

"FAO International Technical Conference on Agricultural Biotechnologies in Developing Countries (ABDC-10)" Guadalajara, México, March 1-4, 2010

Necessity and challenges of the use/management of IP in Cuba

What strategies have been developed?

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Important remarks

- The Intellectual Property is a concept introduced by market economy rules. However, the current development of the industrialized countries were not reached based on IPR. They seriously incorporate these rules once they reach a high level of economic development and they need to protect it.
- The enterprises or market rules including IP cannot regulate the Health and Feeding rights of the people
- Cuba support the principle that Health and Feeding are the most essential human rights of the peoples.

1995: WTO » TRIPS Agreements

- ❖ Patents for any inventions, whether products or processes, in all fields of technology
- ❖ The available term of protection must expire no earlier than 20 years from the date of filing of the patent application
- ❖ ...

Some Free Trade Agreements » TRIPS Plus

- ❖ Extension of the life patent for delay during the patent prosecution
- ❖ Second use patents
- ❖ ...

Cuba Situation

- ❖ New Patent Law in preparation according to TRIPS Agreement requirements
- ❖ Take into account all flexibilities allowed by TRIPS Agreements in order to give the maximum protection to the Cuban market
- ❖ Take into account the Convention on Biological Diversity (CBD), Río de Janeiro, 1992, and other international conventions

Cuba Situation: New Patent Law in preparation

Some important items

Material that do not constitute an invention

- A scientific discovery
- Material that previously exist in nature, discovered and isolated, including biological and genetic material, its parts or replicas
- Biological essentially procedures
- The human body, its different formation phase and development, the discovery of any of your elements or part including gene sequence although it have been used a technical procedure to isolate.
- Product or process in the previous art or patented with a different use.

Cuba Situation: New Patent Law in preparation

Some important items

Material non-patentable

- Animals and its race
- Plants and its varieties (**sui generis plant variety protection**)
- Methods of treatment applied to the human body or animal
- Methods of diagnostic, therapeutics and surgical for the human or animal treatment
- Cloning procedure human being
- Use of human embryo with industrial or commercial purposes
- Invention which commercial exploitation in the country must be prohibited in order to protect the health or life of the people or animal, for preserve the plants or vegetables or to avoid critical damage to the environment.

Cuba Situation: New Patent Law in preparation
Some important items
Biological Material

- Document that indicate the region and country of origin as well as the traditional knowledge associated (including varieties and hybrids)
- Document of authorization for the access of the genetic resources involved in the invention

Cuba Situation: New Patent Law in preparation

Some important items

Compulsory License

- None or insufficient exploitation in the country of the subject matter
- Market not covered
- Abusive prices compared with the international average or when exist offers with significantly inferior prices



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Cuban Biotechnology





West Havana Scientific Pole

CNGM



CIM



CIGB



CENIC



I. FINLAY



IPK



11 de febrero 1991.

53 instituciones



CIE



Planta de Citostáticos



LIORAD



CENSA



BioCen



CENPALAB



NOVATEC



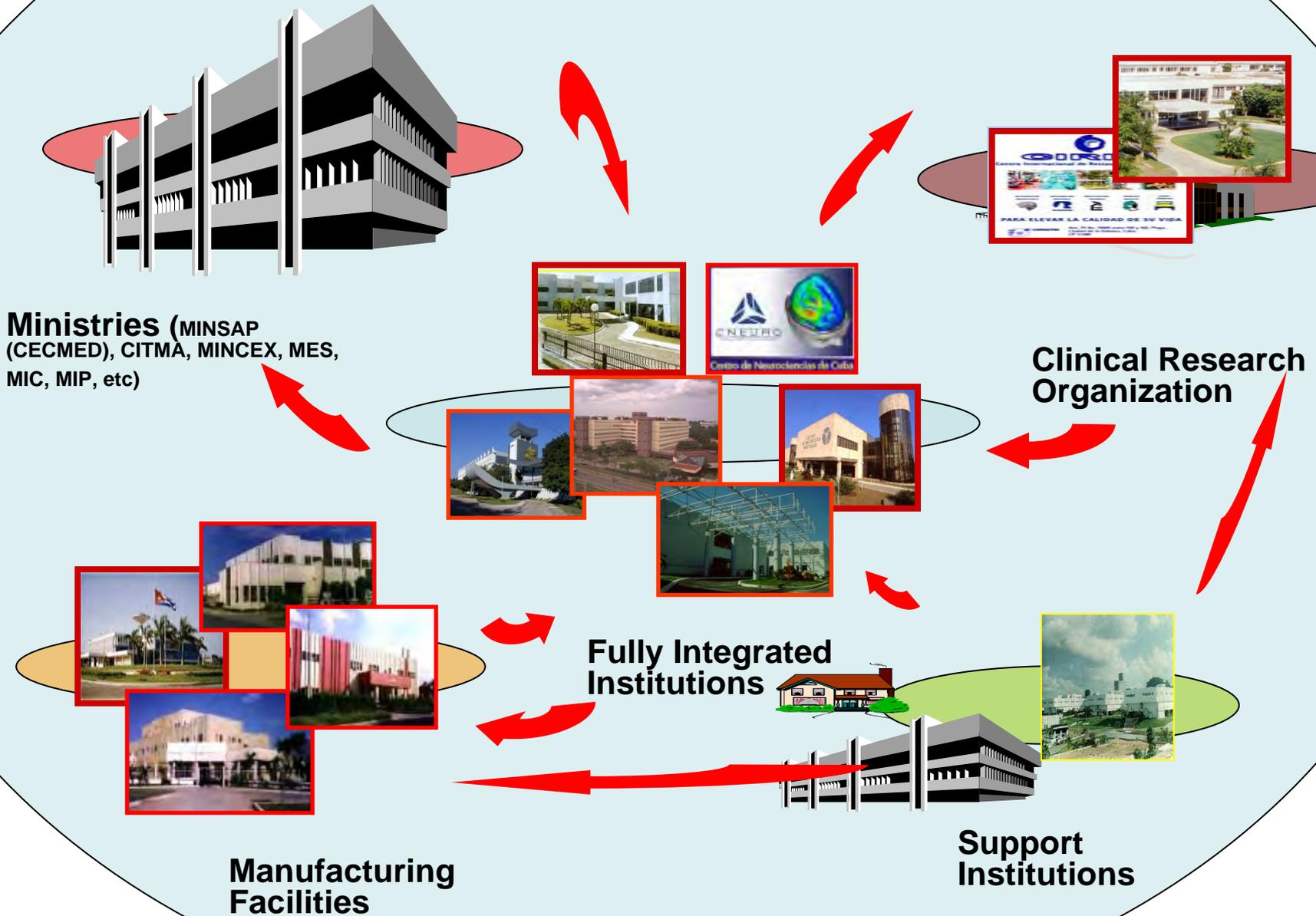
AICA



CIREN

Biotechnology in Cuba

“Closed cycle” Strategy. An Integrated Model



Strategy of Cuban Biotechnology

- Cuban Government Priority: a Huge Investment more than 2,000 million USD
- Biotechnology integrated to the Health Care System and Food Production in Cuba
- Based on Cuban scientists and professionals.
- National collaboration instead of individual competition; coordination between institutions doing R & D and institutions applying results



How to protect the investments for the Cuban biotech developing?

1. Developing Human Resources based on Cuban scientists and professionals
2. Fully integrated institutions from research to post-marketing follow-up
3. Clearly defined objectives
4. Combines off-patent product and innovative compounds
5. IP policy that allow the protection of the innovative results and developing of a solid technological platform



Why an IP policy?

1. Protection of the Public Health System and Food Production
2. Protection of the national market
3. Protection of the Cuban Science developing
4. Protection of the foreign market for Cuban biotech products with differential treatment according to economic situation of target export country



Cuban Health Program

Childhood Mortality and Life Expectancy at Birth



Childhood mortality



Life expectancy



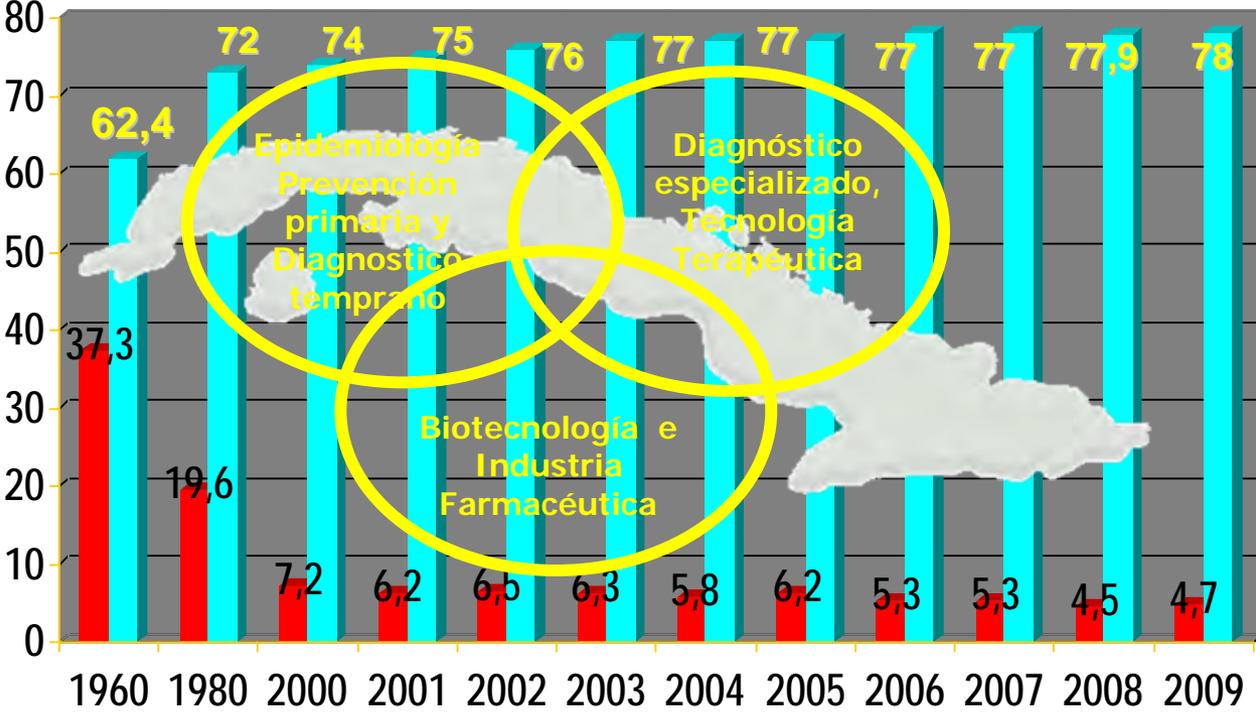
Best, Worst Countries for Life Expectancy

from [WebMD](#) — a health information Web site for patients
Miranda Hitti

May 26, 2009 — Japan has the world's greatest life expectancy, and it's more than

twice the life expectancy in Sierra Leone. The report shows that 14 countries had life expectancies of at least 81 years. Here are those countries, along with their life expectancy for babies born in 2007:

- ❑ Japan: 83 ; Australia, Iceland, Italy, San Marino: 82 ; Andorra, France, Israel, Monaco, New Zealand, Norway, Singapore, Spain, Sweden: 81.
- ❑ In the U.S., life expectancy for a baby born in 2007 is 78 years. Chile, **Cuba**, Denmark, Kuwait, Slovenia, and the United Arab Emirates share that same life expectancy.



MEGAPROJECTS

- Cancer
- AIDS
- Vaccines
- Hepatitis
- Neurosciences
- Diagnostics

HeberNem Bionematocida

Environmentally friendly



sin HeberNem



con HeberNem



Applied in:

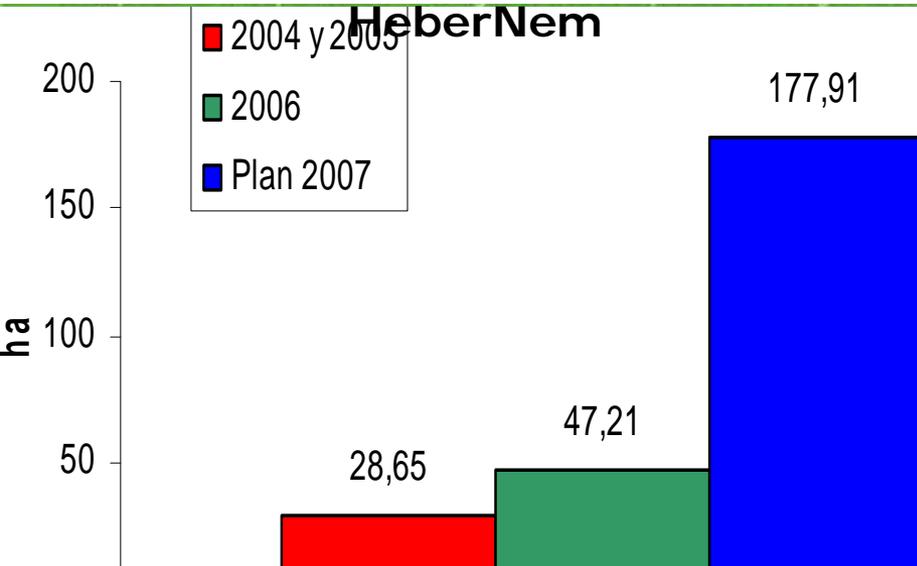
Crops

Nematodes

- Banano and Plantain ... *Radopholus similis*
- Vegetables *Meloidogyne incognita*
- Guava *Meloidogyne incognita*

Medios y Formas de aplicación en los cultivos protegidos:

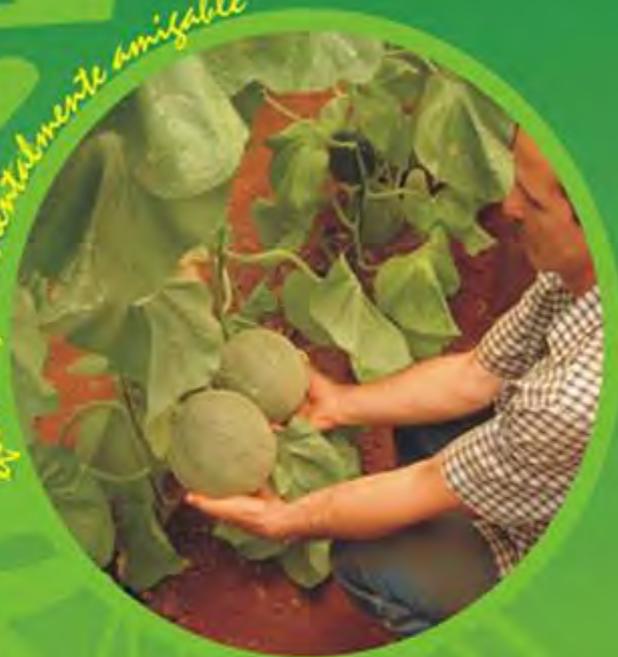
Increase of areas treated with HeberNem



HeberNem

Bionematicida ecológico

efectivo y ambientalmente amigable



Producto biológico para el control de nematodos parásitos de plantas

• *Meloidogyne incognita* • *Radopholus similis* • *Pratylenchus spp*

No tóxico al hombre y a los animales.
Ambientalmente amigable.
Incremento en la productividad y calidad de los cultivos por reducción al mínimo del grado de infestación por nematodos.

Distribuido por Heber Biotec S.A.



Heber Biotec S.A.

Calle 106 (opc. 31), Colón, Panamá, Panamá 1702, La Tablita 8, Costa Rica.
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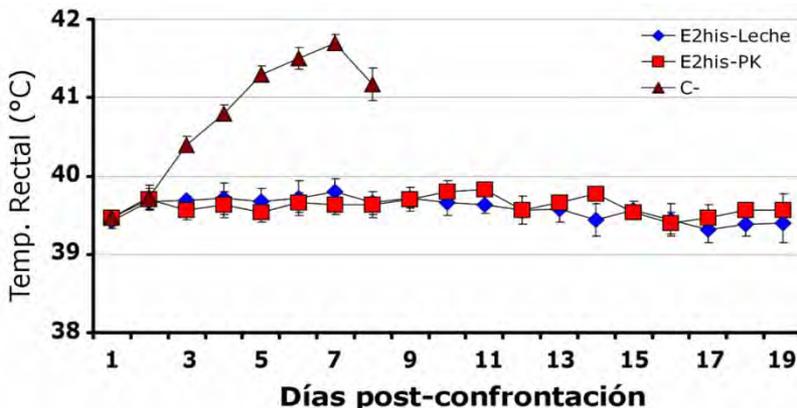
Effect of application of **GAVAC**TM plus Integrated Tick Control on acaricide treatments in Cuba

- **668 000 vaccinated animals across the country.**
- **Reduction in frequency of dips: from 14-21 days to 60-180 days (> 1000 days at certain locations).**
- **Reduction in chemical consumption (more friendly with the environment): from 371 t annual average to 154 t last year.**
- **Reduction of incidence of hemoparasites of 98%**

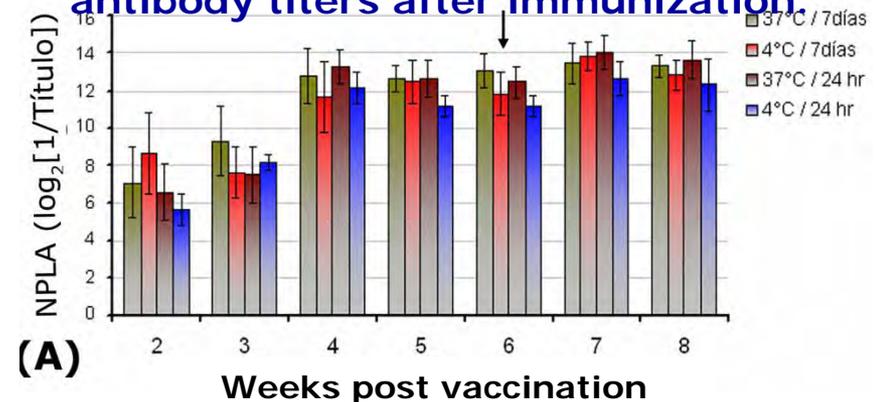
Development a vaccine candidate against CLASSICAL SWINE FEVER

After Challenge

Body temperature after challenge.



Time course of the neutralizing antibody titers after immunization



Conclusions

- The development of the Cuban Science and Technology is essentially focused to improve the health and feeding of the Cuban people.
- The TRIPS Agreements of the WTO obligate to all countries to adopt strict IP laws and look for new strategies of development
- The IP Cuban System is focused to protect our social goals like the free Health System and food production as well as the scientific and economic development
- The Cuban biotech applied to agriculture focus to the national food production and make available its results to the public and private sector in same favorable conditions.
- Cuba have never used its scientific goals to take advantage from the hungry and poverty of any people. In contrast, Cuba has always offered its achievements to assist to any needed country in the world.



**THANK YOU VERY MUCH
FOR YOUR ATTENTION**



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