

Name: **Antiviral peptides and their
effect on influenza virus**

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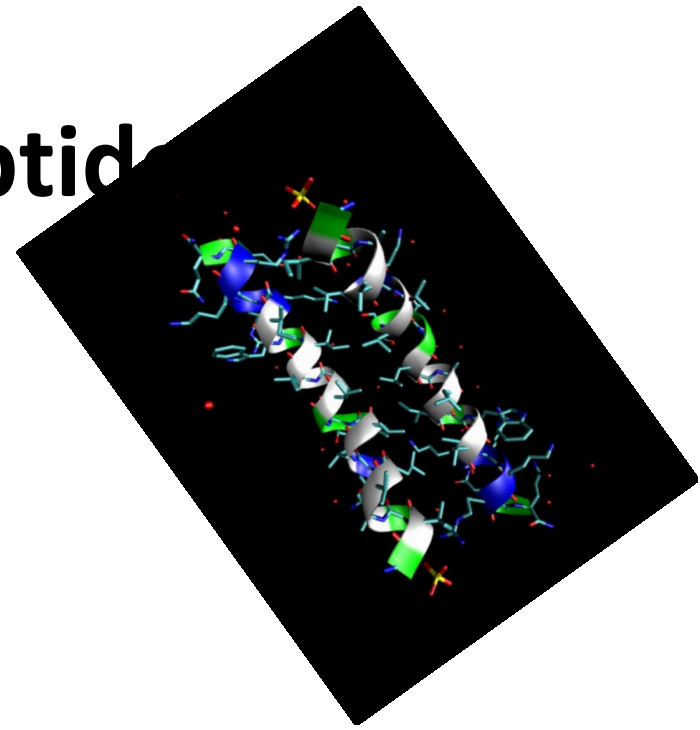
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Antiviral peptides

- 12-100 AA
- 4 categories according to structure
- Positively charged
- Amphiphilic
- Targeting the immune system by modulating phagocytosis, increasing prostaglandin release, promoting accumulation of immune cells at inflammatory sites.

144 antiviral peptides

- Maximin
- Melittin
- EB (entry blockers) peptides
- Brevinin
- Aurein
- Cathelicidins
- Defensins
- ...



Maximin

- 27 AA
- *Bombina maxima*
- Tens of varieties
- Anti-microbial effect against different strains
of bacteria

Melittin

- 26 AA
- *Apis*
- Exhibits anti-microbial and potential anti-viral activity

Treatment optimization

- Depletion of treatment options
- Low cytotoxic effect
- Mild side effects
- Low concentration
- Rapid elimination from the host
- Cost-effective due the synthesis



Possibility of formation of peptide derivatives with altered properties.

Starting point for the design of more active molecules targeting the generic steps involved in virus attachment, fusion and replication.

Future outlooks

- Obtain various peptides from cloned cells
- Peptide characterisation on MALDI
- Peptide synthesis and modifications
- Binding to other structures

Thank you for your attention

Reg.č.projektu: CZ.1.07/2.4.00/31.0023

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