One Life

DETECT & DISSOLVE
BIOFILM MATRIX

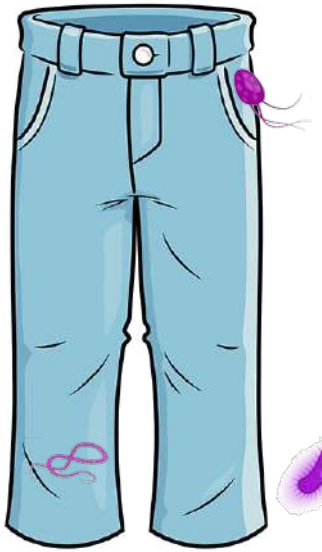
Biofilm's cleaning :
We should use DNAse!

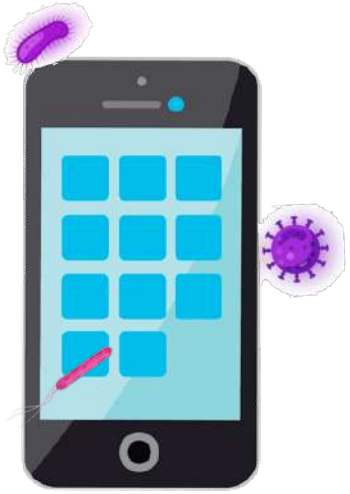
IDI Study Days
March 2024

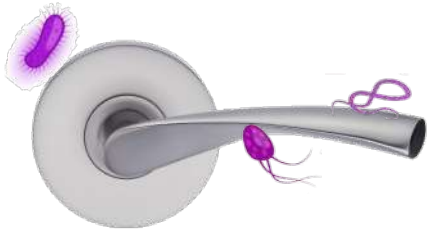
PATENTED TECHNOLOGY
enzymes that really clean !

Wendy Glénisson PhD

There are bacteria everywhere…



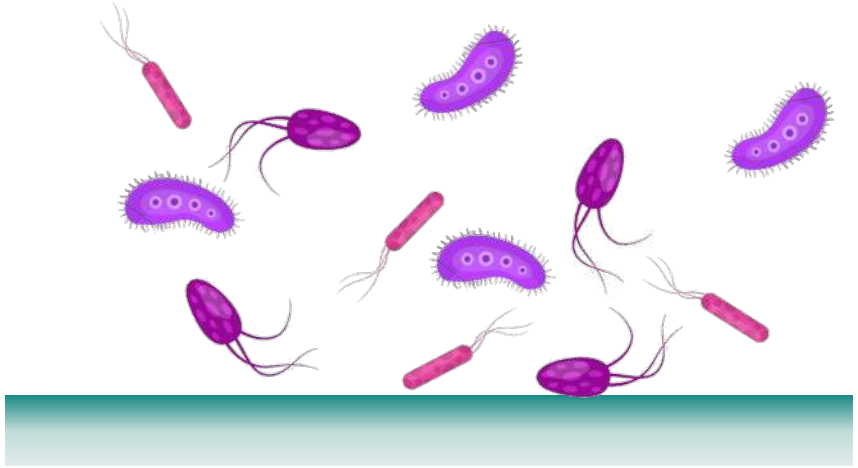




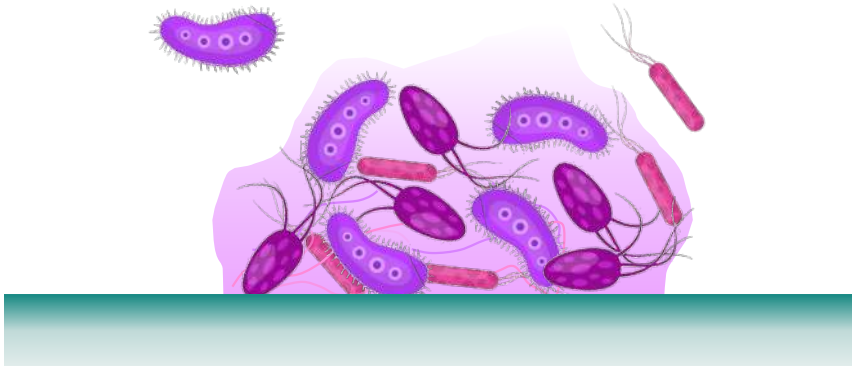
Common belief :
bacteria are planctonic (=swimming freely)

Belief VERSUS **Reality**

Planctonic Bacteria



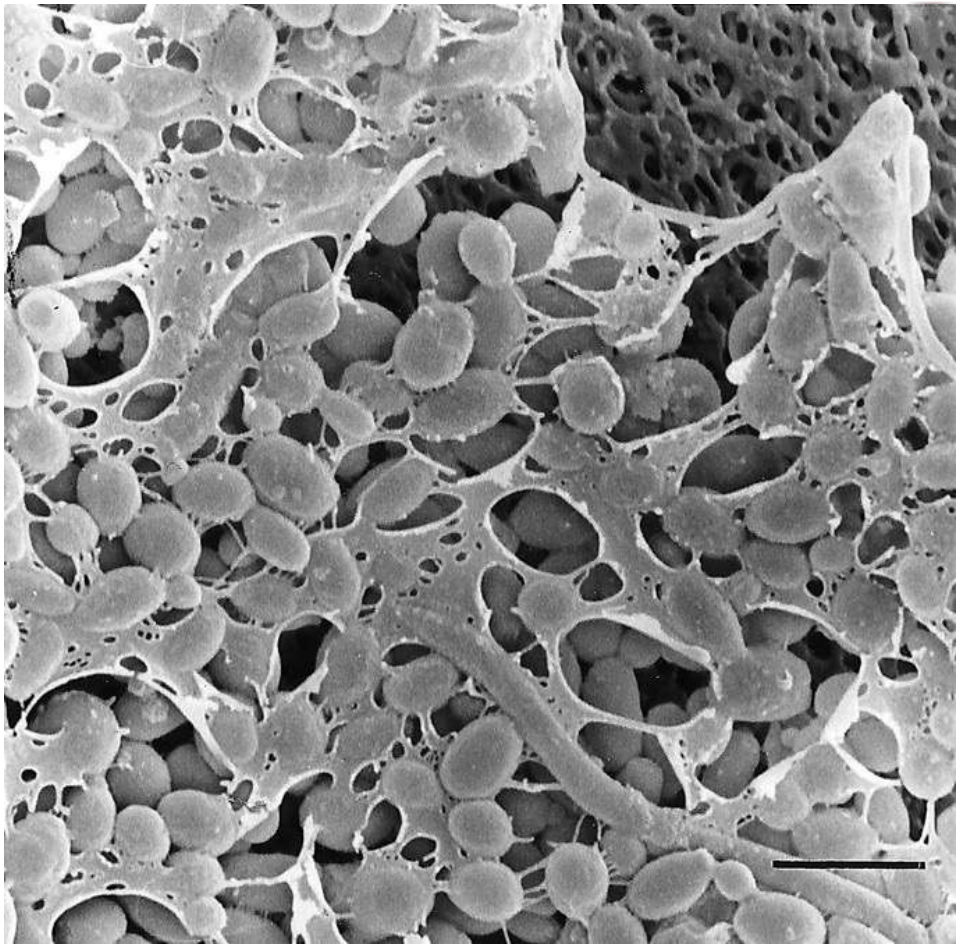
Most Bacteria are in Biofilms



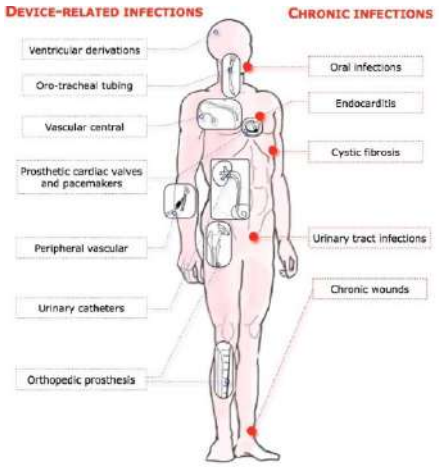
Definition :

Biofilm is a complex microorganism comunity, attached to a surface and anchored by the adhesive and protective matrix they produce.

It’s a dynamic structure, constantly reshaping.



Effects of Biofilm :



Sludge

The effects of Biofilms are often said to be harmfull :

- Medical field (antibiotic resistant infections on implanted medical devices, nocosomial infections, …)
- Technologic field (sludge clogging pipes, decreased slide on boat hulls)

They allso have some positive effects (fermentation, wastewater treatment)...

Well known Biofilms …

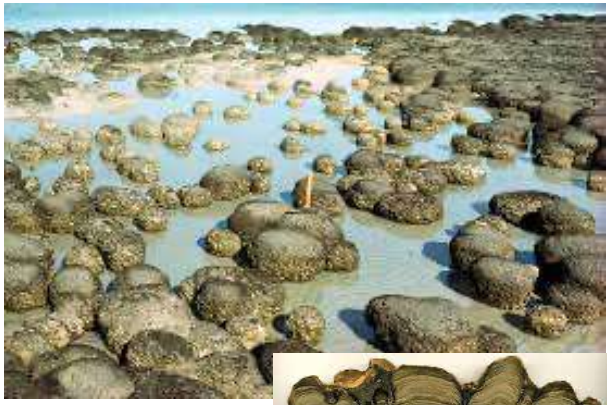
Every where…

Dental plaque

Sink residus

… and since ever!

Stromatolites

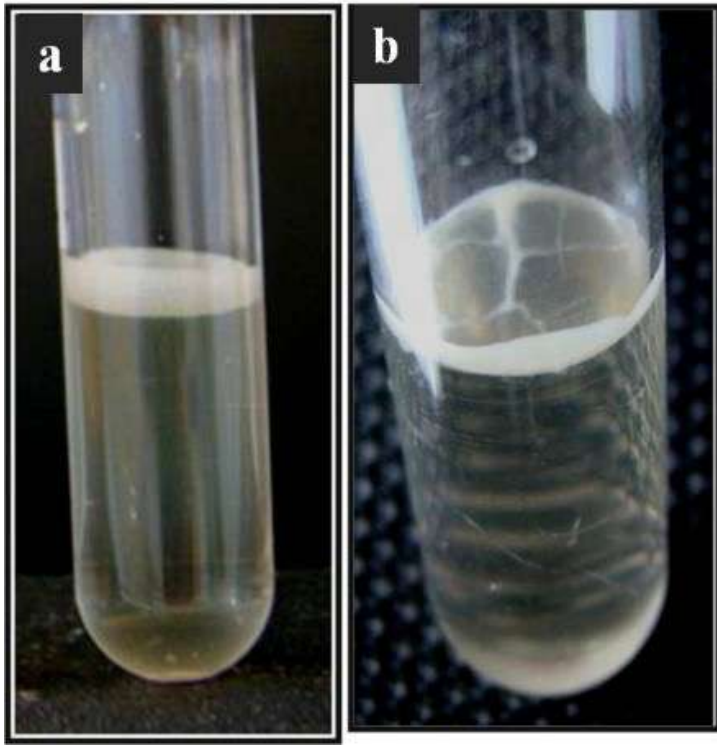


Broader definition :

Biofilm concept was extended to non solid to ~~surfaces~~ interfaces :

- Bacterial community at the interface between air – liquid / gel / mucus
  (Ferguson BJ, Stolz DB. 2005. Am.J.Rhinol., 19:452-457)

- Biofilm can stick to mobile surfaces like mucous membranes
  (Akimbekov et al, 2022, Front Nutr.)



=> Colonize many places in Human Body!

Biofilms are deadly!

60 to 80% of bacterial infections consists in biofilms (NIH) (Jama et al *J Chin Med Assoc.* 2018)

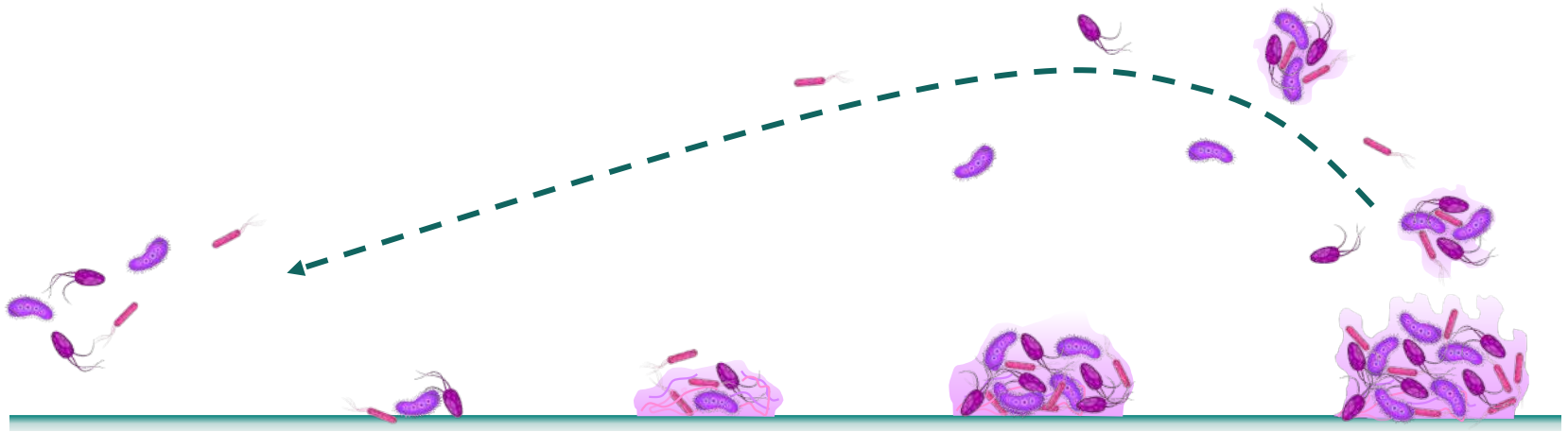
Nocosomial Infections :

- **Europa :** 4 millions/year, => 37 000 deaths
(Szabo et al J. Clin Med. 2022)
- **World :** > 100 million/year
(Zewdu Wasie Taye et al. Front. Public Health, 2023)

Most nocosomial infections are related to implanted medical devices (urinary catheter, intubation cannula, vascular probe, orthopaedic prosthesis, contact lenses, intrauterine devices, … etc)

Femoral, peri-prosthetic ostemyelyt

Biofilm life cycle :



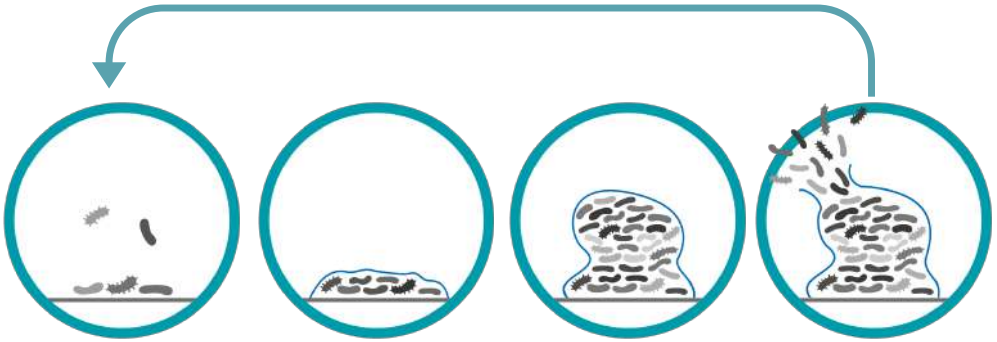
Free floating /planctonic Bacteria

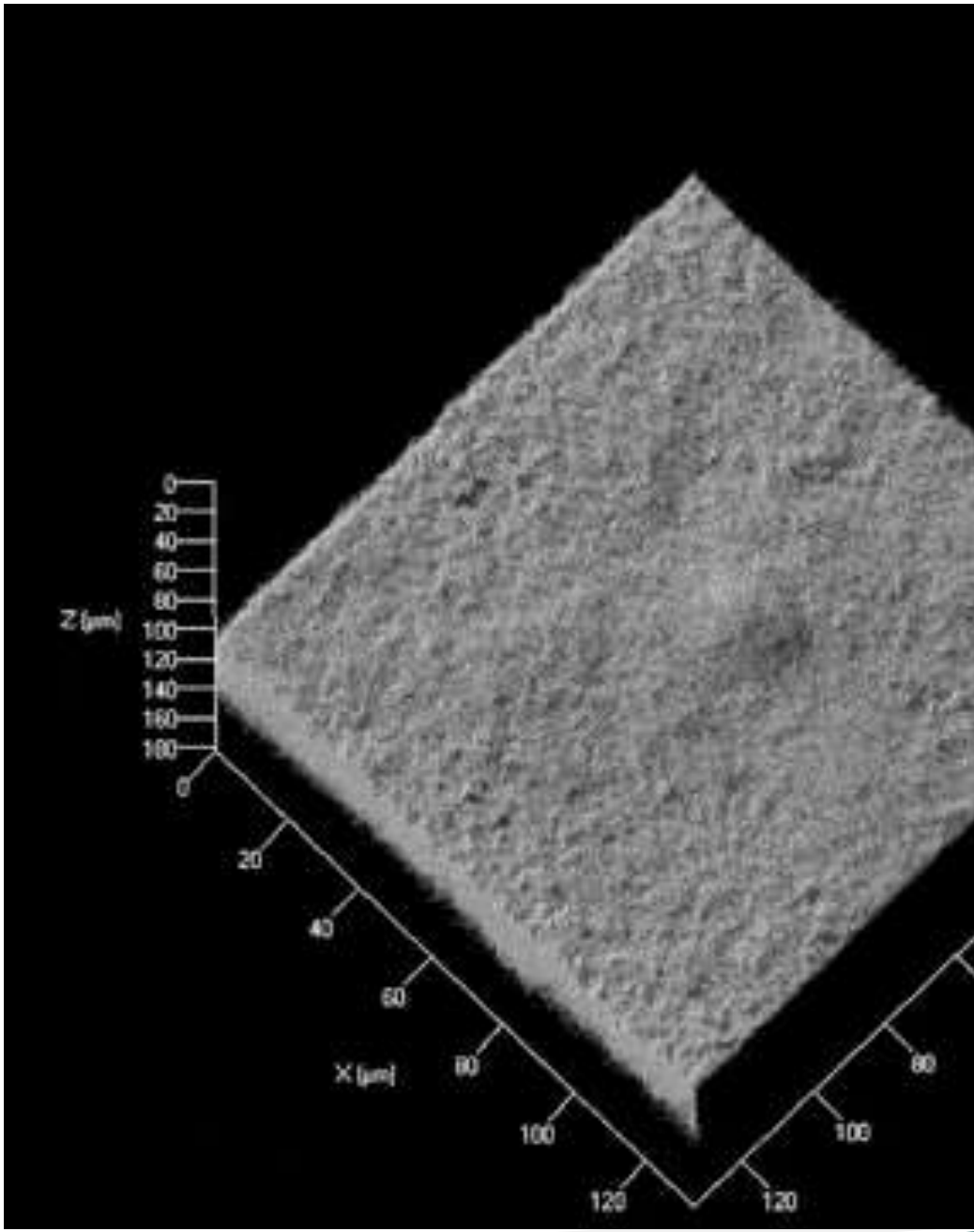
Attachement

Developpement and **matrix** production

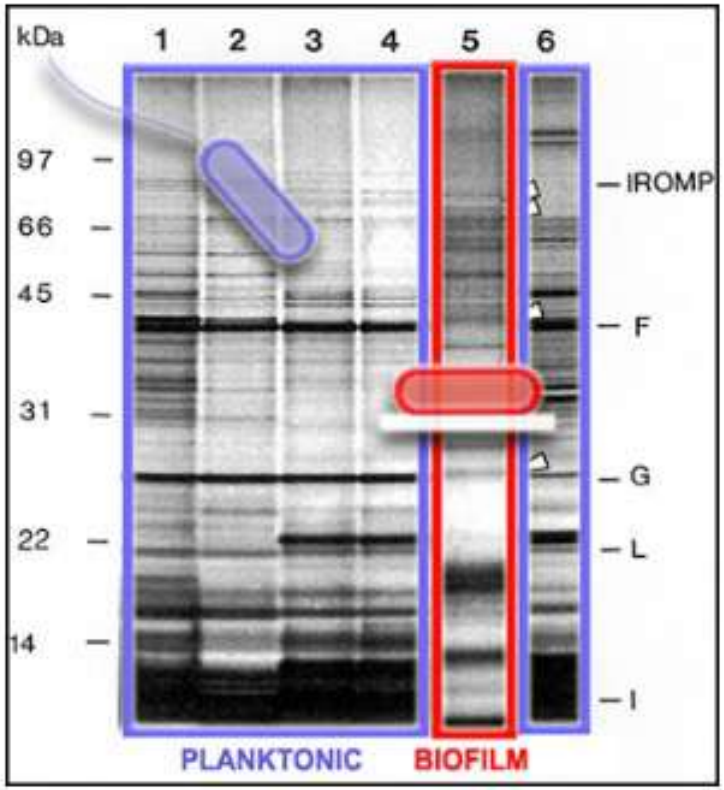
Biofilm dispersal

Biofilm growth
Electronic Microscopy

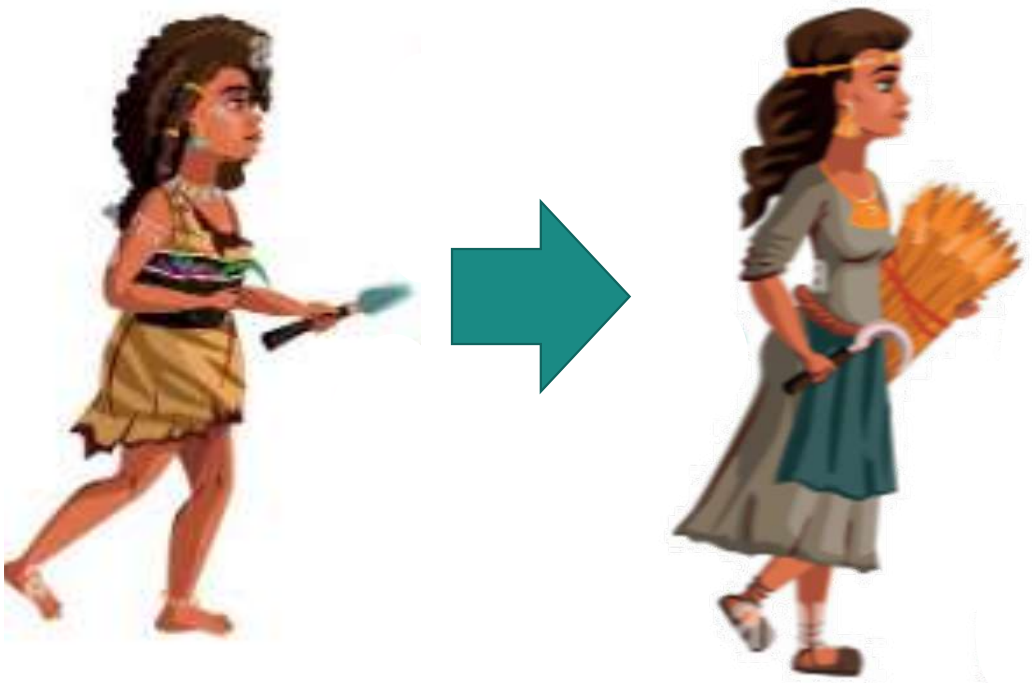




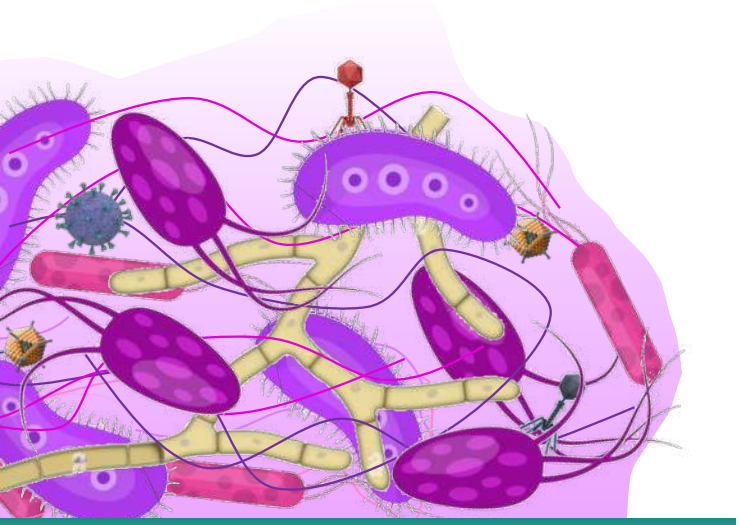
A huge step :
from nomadic to sendentary life style



SDS PAGE preparation of the outer membrane proteins (OMPs) of Pseudomonas aeruginosa cells in planktonic and biofilm states. *Courtesy, Hongwei Yu*



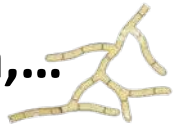
Biofilm composition :



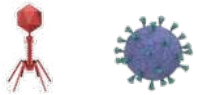
Living

- **Procaryotes : Bacteria**

- **Eucaryotes : Fungi, protosoa, amobea,…**



- **Virus**



Non- Living

- **Dead Micro-organisms**

- **Matrix :** Slimy & Sticky

- Water & surroundings molecules

Micro-organismes found in Biofilms :

Bacteria

Staphylococcus aureus MRSA
Pseudomonas aeruginosa
Yersinia enterocolitica
Vibrio cholerae
Mycobacterium tuberculosis
Salmonella enterica
Yersinia pestis
Listeria monocytogenes
Cronobacter sakazakii

List growing longer each year ! => Infinite variability?

Lactobacillus acidophilus
Neisseria gonorrhoeae
Propionibacterium acnes
Shigella flexneri
Stenotrophomonas maltophilia
Streptococcus pneumoniae
Treponema pallidum
Legionella pneumophila
Streptococcus mutans
Escherichia coli
Bacillus subtilis
…Etc

Fungi

Candida albicans
Aspergillus fumigatus
Fusarium solani
Trichophyton rubrum
Cryptococcus neoformans
Microsporum canis
Paecilomyces variotii
Rhizopus oryzae
Penicillium chrysogenum

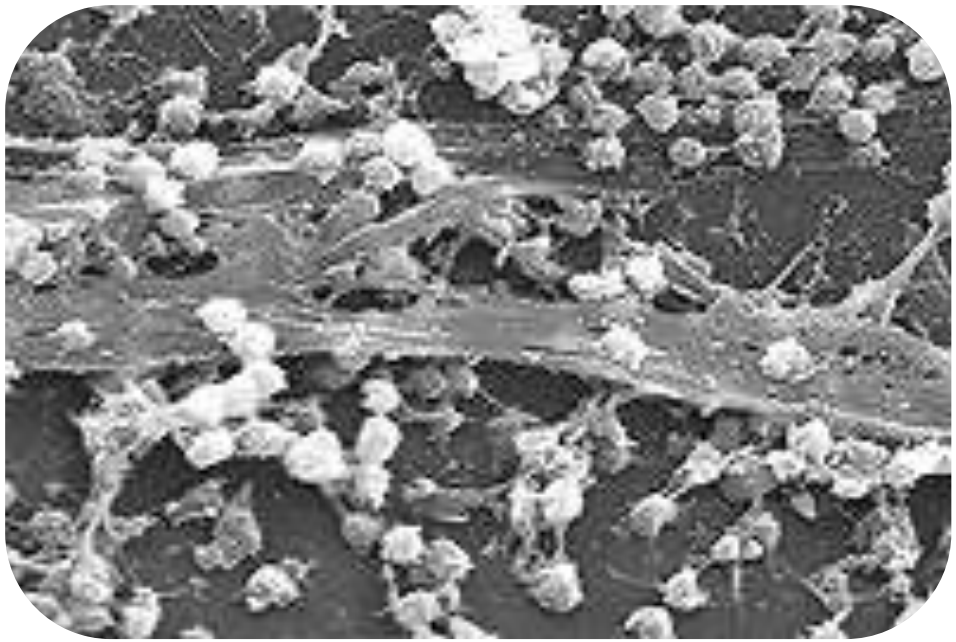
Malassezia furfur
Exophiala dermatitidis
Candida glabrata
Sporothrix schenckii
Penicillium digitatum
Paecilomyces variotii
Trichophyton rubrum
Aspergillus niger
Histoplasma capsulatum
Paecilomyces lilacinus
Candida tropicalis
… Etc

Virus

COVID-19
SARS-CoV-2
Bacteriophage T4
Influenza virus
Hantavirus
Adenovirus
Hepatitis A virus
Herpes simplex virus
Norovirus

Vesicular stomatitis virus
Human papillomavirus (HPV)
Epstein-Barr virus (EBV)
Cytomegalovirus (CMV)
Herpesvirus 6 (HHV-6)
Human immunodeficiency virus (HIV)
Human T-lymphotropic virus (HTLV)
Respiratory syncytial virus (RSV)
Coxsackievirus
Norovirus GII.4
Rotavirus group A
… Etc

Matrix : Biofilm's structure and support

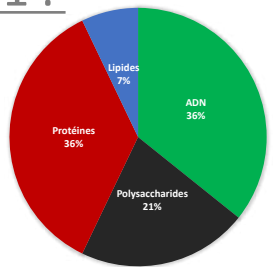


Staphylococcus aureus biofilm in a catheter
Monroe, PLOS Bio, 2007

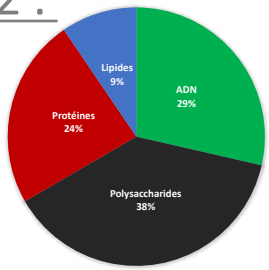
Faizan et al., ILVO, 2023.
????

Biofilm's matrix composition :

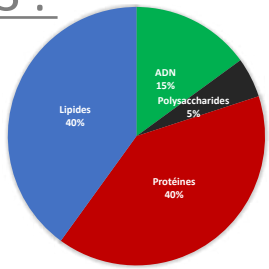
Biofilm 1 :



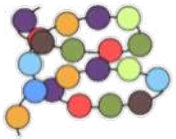
Biofilm 2 :

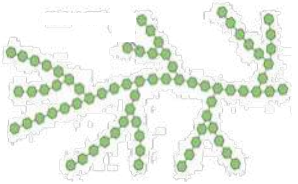


Biofilm 3 :



Proteins | Lipids | DNA | Polysacch.



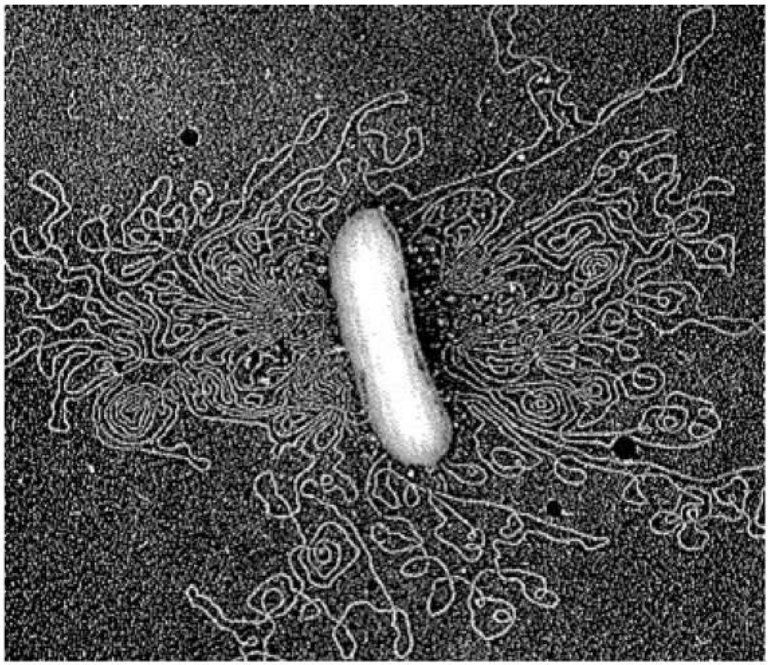
Variable proportions depending on :

- Bacterial species composing the biofilm
- Nutrients availibility
- Surface on which the Biofilm grows
- Environnement (stress, desinfection, dryness, …)

=> INFINITY OF COMBINAISONS ?

Detergents used should have a broad activity spectrum !

Role of extracellular DNA in Biofilms :

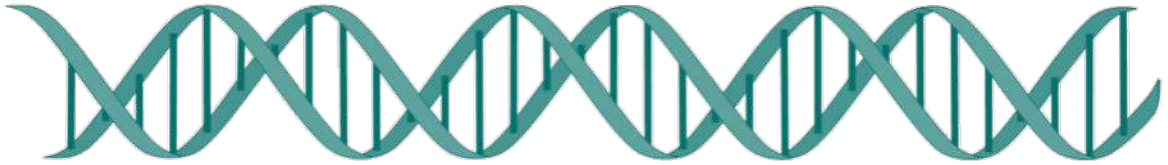


<u>An under-estimated role?</u>

- Either actively secreted or released from dead bacteria ;
- DNA is negatively charged ;
- It gathers arround bacteria ;
- It protects bacteria against cationic bactericids!

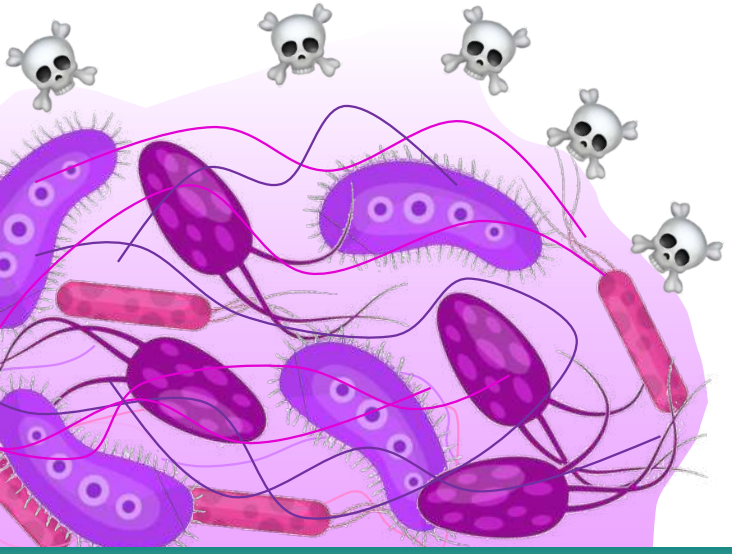
- May be used as food in oligotrophic conditions

- 1 DNA molecule (5 millions base pairs)
  = 1,7 mm long. = 500x > 1 bacterium length
  => Huge scaffolding for the Biofilm!



Whitchurch CB et al. 2002 Science,295:1487 - Flemming HC et al. 2007. J.Bacteriol.,189:7945-7947

Antibiotics and desinfectant resistances :



Minimal Inhibition Concentration increased from 10 to 1000x in a Biofilm when compared to the planctonic state.

Hypothesis :

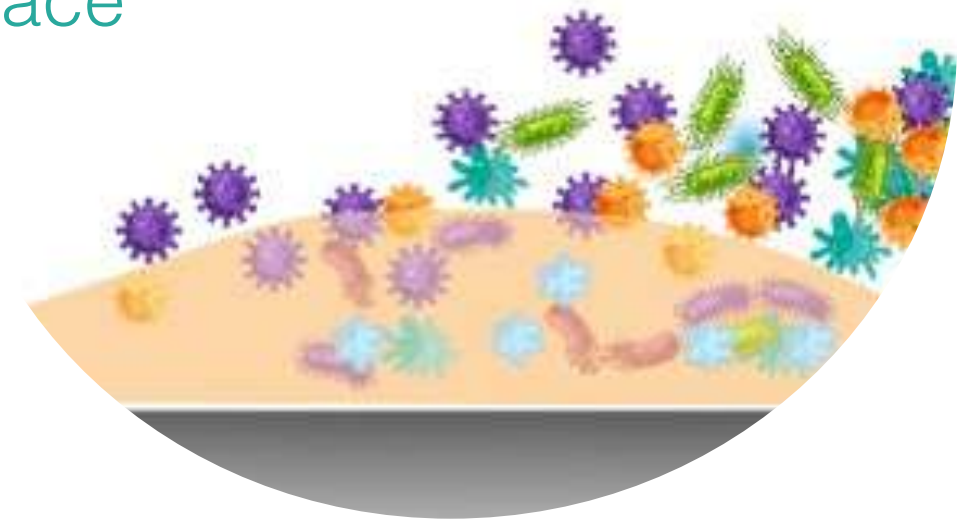
- Reduced accessibility (Matrix acts like a barrier)
- Metabolic heterogeneity
- Phenotypes specific to Biofilms may appear (persister cells)
- Stress resistance genes activated

Where are Biofilms ?

BIOFILMS grow nearly everywhere!

All they need is :

- Micro-organisms
- Surface / interface
- Nutrients
- Water



How can we decontaminate a surface with Biofilm?

Clean or desinfect?

Cleaning

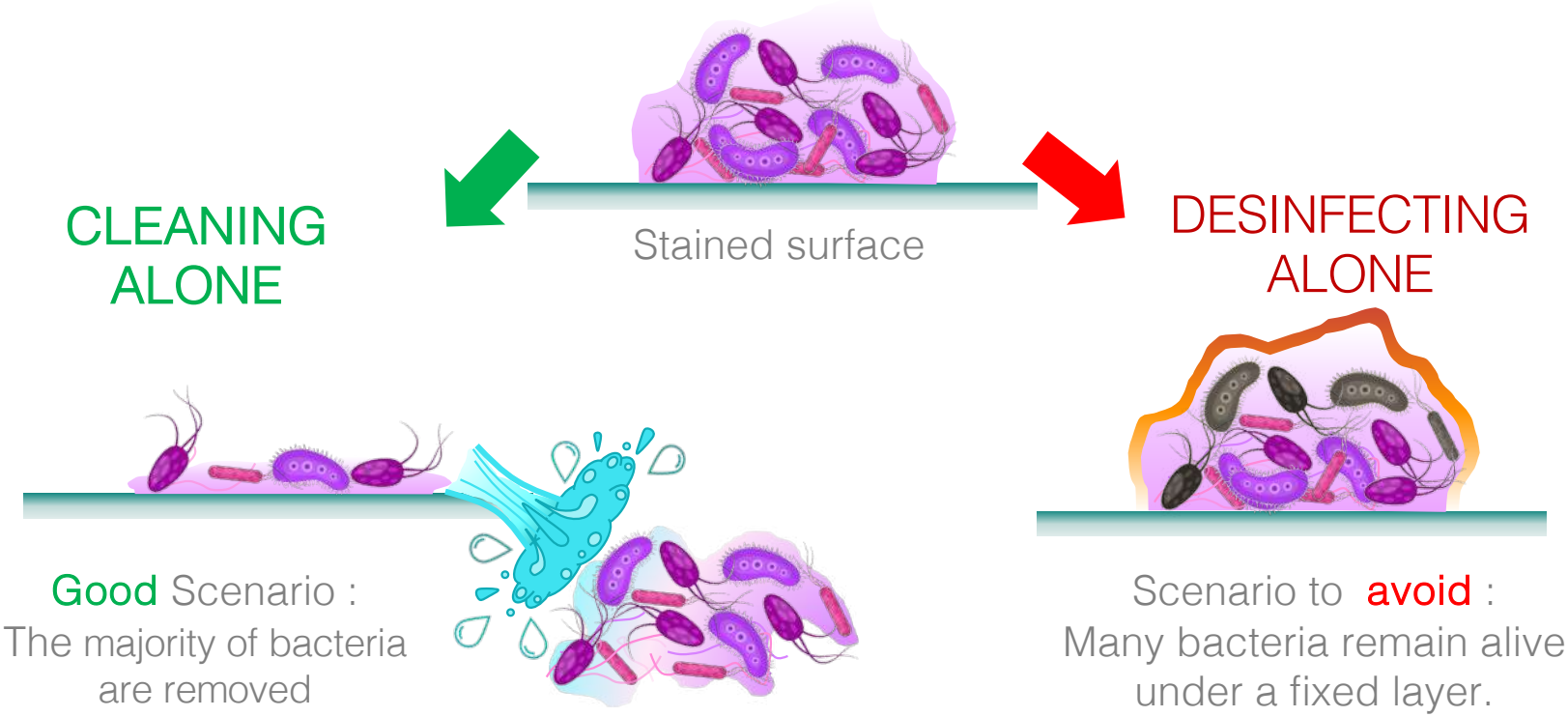
- Removes stains
- Detergent (for ex. soap) or enzymes
- Decrease the number of bacteria and thus decrease the risk of infection.

Desinfection

- Kills accessible bacteria
- Desinfectant (for ex. alcohol or acid)
- Often has an dehydrating action and thus fix stains

What's their efficiency on a Biofilm?

Cleaning alone is more efficient than desinfecting alone!



Cleaning alone is more efficient than desinfecting alone!

CLEANING ALONE

OneLife's Enzymatic solution :
is efficiently disolving several layers of stains in a few minutes

Preferably use a disinfectant after.

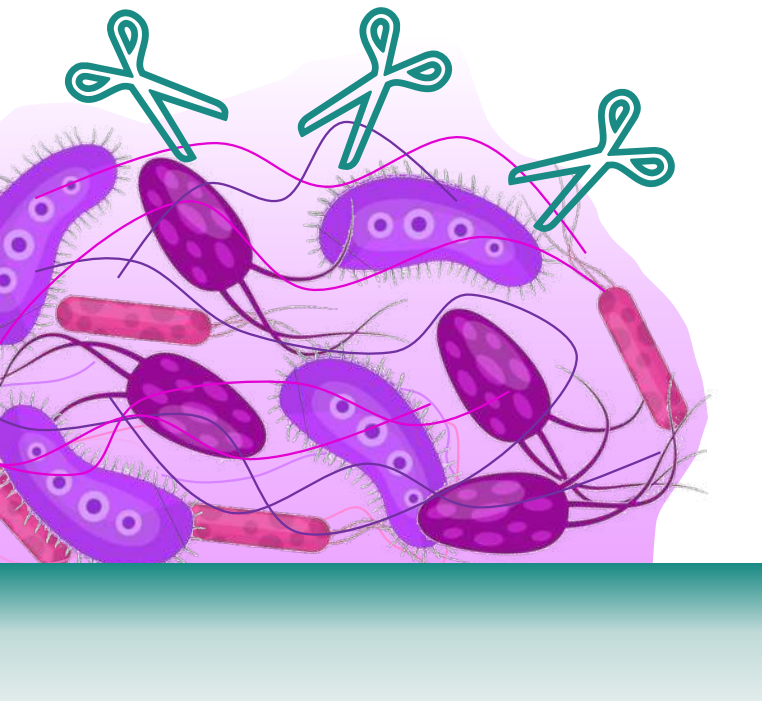
STF load check indicator (Browne)

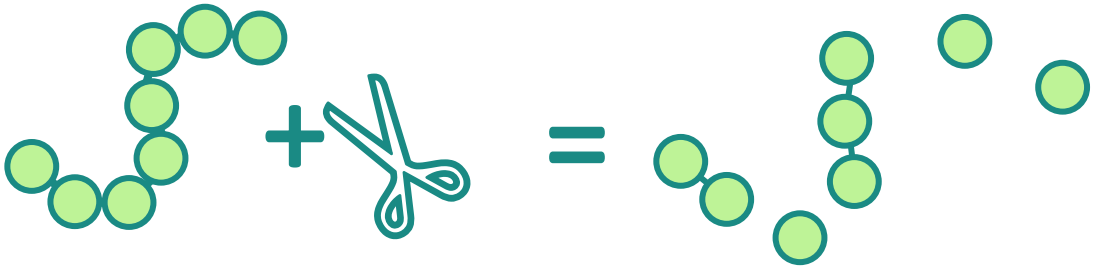
DESINFECTING ALONE

Peracetic acid + H_2O_2 :
desinfectant that kills bacteria on the surface but has little efficiency on removing the stain… and even fix the stain!

Avoid desinfection alone!

How to clean a Biofilm ?





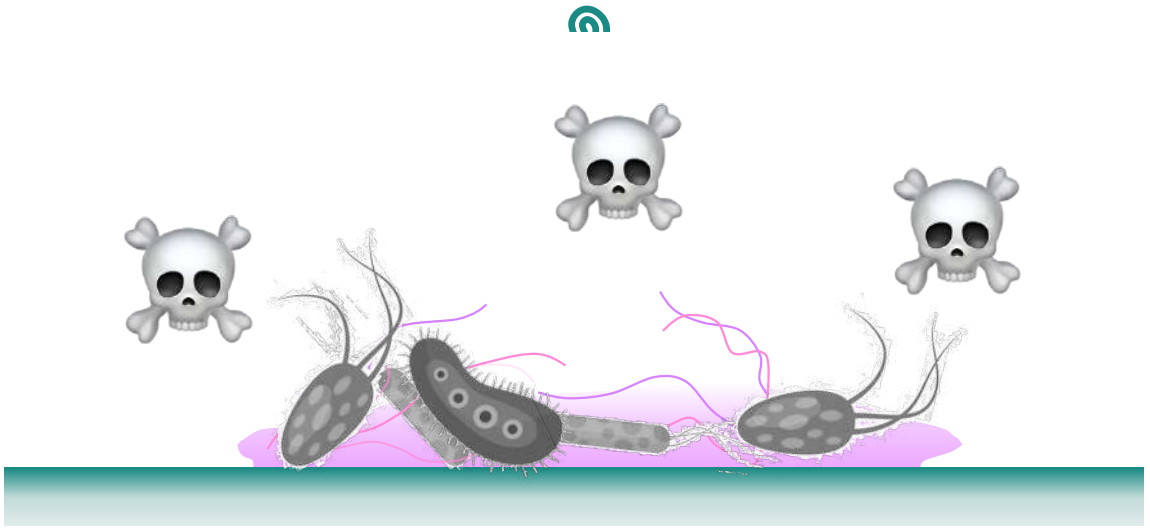
Disolve matrix … with enzymes !

- Proteins => Proteases
- Lipids => Lipase
- extracellular DNA => Dnase
- Exo-polysaccharids => Saccharidase
  Cellulase, Amylase…
  Etc…

And then rinse!

The Best decontamination :

Clean then Desinfect



Enzyms

Profil

- Non- living
- Naturally present in the body and environnement

Avantages

- 100% biodegradable
- Natural activity

Qualities

- Cut up to 3 millions molecules per second
- Dissolve organic stains and biofilms
- Team work with other cleaning products

OneLife's technology

DETECT & DISSOLVE
BIOFILM MATRIX

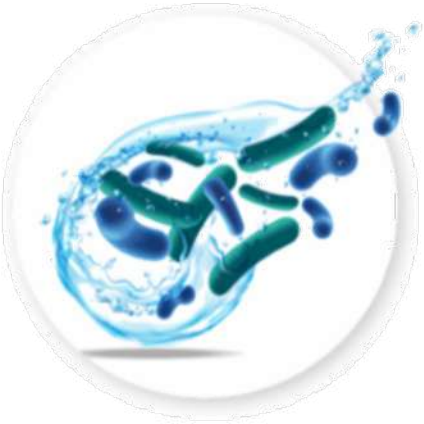
helps Medical & Health care institutions to :

✓**Detect** Biofilm (in endoscopes, on surgical instruments, …etc)

✓**Dissolve** Biofilms to optimize medical devices's decontaminations

✓**Prevent** formation of new Biofilm

DETECT



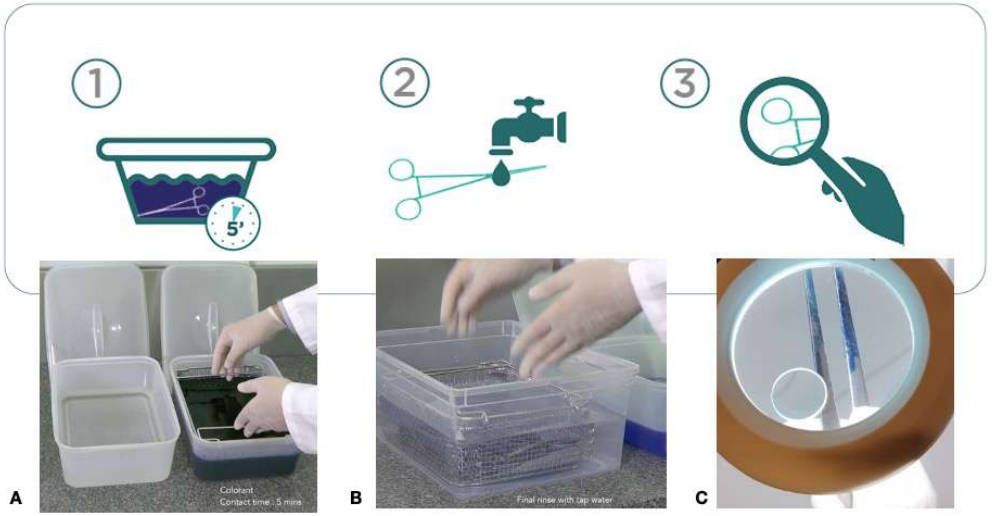
DISSOLVE

PREVENT

Detect :
Visualise Biofilm using DETECT®2

See the invisible proteins and biofilms by staining them in blue!

- Quick and efficient : 5 min
- 360° quality control
- In situ method
- Visible from 10 µg/cm2



Detect :

Flexible inspection camera for medical devices with lumens

- Visuaslize damage and contamination
- Prevent costly repairs

Dissolve :
Corrective cleaning with enziQure

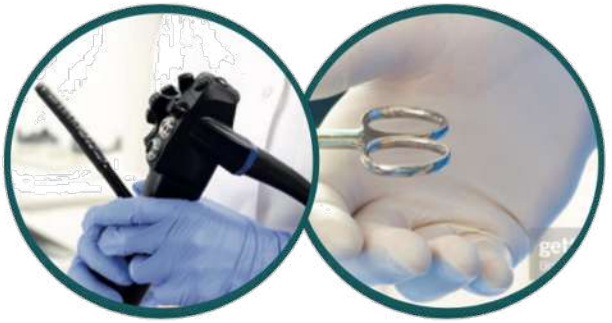
- For heavily soiled medical devices : such as: endoscopes and surgical instruments.
- Multi-enzymatic formula : 7 enzymes
- Patented enzymatic complex that dissolves biofilm matrix of multiple pathogens.
- Manual or ultrasound cleaning.
- pH Neutral
- Excellent materials compatibility
- Registered Medical Device Class I
- Biodegradability ≥ 97 % (OCDE 302B).

Prevent :
EnziMed prevent Max

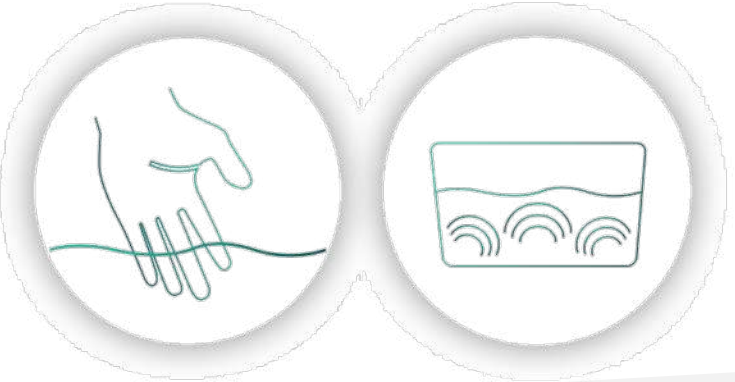
- 1L, 5L or 10L

Exclusive Applications

Endoscopes & surgical instruments

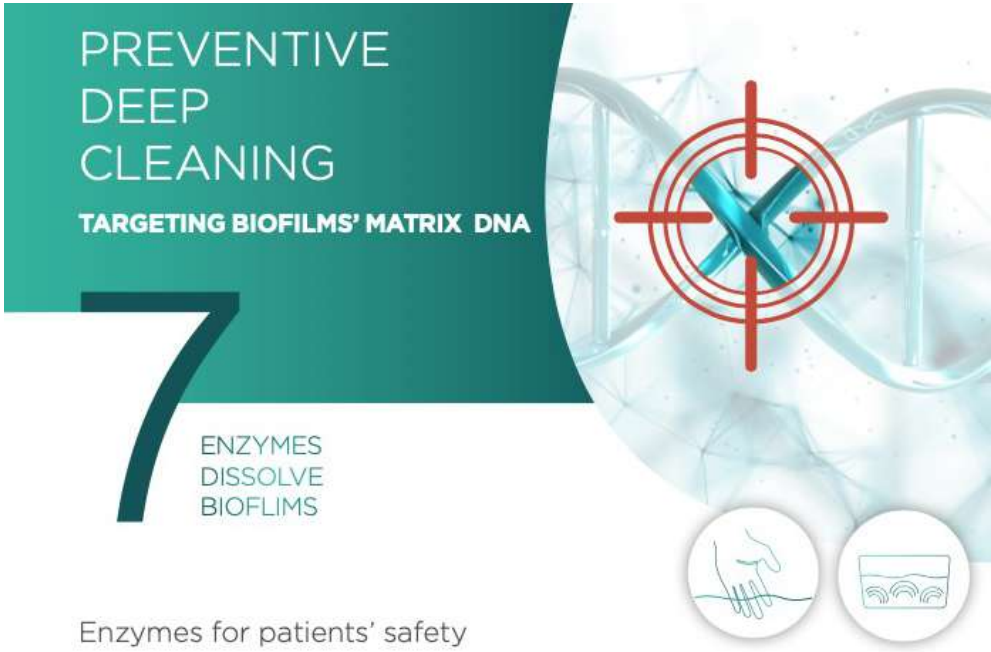


Manual or ultrasound cleaning

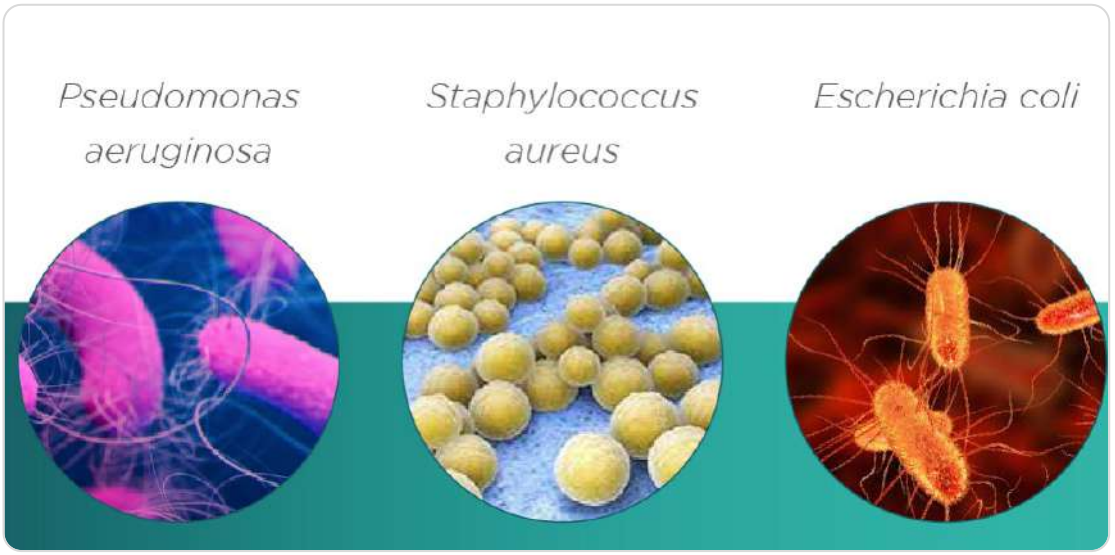


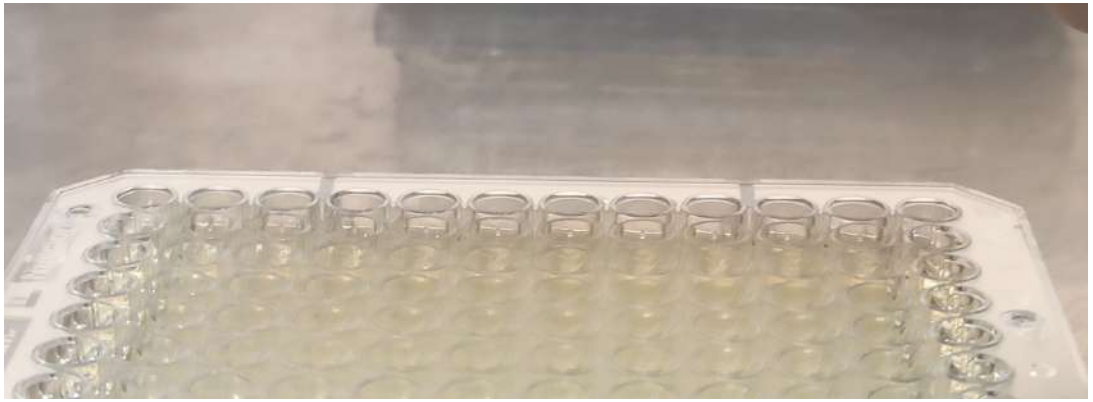
Prevent :
EnziMed prevent Max

- Targets the e-DNA (extracellular DNA)
- Multi-enzymatic formula : 7 enzymes
- Optimal deep cleaning of Medical Devices such as: endoscopes and surgical instruments.
- Patented enzymatic complex that dissolves biofilm matrix of multiple pathogens.
- pH Neutral
- Outstanding materials compatibility
- Registered Medical Device Class I
- Biodegradability ≥ 99 % (OCDE 302B).



Study: Evaluation of biofilm removal





*Iglesias, Y. D. (2019) Antimicrobial Agents and Chemotherapy, 63(7)

Method used

The model used to assess biofilm removal was described by Iglesias* and al. (2019) and adapted to include other bacterial strains encountered in healthcare environments

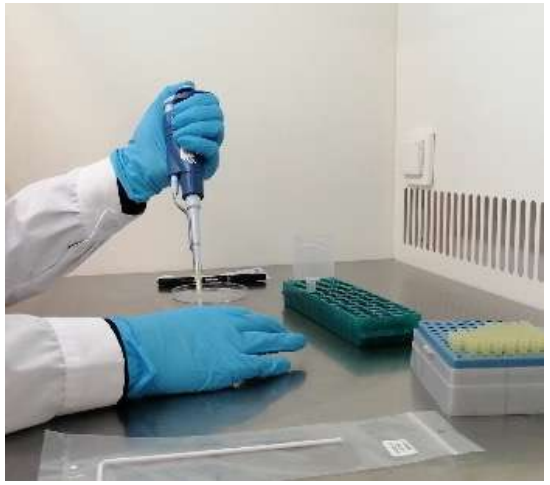
Strains were grown for 24h or 48h :

- Staphylococcus aureus (Gram-Positive)
- Pseudomonas aeruginosa (Gram-Negative) and
- Escherichia coli (Gram-Negative)

at 37°C in 96-well microplates

Six cleaning solutions, one of which including DNase, were then applied to selected wells

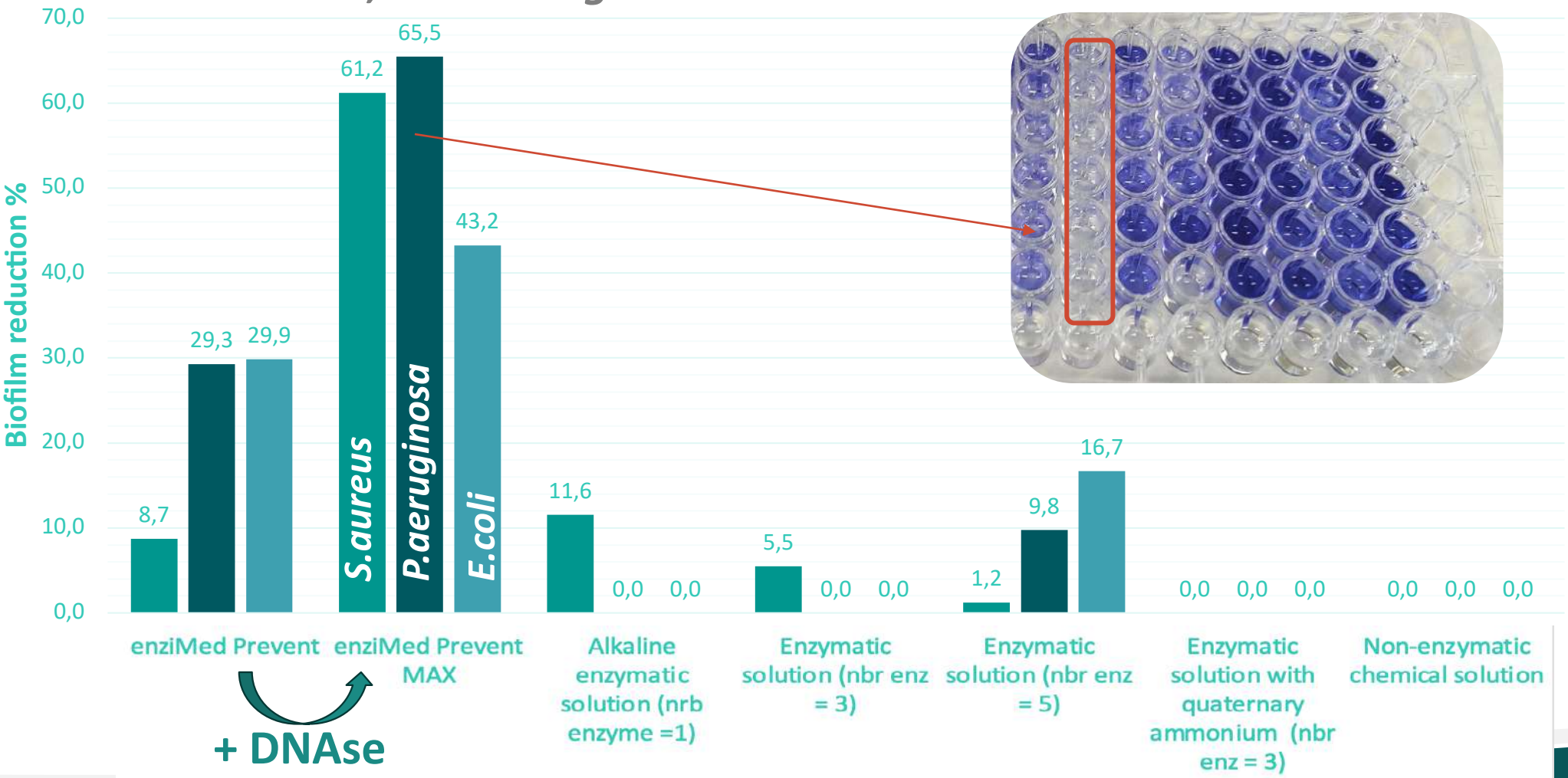
Method:
from biofilm incubation to cleaning

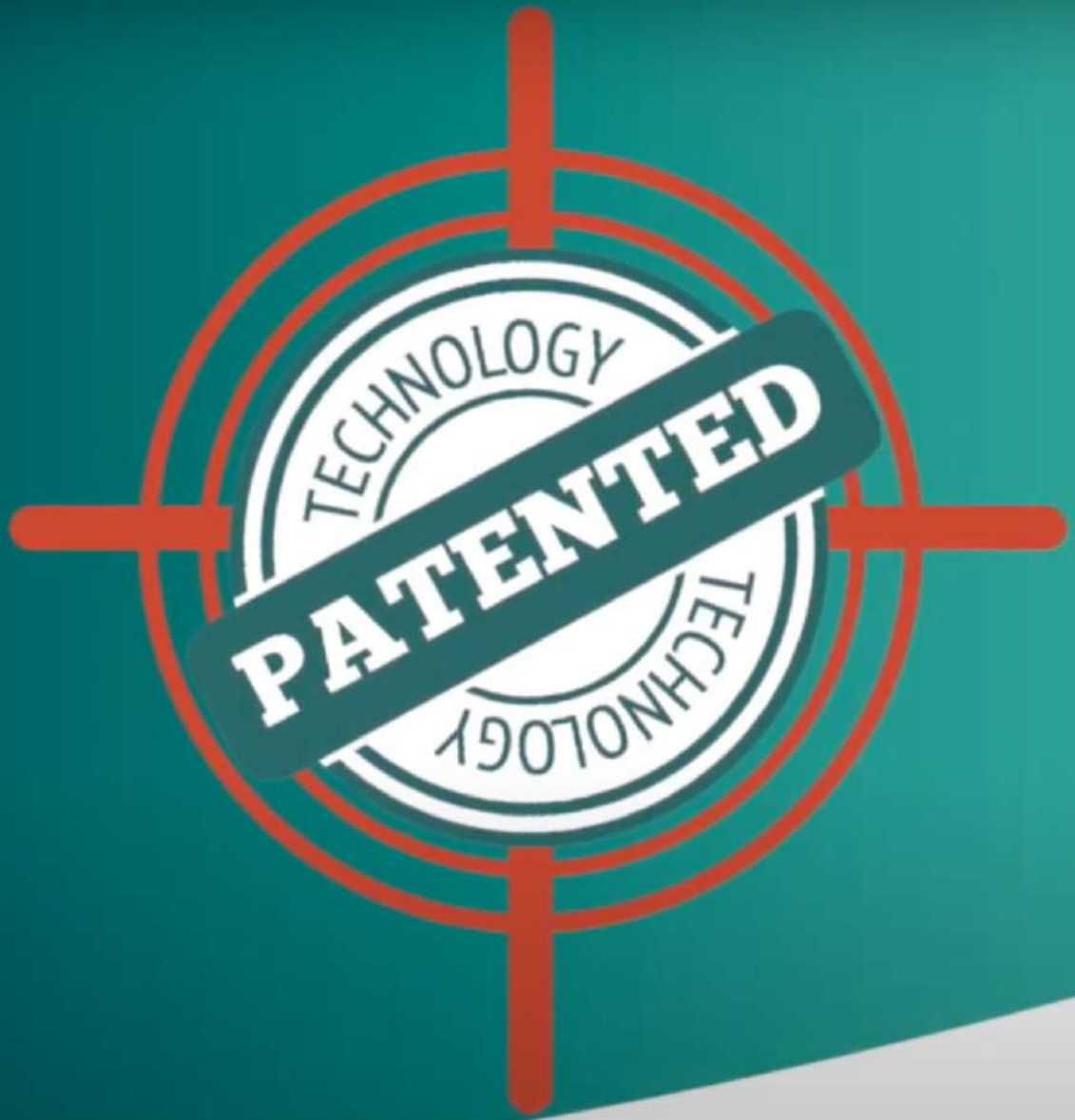


Crystal violet staining was finally applied to measure biomass reduction. Inside the same plate, all enzymatic solutions were tested six times and each plate was tested four times.
The results obtained were processed graphically. The colour's intensity is directly proportional to the quantity of residual biofilm.

Results

S.aureus, *P.aeruginosa* and *E.coli* biofilms reduction

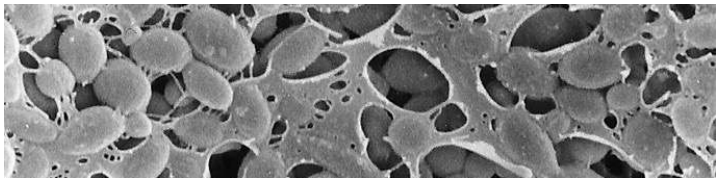




enzymes that really clean!

Conclusion :

Biofilms are :



- On every humid surface / interface
- Complex, heterogenous, infinitely variable
- Often the cause of serious or fatal illnesses

Enzymes are :

- Very efficient to disolve Biofilm's matrix
- Natural, biodegradable, safe
- Your allies in surface decontamination

Do you have questions?

Please join us on our booth…

TRINITY MEDICAL

PATIENT CENTRIC TECHNOLOGIES

One Life

DETECT & DISSOLVE
BIOFILM MATRIX

Thank you

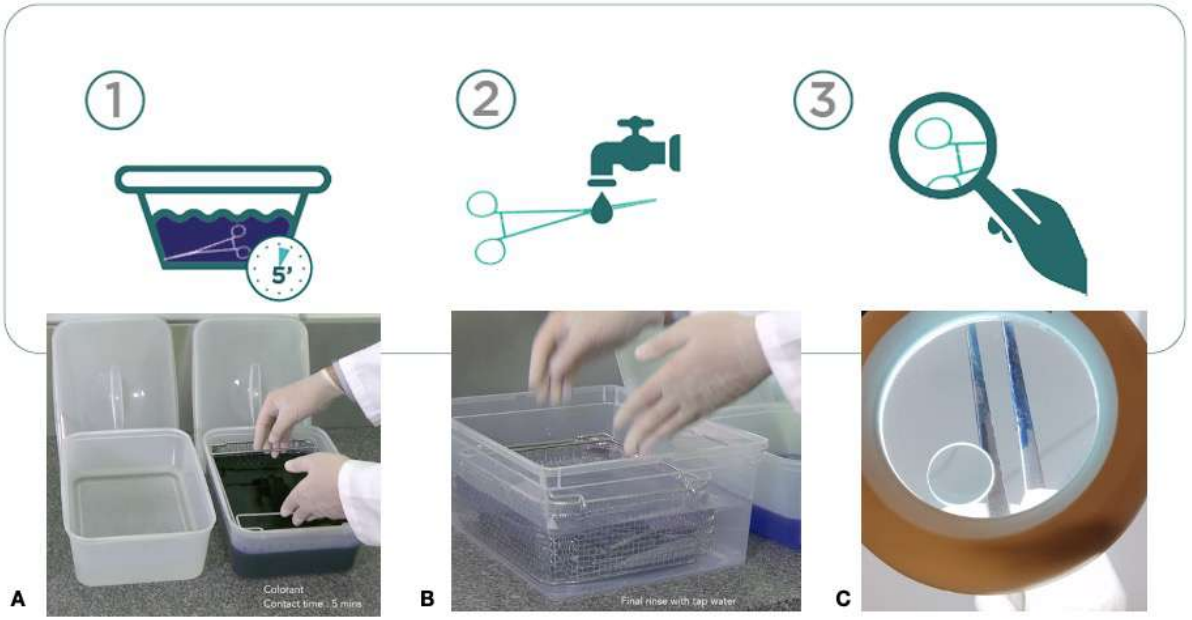
DETECT & DISSOLVE
BIOFILM MATRIX

DETECT®2

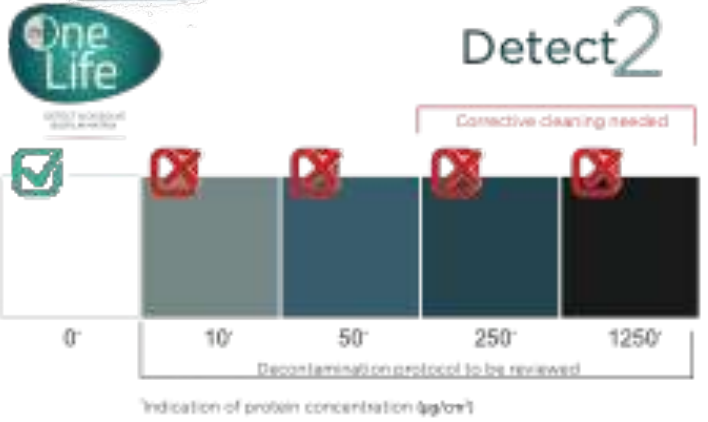
Detects proteins and biofilms on instruments

- Quick and efficient (5 min)
- 360° quality control
- In situ method
- No false negatifs
- Visible from 10 µg/cm2

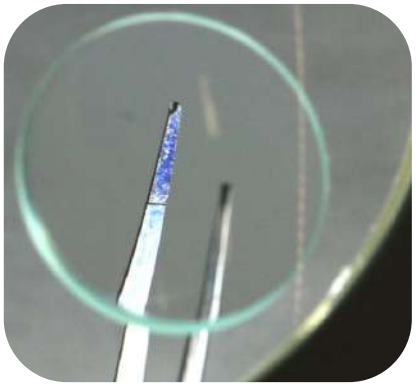
DETECT®2



1250 µg/cm2 (300 µg)
250 µg/cm2 (60 µg)
50 µg/cm2 (12 µg)
10 µg/cm2 (2,4 µg)



Examples of results with DETECT®2



DETECT®2


Detect®2
Ref OL22329
6 x 950ml
Ref OL22319
2 x 5L
KIT
Detect2
Ref OL22215
KIT

Detect 2

360°

EN

Quality control of the surgical instrument cleaning process.

PATENTED

- Quality control tool of the surgical instruments' cleaning process.
- Patented and validated technology to detect biofilm and organic soil on instruments.
- Quick result, visible directly (only 5 minutes) on the instrument surface.

Exclusive Applications

Dental & surgical instruments

Product Characteristics

- Quick and simple to use: 5 minutes for a basket of instruments (DIN 1/1).
- Evaluates the cleaning quality of instruments washer-disinfectors (WD) or ultrasound.
- High sensitivity (from 10µg/cm² protein
- A single reagent for detecting residual proteins (dye process).
- Compatible with stainless steel, PP, PTFE, POM, aluminium, titanium.
- Registered Medical Device Class I.
- Biodegradability ≥ 90 % (OCDE 302B).
- Very low toxicity (reposts available on demand).
- Odorless.

Instructions for use

1. Immersion of instruments: **5 minutes** in the COLORANT solution.
2. **Rinsing:** Immersion in tap water
3. Visual interpretation of results Blue stains are indicative of residual proteins/biofilms.

Waste treatment methods: Dispose in a safe **manner in accordance with local/national regulations.** Product/Packaging disposal recommendations: Do not empty into drains, dispose of this material and its container at special waste collection point.

Chemical Properties

Appearance:	dark blue liquid
Density:	1,013 +/- 0,01
pH:	2,25 +/- 0,25

The color is natural and may vary from one batch to another with no impact on the performance of the product.

Main Components*

Citric acid: 1-5%
COLORANT/Dye: 0,1-1%
Alcohol free

* Does not contain carcinogens, mutagens, reproductive toxicants or endocrine disruptors.

Precautions

- **Wear gloves and a protective clothing against the dye.** Refer to the safety data sheet before use.
- **Protect** the working area.
- **Store** in the original container, closed, between +4°C and +25°C.
- **End of life:** 36 months after production

Delivery Units

Ref OL22329
6 x 950ml

Ref OL22319
2 x 5L

Ref OL22215
KIT

Natural | Biodegradable | Eco-friendly

24/06/2021

Made in Belgium

Enzymes for patients' safety

Contact:
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onelife-bf.com

enziDent

High level enzymatic detergent with biofillm treatment for dental instruments

Ref OL20807
2 x 1L

Ref OL20808
6x 1L

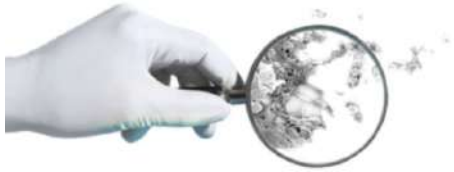
Ref OL20806
1 x 5L

Ref OL20809
2x 5L

enziDent®

EN

High-level enzymatic detergent with biofilm treatment for dental instruments



PATENTED

- Patented multi-enzymatic compound
- Enzymes dissolve organic soil and biofilm matrix
- Prepares instruments for efficient sterilization

Exclusive Applications

Dental rotary & non rotary instruments, Implant healing caps

For manual or ultra-sound cleaning

Product Characteristics

- Neutral, multi-enzymatic compound
- Restores instruments to their original condition
- Independent tests (available on request) prove superior efficacy on incrusted soil and biofilm matrix
- Full materials compatibility
- Concentrated for economical use
- High enzymatic activity and stability
- Registered Medical Device Class I
- Biodegradability ≥ 95 % (OCDE 302B)

Instructions for use

Use enziDent® each time instruments are cleaned for complete removal of soil and to prevent build-up of incrusted soil and biofilm matrix.
A. Standard dosage : 1%*. Increase dosage to 2%* in case of hard water or heavy soiling or temperature of water < 30°C
B. Contact time : 15 minutes
C. Ideal temperature : 40 to 45°C (minimum 30°C and maximum 55°C)
*See dilution table below

Bath volume (l)	0,5	1	2	3	4	5	10	15
enziDent® 1%-2% (in ml)	5 - 10	10 - 20	20 - 40	30 - 60	40 - 80	50 - 100	100 - 200	150 - 300

Waste treatment methods: Remove to an authorized waste treatment plant.
Sewage disposal recommendations: May be discharged to wastewater treatment installation.
Product/Packaging disposal recommendations: Dispose of contents/container to special waste collection point. When totally empty, containers are recyclable .

Chemical Properties

Appearance : Yellow liquid
pH unverdünnt: : 8.5 +/-0.5
pH verdünnt 1%: 7.8 +/-0.5
Density: 1.053+/-0.01

The color is natural and may vary from one batch to another with no impact on the performance of the product
• Instruments should be rinsed prior to immersion in enziDent® only if product used for initial soak has an extreme pH (>10) or contains oxidizing agents (peracetic acid, hydrogen peroxide or chlorine-based products) or phenols.
• Respect recommended temperatures for optimal performance; efficacy is not guaranteed > 55°C.
• Rinse abundantly with water before disinfection and/or sterilization.
• Enzymatic activity is maintained for 8h following dilution.
• Renew baths frequently according to soil levels.

Precautions

- **Wear gloves**. In case of prolonged use, gloves covering forearms are recommended. Refer to full safety data sheet before use.
- **Store** in the original container, closed, between +4°C and +25°C. For optimal performance respect the « Best Before » date on the label.
- **End of life:** 36 months after production

Main components*

1 - 5% non-ionic surfactants;
1 - 5% anionic surfactants;
<1% sequestrants;
<5% corrosion inhibitors;

* Does not contain carcinogens, mutagens, reproductive toxicants or endocrine disruptors.

Multi-enzymatic compound

1. **Protease**
2. **Lipase**
3. **Amylase**
4. **Cellulase**
5. **+ 2 more**

Delivery Units

Ref OL20807 2 x 1L
Ref OL20808 6 x 1L

Ref OL20806 5L
Ref OL20809 2 x 5L

Natural | Biodegradable | Eco-friendly

Kontakt

enziDent Flow

High level detergent with biofilm treatment
for the cleaning and maintenance of dental unit, waterlines and suction systems.

Ref OL20907
2 x 1L

Ref OL20908
6x 1L

Ref OL20909
2 x 5L

enziDent® FLOW

EN

High-level detergent with biofilm treatment for the cleaning and maintenance of dental unit, waterlines and suction systems.

PATENTED

- Patented enzymatic compound
- Breaks down organic soil and biofilm matrix for a more effective decontamination
- Enables in-depth cleaning of waterlines and suction systems preventing plugs formation on filters
- Fresh menthol fragrance

Exclusive Applications

Dental units & suction systems

Product Characteristics

- Neutral, multi-enzymatic compound
- Independent tests (available on request) prove superior efficacy on incrusted soil and biofilm matrix
- Full materials compatibility
- Highly concentrated for economical use
- High enzymatic activity and stability
- Registered Medical Device Class I
- Biodegradability ≥ 95 % (OCDE 302B)
- Suitable for the cleaning of dental units: waterlines and suction system
- Refer to full Instructions for Use and Safety Data Sheet before using.
- Respect recommended temperature for optimal performance; efficacy is not guaranteed > 55°C.
- Rinse abundantly with water after use and before disinfection.
- Enzymatic activity is maintained for 8h following dilution.
- For automatic systems, respect the instructions for use of the manufacturer.

Instructions for use - 1x/day (evening)

Use enziDent® Flow each time dental waterlines and suction systems must be cleaned, for complete removal of soil and to prevent the build up of microbial biofilms.

PREPARE: Dilute 25ml in 2.5L of warm water (ideal temperature: 40 à 45°C - min. 30°C & max. 55°C)
CLEAN:
1. Pour approx. 0.5 to 1L of detergent solution into the sink
2. Immerse the suction hoses in the bath to drain completely*
3. Install the hoses back to its system

WASH/RINSE:
1. Contact time for routine use: 10 minutes minimum (ideally overnight)
2. Following morning, drain approx. 1L of water and rinse the sink

DISINFECT: 1x/Week at least - Disinfect with a disinfectant of your choice** and follow the instructions for use. Clean the installation with water

* Do not immerse fully - it to create a mixture of air/detergent solution. Compatible with Orotol cup and other suction cleaning systems.
**Complies with standards: EN 13727, EN 13624, EN 14348, EN 14476, EN 14561, EN 14562, EN 14563

Waste treatment methods: Remove to an authorized waste treatment plant.
Sewage disposal recommendations: May be discharged to wastewater treatment installation.
Product/Packaging disposal recommendations: Dispose of contents/container to special waste collection point. When totally empty, containers are recyclable .

Chemical Properties

Appearance :	Transparent, green
Density:	1.158 +/- 0.010
pH undiluted product:	8.5 +/- 0.5
pH diluted at 1% :	8.0 +/- 0.5

Main components

- 1 - 5% non-ionic surfactants;
- <1% anionic surfactants;
- <1% sequestrants;
- <1% perfume;
- Patented multi-enzymatic compound

Does not contain carcinogens, mutagens, reproductive toxicants or endocrine disruptors.

Patented multi-enzymatic compound

1. **Protease**
2. **Lipase**
3. **Amylase**
4. **Cellulase**
5. **+ 2 more**

Precautions

- **Wear gloves.** In case of prolonged use, gloves covering forearms are recommended. Refer to full safety data sheet before use.
- **Store** in the original container, closed, between +4°C and +25°C. For optimal performance respect the « Best Before » data on the label.
- **End of life:** 36 months after production

Delivery Units

Ref OL20907 2 x 1L
Ref OL20907A 2 x 1L
Ref OL20908 6 x 1L
Ref OL20908A 6 x 1L

Ref OL20909 2 x 5L
Ref OL20909A 2 x 5L

Natural | Biodegradable | Eco-friendly

15/05/2021

Made in Belgium

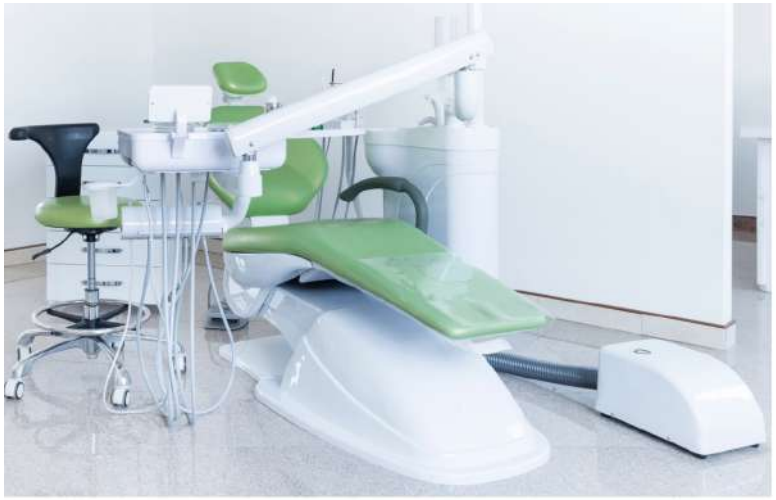
Enzymes for patients' safety

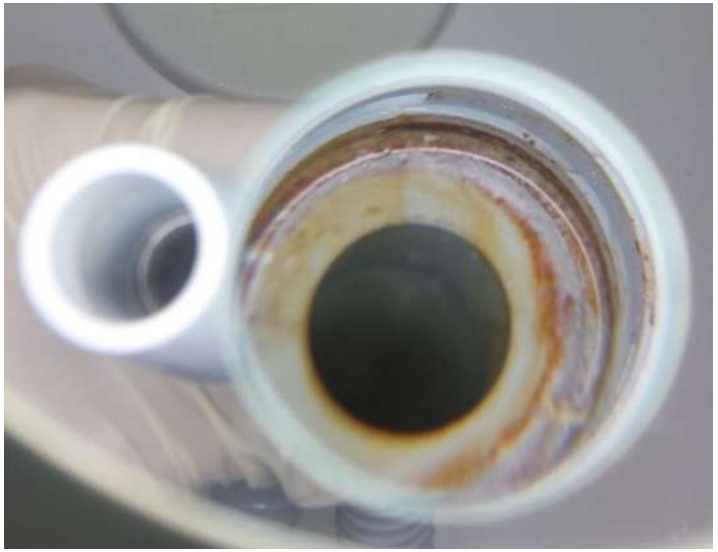
Contact:
OneLife s.a.
Avenue Albert Einstein, 15
1348 Louvain-la-Neuve (Belgium)
+32 10 48 34 27 info@onelife-bf.com

onelife-bf.com

Dental Unit Waterlines

Studies described infection or colonisation in susceptible hosts with Legionella spp., Pseudomonas spp. and environmental mycobacteria isolated from dental unit waterlines. *Pankhurst & Coulter 2007 J. Dent. 35(9):712-20.*





enziMed® Pre-cleaner

Prevents drying of bio-burden.
Enzymes break down organic matter.
Pre-cleans without intervention; let the enzymes do the work!

Ref OL20304
6 x 750 ml
[EN, NL, FR, DE]

Ref OL20304A
6 x 750 ml
[EN, PT, ES, IT]

enziMed® Pre-Cleaner

72h Proven Efficiency

EN

Multi-enzymatic foam spray for surgical instruments and rigid or flexible endoscopes.

PATENTED

- Prevents drying of bio-burden.
- Enzymes break down organic matter.
- Pre-cleans without intervention; let the enzymes do the work!

Exclusive Applications

Endoscopes & surgical instruments

Product Characteristics

- Neutral, multi-enzymatic compound.
- Prepares instruments for decontamination, without need for brushing.
- Directional foam spray covers instrument surface; high efficiency, reduced waste.
- No spills during transport.
- Full material compatibility.
- Ready to use.
- Odorless.
- High enzymatic activity and stability.
- Registered Medical Device Class I.
- Biodegradability ≥ 95 % (OCDE 302B).

Instructions for use

Use enziMed® Pre-Cleaner each time instruments need to be pre-cleaned.

1. Use for ***manual pre-cleaning*** of surgical instruments and scopes.
2. Contact time: ***15 minutes***
3. ***Rinse*** in clear water before passing through automated washer-disinfector in order to avoid foam forming.
4. ***Duration*** of activity: up to 72 hours in closed containers.

Regional legislation (waste): Disposal must be done according to official regulations.
Product/Packaging disposal recommendations : Do not empty into drains, dispose of this material and its container at special waste collection point.

Chemical Properties

Appearance:	pale yellow liquid
Density:	1,005 +/- 0,05 Kg/l
pH:	8 +/- 0,5

The color is natural and may vary from one batch to another with no impact on the performance of the product.

*Main Components**

Non-ionic surface agents: <5%
Phosphonates: <5%
Enzymes: <5%

* Does not contain carcinogens, mutagens, reproductive toxicants or endocrine disruptors.

Multi-enzymatic compound

1. ***Protease***
2. ***Lipase***
3. ***Amylase***

Precautions

- **Use of gloves** is recommended.
- **Store** in the original container, closed, between +4°C and +25°C.
- **End of life:** 24 months after production.

Delivery Units

Ref OL20304
6 x 750 ml
[EN, NL, FR, DE]

Ref OL20304A
6 x 750 ml
[EN, PT, ES, IT]

Natural | Biodegradable | Eco-friendly

03/10/2022

Made in Belgium

Enzymes for patients' safety

Contact:
OneLife s.a.
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+32 10 48 34 27 info@onelife-bf.com

onelife-bf.com

Babyscope 2.0

- **Ergonomic:** New compact & easy to use design (enhanced light, vision, & magnification)
- **Modular:** Interchangeable flexible inspection scope attachments available for small diameters devices such as: pediatric bronchoscopes & cystoscopes (diameters 1.06mm & 1.9mm).
- **Smart:** Offers the option to document & share what they see, enabling immediate corrective action.
- **Cost efficient:** Helps keeping repair cost & infection risks down

Bayscope : Operating procedure

- Standard operating procedure for installation and use of the Babyscope's 2.0 Software

- https://www.hmark.com/wp-content/uploads/2022/09/FIS-007U_Installation.mp4

- https://www.hmark.com/product-so3ware/
  Choose version FIS005 (if purchased prior to 5/5/2020)

Babyscope's use :

Inspect endoscope chanels & lumens

- Visualize damage and contamination
- Prevent costly repairs

Babyscope's manipulation :

Insert in cavity

Insert behind the elevator riser

Insert in distal end

Insert through biopsy
or aspiration port

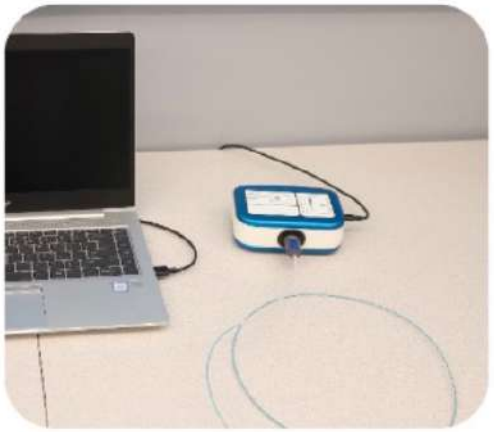
Handle with caution :

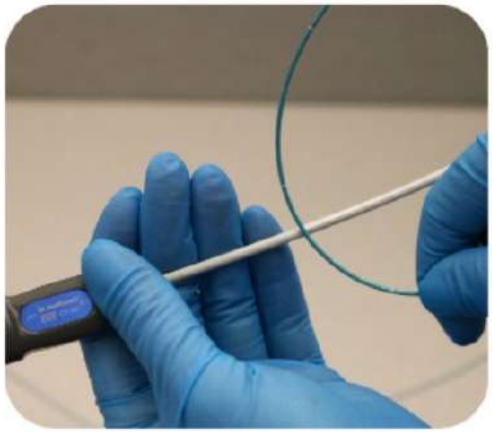
- No pushing if the passage is blocked
- Clean and disinfect according to instructions

Babyscope 2.0

Inspection camera for medical devices with lumen and hollow instruments

- ✓ New compact design easy to use
- ✓ Flexible, interchangeable inspection scopes of 1,06 mm and 1,9 mm
- ✓ Photo or video recordings on PC
- ✓ Helps to reduce repair costs and infection risk





Babyscope 2.0

- Flexible scope 1,9 mm or 1,06mm
- Length 110 cm
- Box with camera processor and LED lighting

- Resolution :
  - CT-102 1.06 mm: 40.000 pixels (of 200 x 200 pixels)
  - CT-101 1.90 mm: 160.000 pixels (or 400 x 400 pixels)

- 120° vision
- Light control knob

- Accessories :
  - Connecting cable USB-C
  - USB key (software and instructions for use)

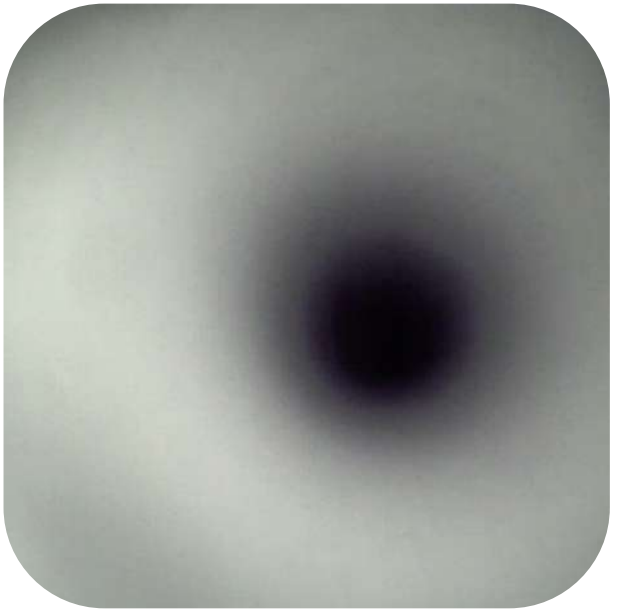
Babyscope 2.0 Control Box
Ref OL21838

1.9mm Flexible scope
Ref OL21841

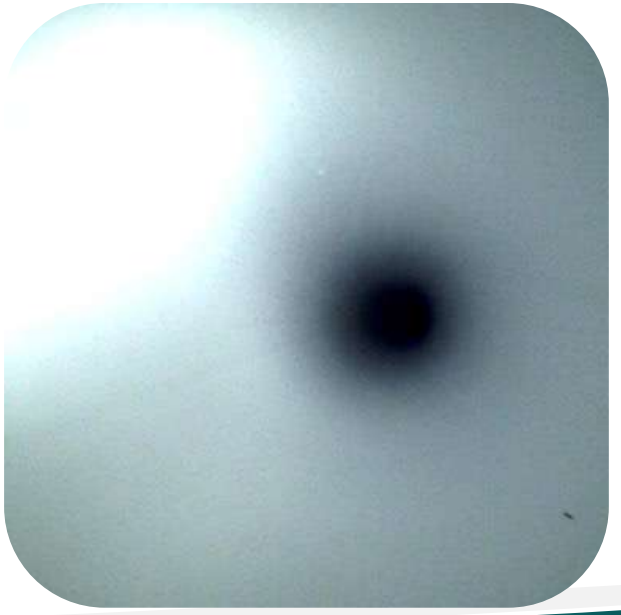
1.06mm Flexible scope
Ref OL218412

Clean endoscope

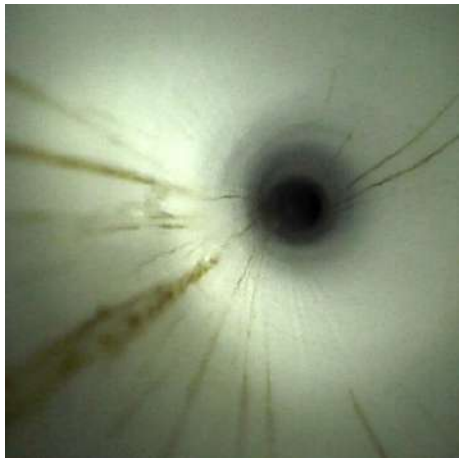
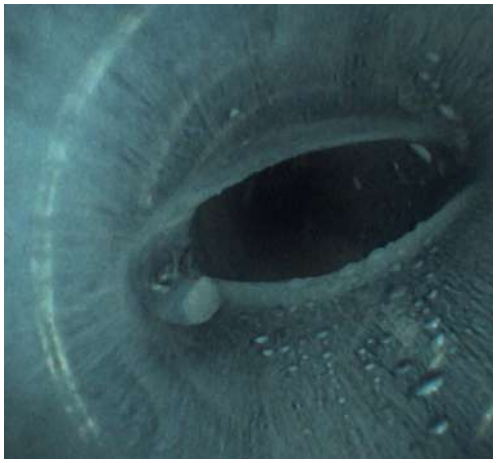
- Seeing inner mechanism and springs is normal



- Rings can be seen



Learn to identify examples of deviations


Can you name these 4 problems?