

**AEDV2023**  
**Highlights**

# Rosácea y Acné

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The graphic features a dark blue background with a white wood-grain pattern. A large, semi-circular shape with a brown, leather-like texture is positioned on the right side. Overlaid on this is a teal rectangular box containing the text 'AEDV 2023 Highlights'.

**AEDV 2023**  
**Highlights**

**No tengo conflictos de  
interés.**

The graphic features a dark blue background with a white, wavy, topographic-like pattern. A large, semi-circular shape on the right side is filled with a close-up image of human skin. Overlaid on this is a teal rectangular box containing the text 'AEDV 2023' in dark blue and 'Highlights' in white.

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**Highlights**

# Rosácea

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• Subtipos

• Fenotipos

Flexibilidad

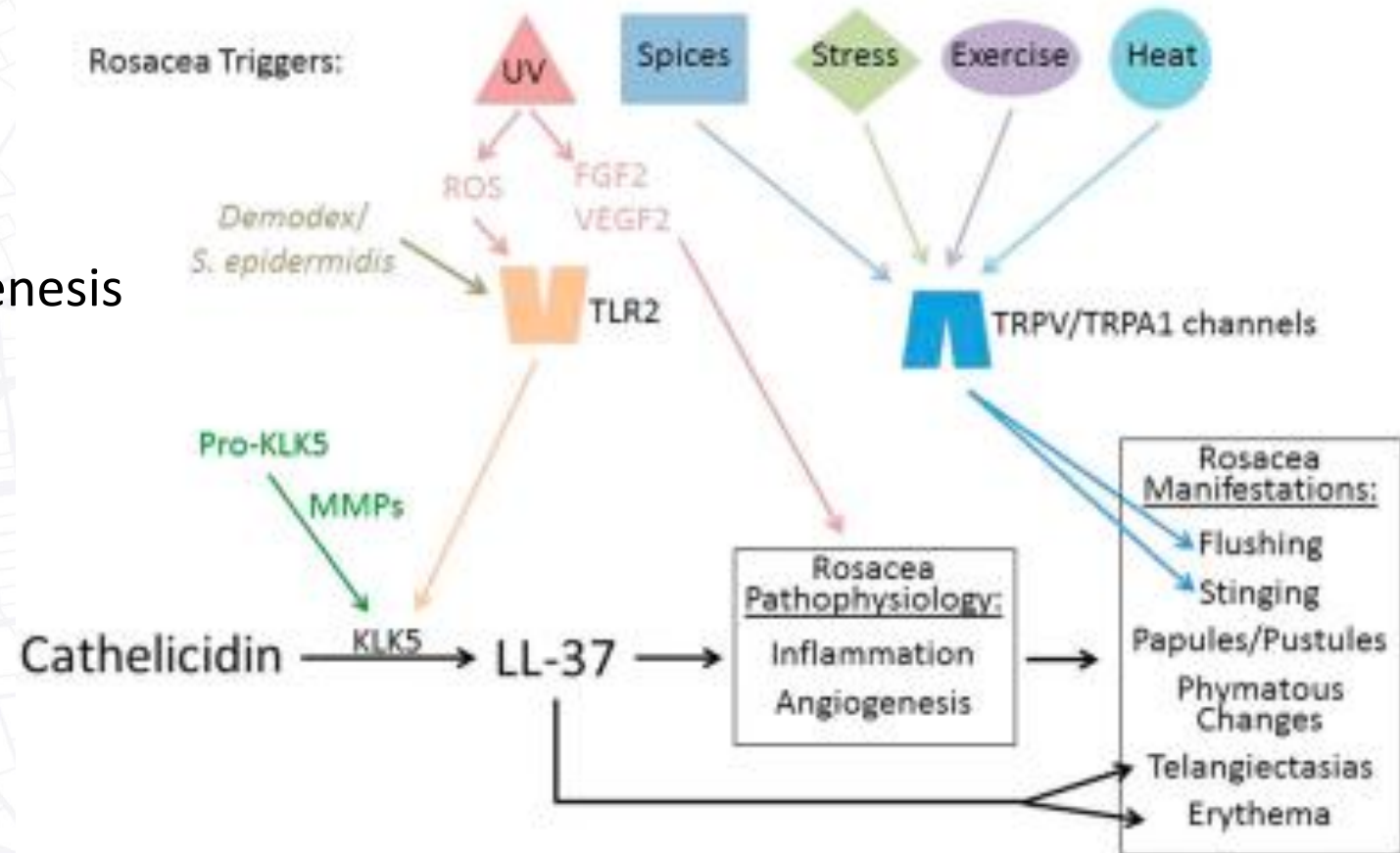
Adaptación de tratamientos a fenotipo actual

*Tan J, Almeida LM, Bewley A, Cribier B, Dlova NC, Gallo R, Kautz G, Mannis M, Oon HH, Rajagopalan M, Steinhoff M, Thiboutot D, Troielli P, Webster G, Wu Y, van Zuuren EJ, Schaller M. Updating the diagnosis, classification and assessment of rosacea: recommendations from the global ROSacea Consensus (ROSCO) panel. Br J Dermatol. 2017 Feb;176(2):431-438. doi: 10.1111/bjd.15122. Epub 2017 Jan 23. PMID: 27718519.*

- **LL-37** en CN
  - Participa en **RI Innata**
  - Efecto bactericida
  - Aumenta Quimiotaxis y angiogénesis

- **RS** → **Aumento LL-37**
  - Promueve inflamación
  - Aumenta angiogénesis
  - Activación Mastocito

- Tetraciclinas: inhibe producción LL-37 (efecto antiinflamatorio)



Two AM, Wu W, Gallo RL, Hata TR. Rosacea: part I. Introduction, categorization, histology, pathogenesis, and risk factors. J Am Acad Dermatol. 2015 May;72(5):749-58; quiz 759-60. doi: 10.1016/j.jaad.2014.08.028. PMID: 25890455.

## Papel clave en la patogenia de Rosácea

- RI Innata: **LL-37** activa mastocito
- Degranulación
  - VSD y **Angiogénesis** mediada por **VEGF**
  - **Inflamación** neurogénica
  - **Fibrosis** mediada por Triptasa e histamina

Mast cells may play key role in rosacea pathogenesis. Dermatology Times, May 2020 (Vol. 41, No. 5). Front med laussane 2020 jan 28;6;324

# Estabilizadores de membrana del Mastocito

| Modality   | Treatment                     | Mechanism of action  | Common adverse effects   |
|------------|-------------------------------|--|--|
| Topical    | Brimonidine tartrate<br>0.33% | Selective $\alpha$ 2-adrenergic agonist that improves erythema via vasoconstriction; inhibits MC number and mRNA levels of MC-specific enzymes | Erythema, flushing, skin burning sensation, and contact dermatitis |
|            | Artemether emulsion<br>1%     | Anti-inflammatory, anti-angiogenic, and anti-MC properties   | Stinging/burning, dryness, and itching                             |
|            | Cromolyn sodium 4%            | Inhibits MC degranulation and the subsequent release of inflammatory mediators   | Local irritation, redness and burning at the site of application   |
| Oral       | Cromolyn sodium               | Inhibits MC degranulation and the subsequent release of inflammatory mediators; decreases cutaneous MMP activity                               | Diarrhea and headaches   |
|            | Hydroxychloroquine            | Suppresses MC infiltration and reduces the overall long-term survival of MCs in tissues; reduces MC expression of MMP9 and tryptase            | Nausea, abdominal pain, diarrhea, pruritus, and headaches          |
|            | Artemisinin                   | Anti-inflammatory, anti-angiogenic, and anti-MC properties   | Nausea, vomiting, anorexia, and dizziness                          |
| Injectable | Botulinum toxin               | Blockage of MC degranulation by cleaving SNARE proteins within the cell  | Local pain, swelling, and bruising at the site of injection        |

MC Mast cell, MMP matrix metalloproteinases, SNARE soluble N-ethylmaleimide-sensitive-factor attachment protein receptor

Marchitto MC, Chien AL. Mast Cell Stabilizers in the Treatment of Rosacea: A Review of Existing and Emerging Therapies. *Dermatol Ther (Heidelb)*. 2021 Oct;11(5):1541-1549. doi: 10.1007/s13555-021-00597-7. Epub 2021 Sep 2. PMID: 34476755; PMCID: PMC8484408.

## Demodex Folliculorum

- Rosácea inflamatoria
- Formas severas



**Demodex folliculorum**

Kubanov A, Gallyamova Y, Kravchenko A. Clinical picture, diagnosis and treatment of rosacea, complicated by Demodex mites. *Dermatol Reports*. 2019 Mar 28;11(1):7675. doi: 10.4081/dr.2019.7675. PMID: 31007879; PMCID: PMC6452096.

## Demodex Brevis

- Rosácea Leve
- Piel sana

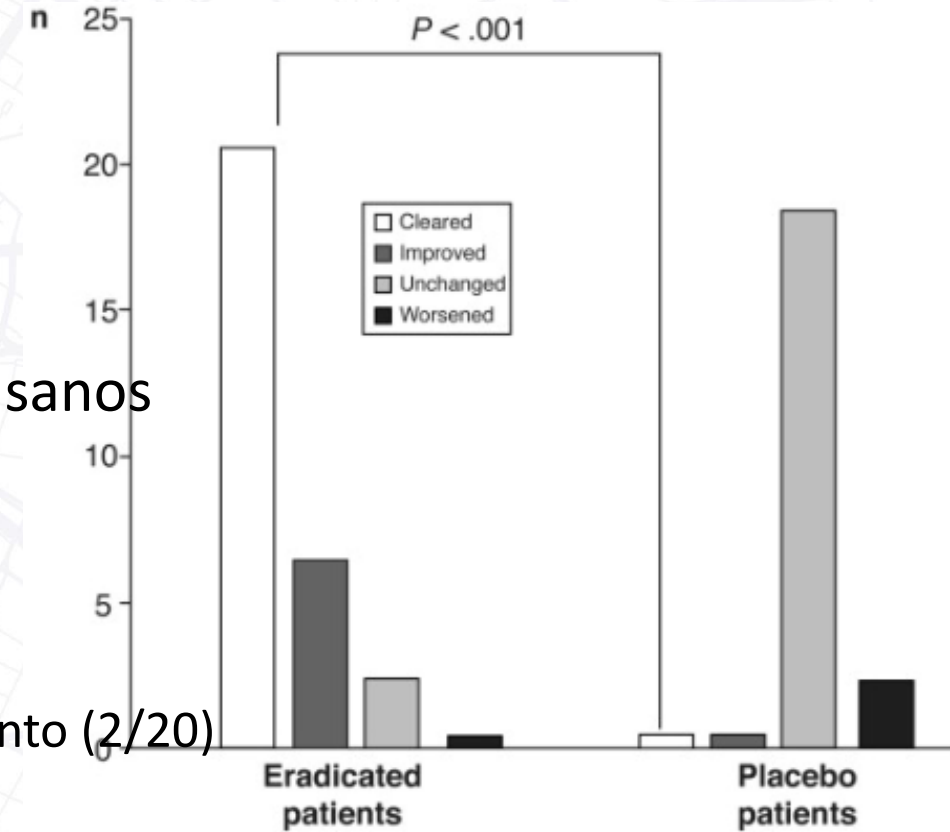


**Demodex brevis**



## SIBO y Rosácea

- SIBO altera I. Innata e I. Adaptativa
- **Más brotes** de Rosácea
- Pc con Rosácea tienen + **prevalencia de SIBO** vs controles sanos
- Tto con **Rifaximina** (1200mg/24h/14d)
  - Grupo **Rosácea+SIBO+RFX**: aclaramiento (20/28), mejoría (6/28)
  - Grupo **Rosácea+SIBO+Placebo**: sin cambio (18/20), empeoramiento (2/20)
  - Grupo control **Rosácea sin SIBO**: sin cambios en rosácea



Parodi A, Paolino S, Greco A, Drago F, Mansi C, Rebora A, Parodi A, Savarino V. Small intestinal bacterial overgrowth in rosacea: clinical effectiveness of its eradication. Clin Gastroenterol Hepatol. 2008 Jul;6(7):759-64. doi: 10.1016/j.cgh.2008.02.054. Epub 2008 May 5. PMID: 18456568.

## Original Investigation

FREE

May 2016

## Exploring the Association Between Rosacea and Parkinson Disease A Danish Nationwide Cohort Study

Alexander Egeberg, MD, PhD<sup>1,2</sup>; Peter Riis Hansen, MD, PhD, DMSci<sup>2</sup>; Gunnar H. Gislason, MD, PhD<sup>2,3,4</sup>; [et al](#)

ARQUIVOS DE  
NEURO-PSIQUIATRIA  
SciELO

[Arq Neuropsiquiatr](#). 2023 May; 81(5): 460–468.

Published online 2023 May 31. doi: [10.1055/s-0043-1768668](https://doi.org/10.1055/s-0043-1768668)

PMCID: PMC10232028

PMID: [37257466](https://pubmed.ncbi.nlm.nih.gov/37257466/)

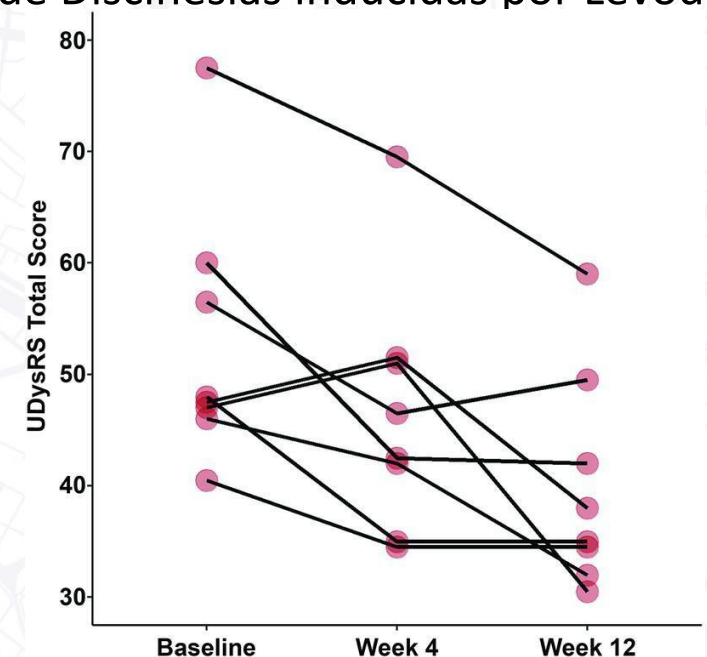
Language: English | [Portuguese](#)

## Doxycycline to treat levodopa-induced dyskinesias in Parkinson's disease: a preliminary study

[Bruno Lopes Santos-Lobato](#),<sup>1,2</sup> [Manuelina Mariana Capellari Macruz Brito](#),<sup>1</sup> [Ângela Vieira Pimentel](#),<sup>1</sup> [Rômulo Torres Oliveira Cavalcanti](#),<sup>1</sup> [Elaine Del-Bel](#),<sup>3</sup> and [Vitor Tumas](#)<sup>1</sup>

- Metaanálisis asociando Rosácea y EP

- Doxiciclina como tto de Discinesias inducidas por Levodopa.



## TFD en Rosácea

- Perfil paciente: **Rosácea + Fotodaño actínico**
- Ensayo **no inferioridad** vs Minociclina oral

**Paroxetina** → Flushing refractario

## Ac. Tranexámico intradérmico:

- Disminución recuento Mastocitos
- Disminución Angiogénesis

## Tto Biológico:

- Erenumab: aprobado EMA para Migraña → péptido relacionado con gen Calcitonina (CCRP) → modula VSD
- Bloqueo vía Il-17 → aumento Il-17 en Rosácea

1. Li A, Fang R, Mao X, Sun Q. Photodynamic therapy in the treatment of rosacea: A systematic review. *Photodiagnosis Photodyn Ther.* 2022 Jun;38:102875. doi: 10.1016/j.pdpdt.2022.102875. Epub 2022 Apr 22. PMID: 35470124.
2. Yang J, Liu X, Cao Y, Wang P, Zhang H, Chen Q, Yang Y, Zeng Q, Zhang L, Wang X. 5-Aminolevulinic acid photodynamic therapy versus minocycline for moderate-to-severe rosacea: A single-center, randomized, evaluator-blind controlled study. *J Am Acad Dermatol.* 2023 Oct;89(4):711-718. doi: 10.1016/j.jaad.2023.06.027. Epub 2023 Jun 24. PMID: 37356626.
3. Wang B, Huang Y, Tang Y, Zhao Z, Shi W, Jian D, Liu F, Gao Q, Wang P, Yang J, Li L, Xie H, Li J. Paroxetine is an effective treatment for refractory erythema of rosacea: Primary results from the Prospective Rosacea Refractory Erythema Randomized Clinical Trial. *J Am Acad Dermatol.* 2023 Jun;88(6):1300-1307. doi: 10.1016/j.jaad.2023.01.044. Epub 2023 Feb 15. PMID: 36806645.
4. Daadaa N, Litaïem N, Karray M, Bacha T, Jones M, Belajouza Noueiri C, Goucha S, Zeglaoui F. Intra dermal tranexamic acid microinjections: a novel treatment option for erythematotelangiectatic rosacea. *J Cosmet Dermatol.* 2021 Oct;20(10):3324-3329. doi: 10.1111/jocd.14209. Epub 2021 May 25. PMID: 33973361.
5. Kumar AM, Chiou AS, Shih YH, Li S, Chang ALS. An exploratory, open-label, investigator-initiated study of interleukin-17 blockade in patients with moderate-to-severe papulopustular rosacea. *Br J Dermatol.* 2020 Nov;183(5):942-943. doi: 10.1111/bjd.19172. Epub 2020 Jun 21. PMID: 32364247.

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# Acné

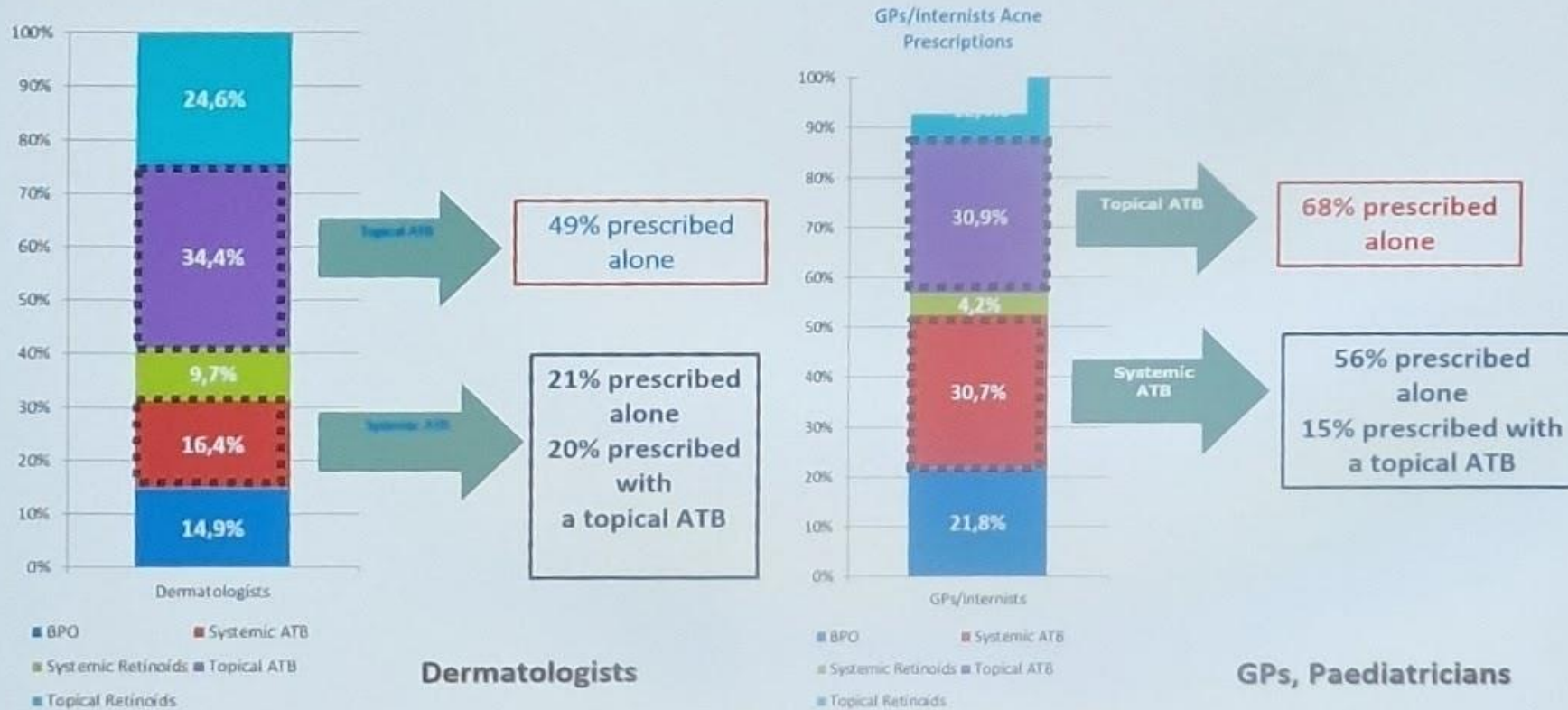
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## TOPICAL ANTIBIOTICS ARE THE MOST FREQUENTLY PRESCRIBED TOPICAL DRUGS



- ATB aislado es el tto + frecuente utilizado para acné incluso entre Dermatólogos

# Opciones tópicas no-ATB:

- - Azelaic acid
- - Zinc
- - **Trifarotene**: retinoide con actividad **antimicrobiana contra MRSA**
- - Probiotics
- - Postbiotics
- - Salicylic acid
- - Nicotinamide
- - Sodium Sulphacetamide

Hou Z, Zhang B, Xiao Z, Peng C, Que Z, Xu Y, Wu Z. Repurposing CD5789 as an Antimicrobial Agent Against MRSA and Its High Resistant Phenotypes. *Curr Microbiol.* 2023 May 31;80(7):230. doi: 10.1007/s00284-023-03332-x. PMID: 37256372.

[Yale J Biol Med.](#) 2022 Dec; 95(4): 429–443.

Published online 2022 Dec 22.

Focus: *Antimicrobial Resistance*

PMCID: PMC9765333

PMID: [36568833](#)

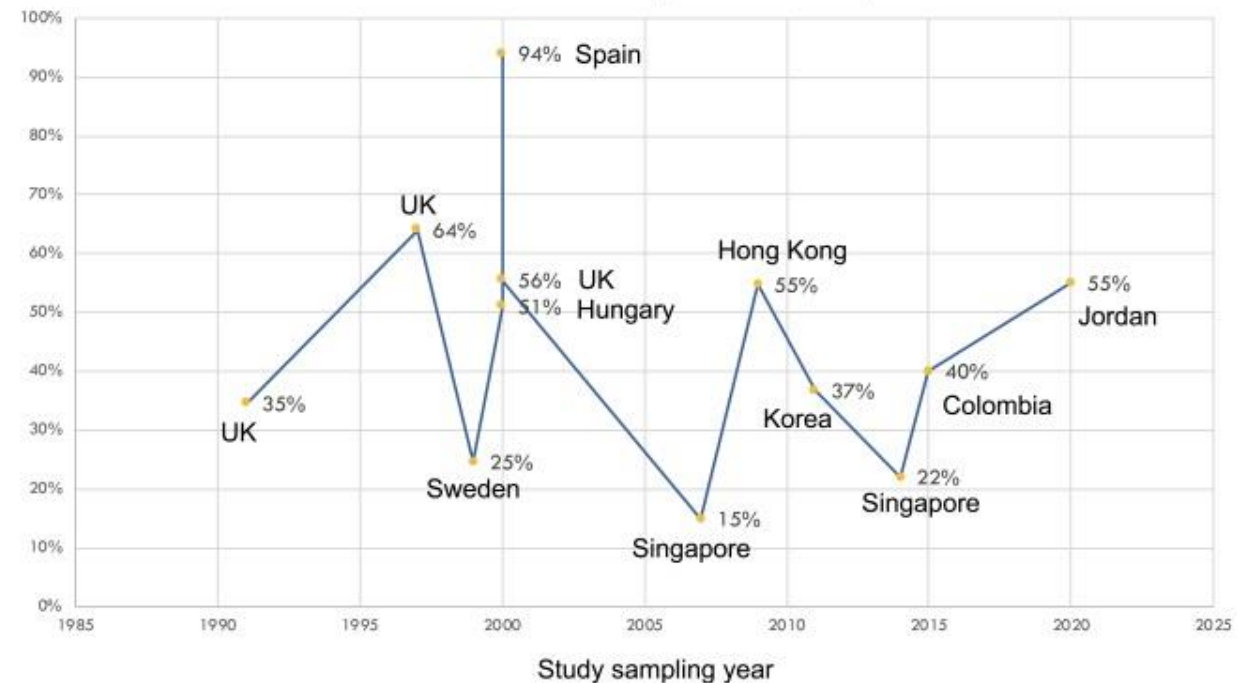
## Antibiotics and Antimicrobial Resistance in Acne: Epidemiological Trends and Clinical Practice Considerations

[Clio Dessinioti<sup>a,\\*</sup>](#) and [Andreas Katsambas<sup>b</sup>](#)

▶ [Author information](#) ▶ [Copyright and License information](#) E

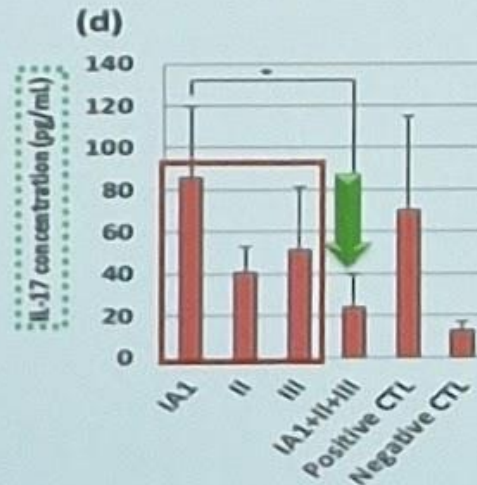
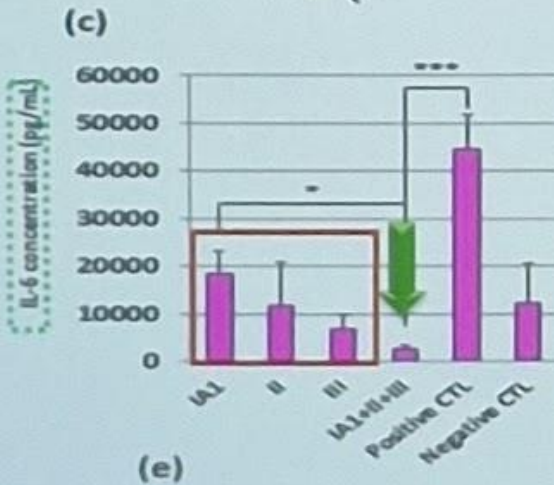
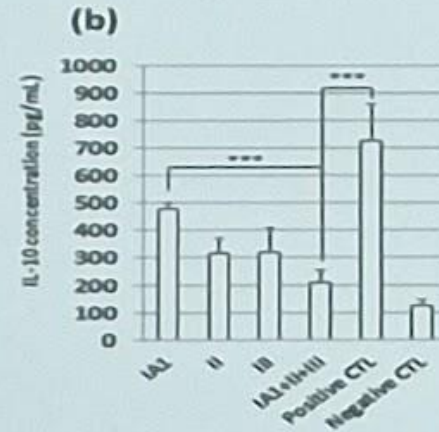
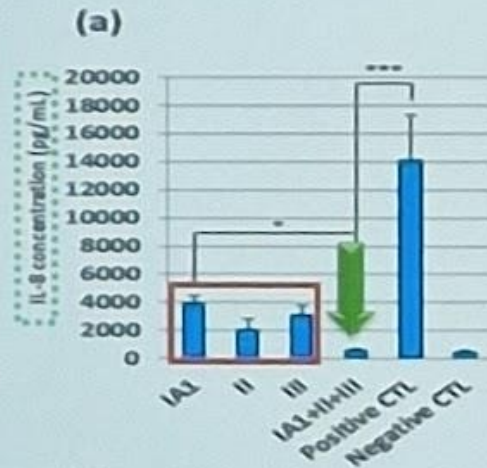
Yale J Biol Med

*C. acnes* resistance to any antibiotic tested, %



Dessinioti C, Katsambas A. Antibiotics and Antimicrobial Resistance in Acne: Epidemiological Trends and Clinical Practice Considerations. *Yale J Biol Med.* 2022 Dec 22;95(4):429-443. PMID: 36568833; PMCID: PMC9765333.

## LOSS OF DIVERSITY OF C ACNES ACTIVATES INNATE IMMUNITY



Phylotype IA1 or II or III, or all



Explants of skin are incubated with one extract of *C. acnes* or several extracts of *C. acnes* (miming the diversity)

Positive control = incubation of skin explants with *E. coli* LPS  
Negative control = incubation skin explant in culture media alone

- Loss of diversity activates innate immunity with secretion of inflammatory cytokines

- Prevention & restoration of diversity of microbiome permit to suppress inflammation via down regulation of innate immunity ++++

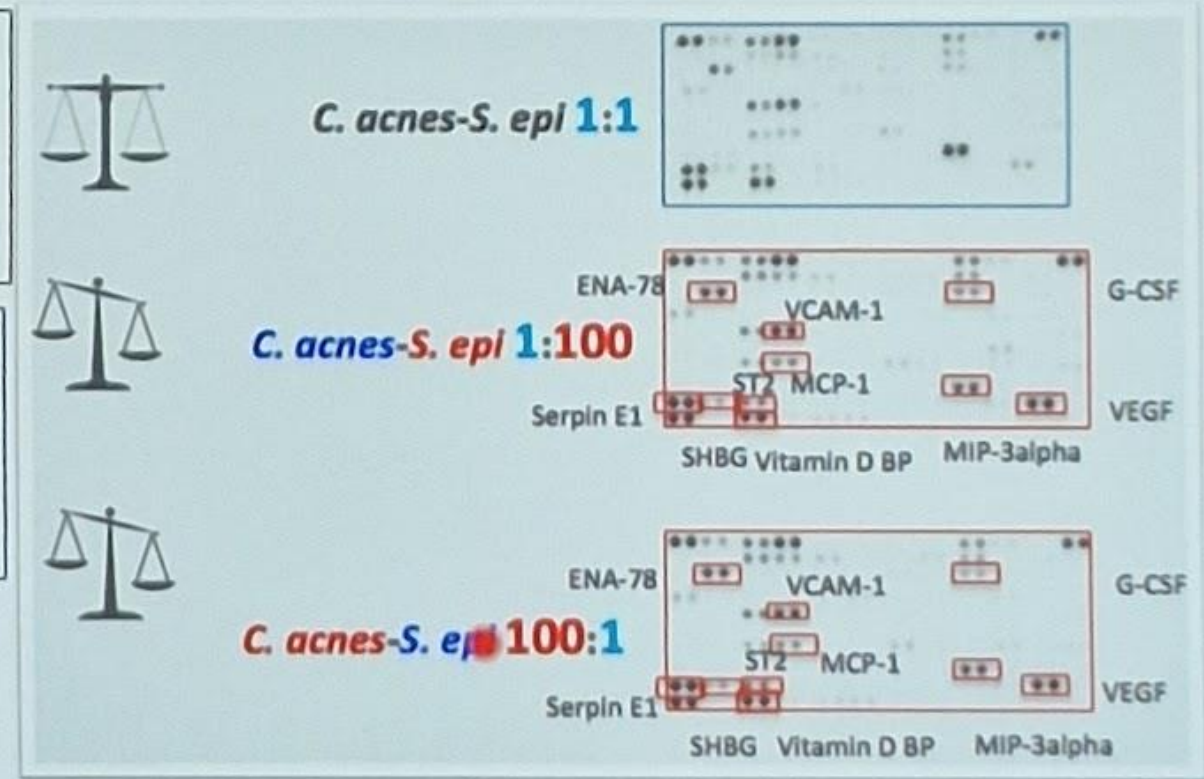
Dagnelle MA, Corvec S, Saint-Jean M, Nguyen JM, Khammari A, Dréno B. Cutibacterium acnes phylotypes diversity loss: a trigger for skin inflammatory process. *J Eur Acad Dermatol Venereol.* 2019 Jul 12



## DYSBIOSIS IN ACNE IS NOT LIMITED TO *C. ACNES*

Balance between *S. epidermidis* and *C. acnes* is crucial: they interact together

- An imbalance between *C. acnes* and *S. epidermidis*, induces activation of inflammatory molecules such as *IL-1ra*, *IL-6*, *IL-8*, *IL-17*, *G-CSF*.....
- *C. acnes* & *S. epidermidis* protect microbiota disequilibrium by fighting pathogens and participate in skin homeostasis through the production of bacterial metabolites



*Cutibacterium acnes* and *Staphylococcus epidermidis*: the unmissable modulators of skin inflammatory response.  
Dagnelle MA, Corvec S, Timon-David E, Khammari A, Dréno B. *Exp Dermatol.* 2021 Oct 21. doi: 10.1111/exd.14467. Online ahead of print.

## BACTERIOTHERAPY: USE OF BACTERIA OR THEIR PRODUCTS IN TREATING AN ILLNESS

### 1. VACCINATION

Based on ex vivo findings of modulation of inflammation with monoclonal antibodies to the **CAMP factor 2**, injection of the CAMP factor-targeted acne vaccine directly into acne lesions, was proposed for potential use in the future *J Invest Dermatol* 2018; 138: 2355–64

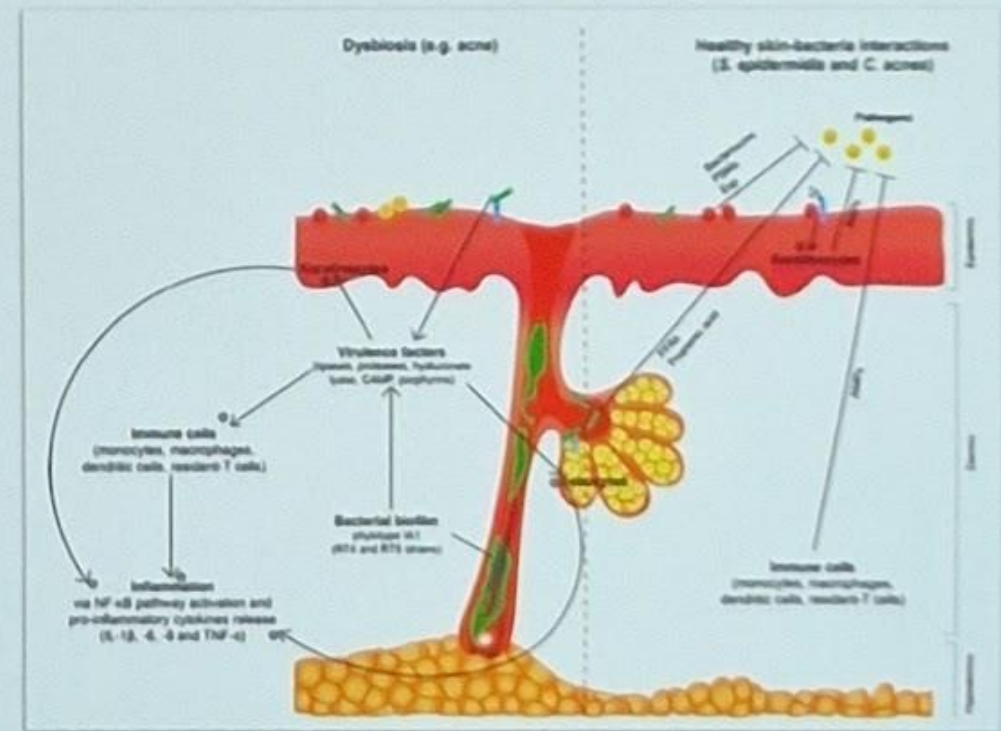
### 2. BACTERIOPHAGES

*Acnes* bacteriophages exist in the pilosebaceous unit, with a potential phage therapy targeting *C. acnes* 1A1 *Dermatol Ther (Heidelb)*. 2019;9:19-31, *J Dermatol* 2020; 182: 39–46

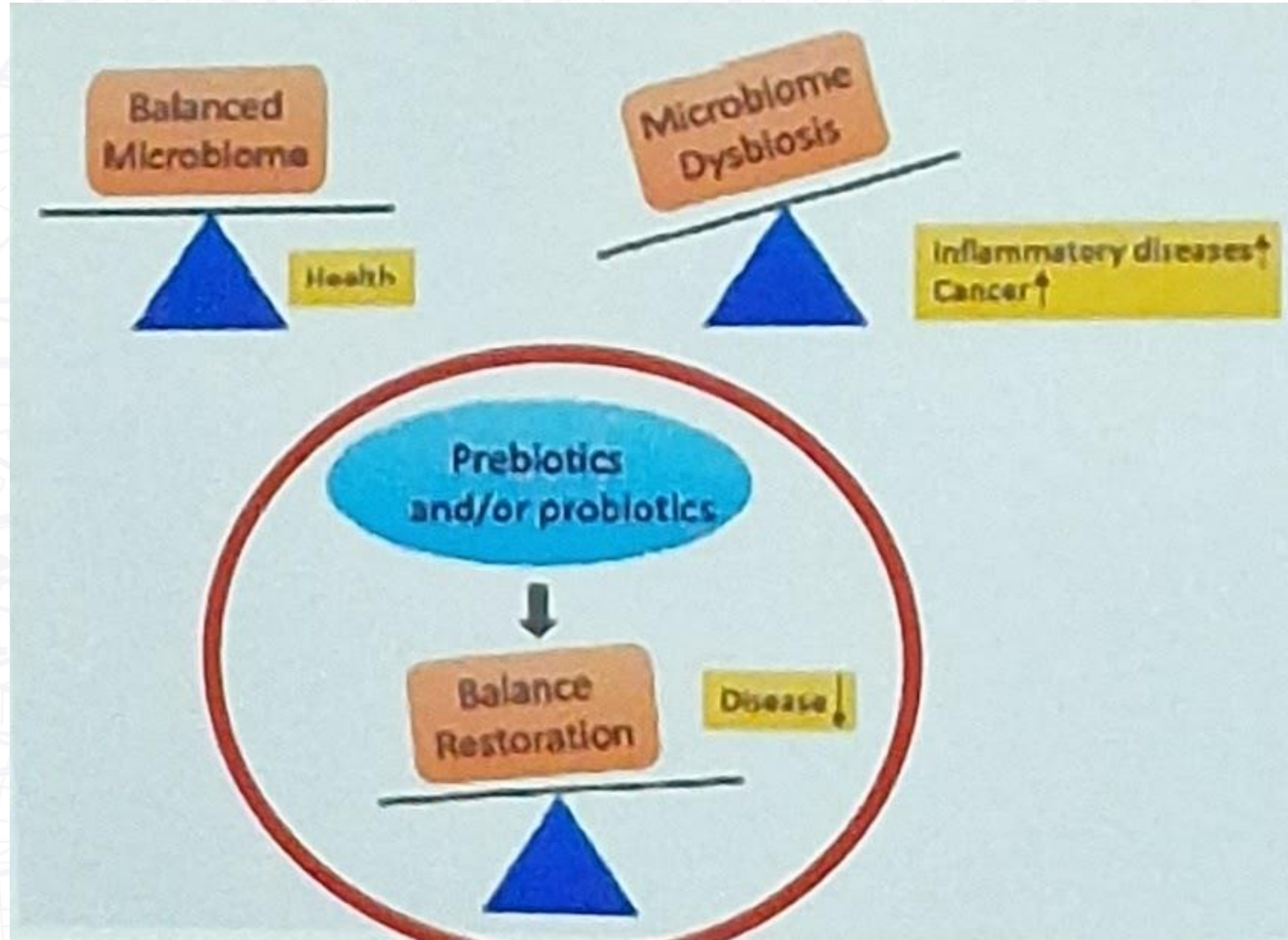
### 3. TOPICAL AND ORAL BACTERIOTHERAPY

- Variety of bacterial products
  - *Probiotics* (live bacteria)
  - *Prebiotics* (extracts of bacteria)
  - *Combined Pro/Prebiotics*
  - *Postbiotics: Antimicrobial Peptides (AMPs)* secreted by bacteria with a health benefit on the host”.

### 4. CUTANEOUS TRANSPLANTATION



# Bacterioterapia



# AEDV 2023 Highlights



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# BER LIN

11-14 OCTUBRE

Con el patrocinio de:



Iniciativa científica de:



Pedro Navarro Guillamón. Highlights EADV 2023