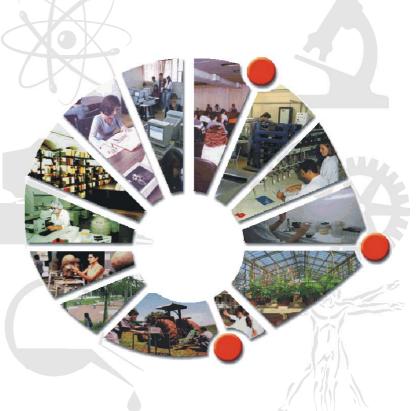
# Turning Science into Innovation to Benefit Society

#### Presentation at the IP UniLink Project Meeting

Campinas, March 26th, 2009







# Agenda

- UNICAMP Highlights
- Research excellence, patentability and Technology Transfer
- Inova TTO Experience
- Partners Network
- Cases
- IP Portfolio
- Technology Investigation Program
- Pre-incubation Program
- Technology based Start-up Company Incubator
- Innovation Laboratories
- Inova in the Public Sector





# UNICAMP, 2007

- Founded 1966
- 32.000 students
  16.984 undergraduates
  15.196 graduates
- 20 schools and institutes
  - 58 undergraduate courses
  - 127 post-graduate courses
- 1.743 Faculty 96% with a PhD
  - Full time:
  - 24hs/week
  - Part time:
- Non-faculty 7817
- Total Budget around US\$ 565 mi (State SP tax funds US\$ 470 mi; Public and Private Research/Services funding US\$ 95 mi)







9,6% 2,21%





# Unicamp Highlights (Brazil)

- 12% to 15% of national research
- 10% of PhDs
- University with the highest number of top rated PhD and MSc programs
- Highest number of patents filed in Brazil from 1999 on
- Deeply concerned about transferring knowledge to society





# Inova Unicamp TTO

Jul/2003 – Unicamp created Inova to facilitate the interaction and Technology Transfer with the Industry



#### "One-Stop Shop"





# Inova Unicamp TLO

#### Inova is 5 years old<sup>1</sup>

- 192 technology transfer agreements
- 39 technology licensing contracts
- 249 new patent deposits at INPI
- 19 new international deposits via PCT
- 35 new trademarks deposits
- 36 new software deposits
- 11 graduated start-up companies
- +US\$ 20 MM for Research Projects

<sup>1</sup>This data refers to December 2007





#### Research excellence and patentability => synergy

Capes	Unity	Licensing <sup>1</sup>	Patents
7	Chemistry Institute	8	204
7	Food Engineering Institute	5	34
7	Biology Institute	4	16
6	Mechanical Engineering Institut	e <b>4</b>	59
5	Medical Sciences School	3	18
6	Chemical Engineering Institute	3	20
6	IT and Electrical Eng. Institute	4	50
5	Agriculture Engineering Institute	e 3	24

UNICAME

• Source: <u>http://www.prpg.unicamp.br/curso\_stricto.phtml</u> Data from the year 2003 on



### **Robust Partners Network**

UNICAMP





#### Interaction University-Industry

- Contribution for the University:
  - Improvement in research and education
  - Challenges brought by the Society
  - Curricula and research themes update
  - Students apprentice and experience
  - Research funding
- Contribution for Industry:
  - Technology access
  - Innovation incentive
  - Talents formation
  - Cost and risk reduction in R&D





# Case 1: Isoflavones

- 2 thesis;
- 6 published papers;
- 2 patents filled in Brazil and other countries;
- 2 Licensing Agreements;
- Transference of the knowledge generated at University: new products for existing society demand -> contributing for Economic and Social Development

# STEVIAL ARMA

- Specific Isoflavones for hormonal reposition
- Fitoestrogen therapy

#### Advantages:

- Quicker absorption
- Isoflavon advantages:
  - Acts against cancer
  - Prevents breast cancer
  - Reduces LDL cholesterol
  - Fungicide
  - Anti-inflammatory
  - Anti-oxidant





#### Case 2: Biodiesel

#### **Description**

 High performance catalyzer capable of transforming animal fat and vegetal olis into biodisel

#### **Advantages**

- 99% yield
- It does not leave residues as soap or emulsion





### Case 3: Drug for Diabetes

#### **Description**

Synthetic Drug for Diabetes Mellitus

No other drug found in the market has those two actions simultaneously

#### achē

#### **Advantages**

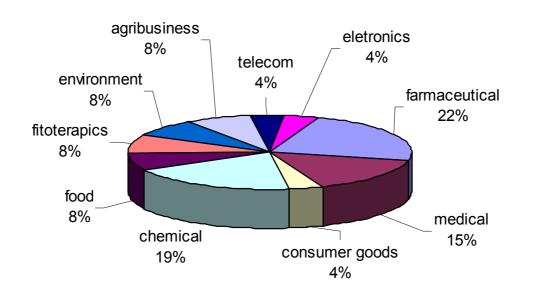
- It acts simultaneously:
- Increasing the production of insulin
- Improving the action over the tissues





### Inova Unicamp TTO

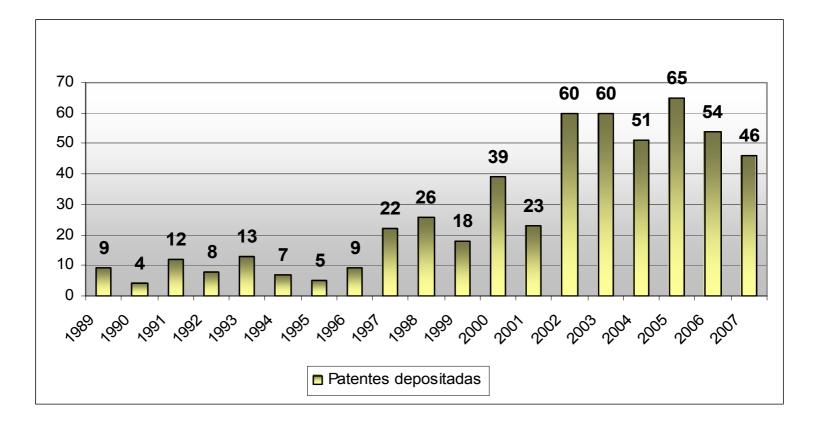
#### **Licensing Agreements / Industry**







### **Requested Patents by Unicamp**



505 active patents at INPI





### IP Portfolio: <a href="http://www.inova.unicamp.br">www.inova.unicamp.br</a>

ë	Catálogo de Patentes - Inova - I	UNICAMP - Microsoft Internet Explorer	B×			
	Arquivo Editar Exibir Favorito	s Ferramentas Ajuda				
	🗢 Voltar 👻 🤿 🥣 🖓	🖓 Pesquisar 🔄 Favoritos 🗳 Histórico 🛛 🖏 🚽 🗐				
	Catálogo de Patentes - Agência de Inovação - Unicamp Consulta de Patentes <sup>Clique</sup> aqui para ver todas as patentes cadastradas.					
	Busca por Áreas					
	Grupo :	Produção Industrial				
	Sub-grupo :	Produção Industrial Medicina, Saúde e Nutição Produção Rural Comunicações & Tecnologia da Informação				
	Autores / Inventores : (Separados por ' ; ' )	Exploração de Recursos Naturais Qualquer	]			
	Título :					
	Unidade :	Selecione				
	Data de Protocolo :	(DD.MM.AAAA) ou (AAAA)				
	Nº Protocolo :		-			
4						
1	第Iniciar 〇 〇 〇 〇 〇 〇 〇 回 〇 回 Delest □ MALA ⑦ Comp □ Micro ② Agen ② Catál					





#### What else?







#### Technology Investigation Program

- Analysis before Technology Transfer efforts:
  - Technology status
  - Necessary investments and milestones
  - Market investigation
  - Which is the best model for technology transfer?
  - Legal aspects
- Made by university students (after training)
- 43 technologies analyzed until December 2007





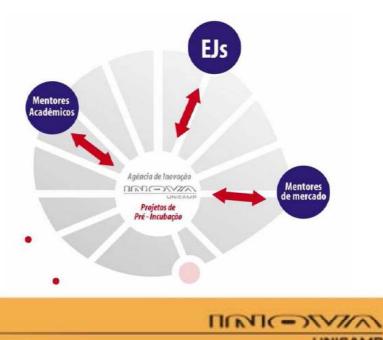




### **Pre-incubation of Projects**

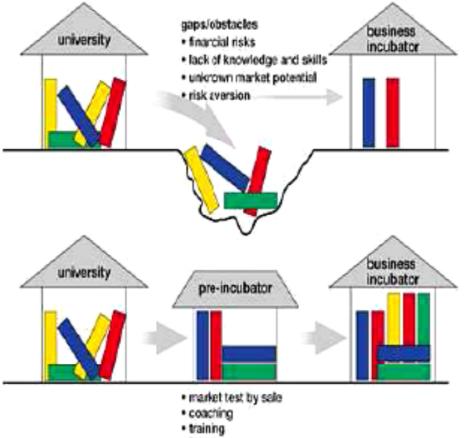
- Pre-incubation of University Researchers and Students projects
  - Pre-incubation prepares people and transforms ideas into business
- Better possibilities and preparation of entrepreneurs future candidates for the incubator program

- Academic Mentors
- Business Mentors
- Junior Enterprises





#### **Pre-incubation of Projects**



insumnce





#### Technology based Start-up Company Incubator - INCAMP

• Spin-offs of technologies (future products and services)



http://www.incamp.unicamp.br/





Biomass Thermoconversion Technologies (Energy and Fuels)



GREEN TECHNOLOGIES PROJETOS AGROINDUSTRIAIS

Functional and Modern Food – Focus on Brazilian Taste (Instantaneous Rice, Bean and Soybean)



Genetic Engineering for Poultry Vaccines Development



Wind Energy Generators



**Special Antibody Production** 





### **Innovation Laboratories**

- Where private companies can develop their collaborative projects inside the university
- Examples:



- Center of Innovation on Software
- (Future) LIB Laboratory of Biofuels





### Inova in the Public Sector

- Bringing research results and inventions to public programs and services to benefit citizens
- Culture, education, IT, health, public management, environment, etc.







#### **Thank You!**

Inova Unicamp Bastiaan Philip Reydon +55 (19) 35215014 breydon@inova.unicamp.br www.inova.unicamp.br



