Can ticks help in inflammatory bowel disease?

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Poster number: 65

Evasin-displaying lactic acid bacteria bind different chemokines for therapy of inflammatory bowel disease
What is IBD?

INFLAMMATORY BOWEL DISEASE

• chronic inflammation of GI tract
• symptoms

• treatment
What are probiotics?

“The word "Probiotic" means Pro (for) + biotic (life) = For Life

“Live microorganisms which, when administered in adequate amounts, confer a health benefit on the host”. FAO/World Health Organization
What are tick proteins - evasins?

Salivary proteins:
• enzymes
• anasthetic
• anticoagulant proteins
• antiinflammatory proteins: EVASINS - CHEMOKINE BINDING PROTEINS
How to combine IBD, tick proteins and probiotics for healthy gut?
What we do?

- Express biologically active evasins on the surface of LAB.
- Evasin-displaying LAB were able to bind different chemokines
- Future experiments: Animal model?