Global event on enhancing the sustainability of investment for vaccine manufacturing in Africa.  
27-29 June 2023  
United Nations Conference Centre, UNECA, Addis Ababa, Ethiopia

Presentation of opportunities for investment and partnerships on vaccines and biopharmaceuticals.

A. Who we are, & what we do

- Pasteur Institute of Algeria (PIA) is an Algerian public institution of industrial and commercial character. It was established in 1894 with an initial mission to provide rabies treatment for bitten individuals. Over time, it evolved into a centre for scientific research on infectious diseases.

- Currently, the institute has 3 missions:
  - It is a research and diagnostics reference institute in the biological field and infectious diseases;
  - The production and distribution of serums and vaccines for human and veterinary use;
  - Scientific training.

- The company has 7 sites across the country, 4 of which are located in Algiers. PIA is part of the Pasteur Institutes Network.

- Apart from its commercial diagnostics services, PIA current product portfolio includes:

  1. Vaccines

    **RAGIVAC (for human use)**
    - Tissue-based inactivated rabies vaccine (LP Saigon strain); antigenic titer ≥ 0.3
    - Form: Each vial of freeze-dried vaccine is reconstituted with 2 ml of solvent

    **CLAVAX (for veterinary use)**
    - Culture-based attenuated sheep pox vaccine (strain RM65); TCID50 ≥ 1000
    - Form: Each vial of freeze-dried vaccine is reconstituted with 3 ml of solvent; each vial contains 100 vaccinating doses.

    **VET-ERA (for veterinary use)**
    - Culture-based alive rabies vaccine (ERA strain).
    - Form: Each vial of freeze-dried vaccine is reconstituted with 2 ml of solvent
2. Therapeutic sera

**IPASCORP**
- Anti-scorpion venom serum – F(ab’)_2 fragments of equine antivenom immunoglobulins monospecific against *Androctonus australis hector*.
- **Form**: 5 ml vials neutralizing at least 15 LD₅₀/ml/20 g of mouse.

**IPAVIP**
- Anti-viper venom serum – F(ab’)_2 fragments of equine antivenom immunoglobulins bispecific against *Cerastes cerastes* and *Macrovipera lebetina*.
- **Form**: 5 ml vials neutralizing at least 40 DL₅₀/ml/20 g of mouse and 20 DL₅₀/ml/20 g of mouse for *C. cerastes* et *M. lebetina*, respectively.

**IPARAB**
- Antirabies serum – F(ab’)_2 fragments of equine antirabies immunoglobulin.
- **Form**: 5 ml vials containing at least 1000 IU of F(ab’)_2 fragments.

3. Culture media and diagnostics reagents
   More than 300 products (complete list available upon request).

4. Laboratory animals
   Mice, rats and rabbits.

### Biopharmaceuticals annual manufacturing:

<table>
<thead>
<tr>
<th>Product</th>
<th>Form</th>
<th>2022 campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vaccines</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antirabies vaccine for human use (RAGIVAC®)</td>
<td>Freeze-dried – 2 ml vials</td>
<td>365 556</td>
</tr>
<tr>
<td>Sheep pox vaccine (CLAVAX®)</td>
<td>Freeze-dried – 100 doses per vial</td>
<td>23 000 000 doses</td>
</tr>
<tr>
<td><strong>Therapeutic sera</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scorpion antivenom (IPASCORP®)</td>
<td>5 ml vials</td>
<td>80 072</td>
</tr>
<tr>
<td>Vipers antivenom (IPAVIP®)</td>
<td>5 ml vials</td>
<td>10 749</td>
</tr>
<tr>
<td><strong>Total production</strong></td>
<td>5 ml vials</td>
<td>90 821</td>
</tr>
</tbody>
</table>
### Development goals related to biopharmaceuticals manufacturing

- Building a new GMP-certified facility for the manufacturing of vaccines and therapeutic sera.
- Training the workforce to recent biopharmaceutical manufacturing technologies and cGMPs standards.
- Expanding the human vaccines portfolio of PIA to eventually cover the national needs.
- Expanding the veterinary vaccines portfolio of PIA.
- Improve the preparedness to future health and economic challenges.
- Export of vaccines.
- Improve R&D capabilities on vaccines particularly with mRNA-based and vector-based vaccines.

### B. What are we offering

- Exclusive access to the national vaccines market of **more than $110 million value**.
- **Land, financial contribution, human resources** to be allocated for the biopharmaceuticals manufacturing project.
- **Strategic geographical location** for international trade, at the center of the Mediterranean region, connecting Africa, Europe and the Middle East.

### C. What are we looking for

- **Investing partner(s) or investor(s)** to contribute to the funding of the construction of the new manufacturing facility of vaccines and/or therapeutic serums.
- **A manufacturing partnership** with a producer of **WHO prequalified vaccines**.

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