Wide spectrum AMP to treat veterinary infections

A Few Numbers
Veterinary Drug Market value is about 28 Billion Euro,
French market
- 859 Million Euro, about 3% World Market.
- 6 700 Workers
- 3000 AMM

Therapeutics
- Antibacterial
- Alternative
- Peptides

Suggested Applications
Topical treatment for skin diseases caused by bacterial, yeasts or parasites infections

Temporine-SHa derived peptide from Pelophylax saharica

CMI results in µM

<table>
<thead>
<tr>
<th>Strain</th>
<th>Lead T2</th>
<th>Ref ATB</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. coli ATCC 8739</td>
<td>12.5</td>
<td></td>
</tr>
<tr>
<td>S. aureus ATCC 6538</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td>S. aureus ATCC 19636</td>
<td>&lt;1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>S. aureus BAA-1717 (MRSA)</td>
<td>3.12</td>
<td>0.35c</td>
</tr>
<tr>
<td>S. aureus BAA-1556 (MRSA)</td>
<td>3.12</td>
<td>0.7c</td>
</tr>
<tr>
<td>P. aeruginosa ATCC15692</td>
<td>&gt;75</td>
<td>0.25b</td>
</tr>
<tr>
<td>C. albicans ATCC 44858</td>
<td>37.5</td>
<td>0.125a</td>
</tr>
</tbody>
</table>

a: Amphotericin B
b: Ciprofloxacin
c: Vancomycin

MOA : rapid membranolytic effect which make it difficult for the pathogen to develop resistance

Development Status
In vivo proof-of-concept has been done with SHa original peptide on leishmania.

After a hit-to-lead phase in order to optimize peptide activity, SATT Lutech is funding a development program to have an in vivo proof-of-concept with our lead peptide. Considering it has specific efficiency against MR staphilococci strains, we want to test it on a recognized pyodermitis model.

We are looking for industrial partners with strong expertise in the field, in order to co-develop the technology, get advises on animal model and the best conditions to assess.

Competitive Advantages
- Curative treatment for skin diseases caused by bacterial or yeasts infections
- Broad spectrum AMP with increased efficiency against staphilococci pathogens, responsible for Pyodermitis
- Can be combined with classic systemic antibiotics to improve their action
- Rapid acting peptides (less than 15 min), allowing reduction of treatment duration
- Quick and low-production costs (13 AA)

Innovative Solution
Teams from Sorbonne University and IRD discovered new natural peptides that exhibit wide antimicrobial properties to treat skin diseases.

Those peptides were extracted from amphibians’ skin and analyzed to select actives peptides and create optimized AMPs.

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