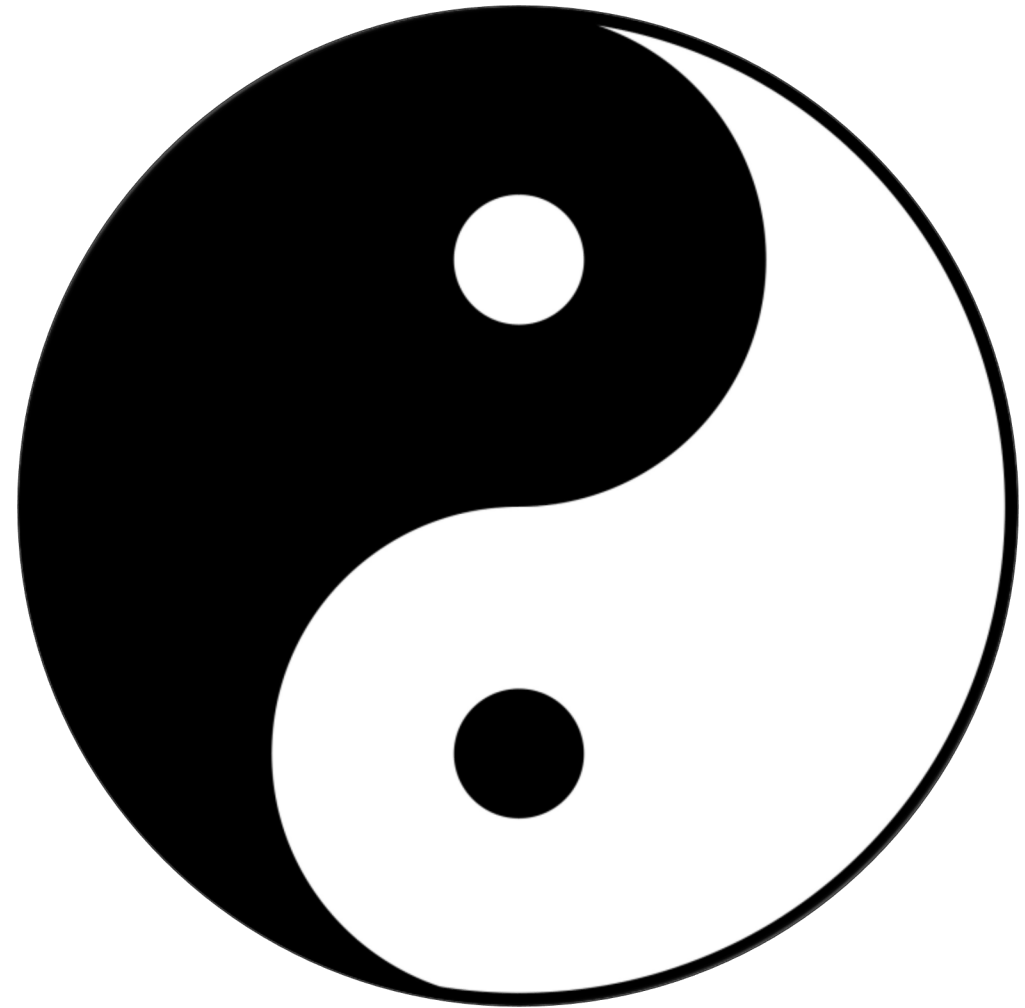


AIOB
DUET/"US"
THE YIN AND YANG OF
PERIO AND ORAL
MICROBIOME:
A CASE PRESENTATION
SERIES

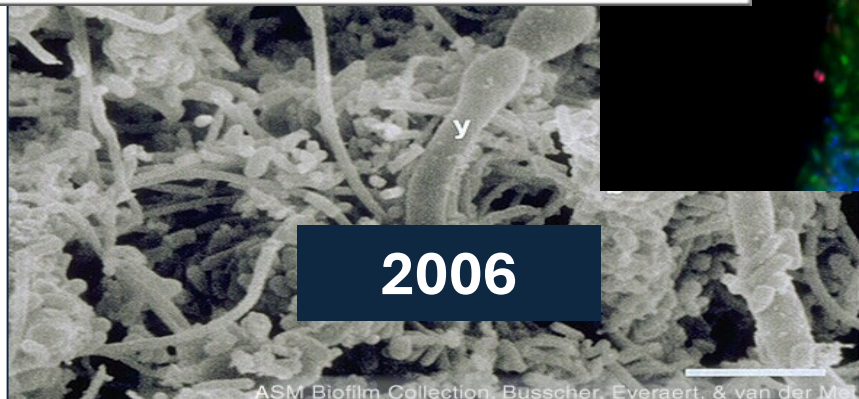
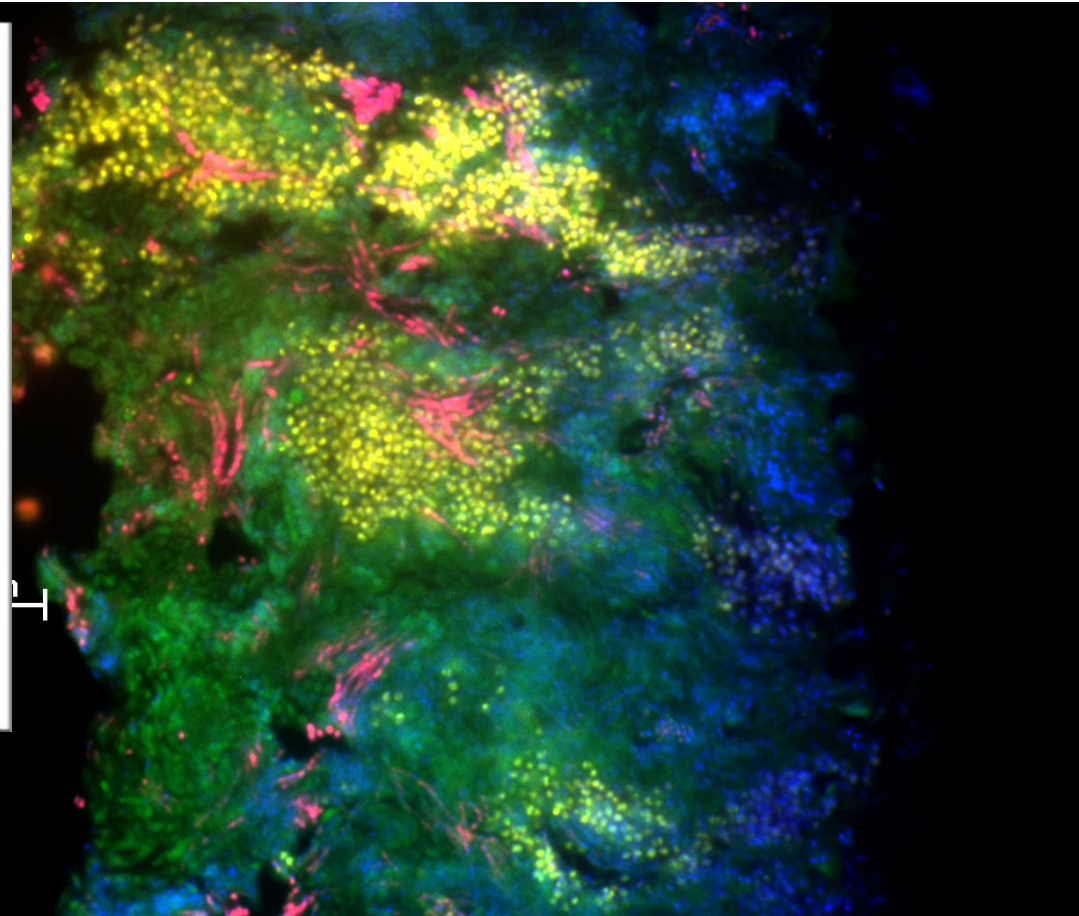
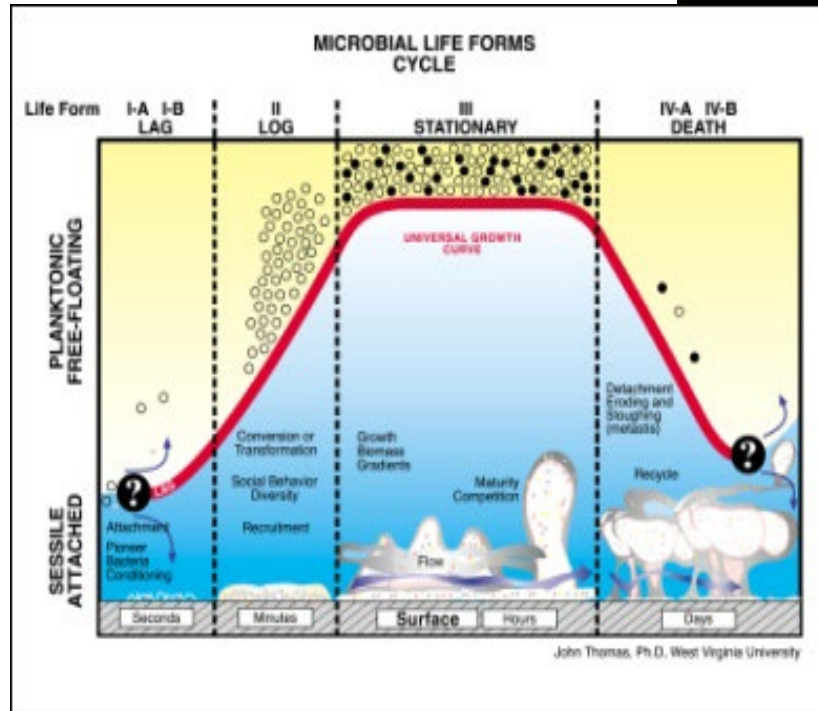
SATURDAY 18 OCTOBER 2025

KERRI SIMPSON DDS

JOHN G THOMAS PHD

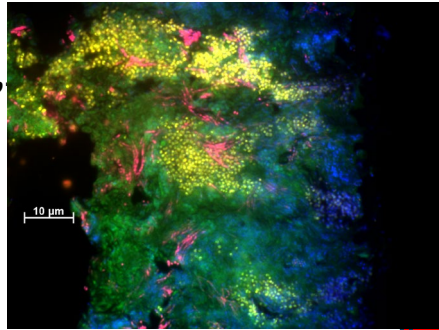


CASE 1 GENERAL PERIO. BIOFILM 101



AGE 51
GENDER
FEMALE
Q-3/4

DON'T



OTA

WEALTH
RECOVERY
GAIN

MICROBES/IMMUNO

SHORT
INTERMEDIATE
LONG

X. DISBIOTIC BIOFILM
RED COMPLEXES
LEAD MICROBES

WEALTH
DISRUPTIVE
LOSS

P GING
T.FORSYTHIA
T. DENTICOLA

RED COMPLEXES AS DESTABILISERS

MICROBES/IMMUNO

Y. NEUTROPHIL HYPER-RESPONSIVENESS
COLLARERAL DAMAGE
CYTOKINE STORM AT SULCUS,
IL-1B. NNF

CHRONO-DENTISTRY: NOT “WHAT”, BUT “WHEN” 2 CLOCKS



CHRONO-THERAPY

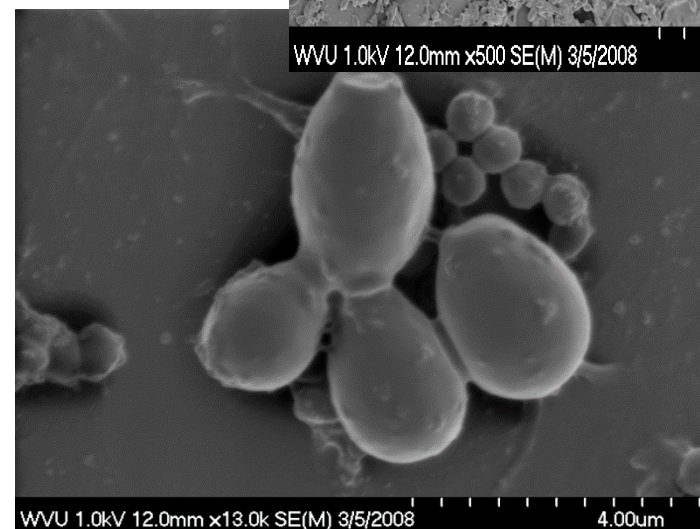
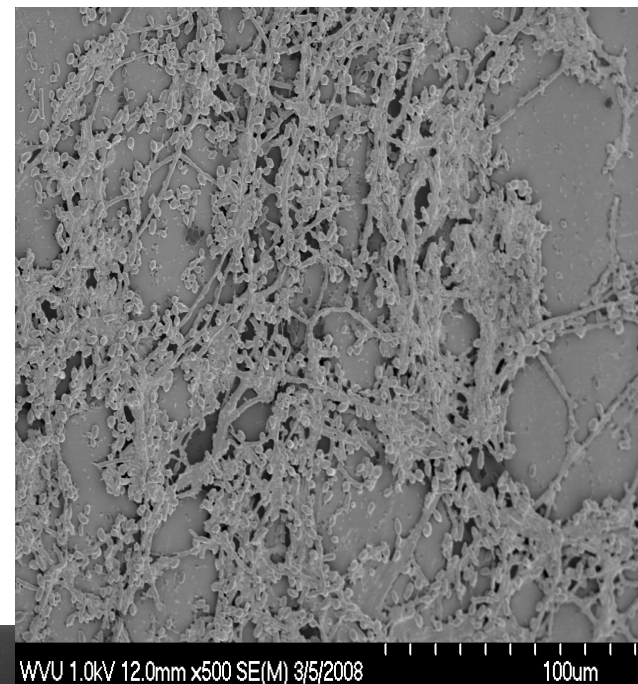
**Y. RESTORE BALANCE
ADJUNCTIVE INTERVENTION
LDD**

**PHAGE/PROBIOTIC
ALIGNED W DAILY
HYGIENCE RITUALS**

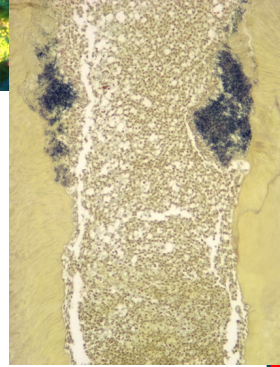
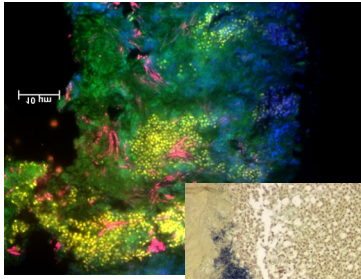
**TIMED TO LOW
HOST IMMUNITY,
EVENING OR
CIRCADIAN
TROUGH**

**DON'T HURT THE
HOST MICROBIOTA**

CASE 2 ENDO/PERIO



AGE 61
GENDER
MALE
Q-4



X. ENDO:
LEAD
E FAECALIS
F NUCLEATUM

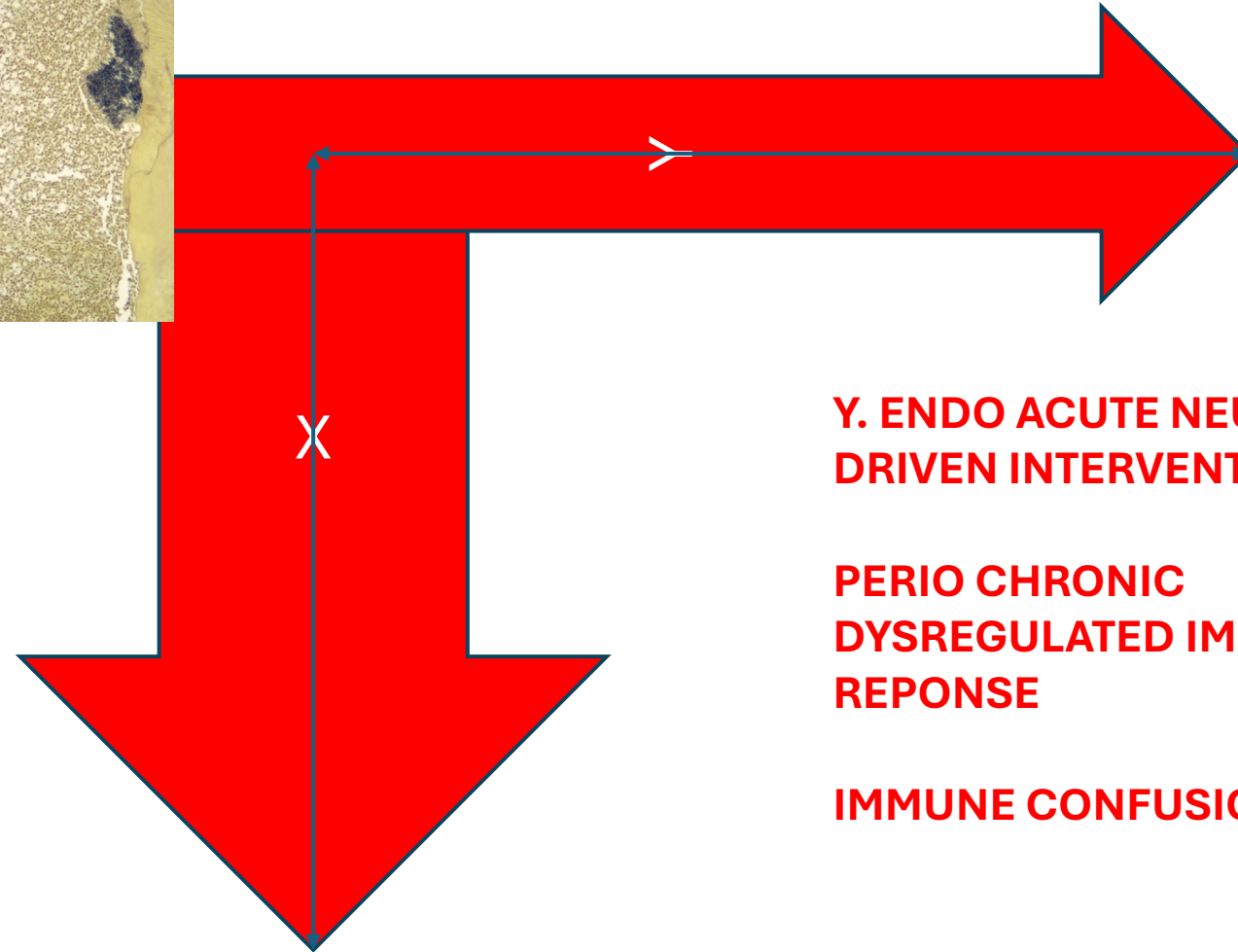
POLYMICROBIAL,
ANAEROBIC, GRAM
NEGATIVE
C ALBICANS

PERIO: RED COMPLEX

PATHOGENIC SYNERGY

WEALTH
RECOVERY
GAIN

MICROBES/**IMMUNO**



Y. ENDO ACUTE NEUTRAL
DRIVEN INTERVENTION

PERIO CHRONIC
DYSREGULATED IMMUNE
RESPONSE

IMMUNE CONFUSION

MICROBES/IMMUNO

CHRONO-DENTISTRY: NOT “WHAT”, BUT “WHEN” INTERVENTION 2 CLOCKS



CHRONO-THERAPY

Z -1 ENDO

Z-2PERIO

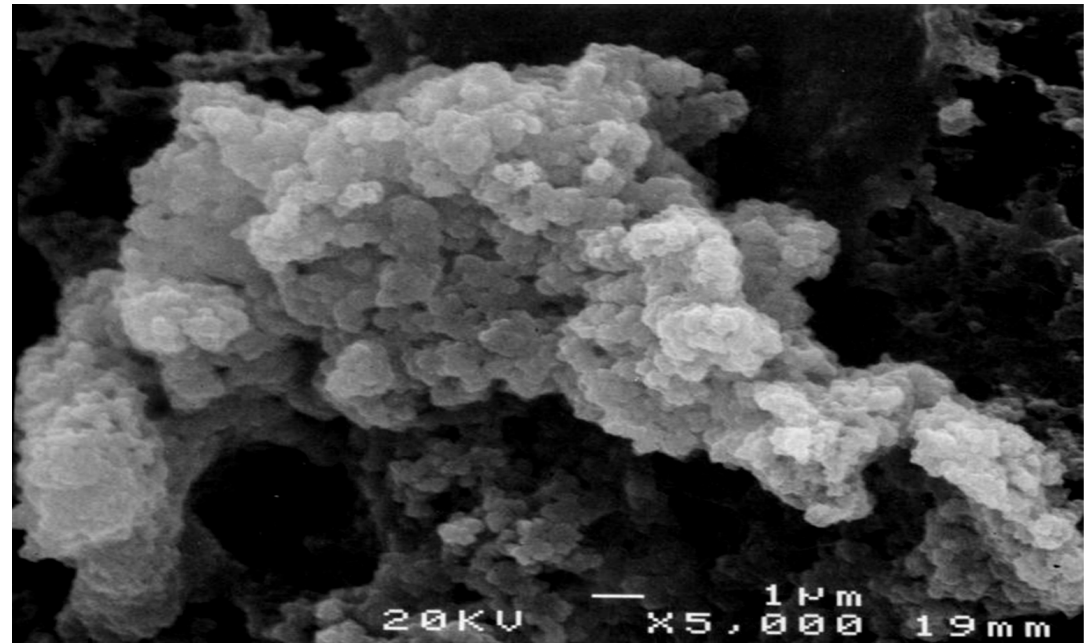
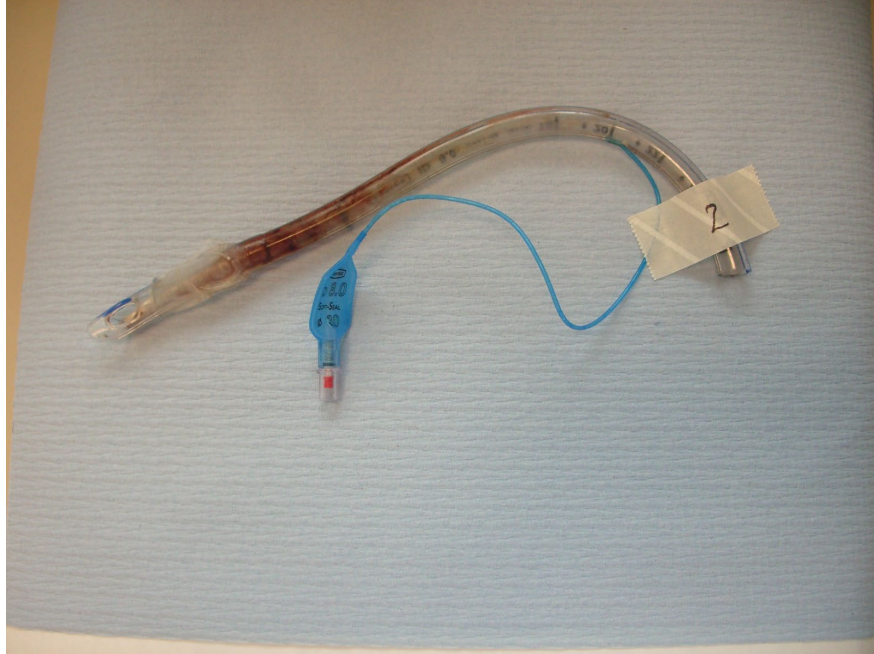
**Targeted Phage intervention
with ABX after canal
debridement**

**Scaffolding building
probiotics, during peak
immune recovery**

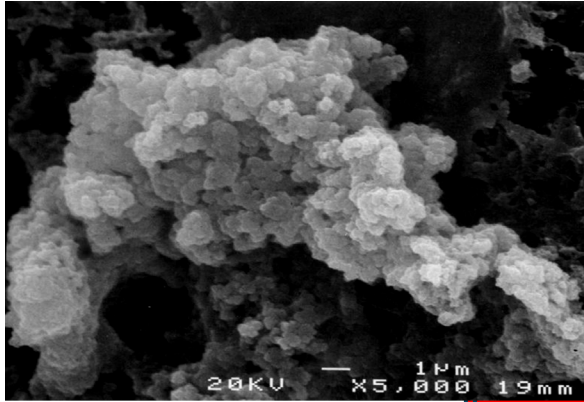
**Probiotics that reinforce
recolonization**

CASE 3. PERIO IMPLANTITIS

- ABIOTIC SURFACES
- TITANIUM
- ENDOTRACH FOR VENTILLATED PATIENT



AGE 45
GENDER
MALE
Q-3



WEALTH
RECOVERY
GAIN

MICROBES/**IMMUNO**

SHORT
INTERMEDIATE
LONG

BIOFILM/MICROBIOME

CLASSIC RED COMPLEX

P. ging
T. forsythia
T denticola

OPPORTUNISTIC

F. Nucleatum
Staph aureus
MIC

MICROBES/IMMUNO

X

Down regulate destructive inflammation

Reestablish neutrophil circadian rhythm

Promote fibroblast and osteoblast acitivity

CHRONO-DENTISTRY: NOT “WHAT”, BUT “WHEN” 2 CLOCKS



CHRONO-THERAPY

Guided bone regeneration scheduled to coincide with osteoclast peaks

Barrier reinforcements aligned with circadian antioxidant enzyme peaks

Timed nutrition

Phage Intervention immediately post debridement

Probiotics (L reuteri, Strep salivarius) in AM

Rinses and probiotic lozenges in evening, blunt nocturnal surge

CASE 4. TOBACCO USE/SMOKING SYSTEMIC



AGE 18
GENDER
FEMALE
Q-3

DON'T HURT THE MICROBIOTA

WEALTH
RECOVERY
GAIN

MICROBES/IMMUNO

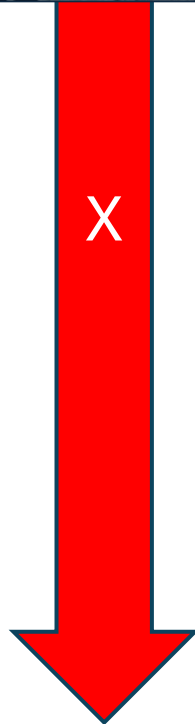
SHIFTS BIOFILM TO
ANAEROBE, RED/ORANGE
DOMINANCE

ACTINO ACTINO
BALANCE TOWARD DYSBIOSIS PD
MARSH

MICROBES/IMMUNO



IMPAIRED NEUTROPHIL CHEMOTAXIS
AND PHAGOCYTOSIS
REDUCED VASCULARITY AND
FIBROBLAST FUNCTION



CHRONO-DENTISTRY: NOT “WHAT”, BUT “WHEN” 2 CLOCKS



CHRONOTHERAPY

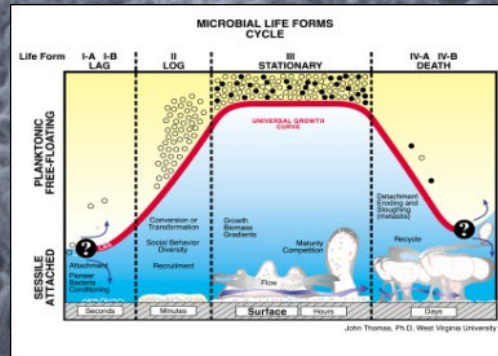
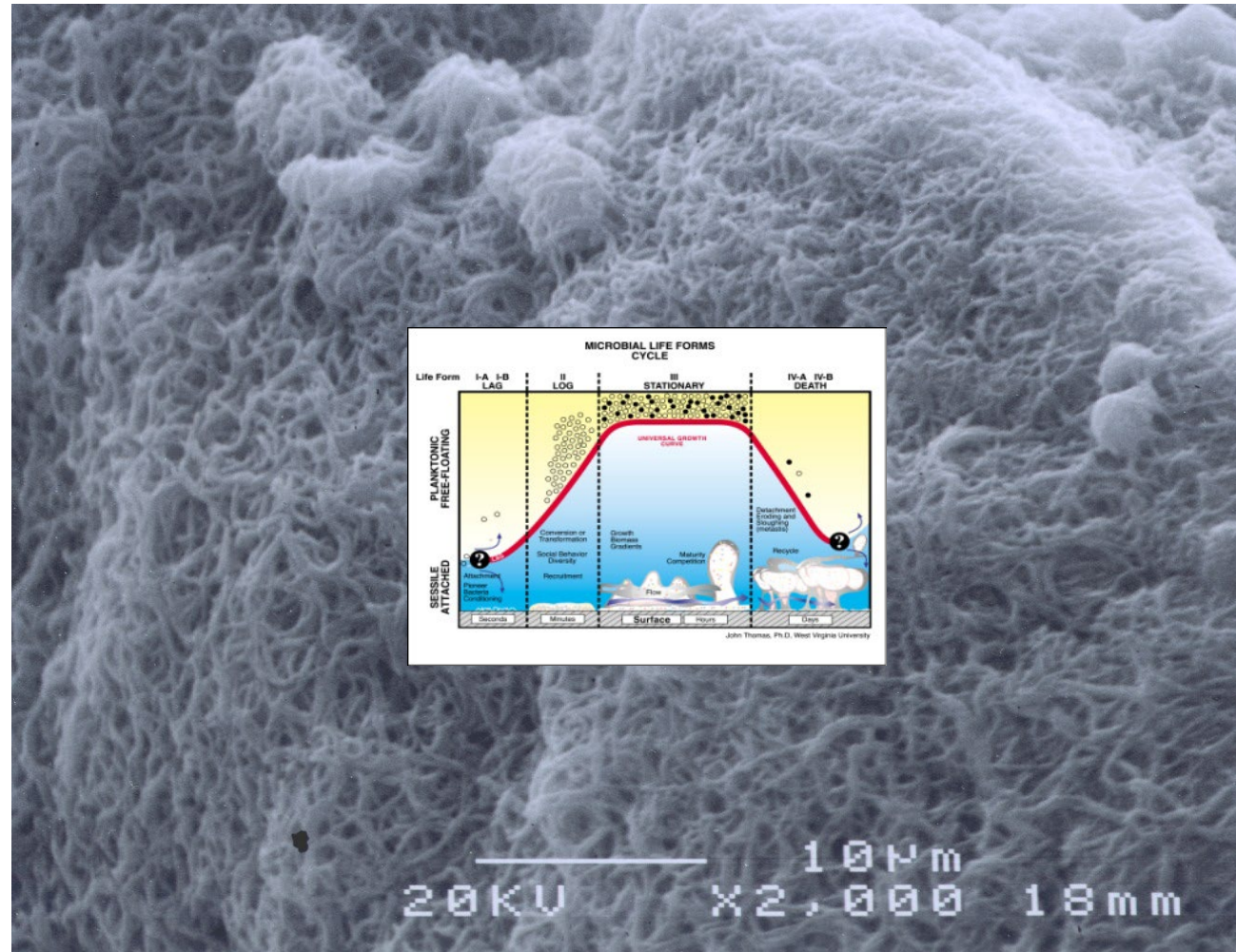
SMOKING CESSATION IS KEY

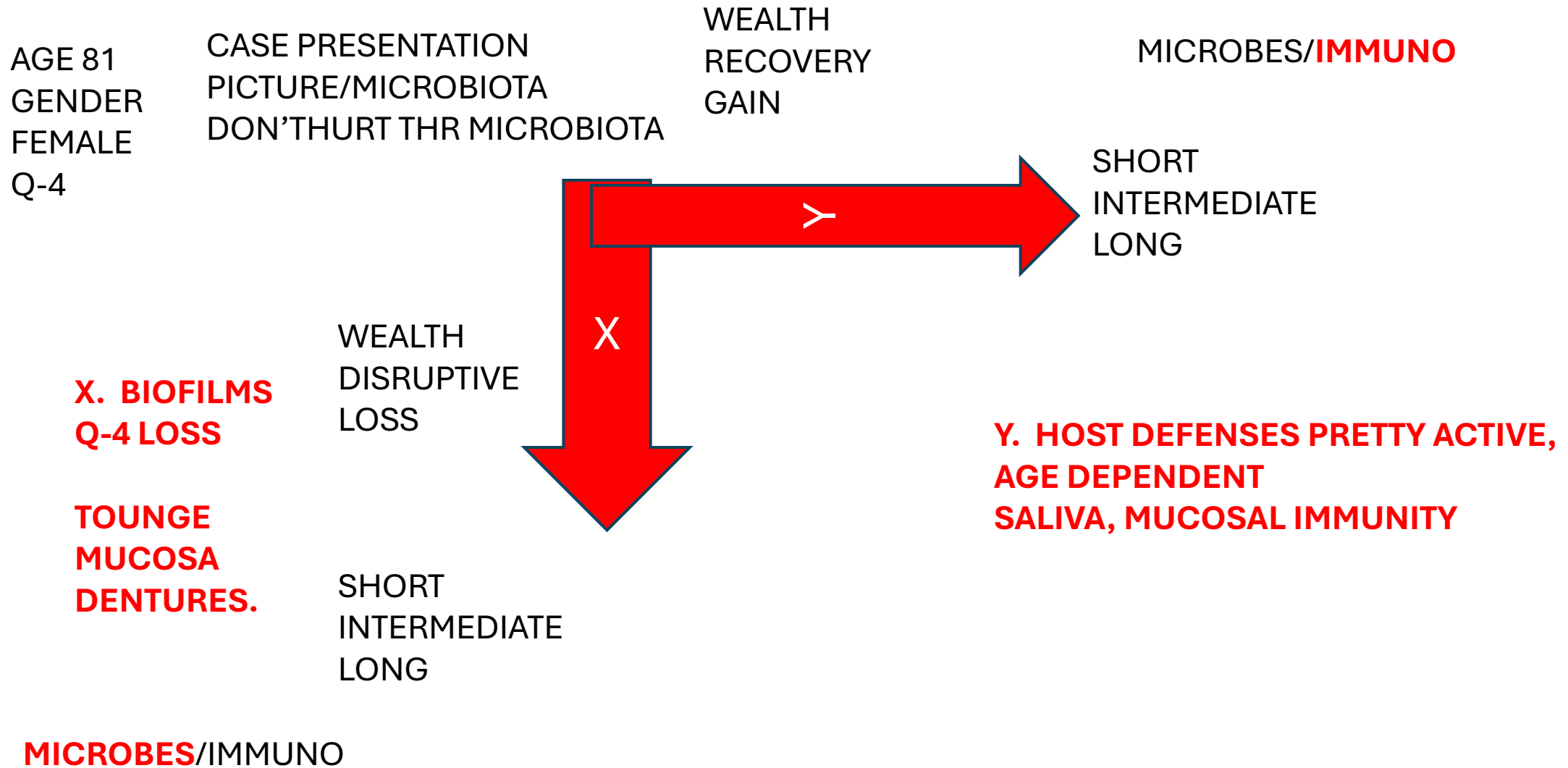
MECHANICAL DEBRIDEMENT

**PROBIOTICS TO COUNTERACT
DYSBIOSIS**

**CHRONOBIOLOGY-GUIDED
CESSATION SUPPORT-ALIGNING
MICROBIOME RECOVERY WITH
SYSTEMIC DETOXIFICATION RHYTHMS**

CASE 5 ?????????





CHRONO-DENTISTRY: NOT “WHAT”, BUT “WHEN” 2 CLOCKS

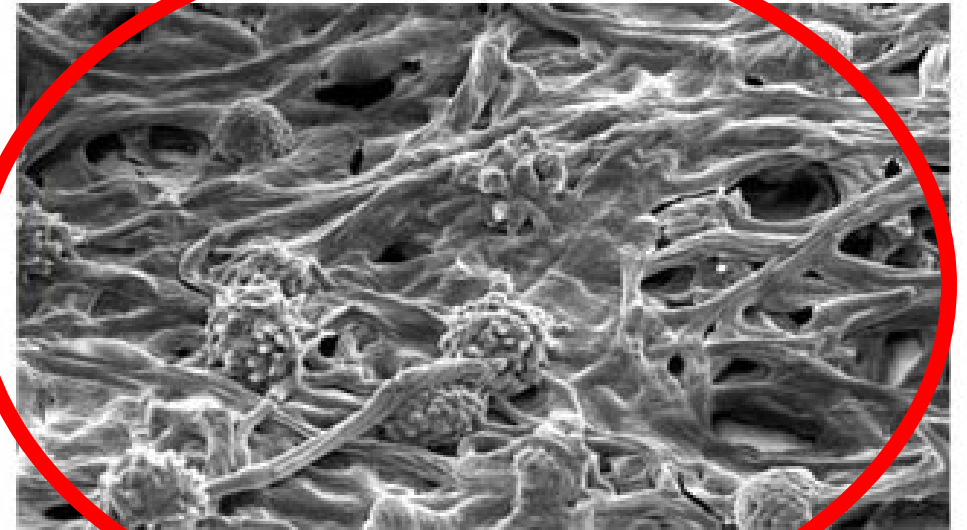
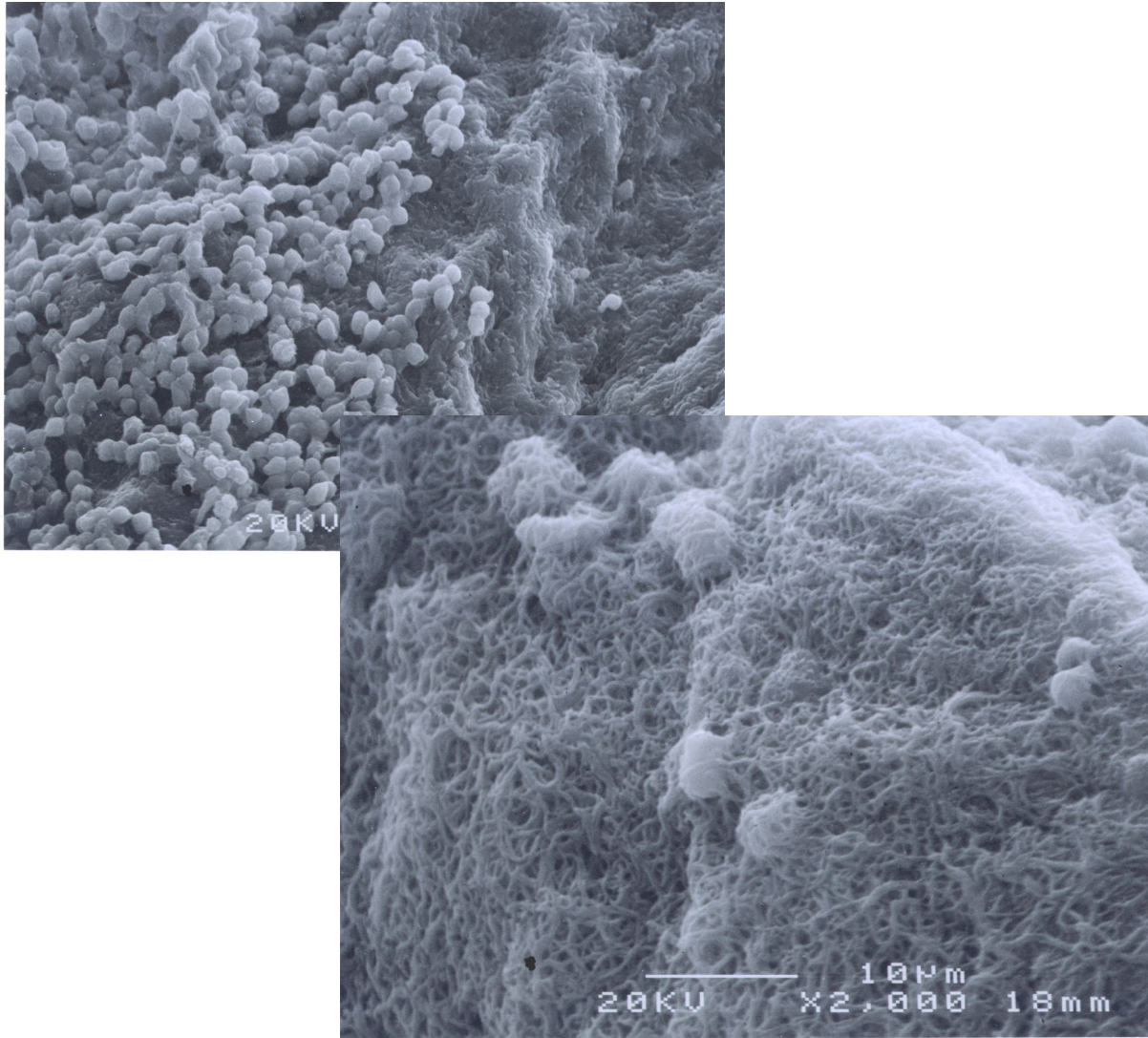


CHRONO-THERAPY

**ADDRESS DYSDIOSIS
PHAGE AND PROBIOTICS**

**TIMED ANTIMICROBIAL/PROBIOTIC
RINSES TO PREVENT STOMATITIS
AND FUNGAL OVERGROWTH**

Biofilm in Chronic Rhinosinusitis Patient FUNGOME



Aspergillus biofilm. A mixed biofilm found in airplanes. These fungal biofilms form on industrial surfaces as well as cause fatal pneumonia in humans and animals.

TAKE HOME MESSAGE: THM

- 2 KINGDOMS
- INTELLENT SYMBIOSIS
- PERSONAL RESEARCH BIOFILMS, OTHER SITES (WOUNDS).
- FUNGOME AND FUNGAL PHAGE
- SHANNON INEX 1.5
- QUOTE: “Edentulous is not empty- biofilms still write the story” AND
- **“You may be the author of your book, but your microbiome is the editor” John Thomas**

TAKE HOME MESSAGE, THM: SUMMARY

- “We live in a Microbial World”
- Humans are a holobiont member defining synergy with microbes. Microbes are our ancestry
- Microbiome First Medicine/Dentistry is the new paradigm shift recognizing the laboratory has gone from a culture positive, to culture negative result, utilizing molecular microbiology, SHANNON INDEX
- Intervention is now defined by “when” , not “what” or chronobiology using intervention focused on a matre of ‘not hurting the microbial host’, our microbiome.
- Synchrony of 2 CIRCADIAN clocks is the goal of CHRONO-DENTAL management.