

A NOVEL MULTI-EPITOPE BASED VACCINE AGAINST HELICOBACTER PYLORI

Peter Malfertheiner

UEG Week Berlin 2025

Presentation

Digestive Oncology

Endoscopy

Neurogastroenterology & Motility

Oesophagus

Stomach & H. Pylori

October 7, 2025

A novel multi-epitope H. pylori vaccine achieved complete bacterial clearance in both prophylactic and therapeutic murine models and demonstrated 100% binding reactivity against crude antigens from 48 diverse human clinical isolates.

KEY POINTS

- Both vaccine formulations (MEU with flagellin adjuvant and MEU incorporated into MVA viral vector) achieved complete bacterial clearance in prophylactic and therapeutic settings in mice infected with H. pylori SS1.
- Anti-MEU antibodies from immunized mice showed positive binding to crude antigens from all 48 tested human clinical isolates from international healthcare centers, representing diverse geographical origins and strain variations.
- Both vaccine formulations elicited robust MEU-specific antibody and CD4+ T-cell responses with a balanced Th1/Th2 immune response profile and significantly elevated CD4+NKT-like cell levels.
- The vaccine was constructed from 16 selected B- and T-cell epitopes derived from six key H. pylori virulence factors.
- Authors disclosed that BK, HM, and VW are employed by Iguana Biotechnology; the presenter stated the results provide rationale for advancing to toxicology studies and clinical evaluation.

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