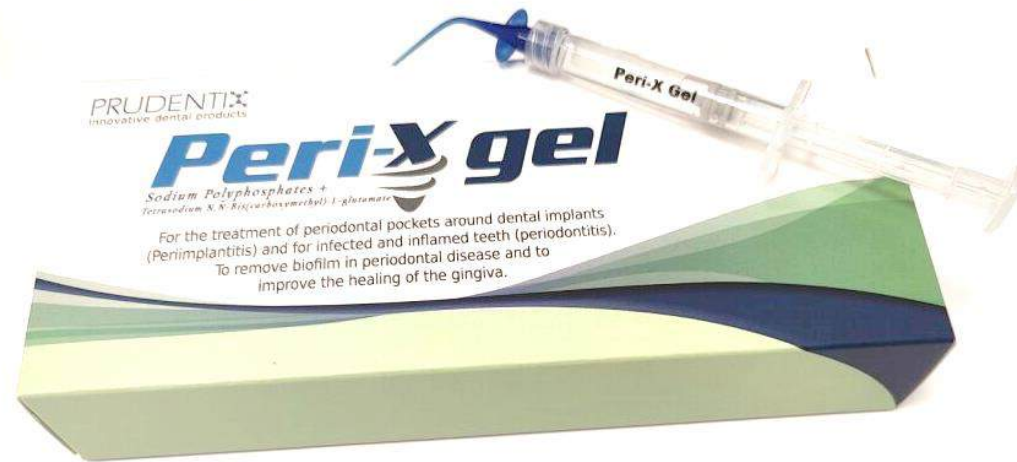


PRUDENTI 

Innovative Gel for Peri-Implant Disease





Company Overview



Founded in 2016 by three pharmacists with proven track record of leadership in the pharma industry



Core competence – innovative pharmaceutical formulations targeted in periodontal diseases

Products are registered as medical devices and therefore fast to market



Robust R&D Experience: over 100 years of combined pharmaceutical experience





Innovative Gel for Peri-Implant Diseases

- ▶ Unique Proprietary composition: Sodium Polyphosphates + N,N-Bis (carboxymethyl)-L-glutamic acid tetrasodium.
- ▶ Gel: thermo-sensitive formula. Transforms instantly from liquid to gel in contact with 37°C gingiva.
- ▶ Clinical Success: Demonstrates significant pocket depth reduction within 6 weeks after 1 use.
- ▶ Developed in collaboration with Prof. David Polak, an esteemed periodontist from Hadassah dental school in HUJI.
- ▶ Patent pending.
- ▶ Already registered as approved medical devices.





Peri-X gel dismantles biofilm
allowing tissue repair and
inflammation reduction

Revolutionizing Peri-Implant Disease Solutions



Recurring Inflammatory Conditions: peri-implantitis and peri-implant mucositis are chronic, recurring inflammatory diseases affecting dental implant patients.



Symptoms: Peri-implantitis symptoms include inflammation, bleeding, gum recession, implant mobility, and potential implant failure.



High prevalence rates: 63% for peri-implant mucositis and 20% for peri-implantitis.



Recurrent Diseases: Treatment requires regular repetition.



Cause: Oral microbial film on exposed teeth and subgingival tissue.



Biofilm Challenge: Conventional bactericidal compounds target live flora but lack effectiveness against biofilm.



Current state of art



The "gold standard" treatment today is still based on mechanical anti-infective approach (scaling and root planing, SRP).



The treatment may also include antibiotics, antiseptics, laser/PDT therapy.



SRP has poor efficacy (~30% failure rate) and requires repetition on a regular basis.



The consensus is that local/topical antiseptics and antibiotics have little effect due to the formed biofilm (that prevents the active pharmaceutical ingredient from penetrating).



THERE IS AN UNMET NEED FOR A DEDICATED ANTI-BIOFILM PRODUCT with clinical efficacy against periimplantitis.

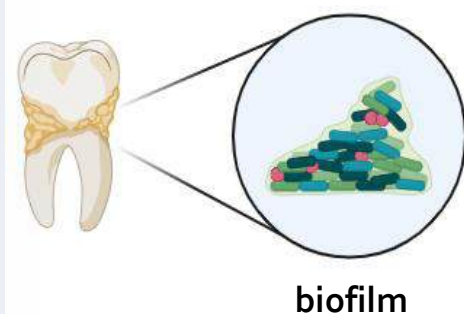




The Peri-X concept



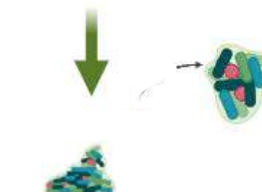
Unlike antibacterial products, Peri-X breaks inter-bacterial bondage.



Antibiotics/
chlorhexidine



Peri-X



This leads to the breakdown of biofilm and softens calculus



Market Potential: Peri-X treatments

Potential market of 15-25 million Peri-X treatments annually

- Conservative Estimate of Dental Implant Patients: **There are approximately 100 million dental implant patients globally.** This includes 20 million new implants placed per year, with a 5-year survival rate.
- Peri-implantitis is a chronic inflammation , affecting 15-25% of dental implant patients. Dental implant failure due to peri-implantitis is estimated at 10% of dental implant patients.
- Recurring chronic disease –a twice yearly treatment is recommended .

Market potential is expected to grow 50% by 2030 due to growth in dental implants market*.



Peri-X: Unparalleled Solution for Peri-implantitis

Widespread adoption is expected:



- ▶ Peri-X addresses a critical issue both to patient and dentist, as dental implants are part of an expensive and lengthy procedure.
- ▶ Peri-X is suitable for use by both dentists and hygienists.

Unique Product Positioning:



- ▶ Peri-X stands out as the only product specifically designed and approved for the treatment of peri-implantitis (as a disposable medical device).

Strong gross profit:



- ▶ Relatively not expensive to produce because the product is non-sterile.
- ▶ Stored at room temperature, no need for expensive logistics.

Experimental Results



Laboratory evidence



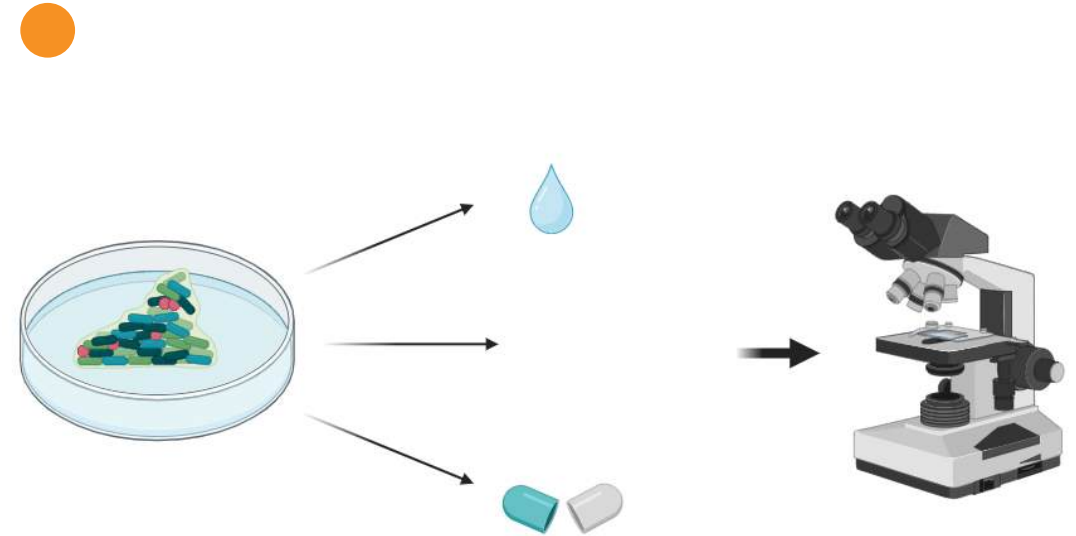
Biofilm was grown in vitro.



Treatments with different agents were tested.



The biofilm was then stained with live and dead staining for microscopic analysis.



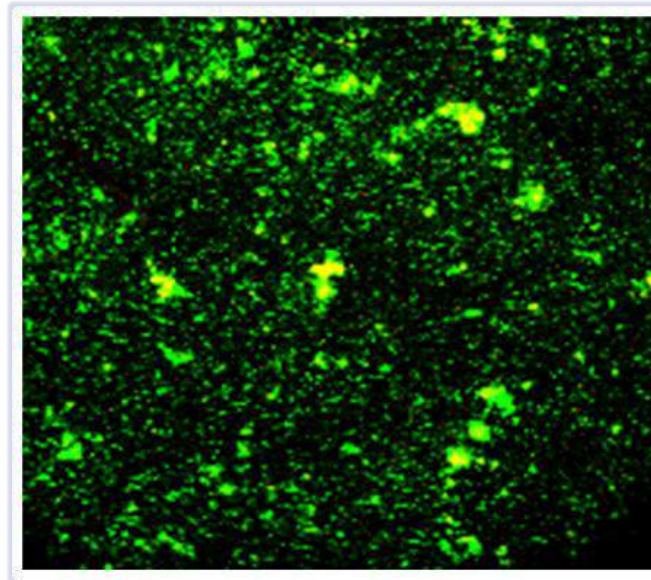


Significant Biofilm Reduction

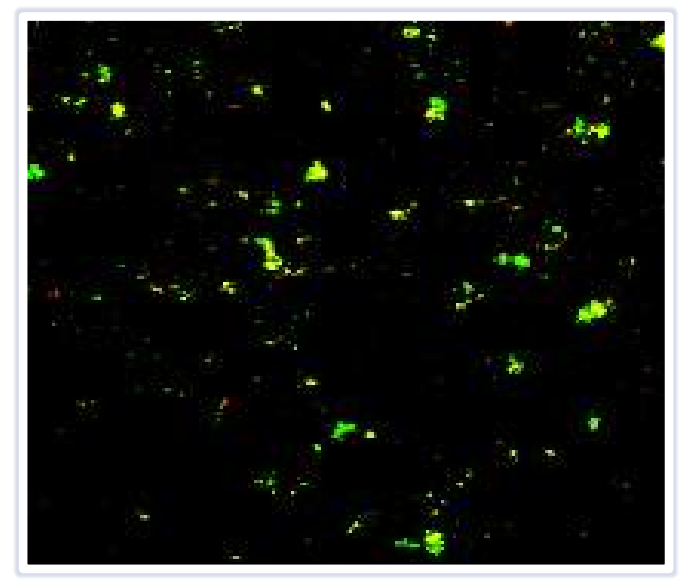
Peri-X functions by effectively detaching biofilm

Biofilm was grown in vitro and stained with live(green) and dead(red) staining.

In this experiment, Peri-X removed the biofilm significantly.



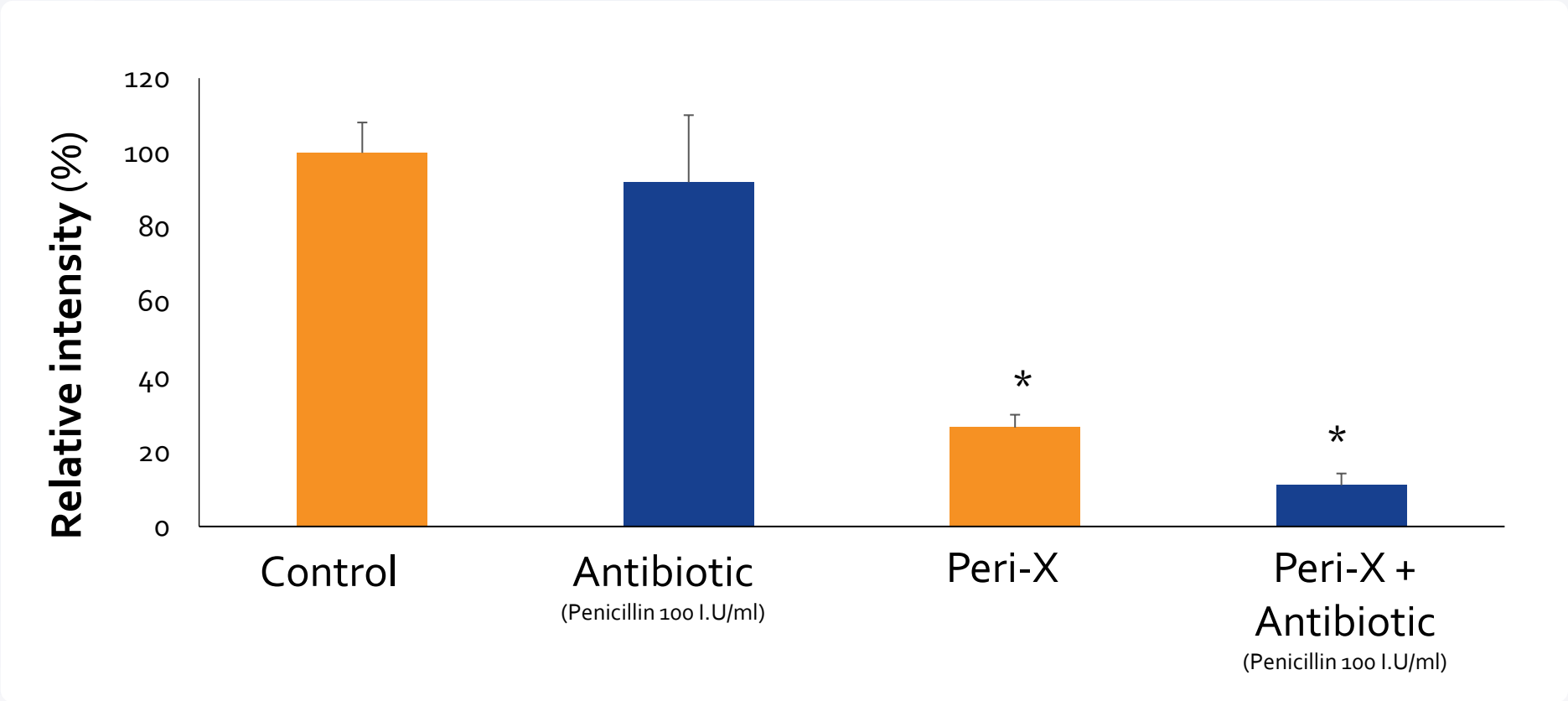
Untreated



Peri-X

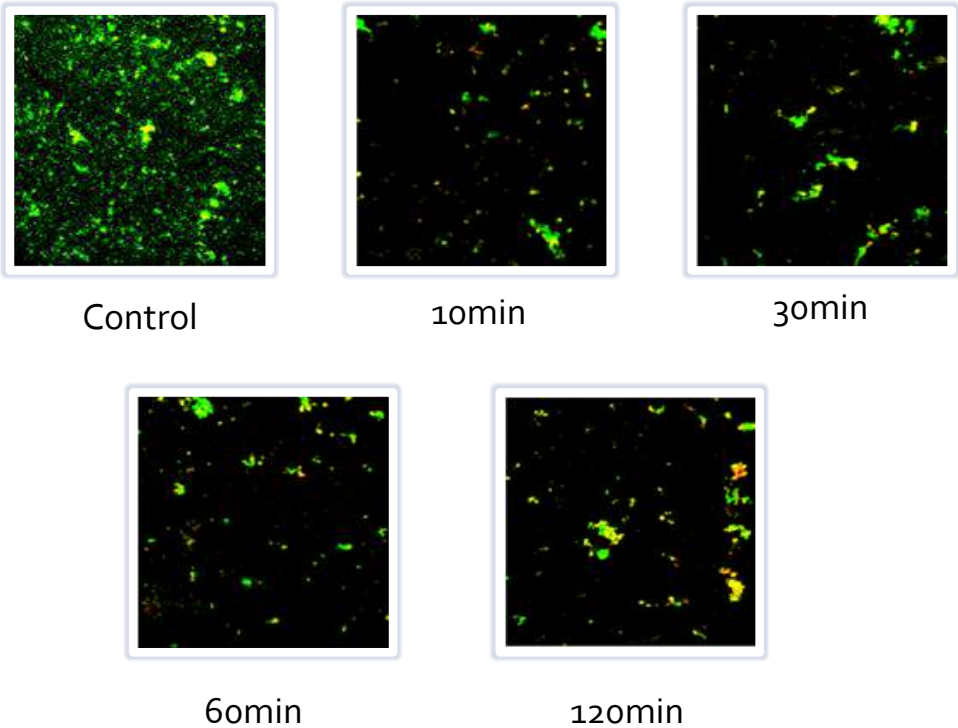
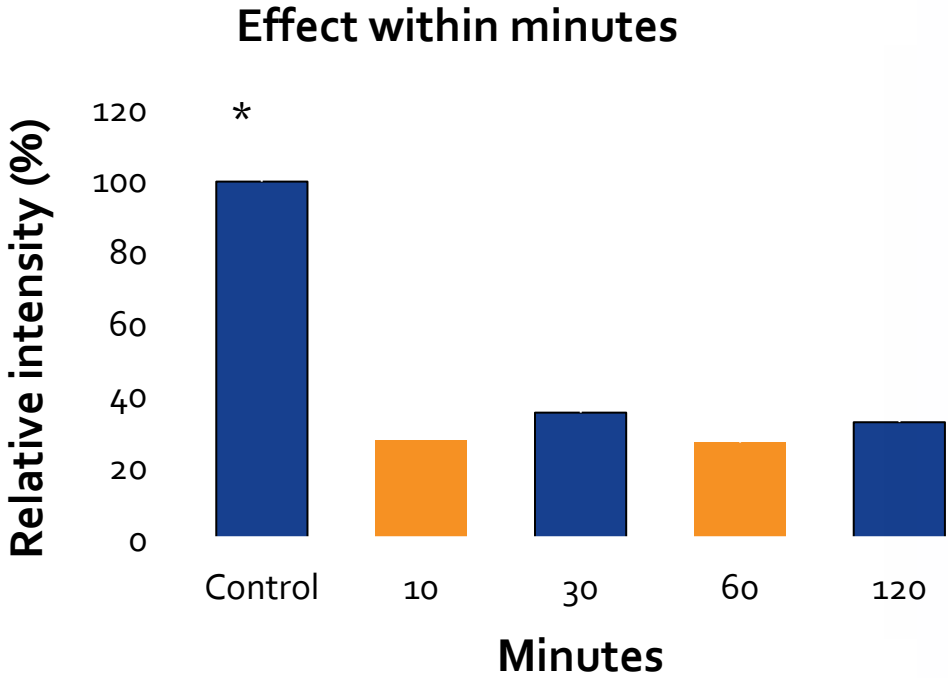


Peri-x is More Effective Than Antibiotics





Quick and Sustainable Activity





Precision Targeting of Pathogenic Biofilm

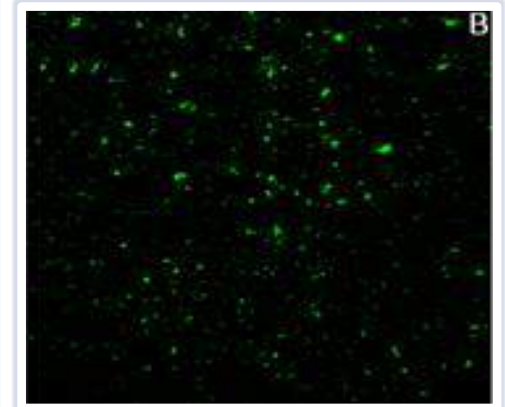
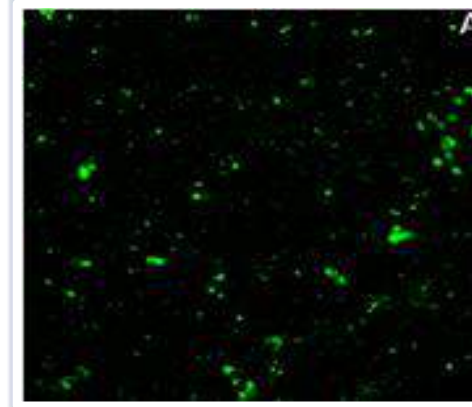


Peri-X Reduced Pathogenic* Microbes
in the Polymicrobial Biofilm, Preserving
Non-Pathogenic** Ones

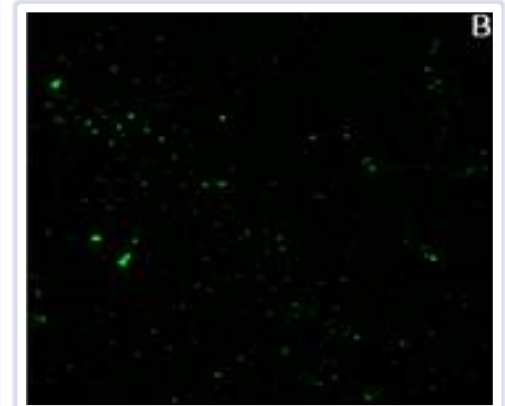
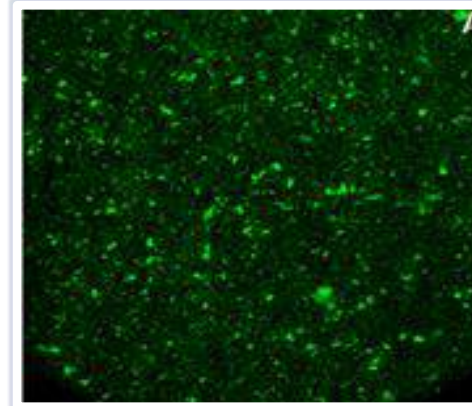
* Porphyromonas gingivalis and Fusobacterium nucleatum

** Streptococcus sanguis and Actinomyces naslundii

Non Pathogenic



Pathogenic



Untreated

Peri-X

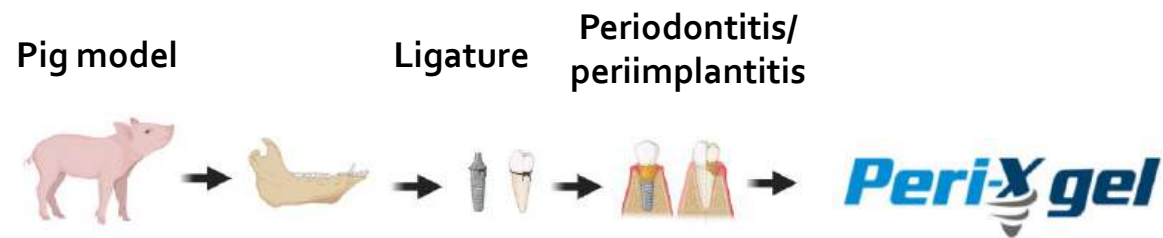


Animal Evidence



Animal evidence

A pig model of peri-implantitis and periodontitis was used to test the final products



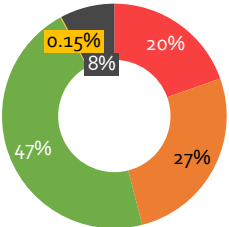


Result: Peri-X reduced dysbiotic microbiome biomass

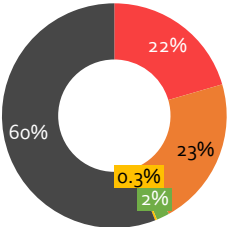
Microbial parameters

Pie Size - biofilm mass
Each color represents a fraction of the bacteria. The grey color represents the endogenous pig biofilm

Pre treatment



Post treatment



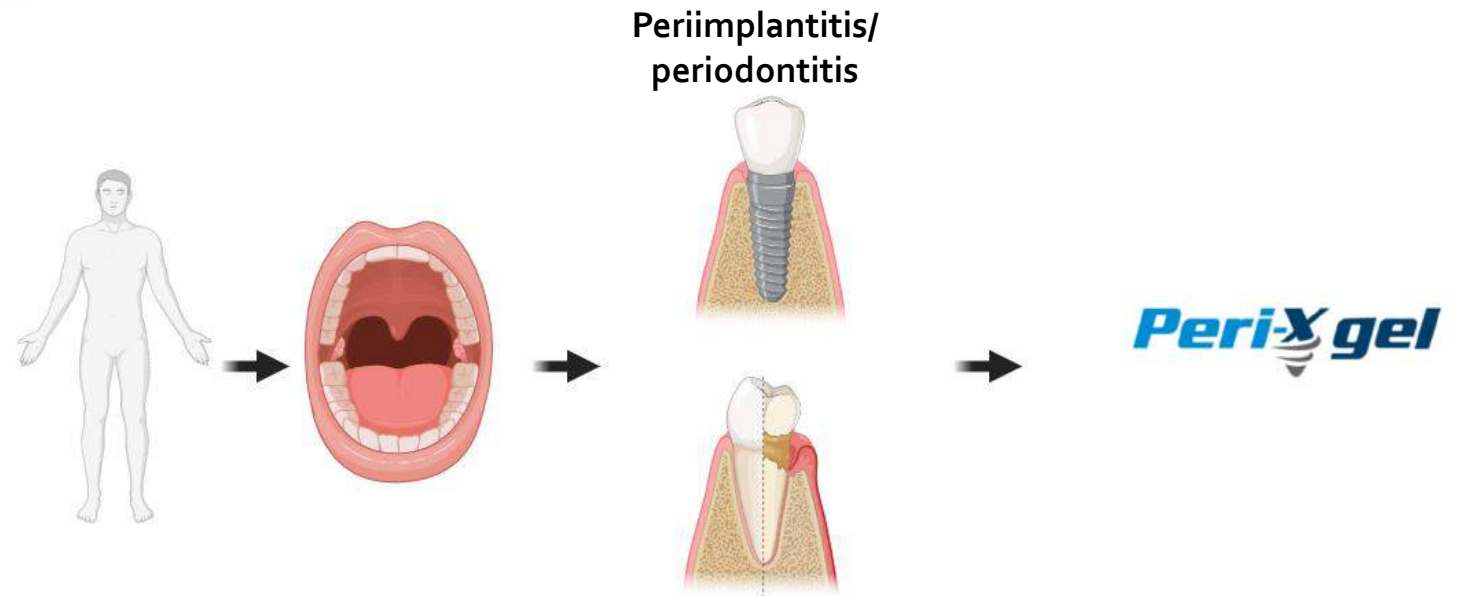
Human Clinical Results



Human evidence

Two human trials were done:

- ▶ Washing the periodontal pockets for 1 min. with liquid Peri-X and 6w follow-up
- ▶ Treatment of teeth/implants with Peri-X Gel and 6w follow-up

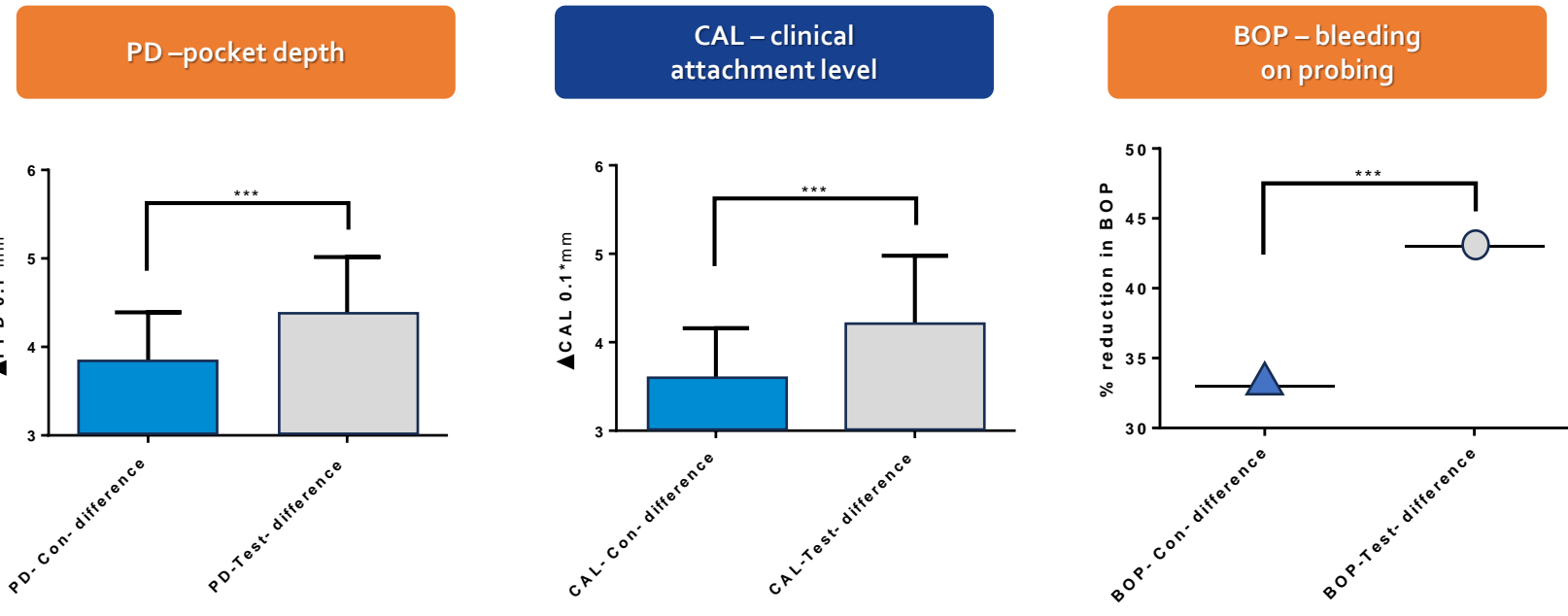




Result: Peri-X improves clinical parameters in humans

Study 1

In periodontitis cases, Peri-X liquid was administered for 1 min. and then followed up at 6 weeks post-treatment.

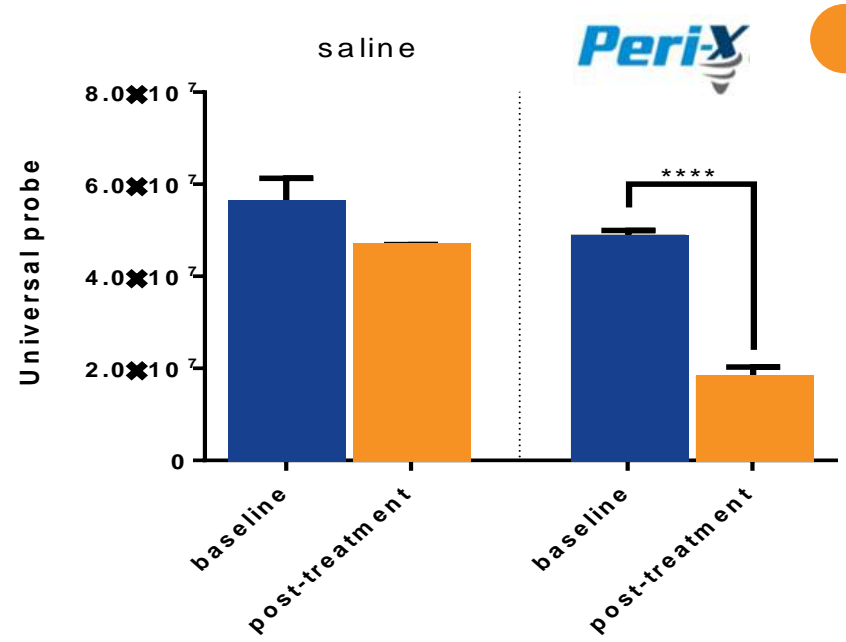




Result: Peri-X reduces bacterial levels in humans

Study 1

In periodontitis cases, Peri-X liquid was administered for 1 min. and then followed up at 6 weeks post-treatment.



Universal = total bacteria

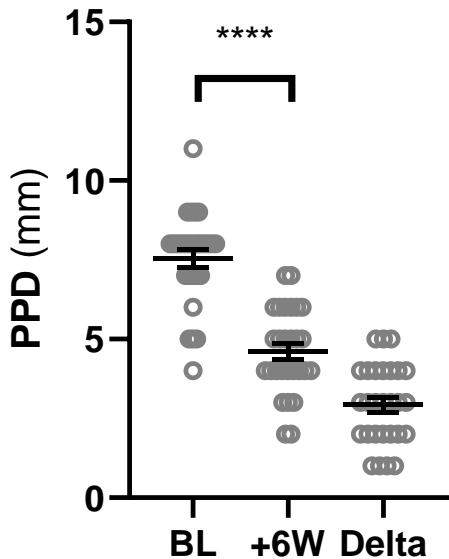


Result: Peri-X with or without debridement reduces periodontal pocket depth by an average of 3mm

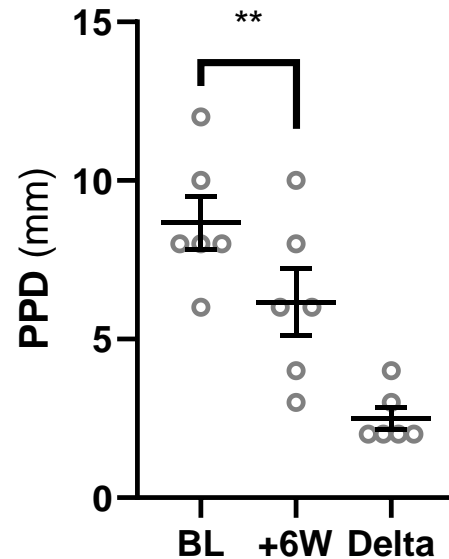
Study 2

In periodontitis cases, Peri-X gel was administered with or without mechanical debridement; Pocket reduction was measured 6 weeks post-treatment.

teeth with debridement



teeth without debridement



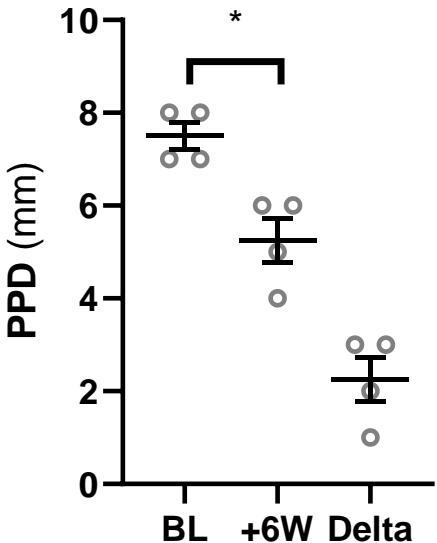


Result: Peri-X with or without debridement reduced peri-implant pockets depth by an average of 2.5mm

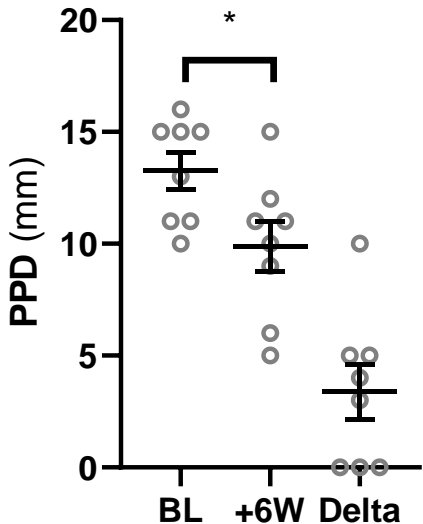
Study 2

In peri-implantitis cases, Peri-X was administered with or without mechanical debridement; Pocket reduction was measured 6 weeks post-treatment.

implants with debridement



implants without debridement





Peri-X is able to reduce periodontal pockets and inflammation around teeth and implants, even without the need for mechanical debridement.



The technology is unlike any other commercial product, not in its unique biology nor in its superior efficacy.



No need to purchase an expensive “device”. One Peri-X per patient.



Product is already registered marketed in Israel.