

The Microbiological Underpinnings

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Cellular immunology Research Concept

Extrinsic
LAB

Th22 Th17 Th2 Th1 iTreg

50 µm

Why do we need LABs as tolerogenic tools in allergy?

In Europe **80 million** people are affected
by some form of allergic disease

↓
Need for

Prevention strategies New therapeutic options



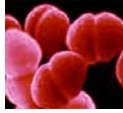
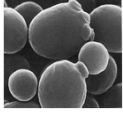
- spatially inclusive
- comprehensive
- cost efficient

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Probiotic microorganisms

| Lactobacilli | Bifidobacteria | Cocci | Others |
|--|--|--|--|
| <i>L. acidophilus</i> <i>L. casei</i> <i>L. crispatus</i> <i>L. gallinarum</i> <i>L. gasserii</i> <i>L. johnsonii</i> <i>L. paracasei</i> <i>L. plantarum</i> <i>L. reuteri</i> <i>L. rhamnosus</i> | <i>B. adolescentis</i> <i>B. animalis</i> <i>B. bifidum</i> <i>B. breve</i> <i>B. infantis</i> <i>B. lactis</i> <i>B. longum</i> | <i>Ent. faecalis</i> <i>Ent. faecium</i> <i>Lactoc. lactis</i> <i>Leuconostoc mesenteroides</i> <i>Ped. acidilactici</i> <i>Str. thermophilus</i> | <i>Bacillus cereus</i> ('toyoi') <i>Escherichia coli</i> ('Nissle 1917') <i>Propionibacterium freudenreichii</i> <i>Saccharomyces cerevisiae</i> ('boulardii') <i>Trichuris suis</i> |

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