



2. LÉKAŘSKÁ FAKULTA  
UNIVERZITA KARLOVA

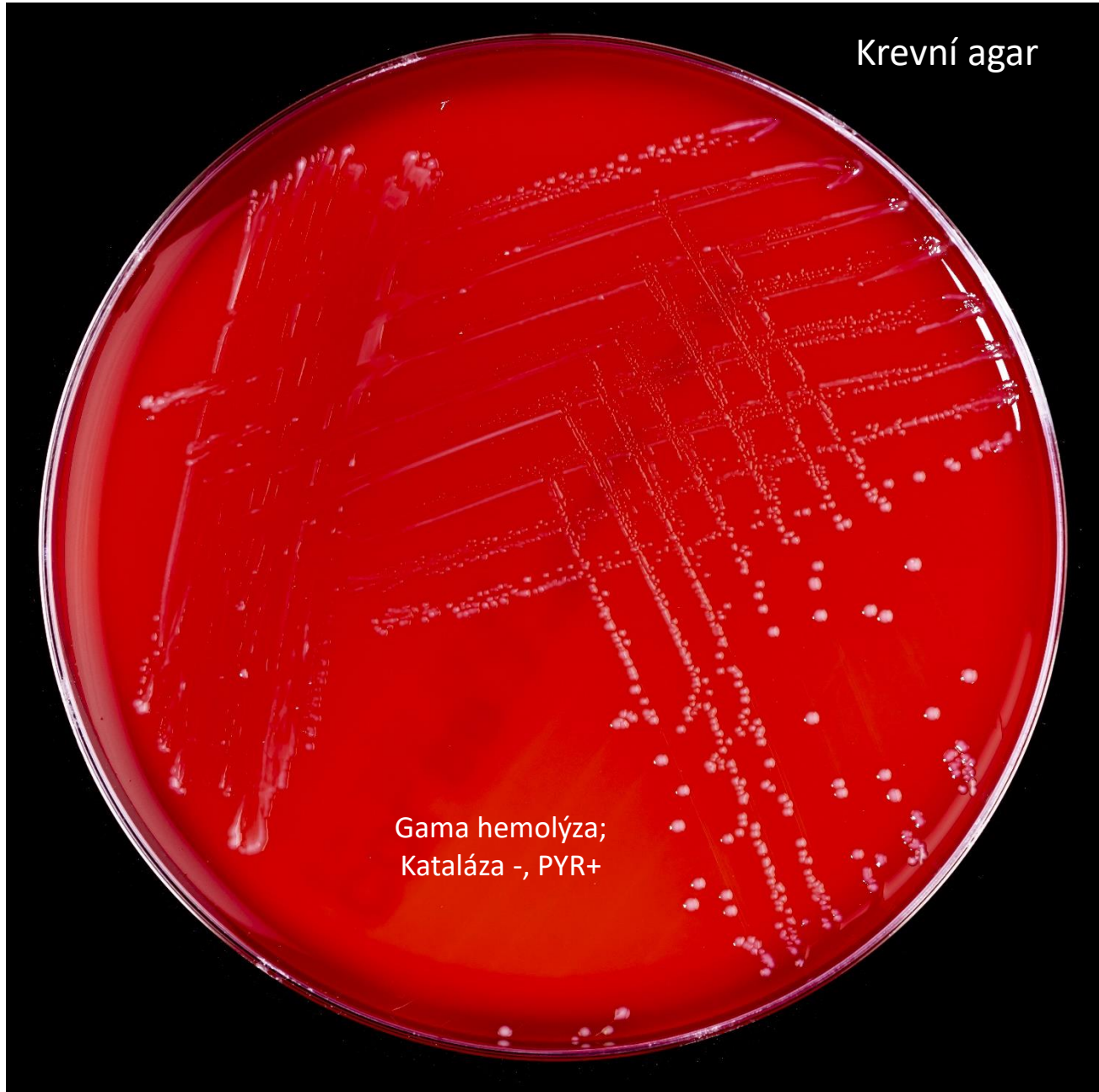
# Fotky narostlých kultur k praktické zkoušce

Mikrobiologie II

2023/2024

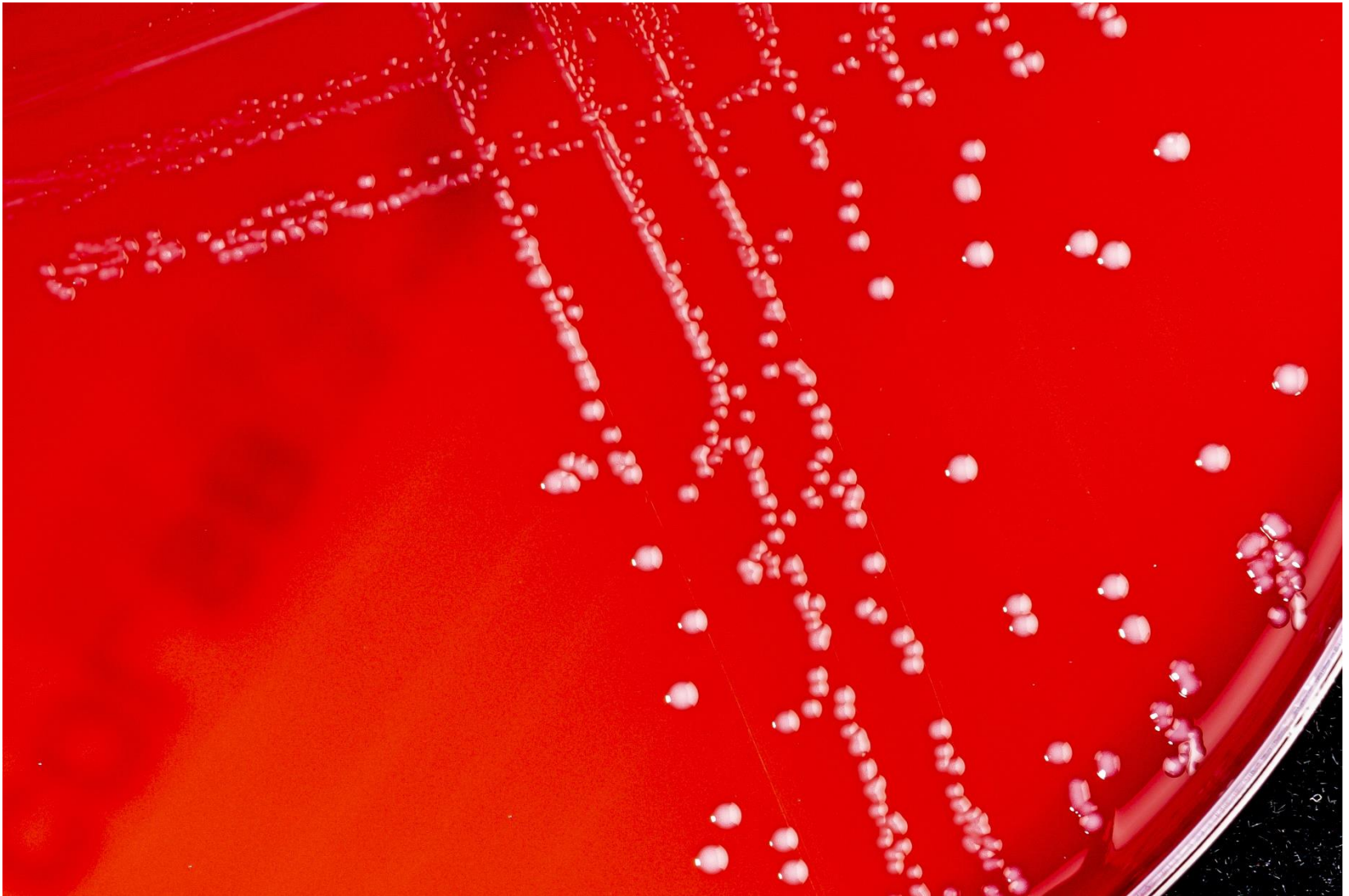
# 1. *Enterococcus faecalis*

Krevní agar



Gama hemolýza;  
Kataláza -, PYR+

# 1. *Enterococcus faecalis*



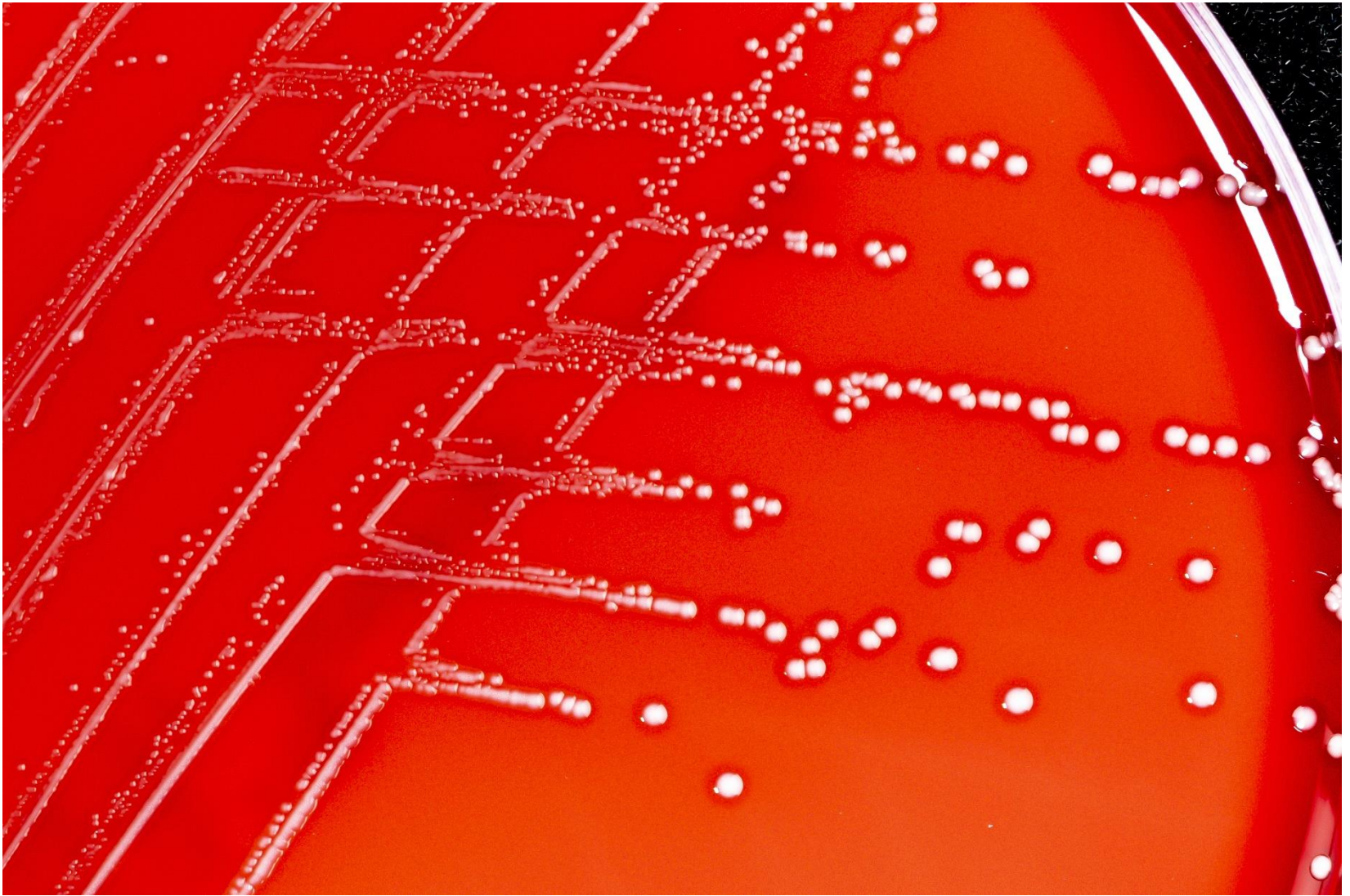
## 2. *Enterococcus faecium*

Krevní agar



Gama hemolýza;  
Kataláza -, PYR+

## 2. *Enterococcus faecium*



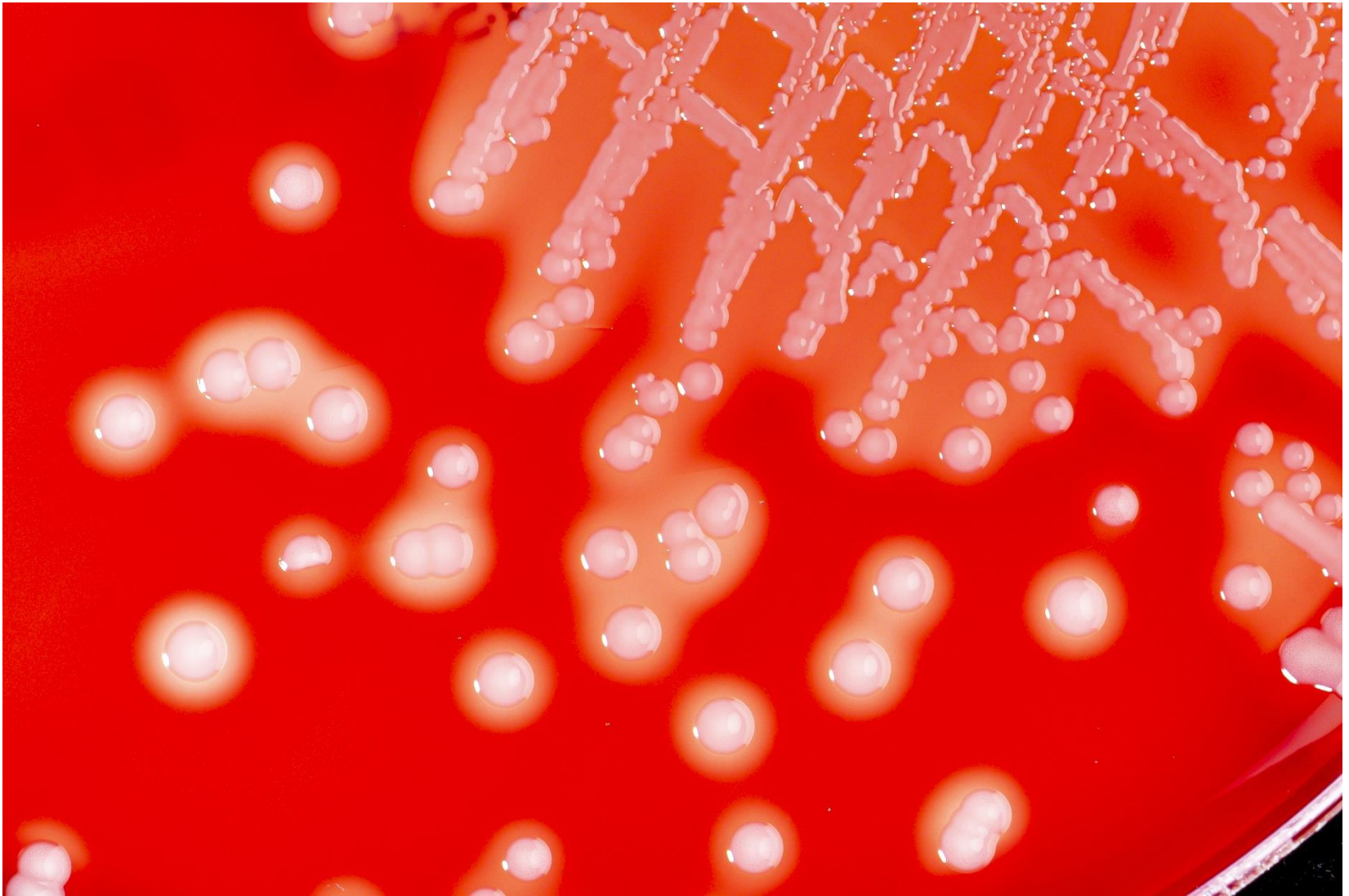
### 3. *Staphylococcus aureus*

Krevní agar

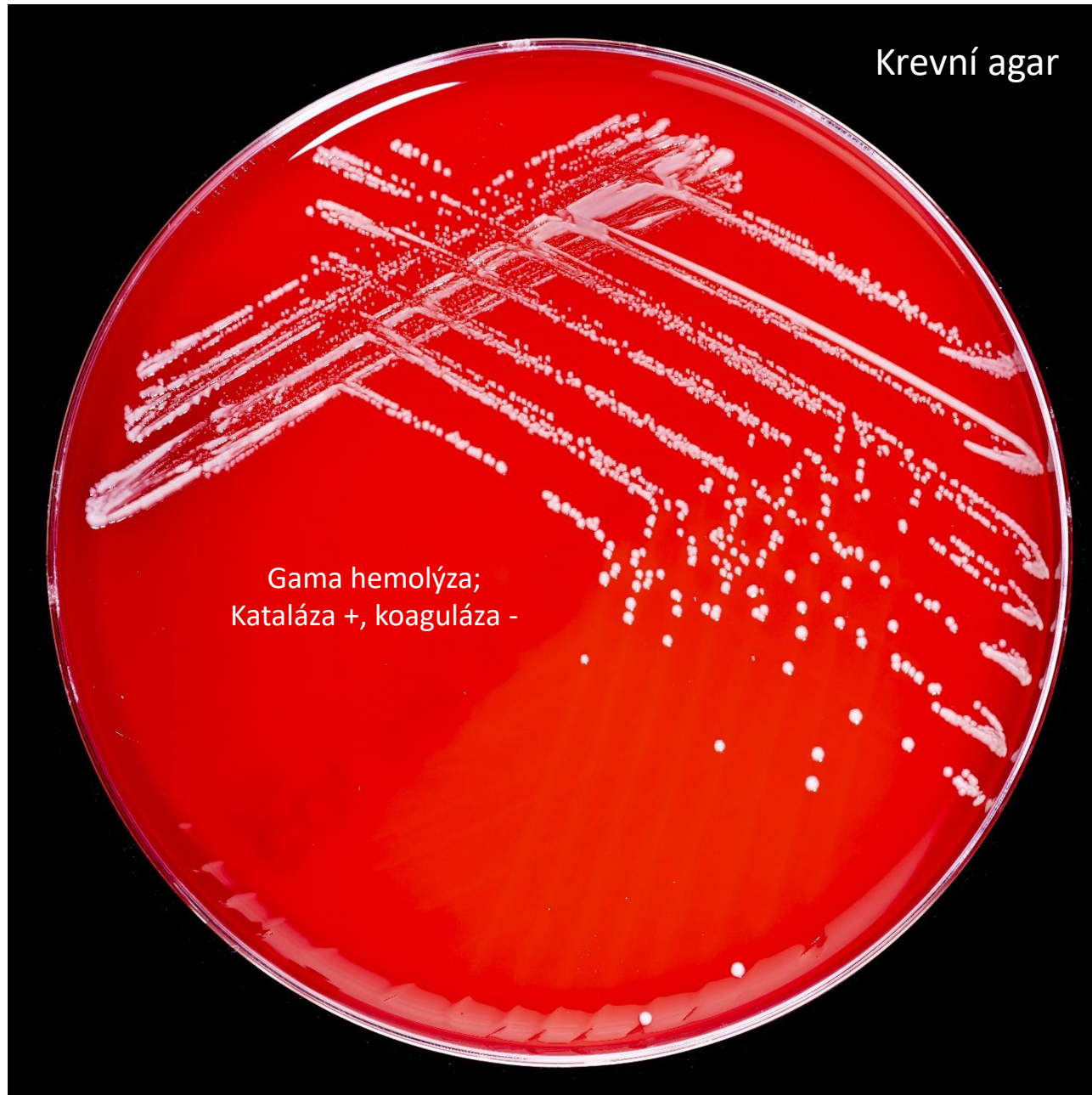
Beta hemolýza;  
kataláza +,  
kolaguláza +



### 3. *Staphylococcus aureus*

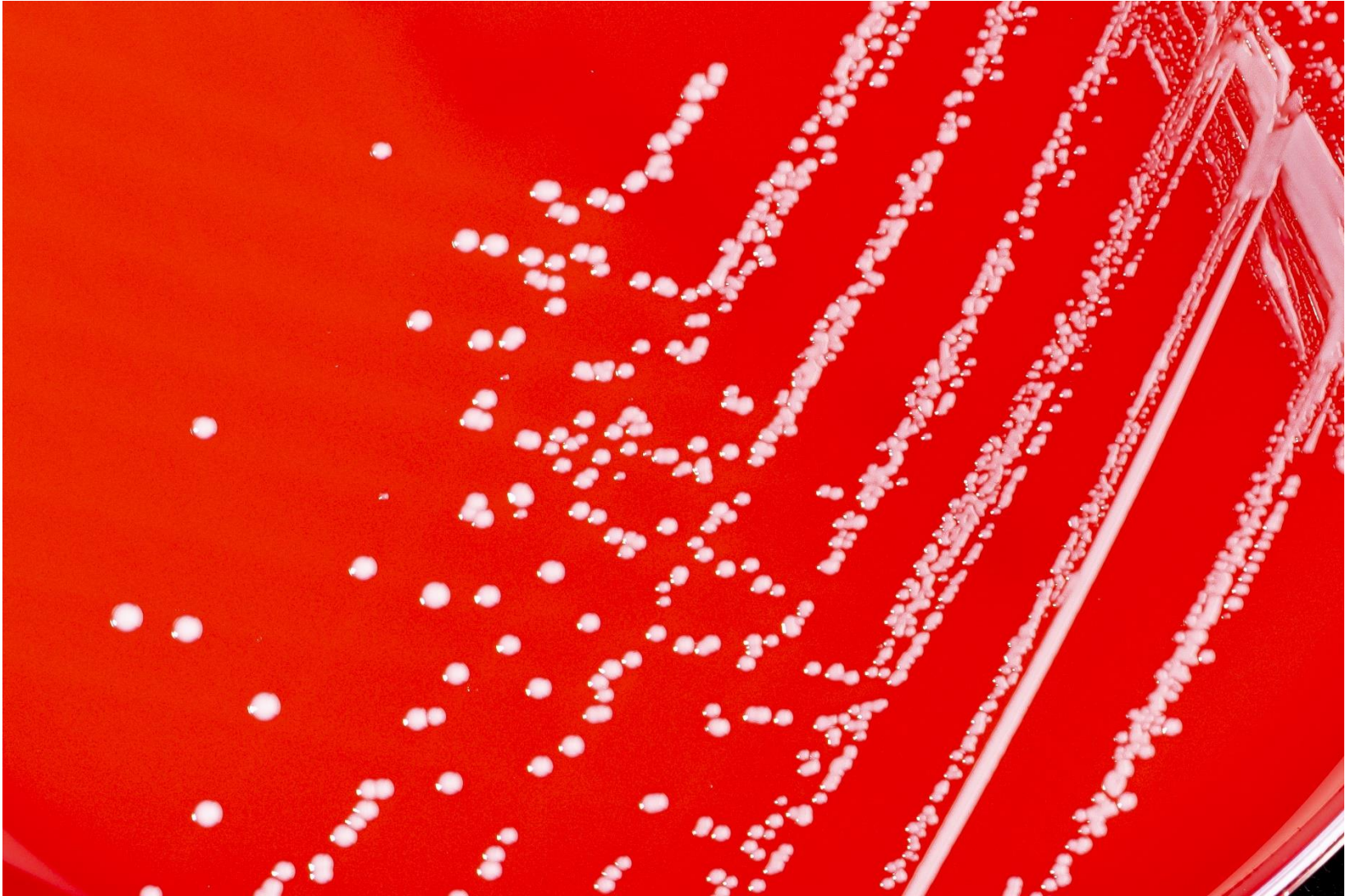


## 4. *Staphylococcus hominis*

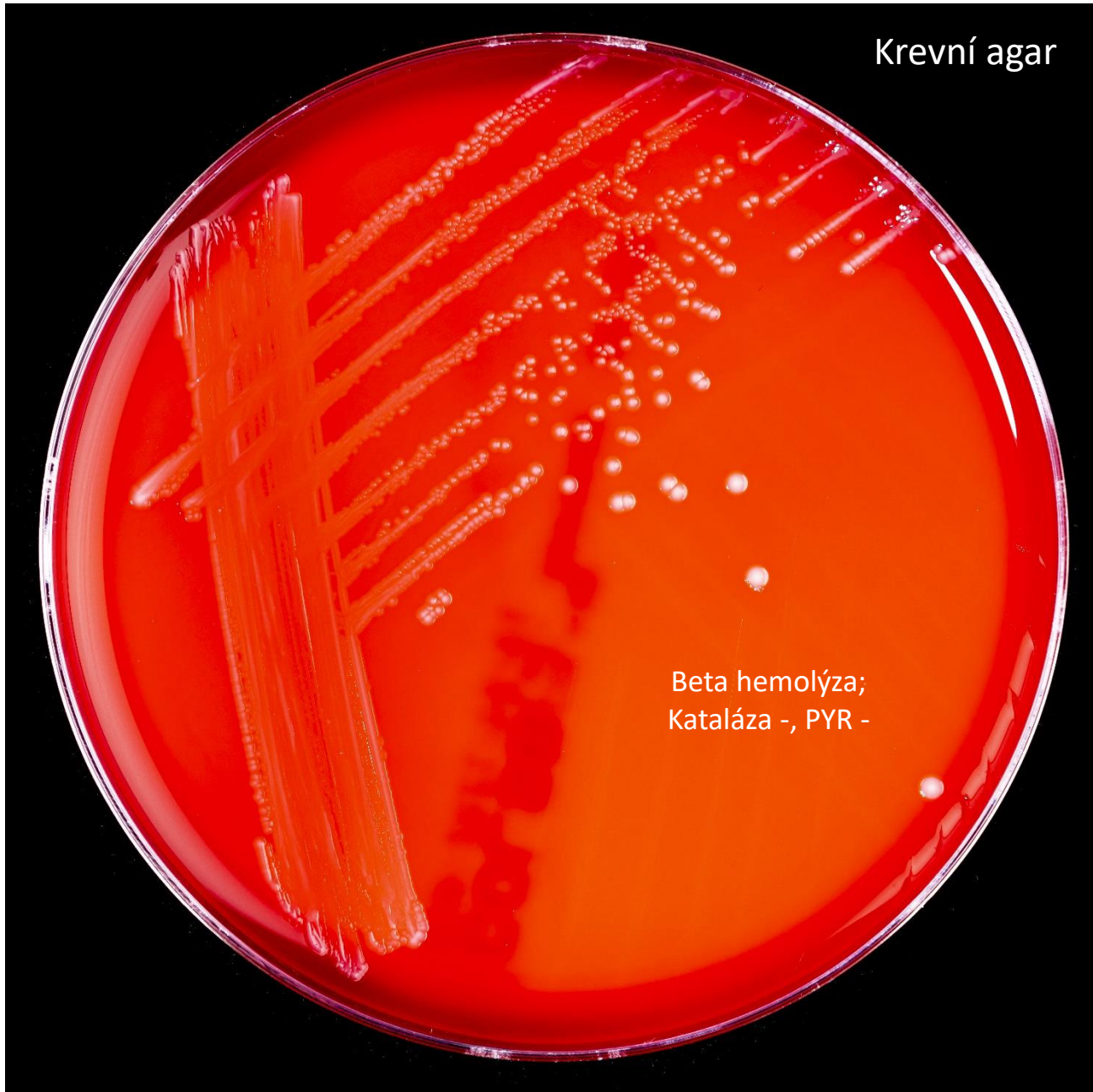




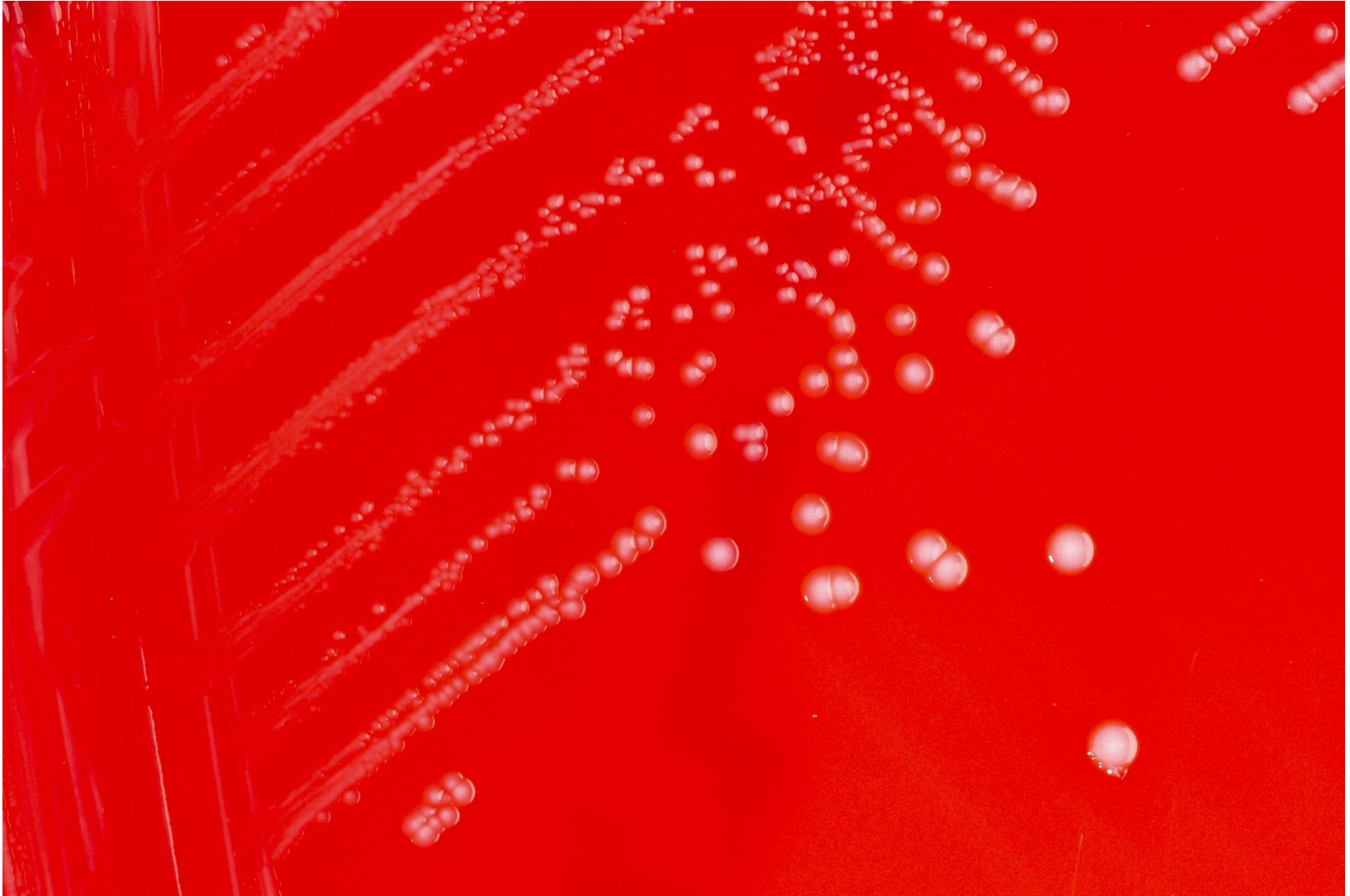
#### 4. *Staphylococcus hominis*



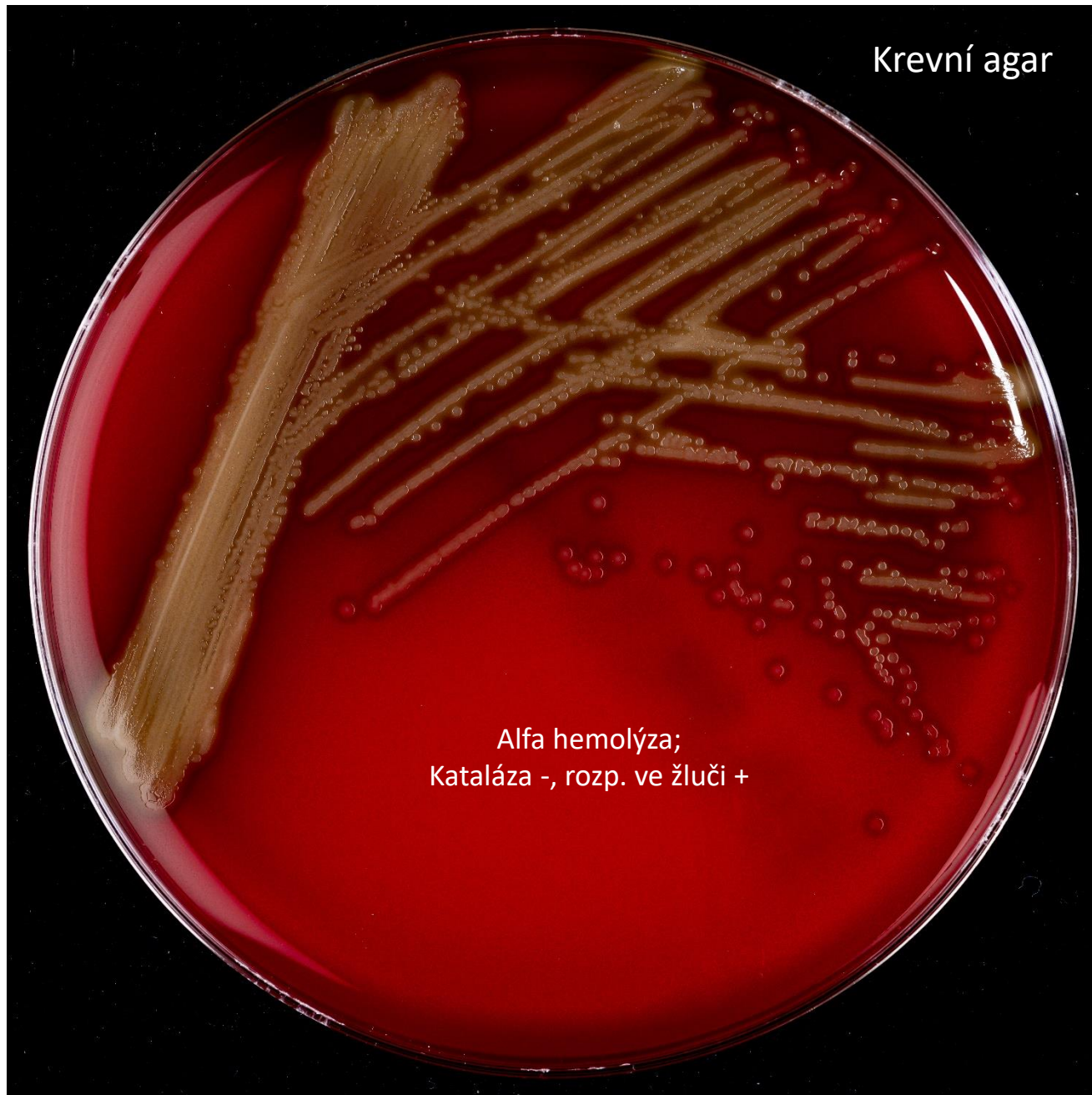
## 5. *Streptococcus agalactiae*



## 5. *Streptococcus agalactiae*



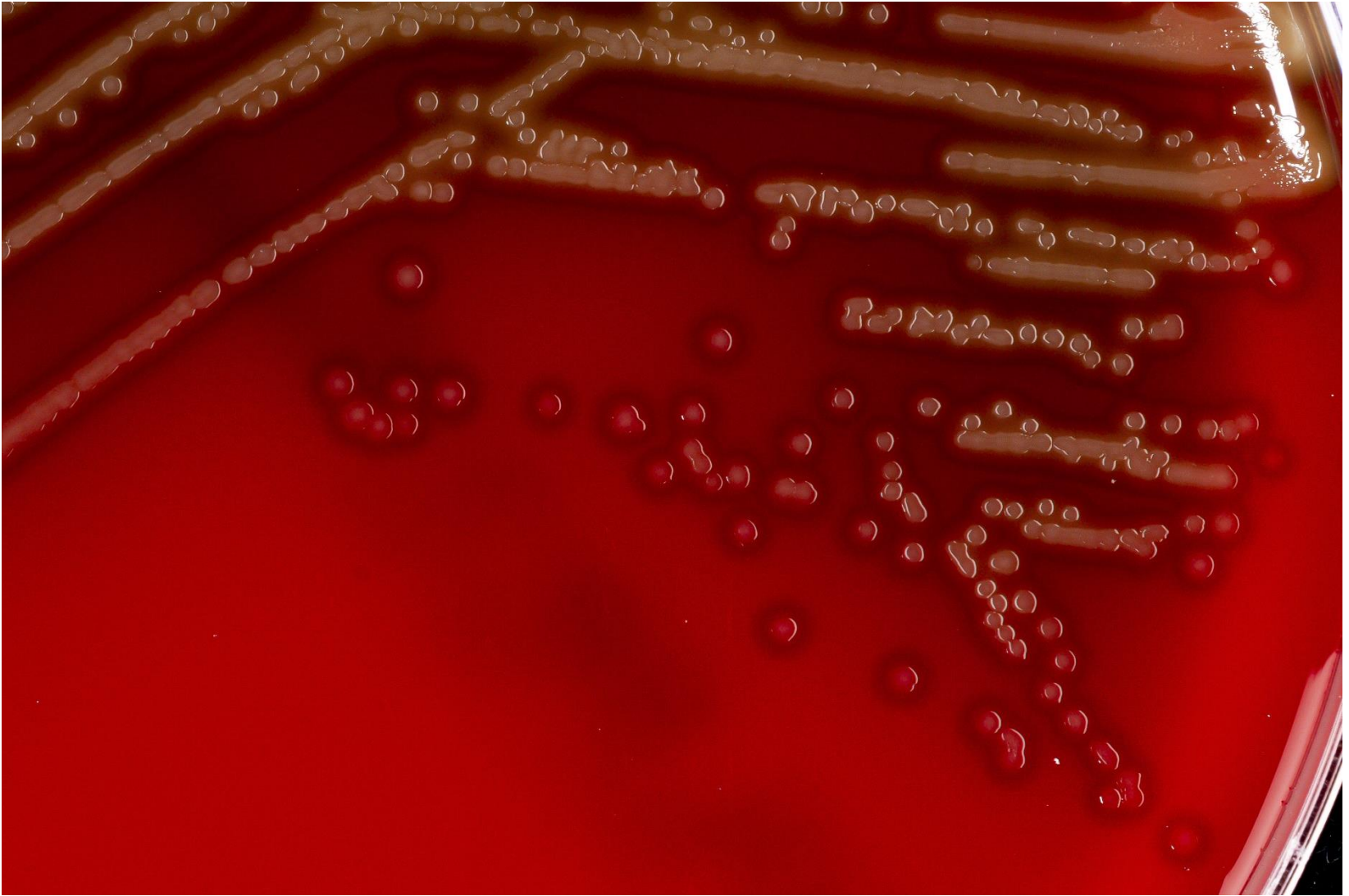
## 6. *Streptococcus pneumoniae*



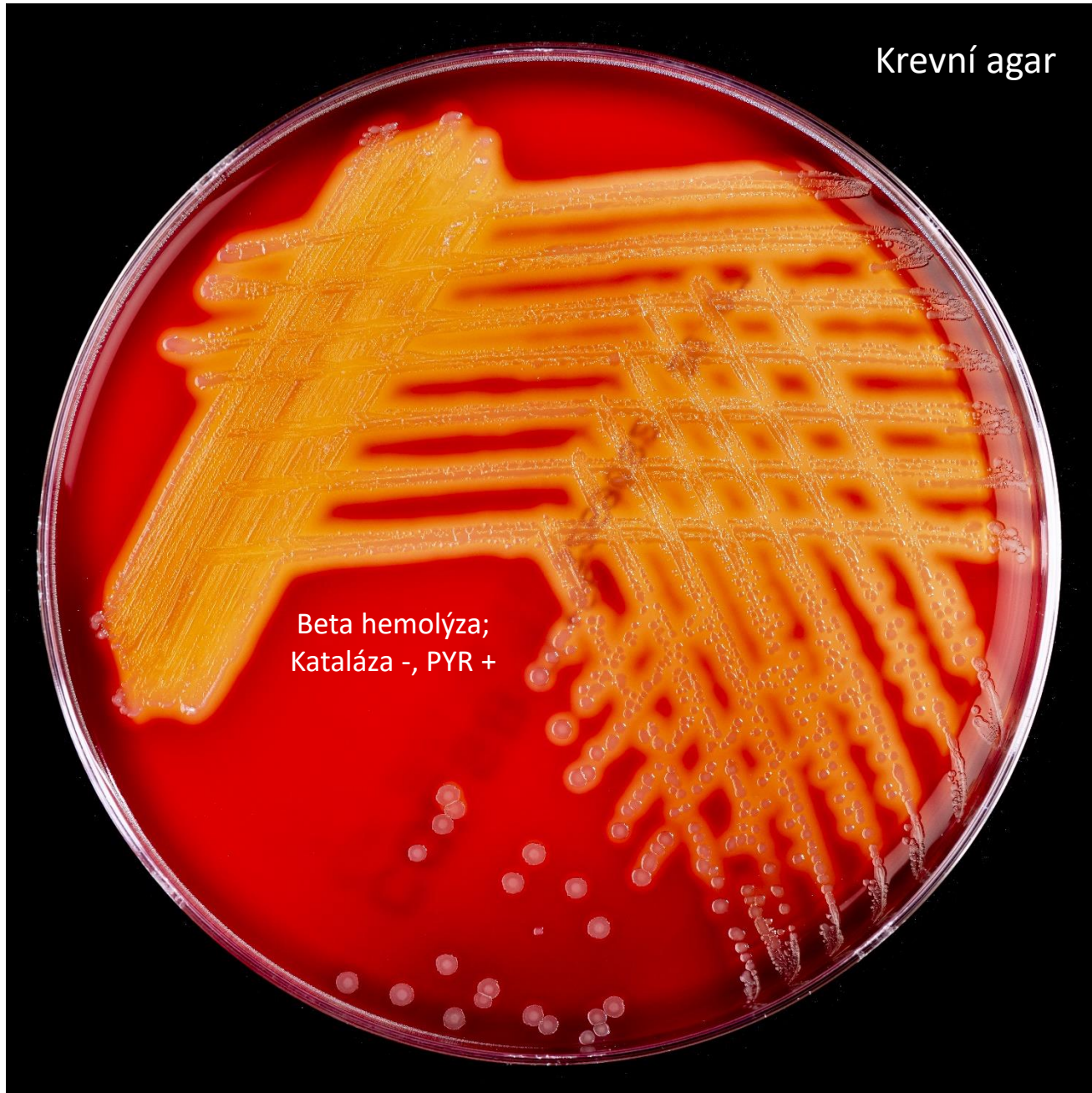
Krevní agar

Alfa hemolýza;  
Kataláza -, rozp. ve žluči +

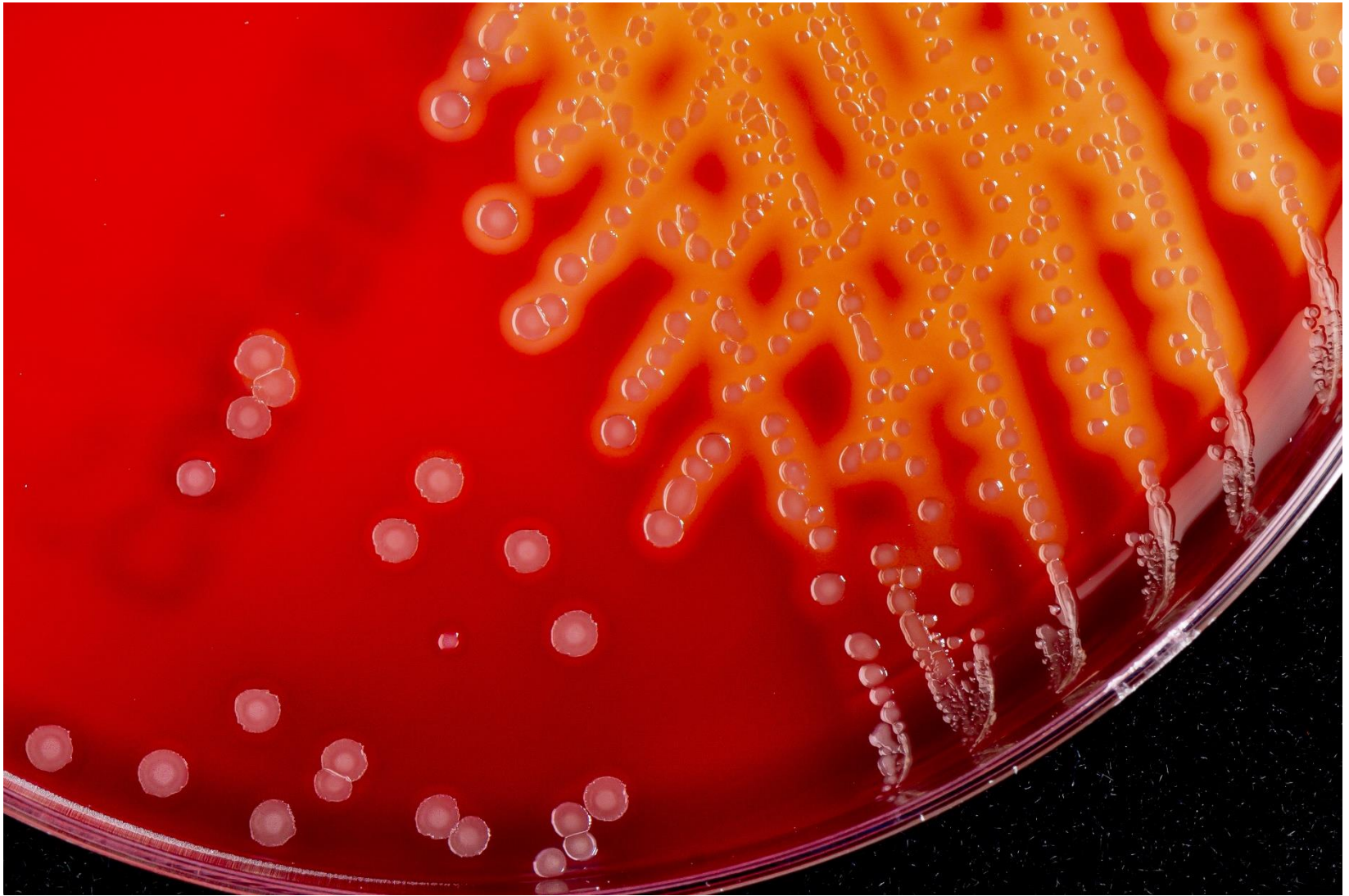
## 6. *Streptococcus pneumoniae*



## 7. *Streptococcus pyogenes*



## 7. *Streptococcus pyogenes*



## 8. *Clostridioides difficile*

Brazierův agar\*

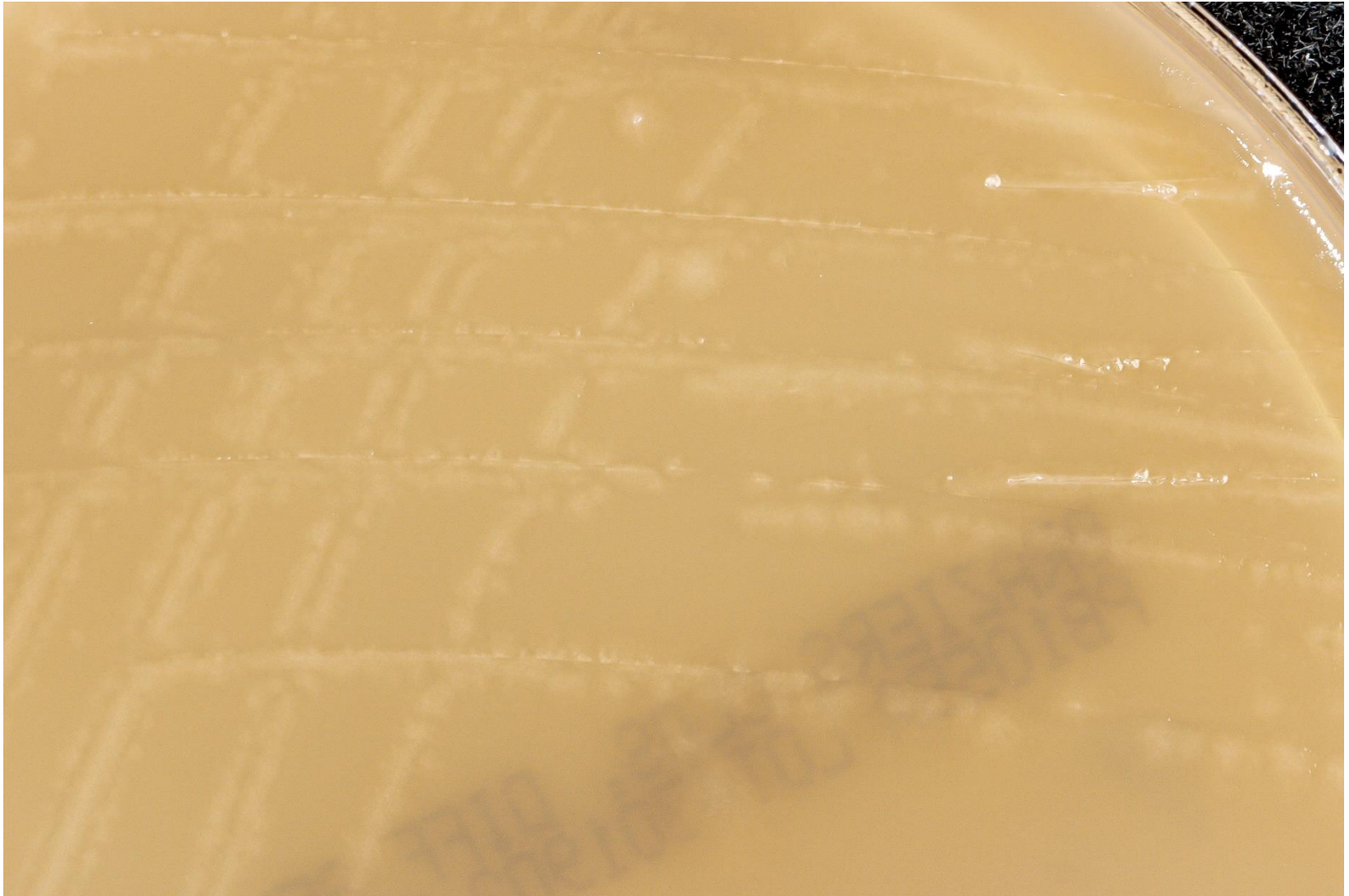
\*Selektivní médium pro  
*C. difficile* (není nutné znát  
pro zkoušku)



Průhledné velké kolonie  
s nejasným okrajem



## 8. *Clostridioides difficile*



## 9. *Clostridium perfringens*

Schaedlerův agar



Dvojitá hemolýza

## 9. *Clostridium perfringens*



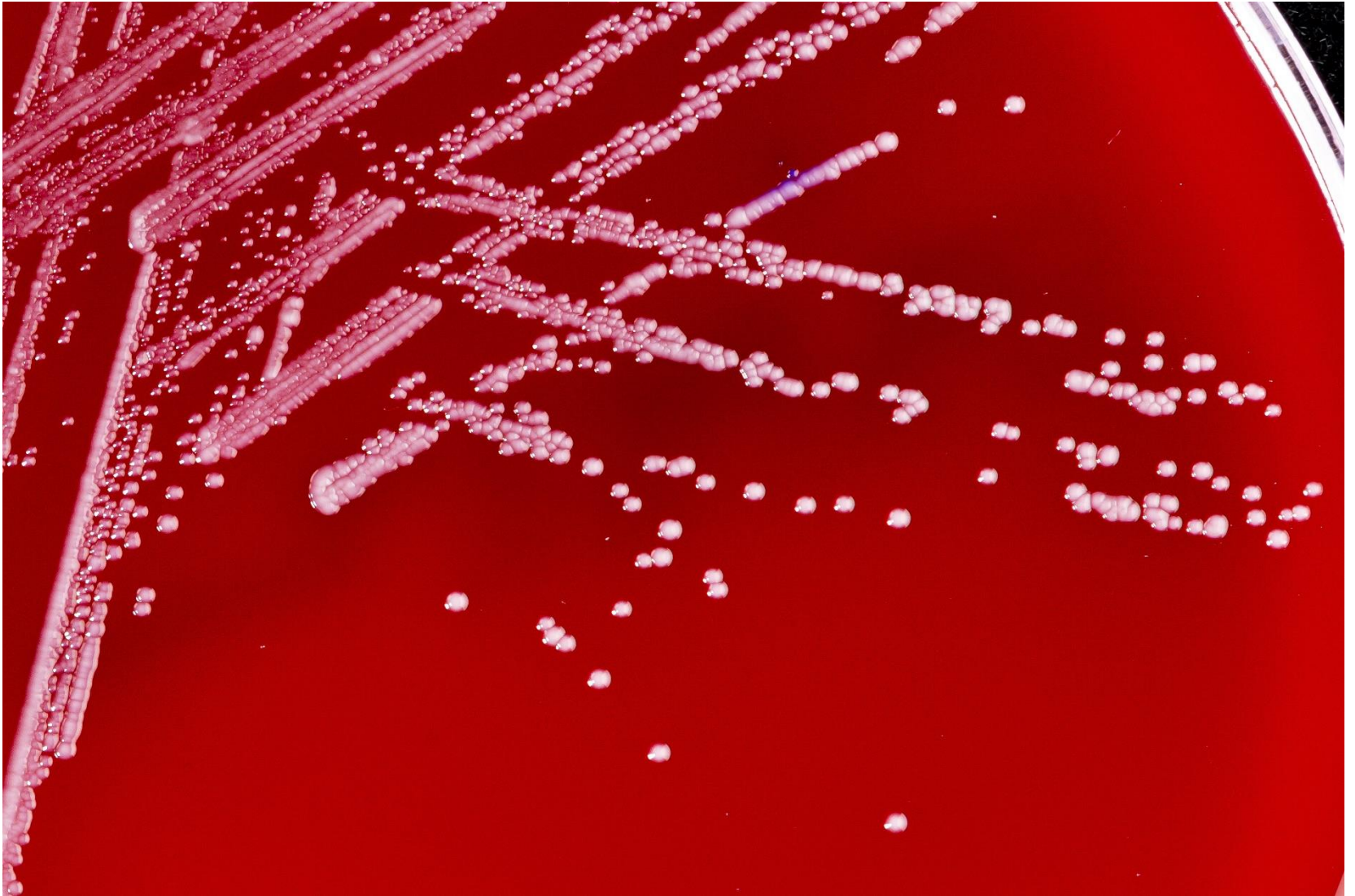
## 10. *Corynebacterium diphtheriae*

Krevní agar



Hemolýza podle biotypu; může být  
hemolytická kolonie i nikoliv;  
Kataláza +

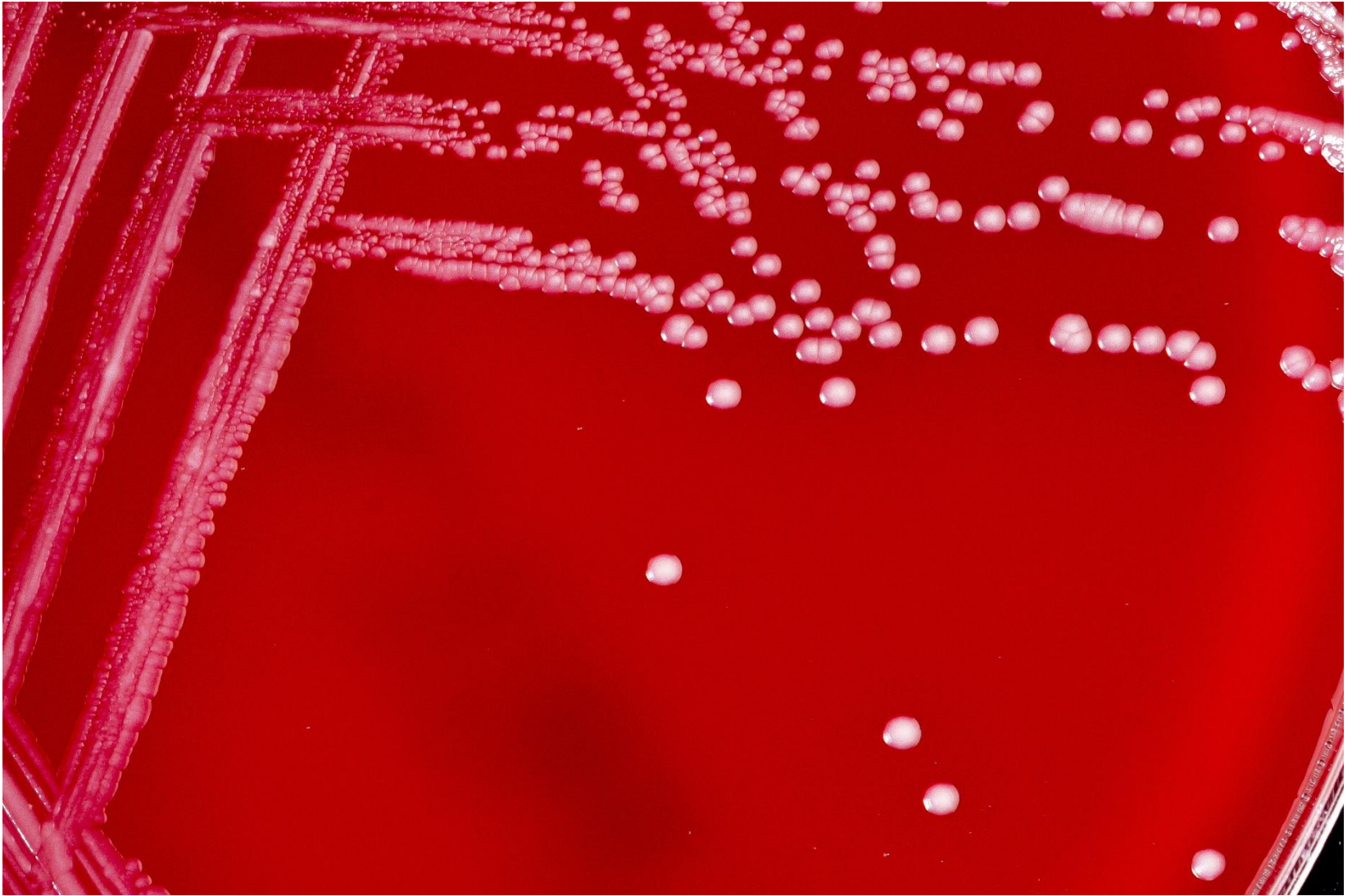
## 10. *Corynebacterium diphtheriae*



# 11. *Listeria monocytogenes*



## 11. *Listeria monocytogenes*



## 12. *Actinomyces* sp.

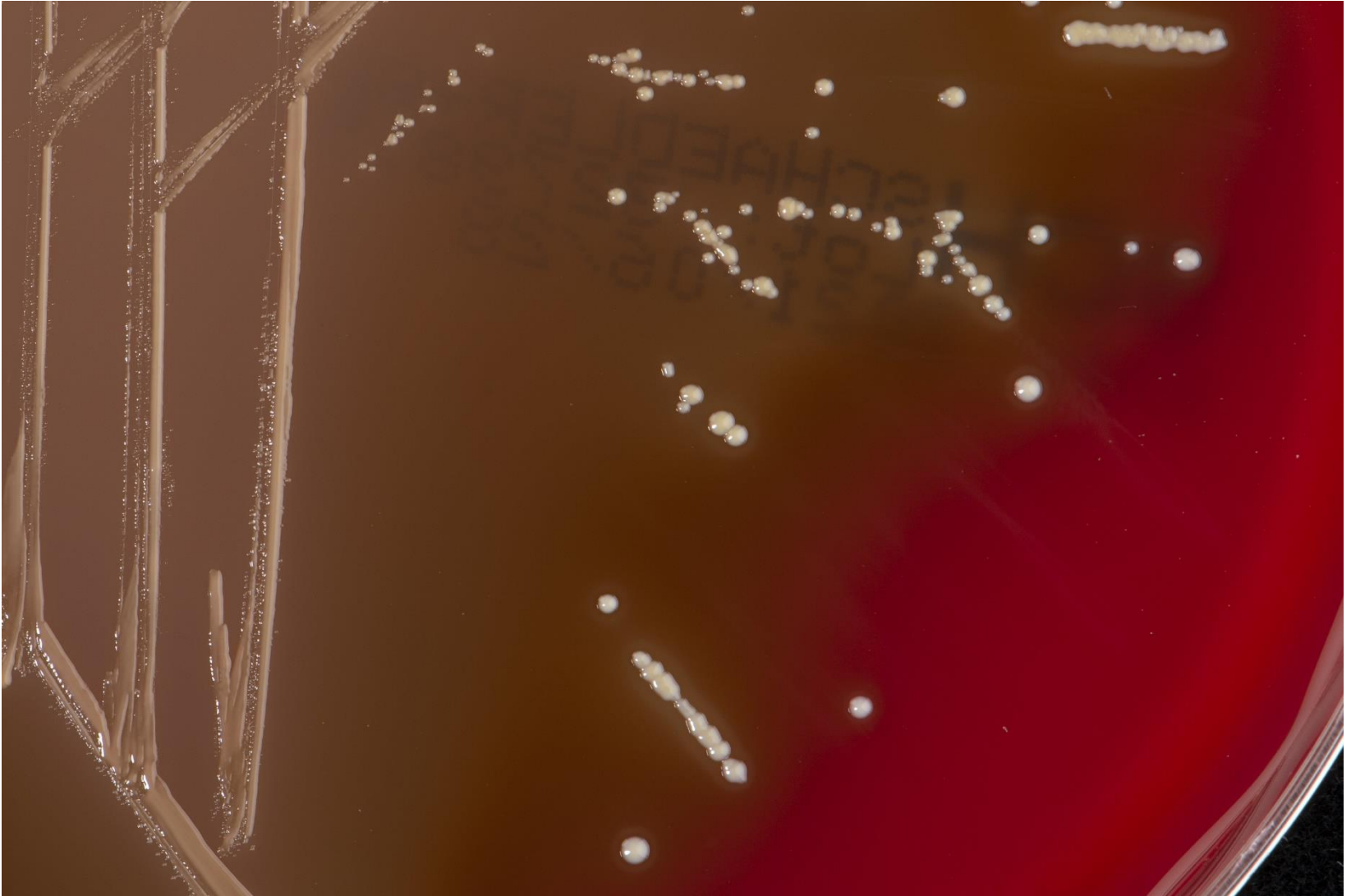
Schaedlerův agar



Krémovité, pigmentované,  
zapáchající kolonie



## 12. *Actinomyces* sp.



### 13. *Cutibacterium acnes*

Schaedlerův agar



Vypouklé, lesklé, a mírně  
pigmentované kolonie;  
zapáchající

### 13. *Cutibacterium acnes*



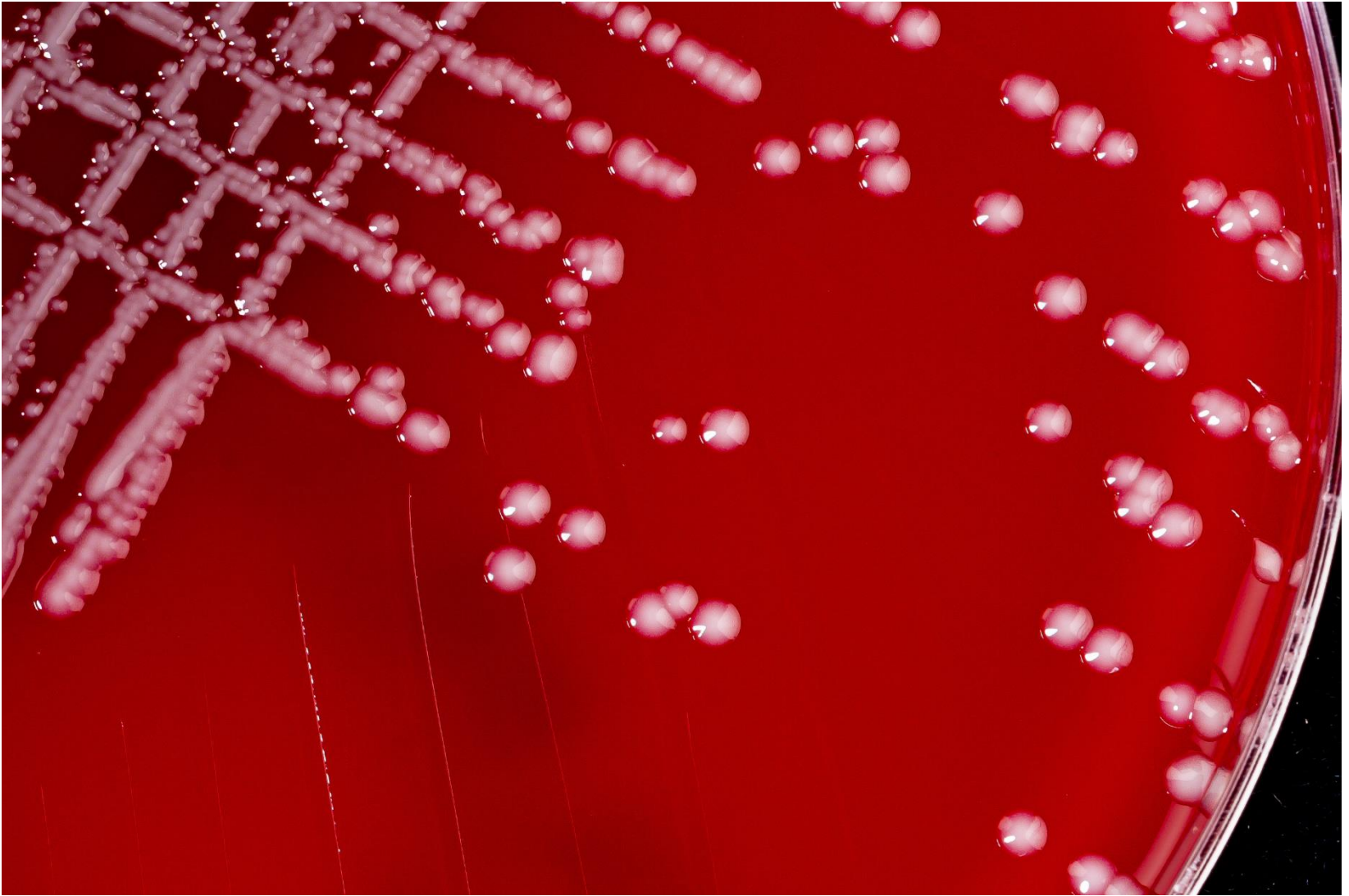
## 14. *Acinetobacter baumani*

Krevní agar

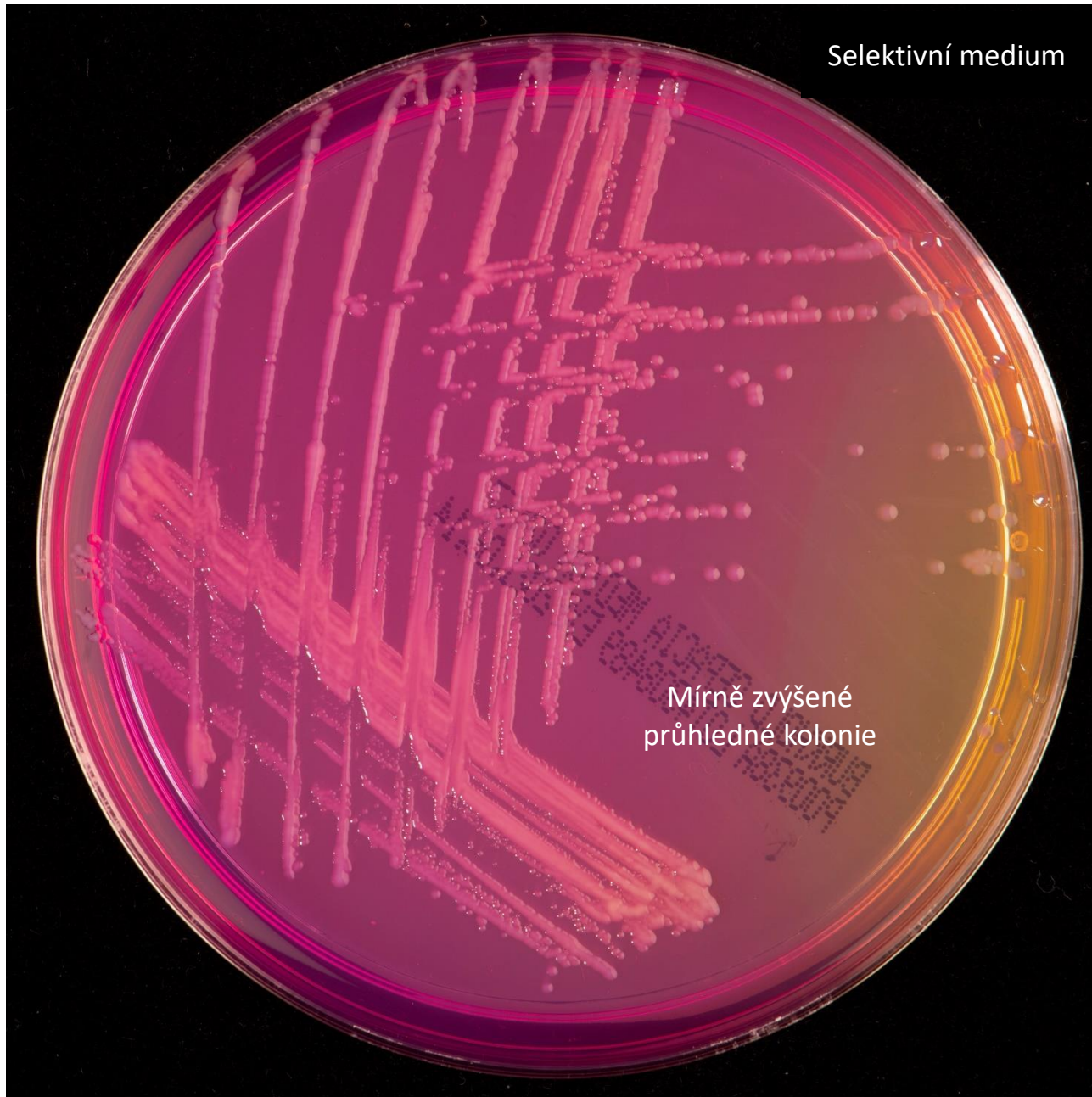


Vypouklé, lesklé a  
nehemolytické kolonie  
(velikostí menší než entereobakterie)

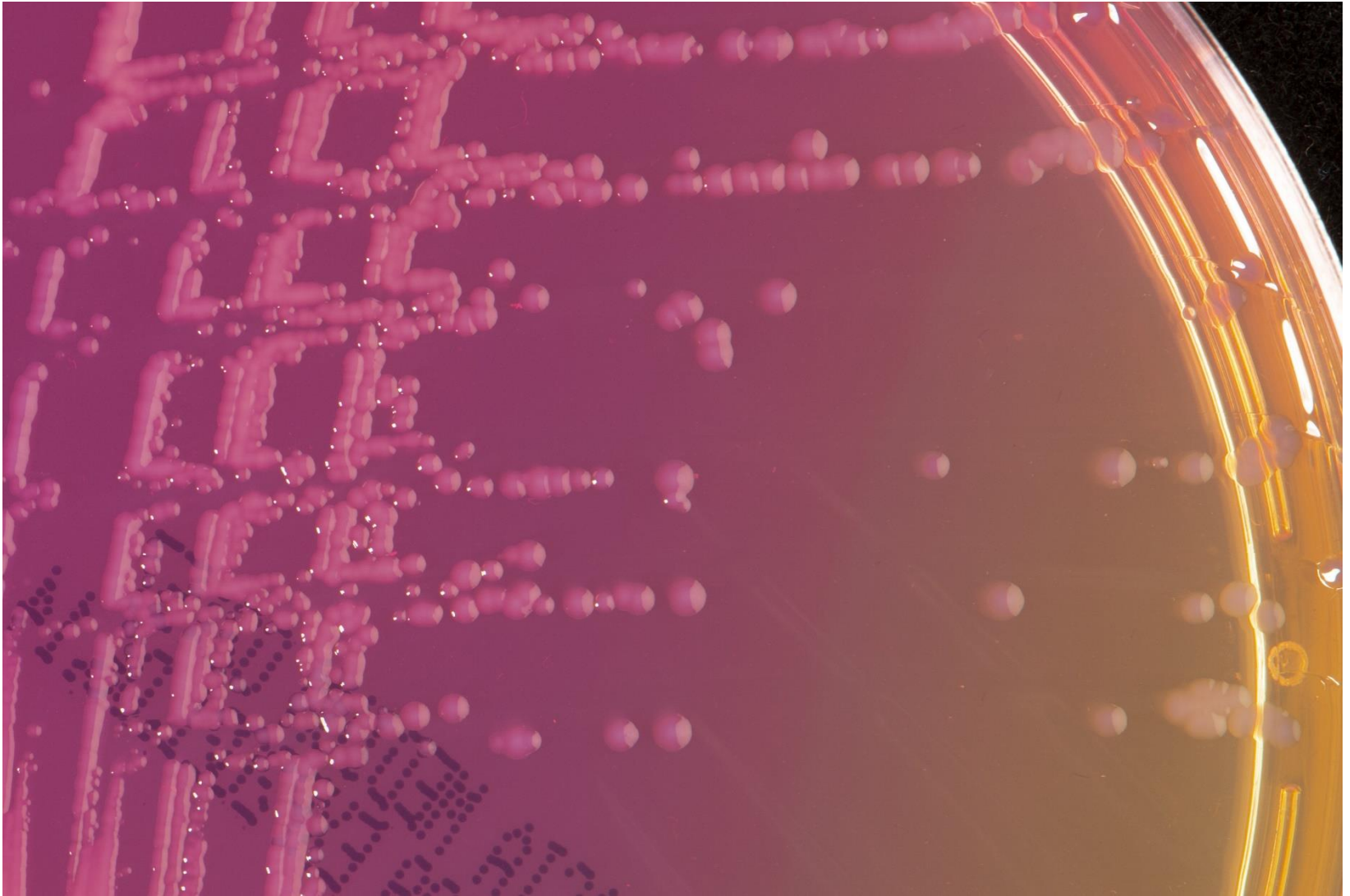
## 14. *Acinetobacter baumani*



## 15. *Burkholderia cepacia* komplex



## 15. *Burkholderia cepacia* komplex



## 16. *Pseudomonas aeruginosa*

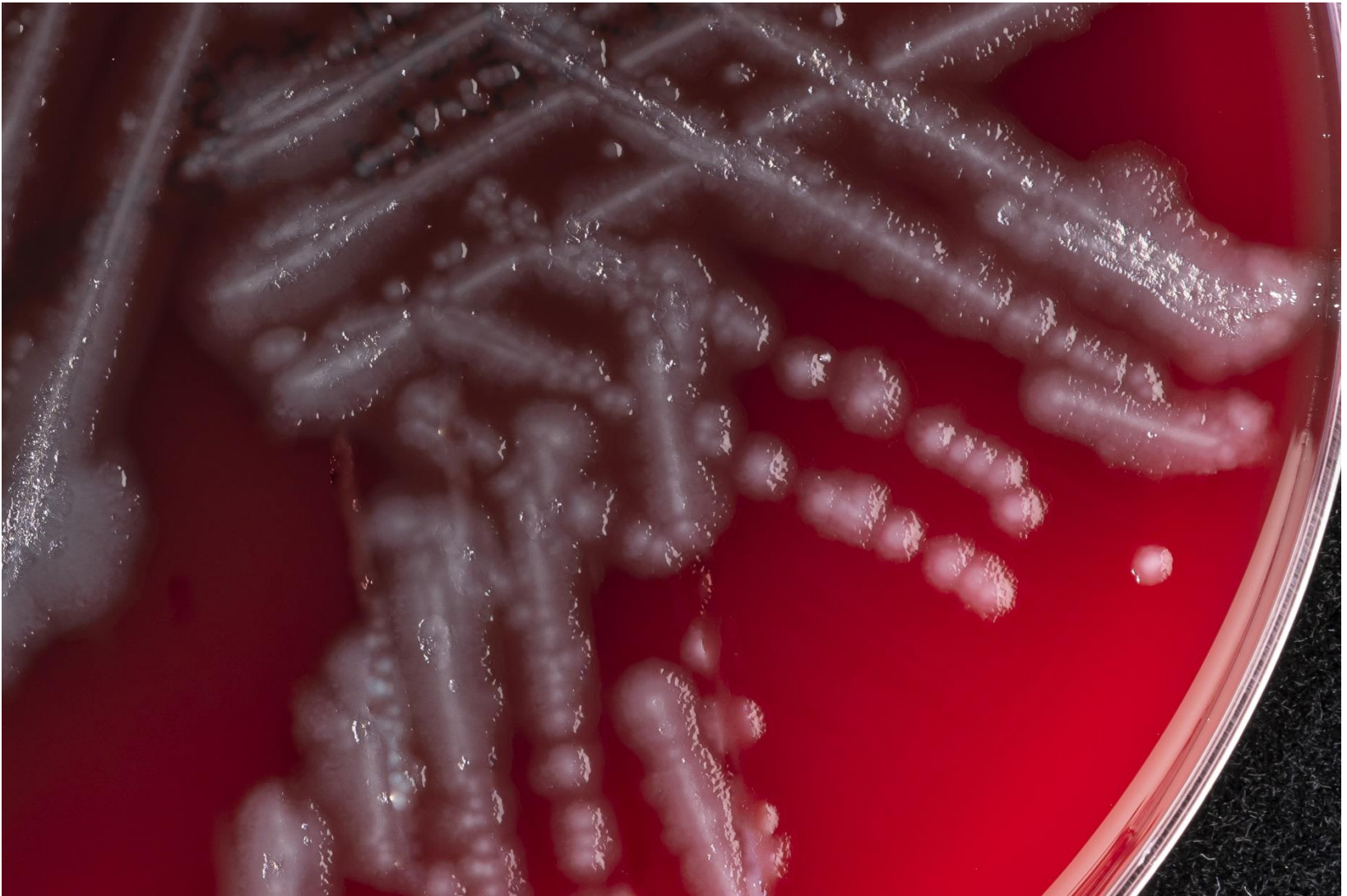
Krevní agar



Kolonie velké, ploché a  
rozprostřené (typický zápach)

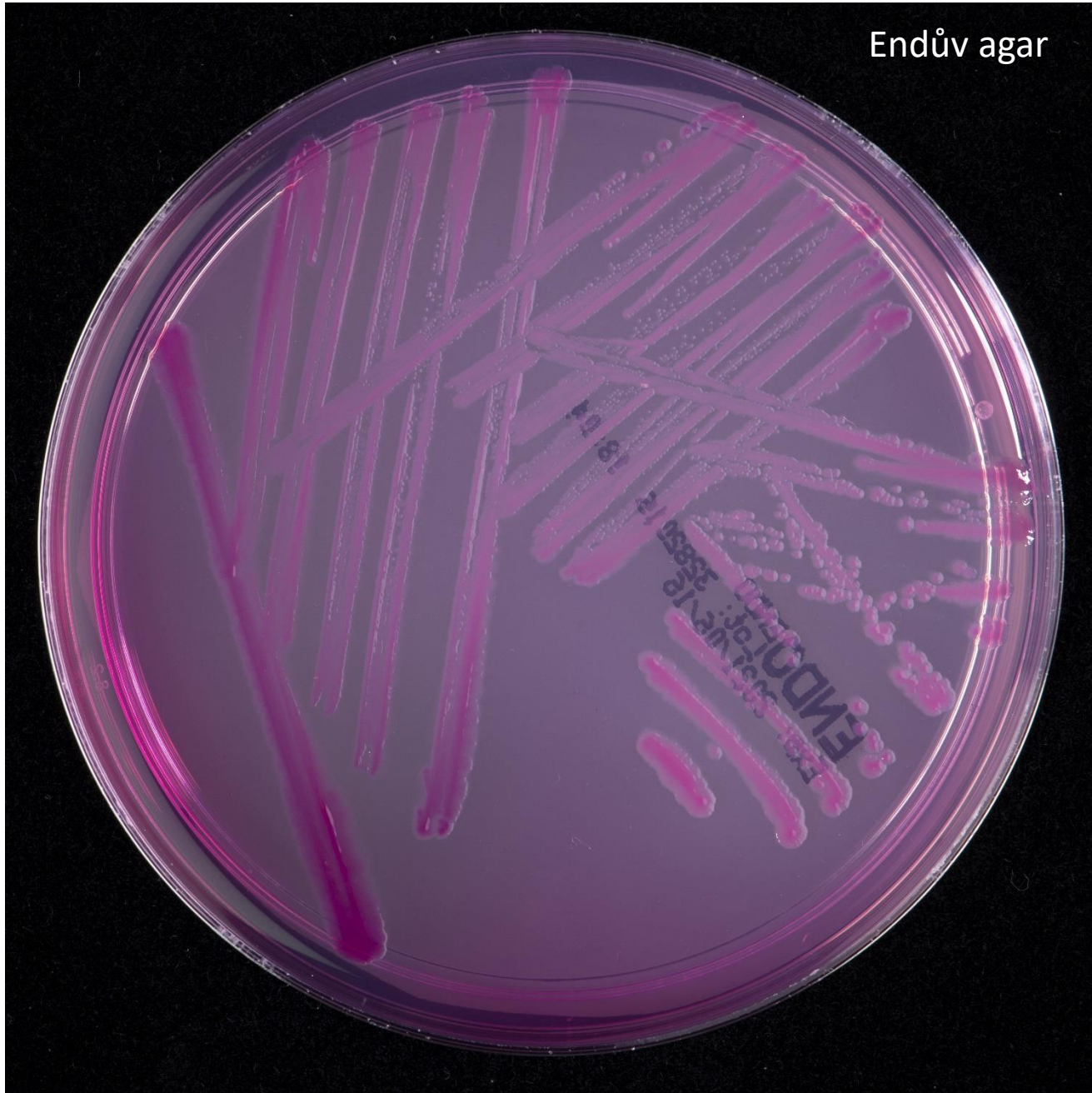


**16. *Pseudomonas aeruginosa***

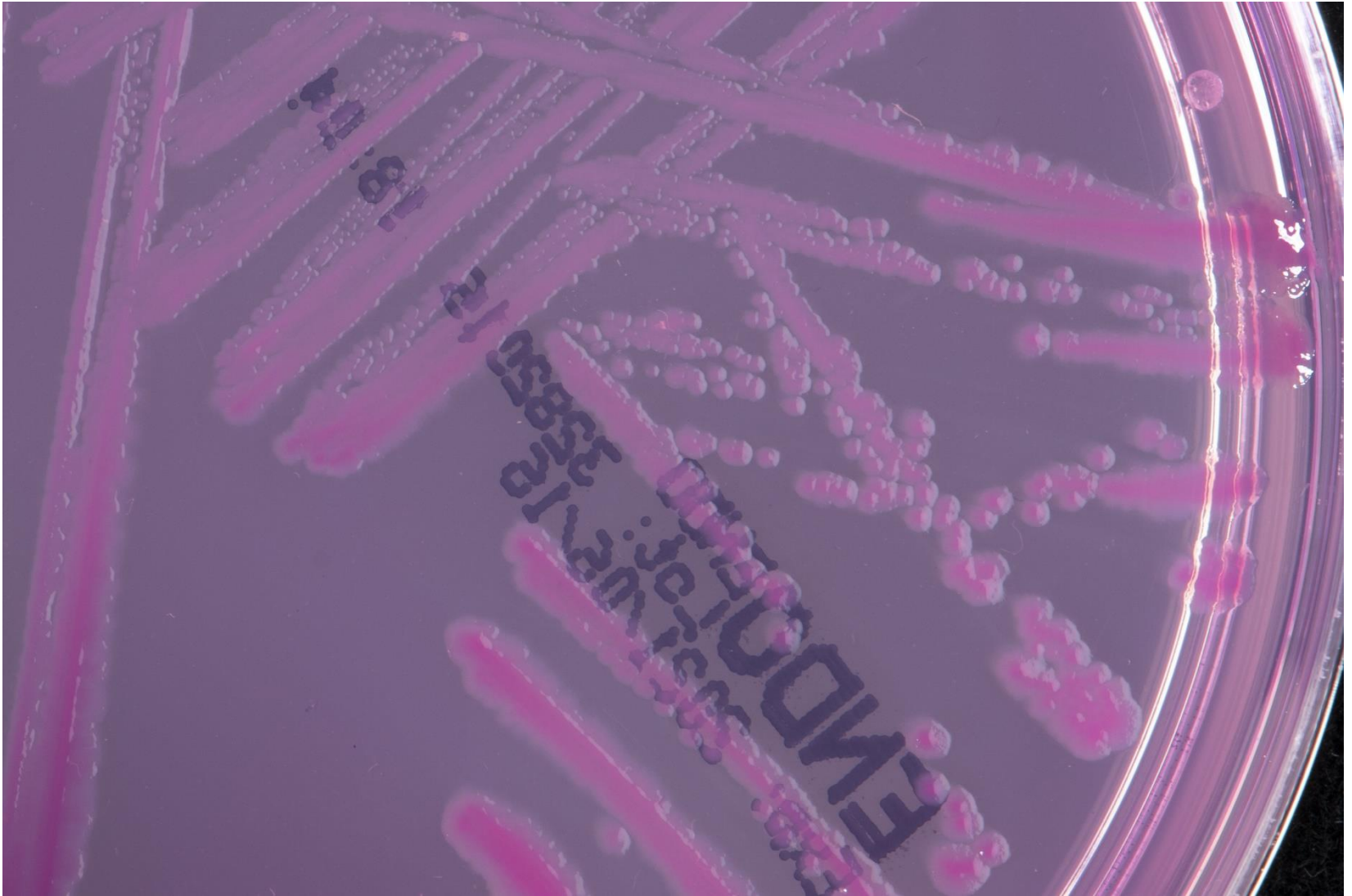


## 16. *Pseudomonas aeruginosa*

Endüv agar



## 16. *Pseudomonas aeruginosa*



## 17. *Stenotrophomonas maltophilia*



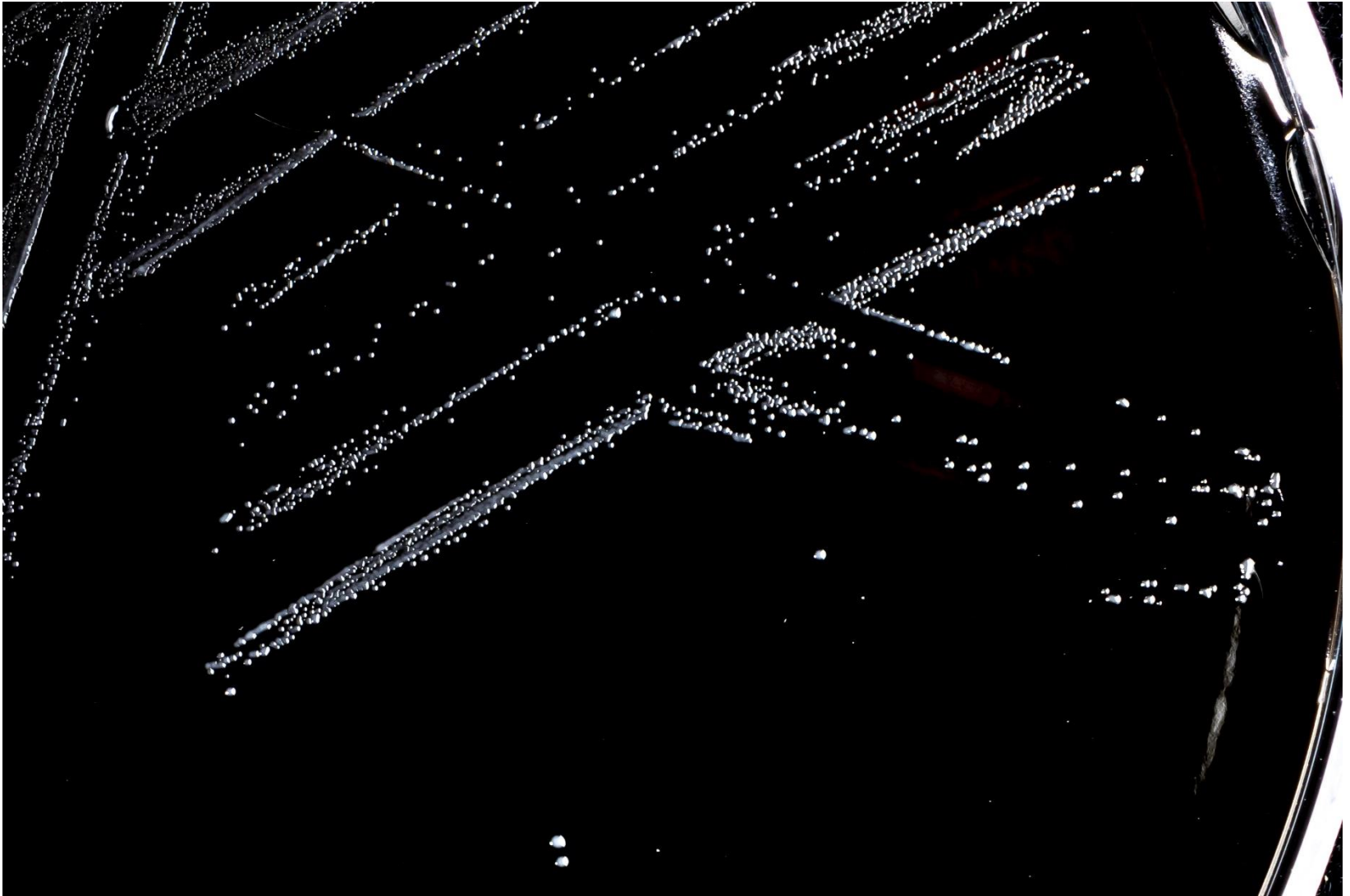
## 17. *Stenotrophomonas maltophilia*



## 18. *Bordetella pertussis*



## 18. *Bordetella pertussis*



## 19. *Campylobacter* sp.



Karmaliho agar\*

\*Selektivní médium pro  
kampylobaktery (není nutné  
znát pro zkoušku)

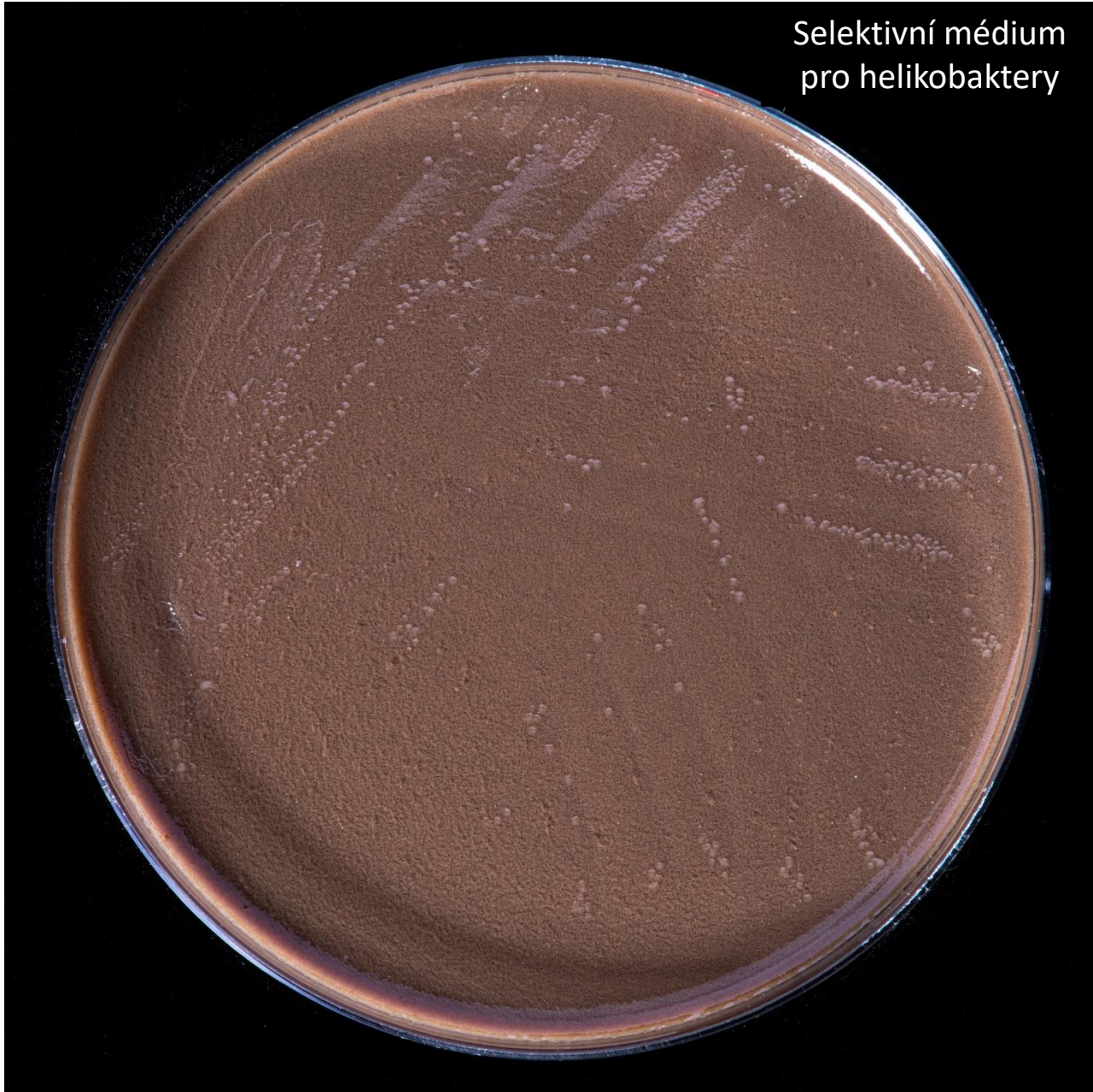


**19. *Campylobacter* sp.**



## 20. *Helicobacter pylori*

Selektivní médium  
pro helikobaktery

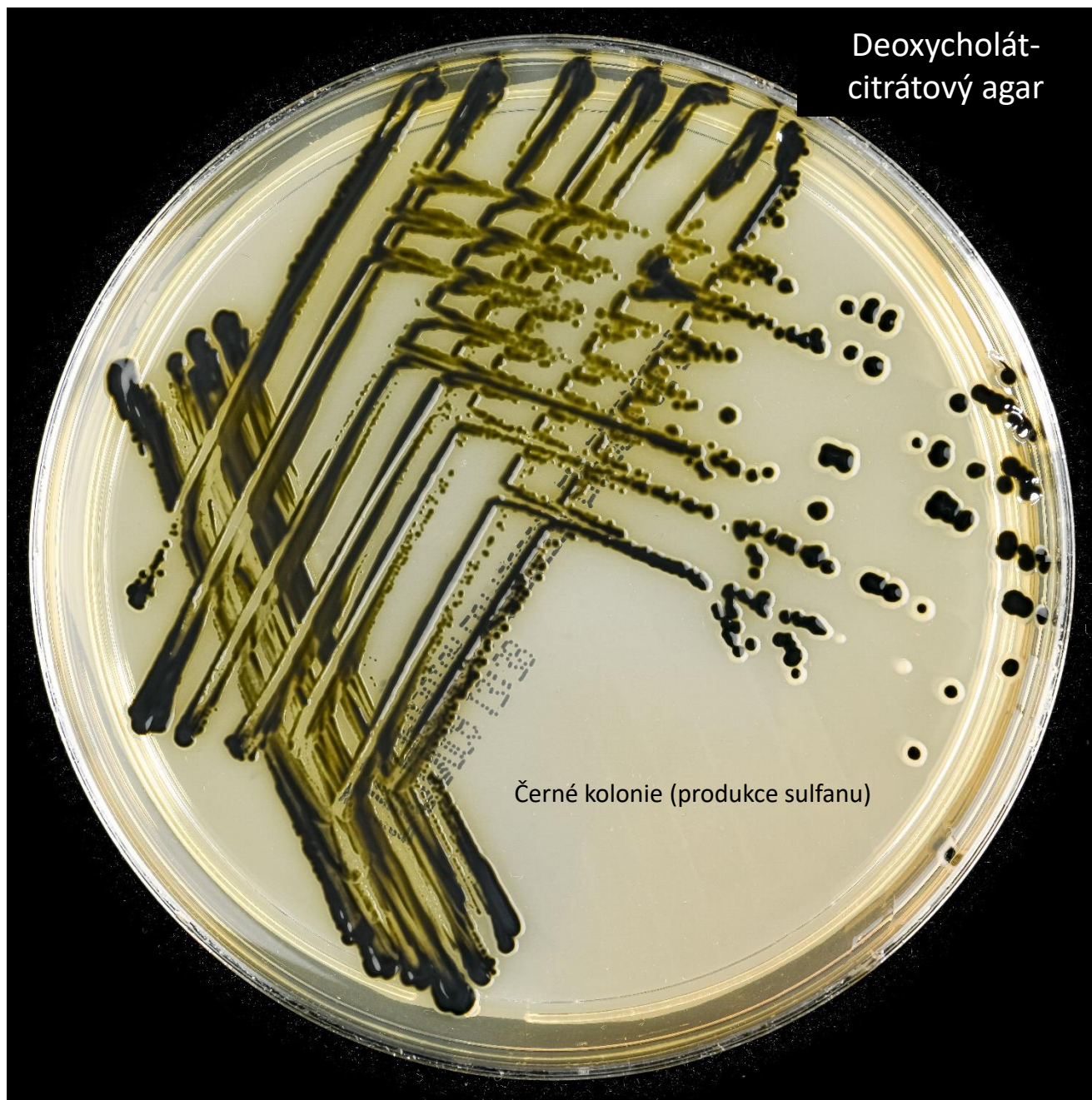


## 20. *Helicobacter pylori*



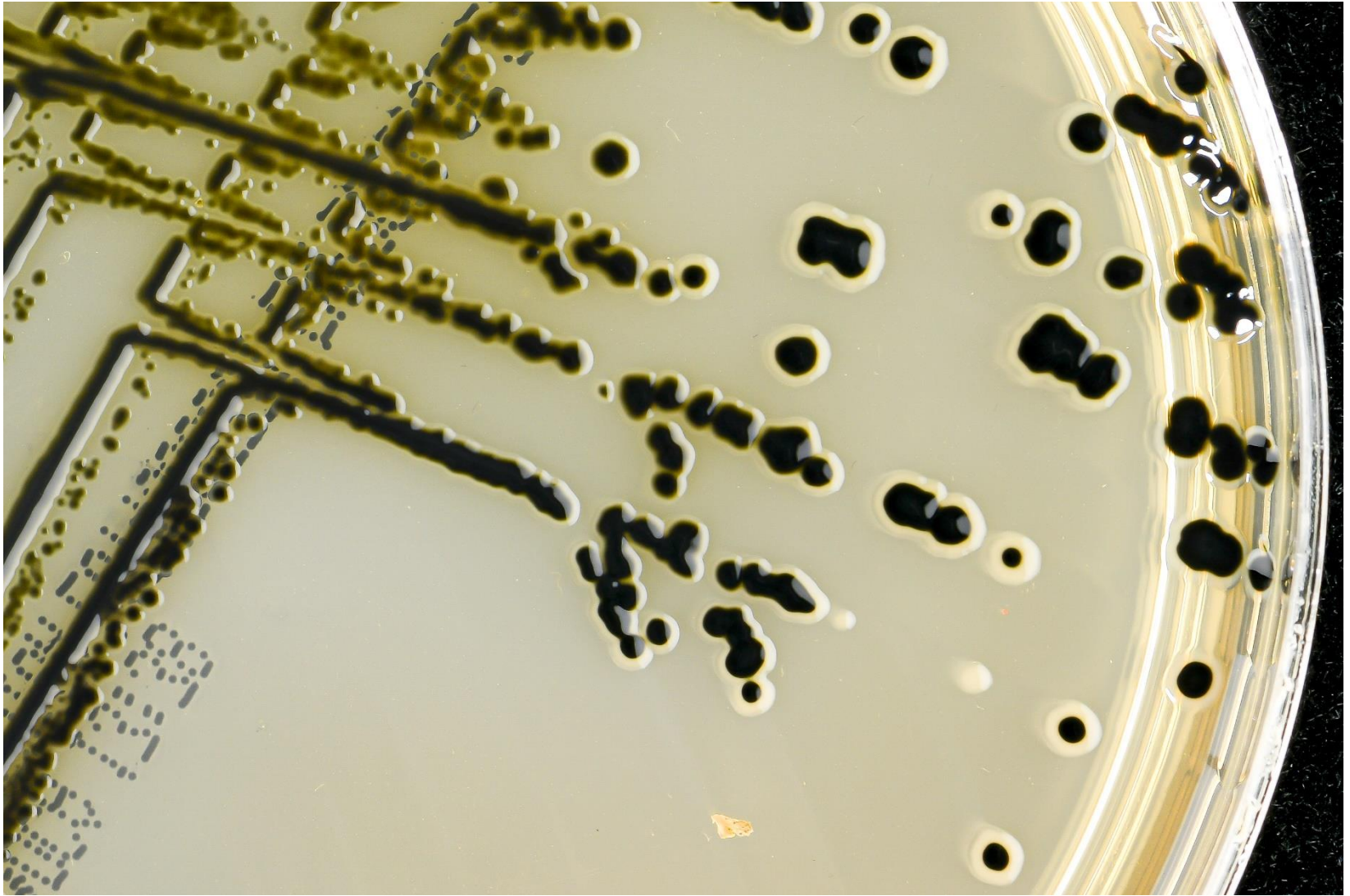
## 21. *Citrobacter freundii*

Deoxycholát-  
citrátový agar



Černé kolonie (produkce sulfanu)

## 21. *Citrobacter freundii*



## 22. *Enterobacter cloacae*

Krevní agar



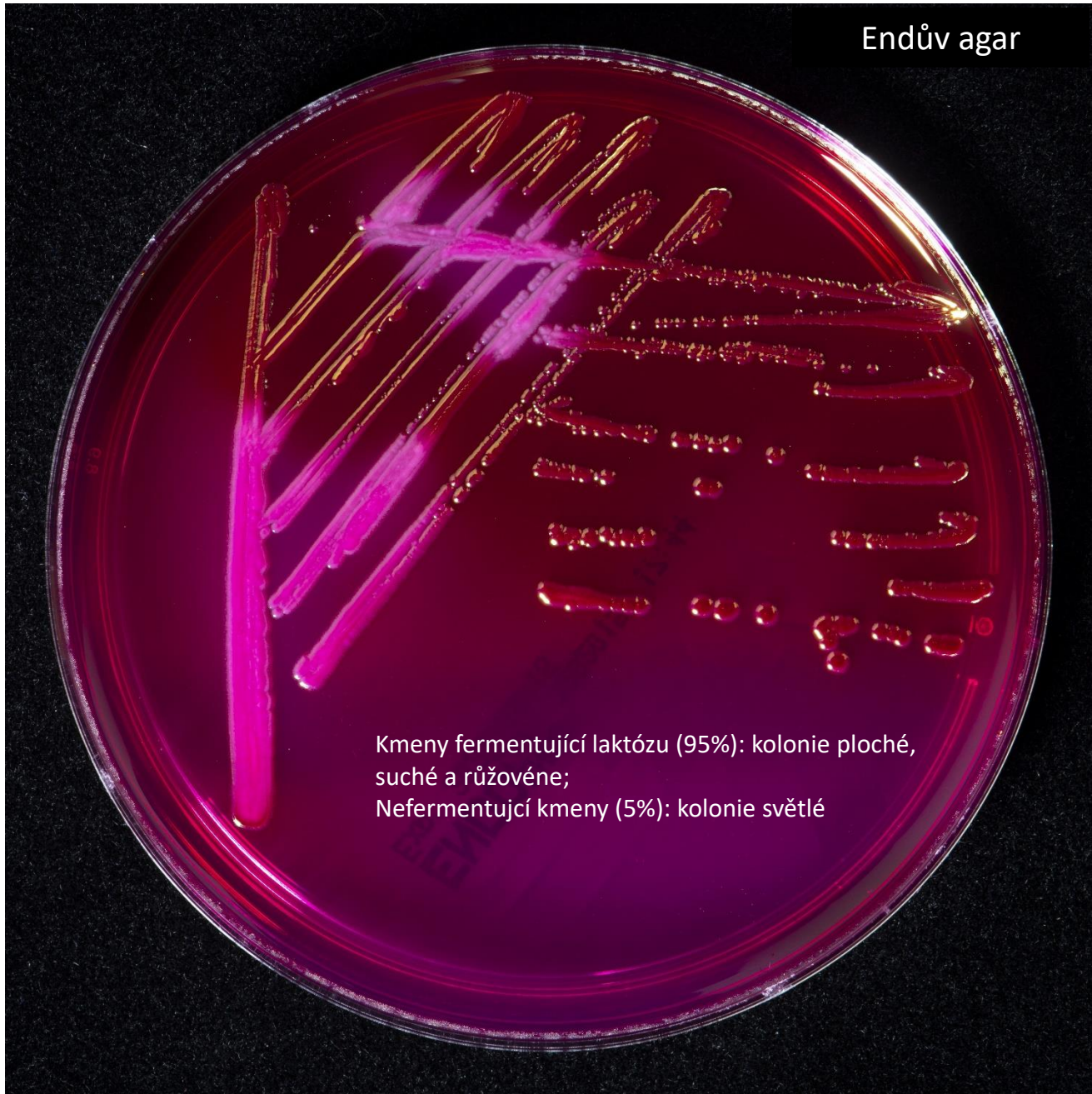
Kolonie jsou šedé, hladké, lesklé a někdy ploché s nepravidelnými okraj

## 22. *Enterobacter cloacae*



## 23. *Escherichia coli*

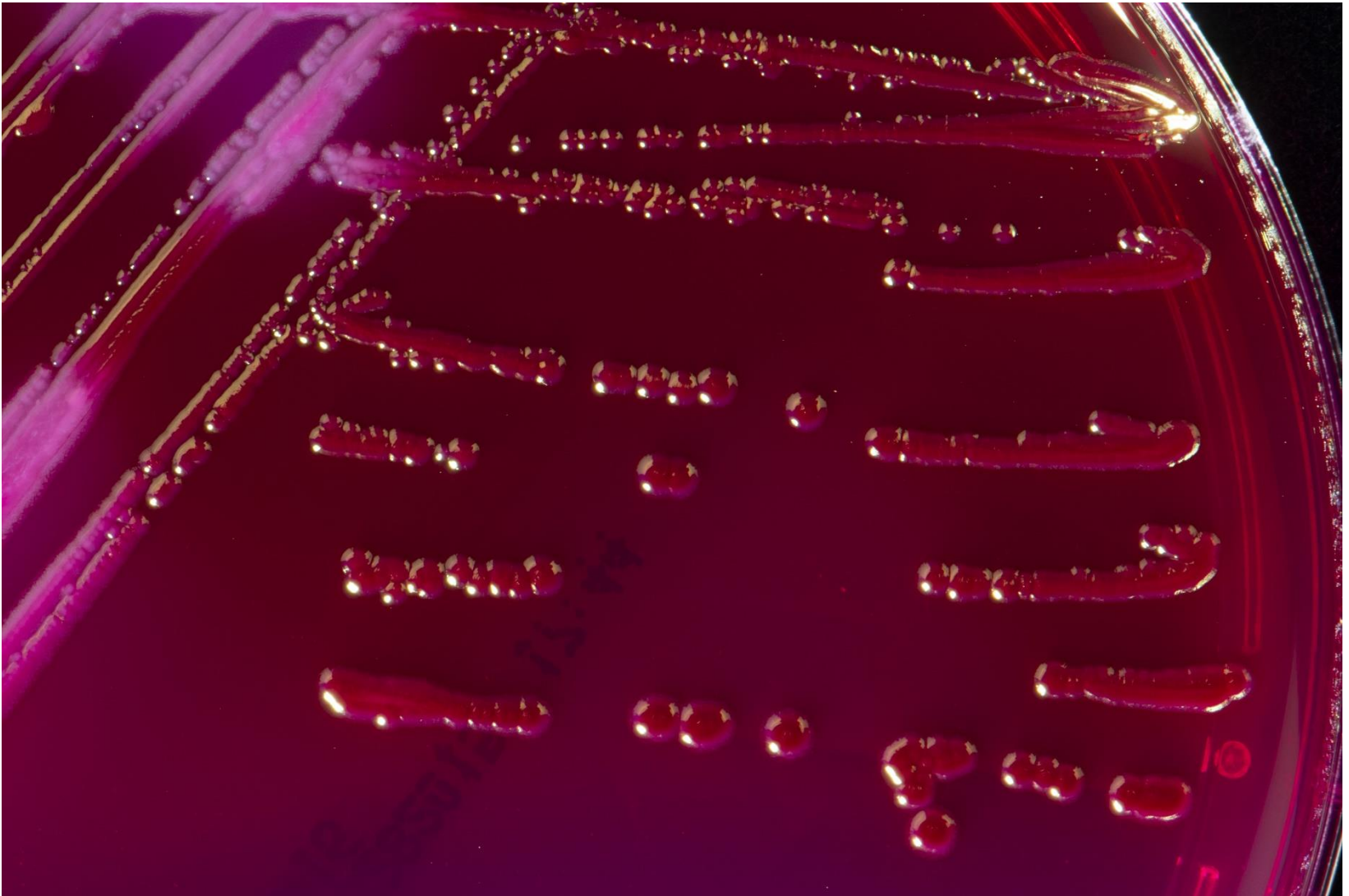
Endův agar



Kmeny fermentující laktózu (95%): kolonie ploché,  
suché a růžové;  
Nefermentující kmeny (5%): kolonie světlé

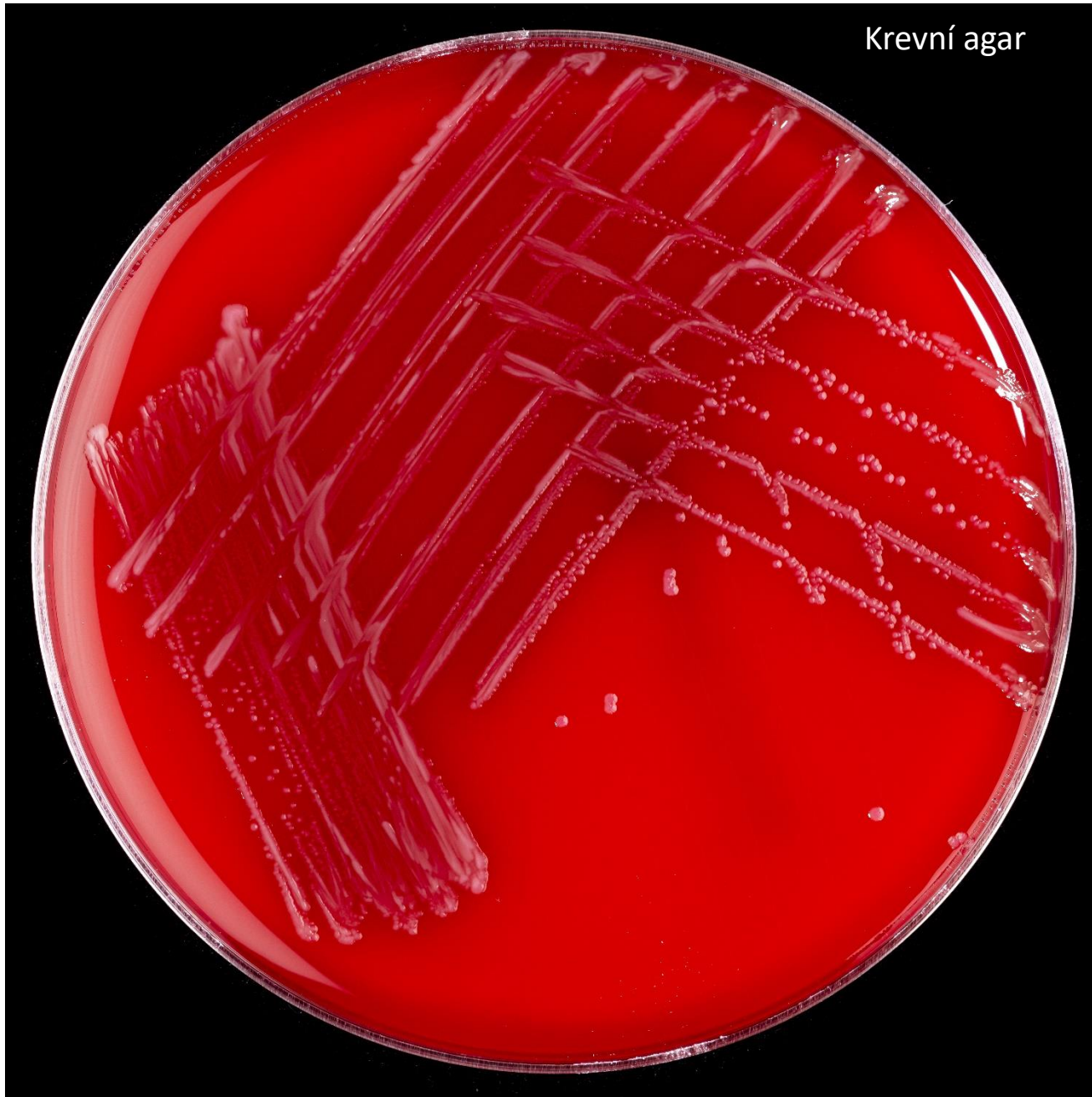


## 23. *Escherichia coli*

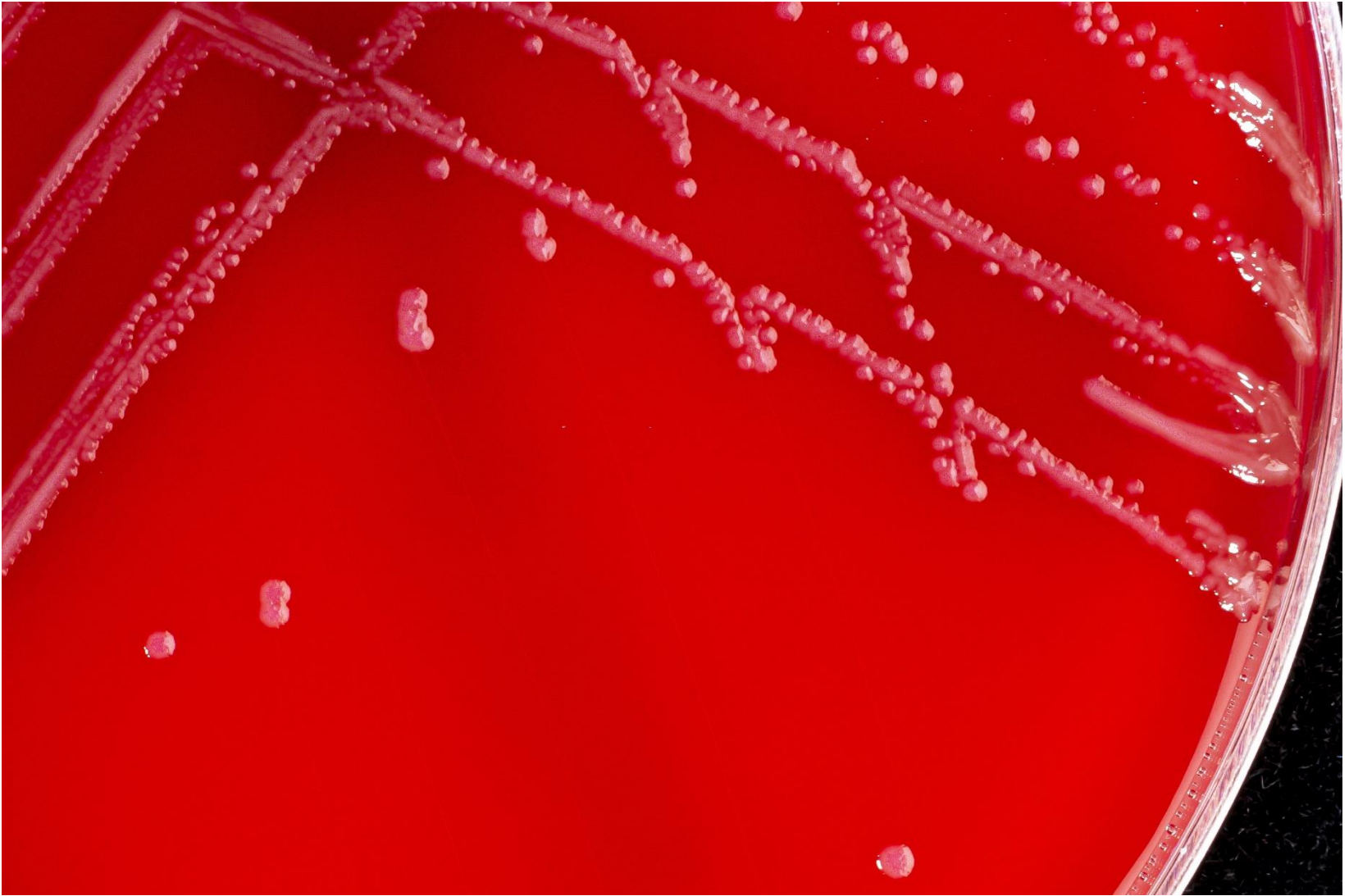


## 24. *Haemophilus influenzae*

Krevní agar



## 24. *Haemophilus influenzae*



## 24. *Haemophilus influenzae*



## 24. *Haemophilus influenzae*



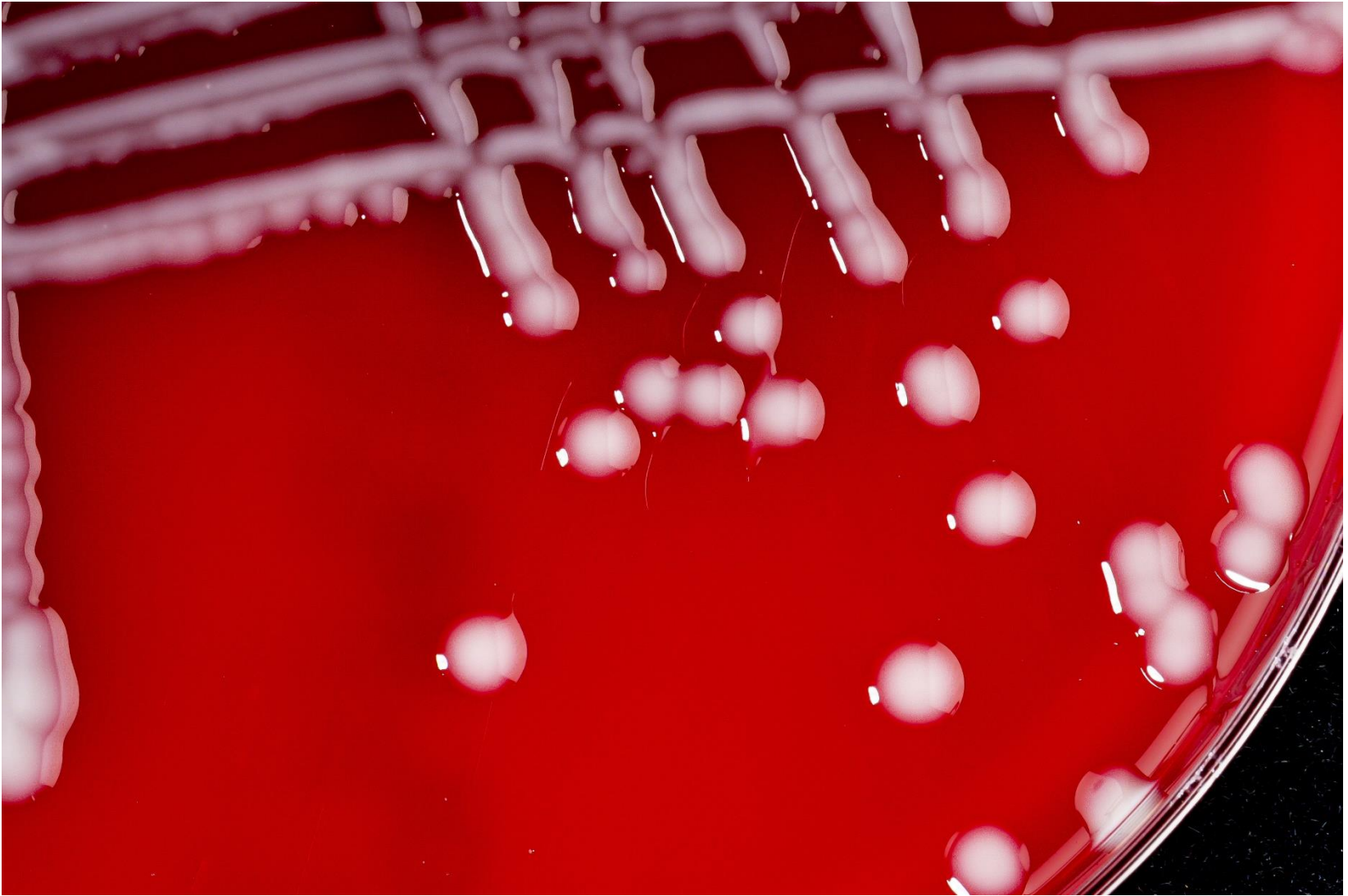
## 25. *Klebsiella pneumoniae*

Krevní agar

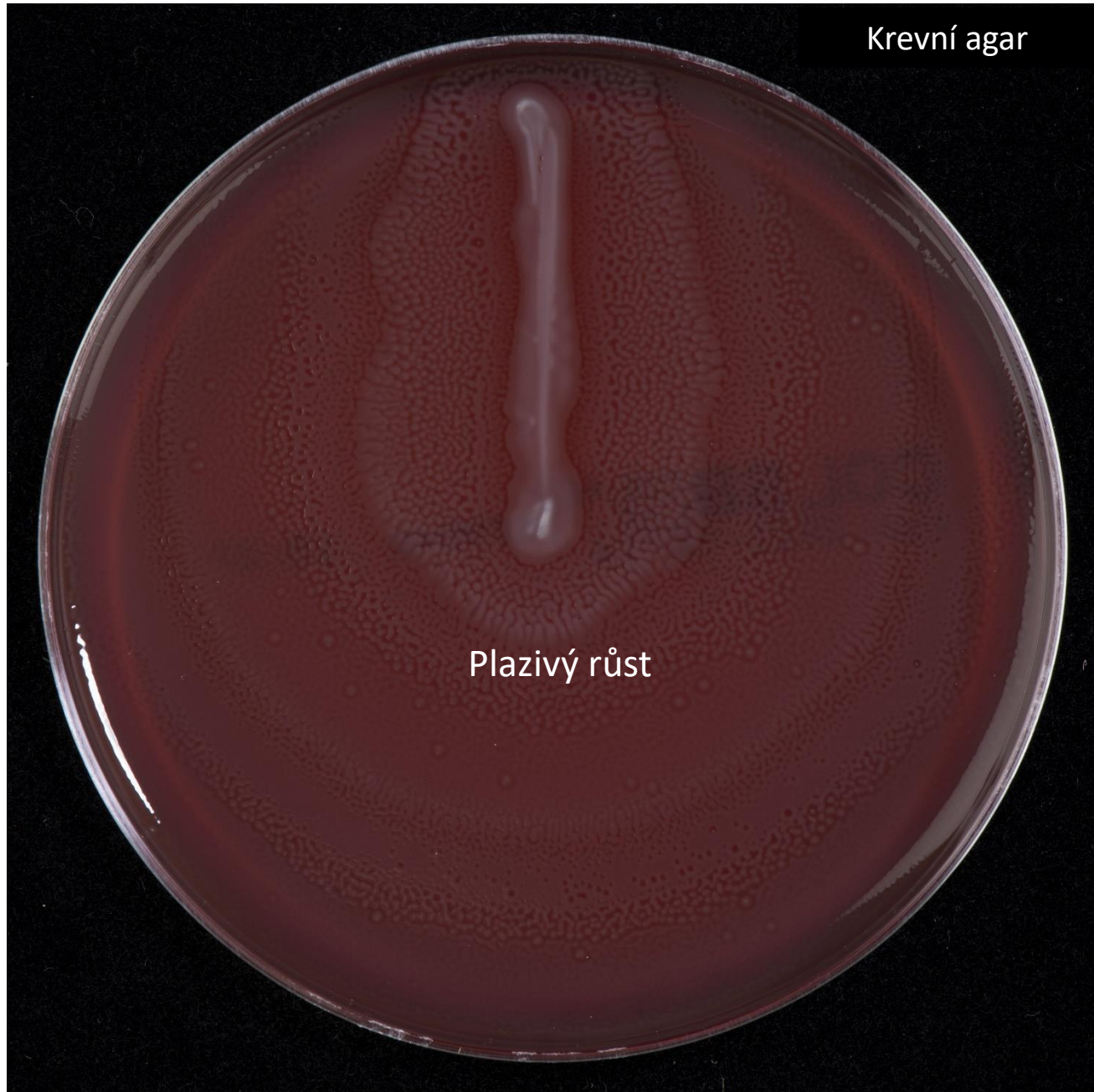


Kolonie velké, lesklé a slizké  
(na Endově půdě fermentují laktózu)

## 25. *Klebsiella pneumoniae*



## 26. *Proteus mirabilis*



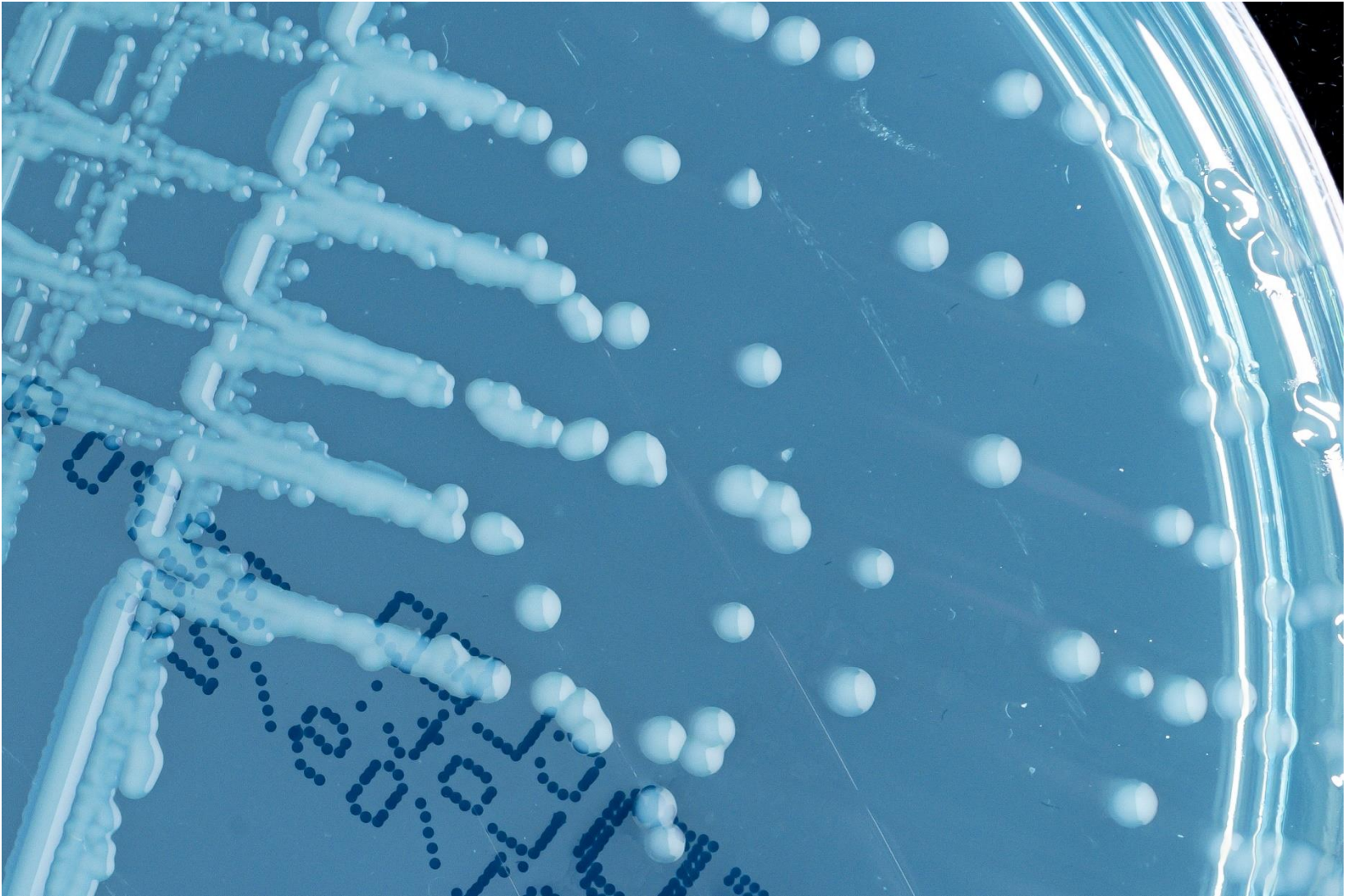


## 26. *Proteus mirabilis*

CLED agar

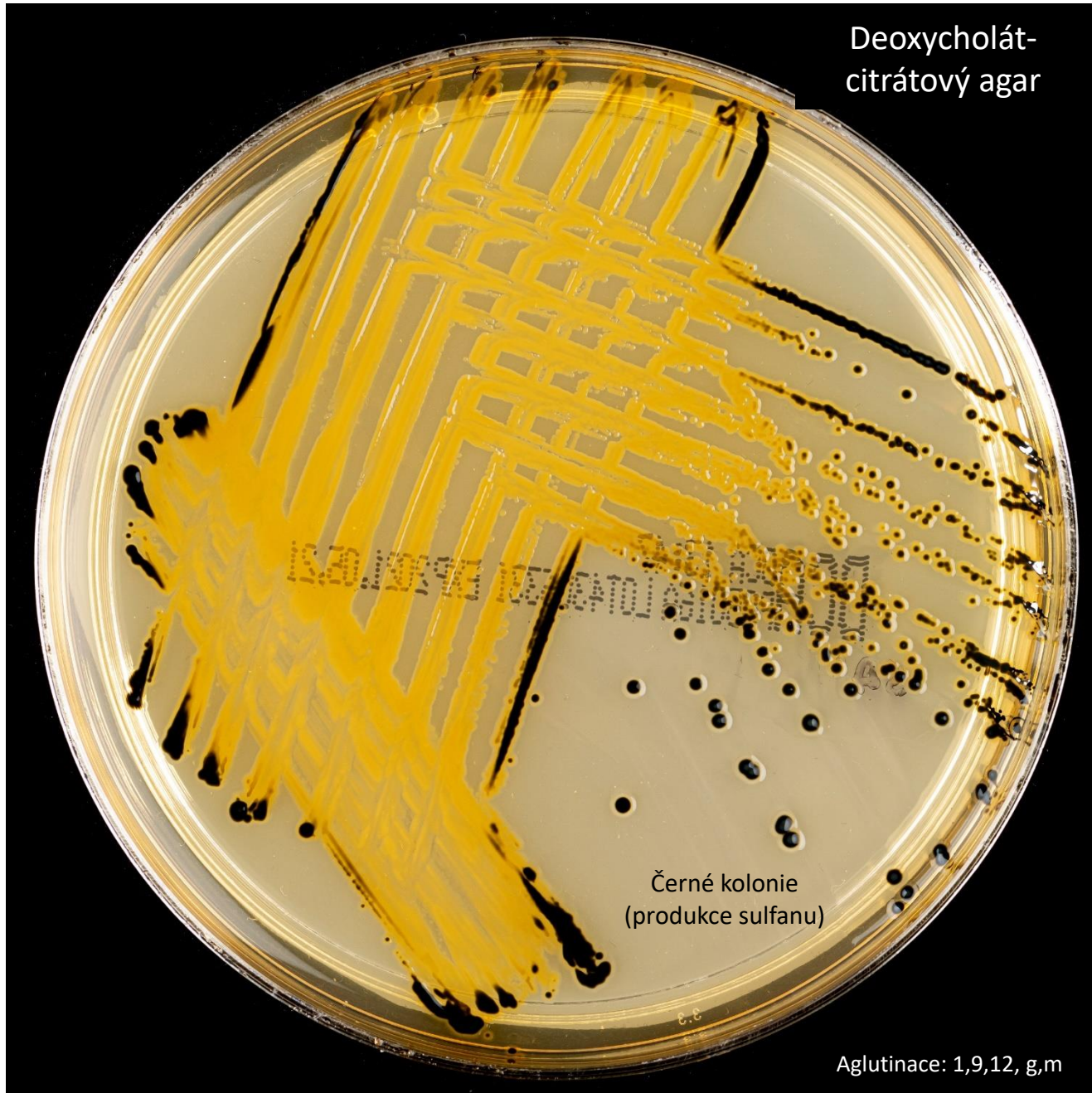


## 26. *Proteus mirabilis*



## 27. *Salmonella* Enteritidis

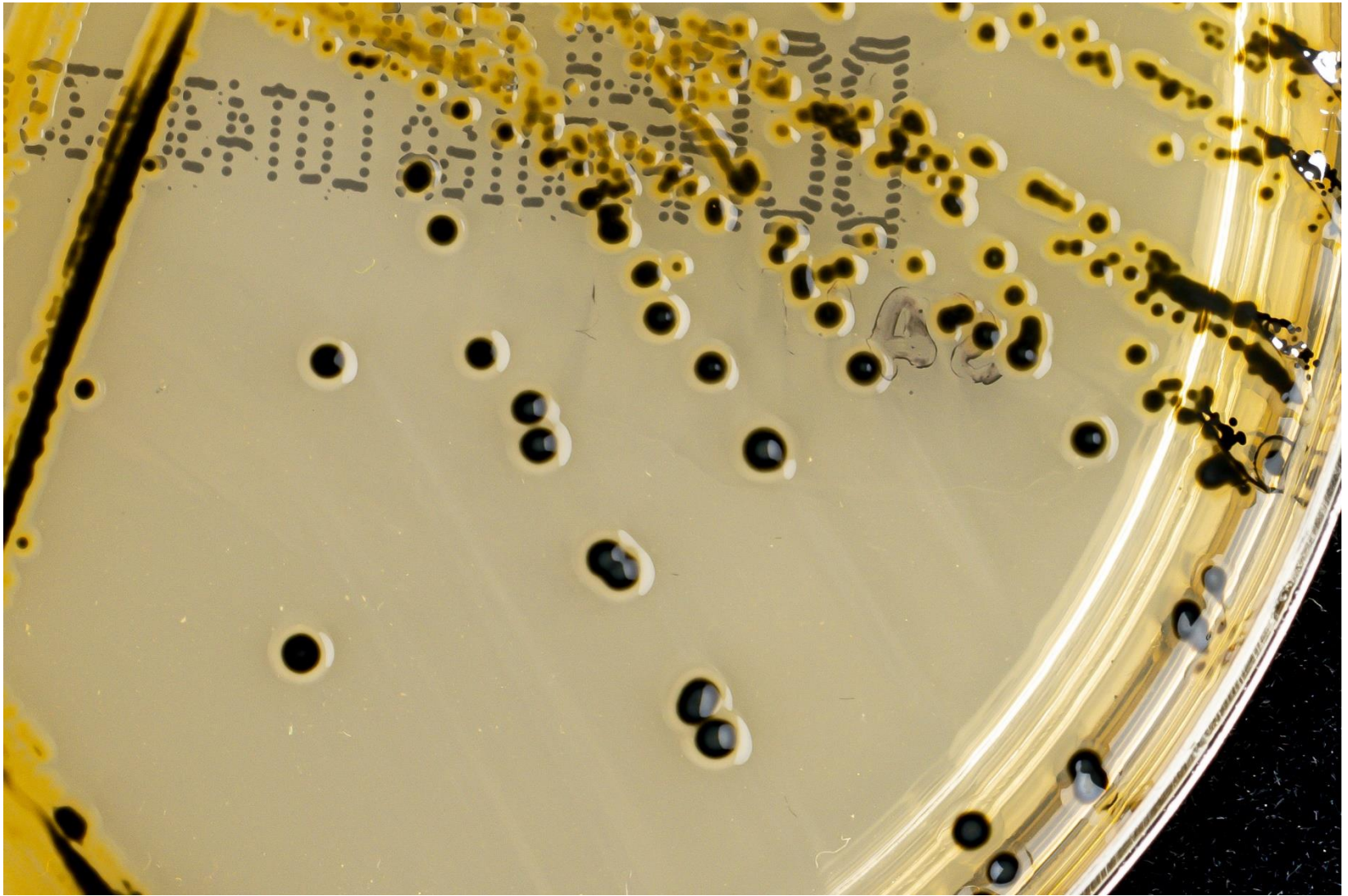
Deoxycholát-  
citrátový agar



Černé kolonie  
(produkce sulfanu)

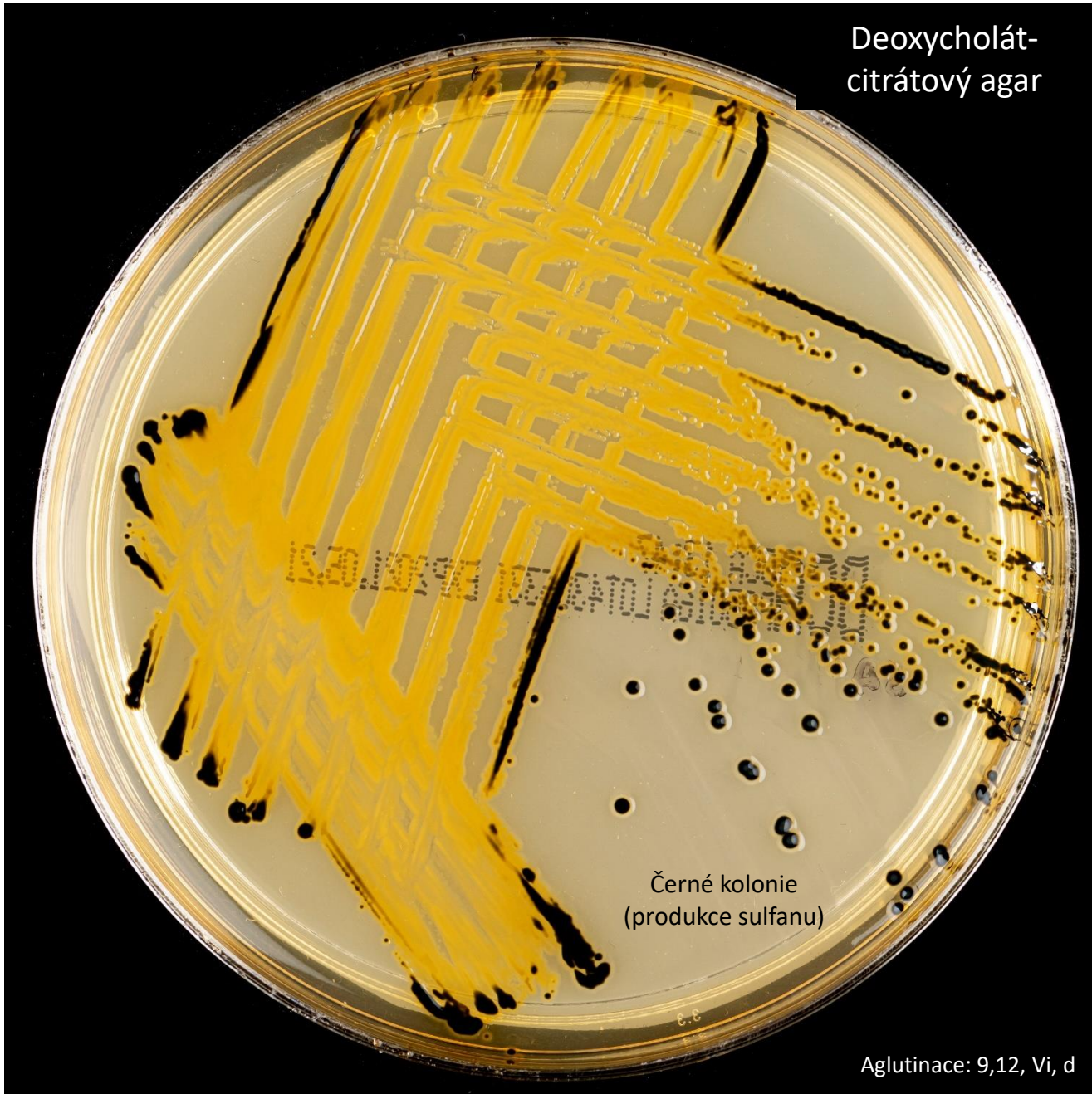
Aglutinace: 1,9,12, g,m

## 27. *Salmonella* Enteritidis



## 28. *Salmonella* Typhi

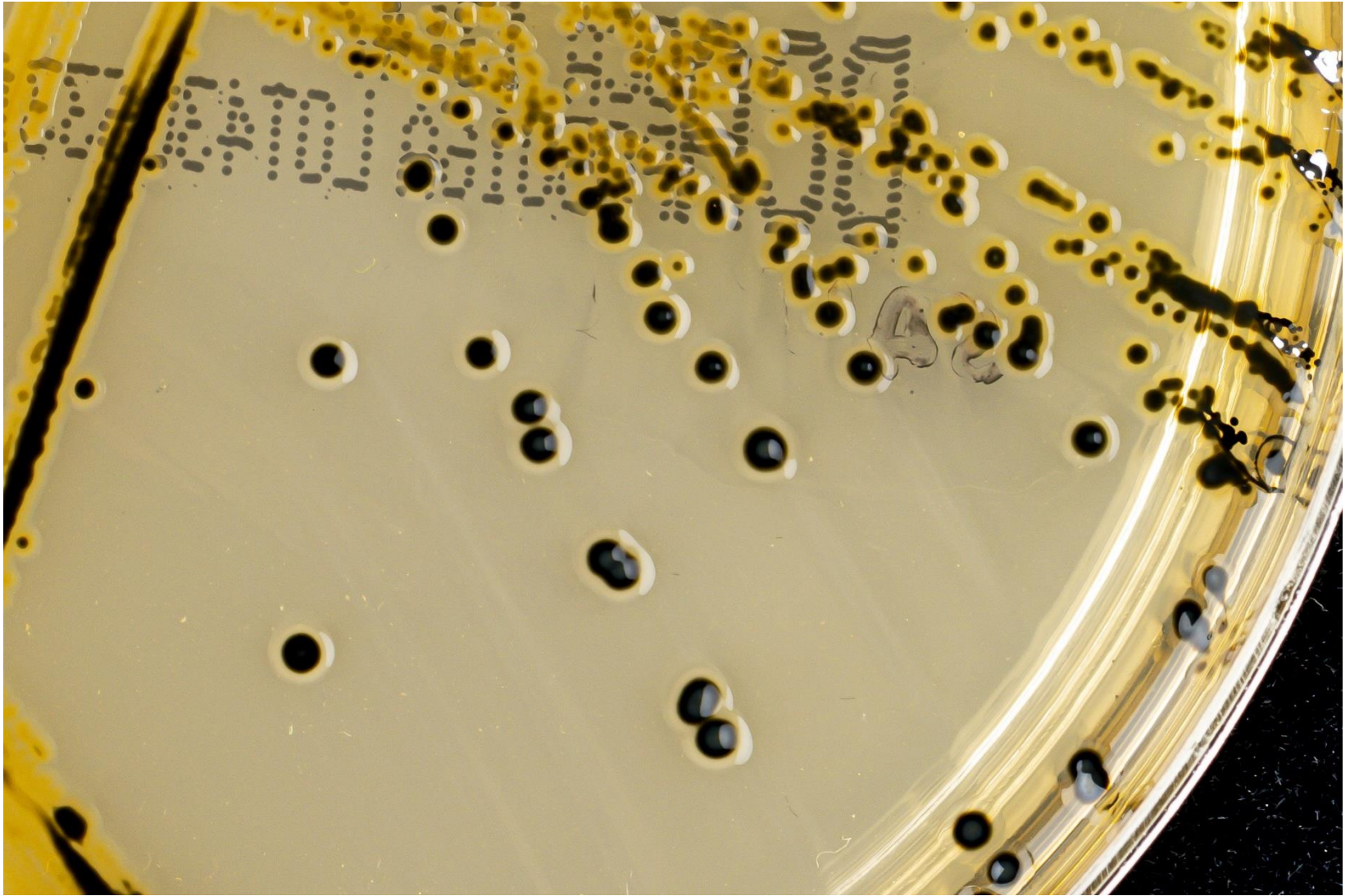
Deoxycholát-  
citrátový agar



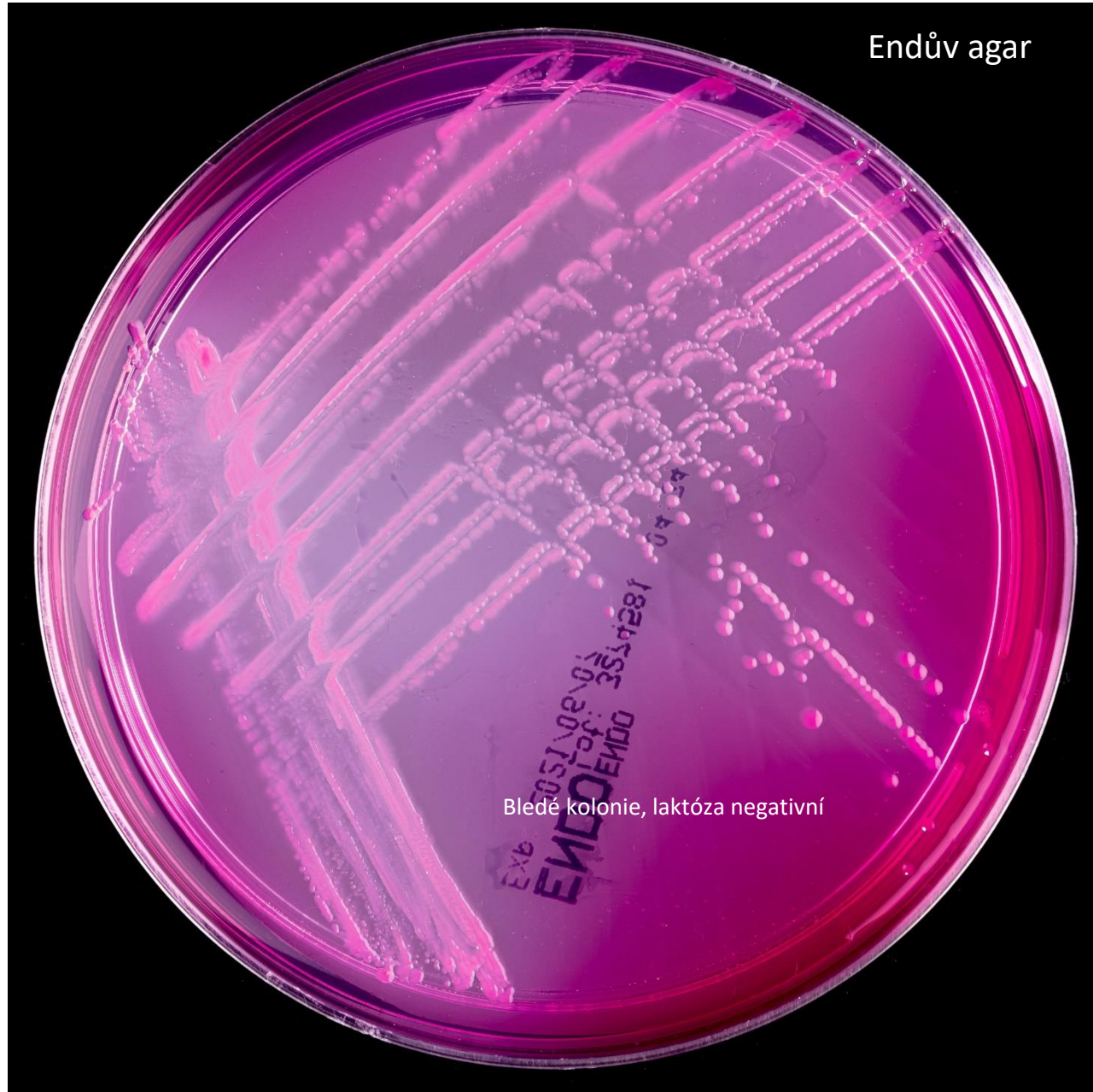
Černé kolonie  
(produkce sulfanu)

Aglutinace: 9,12, Vi, d

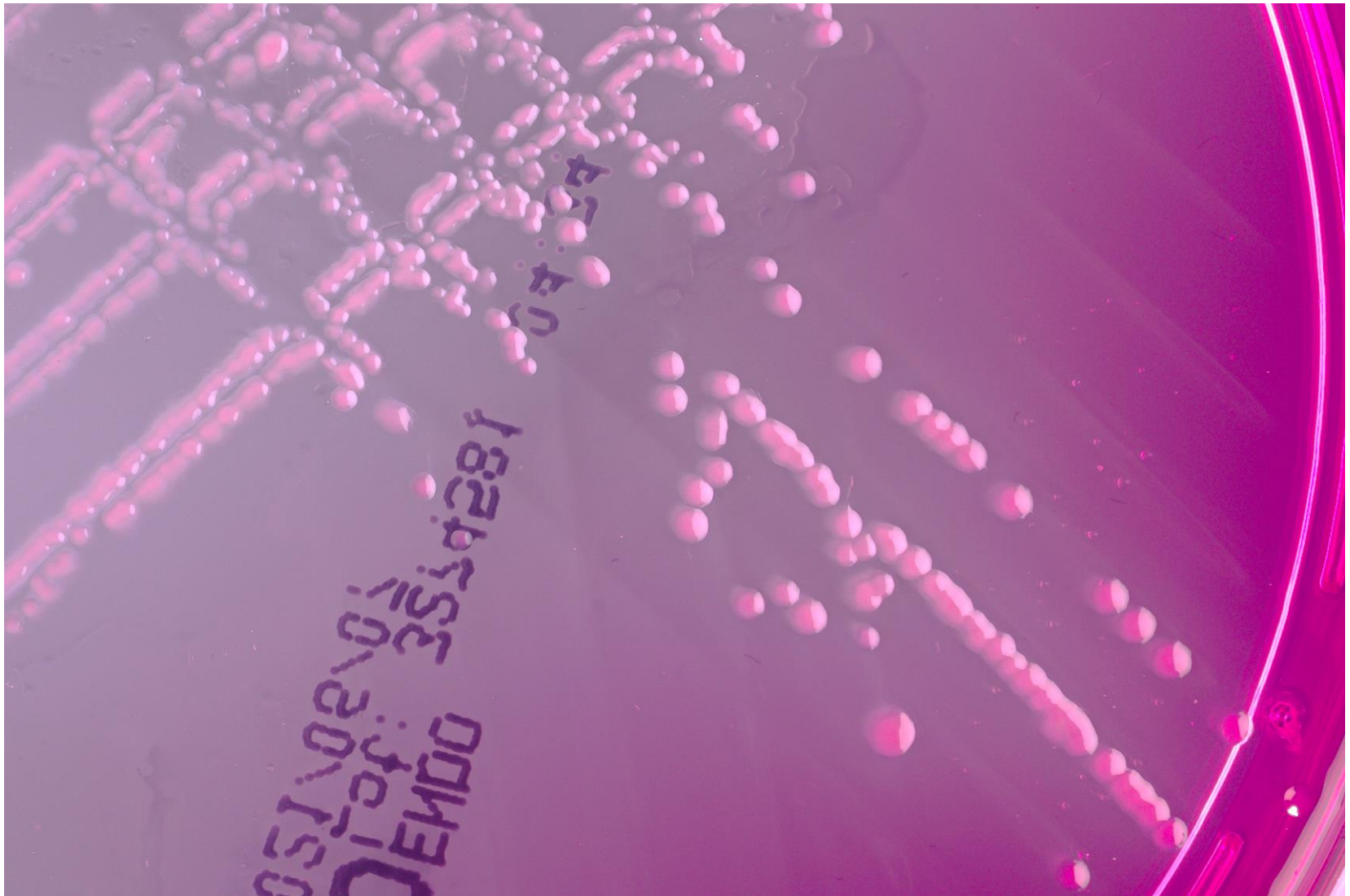
## 28. *Salmonella* Typhi



## 29. *Shigella dysenteriae*

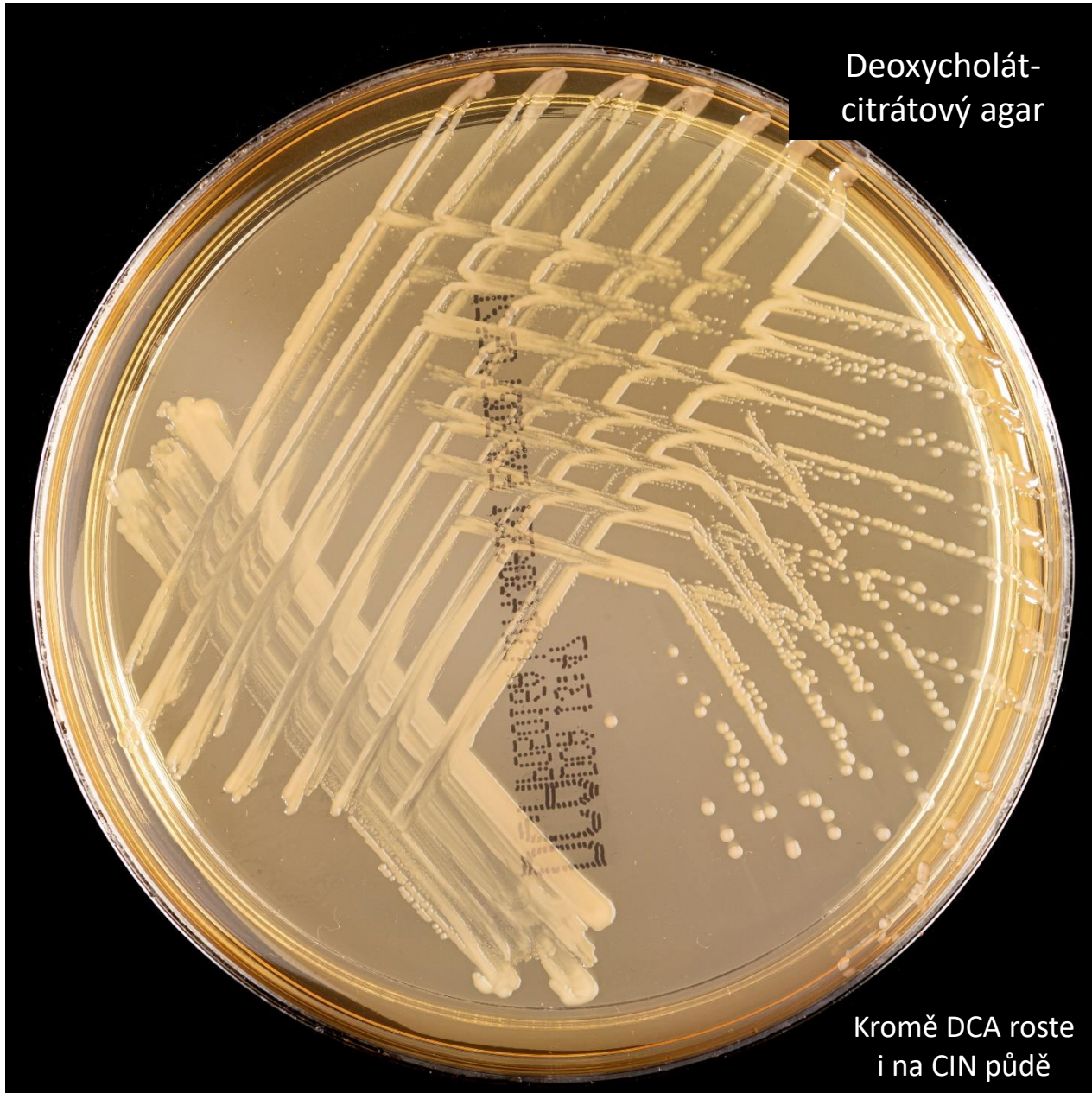


## 29. *Shigella dysenteriae*





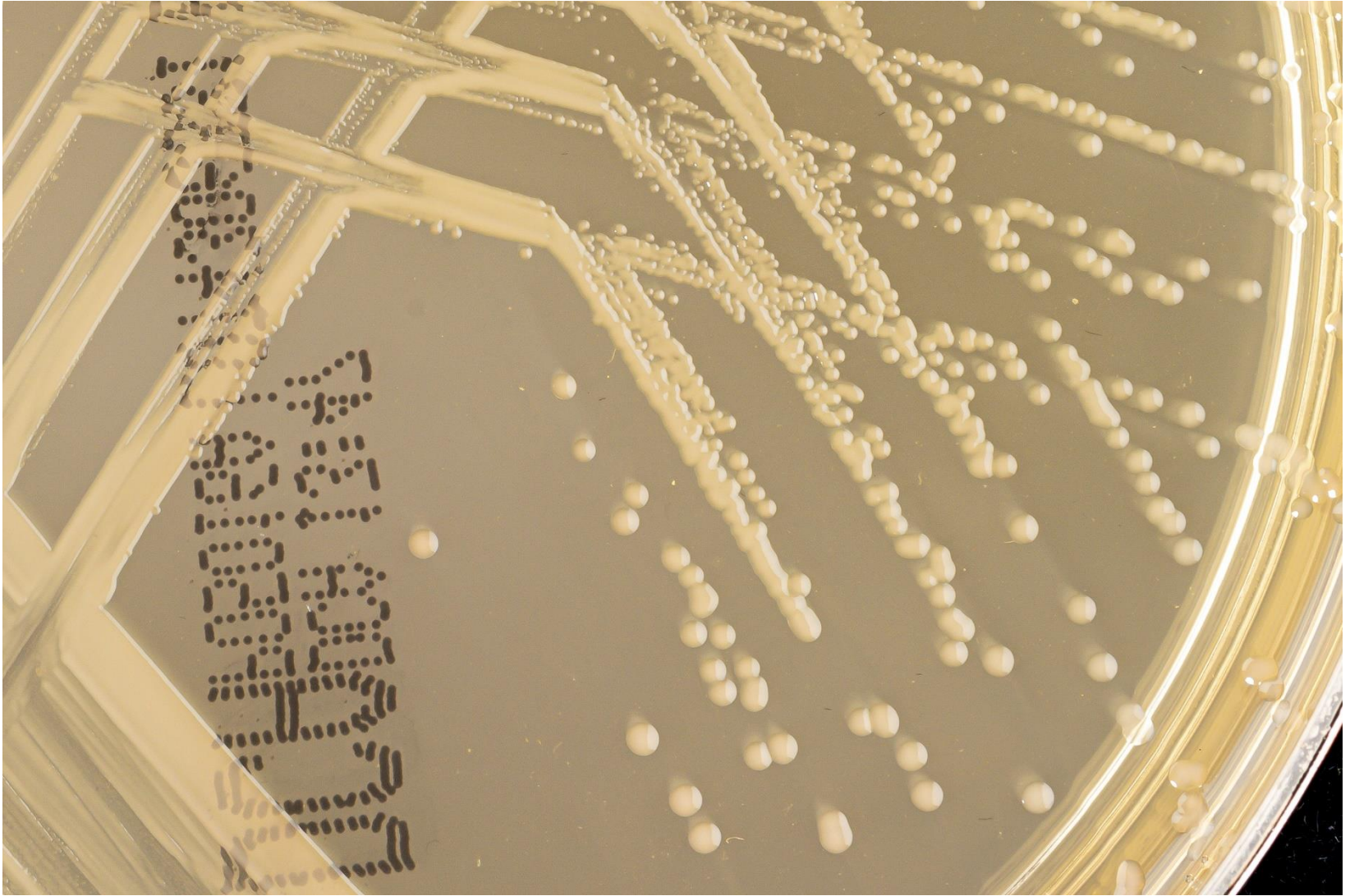
### 30. *Yersinia enterocolitica*



Deoxycholát-  
citrátový agar

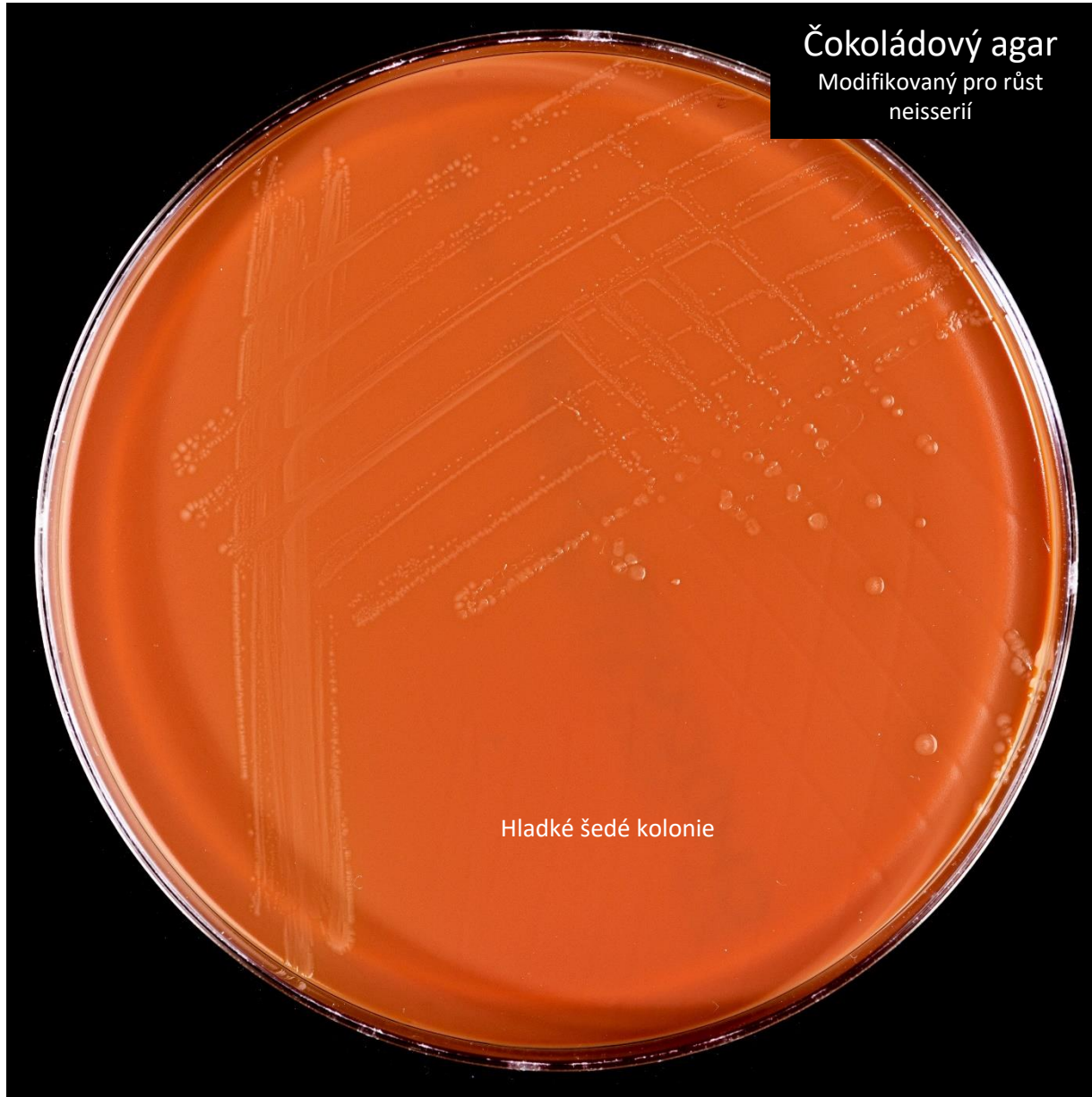
Kromě DCA roste  
i na CIN půdě

### 30. *Yersinia enterocolitica*



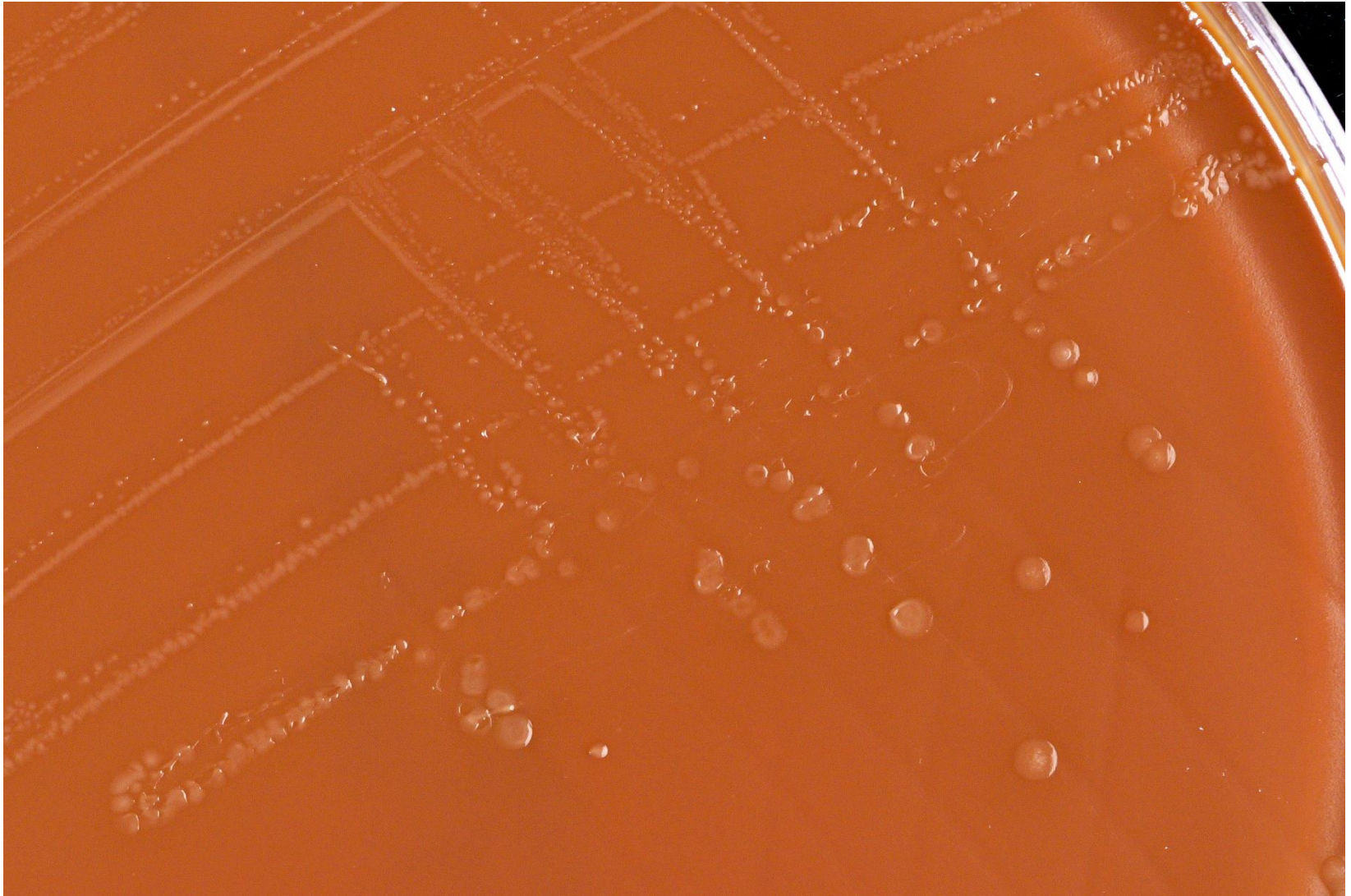
# 31. *Neisseria meningitidis*

Čokoládový agar  
Modifikovaný pro růst  
neisserií



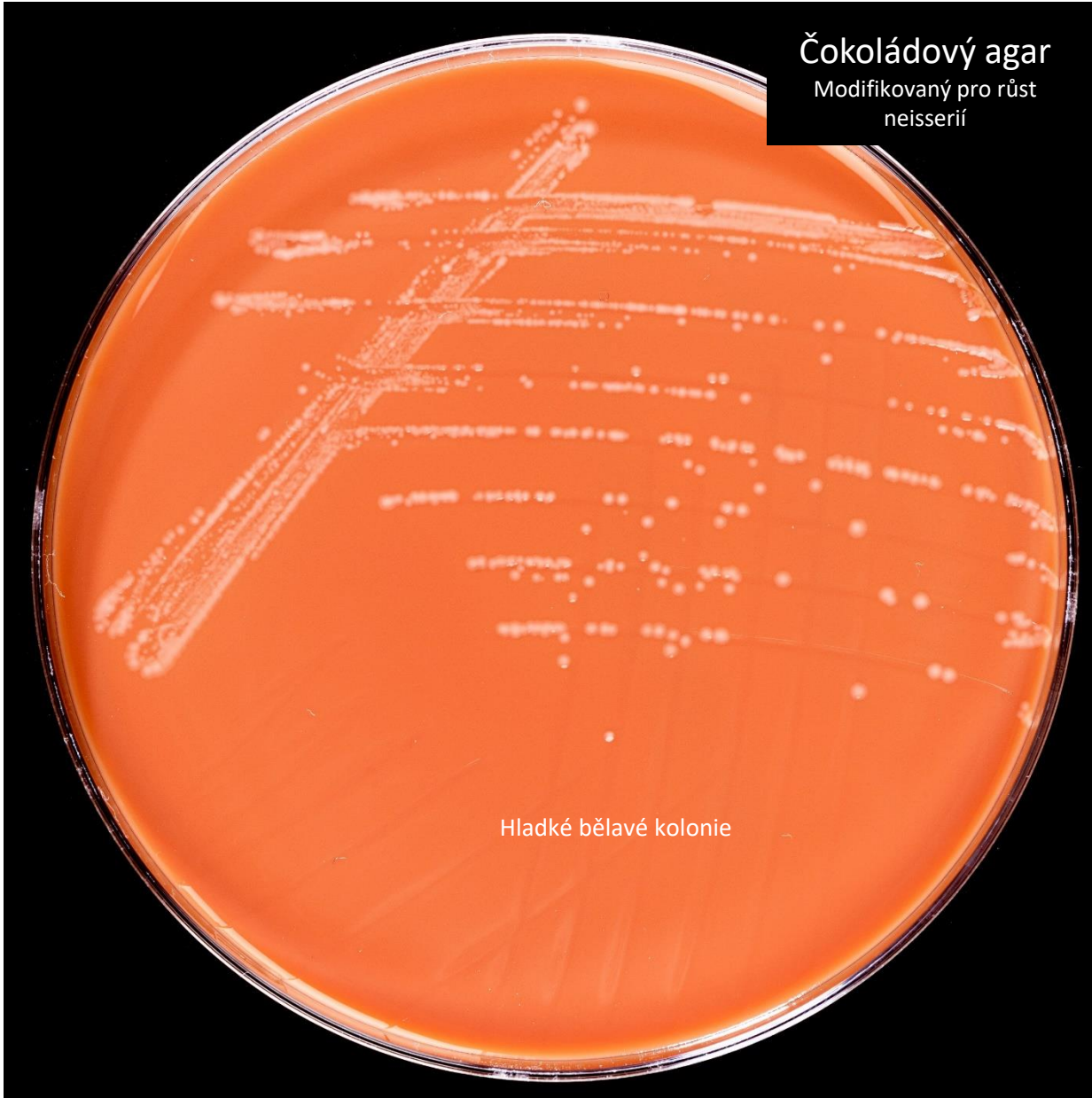
Hladké šedé kolonie

### 31. *Neisseria meningitidis*



## 32. *Neisseria gonorrhoeae*

Čokoládový agar  
Modifikovaný pro růst  
neisserií



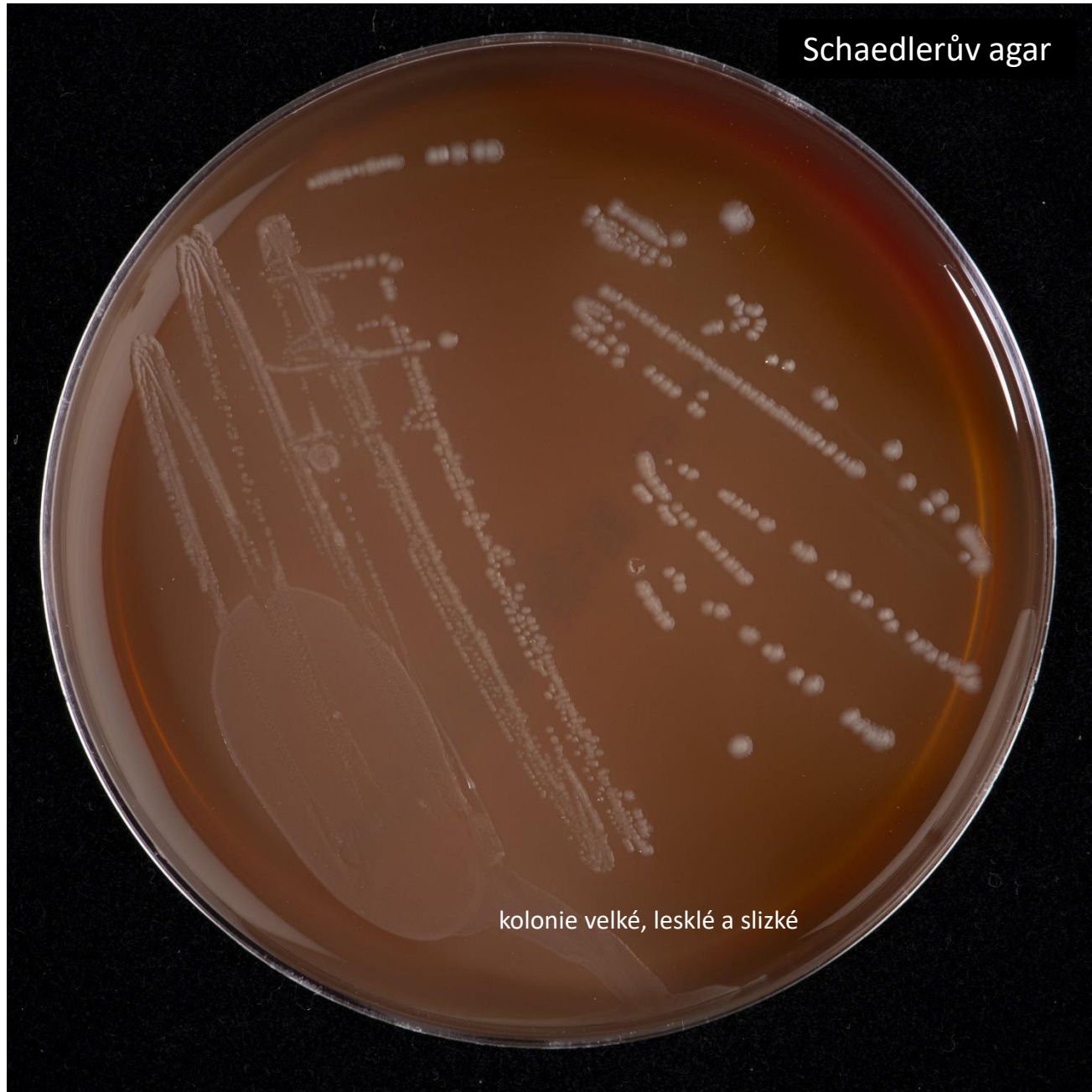
Hladké bělavé kolonie

## 32. *Neisseria gonorrhoeae*



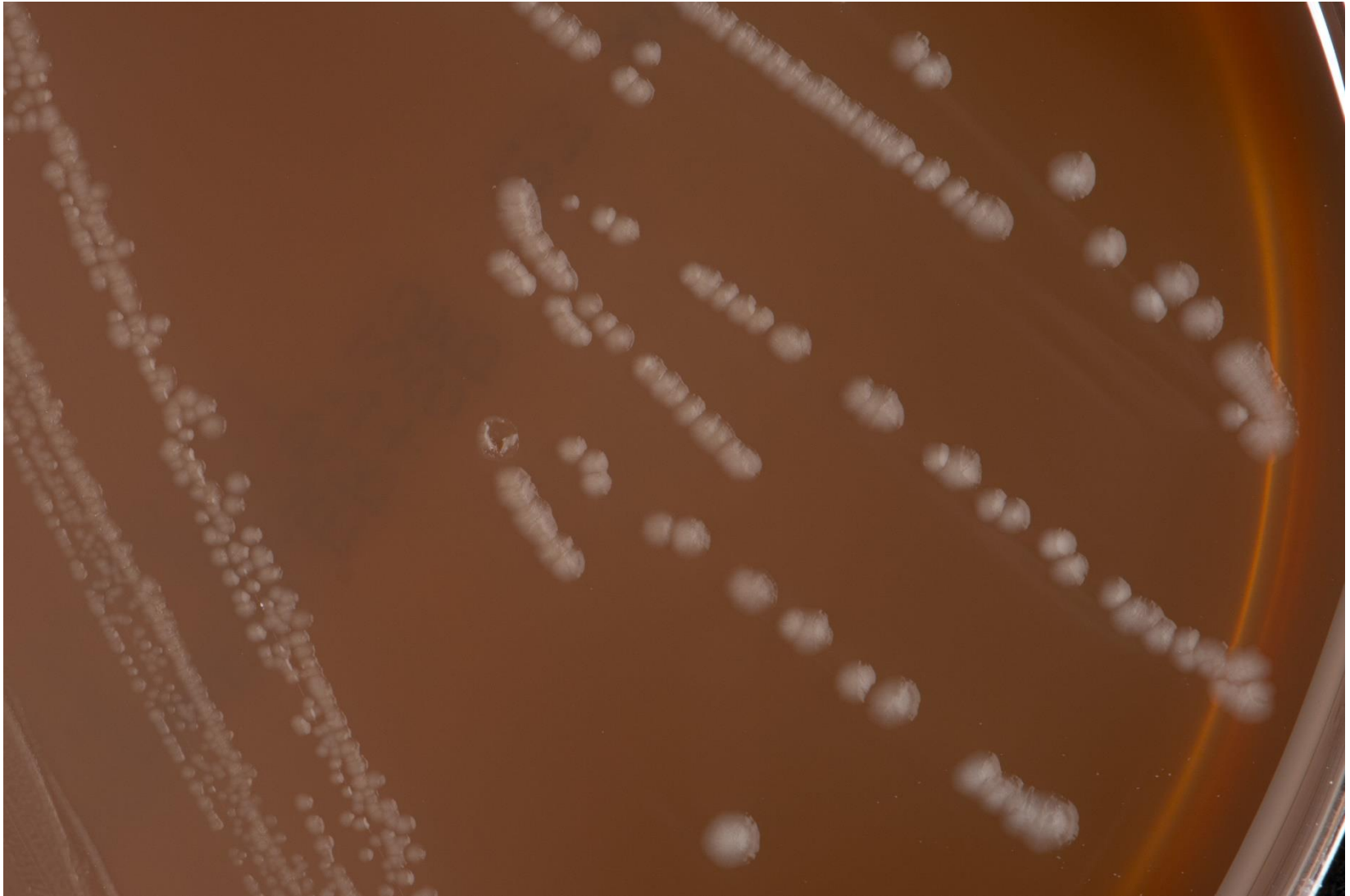
### 33. *Bacteroides fragilis*

Schaedlerův agar



kolonie velké, lesklé a slizké

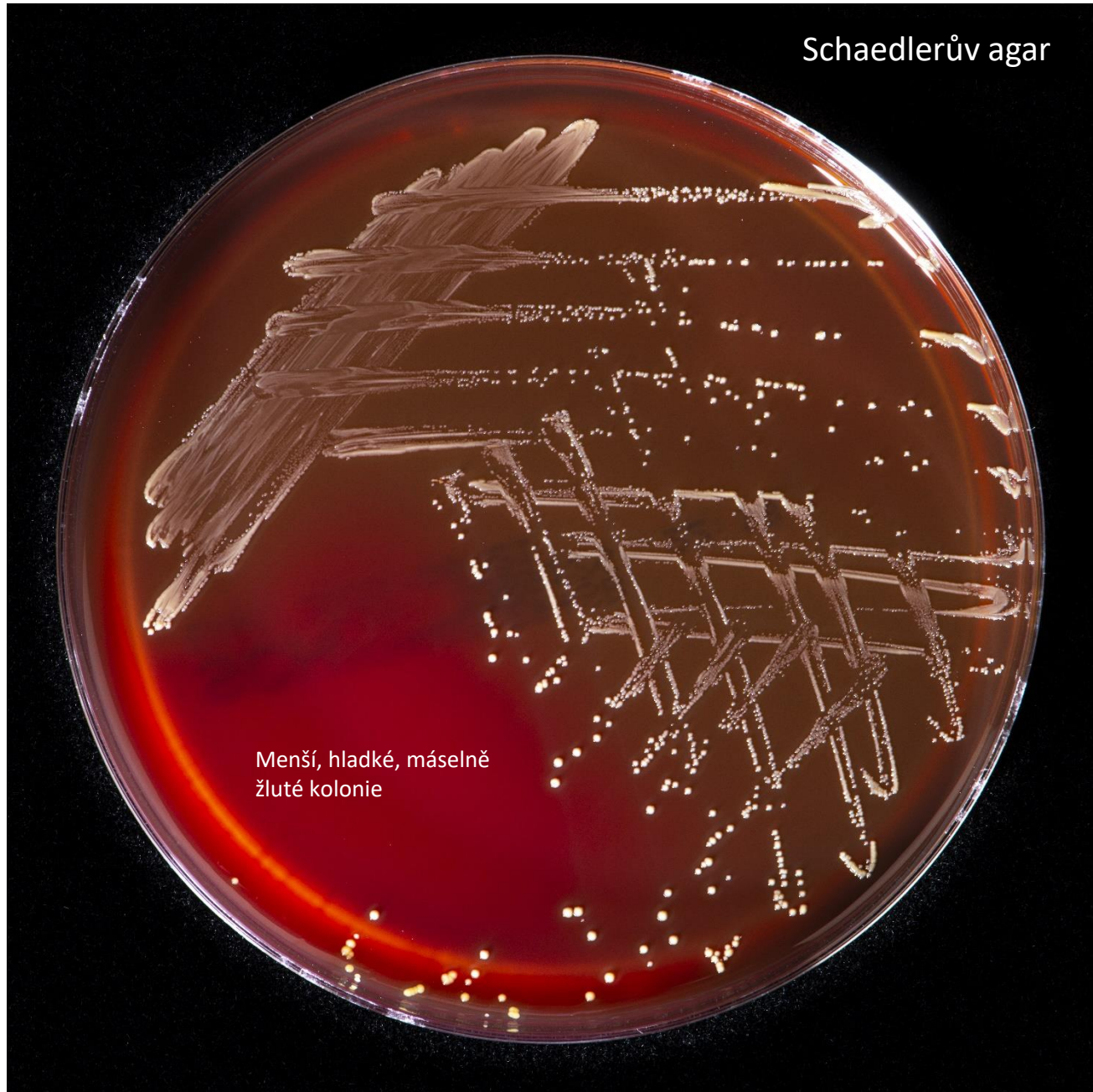
### 33. *Bacteroides fragilis*





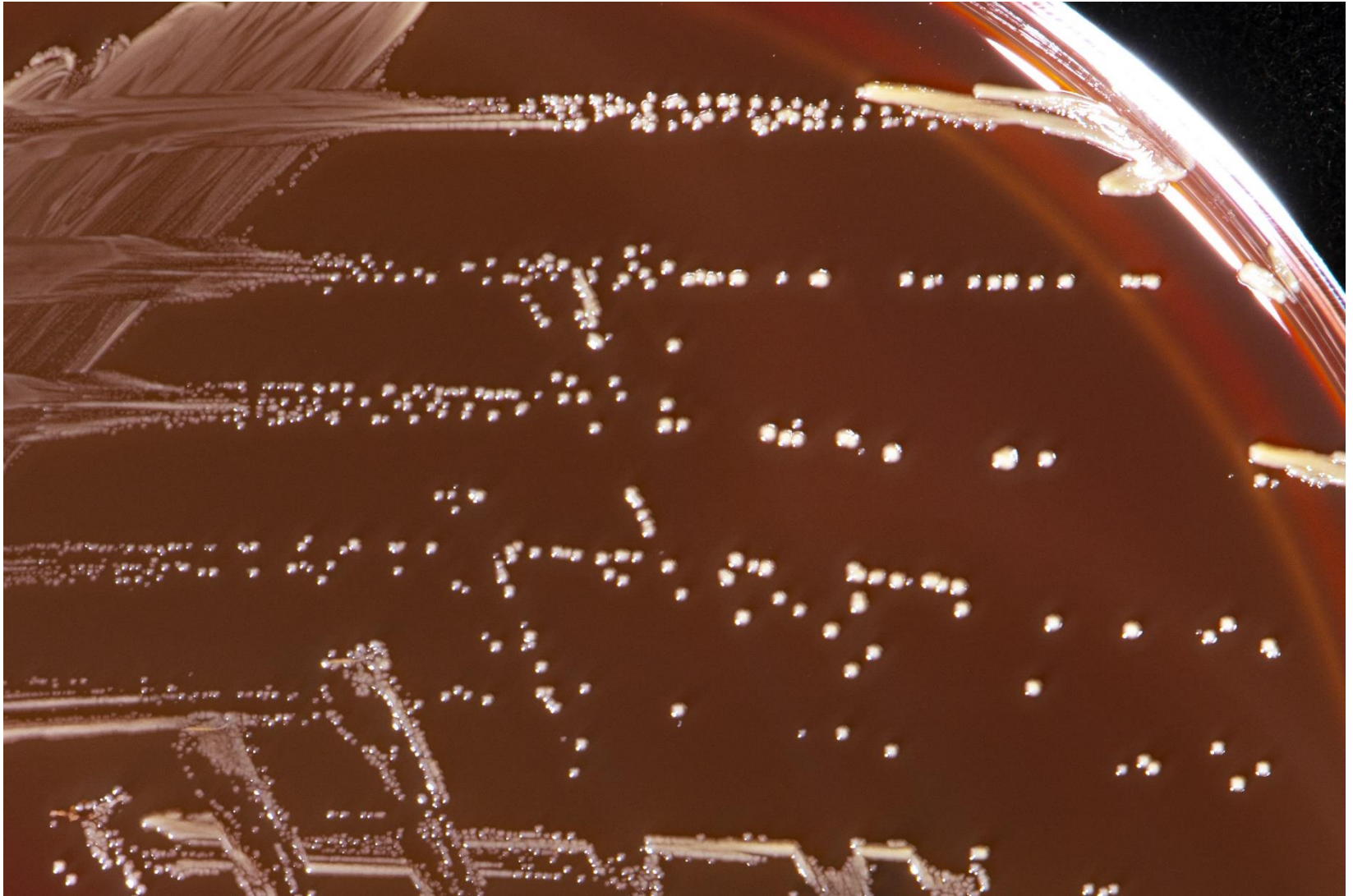
## 34. *Fusobacterium nucleatum*

Schaedlerův agar



Menší, hladké, máselně  
žluté kolonie

### 34. *Fusobacterium nucleatum*



## 35. *Prevotella* sp.

Schaedlerův agar



Nehemolytické, bělavé až šedé  
konvexní kolonie

35. *Prevotella* sp.



## 40. *Candida albicans*

Sabouraudův agar



Velké bělavé kolonie; kyselý zápach

## 40. *Candida krusei*

Sabouraudův agar



Velké bělavé kolonie; kyselý zápach

# 41. *Cryptococcus neoformans*

Sabouraudův agar



Menší bělavé kolonie

## 44. *Aspergillus fumigatus*

Sabouraudův agar



Vláknitý růst