INTELLECTUAL PROPERTY PROTECTION AND TECHNOLOGY TRANSFER AT AUB

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Research: Research is the most significant example of a country’s intellectual resources, economic strength and global competitiveness.

Innovation: Innovation is about the application of new ideas, discoveries and inventions.

Commercialization: is the process of introducing a new product or production method into commerce: making it available on the market.

Entrepreneurship: the act of creating a business while building and scaling it to generate a profit. (It is also about transforming the world by solving big problems).
Like most countries, expenditures in Lebanon for Research, Development and Innovation are dominated by institutions of higher education.

These institutions need to develop support systems for faculty and students to facilitate their research and assist them in transferring their ideas into innovation technologies.

These institutions also need to increase awareness of intellectual property and the transfer of intellectual property to enterprises (through licensing and/or startups).
IP Protection and TT:

1. Enhances reputation of AUB, its faculty, staff and students
2. Supports AUB efforts to ensure graduating students have developed entrepreneurial knowhow and understanding of IP
3. Fosters enhanced research interactions with the private sector
4. Facilitates the transfer of technologies (licensing or startups)
5. Generates additional research funds
TTU Tasks

1. Amended IP policy which includes Royalty shares
2. Currently drafting students’ IP ownership policy
3. Identifies Innovation/IP in Research Projects
4. Assesses patentability potential and coordination of patent filing, protection and follow up
5. Supports faculty members in transferring technology to industry and/or startups
6. Prepares MTAs and NDAs

7. Assists in defining innovative research priorities and secures funds
8. Carries outreach activities to AUB community
9. Hosts interns from local and regional universities
THE CYCLE OF INNOVATION

COMMERCIALIZATION
ROYALTIES
RESEARCH
INVENTION DISCLOSURE
ASSESSMENT
INTELLECTUAL PROPERTY
MARKETING TO FIND A LICENSEE
SELECTING LICENSEE
LICENSING
The Commercialization Cycle ....
## State IP Protection and TT at AUB

<table>
<thead>
<tr>
<th>Category</th>
<th>Issued Patents</th>
<th>Full Patent Applications</th>
<th>Provisional Patents</th>
<th>™</th>
<th>©</th>
<th>Licensed and/or in Negotiation</th>
<th>No Action</th>
<th>Registered in Lebanon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Med/Nutr/Biomed</td>
<td>2</td>
<td>7</td>
<td>10</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Eng/Chem/Phys</td>
<td>1</td>
<td>4</td>
<td>11</td>
<td></td>
<td></td>
<td>2</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Software/CS</td>
<td></td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Others (Ghata)</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
IP and TT Challenges

1. Limited financial resources in universities
2. Lack of qualified personnel in TT
3. Limited access to relevant industries in Lebanon and the region
4. Absence of National IP Policy /Strategy
5. Low national funding for R&D
6. System of IP registration in Lebanon
7. Absence of IP law enforcement
The Commercialization Cycle ....

- Commercialization
  - Academic Entrepreneurship
    - Exclusive
      - Geographic
    - Non-exclusive
      - Use
  - Licensing
    - External
  - Joint Venture
  - Start-up
    - Internal
  - Sale
  - Non-Equity
1. Business survival is much higher for those students who attend university.

2. A university graduate is likely to achieve 25% greater sales than a high-school dropout.

3. A student with a postgraduate degree is likely to achieve 40% greater sales than a high-school graduate.

4. Furthermore, a recent study of high-growth businesses created in the United States over 20 years determined that 85% had been created by college graduates.
A culture of entrepreneurship is an important factor in generating economic gains from university entrepreneurial activities. Supporting student/faculty/staff entrepreneurs will impact our communities and contribute to job creation and economic growth.

CRInn is for those with entrepreneurship potential, to meet with people who can shape their ideas, to sit in a place where they can discuss ideas and find teams, and team members.
AUB-Center for Research and Innovation

1. Serves as a platform for entrepreneurship and a hub for emerging technology startups
2. Runs business plan competition to identify viable startups
3. Provides educational and training sessions / workshops / seminars / inspirational talks/networking events
4. Provides mentorship for startups
5. Provides workspace and access for resources including equipped meeting rooms, event spaces and access to labs
Admission Criteria

Members must

• Be associated with AUB
• Have an idea to solve a problem
• Have a scalable, potentially profitable idea
• Commit to forming a team
• Commit to the residency requirements in CRInn
• Commit to attending events planned to help startups
• Commit to a timeline for advancing in their business
• Commit to participating in business competitions
CRInn Services

- Co-working space
- Designated workstations
- Entrepreneurship trainings
- Ideation sessions
- Business plan trainings
- Mentoring/coaching
- Media exposure
- Business financing trainings
- Business development workshops
- Connections to accelerators/incubators/investors and funders
- University resources and faculty and student talent
- Intellectual Property rights and protection
- Peer-to-peer knowledge transfer
Center for Research and Innovation

CRInn Serves as a platform for AUB’s community innovation and entrepreneurship activities.

In the last 3 years, the interest by students for entrepreneurship training and for starting their own businesses had greatly increased.

The center does not invest in startups. It only provides resources to get the startups ready for investment and/or incubation/acceleration.

<table>
<thead>
<tr>
<th></th>
<th>15-16</th>
<th>16-17</th>
<th>17-18</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td># Students Trained</td>
<td>183</td>
<td>755</td>
<td>633</td>
<td>1,571</td>
</tr>
<tr>
<td># Attendees in the events</td>
<td>386</td>
<td>1,220</td>
<td>1,125</td>
<td>2,731</td>
</tr>
<tr>
<td># Events</td>
<td>20</td>
<td>40</td>
<td>51</td>
<td>111</td>
</tr>
<tr>
<td># Startups Approved for Residency</td>
<td>7</td>
<td>24</td>
<td>47</td>
<td>78</td>
</tr>
</tbody>
</table>

# Startups that Took Residence in CRInn | 78
# Startups that have Launched            | 10
# Serious and Active Startups            | 30
# Startups Employees to-date             | 120
# Interns within Startups                | 11
### Examples of Other Entrepreneurship Trainings and Teaching Programs at AUB

<table>
<thead>
<tr>
<th>Competition / Program</th>
<th>Running Since</th>
<th>Total number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBDAA</td>
<td>2007</td>
<td>250 participants per year, with 8-10 winners</td>
</tr>
<tr>
<td>The Samir and Claude Abillama competition</td>
<td>2014</td>
<td>10 applicants per year coached and trained to improve their idea or product with 1-2 winners</td>
</tr>
<tr>
<td>The Darwazah Competition</td>
<td>2012</td>
<td>80 applicants and had 1-2 winners every year</td>
</tr>
</tbody>
</table>
Launched Startups

- Mr. Grocer (@mrgrocer)
- E2
- FINDANURSE
- Deeds
- PRO-SHIELD
- carpolo
- Kill My Routine
- Moodfit
- RIYADA
- Gasometer
- SAUGO 360

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EXAMPLES OF STUDENT STARTUPS

Startups which Received Investment

Smart Tash Can
Instabeat
Moodfit
PROShield
Yalla Bus
Carpolo
Mr. Grocer
Gasometer
Kill My Routine
Find A Nurse

Examples of other Functional and students’ innovative ideas being currently developed

Resense
Nanotechnology
Pitcrew
Gravity
Bus Map
Forward Osmosis
Cold-Brew Coffee