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: 88.19%
  - 24hs/week: 9.6%
  - Part time: 2.21%
- Non-faculty – 7,817
- Total Budget around US$ 565 mi (State SP tax funds US$ 470 mi; Public and Private Research/Services funding US$ 95 mi)
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 old¹

- 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

¹This data refers to December 2007
Research excellence and patentability => synergy

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<th>Capes</th>
<th>Unity</th>
<th>Licensing$^1$</th>
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*Source: [http://www.prpq.unicamp.br/cursorestricto.phtml](http://www.prpq.unicamp.br/cursorestricto.phtml) Data from the year 2003 on*
Robust Partners Network
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

- 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 oil into biodiesel

Advantages
• 99% yield
• It does not leave residues as soap or emulsion
Case 3: Drug for Diabetes

Description
- Synthetic Drug for Diabetes Mellitus

Advantages
- It acts simultaneously:
  - Increasing the production of insulin
  - Improving the action over the tissues
Inova Unicamp TTO

Licensing Agreements / Industry

- Consumer Goods: 15%
- Medical: 19%
- Chemical: 8%
- Food: 8%
- Environment: 8%
- Fitoterapics: 8%
- Telecom: 4%
- Electronics: 4%
- Pharmaceutical: 22%
- Agribusiness: 8%

*Note: Percentages may not sum to 100 due to rounding.*
Requested Patents by Unicamp

505 active patents at INPI
Consulte o Catálogo de Patentes da Agência de Inovação da Unicamp em [www.inova.unicamp.br](http://www.inova.unicamp.br).
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
Technology based Start-up Company Incubator - INCAMP

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

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

Fingerprint recognition

Biomass Thermoconversion Technologies
(Energy and Fuels)

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!

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