

# Plate Growth Distribution Training Guide

## Urinary Tract Culture



Compiled by:

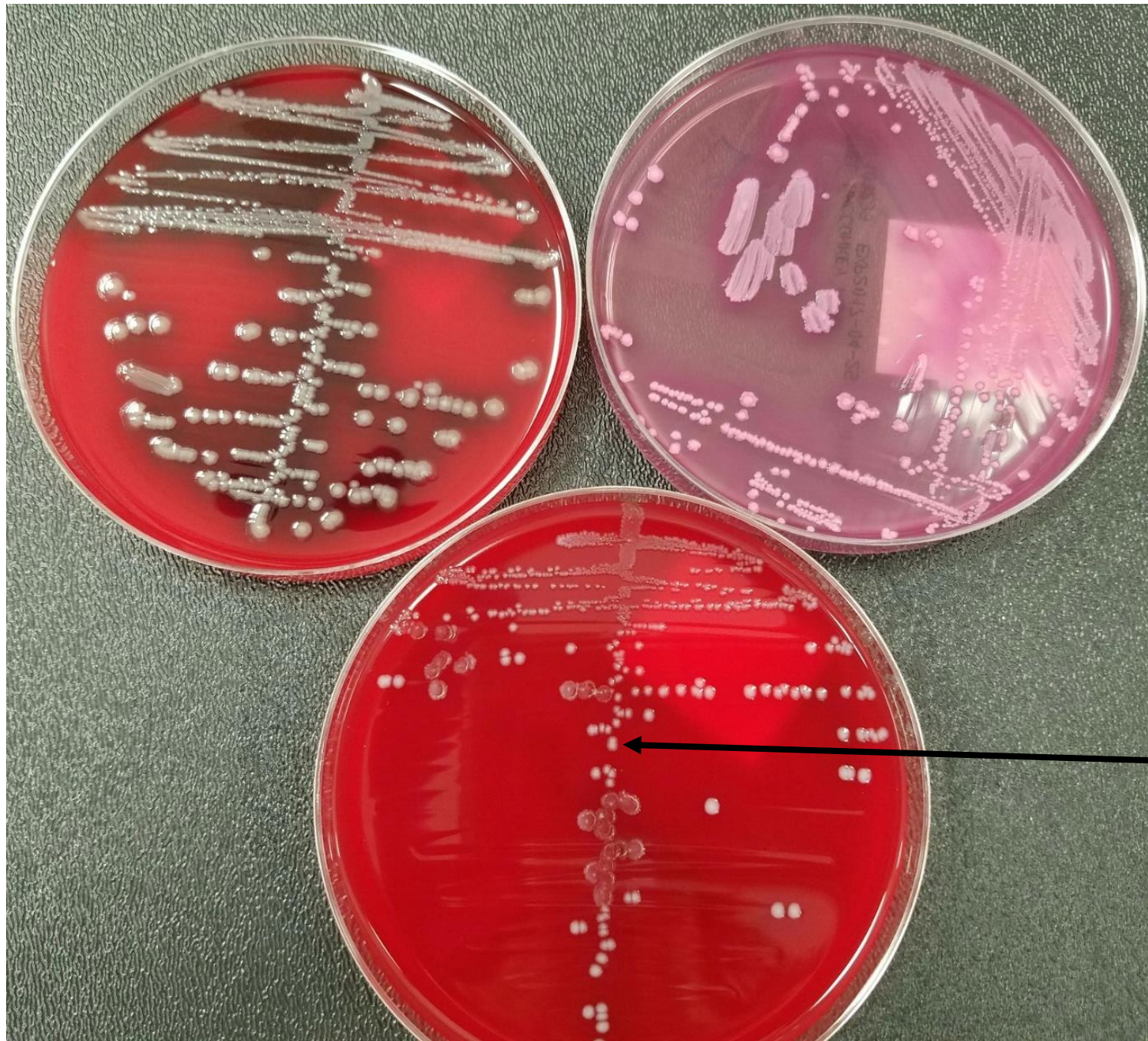
Wisconsin Clinical Laboratory Network  
Laboratory Technical Advisory Group (LabTAG)

Urine culture (blood, MacConkey, CNA agar):  
>100,000 CFU/mL *Klebsiella pneumoniae*



Urine culture (blood, MacConkey, CNA agar):  
>100,000 CFU/mL *Escherichia coli*  
>100,000 CFU/mL *Enterococcus* spp.

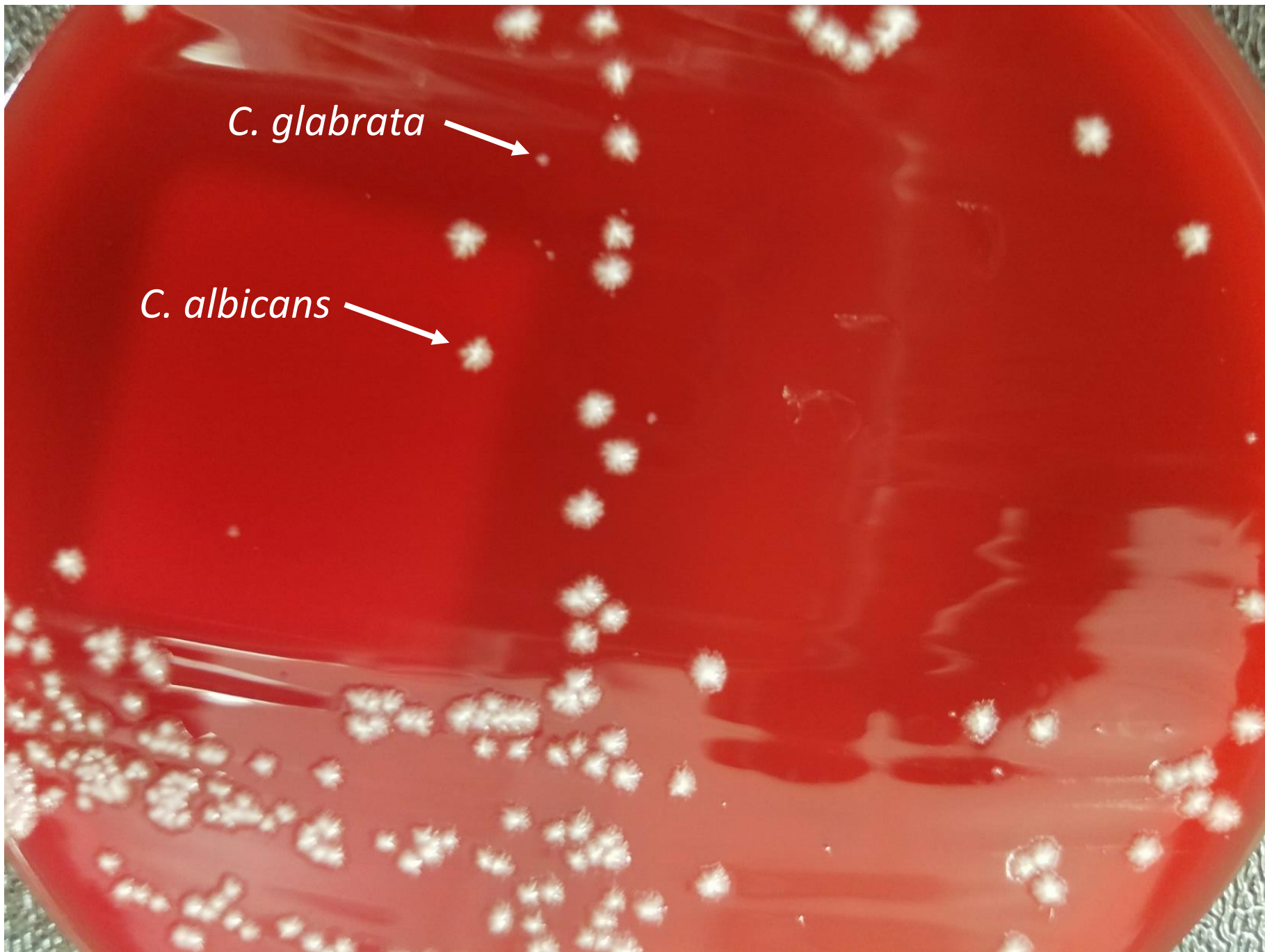




*Enterococcus* spp.

Urine culture (blood agar):  
>100,000 CFU/mL *Candida albicans*  
50,000 CFU/mL *Candida glabrata*





*C. glabrata*

*C. albicans*

Urine culture (blood agar):  
50,000 CFU/mL *Escherichia coli*  
30,000 CFU/mL *Enterococcus* spp.





*Enterococcus* spp.

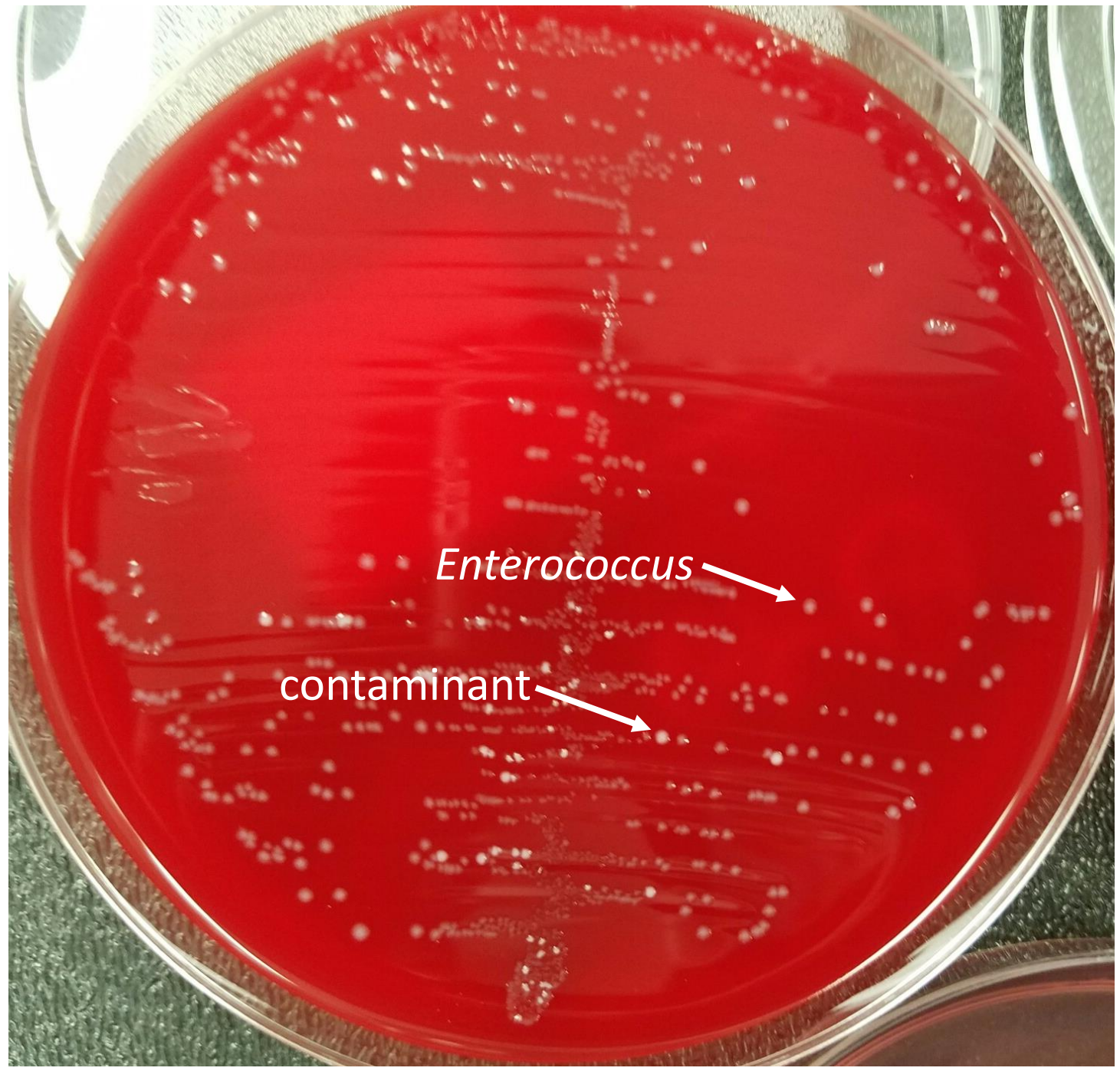
Indwelling catheter urine culture (MacConkey):  
Gram-negative bacilli (three types)





Urine culture (blood agar):  
>100,000 CFU/mL *Enterococcus* spp.  
30,000 CFU/mL contaminating flora





*Enterococcus* →

contaminant →

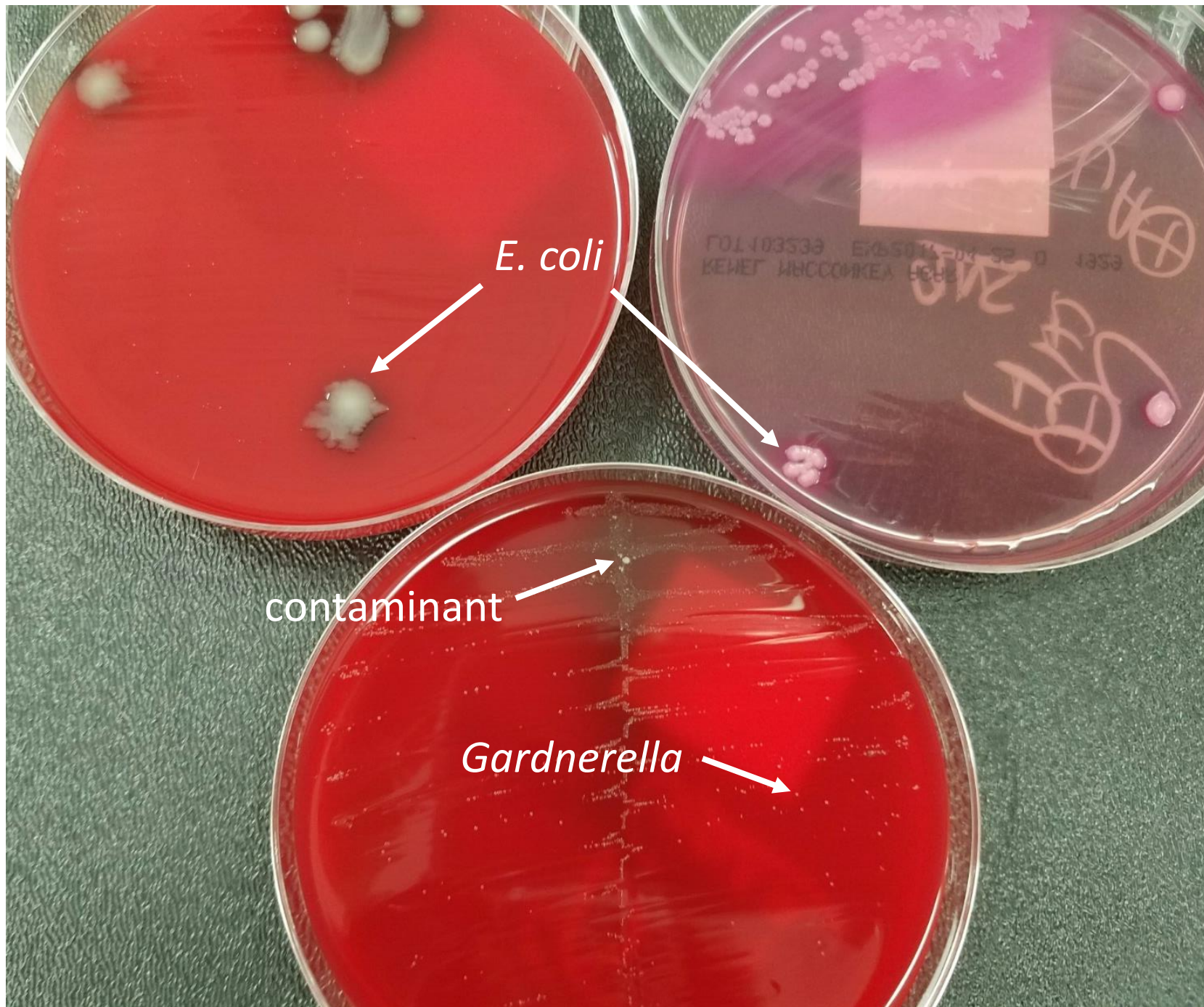
Urine culture (blood, MacConkey, CNA agar):

30,000 CFU/mL *E. coli*

>100,000 CFU/mL *Gardnerella vaginalis*

20,000 CFU/mL contaminants





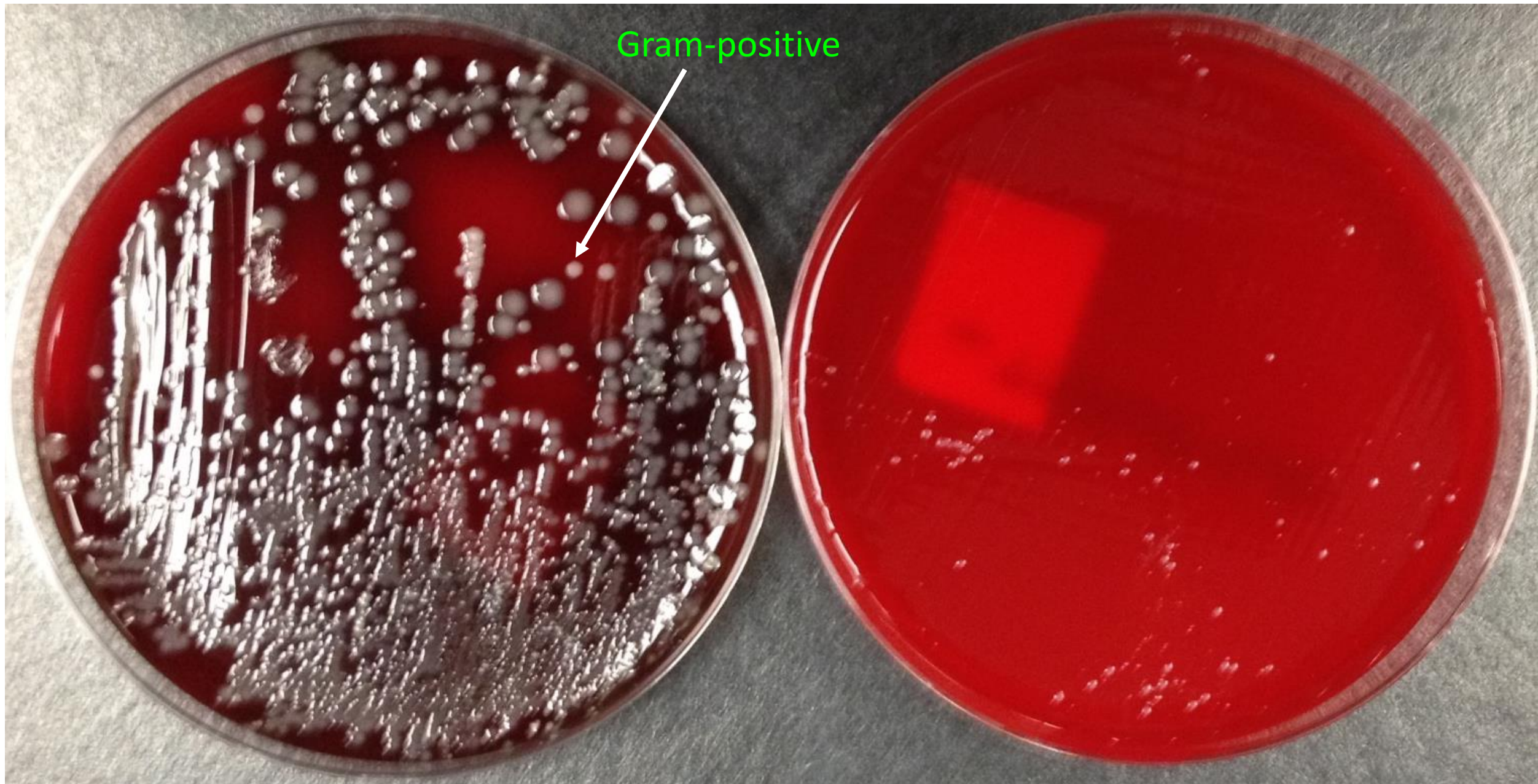
*E. coli*

contaminant

*Gardnerella*

Urine culture (blood, CNA agar):  
>100,000 CFU/mL *Enterobacteriaceae*  
few Gram-positive flora

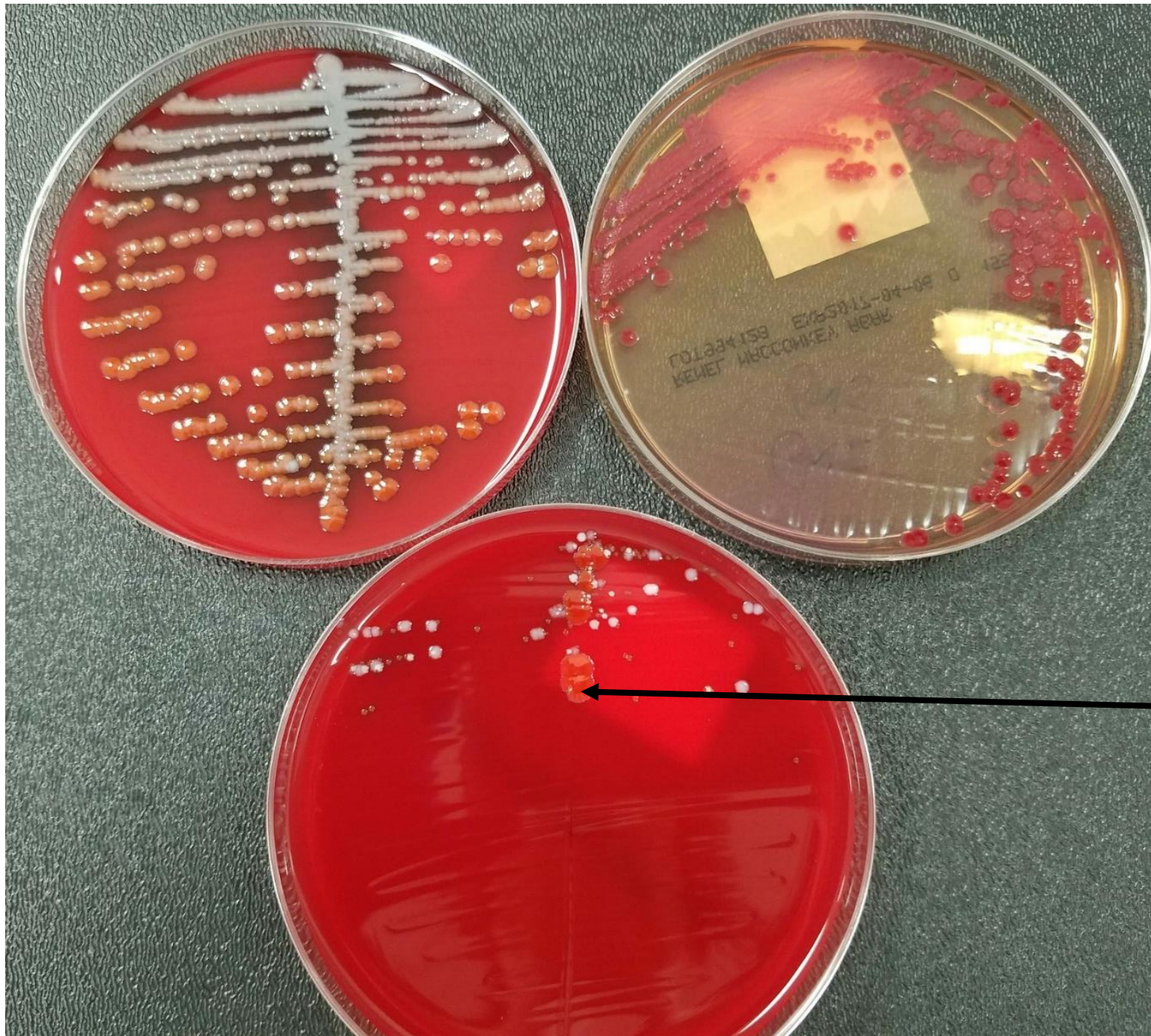




Gram-positive

Urine culture (blood, MacConkey, CNA agar):  
>100,000 CFU/mL *Serratia marcescens*  
few Gram-positive flora

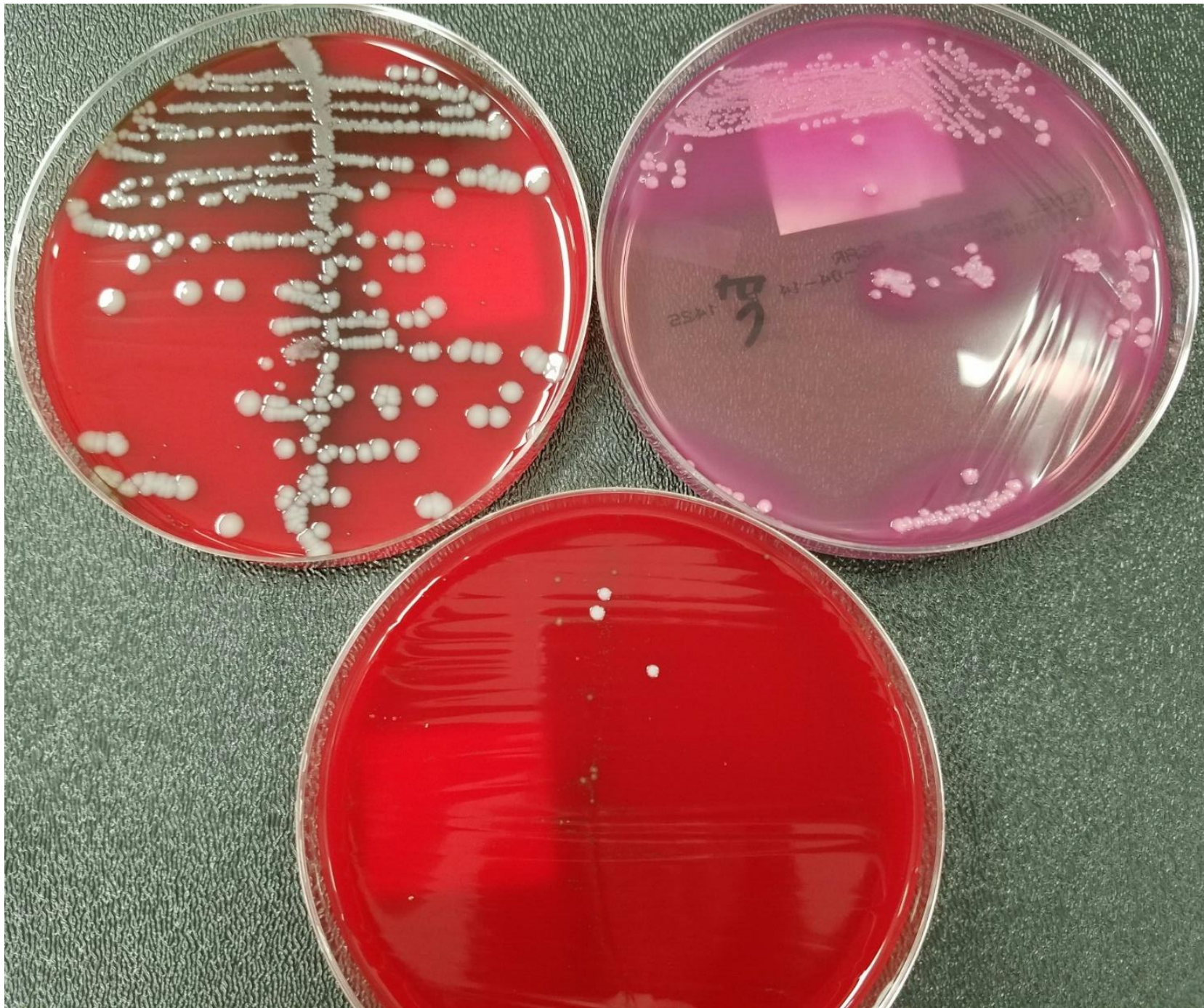




*S. marcescens*  
breakthrough  
on CNA agar

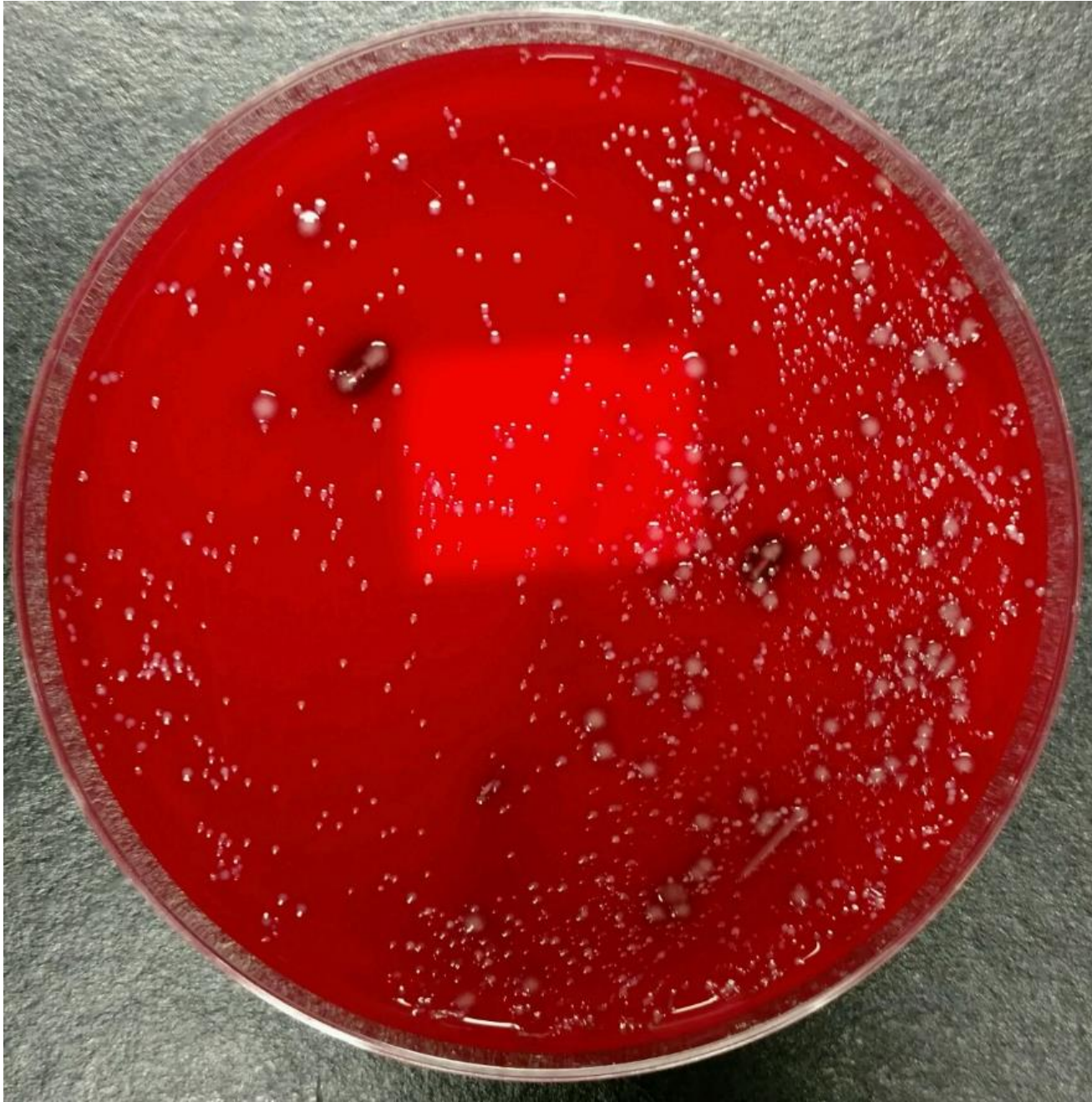
Urine culture (blood, MacConkey, CNA agar):  
>100,000 CFU/mL *Escherichia coli*  
rare Gram-positive flora





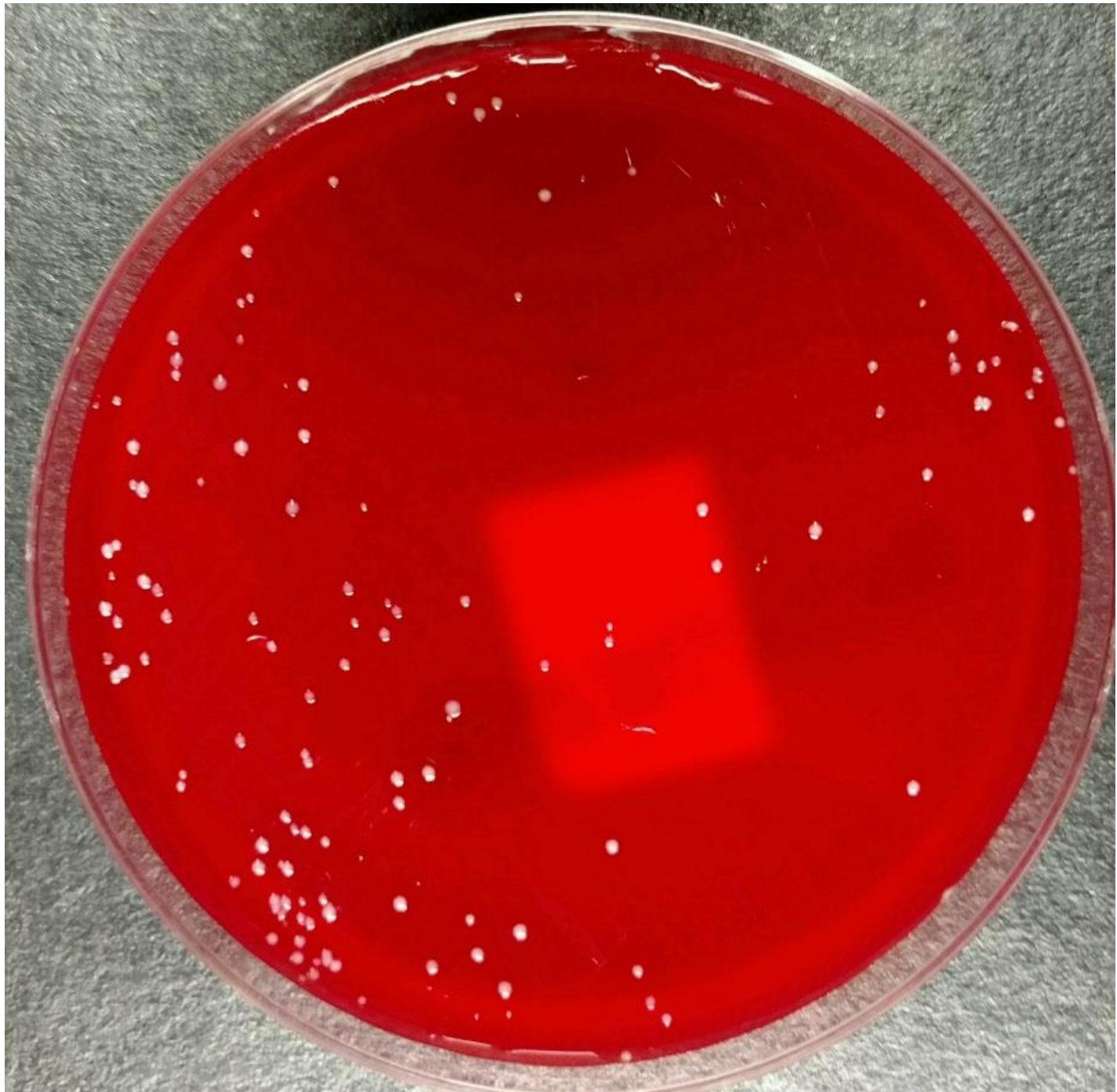
Contaminated urine  
(mixed Gram-positive and Gram-negative flora)





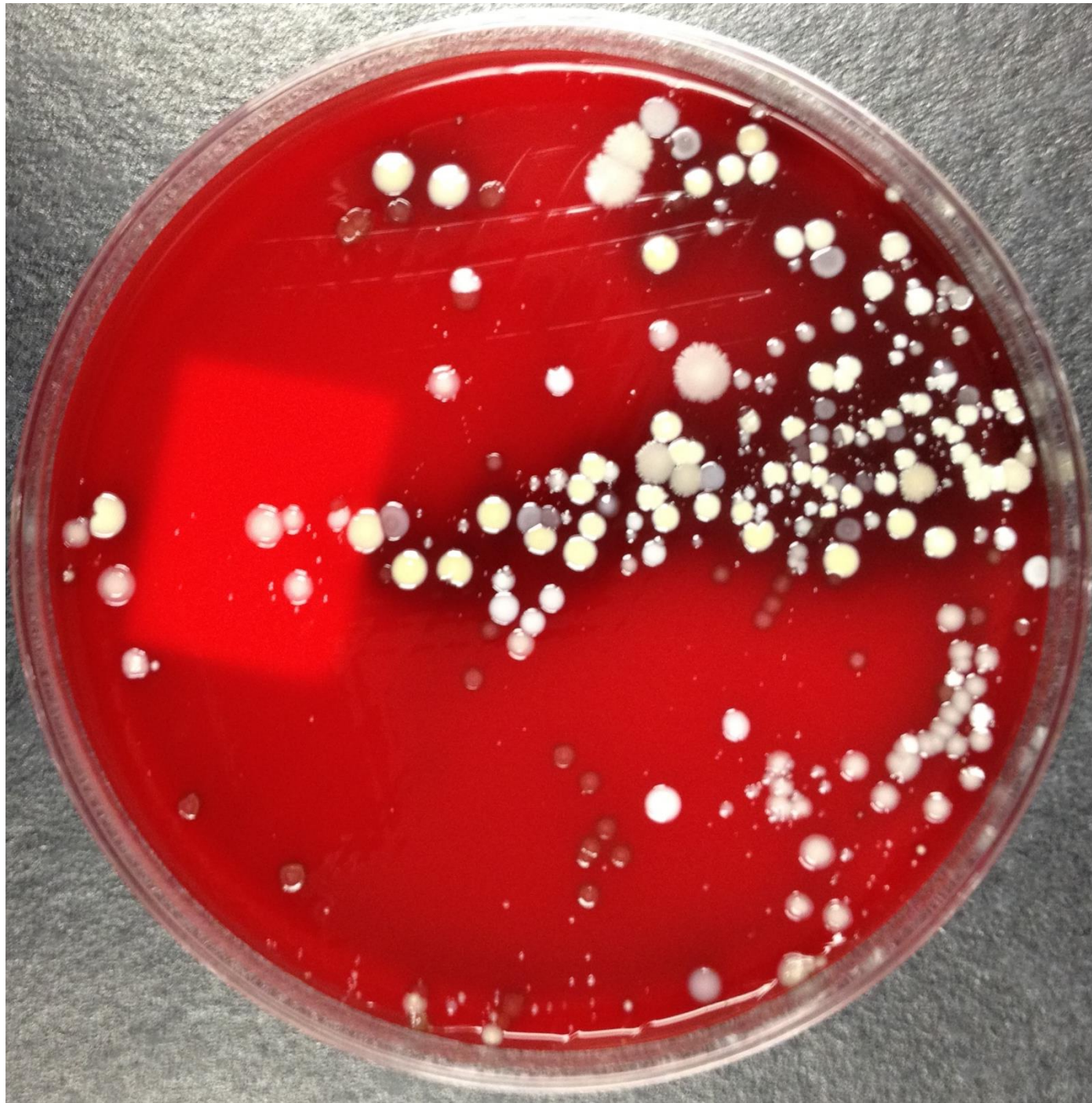


Contaminated urine  
(mixed Gram-positive flora)



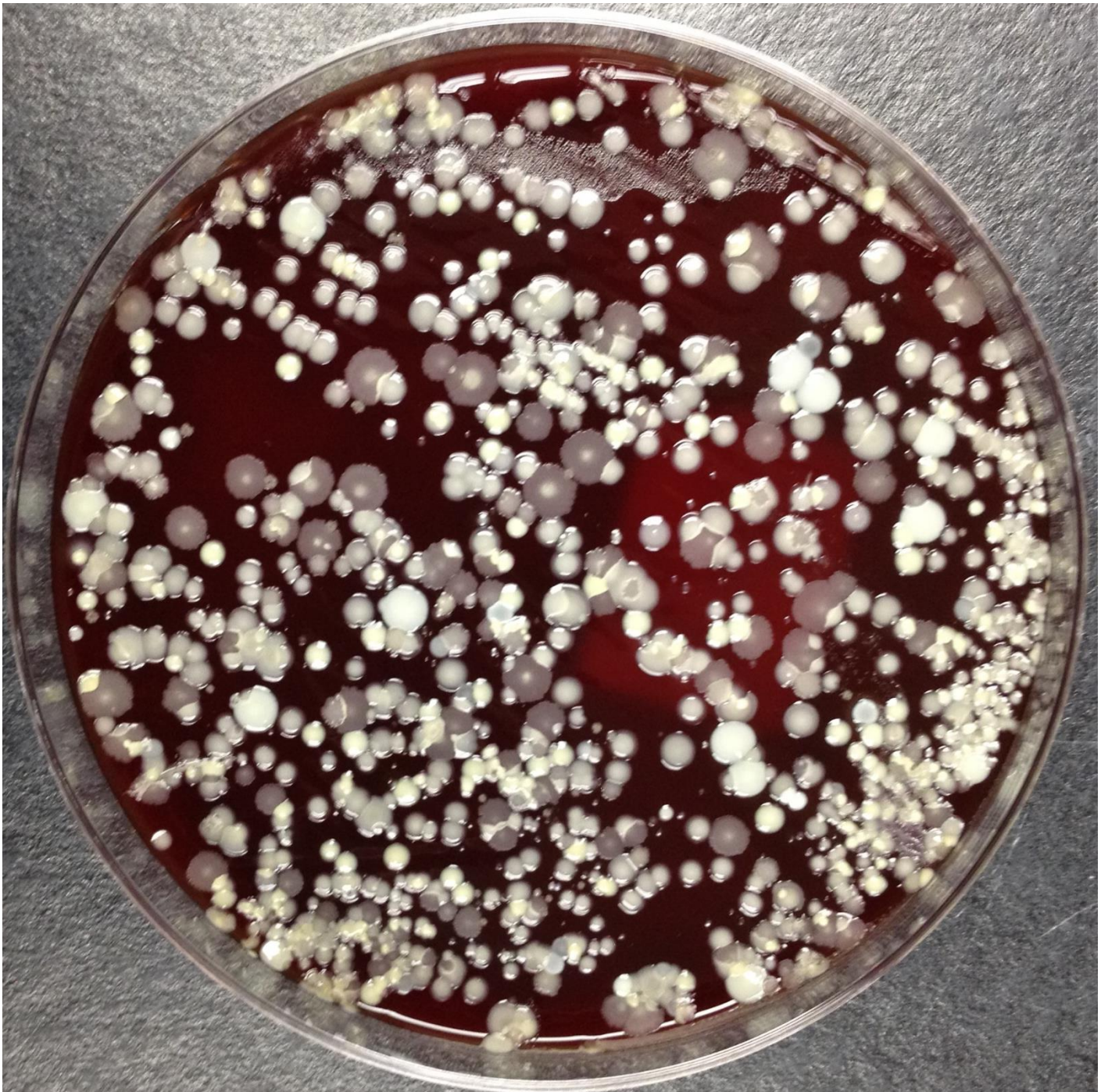
Urine culture (blood agar):  
mixed Gram-positive flora





Urine culture (blood agar):  
mixed Gram-positive flora







Urine culture (blood agar):  
mixed Gram-positive flora

