(a) Overview
- Cancer antigen
- Virus antigen
- Toxin etc

Epitope prediction

Peptide synthesis

CpG-DNA-peptide-liposomes complex without carriers

Immunization
- Epitope selection
- Monoclonal antibody production
- CpG-DNA-epitope-liposomes

Applications
- Prophylactic vaccine
- Therapeutic vaccine
- Therapeutic antibody

(b) HCC application (for example)

TM4SF5 (HCC antigen)

6 candidate epitopes

Peptide synthesis

CpG-DNA-peptide-liposomes complex without carriers

Immunization
- TM4SF5R2-3 epitope selection
- Anti-TM4SF5R2-3 monoclonal antibody production

Applications
- HCC therapeutic antibody production
- HCC vaccination