

## A Novel Mimotope for Treatment of Inflammation (B11) (Yissum)

**code:** 19-2006-162

[Herve \(Hillel\) Bercovier](#), HUJI, Faculty of Medicine, Molecular biology  
Ayelet Barenholz, HUJI, Faculty of Medicine, Molecular biology

### B11 is effective in treating inflammatory diseases with no side effects

<b>Categories</b>	Anti-inflammatory, small molecule
<b>Development Stage</b>	In vivo results
<b>Patent Status</b>	Publication no: WO05080414A1, WO06001011A1

### Highlights

- The B11 peptide is an epitope mimic of mycobacterial lipoglycan mannosylated lipoarabinomannan (ManLAM). B11 peptide demonstrates anti-inflammatory properties in several in vivo models (allergic asthma, EAE and colitis).
- Main advantages:
- Peptides are easier to manufacture than the complex mycobacterial lipoglycan.
- Manufacturing of peptides is highly reproducible.
- Peptides can be produced under good manufacturing practice (GMP).
- Main results: B11 peptide reduces inflammation symptoms in murine models of allergic asthma (ovalbumine induced allergic peritonitis and allergic asthma), EAE, and colitis (TNBS, DSS models).
- Scope of the technology: A peptide with immuno-modulatory properties similar to the natural complex lipoglycan ManLAM.

### Our Innovation (facts and advantages)

- B11 peptide not only mimics the antigenic epitope of ManLAM but has also has similar immuno-regulatory properties.
- Key features: An anti-inflammatory drug, small peptide derived drug, and non toxic at therapeutical doses.
- Key benefits: Non steroid anti-inflammatory peptide, easy to manufacture and highly reproducible.
- Mechanism of action: B11 peptide mimics mycobacterial lipoglycan (ManLAM). ManLAM is produced by mycobacteria and is a natural immuno-modulator of macrophage and dendritic cells and suppresses allergic asthma in murine models. B11 peptide has similar properties.
- Proof of concept: The immuno-modulatory properties of the B11 peptide were demonstrated on macrophage cell cultures. Anti-inflammatory properties were shown in murine inflammation models (allergic asthma, EAE and colitis).


### The opportunity

- Inflammatory diseases such as allergic asthma and colitis are a major health problem in the western world with increasing rates.
- Corticosteroids are the most effective treatment used, but cause many side effects.
- B11 peptide is a non steroidal anti-inflammatory molecule.

### Development Milestones

- Pharmacokinetics, stability, doses responses, advanced toxicity.
- 1 million US \$ in 2 years.

**Contact for more information:**

Shoshana Keynan , VP, Head of Business Development, Healthcare, +972-2-6586683

---

Yissum Research Development Company of the Hebrew University of Jerusalem  
Hi-Tech Park, Edmond J. Safra Campus, Givat-Ram, Jerusalem P.O. Box 39135, Jerusalem 91390  
Israel Telephone: 972-2-658-6688, Fax: 972-2-658-6689