PANEL OVERVIEW
Moderator: Katherine Moldave
Panelists: John Eisemann, Dr. Julie Levy, Elaine Lissner, Dr. Byron Maas, Dr. Linda Rhodes

APPROACHES WITH POTENTIAL FOR NEARER-TERM IMPACT

Katherine Moldave
ACC&D Scientific Advisory Board; Cofounder – AlcheraBio LLC

The fact that the 5th International Symposium on Nonsurgical Contraceptive Methods of Pet Population Control included a panel entitled “Approaches with Potential for Nearer-term Impact” indicates that headway is being made. The approaches and the status of the approaches presented run the gamut from “available in some markets for at least one species/gender” to “work in progress.”

The following table summarizes briefly the approaches panelists described:

<table>
<thead>
<tr>
<th>Approach</th>
<th>Trade Name(s)*</th>
<th>Type</th>
<th>Permanent?</th>
<th>Effective or Believed to be Effective In</th>
<th>Approval Status</th>
<th>Approved for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zinc gluconate</td>
<td>EsterilSol, Zeuterin</td>
<td>Sterilant</td>
<td>Yes</td>
<td>Male dogs and male cats</td>
<td>Approved: Mexico, Colombia, Turkey, Bolivia, Panama Approval Pending: United States, India, Russia, Brazil, Argentina, South Africa</td>
<td>Male dogs 3-10 months, testicles 10-27mm</td>
</tr>
<tr>
<td>Calcium chloride</td>
<td>N/A</td>
<td>Sterilant</td>
<td>Yes</td>
<td>Male dogs, male cats</td>
<td>Not approved</td>
<td>N/A</td>
</tr>
<tr>
<td>Immuno-contraception</td>
<td>GonaCon**</td>
<td>GnRH vaccine</td>
<td>No</td>
<td>Male and female dogs and cats</td>
<td>A version of GonaCon is approved in the US</td>
<td>White tail deer, wild horses and burros</td>
</tr>
<tr>
<td>Immuno-contraception</td>
<td>Suprelorin</td>
<td>GnRH agonist (deslorelin) implant</td>
<td>No</td>
<td>Male and female dogs and cats</td>
<td>Approved: 6- and 12-month versions in EU, Australia, New Zealand</td>
<td>Male dogs</td>
</tr>
</tbody>
</table>

* Trade names are the property of their respective trademark holders.
** The formulation of GonaCon approved for use in white tail deer, wild horses and burros is not the same formulation as the formulation being studied in dogs and cats.
But “nearer-term” isn’t necessarily the finish line. The panelists discussed challenges that have arisen during development and/or commercialization.

While not every challenge affecting progress of various approaches applies to every approach, the following is a list of factors that may be expected to come into play once a given method has been demonstrated to warrant further development and, ultimately, use in “unowned” and/or “owned” dogs and/or cats:

- Challenges inherent in a given approach (e.g., time to effectiveness, duration of effectiveness, need for training on use to maximize safety and effectiveness)
- Challenges related to funding (e.g., raising money, engaging and maintain a viable partnership, launch and post-launch marketing)
- Challenges related to stage (e.g. transitions from research phase to development phase to commercialization/marketing phase)
- Challenges related to regulatory issues (e.g., cost to sponsors; label limitations; previous regulatory action affecting future regulatory options; requirements for manufacturing, safety and effectiveness; differences in requirements from country-to-country)
- Challenges related to market acceptance (e.g., veterinarians, organizations, NGOs and other entities dealing with “unowned” dogs and/or cats; people who have dogs and/or cats, veterinary schools)

Readers are encouraged to review panelists’ abstracts and lists of challenges in the PowerPoint® presentations elsewhere in these proceedings as well as reviewing the related recorded versions of this and other symposium panels and presentations.