The Abdus Salam International Centre for Theoretical Physics

Entrepreneurship for Physicists and Engineers from Developing Countries

Cosponsor(s): AREA Science Park, IOP, APS, IUPAP
Organizer(s): Dipali Chauhan (UK), Amy Flatten (USA), Giancarlo Michellone (Italy), Surya Raghu (USA), K.R. Sreenivasan (ICTP), Claudio Tuniz (ICTP)
Trieste - Italy, 17 - 21 March 2008

Venue: Adriatico Guest House Kastler Lecture Hall

Final programme

Day 1 - Monday, 17 March (Room:Adriatico Guest House Kastler Lecture Hall)

17 March 2008

08:30 - 10:00 --- Registration and Administrative Formalities ---
Visitors are requested to register with the secretary in the Adriatico Guesthouse. There will be a shuttle bus running from the Adriatico to the Fermi Building and back until 10 a.m. for those needing to go to the Finance office

10:00 - 11:00 **Welcome Remarks**
K.R. Sreenivasan (Director, ICTP) Giancarlo Michellone (AREA Science Park, Trieste) Claudio Tuniz (Assistant Director, ICTP) Dipali Chauhan (IOP, London) Amy Flatten (APS, USA)

11:00 - 12:00 **Participant self-introductions and expectations from the Workshop**
Moderators: David Secher and S. Raghu

12:00 - 13:00 --- Lunch Break ---

13:00 - 14:00 **Peter Dobson** / *University of Oxford, UK*
Lecture 1 (tentative topic): Relation between scientific research, inventions and products
Chair: Andrea Vacchi, Director, INFN Trieste - Open-ended research versus product oriented research, identifying technological needs of the society and market. University vs. industrial research.

14:00 - 15:00 **David Secher** / *N8 Research Partnership, Sheffield, UK*
Lecture 2: Institutional roles for commercialization
(Chair: Dipali Chauhan) - Role of the academic departments/sections, technology transfer office, the University and the government in encouraging scientists to commercialize inventions. SMEs. Interfacing with industry, strategic partnerships, inter-institutional and international agreements.

15:00 - 15:30 --- Coffee Break ---

15:30 - 16:30 **Edward Caner** / *Innovation & Entrepreneurship Programs, Cleveland, USA*
Lecture 3: Pre-Business feasibility analysis and opportunity assessment
Chair: Amy Flatten

16:30 - 17:30 **Group discussion Topic: Physicists as entrepreneurs: opportunities and challenges**
Moderators: Edward Caner and Dawood Parker

19:00 - 21:00 --- Dinner/Post-Dinner Informal Q&A Sessions ---

Day 2 - Tuesday, 18 March (Room:Adriatico Guest House Kastler Lecture Hall)

18 March 2008

08:30 - 09:30 **Harry Thangaraj** / *London, UK*
Lecture 4: Concept of intellectual property and its significance
Chair: Surya Raghu - Patents, trade secrets and trademarks. Who is the inventor and who is not? Proper record keeping for patenting. Who owns the rights to an invention - you or your organization/company? Publications vs. patents.

09:30 - 10:30 **Charles Eloshway** / *Office of Intellectual Property Policy and Enforcement, USPTO, USA*
Lecture 5: Basics of patenting
Chair: Amy Flatten - General Patent Office Info, Patent and literature search, Classification, filing procedures, Process of examination and verification, communication with patent attorney/individual, help for individual inventors, etc.

10:30 - 11:00 --- Coffee Break ---

11:00 - 13:00 **20 minutes presentation each+discussion**
Panel Discussion: Global IP Protection (USPTO, WIPO, EPO)
Chair/Moderator: Peter Dobson

13:00 - 14:00 --- Lunch Break ---

14:00 - 15:00 **Surya Raghu** / *Advanced Fluidics, USA*
Lecture 6: Invention to product: Timelines and processes
Chair: Dawood Parker

15:00 - 16:00 **Yumiko Hamano** / *Intellectual Properties and New Technologies Division, WIPO, Switzerland*
Lecture 7: IP management and Institutional IP policy for Universities and R&D Institutions
Chair: Dipali Chauhan - Non disclosure agreements, licensing, various legal agreements between inventor, institutions and industries, licensing and technology transfer

16:00 - 16:30 --- Coffee Break ---

16:30 - 18:00 **Group Discussion: Topic 1: To patent or not to patent: Implications on business strategies and secrets, control on IP, moral and ethical issues, conflicts of "open science" vs. "secret science", Restrictive patent regulations. Topic 2: Working with Industry: How to deal with IP issues?**
Chair: Patrizia Tiberi Vipraio, University of Udine; Moderators Topic 1: Peter Dobson and Charles Eloshway; Moderators Topic 2: David Secher and TBA

19:00 - 21:00 --- Dinner/Post-Dinner Informal Q&A Session/Business Plan Development ---

Day 3 - Wednesday, 19 March (Room:Adriatico Guest House Kastler Lecture Hall)

19 March 2008

08:30 - 10:30 **Richard Brooks** / *FD Solutions, London, UK*
Lecture 8: Business Plan Fundamentals
Chair - John Enderby - Financials involved in patenting (typical cost of provisional application, full patent application, maintenance fees, CIP costs). Marketing of an invention. How to raise capital for developing an invention into a marketable product. Preparing a business plan. Early-stage venture capitalists and angel investors.

10:30 - 11:00 --- Coffee Break ---

11:00 - 12:00 **V. Premnath** / *National Chemical Laboratory, Pune, India*
Lecture 9: Taking science to the market: insights, models and experiences from NCL, India
Chair: Dipali Chauhan

12:00 - 12:30 **Graziano Bertogli** / *ICS, UNIDO, Trieste, Italy*
Lecture 10: Success Story 1. Innovation Centre and Mexican Venture Capital Fund for High Technology
Chair V. Premnath

12:30 - 13:00 **Lecture 11: TBD**

13:00 - 14:00 --- Lunch Break ---

14:00 - 15:00 **Fernando Galembeck** / *UNICAMP, Brazil*
Lecture 12: Success Story 2. Opportunities for developing countries in the post-oil era
Chair: Amy Flatten

15:00 - 16:00 **TBA**
Lecture 13: TBA

16:00 - 16:30 --- Coffee Break ---

16:30 - 17:30 **Dawood Parker** / *Melys Diagnostics, UK*
Lecture 14: Success Story 4.
Chair: Fabio Ruzzier (University of Trieste)

17:30 - 18:30 **Group Discussion (continued). Topic 1: To Patent or Not to Patent. Topic 2. Working with Industry.**
Moderators: Charles Eloshway Chair: Surya Raghu

19:00 - 21:00 --- Dinner/Post-Dinner Informal Q&A Session/Business Plan Development ---

Day 4 - Thursday, 20 March - Venue: AREA Science Park

20 March 2008

08:30 - 08:30 --- Bus to AREA Science Park - Program at AREA Science Park, Padriciano ---
All participants will meet at the bus stop in Grignano (by the sea), where a private bus will depart to the AREA Science Park, Padriciano.

10:00 - 10:30 **Steve Taylor** / *SRI Consulting - Business Intelligence*
Lecture 15: Evaluating business opportunities arising from technology commercialisation
Chair: Steve Taylor Methodologies used for global business intelligence gathering, and filtering and for technology monitoring and opportunity identification and assessment

10:30 - 11:00 **Gabriele Gatti** / *AREA Science Park, Trieste*
Lecture 16: Introduction to Science Parks: Innovation policies and innovative start-ups
Chair: Steve Taylor The role of science and technology parks in developing and managing innovation as a tool for enterprise creation and growth. Innovation policies and practices tailored to facilitate the regional investment in RTD and technological innovation. Showcasing the practices adopted in AREA Science Park and presentation of success stories achieved and of the NovaRegio toolkit.

11:00 - 11:30 **Paolo Mander** / *AREA Science Park, Trieste*
Lecture 17: Introduction to Innovation Network (TM) and Innovation Factory (TM) toolkits
Chair: Steve Taylor Fostering the creation of high growth potential innovative companies by technology assessment and transfer: the regional network of competence centers for managing and diffusing technologies and innovation, exploring the commercial feasibility of an idea and bringing research to market. Hi-tech business incubation for innovative start-ups from academic research. Two valuable tools: Innovation Network (TM) and Innovation Factory (TM)

11:30 - 12:00 **Elena Colonna** / *BIC-FVG, Trieste*
Lecture 18: Introduction to the enterprise creation and acceleration experience of BIC-FVG
Chair: Steve Taylor BIC-FVG is a "best practice" European business incubator/accelerator.
Several approaches and methods have been developed to support venture creation. For example, the "lead Users" and "collaborative entrepreneurship" methods are being successfully adopted to accelerate company growth, compress time to market, reduce risk - and attract private investors. BIC-FVG is leading a US-Italy partnership program to network high-level Italian Business Angels co-investing with Venture Capital Funds.

12:00 - 13:00 **Visit to AREA Science Park "Virtual Show Room"**

13:00 - 13:00 --- Departure by bus from AREA Padriciano to Sincrotrone Basovizza ---

13:30 - 14:00 --- Self-service buffet lunch in Basovizza Cafeteria ---

14:00 - 16:00 **Visit to AREA Science Park Laboratories and Facilities (Basovizza site)**

16:00 - 16:00 --- Departure by bus back to the ICTP ---

19:00 - 21:00 (Room: Adriatico Guest House Cafeteria)
--- Workshop Dinner ---

Day 5 - Friday 21 March - (Good Friday, ICTP administrative offices closed) (Room:Adriatico Guest House Kastler Lecture Hall) (**Good Friday**)

21 March 2008

08:30 - 09:00 **Introduction of the Panel (Confirmed panellists: Joseph Niemela, Antonio Sfiligoj)**
Chair: Beth Taylor, IOP

09:00 - 10:30 **Session I**
Chair: TBA 9:00 - 9:30 - Group 1 9:30 - 10:00 - Group 2 10:00 - 10:30 - Group 3

10:30 - 11:00 --- Coffee Break ---

11:00 - 12:30 **Session II**
Chair: Joseph Niemela, ICTP 11:00 - 11:30 - Group 4 11:30 - 12:00 - Group 5 12:00 - 12:30 - Group 6

12:30 - 14:00 --- Lunch Break ---

14:00 - 15:00 **Session III**
Chair: TBA 14:00 - 14:30 - Group 7 14:30 - 15:00 - Group 8

15:00 - 16:00 **Concluding Remarks**
ICTP Director, Workshop Organizers, Beth Taylor IOP