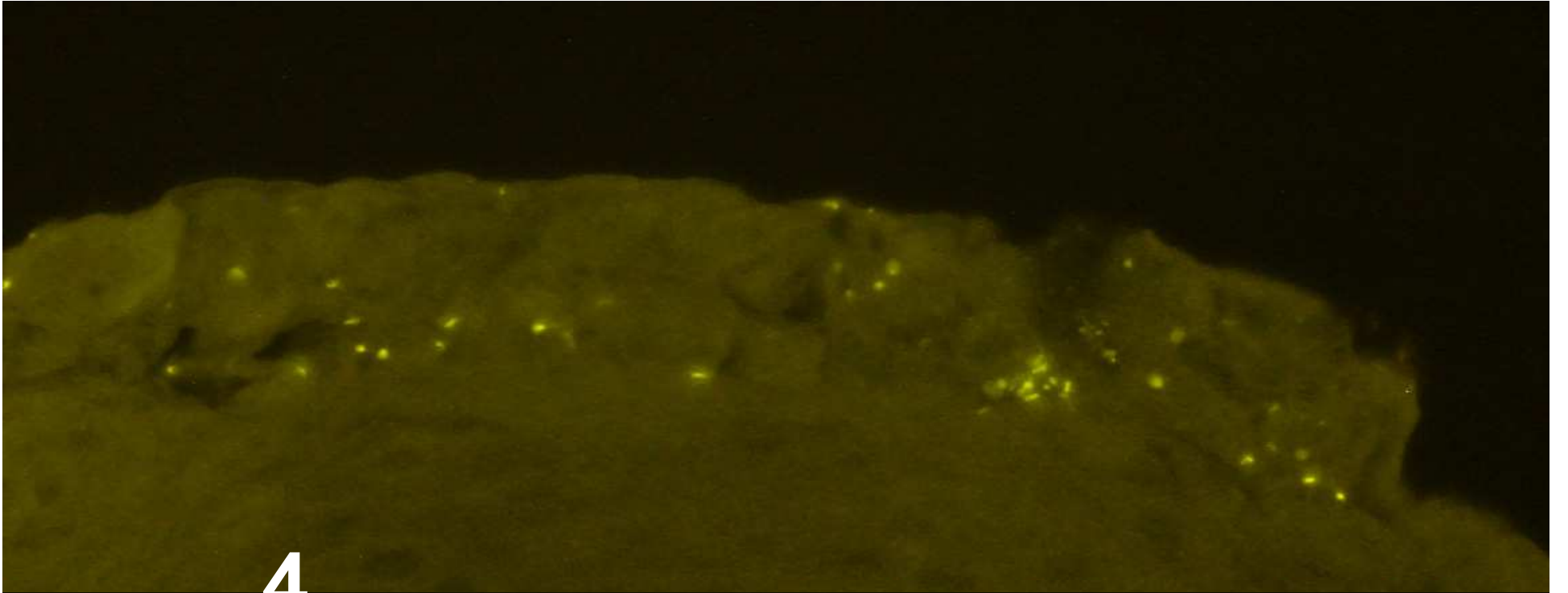


**2B**





3



4

