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# 一、參訪美國大學簡報檔

### Industry-Academia Collaboration for Technological and Vocational Education in Taiwan

Chi-Min Shu, Ph.D.

Director and Distinguished Professor

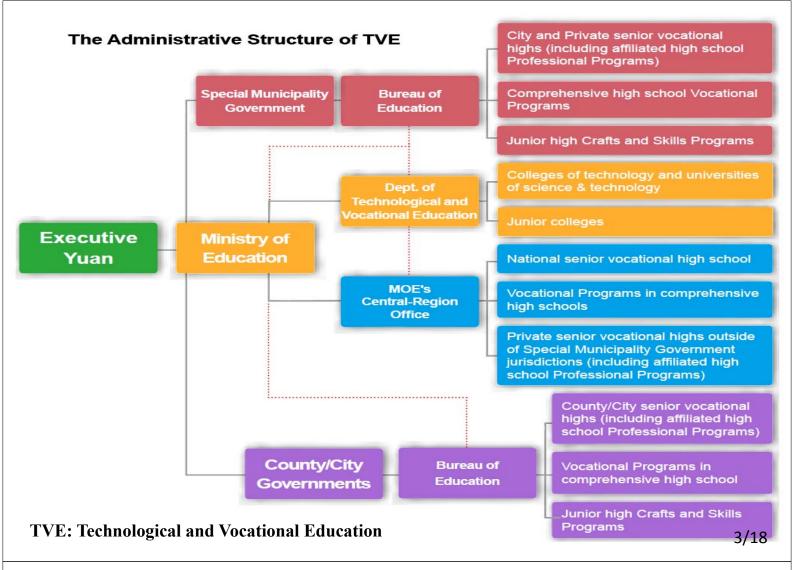
MOE Center for Regional Industry-Academia Collaboration

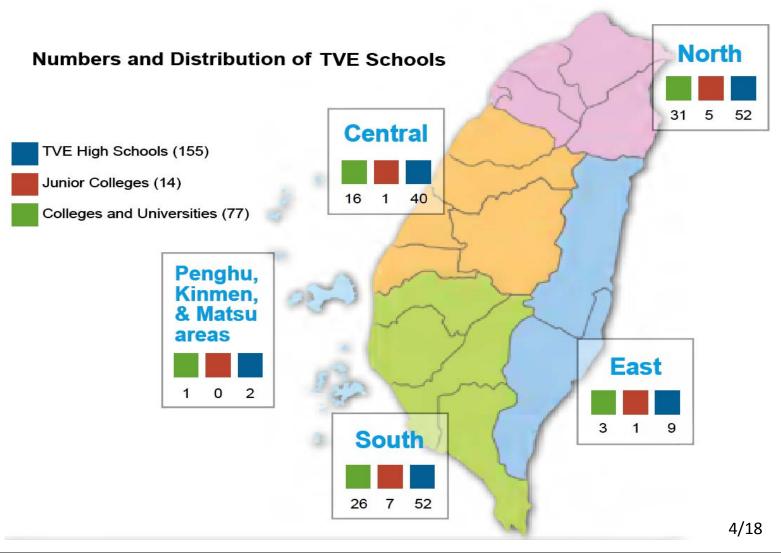
E-mail: shucm@yuntech.edu.tw

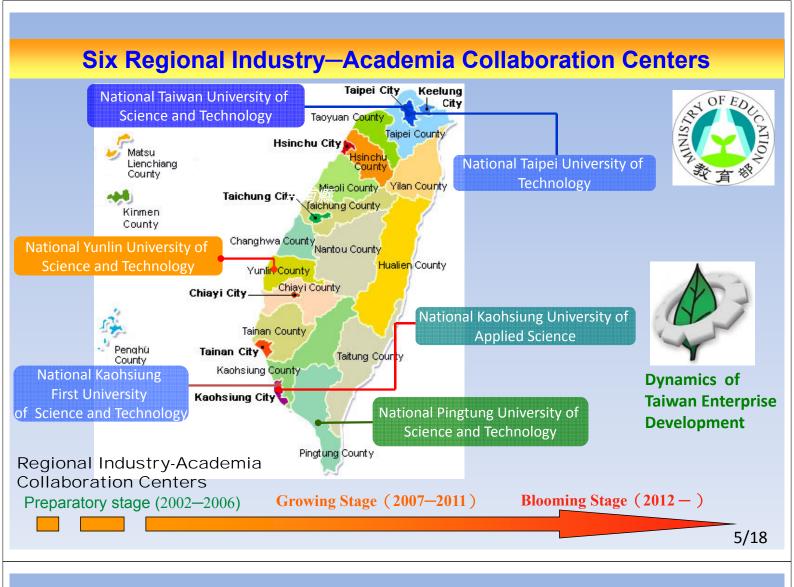
March 2013

### **Outlines**

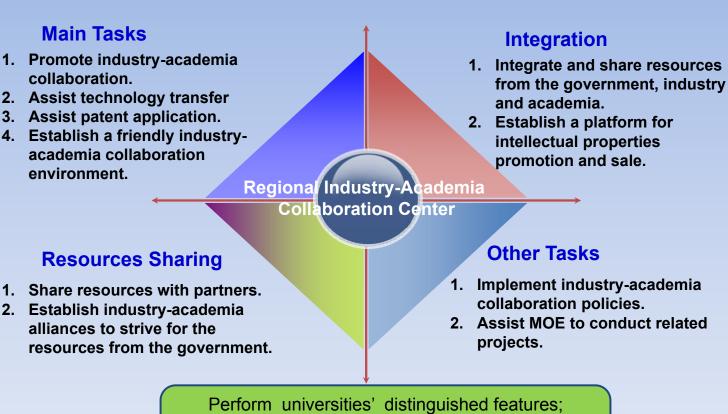
- ☼ Department of Technological and Vocational Education
- Regional Industry-academia Collaboration Centers (RIAC)
- A Missions & Tasks for RIAC
- ☼ Operation Mode RIAC
- A Mechanisms of IAC —A Sustainable Development
- Reshaping Technological-Vocational Education
- Tie in with the Government Industrial Policies
- ☼ Innovation & Incubation Program
- ☼ Patents and Technology Transfer
- ☼ Future Prospects





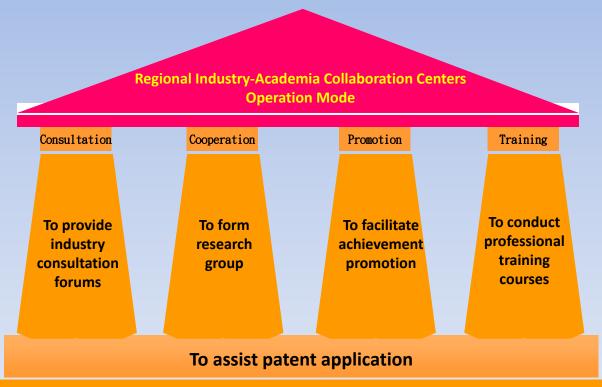


### **Missions & Tasks for RIAC**



establish the regional industry-academia linkages

### Operation Mode of Center for Regional Academic-Industry Cooperation



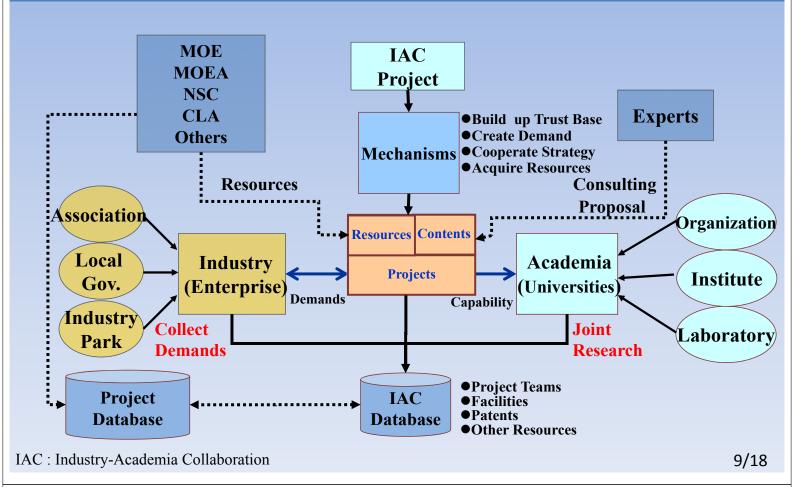
To promote derivative products as a viable financial investment alternative

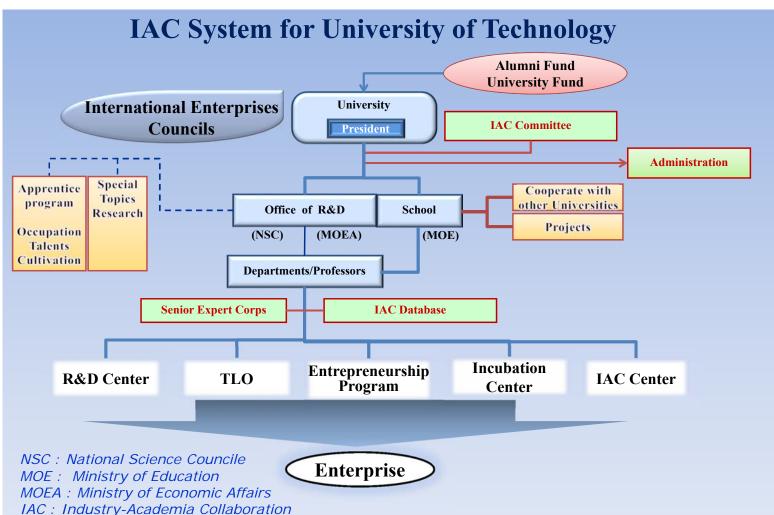
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### Key Performance Indicator (KPI)

| Year         | Cooperation amount (\$NTD) | Growth rate | Patent s | Growth rate | Technology<br>transfers<br>amount (\$NTD) | Growth rate |
|--------------|----------------------------|-------------|----------|-------------|---|-------------|
| 2003         | \$0.16 billion             | -           | 34       | -           | -   | 1           |
| 2004         | \$0.48 billion             | 300%        | 61       | 179%        | -   | -           |
| 2005         | \$1.04 billion             | 217%        | 477      | 782%        | -   | -           |
| 2006         | \$1.9 billion              | 183%        | 196      | 41%         | \$0.033 billion                           | -           |
| 2007         | \$3.75 billion             | 197%        | 589      | 301%        | \$0.056 billion                           | 170%        |
| 2008         | \$4.12 billion             | 110%        | 521      | 88%         | \$0.059 billion                           | 106%        |
| 2009         | \$5 billion                | 121%        | 568      | 109%        | \$0.113 billion                           | 192%        |
| 2010         | \$5.23 billion             | 105%        | 1,280    | 225%        | \$0.124 billion                           | 110%        |
| 2011         | \$5.33 billion             | 102%        | 1,665    | 130%        | \$0.134 billion                           | 108%        |
| 2012         | \$5.4 billion              | 101%        | 1,844    | 111%        | \$0.134 billion                           | 100%        |
| Total Amount | \$32.41 billion (NT)       | -           | 7,235    | -           | \$0.65 billion (NT)                       | -           |

### Mechanisms of IAC - A Sustainable Development





TLO: Technology Licensing Office

### Reshaping Technological — Vocational Education

### System

### Faculty

### Programs and

Instructions

#### Resources

# **Quality Control**

- 1. Trial elite classes at fiveyear colleges.
- 2. Strengthen the talents selecting mechanism that is based on students' practical skills.
- 1. Strengthen teachers' practical instructional abilities.
- 2. Introduce industrial resources in team teaching.
- 1. Expand the academia-industrial cooperating model to incubate more talents.
- 2. Realize offcampus internship programs for students.
- 1. Improve the quality of equipment at technological-vocational schools.
- 2. Developing technological-vocational schools' characteristics domains.
- 1. Establish an evaluation framework that works in coordination with the characteristics of technological-vocational schools.
- 2. Implement the professional certificate system.

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### Tie in with the Government Industrial Policy

- **■** Healthcare
- **■** Bio-technology
- **■** Sophisticated Agriculture
- Leisure and Tourism
- **■** Cultural Innovation
- Green Energy

Six Emerging Industries

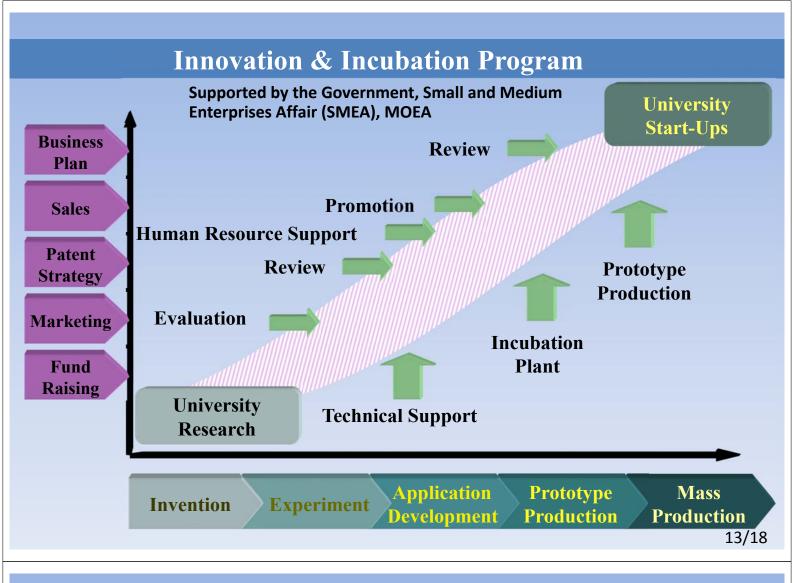
Four Major Smart Industries

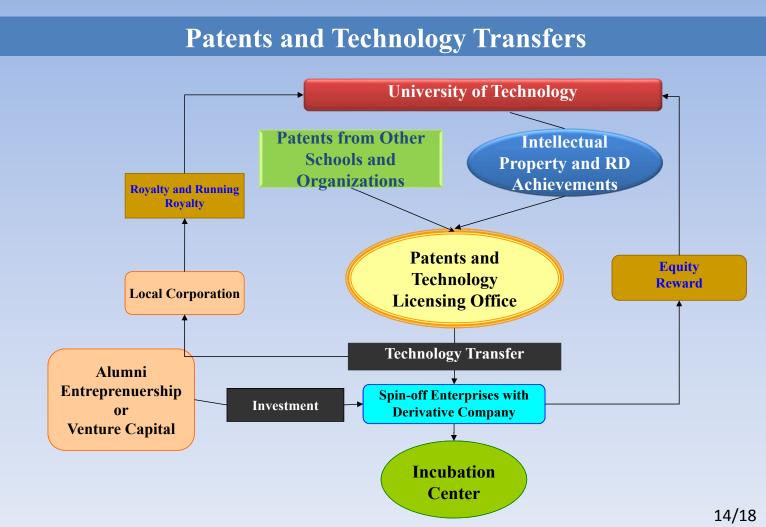
- **■** Cloud Computing
- **■** Intelligent Electric cars
- Intelligent Green Buildings
- **■** Inventions and Patents

Ten Major Services Industries

- **■** Cuisine Internationalization
- **■** Healthcare Internationalization
- Pop Music and Digital Contents
- **■** Conventional Industry
- **■** International Logistics

- Innovation and Venture Capital
- Urban Renewal
- **WIMAX**
- **■** Chinese Electronic Business
- **■** Higher Education Export





### **Future Prospects (1/3)**

#### 1. Integrate resources of government

- ➤ Current resources of government are mainly from MOE and NSC (National Science Council).
- > Current resources for industries are mainly from MOEA (Ministry of Economics Affairs).
- There are several encouraging programs launched from each individual unit. However, we need more programs initiated from the integration of MOE, MOEA, and NSC to eliminate the serious overlapping in some hot topics, such as solar cell, energy recovery, and WiMax.

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### **Future Prospects (2/3)**

- 2. Upgrade the collaboration efforts from "Trouble Shooting Service" to "New Technology Development"
  - ➤ Ninety-eight percent of the business in Taiwan are small or medium sizes (capital account less than US \$ 2.5 million). Trouble shooting service always becomes the 1st request in the IAC.
  - ➤ Without trust base, there is little chance to involve the innovation program with the enterprise. Domain knowledge and facilities are the merits of the university.

### **Future Prospects (3/3)**

#### 3. Increase the service abilities

- Time consuming works such as visiting plant, identifying problems, and writing reports are the barriers in the IAC. Sharing loading between senior professors and young professors are the key issue that needs to be solved in advance.
- ➤ The accounts of the SCI records are the most crucial key barrier to interfere with the IAC. It is difficult to change the policy from MOE.

#### 4. Cooperate with local governments

**▶** Promote local prosperities with Innovation and Entrepreneurship.

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### Thank you for your attention!

http://ciac.yuntech.edu.tw/

E-mail: shucm@yuntech.edu.tw

# 二、AUTM-2013 議程表

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

#### The AUTM Track System

The AUTM track system is your tool for finding the right session for your particular professional development needs or areas of interest. Select the track and follow it all the way through the annual meeting, or move around, picking workshops in several different tracks. Personalize your itinerary to meet your needs. This is your meeting.

- Academic Studies: Serves to foster the dissemination of technology transfer study results
  obtained by academic researchers.
- Advocacy and Internal Communications: Focuses on effectively communicating to the world our goals, our roles and our successes in the field of technology transfer.
- **Global Models:** This track provides insights for international technology transfer transactions and agreements and compares viewpoints of practitioners in other countries.
- Industry/Academic Partnerships: Provides keys to working with industrial partners to build
  effective collaborations, with a focus on managing and then meeting the expectations of all
  parties.
- IP Trends and Successful Practices: Provides the latest changes to the IP landscape and their impact on strategies for protection of various forms of intellectual property.
- Licensing Successful Practices: Introduces various approaches for addressing common licensing issues and optimizing licensing strategies for academic innovations.

- Marketing Successful Practices: Focuses on positioning technologies so that they are visible
  to a target audience and examines how to use existing and emerging networks and media to
  market available technologies.
- Nuts and Bolts: Covers core strategies and best practices for utilizing the disparate skill sets common to the technology transfer professional.
- Startups and Gap Funding: Addresses a variety of issues relevant to building and sustaining
  new ventures, and to bridging the valley of death, both in an academic setting and in a
  related startup environment.
- Operations: Focuses on internal policies and procedures used to maximize the efficiency of day-to-day technology transfer activities and office structures.
- Other: Addresses specialized topics and knowledge bases not covered by standard technology transfer courses.

#### **Target Audience Description**

- **Fundamental:** Designed for early stage professionals with up to a few years of experience.
- **Intermediate:** Designed for seasoned licensing professionals with several years of experience.
- **Advanced:** Designed for advanced and director-level professionals.
- All Audiences: Designed to be applicable to all attendees.

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.



Meeting Program www.autm.net/2013

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|                 | Wednesday, February 27  | Location   |
|-----------------|---|--|
| 7 – 8 a.m       | AUTM Advanced TOOLS and Startup Business Development Course Breakfast                       | Room 001AB Foyer (River Level)                           |
| 7 – 9 a.m.      | AUTM Advanced TOOLS and Startup Business Development Course Registration                    | West Registration (Street Level)                         |
| 8 a.m. – 5 p.m. | AUTM Advanced TOOLS Course (additional fee, seating is limited)  Sponsored by Occams        | Room 001B (River Level)                                  |
| 8 a.m. – 5 p.m. | AUTM Startup Business Development Course (additional fee, seating is limited)               | Room 001A (River Level)                                  |
| 1 – 7 p.m.      | AUTM Registration   | West Registration (Street Level)                         |
| 1 – 7 p.m.      | AUTM Connect Partnering Place   | Ballroom A (Street Level)                                |
|                 | Sponsored by MacMillan, Sobanski a Todd   |  |
| 4 – 5 p.m.      | AUTM Career Development Forum   | Room 103B (Street Level)                                 |
| 4 – 7 p.m.      | Internet Café Sponsored by  | West Registration (Street Level)                         |
| 5 – 6 p.m.      | Freshman Orientation and Networking Event Sponsored by Reckitt Benckise Schwerman Lundersch | Lila Cockrell Theatre Foyer (Street Level)               |
| 5 – 6 p.m.      | ATTP/RTTP Reception (by invitation)  ATTP   | Marriott Riverwalk Hotel Alamo Ballroom E-F Second Floor |
| 6 – 7 p.m.      | Fireside Chat with Chief Justice Randall Rader Sponsored by patsnap*                        | Lila Cockrell Theatre (Street Level)                     |
| 7 – 8 p.m.      | Presidents' Reception (by invitation) Sponsored by  | Marriott Riverwalk Hotel Alamo Ballroom A-C Second Floor |





All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|  |  | Thur  | sday, February 28  |   |  |   |   | Location  |   |  |  |
|--|--|---|--|---|--|---|---|---|---|--|--|
| 7 – 8 a.m.   |  | Continental Breakfast in  | the Exhibit Hall $S_i$   | ponsored by Capita<br>Royal   | l<br>ty  |   | Exhibit Hall A (Street                    | Level)  |   |  |  |
| 7 a.m. – 5 p.m.  |  | Internet Café<br>Sponsored by                                       |  |   |  |   | West Registration (Street Level)          |   |   |  |  |
| 7 a.m. – 6 p.m.  |  | Exhibit Hall  |  |   |  |   | Exhibit Hall A (Street                    | Level)  |   |  |  |
| 7 a.m. – 6 p.m.  |  | AUTM Registration   |  |   |  |   | West Registration (St                     | reet Level)   |   |  |  |
| 7 a.m. – 6 p.m.  |  | AUTM Connect Partneri<br>Sponsored by MacMillan<br>Sobanski<br>Todd | UTM Connect Partnering Place  ponsored by MacMillan, Todd  Ballroom A (Street Level) |   |  |   |   |   |   |  |  |
| 8 – 10 a.m.  |  | Keynote Address, Plenal<br>Sponsored by SMERCK                      | y and Awards Pres  | entation  |  |   | ila Cockrell Theatre (Street Level)       |   |   |  |  |
| 10 – 10:30 a.m.  |  | Refreshment Break in th   | Refreshment Break in the Exhibit Hall Sponsored by Capital Royalty                   |   |  |   |   | Exhibit Hall A (Street Level)   |   |  |  |
| 10:30 a.m. – Noo   | n  | Track A – Educational an  |  | roup Sessions   |  |   |   |   |   |  |  |
| A1<br>Location:<br>103B<br>(Street Level)                                | A2<br>Location:<br>001A<br>(River Level)                       | A3<br>Location:<br>001B<br>(River Level)                            | A4<br>Location:<br>006AB<br>(River Level)  | A5<br>Location:<br>007D<br>(River Level)  | A6<br>Location:<br>007C<br>(River Level)   | A7<br>Location:<br>007AB<br>(River Level)                         | A8<br>Location:<br>006CD<br>(River Level) | SIG-1<br>Location:<br>008A<br>(River Level)                               | SIG-2<br>Location:<br>008B<br>(River Level)                                 |  |  |
| IP Trends and<br>Successful<br>Practices                                 | Operations   | Startups and<br>Gap Funding   | Marketing<br>Successful<br>Practices   | Industry/Academic<br>Partnerships   | Advocacy<br>and Internal<br>Communications   | Other   | Startups and<br>Gap Funding               | Special Interest<br>Group   | Special Interest<br>Group   |  |  |
| Controlling Patent Costs While Protecting More Technologies CLE Eligible | ontrolling Patent osts While Know What Your Pl/Customers Want? |   | Techniques and<br>Strategies for<br>Selling  | Recent Examples<br>of Open Innovation<br>Platforms and<br>Initiatives in<br>Neglected<br>Diseases | Technology<br>Transfer Needs<br>YOU to Defend<br>Bayh-Dole!                              | Staying Happy<br>and Productive<br>As a Mid-cared<br>Professional | Term Sheets,                              | Strategic Alliances   | Technology<br>Transfer Office<br>Administrative<br>and Support Staff        |  |  |
| Target Audience:<br>All Audiences  | Target Audience: Target Audience: Advanced                     |   | Target Audience:<br>Fundamental  | Target Audience:<br>All Audiences   | Target Audience:<br>Intermediate   | Target Audiend<br>Intermediate                                    | Target Audience: Advanced                 | Target Audience:<br>All Audiences   | Target Audience:<br>All Audiences   |  |  |
| Moderator:<br>Justin Simpson,<br>B.Sc., LL.B.,<br>inovia                 | Moderator:<br>Sharon Semo<br>Eli Lilly & Co                    |   | Moderator:<br>Jay Schrankler,<br>University of<br>Minnesota                          | Moderator:<br>Malcolm Skingle,<br>Ph.D.,<br>GlaxoSmithKline                                       | Moderator:<br>Jennifer Gottwald,<br>Ph.D.,<br>Wisconsin<br>Alumni Research<br>Foundation | Moderator:<br>Claire T. Drisco<br>National Institu<br>of Health   |   | Facilitator:<br>Laura Schoppe,<br>M.B.A., M.S.E.,<br>RTTP,<br>Fuentek LLC | Facilitator:<br>Khera L.<br>Douglass, Arizona<br>Tech Enterprises<br>(AzTE) |  |  |

Meeting Program www.autm.net/2013

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|  |   | Thu                     | rsday, February 28  | 3  |  |  |   | Location   |  |  |
|--|---|-------------------------|---|--|--|--|---|--|--|--|
| Noon – 12:45 p.m   | า.  | Lunch                   |   |  |  |  | Exhibit Hall A (Street                                      | Level)   |  |  |
| Noon – 1:30 p.m.   |   | Sponsors' Lunch (by in  | vitation)   |  |  |  | Marriot Rivercenter Hotel Conference Room 17–18 Third Floor |  |  |  |
| 12:45 – 1:30 p.m   |   | Dessert Reception in th | e Exhibit Hall  |  |  |  | Exhibit Hall A (Street                                      | Level)   |  |  |
| 1:30 – 3 p.m.  |   | Track B – Educational a | nd Special Interest (   | Group Sessions   |  |  |   |  |  |  |
| B1<br>Location:<br>103B<br>(Street Level)  | B2 B3 Location: Location: 001A 007D                                   |                         | B4<br>Location:<br>006AB<br>(River Level)                                 | B5<br>Location:<br>008A<br>(River Level)   | SIG-3<br>Location:<br>008B<br>(River Level)  | ED1<br>Location:<br>006CD<br>(River Level)   | ED2<br>Location:<br>007AB<br>(River Level)                  | ED3<br>Location:<br>001B<br>(River Level)                            | ED4<br>Location:<br>007C<br>(River Level)  |  |
| IP Trends and<br>Successful<br>Practices   | Successful Successful   |                         | Licensing<br>Successful<br>Practices                                      | Industry/Academic<br>Partnerships  | Special Interest<br>Group  | IP Trends and<br>Successful<br>Practices   | Licensing<br>Successful<br>Practices                        | Operations   | Startups and<br>Gap Funding  |  |
| Mad About Mobile: Commercializing Mobile Apps in Universities  Sharing Lessons Learned: If I Knew Then What I Know Now |   | Knew in Technology      | Agreement<br>Compliance:<br>Positioned for<br>Success                     | Global Models<br>for Accessing<br>External Innovation<br>in Industry<br>and Academic<br>Partnerships | Social Networking:<br>Working or Not?  | Implementation<br>the AIA, SBIR-S<br>Reauthorization<br>and JOBS Act   | TTR in Licensing  | In a Jobless<br>Economy, Fingers<br>Get Pointed in All<br>Directions | Advanced Topics in<br>Equity   |  |
| Target Audience:<br>All Audiences  | Target Audier   |                         | Target Audience:<br>Fundamental   | Target Audience:<br>All Audiences  | Target Audience:<br>All Audiences  | Target Audience<br>All Audiences   | Target Audience:<br>Intermediate                            | Target Audience:<br>Advanced   | Target Audience:<br>Advanced   |  |
| Moderator:<br>Ashok Choudhury,<br>Ph.D.,<br>Vanderbilt<br>University   | Moderator:<br>Sadhana Chit<br>Ph.D., M.B.A.<br>New York<br>University |                         | Moderator:<br>Alexander Ducruet,<br>Ph.D.,<br>University of<br>Pittsburgh | Moderator:<br>Andy Keesler,<br>Sanofi<br>Pharmaceuticals   | Facilitator:<br>Tanaga A. Boozer,<br>United States<br>Patent and<br>Trademark Office | Moderator:<br>Charles Niebyls<br>Ph.D., J.D.,<br>National Institu<br>of Diabetes and<br>Digestive and<br>Kidney Disease<br>NIH | Tufts University  | Moderator:<br>Todd T. Sherer,<br>Ph.D., CLP,<br>Emory University     | Moderator:<br>Kathleen A. Denis,<br>Ph.D., CLP, RTTP,<br>Rockefeller<br>University |  |



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|  |  | Thu  | sday, February 28   | 3  |   |  |      |  | Location  |  |
|--|--|--|---|--|---|--|------|--|---|--|
| 3 – 3:30 p.m.  |  | Refreshment Break in the   | ne Exhibit Hall   |  |   |  | Exh  | ibit Hall A (Street L                                  | evel)   |  |
| 3:30 – 5 p.m.  |  | Track C – Educational ar   | nd Special Interest (   | Group Sessions   |   |  |      |  |   |  |
| C1<br>Location:<br>103B<br>(Street Level)                                  | C2<br>Location:<br>008A<br>(River Level)   | C3<br>Location:<br>001A<br>(River Level)   | C4<br>Location:<br>007D<br>(River Level)  | C5<br>Location:<br>Room 006AB<br>(River Level)                                 | SIG-4<br>Location:<br>008B<br>(River Level)         | ED1 (continued<br>Location:<br>006CD<br>(River Level)  | d)   | ED2 (continued)<br>Location:<br>007AB<br>(River Level) | ED3 (continued) Location: 001B (River Level)                            | ED4 (continued) Location: 007C (River Level)                                       |
| IP Trends and<br>Successful<br>Practices                                   | Licensing<br>Successful<br>Practices   | Marketing<br>Successful<br>Practices   | Industry/Academic<br>Partnerships   | Global Models  | Special Interest<br>Group                           | IP Trends and<br>Successful<br>Practices   |      | Licensing<br>Successful<br>Practices                   | Operations  | Startups and<br>Gap Funding  |
| Positioning Your Patent Portfolio for Successful Licensing  © CLE Eligible | Mock Expedit<br>Arbitration:<br>Resolving<br>Technology<br>Disputes Outs<br>the Courts | of University<br>Inventions &<br>Intellectual                                    | Travel Guide for<br>Collaborative<br>Research<br>Explorations                               | Maximizing the<br>Value of the Patent<br>Cooperation Treaty<br>(PCT)           | International                                       | Implementation<br>the AIA, SBIR-S<br>Reauthorization<br>and JOBS Act<br>(continued)  | STTR | Challenging Issues in Licensing (continued)            | In a Jobless Economy, Fingers Get Pointed in All Directions (continued) | Advanced Topics<br>in Equity<br>(continued)  |
| Target Audience:<br>Fundamental  | Target Audier<br>Intermediate  | Target Audience: All Audiences   | Target Audience:<br>Intermediate  | Target Audience:<br>All Audience   | Target Audience:<br>All Audiences                   | Target Audienc<br>All Audiences  | e:   | Target Audience:<br>Intermediate                       | Target Audience:<br>Advanced  | Target Audience:<br>Advanced   |
| Moderator:<br>David Dykeman,<br>Esq.,<br>Greenberg Traurig<br>LLP          | Moderator:<br>Adam Rattray<br>World Intelle<br>Property<br>Organization                |  | Moderator:<br>Anthony<br>Boccanfuso,<br>University Industry<br>Demonstration<br>Partnership | Moderator:<br>Matthew Bryan,<br>World Intellectual<br>Property<br>Organization | Facilitator:<br>Lily Chan, Ph.D.,<br>NUS Enterprise | Moderator:<br>Charles Niebyl:<br>Ph.D., J.D.,<br>National Institu<br>of Diabetes and<br>Digestive and<br>Kidney<br>Diseases, NIH | ute  | Moderator:<br>Nina Green,<br>Tufts University          | Moderator:<br>Todd T. Sherer,<br>Ph.D., CLP,<br><i>Emory University</i> | Moderator:<br>Kathleen A. Denis,<br>Ph.D., CLP, RTTP,<br>Rockefeller<br>University |
| 4 – 5 p.m.   |  | Industry/Academia Part<br>Co-Sponsored by  | INST THE SHAPE OF   |  |   |  | Roo  | om 103A (Street Le                                     | vel)  |  |
| 5 – 6 p.m.   |  | Industry/Academia Network Co-Sponsored by  | May in consumer   |  |   |  | Exh  | ibit Hall A (Street L                                  | evel)   |  |
| 5 – 6 p.m.   |  | International Reception (by invitation) Sponsored by Grand Salon I-J Third Floor |   |  |   | otel <b>Marriott</b> .   |      |  |   |  |
| 6 – 7:30 p.m.  |  | Opening Reception Sponsored by AstraZer  | neca ATCC   |  |   |  | Gra  | rriott Rivercenter H<br>nd Salon A-F<br>rd Floor       | otel <b>Marriott</b> .  |  |

Meeting Program www.autm.net/2013 15

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|  |   |  | Friday,   | March 1   |  |  |   | Location   |   |  |  |
|--|---|--|---|---|--|--|---|--|---|--|--|
| 7 a.m. – 5 p.m.  |   | Internet (   | Café Sponsored by   | novo nordisa.   |  |  | West Registration   | (Street Level)   |   |  |  |
| 7 a.m. – 6 p.m.  |   | AUTM Co  | onnect Partnering Pla   | ace Sponsored by  | acMillan,<br>banski s<br>dd uc   |  | Ballroom A (Stree   | t Level)   |   |  |  |
| 8 – 9 a.m.   |   | Continental Breakfast in the Exhibit Hall  |   |   |  |  | Exhibit Hall A (Str   | reet Level)  |   |  |  |
| 8 – 9 a.m.   |   | AUTM Ce  | UTM Central Region Meeting Breakfast Sponsored by Quarles Brady LLP  Marriott Rivercenter Hotel Conference Room 17-18 Third Floor |   |  |  |   |  |   |  |  |
| 8 – 9 a.m.   |   | Public Po  | olicy Breakfast (by inv   | vitation)   |  |  | Room 002B (Rive   | Room 002B (River Level)  |   |  |  |
| 8 a.m. – 12:30 p.m   | ۱.  | Exhibit H  | all   |   |  |  | Exhibit Hall A (Str   | Exhibit Hall A (Street Level)  |   |  |  |
| 8 a.m. – 2 p.m.  |   | AUTM R   | egistration   |   |  |  | West Registration   | (Street Level)   |   |  |  |
| 9 – 10:30 a.m.   |   | AUTM Venture Forum: Venture Capital Panel Discussion  Co-Sponsored by   SMITH MOORE Conter for Technology Transfer Commercialization  SCONTON OF LAW OF THE PANEL |   |   |  |  | Room 103B (Stre   | Room 103B (Street Level)   |   |  |  |
| 9 – 10:30 a.m.   |   | Track D –  | <b>Educational and Spe</b>  | cial Interest Group Se  | ssions   |  |   |  |   |  |  |
| D1<br>Location:<br>007AB<br>(River Level)  | D2<br>Location:<br>008A<br>(River Leve                            | ıl)  | D3<br>Location:<br>007D<br>(River Level)  | D4<br>Location:<br>001A<br>(River Level)                      | SIG-5<br>Location:<br>008B<br>(River Level)  | ED5<br>Location:<br>001B<br>(River Level)  | ED6<br>Location:<br>OO6AB<br>(River Level)  | ED7<br>Location:<br>007C<br>(River Level)  | ED8<br>Location:<br>006CD<br>(River Level)  |  |  |
| Global Models  | IP Trends a<br>Successful   |  | Startups and<br>Gap Funding   | Industry/Academic<br>Partnerships                             | Special Interest<br>Group  | Advocacy<br>and Internal<br>Communications   | Industry/Academic<br>Partnerships   | Operations   | Licensing Successful<br>Practices   |  |  |
| U.S. Export Control<br>Laws: Why Is This<br>So Hard?                             | Universitie<br>Patent Enfo  | rcers  | Managing a Startup Company: A Changing Role for the Technology Transfer Office?   | Incubating<br>Technologies in<br>Partnership with<br>Industry | Commercialization of<br>Induced Pluripotent<br>Stem Cells  | Social Media<br>Unplugged: Is it<br>Worth the Hype?                                | Behind the<br>Headlines:<br>The People,<br>Partnerships and<br>Ideas Making News                            | Remember the Alamo: How to Deal with Conflicts of Interest in Your Own Backyard and Live to Tell About It © Ethics CLE Eligible  | The Art of Contract<br>Design: Reviewing<br>and Drafting CDAs,<br>MTAs, SRAs and IIAs |  |  |
| Target Audience:<br>All Audiences  | Target Aud<br>Advanced  | ience:   | Target Audience:<br>Advanced  | Target Audience:<br>Intermediate                              | Target Audience:<br>All Audiences  | Target Audience:<br>Fundamental  | Target Audience:<br>All Audiences   | Target Audience:<br>Intermediate   | Target Audience:<br>Fundamental   |  |  |
| Moderator:<br>Susan Wyatt<br>Sedwick, Ph.D.,<br>University of Texas<br>at Austin | Moderator:<br>Robert B. F<br>Council On<br>Governmen<br>Relations | lardy, J.D.,   | Moderator:<br>Len Katzman,<br>Associate Director,<br>Brown University   | Moderator:<br>Tammy Heesakker,<br>Partners HealthCare         | Facilitator:<br>Anna Solowiej,<br>Ph.D., J.D.,<br>National Human<br>Genome Research<br>Institute | Moderator:<br>Morgan E. Estabrook,<br>APR,<br>University of Virginia<br>Innovation | Moderators: Andrew Fineberg, MTS Health Partners Alan Naidoff, D.M.D., J.D., CLP, Merck Sharp & Dohme Corp. | All Audiences  Moderators: Andrew Fineberg, MTS Health Partners Alan Naidoff, D.M.D., J.D., CLP, Merck Sharp &  Intermediate  Moderator: Kristine L. Butler, Esq., Volpe & Koenig PC  Beth Israel Deaconess Center |   |  |  |

All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|   |  |  | Friday,   | March 1   |  |  |  | Location   |  |  |  |
|---|--|--|---|---|--|--|--|--|--|--|--|
| 10:30 – 11 a.m.   |  | Refreshm                               | nent Break in the Exh   | ibit Hall   |  |  | Exhibit Hall A (Str  | eet Level)   |  |  |  |
| 11 a.m. – 12:30 p.r   | n.   | AUTM Ve<br>Co-Spons                    | AUTM Venture Forum: Business Plan Competition  Co-Sponsored by  SMITH MOORE  Center for Technology Transfer 8. Commercialization  Start  Start  Start |   |  |  |  | Room 103B (Street Level)   |  |  |  |
| 11 a.m. – 12:30 p.r   | 11 a.m. – 12:30 p.m. Track E – Educational and Special Interest Group Sessions           |  |   |   |  |  |  |  |  |  |  |
| E1<br>Location:<br>001A<br>(River Level)  | E2<br>Location:<br>008A<br>(River Leve   | el)                                    | E3<br>Location:<br>007D<br>(River Level)  | E4<br>Location:<br>007AB<br>(River Level)   | SIG-6<br>Location:<br>008B<br>(River Level)  | ED5 (continued)<br>Location:<br>001B<br>(River Level)                | Location: Location: L<br>006AB 007C 0  |  | ED8 (continued) Location: 006CD (River Level)  |  |  |
| <b>O</b> perations  | perations Advocacy on and Internal Communications  |  | Operations  | Industry/Academic<br>Partnerships   | Special Interest<br>Group  | Advocacy<br>and Internal<br>Communications                           | Industry/Academic<br>Partnerships  | Operations   | Licensing Successful<br>Practices  |  |  |
| Student<br>Ambassadors:<br>Graduate Students<br>As a Mechanism<br>for Evangelizing<br>Technology Transfer | What's Wr<br>Technolog   |  | Leveraging Your<br>University's Natural<br>Entrepreneurial<br>Talent  | New Models to<br>Advance and<br>Accelerate<br>Technologies from<br>Bench to Bedside | Federal Laboratory<br>Technology Transfer  | Social Media<br>Unplugged: Is it<br>Worth the Hype?<br>(continued)   | Behind the Headlines: The People, Partnerships and Ideas Making News (continued)             | Remember the Alamo: How to Deal with Conflicts of Interest in Your Own Backyard and Live to Tell About It (continued)  © Ethics CLE Eligible | The Art of Contract<br>Design: Reviewing<br>and Drafting CDAs,<br>MTAs, SRAs and IIAs<br>(continued) |  |  |
| Target Audience:<br>All Audiences   | Target Aud<br>All Audien   |  | Target Audience:<br>Intermediate  | Target Audience:<br>Advanced  | Target Audience:<br>All Audiences  | Target Audience:<br>Fundamental                                      | Target Audience:<br>All Audiences  | Target Audience:<br>Intermediate   | Target Audience:<br>Fundamental  |  |  |
| Moderator:<br>Laura Heisler,<br>Wisconsin Alumni<br>Research Foundation                                   | Moderator<br>Andrew Co<br>Wisconsin<br>Research I<br>Michael W<br>University<br>Michigan | hn,<br>Alumni<br>Foundation<br>Paring, | Moderator:<br>Brian Shedd,<br>University of<br>California,<br>Los Angeles   | Moderator:<br>Frances Toneguzzo,<br>Ph.D.,<br>Partners HealthCare                   | Facilitator:<br>Mojdeh Bahar,<br>Federal Laboratory<br>Consortium for<br>Technology Transfer | Moderator:<br>Morgan E. Estabrook,<br>APR,<br>University of Virginia | Moderators:<br>Andrew Fineberg,<br>MTS Health Partners<br>Christopher Yochim,<br>AztraZeneca | Moderator:<br>Kristine L. Butler,<br>Esq.,<br>Volpe & Koenig PC  | Moderator:<br>Jodi E. Hecht, Ph.D.,<br>Beth Israel<br>Deaconess Medical<br>Center                    |  |  |

Meeting Program www.autm.net/2013

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All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|                   | Friday, March 1  | Location   |
|-------------------|--|--|
| 12:30 – 1:30 p.m. | AUTM Advanced Marketing and Technology Valuation Course Lunch                                | Room 103A (Street Level)                               |
| 12:30 – 2 p.m.    | AUTM Advanced Marketing and Technology Valuation Course Registration                         | West Registration (Street Level)                       |
| 12:30 – 2 p.m.    | Eastern Region Planning Committee Lunch (by invitation)                                      | Room 002A (River Level)                                |
| 12:30 – 2 p.m.    | Central Region Planning Committee Lunch (by invitation)                                      | Room 002B (River Level)                                |
| 12:30 – 2 p.m.    | Western Region Planning Committee Lunch (by invitation)                                      | Room 003A (River Level)                                |
| 12:30 – 2 p.m.    | Communications Lunch (by invitation)   | Room 003B (River Level)                                |
| 12:30 – 2 p.m.    | Canadian Lunch (by invitation) Sponsored by NORTON ROSE                                      | Marriott Rivercenter Hotel Grand Salon C-D Third Floor |
| 1:30 – 5 p.m.     | AUTM Advanced Marketing Course (additional fee, seating is limited)  Sponsored by flintbox   | Room 001B (River Level)                                |
| 1:30 – 5 p.m.     | AUTM Technology Valuation Course (additional fee, seating is limited) Sponsored by           | Room 001A (River Level)                                |
| 2 – 3:30 p.m.     | Technology Transfer Trivia! Sponsored by WC CORDER LLC                                       | Room 006AB (River Level)                               |
| 3 – 7 p.m.        | Texas Hold 'em Tournament (additional fee, seating is limited) Sponsored by IRANTERNATIONAL' | Marriott Rivercenter Hotel Grand Salon E Third Floor   |





All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|   |  |                                       | Saturday  | , March 2  |   |  |  | Location  |  |  |
|---|--|---------------------------------------|---|--|---|--|--|---|--|--|
| 7 a.m. – 3:30 p.m.  |  | Internet C                            | Café Sponsored by   | Sono localista.  |   |  | West Registration  | (Street Level)  |  |  |
| 7 a.m. – 3:30 p.m. AUTM Connect Partnering Pla                  |  |                                       | ce Sponsored by   | acMillan,<br>obanski s<br>odd ac                           |   | Ballroom A (Street   | Level)   |   |  |  |
| 8 – 9 a.m.  |  | Continent                             | al Breakfast  |  |   |  | Exhibit Hall A (Stre   | eet Level)  |  |  |
| 8 a.m. – 3:30 p.m.  |  | AUTM Re                               | gistration  |  |   |  | West Registration  | (Street Level)  |  |  |
| 9 – 11 a.m.   |  | Energy Ro                             | oundtable, Plenary ar   | nd Awards Presentati                                       | on  |  | Lila Cockrell Thea   | tre (Street Level)  |  |  |
| 11 – 11:30 a.m.   |  | Refreshm                              | ent Break   |  |   |  | River Level Foyer  |   |  |  |
| 11:30 a.m. – 12:45  | p.m.   | Track F –                             | Educational and Spec  | ial Interest Group Se                                      | ssions  |  |  |   |  |  |
| F1<br>Location:<br>103B<br>(Street Level)                       | F2<br>Location:<br>001A<br>(River Leve                                   | 1)                                    | F4<br>Location:<br>007C<br>(River Level)                                | F5<br>Location:<br>006AB<br>(River Level)                  | F6<br>Location:<br>006CD<br>(River Level)   | F7<br>Location:<br>007D<br>(River Level)   | SIG-7<br>Location:<br>008B<br>(River Level)  | SIG-8<br>Location:<br>008A<br>(River Level)   | SIG-11<br>Location:<br>007AB<br>(River Level)    |  |
| Industry/Academic<br>Partnerships                               | IP Trends a<br>Successful  |                                       | Marketing Successful<br>Practices                                       | Nuts and Bolts of<br>Technology Transfer                   | Operations  | Academic Studies   | Special Interest<br>Group  | Special Interest<br>Group   | Special Interest<br>Group                        |  |
| The Challenge of Faculty Consulting                             | The Promet<br>Factor: A To<br>Transfer Ad<br>Coming to a<br>University I | echnology<br>venture<br>a<br>Near You | Leveraging Trade<br>Associations in<br>Technology Transfer<br>Marketing | Just Say No!   | Demystifying<br>Government Use<br>Rights: What Funding<br>Recipients Should<br>Know | Technology Transfer<br>Practitioners and<br>Scholars: What Can<br>We Learn from Each<br>Other? | Plant Special<br>Interest Group  | Mobile Apps and<br>More: The World<br>of Software and<br>Copyright Licensing  | Spinoff Companies<br>and Economic<br>Development |  |
| Target Audience:<br>Intermediate                                | Target Audi<br>All Audienc   |                                       | Target Audience:<br>Intermediate  | Target Audience:<br>Fundamental                            | Target Audience:<br>All Audiences   | Target Audience:<br>All Audiences  | Target Audience:<br>All Audiences  | Target Audience:<br>All Audiences   | Target Audience:<br>All Audiences                |  |
| Moderator:<br>Janna C. Tom,<br>UniversityofCalifornia<br>System | Moderator:<br>Eric W. Gut<br>Eric W. Gut<br>Office LLC                   | tag, J.D.,                            | Moderator:<br>Nannette Stangle-<br>Castor, Ph.D.,<br>Fuentek LLC        | Moderator:<br>Sean Flanigan, RTTP,<br>University of Ottawa | Moderator:<br>Kelly Murphy,<br>Honigman Miller<br>Schwartz &<br>Cohn LLP            | Moderator:<br>David G. Grossman,<br>George Mason<br>University                                 | Facilitators: Kristine H. Johnson, MacMillan Sobanski & Todd Dale Zetocha, RTTP NDSU Research Foundation | All Audiences  Facilitators: Kristine H. Johnson, MacMillan Sobanski & Todd Dale Zetocha, RTTP NDSU Research  All Audiences Facilitator: Douglas Hockstad, University of Michigan  To |  |  |

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All events are located at the Henry B. Gonzalez Convention Center unless otherwise noted.

|   |   |            | Saturday  | , March 2   |  |   |   | Location  |  |
|---|---|------------|---|---|--|---|---|---|--|
| 12:45 – 2 p.m. Lunch  |   |            |   |   | Exhibit Hall A (Street Level)  |   |   |   |  |
| 12:45 – 2 p.m.  |   | AUTM Ar    | nnual Meeting Progra  | m Committee Lunch   | (by invitation)  |   | Room 002A (Rive   | er Level)   |  |
| 2 – 3:30 p.m.   |   | Track G –  | <b>Educational and Spec</b>   | cial Interest Group Se  | ssions   |   |   |   |  |
| G1<br>Location:<br>007C<br>(River Level)  | G2<br>Location:<br>103B<br>(Street Lev              | el)        | G3<br>Location:<br>007D<br>(River Level)  | G4<br>Location:<br>001A<br>(River Level)  | G5<br>Location:<br>001B<br>(River Level)                                       | G6<br>Location:<br>006AB<br>(River Level)   | G7<br>Location:<br>006CD<br>(River Level)   | SIG-9<br>Location:<br>008B<br>(River Level)   | SIG-10<br>Location:<br>007AB<br>(River Level)  |
| Advocacy<br>and Internal<br>Communications  | Licensing S<br>Practices                            | Successful | Startups and<br>Gap Funding   | Marketing Successful<br>Practices   | IP Trends and<br>Successful Practices  | Operations  | Other   | Special Interest<br>Group   | Special Interest<br>Group  |
| Working with Research Institutes: What Should You Know?   | Royalties:<br>Not Annuiti<br>How to Pro<br>Cash Cow | es -       | Putting Together<br>the Right Team<br>to Position a Life<br>Sciences Mobile/<br>Web App | Does Your Office<br>Need a Marketing<br>Guru?   | Plant Breeding Research: Commercialization and Economic Impact  Colle Eligible | Software Tools<br>to Manage the<br>Commercialization<br>Process                         | Animal Health: Not Rats but Catsand Dogs, Horses, Cows, Chickens, Pigs, and Sheep: Another Path for Commercialization | Physical Sciences<br>Mini unConference  | MTA Special Interest<br>Group: Lowering the<br>Barriers to Transfer of<br>Research Materials       |
| Target Audience:<br>Intermediate/<br>Advanced   | Target Aud<br>Advanced                              |            | Target Audience:<br>All Audiences   | Target Audience:<br>Intermediate  | Target Audience:<br>Fundamental  | Target Audience:<br>Fundamental   | Target Audience:<br>Intermediate  | Target Audience:<br>All Audiences   | Target Audience:<br>All Audiences  |
| Moderator:<br>James R. Zanewicz,<br>J.D., LL.M.,<br>Howard Hughes<br>Medical Institute<br>Janelia Farm<br>Research Campus | Moderator:<br>Jim Reddoo<br>Royalty Ph              | ch, Ph.D., | Moderator:<br>Andrew K. Gonsalves,<br>Heslin Rothenberg<br>Farley & Mesiti PC           | Moderator:<br>Christopher A.<br>Willson, Ph.D.,<br>M.B.A.,<br>Cincinnati Children's<br>Hospital Medical<br>Center | Moderator:<br>Kristine H. Johnson,<br>MacMillan Sobanski<br>& Todd             | Moderator: Patricia Carli, Cornell Center for Technology Enterprise & Commercialization | Moderator: Norman Sesi, Elanco Animal Health, a division of Eli Lilly & Co.   | Facilitators: James R. Deane, Ph.D., M.B.A., CLP, Purdue Research Foundation Jonathan Jenson, M.B.A., Boston University | Facilitator: Stephen G. Harsy, Ph.D., University of Wisconsin School of Medicine and Public Health |
| 5:30 – 6:30 p.m.  | Directors' Reception (by invitation)                |            |   |   |  | Marriott Rivercen<br>Sazo's Latin Grill<br>Second Floor                                 | ter Hotel <b>Narrio</b>   | it.   |  |
| 6:30 – 8 p.m.   | Closing Reception                                   |            |   |   |  | Marriott Rivercenter Hotel Grand Salon A-F Third Floor                                  |   |   |  |

# 三、團員參訪心得

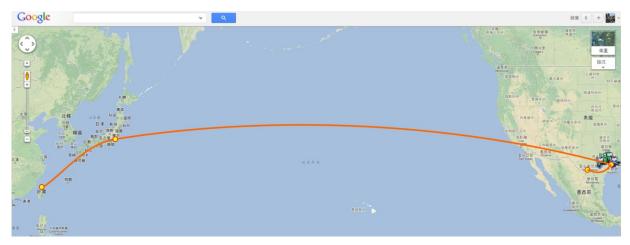
#### 參訪 AUTM2013 暨德州大學奧斯汀分校、德州農工大學、休士頓大學 辦理參訪團行程規劃

#### 1. 行程規劃

民國 103 年 1 月 22 日收到雲科大區產中心劉正章經理訊息,要求協助辦理區產中心參訪 AUTM-2013 暨周邊 3 所美國德州名校,行程如下表所列

| 02/26       | 臺北-聖安東尼奥                         |
|-------------|----------------------------------|
| 02/27-03/02 | 參加聖安東尼奧 AUTM 會議                  |
| 03/03-03/06 | 參訪德州農工大學、休士頓大學、德克薩斯州大學奧斯汀分校、NASA |
| 03/07       | 返臺                               |

經研究其時間及經費之考量,赴美國德州途徑及最適參訪途徑(如下圖),而作行程規劃。





#### 2. 選擇旅行社

依政府採購法要求國際訪機票須向採購網所列廠商購買,由台銀政府採購網詢問多家旅行社,當配問到是否可以赴雲科大辦理採購招標事宜,北部旅行社均無意願,因此由電話號碼蒐尋找 05-字頭旅行社,找到天馬旅行社也就是嘉義東南旅行社,委請該公司辦理出國行程相關事宜。

#### 3. 團費協商

#### 1) 機票

旅行社初次機票報價為 NT\$52,000, 依據此報價我們做出國預算規劃,當計畫書送教育部核准之後,過年前開票時,始知此價格為由高雄進出到美國休士頓,由桃園進出到美國休士頓為 NT\$66,700,以上價格為年前開票價格,比年後開票價格約貴 NT\$10,000元。另外,選擇機票時須注意,政府採購所列之價格會因時間的遞增,而會有比旅行社所地之機票價格高出許多,此次出團情況即是如此。

|      | 搭機日期 | ]   | 行 程    | 班 機       | 起飛時間  | 抵達時間    |
|------|------|-----|--------|-----------|-------|---------|
| 02 月 | 26 日 | (=) | 台北十東京  | 聯合 UA9684 | 09:15 | 13:10   |
| 02 月 | 26 日 | (二) | 東京十休士頓 | 聯合 UA006  | 17:00 | 13:40   |
| 03 月 | 07日  | (四) | 休士頓→東京 | 聯合 UA007  | 10:50 | 15:45+1 |
| 03 月 | 08日  | (五) | 東京十台北  | 聯合 UA9683 | 17:55 | 21:00   |

|      | 搭機日期 | j   | 行 程     | 班 機       | 起飛時間  | 抵達時間    |
|------|------|-----|---------|-----------|-------|---------|
| 02 月 | 26 日 | (二) | 高雄十香港   | 港龍 KA451  | 08:00 | 09:30   |
| 02 月 | 26 日 | (=) | 香港十東京   | 聯合 UA078  | 10:35 | 15:40   |
| 02 月 | 26 日 | (=) | 東京十休士頓  | 聯合 UA006  | 17:00 | 13:40   |
| 03 月 | 07 日 | (四) | 休士頓→芝加哥 | 聯合 UA1440 | 09:23 | 12:00   |
| 03 月 | 07 日 | (四) | 芝加哥十香港  | 聯合 UA895  | 13:20 | 19:05+1 |
| 03 月 | 08日  | (五) | 香港十高雄   | 港龍 UA450  | 21:55 | 23:15   |

由於國人經營航空公司進出美國達目的地須多停一站(華航:台北→舊金山→亞特蘭大→休士頓,長榮:台北→洛杉磯→達拉斯→休士頓)行李須提存兩次且為晚上班機,因此選擇聯合航空。

#### 2) 團費

| 日期         | 報價過程       | 基準人數<br>變化過程 | 內 容  |
|------------|------------|--------------|--|
| 2013/01/29 | NT\$59,000 | 15           | 住宿、長途巴士、保險                                       |
| 2013/01/31 | NT\$66,500 | 15           | 住宿、長途巴士、保險**1                                    |
| 2013/02/06 | NT\$58,000 | 15           | 住宿(Red Head 朱瑾老師介紹)、長途巴士、<br>導遊,保險 <sup>*2</sup> |
| 2013/02/20 | NT\$56,000 | 14           | 住宿、長途巴士、保險**1                                    |

| 2013/02/25 | NT\$68,900 | 12 | 住宿、長途巴士、保險、導遊**2            |
|------------|------------|----|-----------------------------|
| (上午)       |            |    |                             |
| 2013/02/25 | NT\$52,000 | 12 | 住宿、長途巴士、保險、導遊 <sup>*3</sup> |
| (下午)       |            |    |                             |

註記 ※1:不含機票、導遊 (NT4,500+\$4 美日)、小費、單房差 (NT\$40,000)。

※2:不含機票、單房差 (NT\$21,500)。

※3:經由緊急協商,取消在聖安東尼奧停留期間巴士、導遊及 2/26-3/3 日間餐費, 3/4 日早上赴奧斯汀等精算後,團費降至 NT\$5,2000 (不含機票、單房差 (NT\$21,500))。

#### 4. 參訪團成員

# Delegation to Universities of TEXAS Regional Center for Industry-Academia cooperation of Taiwan, MOE March, 2013

| University            | Title/Dept.             | Name            | E-MAIL                    |
|-----------------------|-------------------------|-----------------|---------------------------|
| Ministry of Education | Senior Specialist, TVE  | Yu-Chen Hsiao   | d1002@mail.moe.gov.tw     |
| National Taiwan       | Manager, RIAC           | Chun-Fang Chou  | frances@mail.ntust.edu.tw |
| University of Science |                         |                 |                           |
| and Technology        |                         |                 |                           |
| National Taipei       | Director, RIAC          | To-Po Wang      | tpwang@ntut.edu.tw        |
| University of         |                         |                 |                           |
| Technology            |                         |                 |                           |
| National Yunlin       | Director, RIAC          | Chi-Min Shu     | shucm@yuntech.edu.tw      |
| University of Science | Manager, RIAC           | Cheng-Chang Liu | liualoha@yuntech.edu.tw   |
| and Technology        | Manager, RIAC           | Tung Chang      | d10010023@yuntech.edu.tw  |
| National Kaohsiung    | Manager, RIAC           | Chia-Hung Wang  | ivan@nkfust.edu.tw        |
| First University of   |                         |                 |                           |
| Science and           |                         |                 |                           |
| Technology            |                         |                 |                           |
| National Kaohsiung    | Associate professor, CE | Sheng-Fu Peng   | psf@kuas.edu.tw           |
| University of Applied | Associate professor, EE | Tsair-Fwu Lee   | tflee@kuas.edu.tw         |
| Sciences              | Associate Professor,    | Rong-Jer Lai    | rjlai@cc.kuas.edu.tw      |
|                       | ME                      |                 |                           |
| National Pingtung     | Chief Secretary /       | Ying-Wei Liu    | iwliu@mail.npust.edu.tw   |
| University of Science | Professor, Office of    |                 |                           |
| and Technology        | Secretariat             |                 |                           |
|                       | Manager, RIAC           | Chiao-Po Chang  | cpchang@mail.npust.edu.tw |

TVE: Technological and Vocational Education

RIAC: Regional center for Industry-Academia Collaboration

#### ~Startups and Gap Funding~

(A3) Where Have All the VC'S Gone? Why Universities are Stepping in As Venture Investors and the Pitfalls to Avoid

技術研發初期階段常面臨資金缺乏的情形,也因此,有一些很好的技術或想法,因沒有資金的支持,其結果最後通常是不了了之、無法成形。所以越來越多的大學,進行有步驟和資助這些創新技術的研究計畫能順利推動,這或許是該研究案在沒有其他經費的支援下,是較好的行動方針。

俄亥俄州立大學校務委員會從以上的問題,提供一系列的建議,該委員會認為,國家和公立大學應該為創新技術研發提供必要的資金,並支持大學技術衍生企業,以帶動產業發展。

觀察新的趨勢和企業成功模式,初期高風險的投資(指政府或學校的經費投入),在後續成功的企業案例中,是有其關聯性。所以俄亥俄州立大學校務委員會小組成員,將包括美國俄亥俄州立大學,考夫曼基金會及 Dominion 風險投資公司等單位代表,在渠等會議討論過程,建立風險基金和資本回報最大化等概念,以讓技術商品化成效能最大化發揮。

#### (A8) Spin-outs: Term Sheet, Negotiations, and Documentation

美國德州大學 Bruce 教授(Bruce D. Butler)提出大學校院所屬之技術商品化辦公室,推廣學校教授技術以成功衍生新創企業或技術商品化推動上扮演重要的角色,所以無論是企業尋求學校技術合作,抑或是大學主動尋找企業合作,企業和大學均須是處在公平與相對等的地位,因大家彼此都公平,雙方才有意願最大限度地提高技術商業品成功的可能性。

技術商品化辦公室,須邀請技術承接企業、校內技術提供之教授與相關代表,召開會議並討論以釐清後續雙方之權利義務,如雙方針對技術衍生企業各自擁有所有權之百分比,學校提供予企業承接該技術之誘因,技術提供者後續應扮演何種角色,及此交易對學校在後續該技術之研究上有無造成其它可能的影響,加上若成功衍生新創企業,學校應該至少在該企業有一席董事或監事席位,以確保大學可參與企業之各項決策。

筆者認為,美國其大學校院在國家創新系統中扮演著啟發創意的角色,搭配政府與民間企業的創新與投資風潮,已為國家經濟提供成長動力。而反櫫台灣,台灣推動大專校院成立創新育成中心已逾10年的時間,目前業已成立逾百所育成中心,但以校園技術衍生新創企業,或許因政府政策及教師意願等因素,此比例占整體育成輔導企業之九牛一毛,但希由政策逐步開放(政府研發成果授權、公立學研單位以技術衍生新創事業或投資新創事業等),以讓台灣能真正成為一個「創業之島」。

#### ~Licensing Successful Practices~

B2: Sharing Lessons Learned- If I Knew Then What I Know Now

從技術移轉過程,獲取的寶貴經驗和教訓,對未來在推動技術授權業務是相當重要。因此,對未來的業務規劃,我們應該考慮過去的執行經驗。

與經驗豐富的技術移轉專家訪談後,了解先前授權經驗的重要性,而此經驗也將影響未來的作法及推動策略。出席之專家提出以下分享,重點摘錄如下:

- ■作法:1.技術移轉單位須與技術承接企業定期召開會議。
  - 2. 產學雙方彼此分享共同願景及未來作法。
  - 3. 產學雙方對預期目標有相同的信念與了解。
  - 4. 成功的團隊合作,需對未來有規劃及必要時能相互妥協。
  - 5. 技轉單位同仁在與企業進行溝通前,須先規劃策略地圖,並明白了解 所處談判位置,以期能順利達成交易。
  - 6. 鼓勵學校教員以技術衍生新企業。
  - 7. 通常具有意願及熱誠之技術發明者,較能成功促成技術移轉交易。
  - 8. 溝通過程須讓對方了解此技術尚有其他需求者。
  - 9. 仔細閱讀合約條文。

#### ~Marketing Successful Practices~

C3 : Effective Marketing of University Inventions & Intellectual Property Using Biological Research Tools as a Case Study

大學技術移轉辦公室利用一些策略,來使大學教授的發明,知識產權及生物 研究工具等,能順利移轉予技術承接者。推動之策略包含發送電子郵件,建置技 術清單資料庫,和針對特定企業進行電子郵件推廣等。

建議成立推動小組,將由大學和產業界專家所組成。此小組將討論可採行的推廣行銷策略。大學的專家將討論他們所實施的各種方法及認為相對成功的推廣策略,相同的企業專家也將分享他們的觀點,並提供最有效的戰術建議。

- ■史丹福大學技術授權推廣策略:
  - •學校網站推廣校內研發技術。
  - •企業資料庫,因多數技術承接者均來自相同企業。
  - •技術刊物、成果發表等方式。
  - •採技術非專屬授權方式。

#### ~Advocacy and Internal Communications~

#### E2: What's Wrong With Technology Transfer?

儘管技術授權帶給學校與企業許多好處,但技術移轉業務也遭到了批評。在這次 會議上,分享者提出了關於技術移轉應改進項目,並將重點放在技術移轉辦公室 (TTO)主任如何能與他們的州政府和聯邦政府公共關係主任進行溝通,以確保政 策制定者能聽到的技術移轉現實上所遇到的課題。

#### ■關鍵名詞說明:

- •Bayh-Dole(拜杜法案):1980 年開始美國透過拜杜法(Bayh-Dole Act)同意聯邦政府資助的研究案可以申請專利,造成了大學申請專利開始大幅增加。該法原本的用意,只是想要讓聯邦資助的研究能夠多一點商品化而不要被埋沒,但該法並沒有意識到大學很多研究都是基礎性的研究,其他的應用研究都必須植基於這些基礎研究之上,尤其是生物醫藥領域最是如此。因而,根本不需要專利的保護,大家也會去採用這些基礎研究,但就是因為給予專利保護,反而造成了後續研發的阻礙,也阻礙了科學進步。
- •patent troll(專利流氓):所謂專利流氓意即藉由購買專利權(此專利原持有人 為獨立發明人或其他公司),來控告其他公司以取得利益的專利持有公司。分 享者暗指目前外面說法指大學在乎技術授權所衍生利益已超過大學秉持教育 的神聖功能。
- •USPTO(United States Patent and Trademark Office, 美國專利與商標局):是美國商務部下的一個機構,提供專利保護、商品商標註冊和知識產權證明。

#### ■技術移轉成功因素:

- •專業的技術移轉和技術支援團隊。
- •了解技術目標市場及當地區域經濟。
- •建立緊密產學夥伴關係,必要時合作企業可提供額外研究經費。
- •嘗試橋接技術發明與商品化,並減少其落差。
- •強大的專利
- •傑出研究者產出傑出研究
- ●長期財務的承諾(指學校與政府政策等外在因素對 TTO 的支持)

#### ~ Industry/Academic Partnership ~

#### (F1)The Challenge of Faculty Consulting

教師提供企業或外部團體諮詢協助,往往被認為是作為一名教師的"權利",因此聘雇之大學多不願承擔因此衍生之責任。目前,這種傳統的論點-教師提供外部單位諮詢協助,已因至少三個因素受到挑戰。

- 一、最近最高法院針對「斯坦福訴羅氏公司(StandFord v. Roche)」的案例,清 楚地表明,教員對外之知識分享,確食是剝奪了大學的財產權利。
- 二、美國發明法"(The American Invents Act),「第一發明人先申請原則」("first inventor td file")的規定,迫使大學針對校內教職人員的研究想法,可能有助於產學合作企業,從事漫長的和不確定的專利申請程序,以先取得專利。
  (美國專利局於 2013 年 2 月 13 日同時公布發明人先申請原則細則及其審查基準,且將於 2013 年 3 月 16 日正式採發明人先申請原則,將美國專利制度從"先發明"制轉變為"發明人先申請"制)

#### ●修法前:

美國為世界各國中僅存採行「先發明原則(first inventor to invent)」的國家,即便他人先行提出美國專利申請,仍由最先完成發明創作之發明人優先獲領專利權。

#### ●修法後:

為「先申請原則(first inventor to file)」,也就是說對專利新穎性 (Novelty) 的 認定,改為由申請日取得美國專利。

- 三、美國國立衛生研究院(National Institutes of Health, NIH)規定針對該院資助的研究計畫,若有重大財務利益產生均需要披露。
- 3.學校顧慮「教師校外義務」潛在問題:
  - (1)責任/義務。

-僱傭合約 / 侵權責任 / 賠償金(當教員無法完成委託案)

- (2)稅金。
- (3)使用學校/機構名稱及知名度。
- (4)利益衝突。
- (5)智財權等議題。

#### 

#### **Session Code A6**

#### Topic: Technology Transfer Needs YOU to Defend Bayh-Dole!

This session provides great technology transfer professionals. Many of patenting and licensing references are claiming that our system of transferring technologies from university labs to our industry partners is broken and in need of reform. The Bayh-Dole Act works in the United States and we also know that technology transfer leads indirectly to life-saving therapeutics, high-paying jobs at new companies, and cool new smartphone features, among other things. But who should we be telling about this, and how can we do that effectively? Those attacking Bayh-Dole are being heard, and those of us defending it need to improve our messaging. From this session, we hear from experts in advocacy, communications and marketing. Learning how we can join our colleagues in making a difference and getting the message out.

#### **Session Code E1**

## Topic: Student Ambassadors: Graduate Students as a Mechanism for Evangelizing Tech Transfer

This session provides that invention disclosures at universities are limited not just because of the priority given to publications by researchers but also because researchers may not always fully understand the intellectual property process. The invention disclosure process is largely passive since technology transfer offices almost always rely on inventors to know when they have an invention. Most technology transfer offices are chronically understaffed and cannot reach out to the entire university research community. Graduate students, however, can become active in the search for untapped opportunities for commercialization. Student ambassador programs result in direct connections to hundreds of faculty and student inventors each year, all for less financial investment than the cost of procuring a typical patent.

Student ambassadors can help you increase disclosure rates, raise the profile of technology transfer and stimulate graduate student interest in the commercialization process. Learn how student ambassadors are engaged at the Wisconsin Alumni Research Foundation (WARF), and examine the pros and cons of this model for augmenting your staff's in-reach capacity while building goodwill and energizing the inventor community.

#### Session Code F7

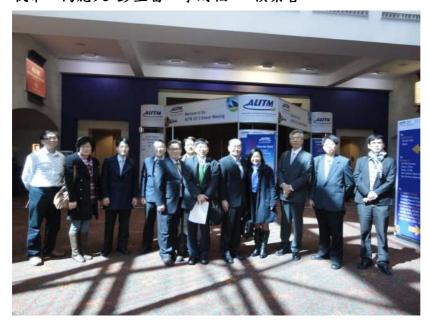
Topic: Technology Transfer Practitioners and Scholars: What Can We Learn from Each Other?

Research and scholarly publications on the topic of technology transfer have increased considerably in recent years. Unfortunately, this body of research is most often written for an academic audience and is not always easily accessible to and translated for technology transfer practitioners. Recognizing the importance of technology transfer research for informing our practice, AUTM and the AUTM Foundation offer a Graduate Student Literature Review Prize as one incentive to researchers to consider how their work can serve the AUTM membership. The winners of the prize will present their work at this session and provide the audience with an understanding of what a particular stream of research has to say about policies and best practices for managing and commercializing technologies. Practitioners on the panel and in the audience will be asked to respond to the research findings.

# 2013 年 AUTM 参訪分組報告

分組主題:智財趨勢與成功實務

執筆:高應大 彭生富 李財福 賴榮哲



參訪團在 AUTM 2013 年會會場合影

## 簡介:

「智財趨勢與成功實務」分組主題包括下列議題:

- "A1 控制專利費用,同時保護更多技術",
- "B1 行動通訊狂熱 校園行動應用程式的商業化",
- "C1 進行專利組合,追求成功授權",
- "D2 大學之專利實施",
- "F2 普羅米修斯因子:大學技術轉讓之冒險旅程",
- "G5 植物育種研究:商業化與經濟衝擊",
- "ED1:美國發明法(AIA)、SBIR-STTR 再授權(Reauthorization)與新創事業法(JOBS)的實施",

其中,ED1屬於教育性質議題,探討美國發明法(AIA)、SBIR-STTR 再授權 (Reauthorization)與新創事業鼓勵法案(JOBS, Jumpstart Our Business Startups Act) 的實施,其內容與美國的法律制度較為相關,而與台灣制度有別。因此,取而代之,參與另一教育性質議題"ED8合約設計藝術:審視與起草 CDA, MTA, SRA 及 IIA"。

## 摘要

## 議題 A1:控制專利費用,同時保護更多技術

美國大學面臨昂貴的國際專利保護費用的挑戰,因此,專利若無授權對象,幾乎是不可能的。依據會議的報告資料顯示,超過75%的專利因為無法授權而被拋棄,每件浪費專利成本超過2萬美元,要在2年半內找到授權對象並不容易。

受邀講師分享個自大學之解決方案與經驗,例如:

喬治·梅森大學(George Mason University)提出"評估技術是否申請專利之選擇模式",主張大學應該專注於具有商業潛力的發明,亦即,只有在專利可以提高發明之商業價值時,才申請專利。這些專利應該是相對廣泛的,能夠檢測出是否受到侵害,以及具有強而有力的權利保護範圍。此外,專利應在每一個階段重新進行評價。

約翰·霍普金斯大學(Johns Hopkins University)的解決方案在於"與律師協商,積極降低外部成本,並建立內部專利諮詢團體"。

密蘇里一哥倫比亞大學(University of Missouri - Columbia)的經驗是 "在評估提出外國專利申請過程,要考慮智財的狀態:如果投資授權對象,要評估授權對象的表現;其次,評估授權對象的計畫,作為選擇申請國家的參考;重要的是,追踪成本,並發展量度指標"。

在這議題當中,吾人學習到控制專利費用,以及如何與外國事務單位建立業務關係的實務經驗。也許可以設置「大學法務聯盟」之類的團體,協助大學鞏固其在個別國家與事務所交涉的相關專利業務。這種作法,可以實際提高處理專利相關業務的品質,同時降低申請國外專利的成本。







## B1 行動通訊狂熱 - 校園行動應用程式的商業化

在美國的大學校園,以行動通訊應用程式(mobile apps)為基礎的發明,越來越多,其形態屬於軟體應用性質。例如,來自維克森林大學(Wake Forest University, WFU)的"Verbal Victor",係一種用於蘋果公司 iPod Touch、iPhone 或 iPad 系統的輔助與替代性通訊應用軟體。由於其低廉的定價結構(每一應用程式售價約 0.99 美元~9.99 美元)與交易平台數量有限(蘋果應用程式商店, App Store),行動通訊應用程式雖不符合標準的授權模式,卻有商業化的強烈需求。

在這議題當中,公私立機構分別談論對於行動通訊應用程式商業化的實務技巧與解決方案,以及三所不同性質的學校如何處理此一技術轉移的最新領域的案例,內容包括有關智財保護的具體想法、保險問題、責任、必要的授權、技術轉移在不同途徑所扮演的角色、定價方法、機構的利益,以及與不同平台(蘋果與Android)的交涉。

例如,WFS 建立一個以營利為目的次級單位 SSA。WFS 將 Verbal Victor 授權予 SSA,而 SSA 向蘋果公司購買開發許可,透過 App Store 銷售 Verbal Victor,再將權利金支付給 WFS。下列問題出現:由誰更新軟體?大學的專利政策是否考慮行動通訊應用程式的開發?大學是否具備專業人員檢視蘋果公司的程序?大學如何考慮行動通訊應用程式的權利金分配?

另一方面,密歇根大學(University of Michigan)將行動通訊視為一種創新推動,強調如何激發校園,把握發展趨勢,並創建新的智財機會。為產生靈感,他們創造與支持開發競賽,但不要求參與行動通訊應用程式、行銷軟體與新的應用程式支援能力的所有權。為支援開發,他們與校內相關系所及授課教師合作。





B1 議題講者

## C1 進行專利組合,追求成功授權

此議題與美國法律制度的改革較為相關,亦即美國發明法(AIA)的新規定與最近美國最高法院有關專利法的裁決。

討論的主題包括: AIA 對於專利授權策略的影響;授權核發專利與申請中專利的利弊;專利核發後, 9個月審視期間的規定,對於技術移轉單位申請程序的影響;滿足潛在合作夥伴之國外申請國別的選擇策略;為潛在合作夥伴,將專利組合極大化;美國最高法院影響深遠的公告見解,包括 Prometheus 案、Bilski 案 與 Myriad 案及其對專利授權的影響。

2011年9月16日奧巴馬總統簽署美國發明法案成為法律。主要變革包括:1.專利申請優先原則,從先發明主義改為先申請主義;2.引入專利核發後的審視制度;3.允許第三方提出先前技術;4. USPTO 運作與基金資源改變。

專利核發後的審視制度提供第三方9個月的時間,得以任何專利無效的理由挑戰專利。第三方先前技術提出制度,允許第三方在申請過程,提交相關的參考資料和報表,給予美國專利商標局審查人員。其優點在於可以產生更高品質的專利,將挑戰舞台從法院轉移到美國專利商標局,從而使可專利性爭議早日得到解決,並且大幅減少昂貴的訴訟費用。其缺點則是有利於資源雄厚的公司監視競爭對手,專利取得變得更困難,更容易受到挑戰,其結果是專利不確定性提高。

另一方面,討論美國聯邦最高法院有關專利授權見解的影響,包括:2007年4月 KSR 訴 Teleflex 案(有關專利顯而易見性);2010年6月 Bilski 訴 Kappos 案(有關製程的可專利性);2011年6月 Board of Trustees of Leland Stanford Junior University 訴 Roche Molecular Systems, Inc. 案(有關專利轉讓);2012年3月 Mayo 訴 Prometheus 案(有關方法和診斷請求項之可專利性)。

# D2 大學之專利實施

美國大學越來越多提起訴訟,以實施其專利。換句話說,大學單獨,或與一個或多個專屬授權人,或共同擁有者,提出其全部或部分擁有的專利侵犯訴訟。依據受邀講師報告,從1973年至2012年,已經有328件訴訟提出,涉及69所大學。2012年有43件訴訟,比任何先前年度為多。主要學校為WARF(威斯康校友研究基金會)、得克薩斯州、麻省理工學院與加州大學,每一所都超過20件案例。

這種訴訟的成本和風險,所費不貲,法律費用平均3.5~6百萬美元。受邀講師提供的相關資訊如下:

# Patent litigation "good-guess" times from filing complaint to:

- · Case planning conference: 3 months
- Claim construction hearing: 10 months
- Completion of fact discovery: 18 months
- · Completion of expert discovery: 24 months
- Summary judgment submitted: 25 months
  - · Most patent case (>95%) resolved before trial
- · Trial: 32 months
- Appeal opinion: 54 months

### Patent litigation costs

- Less than \$1 Million at Risk
  - End of discovery \$350,000
  - · Inclusive, all costs \$650,000
- \$1-25 Million at Risk
  - End of discovery \$1,250,000
  - Inclusive, all costs \$2,000,000
- More than \$25 at Risk
  - End of discovery \$3,000,000
  - · Inclusive, all costs \$4,500,000

由大學提出的專利實施訴訟產生許多問題。例如:如何決定提出這些訴訟?誰做這些決策?什麼考量因素引導這些決定?授權對象應該具有何種程度的主要決策權?在這類問題方面,大學應該尋求遵循什麼樣的策略?作為原告的大學,應該將什麼樣的公共政策因素列入考慮?不斷強調大學研究商業化是否可能導致大學花費更多力氣於專利權的實施?如果是的話,可以預計什麼樣的挑戰與問題?受邀講師的調查結果顯示,只有少數大學已經建立決定是否參加訴訟的遵循準則,而能夠為可能提出專利侵權訴訟預留經費的大學亦屬少數。

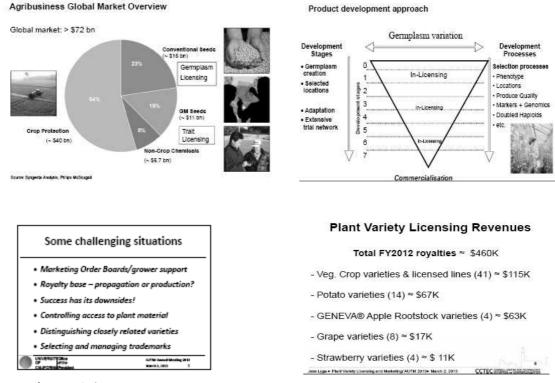
## F2 普羅米修斯因子:大學技術轉讓之冒險旅程

此議題以戲劇場景形式進行,討論生物技術和潛力藥物領域的複雜智財情況。討論的問題包括:1.申請專利的優點(亦即生物技術潛在的智財價值);2.維護研究人員的權益(亦即如何協助研究人員從事分子、藥物、診斷方法等之申請專利?是否應該幫助或鼓勵研究人員開創自己的公司?);3.先前揭露與專利提出時間/成本(亦即,是否應該關注研究成果以即將舉行學術會議海報或幻燈片,或在個人部落格等形式先前揭露的問題?);4.利用早期階段的技術之授權與發展的挑戰;5.基金會不切實際的期望;6. 斯坦福大學(Stanford University)案的意味(有關材料轉移協定與所有權轉讓);7.潛在的美國國立衛生研究院(NIH)合作開發者(有關符合貝赫·多爾(Bayh-Dole)法規問題)。

# G5 植物育種研究:商業化與經濟衝擊

來自產業界 syngenta 公司的受邀講師談論有關種源(亦即某一有機體的基因來源)授權問題。加州大學(University of California)的受邀講師分享該校植物新

品種授權狀況:目前授權 117 個品種,2012 財務年度的授權金額達到 946 萬美元。康乃爾大學(University of Cornell)的受邀講師介紹具有提高抗病、抗蟲及耐寒特性的新作物,包括:紫花苜蓿、蘋果、蘋果砧木、黄瓜、葡萄等,其2012 財務年度植物新品種的授權收益約 46 萬美元。此議題討論植物新品種研究的重要特性與龐大市場,例如:授權金的計算基礎,應該依據繁殖,或依據生產?大學能夠/應該在價值鏈何處攫取利益?依據繁殖計算授權金,是一次性的,但容易計算。若依生產計算,是持續的,但可能有問題的(每棵樹/每英畝/每箱?農場/分銷商/零售商?等)。此外,也討論有關植物新品種的商標問題。



G5 議題內容摘要

## ED8 合約設計藝術:審視與起草 CDA, MTA, SRA 及 IIA

此教育性質議題的目標聽眾屬於基本層級,亦即相關內容屬於基礎本質。議題內容談論各種合約的組成單元與草擬原則,包括:保密協議(CDA,亦稱NDA)、材料轉移協定(MTA)、資助研究協議(SRA)與機構間共同開發協議(IIA,或稱JIA)。這些合約的概念與教育訓練,對於從事研究的教師,不可或缺,非常重要。





有關 MTA 的上課情形





有關 JIA 的上課情形

## 2013 AUTM 會場展覽廳見聞









## 休斯頓大學 智慧財產管理處 產業合作中心訪問報告

2013年3月6日教育部區域產學中心代表團在休斯頓大學土木工程研究所所長 王克漢教授(Prof. Keh-Han Wang)協助之下,訪問該校智慧財產管理處產業合作中 心(Office of Intellectual Property Management, Center for Industrial Partnerships)。該 中心技術轉移副總裁馬克·克拉克博士(Dr. Mark S. F. Clarke, Vice-President for Technology Transfer)以"休斯頓大學的研究與創新"為題,向代表團成員簡報該校 產學業務,雙方並以互動方式討論以下議題:1.如何連結政府、產業和校園,以 提升研究與開發功能? 2.如何協助與執行技術轉讓? 3.如何協助企業和院校進 一步發展新事業?

克拉克博士從大學的功能開始談起,亦即:儲備高技能教育公民、創造新知識、創造就業機會(技術/製程/產品)、促進經濟成長和全球競爭力,並強調大學所扮演的經濟引擎角色。他說明美國頂尖研究型大學的考量因素,例如:總研究經費金額、來自聯邦政府的研究經費金額、躋身美國國家科學院院士的數目、教師獎勵等,並展示 2012 財務年度休斯頓大學在各方面的成就。

簡報顯示,休斯頓大學的兩大研究領域為能源與健康相關的企業。休斯頓大學全部擁有 152 件美國專利,申請中有 159 件,其中,能源相關領域有 38 件核准專利,健康相關領域有 61 件核准專利。令人印象深刻的是,能源相關領域在 2008 到 2012 財務年度間有 26 件授權。

休斯頓大學的策略目標之一是 2020 年研究支出將達到 2 億美元,這目標將藉由提高來自聯邦政府的基金、增加來自營利單位的基金、增加授權所得,及投資 STEM (科學、技術、工程和數學)領域,創設足夠的基礎設施,積極將技術商業化,以及滿足休斯頓和區域經濟發展與勞動人口的發展需要等方式達成,簡而言之,透過尋求外部資金來源與內部技術商業化方式。

休斯頓大學為鼓勵教師開創商業價值的戰略計劃,所謂創新管道,分為兩方面進行:內在激勵(鼓勵發現、提供研究資金)與外在激勵(公開表揚、將智財列入升等決定、收益共享)。另一方面,透過內部支援(跨學科計畫管理辦公室 OIPM的活動、MBA 市場評估、技術差距基金等)與外部支援(尋找/辨識外部機會、創業計劃、NSF I-CORPS、SBIR / STTR 小企業創新研究和小企業技術轉移的教育訓練等),使教師有能力開創商業價值。換句話說,強化研究開發、育成平台和企業文化、支援與培訓系統之間的連結。



土木/環境工程系



土木/環境工程系



休斯頓大學校園



休斯頓大學校園



土木/環境工程系



土木/環境工程系



休斯頓大學校園



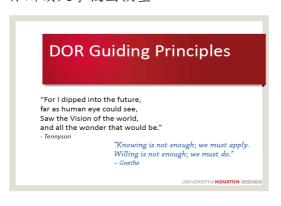
校園活動



休斯頓大學校園模型



拜訪活動





# 1. Total Research Expenditures 2. Federal Research Expenditures 3. National Academy Membership 4. Faculty Awards 5. Doctorates Awarded 6. Postdoctoral Appointees 7. National Merit and Achievement Scholars 8. Endowment Assets 9. Annual Giving 10. SAT Scores





