



exopol

what we do?

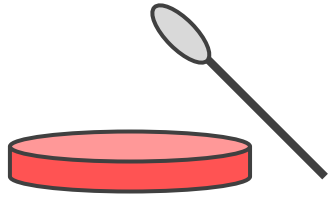


MICROBIOLOGY

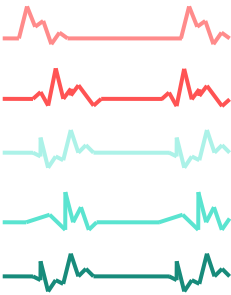
Isolation:

- usual bacteria
- hard-growing bacteria

(Brachyspira, Actinobacillus, Mycoplasma...)



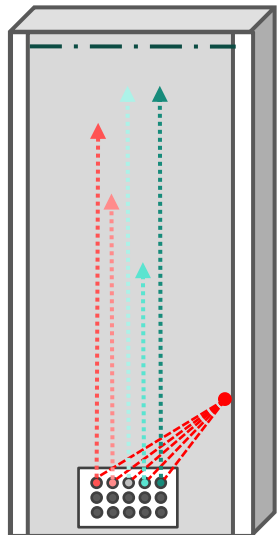
Identification by MALDI – TOF



identifies the **molecular print** of the majority proteins, which is **specific for each bacteria**

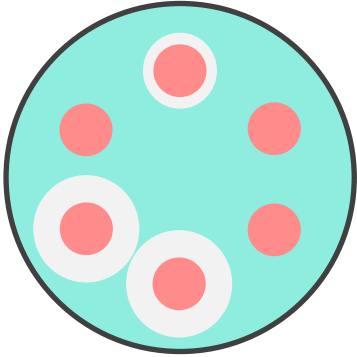
then is **compared** in a broad database

- ✓ different levels
 - ✓ specie
 - ✓ gender
 - ✓ strain
- ✓ faster
- ✓ more reliable
- ✓ more reproducible



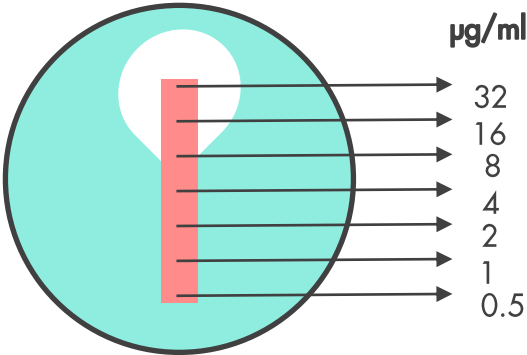
ANTIBIOGRAM

the **bacteria** is planted on a plate with **antibiotic discs**. depending on



the diameter of the **halo** that enclose each disc we will know if that **bacteria** is **sensitive** or **resistant** to that determined antibiotic

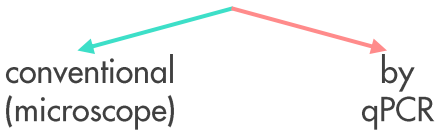
MINIMUM INHIBITORY CONCENTRATION



to know the **minimum inhibitory concentration** that reaches the organ for being effective (when stops the growing)
MIC value: lower concentration

COPROLOGY

counting the parasites' eggs or larvae

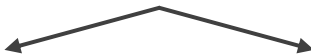


SEROLOGY (ELISA)

blood sera



Antibodies are sought
found?



yes

has been
infected or
vaccinated

no

has never
been
infected

more analysis = more **discount**



1 – 5

%



6 – 20

%%



21 – 50

%%%



51 – 150

%%%%



more than 150

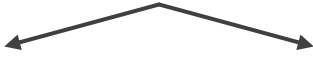
%%%%%

REAL TIME PCR

all kind of samples



nucleic acids are sought
found?



Yes

currently
infected

No

not
infected

STRAIN TYPING BY qPCR



before we
saw this



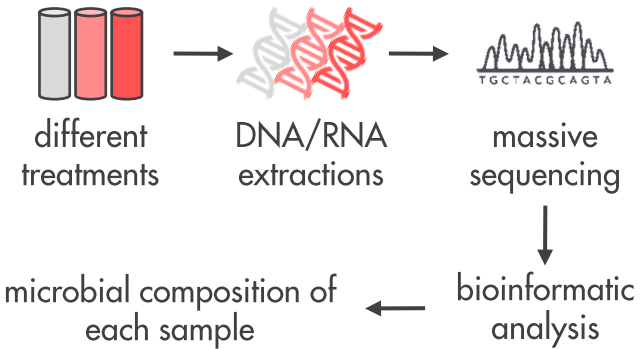
but we knew that this is
what there really was



so we decided to find it
and know we can see this

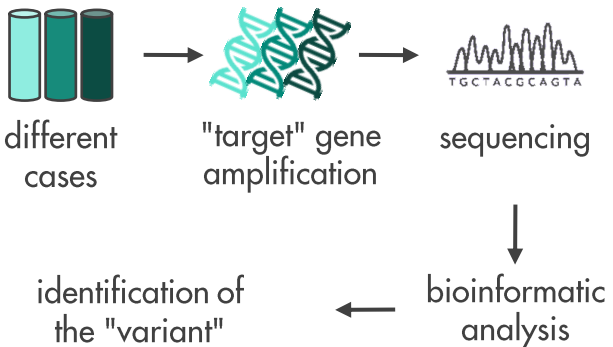
serotype localization by qPCR
on **strain** and on **sample**

MICROBIOME



one of its applications:
test how different products affect
in the animal's microbiome

SEQUENCING



one of its applications:
Test how it is changing and evolving
a virus in the same farm

AUTOGENOUS VACCINES

An autogenous vaccine is an **specific solution** focused on solve a problem of a **concrete farm**

Exopol were the **first** in produce autogenous vaccines with:

- ✓ **exopolysacharides**
- ✓ **liposomes**

And now **we are the first** in:

SEROTYPE SPECIFIC AUTOGENOUS VACCINES

There are some pathogens in which the **vaccine isn't effective** if it doesn't contains the specific **serotype** or **strain** of a farm.

Exopol can include **8 serotypes** or **different strains** in an unique autogenous vaccine.

