- Microbiologie - moisissures ou champignons filamenteux

Cours proposé par

Edmundo NAVA SAUCEDO

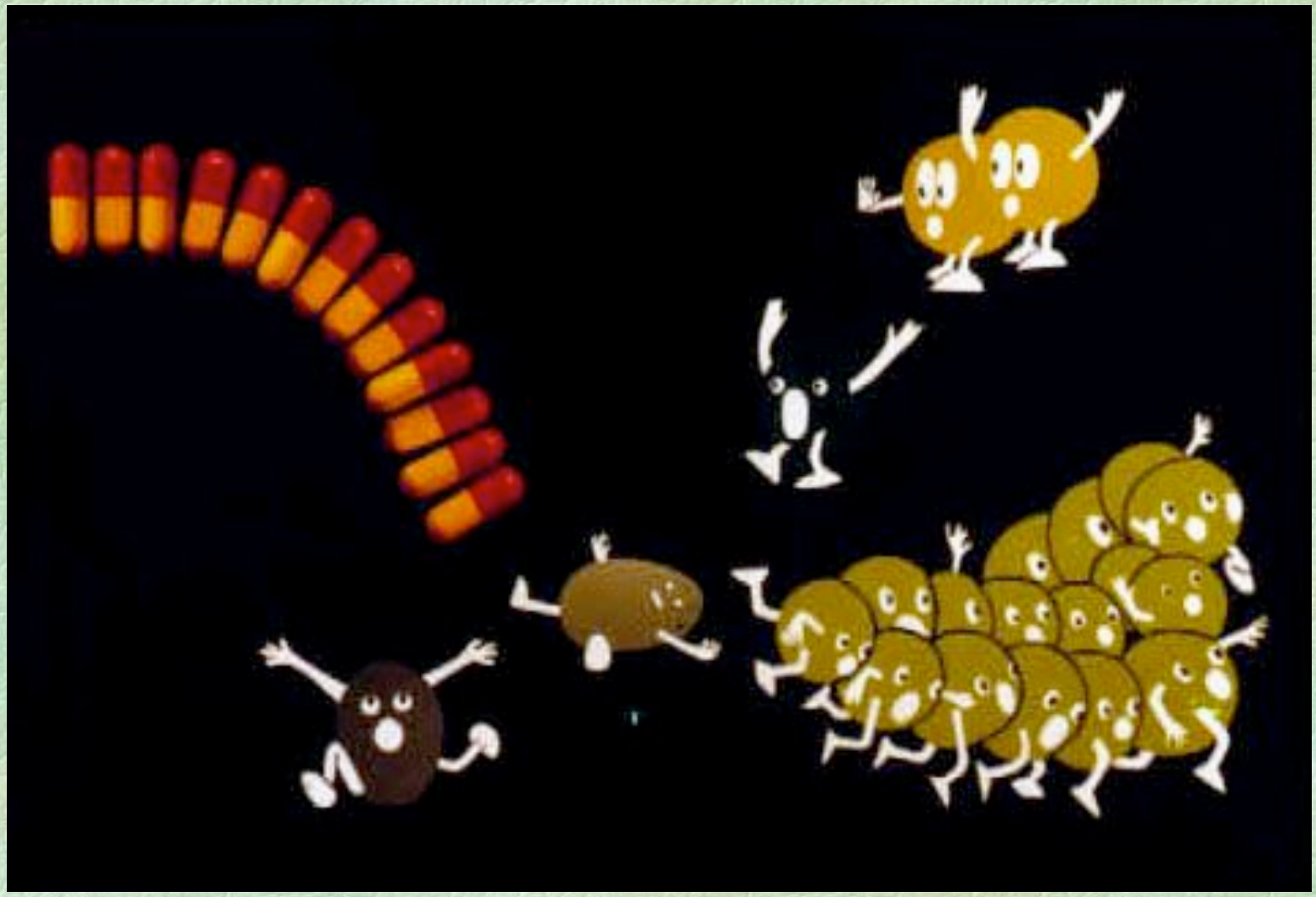
Aux étudiants de l'IUT GB IAB

Les antibiotiques

- Présentation des antibiotiques

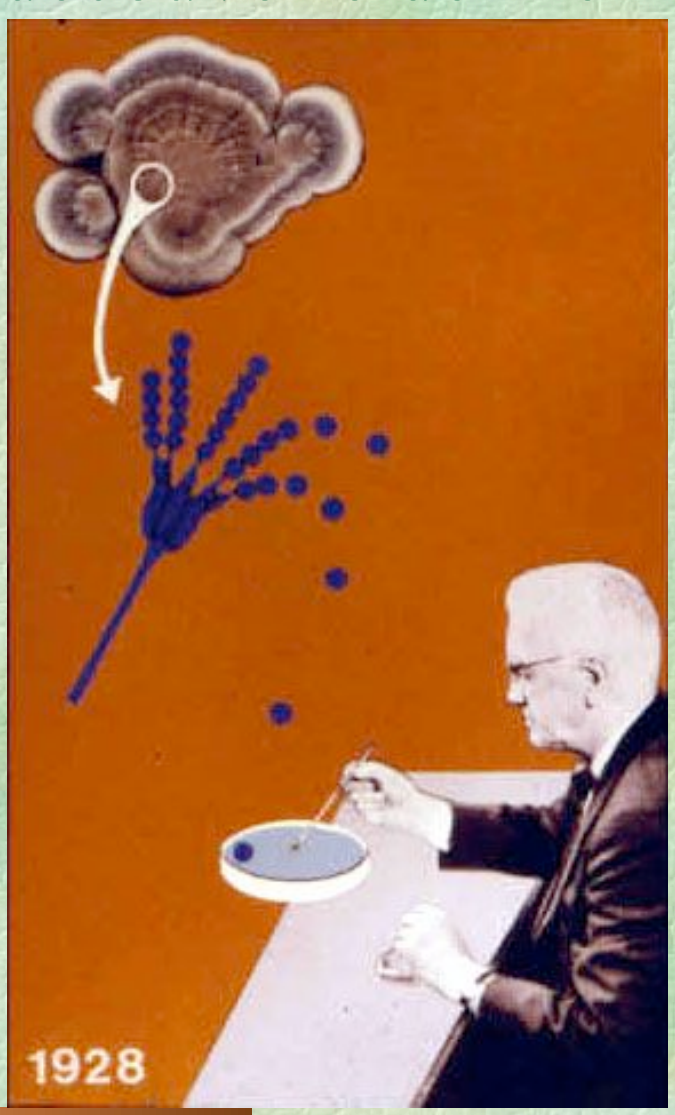
Les antibiotiques

- Action d ’un antibiotique



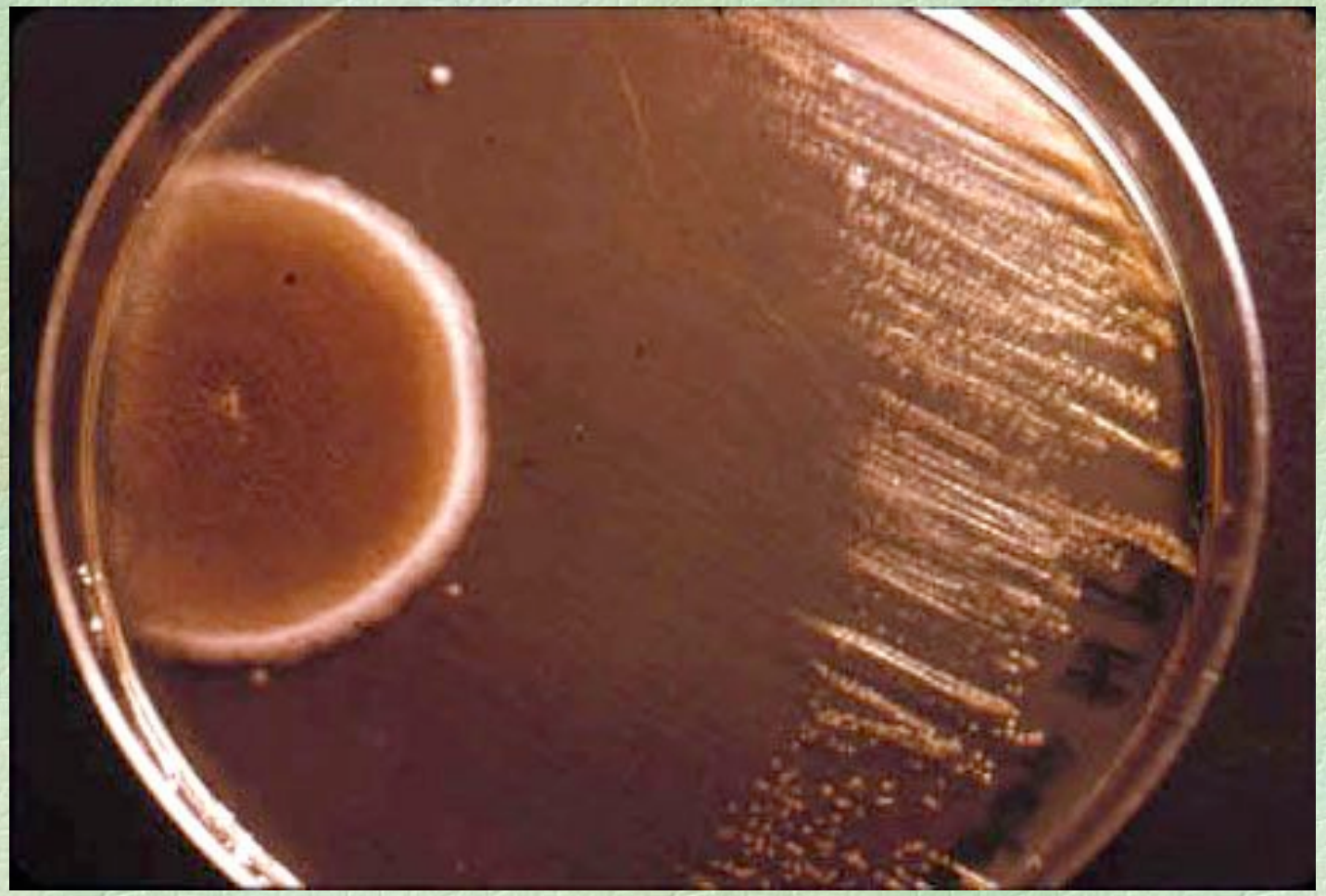
Les antibiotiques

- La découverte de Flemming



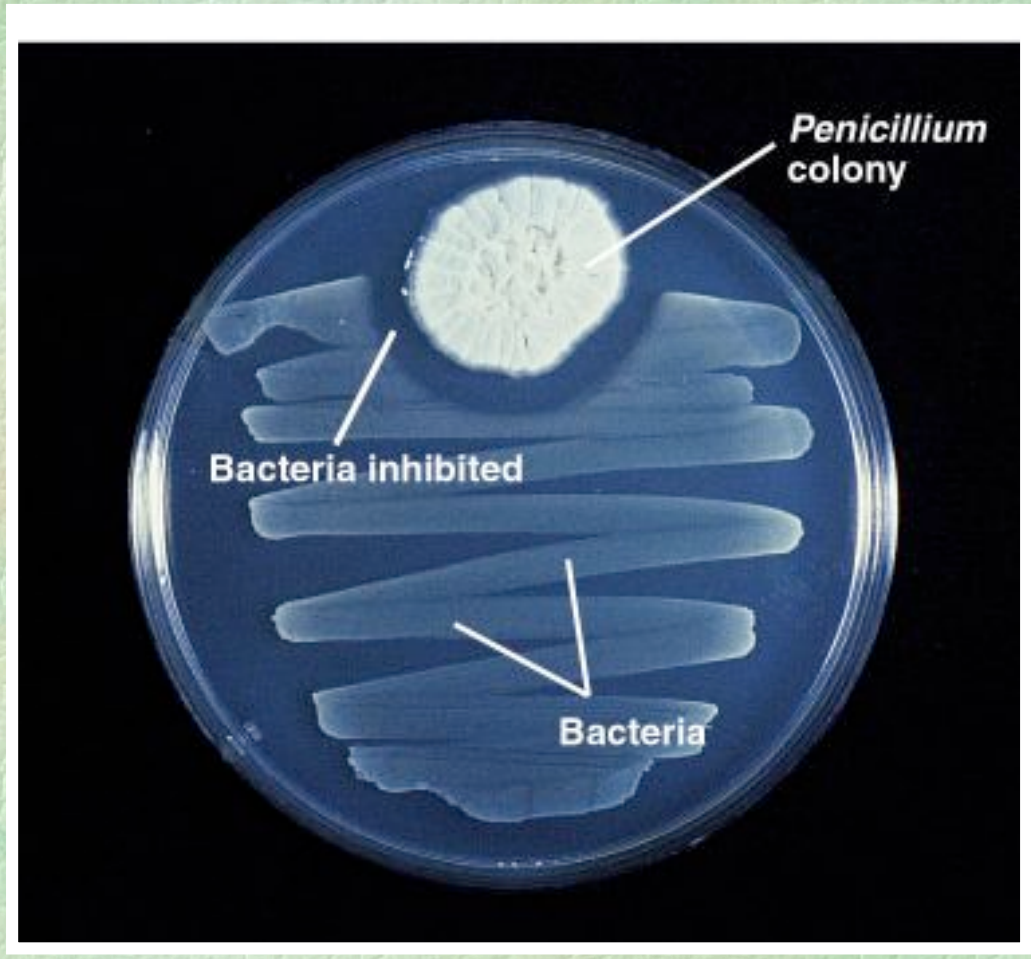
Les antibiotiques

- La Pénicilline



Les antibiotiques

- Les expériences de Flemming



Les antibiotiques

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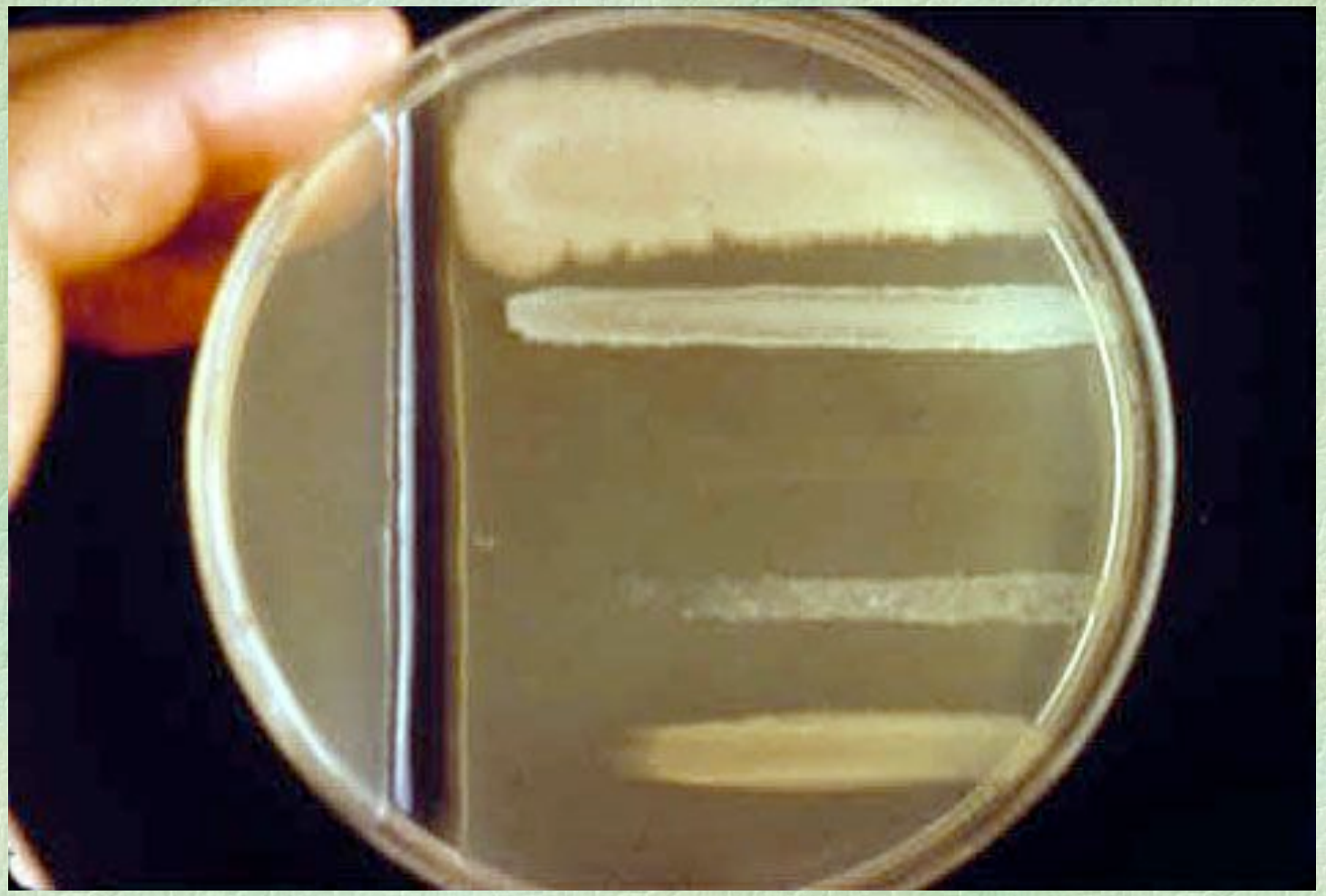
Les antibiotiques

- Les expériences de Flemming

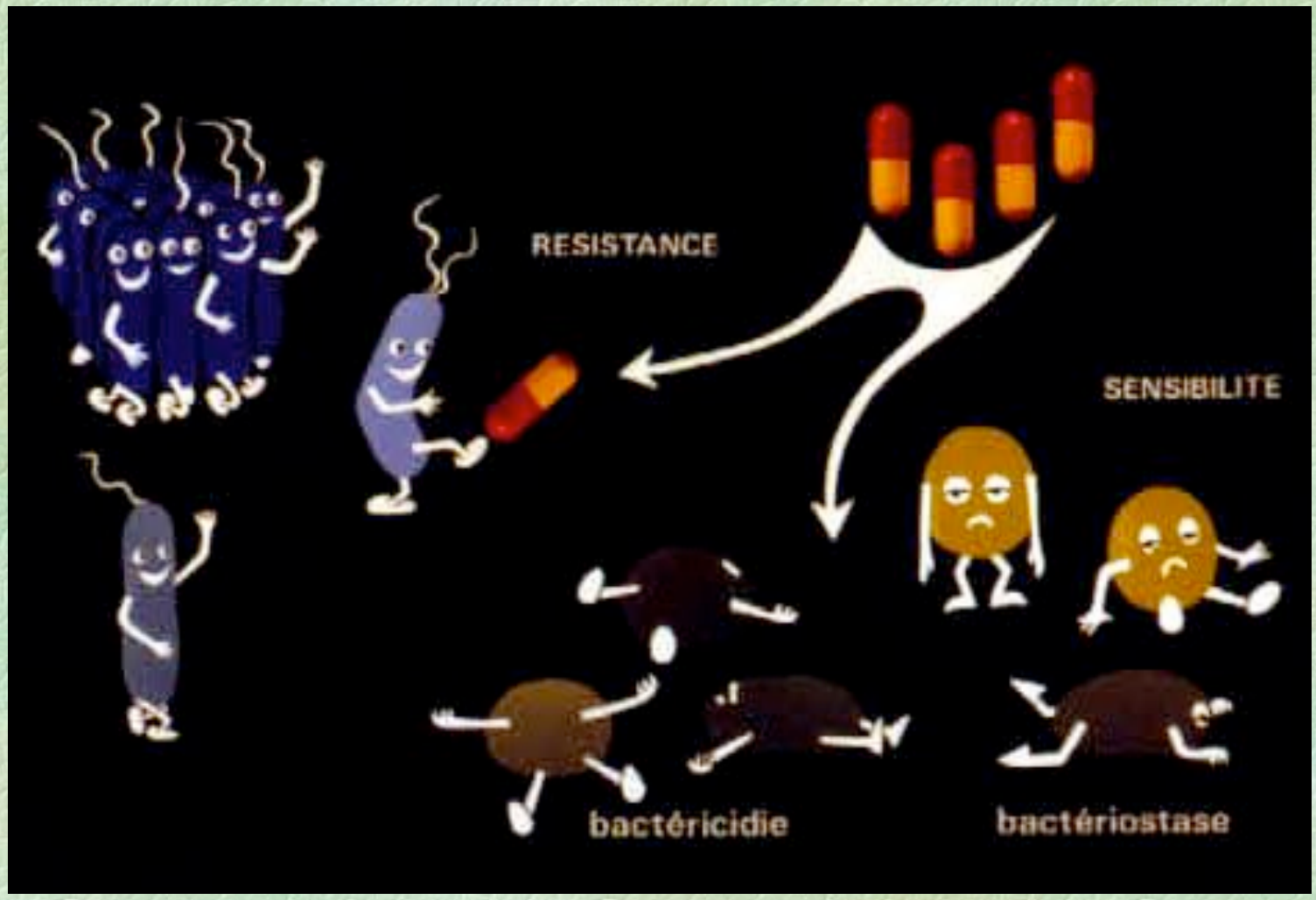


Les antibiotiques

- Alexandre Flemming

Les antibiotiques

- Sensibilité aux antibiotiques



Les antibiotiques

- La recherche d ’antibiotiques

Les antibiotiques

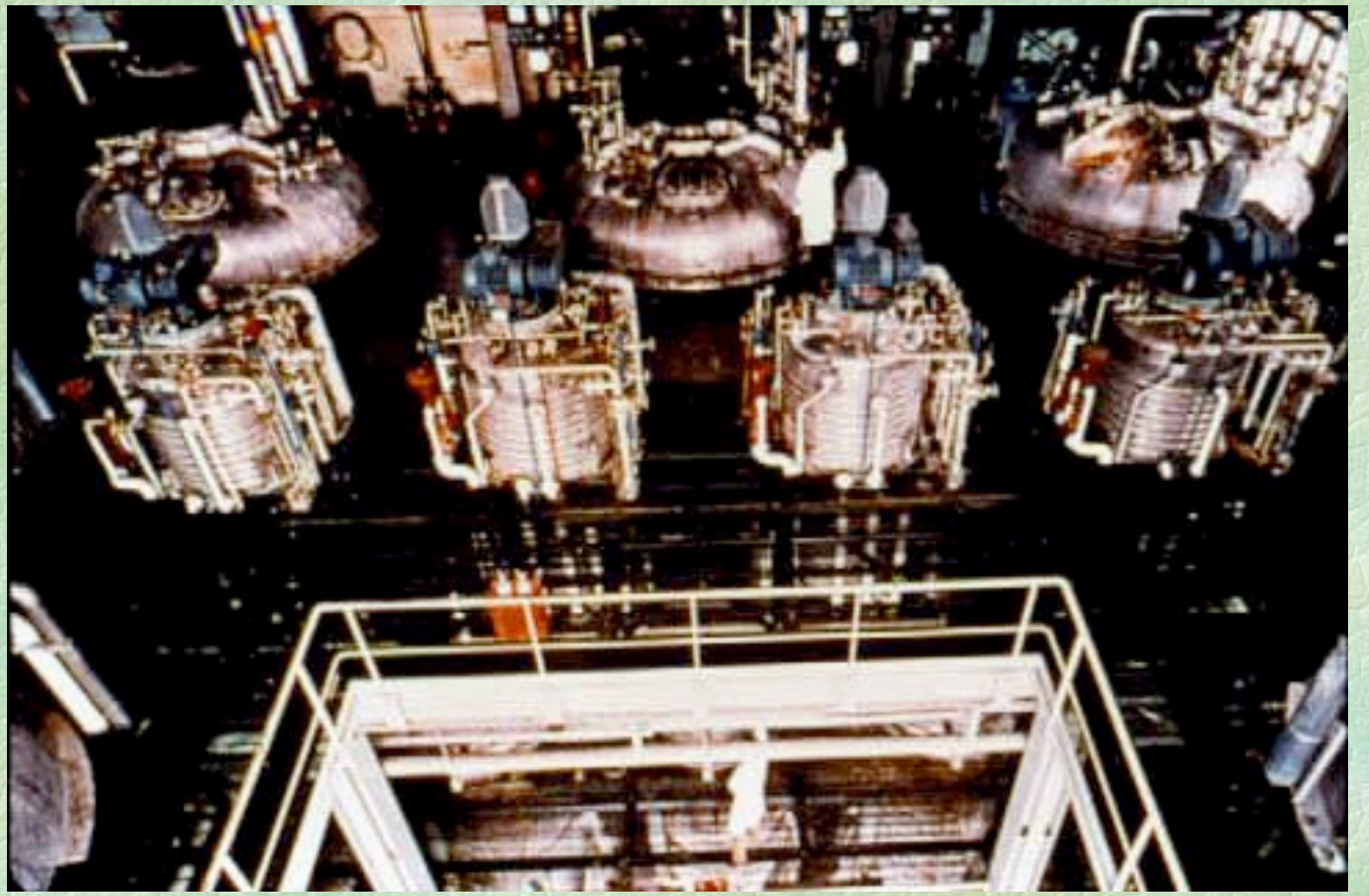
- Mycothèque

Les antibiotiques

- Production d ’antibiotiques

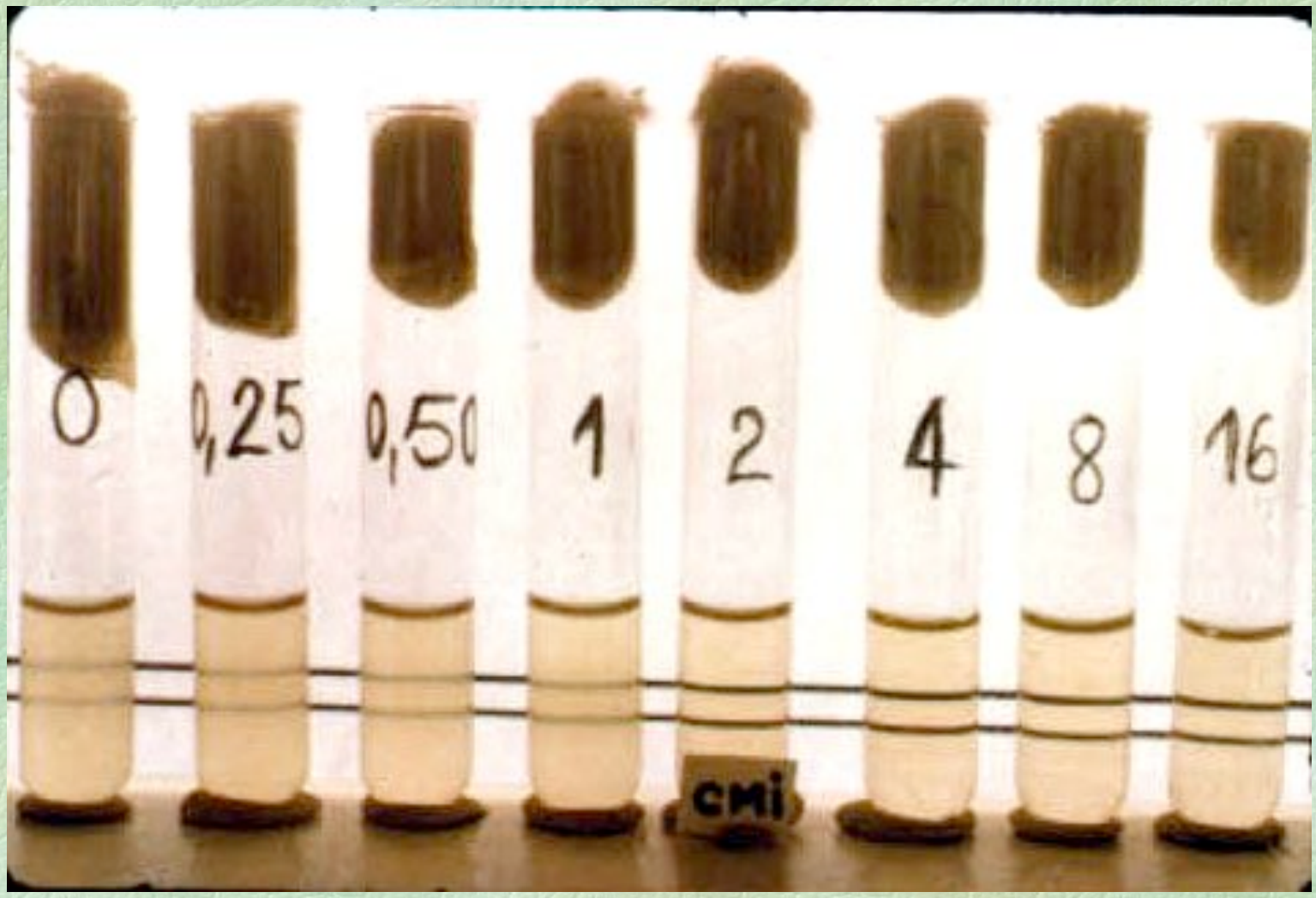
Les antibiotiques

- Production d ’antibiotiques



Les antibiotiques

- CMI (Concentration Minimale Inhibitrice)



Les antibiotiques

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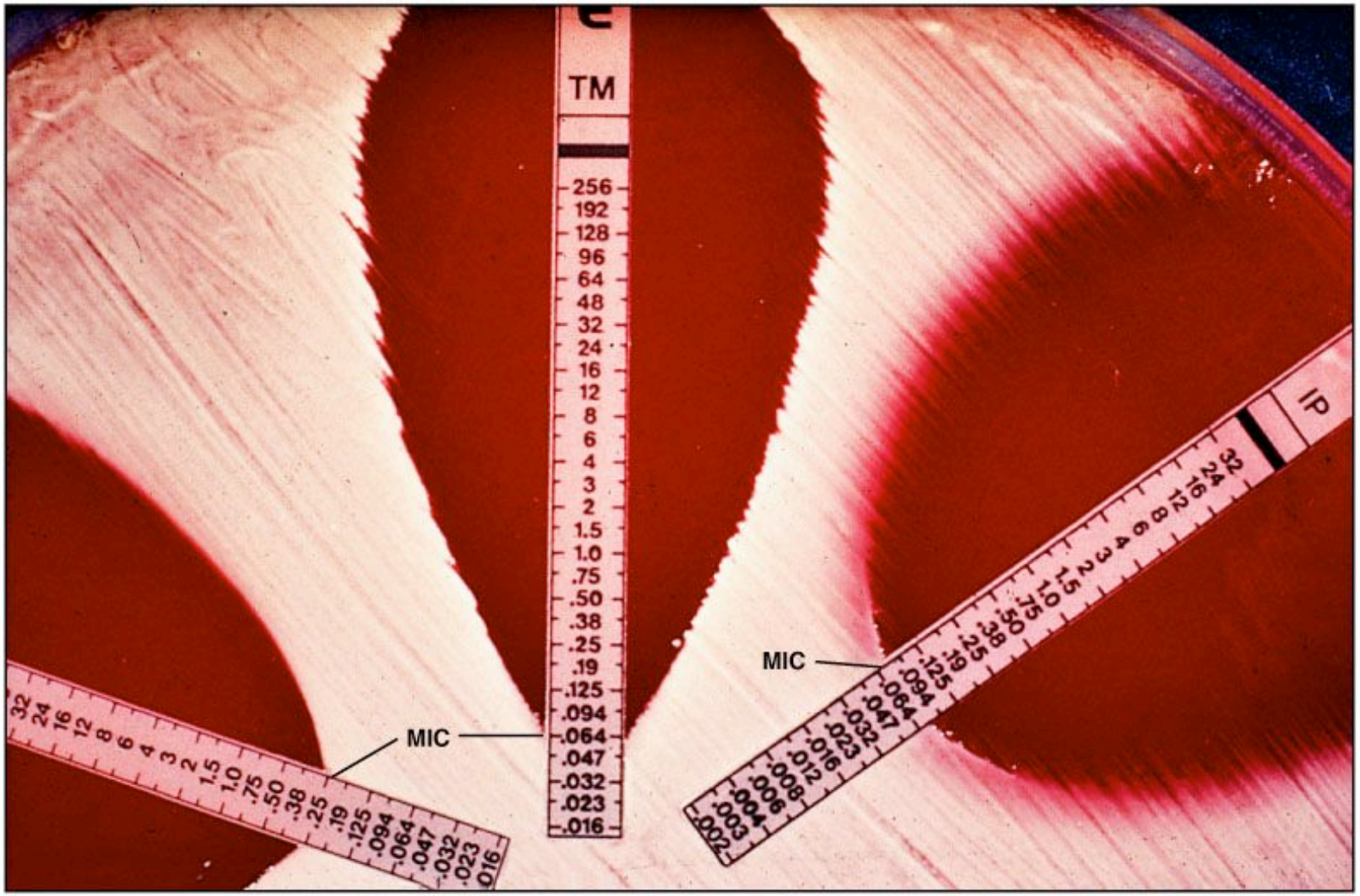


Sources d'antibiotiques

TABLE 20.1 **Representative Sources of Antibiotics**

Microorganism	Antibiotic
Gram-Positive Rods	
Bacillus subtilis	Bacitracin
Bacillus polymyxa	Polymyxin
Actinomycetes	
Streptomyces nodosus	Amphotericin B
Streptomyces venezuelae	Chloramphenicol
Streptomyces aureofaciens	Chlortetracycline and tetracycline
Streptomyces erythraeus	Erythromycin
Streptomyces fradiae	Neomycin
Streptomyces griseus	Streptomycin
Micromonospora purpureae	Gentamicin
Fungi	
Cephalosporium spp.	Cephalothin
Penicillium griseofulvum	Griseofulvin
Penicillium notatum	Penicillin

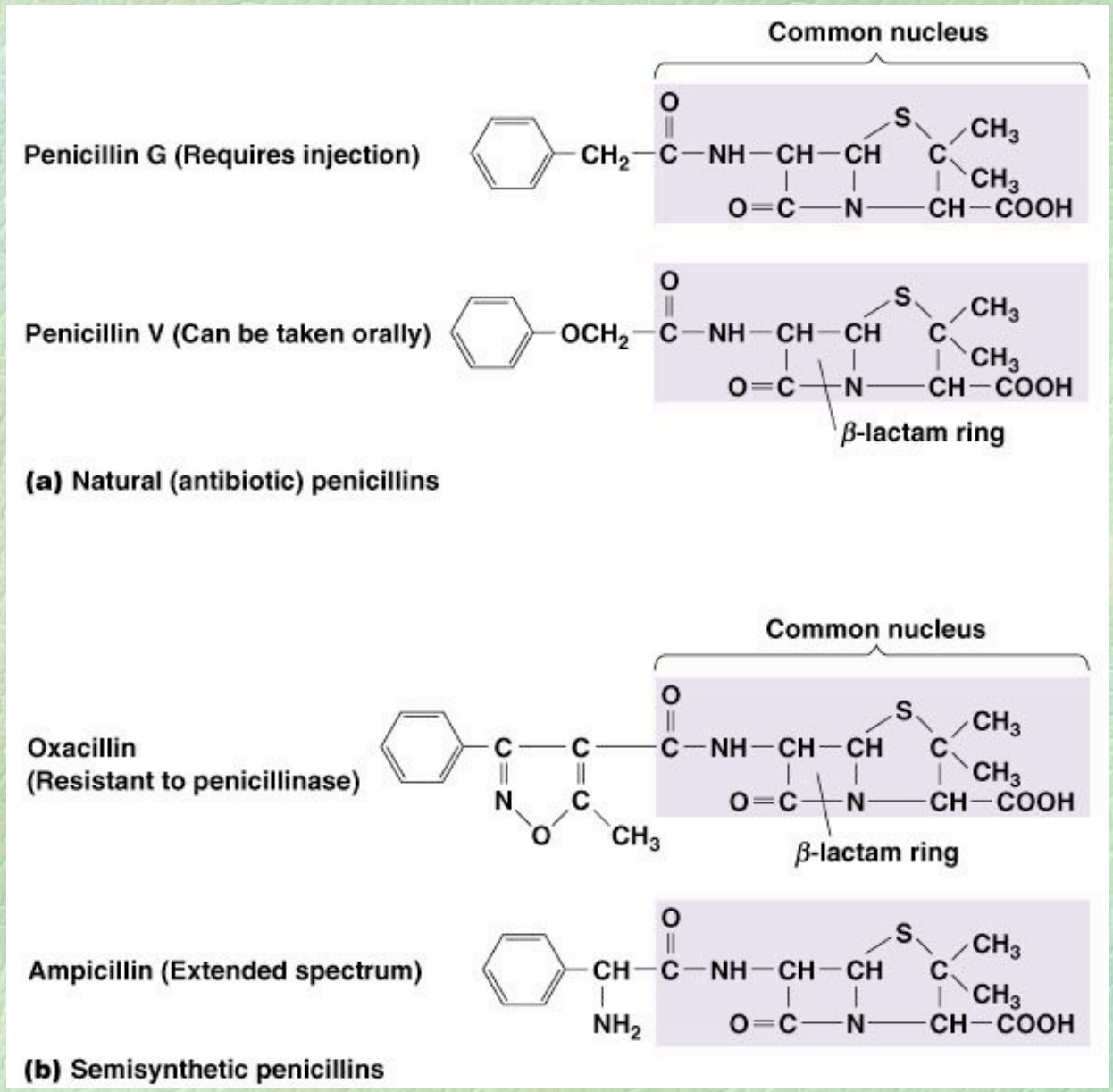
Spectre d'activité

TABLE 20.2 The Spectrum of Activity of Antibiotics and Other Antimicrobial Drugs

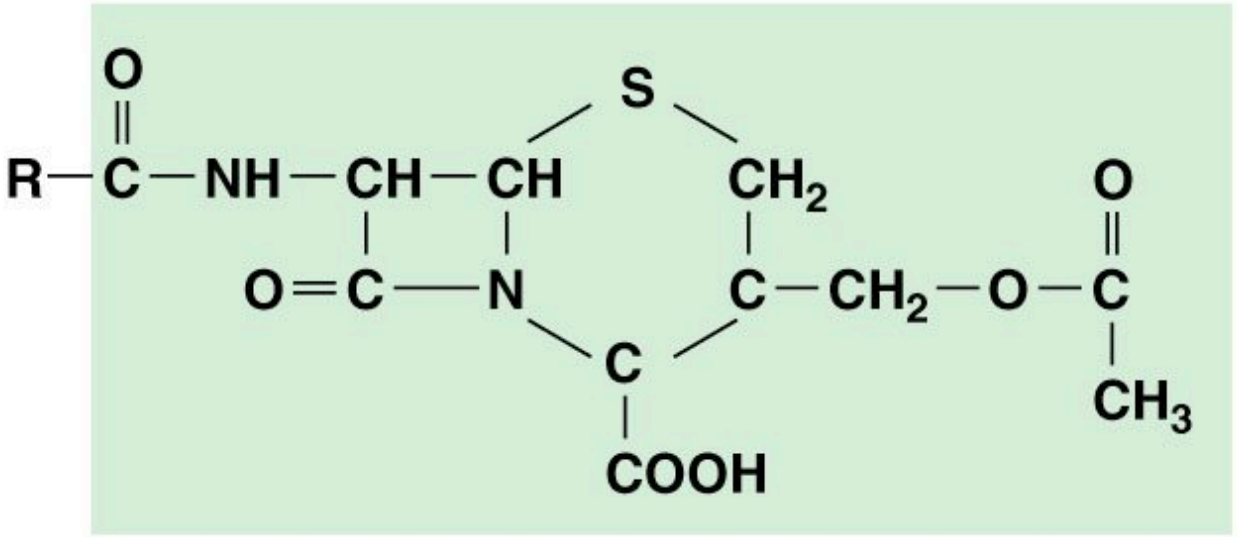
Prokaryotes				Eukaryotes			
Mycobacteria*	Gram-Negative Bacteria	Gram-Positive Bacteria	Chlamydias, Rickettsias†	Fungi	Protozoa	Helminths	Viruses
		←Penicillin→		←Ketocon-azole→		←Niclosamide→ (tapeworms)	
←Streptomycin→					←Mefloquine→ (malaria)		
							←Acyclovir→
						←Praziquantel→ (flukes)	
	←Tetracycline→						
←Isoniazid→							

*Growth of these bacteria frequently occurs within macrophages or tissue structures.
†Obligately intracellular bacteria.

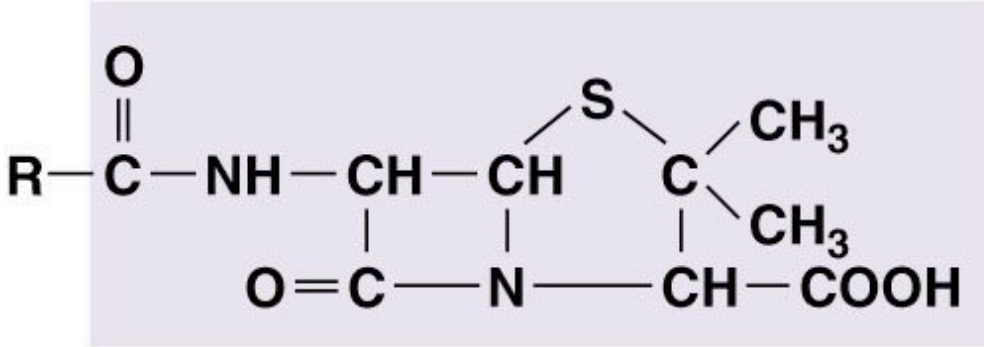
Penicillines



Cephalosporine

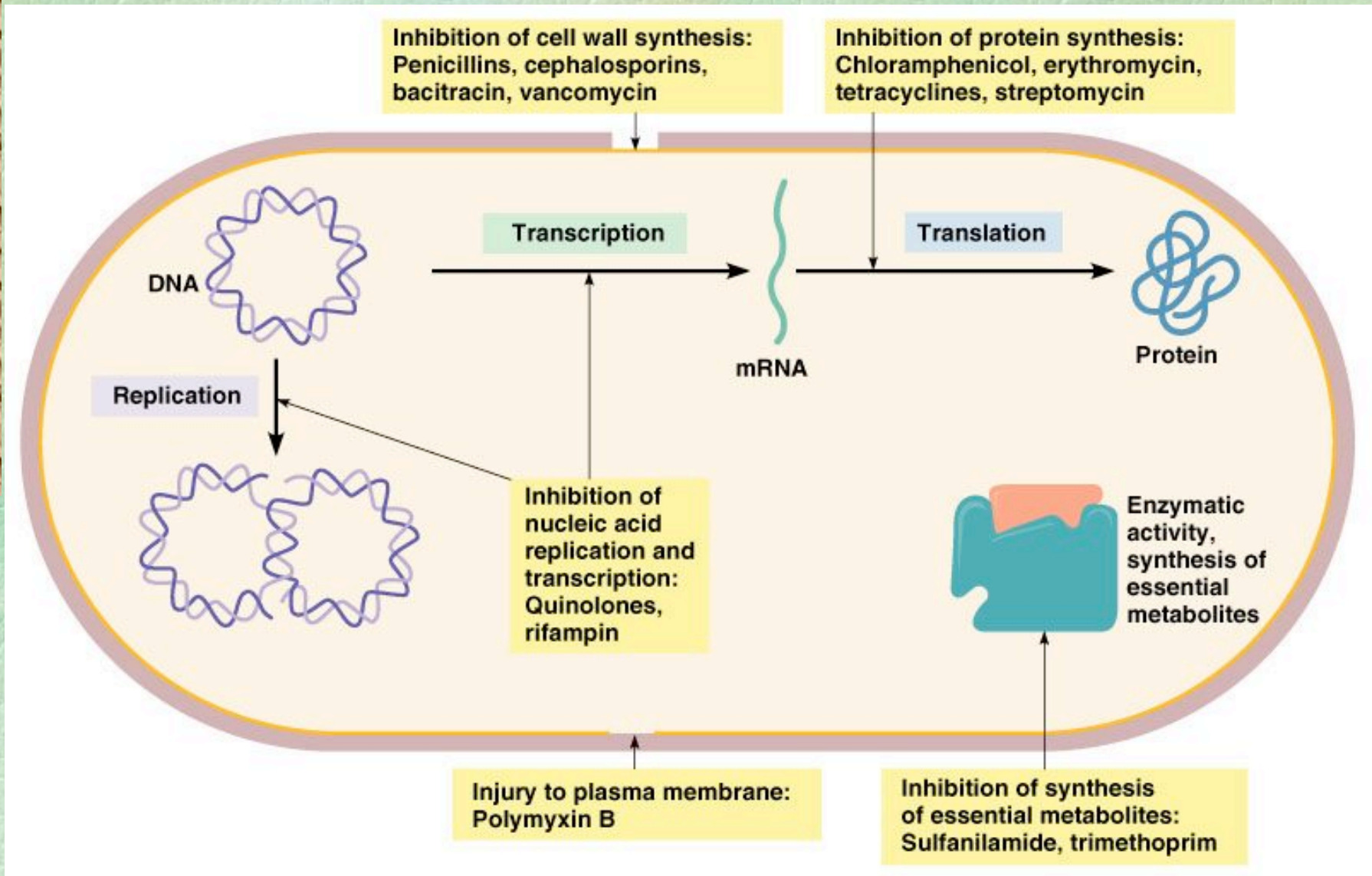


Cephalosporin nucleus



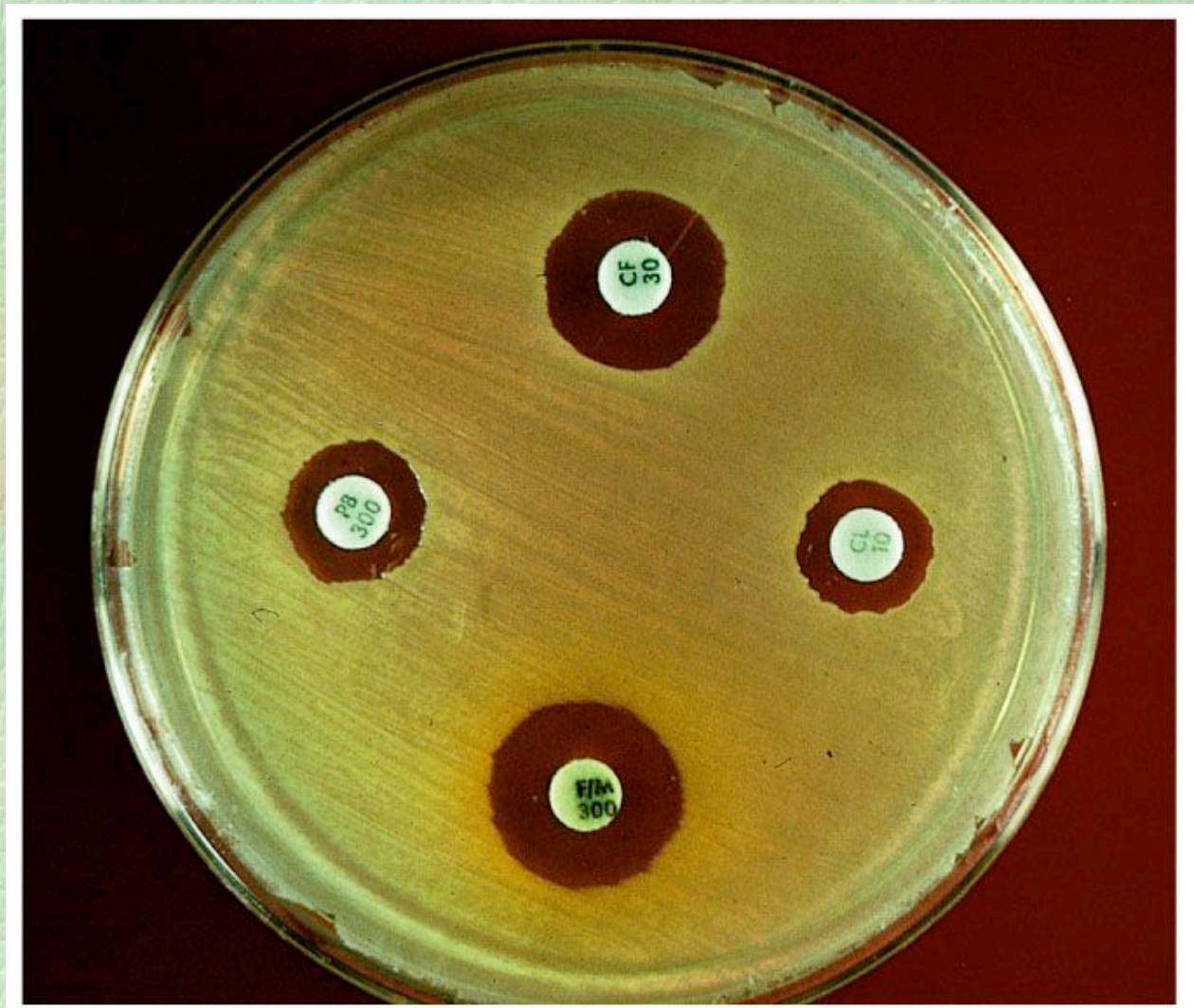
Penicillin nucleus

Mode d'action



Les antibiotiques

- Antibiogramme



Les antibiotiques

- Antibiogramme

Les antibiotiques

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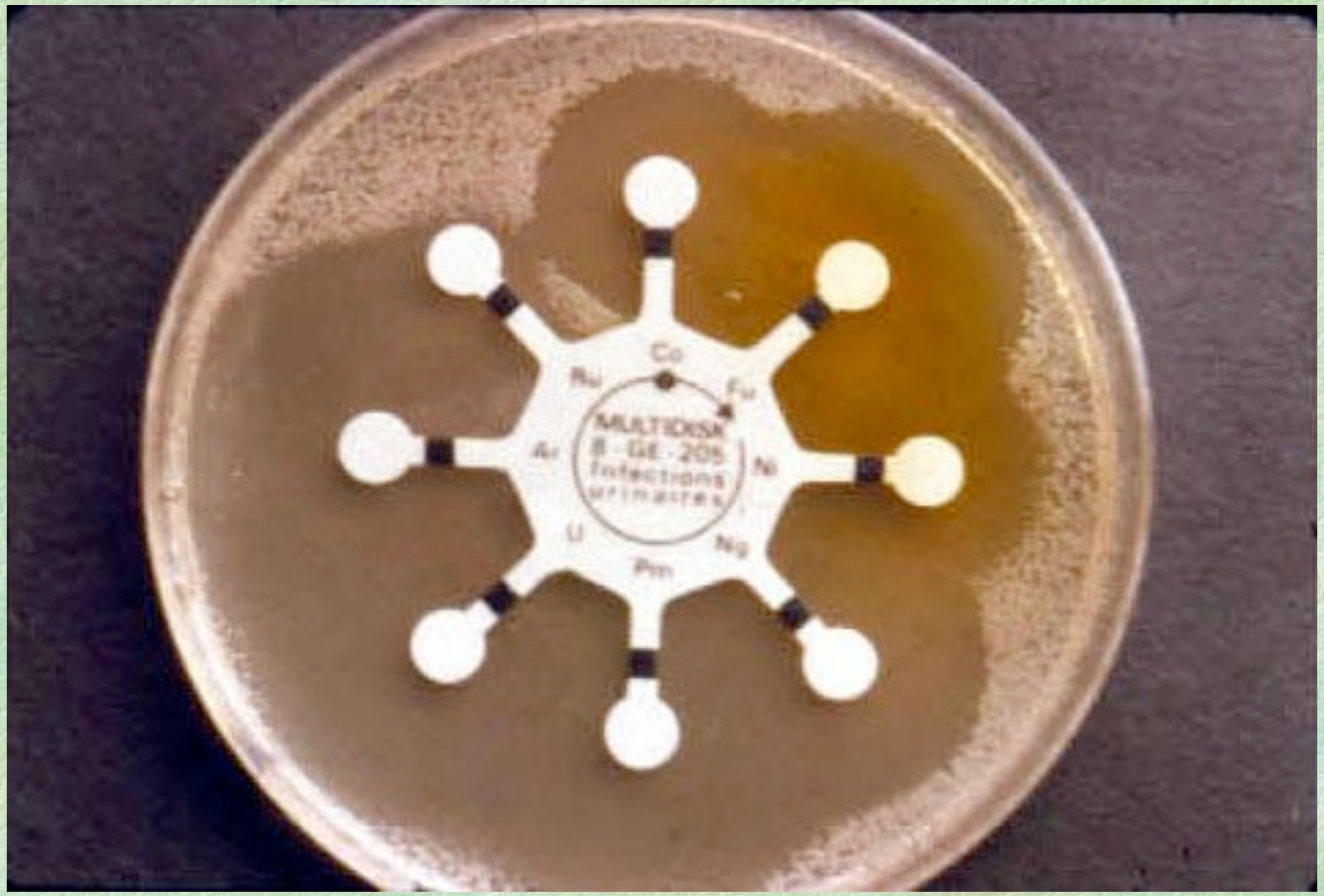

Les antibiotiques

- Antibiogramme

Les antibiotiques

- Résistance aux antibiotiques

Les antibiotiques

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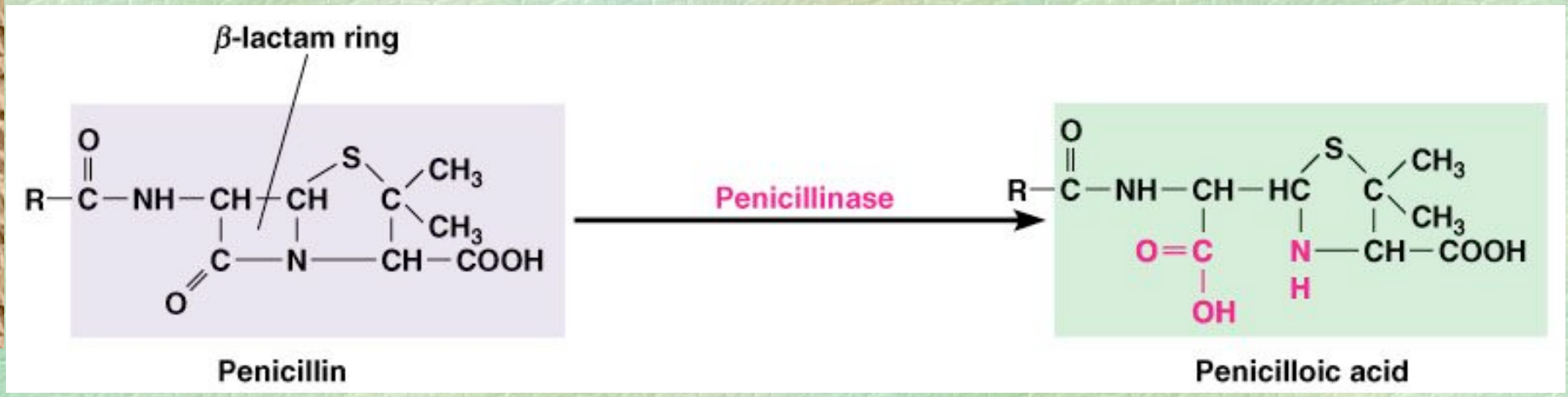
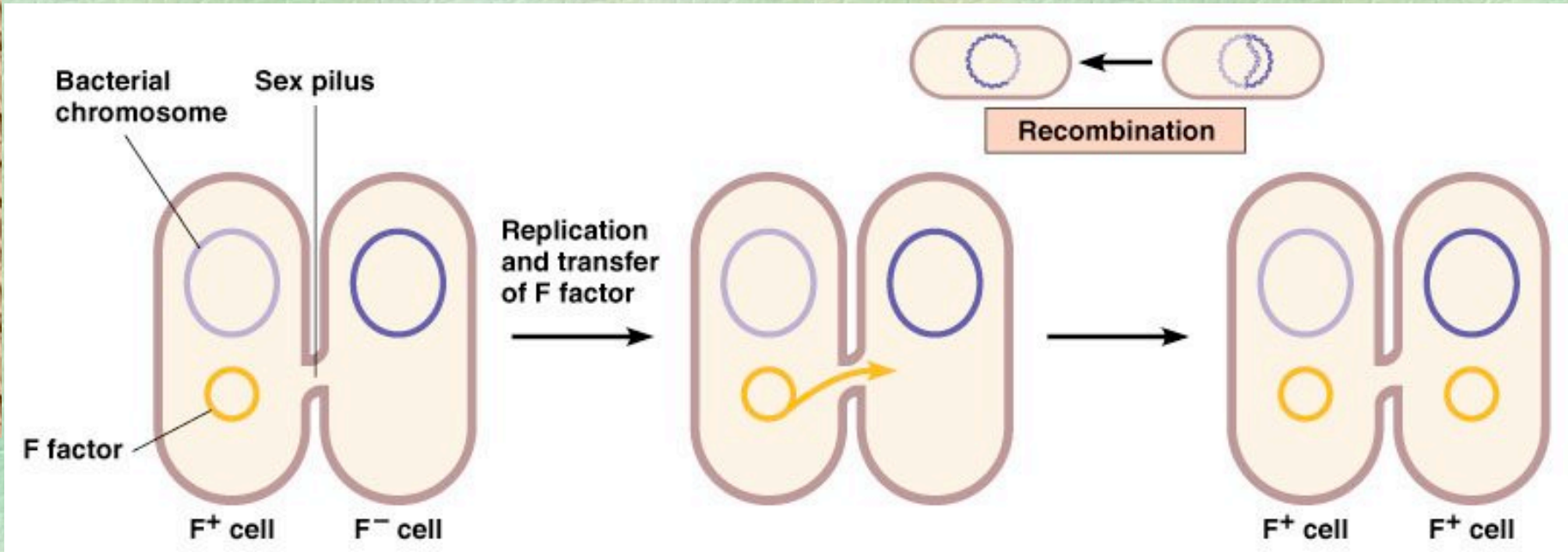
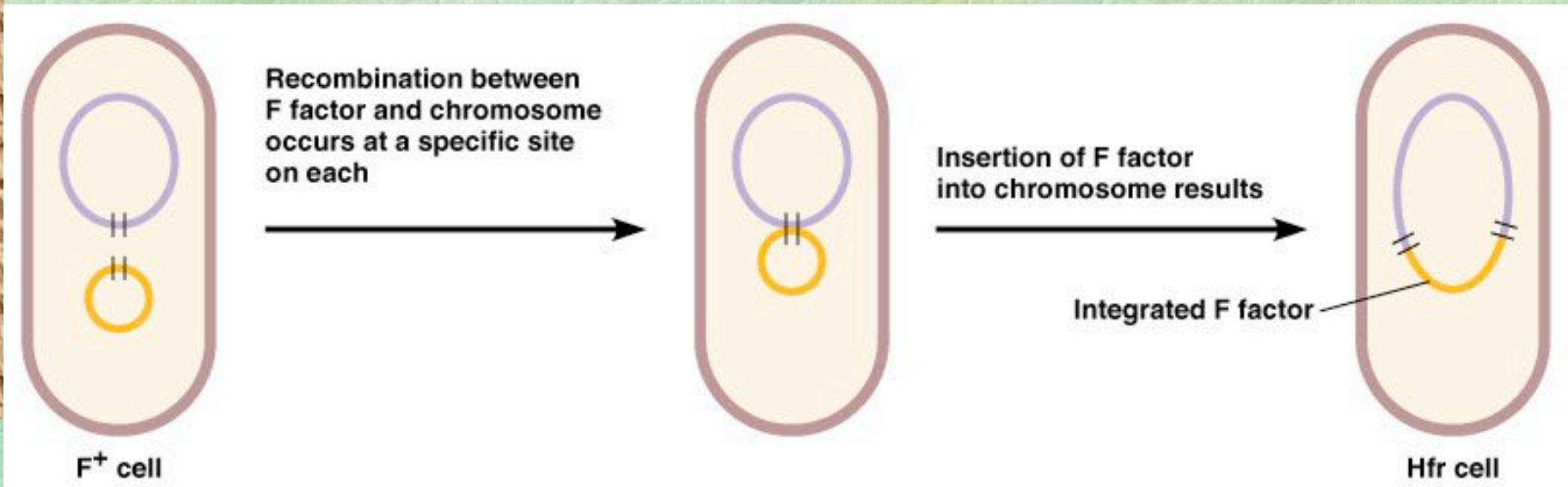


Conjugaison



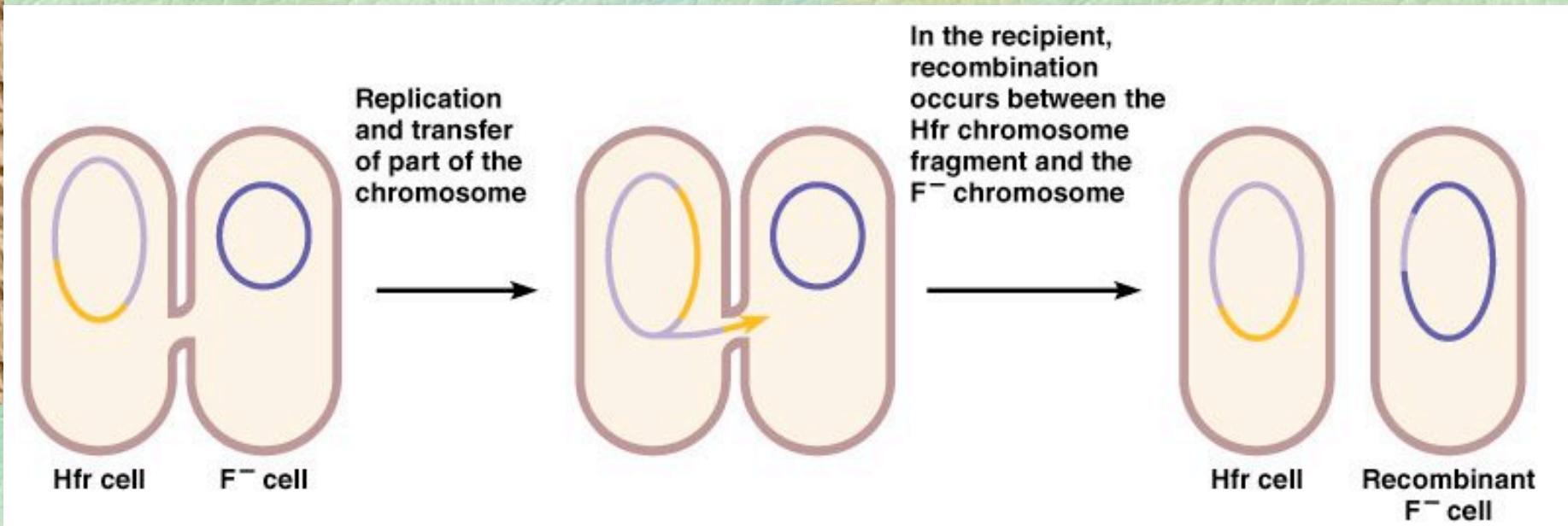
(a) When an F factor (a plasmid) is transferred from a donor (F^+) to a recipient (F^-), the F^- cell is converted into an F^+ cell.

Conjugaison



(b) When an F factor becomes integrated into the chromosome of an F^+ cell, it makes the cell a high frequency of recombination (Hfr) cell.

Conjugaison



(c) When an Hfr donor passes a portion of its chromosome into an F^- recipient, a recombinant F^- cell results.

Les antibiotiques

- Résistance aux antibiotiques

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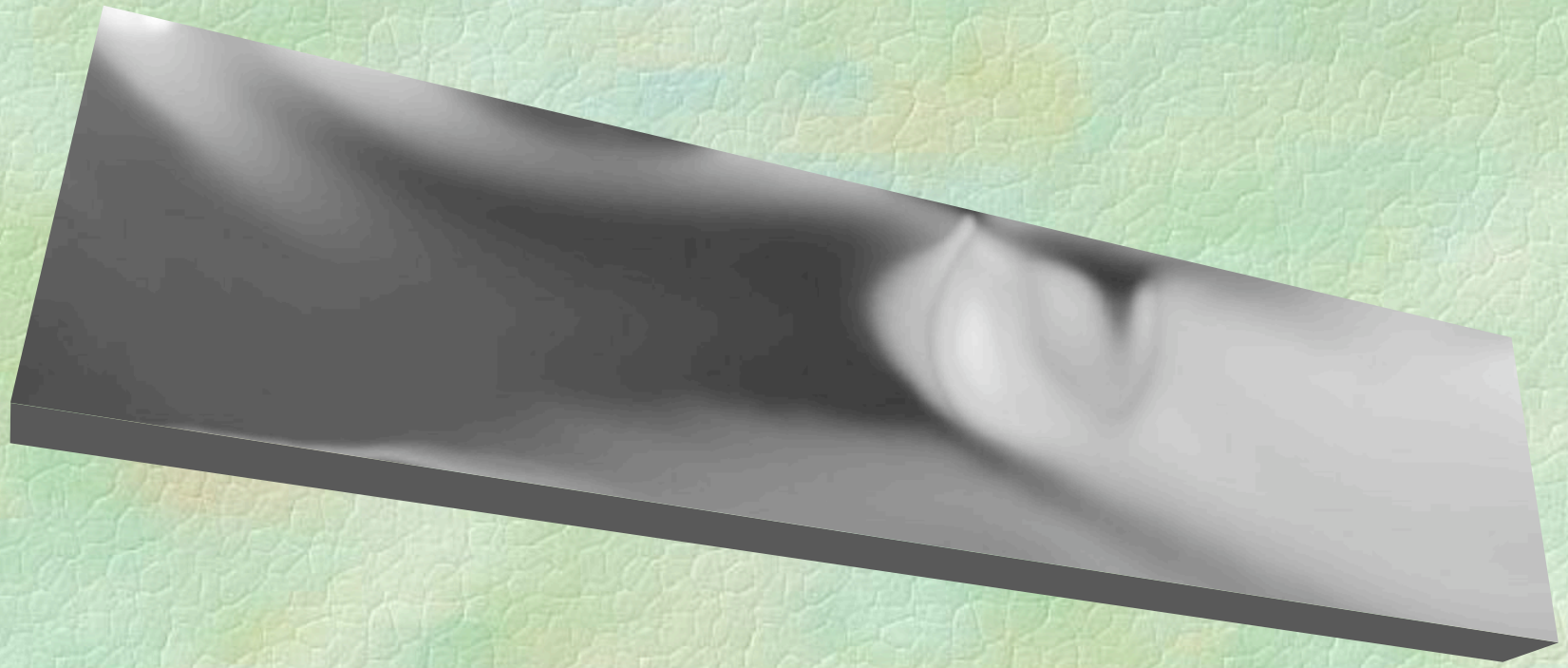
moisissures ou champignons filamenteux



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