



# ENTREPRENEURSHIP WORKSHOP FOR SCIENTISTS AND ENGINEERS IN BRAZIL

15 – 19 October 2018

**ORGANIZERS:**

*SURYA RAGHU (ET-CUBE, USA)*

*LINSEY CLARK (IOP, UK)*

*NATASHA DIEZ (IOP, UK)*

*NATHAN BERKOVITS (ICTP-SAIFR/IFT-UNESP, BRAZIL)*

*RICHARD BROOKS (FD SOLUTIONS, UK)*

*RODRIGO MARQUES (IQ-UNESP, BRAZIL)*



## VENUE AND OBJECTIVES

The entrepreneurship workshop for scientists and engineers in Brazil will be held from 15<sup>th</sup> to 19<sup>st</sup> of October 2018 in São Paulo, Brazil. It will take place in the ICTP-SAIFR, located on the first floor of the Instituto de Física Teórica (IFT-UNESP) building in the Barra Funda campus of UNESP.

This will be a one-week intensive workshop for South America students and graduates who are interested in gaining entrepreneurial skills to commercialise their scientific ideas and inventions. The workshop will consist of lectures from invited national and international speakers, case studies, group discussions and role-playing sessions related to the commercialization of products. Topics include opportunity and value assessment, intellectual property (IP), basics of patenting, IP management and global IP protection, business plan fundamentals, technology readiness levels, invention to product, timelines and processes.

## SPONSORS

- South American Institute for Fundamental Research (ICTP-SAIFR)
- Institute of Physics (IOP)
- São Paulo State University (UNESP)
- American Physical Society (APS)

### Supporters

- International Centre for Theoretical Physics (ICTP)
- ET Cube International

### Speakers

- Surya Raghu (ET-CUBE, USA)
- Richard Brooks (FD Solutions, UK)
- Rodrigo Marques (IQ-UNESP, Brazil)
- Luciano Avallone Bueno (CECS-UFABC, Brazil)
- Luciana Bueno (Clinical Nutrition Science, Brazil)
- Leticia Khater Covesi (I9PI, Brazil)
- Paulo Afonso Granjeiro (UFSJ, Brazil)
- Thalita Paes (PatentAblit, Brazil)

### Roundtable

- Luciano Avallone Bueno (UFABC)
- Paulo Camargo (SMARTOYS)
- Guilherme Dal Lago (RAIZEN)
- Cleidson Diniz Teixeira (Buzzy Importação e Exportação)
- Alessandro Rizzato (SOLVAY/RHODIA)
- Ricardo Yogui (Anpei and PUC-Rio Innovation Agency (AGI/PUC-Rio))

## **KEY PARTNERS**

### **SOUTH AMERICAN INSTITUTE FOR FUNDAMENTAL RESEARCH (ICTP-SAIFR)**

The ICTP South American Institute for Fundamental Research (ICTP-SAIFR) is a South American regional centre for theoretical physics created in 2011 through a collaboration of the Abdus Salam International Centre for Theoretical Physics (ICTP), the São Paulo State University (UNESP) and the Sao Paulo Research Funding Agency (FAPESP). The ICTP-SAIFR's goals are:

- Conduct theoretical physics research at the highest international standards
- Provide an international centre for schools and workshops
- Support research in those South American countries where theoretical physics research is not yet well-developed

The ICTP-SAIFR is located on the first floor of the Instituto de Fisica Teorica (IFT-UNESP) building in the Barra Funda campus of UNESP. Its activities are modelled on those of the ICTP and include schools and workshops, as well as an active visiting scientists program. Since beginning its activities in 2012, it has organized more than 75 schools and workshops with the participation of more than 2000 masters/PhD students and 1000 researchers. Its outstanding research played a crucial role in São Paulo State University (UNESP) being named the most improved university in Latin America by the 2016 Nature Index.

### **INSTITUTE OF PHYSICS (IOP)**

The Institute of Physics is a leading scientific society. The IOP is a charitable organisation with a worldwide membership of 50,000, working together to advance physics, education, research and application. We engage with policymakers and the general public to develop awareness and understanding of the value of physics and, through IOP Publishing, are world leaders in professional scientific communications.

The IOP works internationally to foster international collaboration in physics, both to expand the boundaries of knowledge and to solve global challenges, as well as engaging with our members wherever they are in the world and providing opportunities to people in low-and-middle-income countries who may benefit from an education or training in physics.

In 2015 the IOP launched a new strategy focusing on five main areas:

*Education:* Make access to high-quality physics education open to all Everyone will have the opportunity to choose to study physics, and those that do will have access to high-quality education and well-informed choices about careers.

*Economy:* Position businesses to actively exploit new physics-based research Physics will be recognised for the contribution it makes to the economy, and businesses will have access to a highly qualified and skilled workforce and, whether large or small, have an understanding of how they can actively exploit new and emerging physics-based research.

*Society:* Engage people's interest in physics and showcase its value to society. We will work to widen participation in, and enjoyment of, physics and to raise the appreciation of the important role that physics plays in our culture and society.

*Discovery:* Strengthen our core discipline while breaking traditional boundaries. We will work to strengthen our core discipline and promote the international nature of physics, and we will encourage and support those who look to collaborate with others across traditional boundaries.

*Community:* Increase member participation in our programme of activities. Our membership will be engaged and inspired by what we do and we will be an organisation that people want to join and collaborate with

## **SÃO PAULO STATE UNIVERSITY (UNESP)**

Listed among the three largest and most important Brazilian universities, UNESP stands out as an example of extreme success among the multicampus institutions around the world. As one of three public universities maintained by the government of the state of São Paulo, UNESP offers quality education while developing strategic research and interacting with the society through the provision of services for the community.

UNESP's knowledge education complex comprises today 34 units in 24 cities, being 23 in the countryside (one at the coast of the state) and one at the capital of the state, where its administration is centralized. The response that the labor market and enterprises in Brazil and abroad have been providing denotes the quality of education taught in the institution and the credibility of the research developed. UNESP's position in the most expressive rankings confirms such statements. The institution is respected nationally and internationally, featuring a qualified faculty, recognized programs and a solid research base.

The infrastructure of the University includes about 1,900 laboratories and 30 major libraries, with about 900,000 books. Museums, gardens, vivariums, botanical gardens and five experimental farms (5,000 ha), being maintained continuously and carefully, are available to students and faculty. UNESP has an important University Hospital, located in the city of Botucatu, with 462 beds and approximately 450.000 attendances per month, besides the State Hospital of Bauru, where 318 beds are managed and 50.000 attendances per month are carried out. Three veterinary hospitals and three dentistry clinics, psychology and physical therapy clinics, as well as oral cancer centers, children with special needs and a social legal center also integrate the facilities of one of the most successful Brazilian initiatives in the higher education field.

## **AMERICAN PHYSICAL SOCIETY (APS)**

The American Physical Society ([www.aps.org](http://www.aps.org)) is a non-profit membership organization working to advance and diffuse the knowledge of physics through its outstanding research journals, scientific meetings, and education, outreach, advocacy and international activities. APS represents over 50,000 members, including physicists in academia, national laboratories and industry in the United States and throughout the world. Society offices are located in College Park, MD (Headquarters), Ridge, NY, and Washington, DC. For further information please see: <http://www.aps.org/>

## **INTERNATIONAL CENTRE FOR THEORETICAL PHYSICS (ICTP)**

Founded in 1964 by the late Nobel Laureate Abdus Salam, ICTP has been a major force in stemming the scientific brain drain from the developing world. ICTP seeks to accomplish its mandate by providing scientists from developing countries with the continuing education and skills that they need to enjoy long and productive careers in their home countries. ICTP operates under a tripartite agreement between the Italian government, the International Atomic Energy Agency (IAEA), and the United Nations Educational, Scientific and Cultural Organization (UNESCO). ICTP alumni serve as professors at major universities, chairpersons of academic departments, directors of research centers and ministers of science and technology in nations throughout the developing world. Many of them have been recognized in their own countries and internationally for their contributions to science and science policy. The impact of ICTP extends well beyond the Centre's facilities to virtually every corner of the Earth. Since 1970 over 120,000 scientists from 186 countries have visited the ICTP—now roughly 6000 per year-- to lecture or to obtain advanced training in the physical sciences. It is the first, and remains the leading global centre for science and development, supported by an annual budget of approximately 23M Euro and a staff of 30 permanent scientists.

ICTP has been a key partner of IOP for the Entrepreneurship Workshops since the beginning of the program and is the host of the Entrepreneurship Workshops during alternate years including the first workshop in 2006 and also a partner and sponsor of the workshops conducted in other countries. In addition, ICTP organizes more than 60 international conferences and workshops every year in the field of physics and related subjects at its campus and supports another 70 workshops and schools regionally through its Office of External Activities (OEA).

## **ET CUBE INTERNATIONAL**

Dr. Surya Raghu and Ms. Yumiko Hamano founded ET Cube International in 2013 - a non-profit organization registered in the USA and provides consultancy and customised training services in entrepreneurship tech-transfer and research commercialization. Its focus is on training scientists and engineers to commercialize their research ideas through start-ups and spin-offs. Dr Raghu and Yumiko have a joint experience of conducting such training in more than 50 developing countries.

## **SPEAKERS**

### **DR SURYA RAGHU**

**President, Advanced Fluidics**

[www.advancedfluidics.com](http://www.advancedfluidics.com)

e-mail: [sraghu@advancedfluidics.com](mailto:sraghu@advancedfluidics.com)



Dr. Raghu's expertise is in research commercialization - transitioning of ideas and inventions created at research labs into commercial products. He has worked on R&D topics related to automotive applications, consumer and industrial products, physiological monitoring, DNA testing, corrosion sensors and aerodynamic flow control and continues active research collaborations with many institutions in the US and abroad.

He has been a co--director and/or invited speaker of more than 35 workshops on Entrepreneurship, Research Commercialization, Knowledge/Technology Transfer for Scientists, Engineers, University faculty, technology transfer officials and IP policy committees. These workshops have been conducted in Argentina, Brazil, China, Egypt, Ethiopia, Ghana, Guatemala, India, Indonesia, Italy, Jordan, Kenya, Lebanon, Mexico, Morocco, Oman, Pakistan, Philippines, Rwanda, South Africa, Sri Lanka, Tanzania and Thailand. He has also developed an Entrepreneurship Course Module that has been implemented in several universities in developing countries for training university students in the basics of entrepreneurship.

Surya Raghu obtained his Ph.D. in mechanical engineering from Yale University and is the founder-president of a high-tech company - Advanced Fluidics, LLC since 2001 and founding partner of a non-profit company - ET Cube International, Inc. since 2013. His earlier affiliations were with Yale University, Technical University of Berlin, SUNY Stony Brook and Bowles Fluidics Corporation. He has also been a visiting scientist at NIST and AFOSR Laboratories and a guest lecturer at Kyushu Institute of Technology, Japan. Dr Raghu has inventions related to aerospace, automotive, consumer and bio-technology applications and has been awarded 15 US patents and has over 10 pending patents/invention disclosures as an inventor or co--inventor.

Linked-in: <https://www.linkedin.com/in/surya-raghu-74a4847/>

## MR RICHARD BROOKS



Richard has been a presenter on entrepreneurship workshops since 2008 and is an Associate of the IOP.

[http://www.iop.org/about/international/development/entrepreneurship/page\\_44527.html](http://www.iop.org/about/international/development/entrepreneurship/page_44527.html)

Richard co-founded FD Solutions in 1991. FD Solutions is a professional services supplier of experienced finance directors to businesses that needed part time Finance Director services.

The business grew to be a leading provider of flexible Finance Director services in the UK and over 26 years has worked with over 1,000 businesses. Richard's specialist sectors include technology start-ups, food, retail, manufacturing and not-for-profit organisations. In addition to helping technology start-ups with financial and business planning he also has invested in some - biotechnology, software, medical devices and web platforms.

Richard has a Bachelor of Commerce degree from Edinburgh University. He completed his accountancy articles with Ernst & Young is a Chartered Accountant admitted to the Institute of Chartered Accountants of Scotland in 1984.

Richard is Chairman of iMEDTrust a medical education charity

<http://www.imedtrust.org/>

and Chairman of Cambridge Live, an organisation that runs the Cambridge Folk Festival and other cultural activities in Cambridge

<https://www.cambridgelivetrust.co.uk/>

Member of Audit and Risk Committee of The Honourable Society of Lincoln's Inn

<http://www.lincolnsinn.org.uk/>

Member of the advisory board of the London Chamber Orchestra,  
<http://www.lco.co.uk/about/trustees-and-advisers>

Richard is a Fellow of the RSA, dedicated to enriching society and shaping the future through ideas and action.

Former director of PraxisAuril (<http://www.praxisauril.org.uk/>) the educational not-for-profit organisation supporting innovation and commercialisation of public sector and charity research for social and economic impact.

Former Board member of the Bio Industry Association Finance and Taxation Committee

<http://www.bioindustry.org/advisory-committees/finance-and-tax-advisory-committee-ftac/>

## **PAULO CAMARGO**

**[www.smarttoys.com.br](http://www.smarttoys.com.br)**

Paulo is a professional with solid experience in the areas of sustainability, entrepreneurship and innovation. Master's degree from the Leuphana Business School in Germany, Paulo is a training biologist and post-graduate in Socioenvironmental Management, Environmental Management and Business at the Energy Sector by USP, and Sustainable Management by GIZ Germany. Paulo collects important passages by Brazilian and multinational companies, of varying sizes, acting in several economic segments. He has given about 30 courses and lectures in various business and university institutions. He is the author of 35 publications in national and international newspapers, magazines and congresses, as well as co-author of 2 book chapters, one on Negotiation in Sustainability and International Relations, written in German, and another on Biodiversity in Sorocaba, SP . Recently, Paulo was in charge of the technical advisory services of the president of the Technological Park of Sorocaba. He left this position in 2015 to undertake the Brazil-USA axis, collecting experiences and contacts especially in the innovative entrepreneurship ecosystem of Boston. Today Paulo is co-founder of the SmarToys and One Sports startups.



## **GUILHERME DEL LAGO**

[www.linkedin.com.br/company/pulseinovação](http://www.linkedin.com.br/company/pulseinovação)

Director of Pulse Hub

[www.pulsehub.com.br/eng/index.html](http://www.pulsehub.com.br/eng/index.html)

Pulse Hub: A space that brings together the entrepreneurial creativity and the experience of members of the market and investors with the depth of the universities. The breadth of Raízen's and the Cosan group's operations provides real market and field opportunities for pilot testing. They host, accelerate and invest in startups depending on their evolution and potential impact. An agenda of talks and events enables knowledge to circulate between members of the hub. Pulse Hub is coordinate by Raizen, one of the most competitive energy companies in the world, the country's leading producer of sugar and ethanol and one of the largest in the fuel distribution sector, under the Shell brand.

<https://www.raizen.com.br/en/home>

Guilherme Lago - graduated in Chemistry by USP and MBA from Esade-Barcelona, having worked in strategy consulting in the Resources and Telecom sectors, and participated in Real Estate startup. He started the Innovation movement at Raízen / Cosan Group with the CIO, Fabio Mota and participated in the design of the Pulse - Innovation Hub, which accelerates and hosts startups in Piracicaba, as well as promoting meetings of the Innovation ecosystem to discuss issues involving Agroindustry, Logistics/Trading and Finance involving Universities, Entrepreneurs and Venture Capitals.

## **CLEIDSON TEIXEIRA**

Graduated in International Relations, he has experience in regulation and importation of health products. He acts as IR/ importation director of large distributors of orthopedic products such as Bio2, Prosintese and others. He is Director of Buzzy Importação e Exportação Ltda.

## **LUCIANO AVALLONE BUENO**

From <http://ufabc.edu.br/en/1876-2/>

PhD in Chemistry from UNESP (2003) with internships at the Oak Ridge National Laboratory (ORNL, 2002), Centro Di Fisica Degli Stati Aggregati and at the Institute fur Neu Materialen (1999). He is

currently Professor of the Center for Engineering, Modeling and Applied Social Sciences (CECS), Coordinator of the Service and Continuous Education (DEF) division of the Innovation and Research Agency. Professor and supervisor of the master's / doctoral courses in Biotechnology at the Federal University of ABC (UFABC). Executive manager and doctoral advisor of RENORBIO (Northeast Network of Biotechnology). Entrepreneurship and Innovation. Consultant of companies in Innovation Management. Mentor of the Inovativa Brasil program (MDIC) and 100 Open Startups. Member of the Parliamentary Front of the State of São Paulo for Entrepreneurship and Innovation by UFABC. He was a member of MEI (Entrepreneurial Mobilization for Innovation), in the State of Pernambuco, led by the National Confederation of Industry (CNI) in 2012/2014. Participating Member of the Innovation and Entrepreneurship Sub-Committee in the State of Pernambuco, led by the Confederation of Industry (CNI), since 2012/2014. Participating Member of the Subcommittee Finance Fund of MEI (Entrepreneurial Mobilization for Innovation), in the State of Pernambuco, led by the Confederation of Industry (CNI), from 2013/2014. He has created the Protagonist Entrepreneur.

## **THALITA PAES**

**founder of [www.patentabilit.com.br](http://www.patentabilit.com.br)**

Thalita is a Pharmacist-Biochemistry, with a master's degree from UNICAMP, and an MBA from FGV, has thirteen years of experience in Industrial Property and Innovation, with a strong presence in the pharmaceutical industry and also in industrial property offices. Associate of the ABPI and with an advanced patent course certificate by WIPO, and the ABAPI Industrial Property Expertise course.

## **RICARDO YOGUI:**

<https://br.linkedin.com/in/yoguir>

Innovate, Inspire, Collaborate! Promoting synergy between Academy, Industry and Society.

More than 30000 professionals accompany their posts and articles of innovation. Member: PUC-Rio de Inovação Agency; Professor at PUC-Rio: Industrial Engineering; Guest Professor IBMEC, IED-Rio and IAG / PUC-Rio - Executive and Graduate Programs; Areas of Knowledge: Innovation Management and Creative Destruction; Guest Editor of International Journal of World Review of Science and Technology for Sustainable Development. Collaboration with industry: ► Innovation Framework - Innovation Management - Open Model ► Hubs and Innovation Communities ► Strategic Innovation Projects ► Innovation Counselor - in CA's

Featured Points: → Corporate Education for organizations such as: Artplan, Ancar, GSK, Navy, Supergasbras, GL Events, Oi, Banco do Brasil, Mongeral, Previ, ENEL, Grupo Ultra, IBP, Servier and Pierre Fabre → Speaker and / or advisory board of corporate events related to Innovation such as: Harvard Business Review Innovation Forum, DEMO Brazil, Sweden-Brazil Innovation Week, Tech Arena and O & G TechWeek → Collaborated with the formatting of the NAGI - Nucleus of Support to the Innovation Management - of the Institute Gênese / Finep → Prior to a sabbatical period, from 1994 to 2009, he served as executive in national and multinational organizations, responsible for business development in the areas of Technology, Energy and Infrastructure in Brazil and South America. → Contributed to the introduction in the national industry of emerging and disruptive technologies such as: Virtual Environment for 3D Projects and Printing in addition to new Business Models.

Interaction with the Global Ecosystem of Innovation: 2017 Smart Business Visitors' Programme - Swedish Institute; 2016 Open and User Innovation Conference @ Harvard University; 2015 BIN @ Porto - Business Innovation Network. Publications: The Future of Organizations in the era of the Big Knowledge Innovation Framework for Modern Organizations Innovation Framework - Open Model Management of Megaprojects For survival and promising future, companies must invest in innovation Barriers to Constructibility through the sociotechnical vision of the management of Megaprojects - Exploratory Research in the Industry of Oil and Gas Virtual Reality applied to Operational and HSE issues in Upstream ISO 15926 - Interoperability Standard for Plant Lifecycle Management Innovate to Move Forward | by Yogui, R.

Awards and recognitions: Swedish Institute Visitors Program: Building a sustainable society and community Academic Excellence Award - Executive Program - Innovation & Management Innovation Actors Program - B.Bice + | Hosting Institution: Porto University, Portugal Project of the Year Award - 2013 - Finalist in the Category: Academic Research Certificate of Commendation - Social Responsibility - Esperansap Institute Global Accountability Award - 7 editions - 2003-2008 - Corporate Governance & Sustainable Business Operation

## **PAULO GRANJEIRO:**

Associate Professor I of the Federal University of São João del-Rei, in DivinópolisMG. Graduated in Pharmacy from UNESP - Araraquara-SP (1996), Master's and PhD in Functional and Molecular Biology in the area of Biochemistry from UNICAMP (1998 and 2001). He completed a Senior Internship (CAPES) at the Massachusetts Institute of Technology (Visiting Scientist - MIT / USA). Experience in Startup

acceleration programs BioStartup Lab, FIEMG Lab, InovAtiva Brasil and FIEMG LAB Accelerates Master and PhD. Co-founder of Startups Pulsus Senores, ProbioFull and Sôbet. Professor member of the program Empreenda Em Ação! of the State of Minas Gerais. Facilitator of Biomaker Battle of Biominas Foundation. Professor of the University Startup Program of the Government of the State of Minas Gerais. 3rd Placed with Sôbet in Empreenda em Ação. at UFSJ and Startup Highlight with ProbioFull in the 1st Cycle FIEMG LAB Accelerates Master and PhD in Minas Gerais.

## **LETÍCIA KHATER**

PhD in Biochemistry and post-doctoral in Medical Science both held at Campinas State University (UNICAMP). IP consultant to Chemical and Genetics Department at UNICAMP. Author of articles in different periodicals and several patent applications. MBA in Business Management and post-MBA Leadership program from Fundação Getúlio Vargas (FGV). Founder of I9PI; a consulting firm to help companies, lawyers, students and executives with strategic intellectual property and innovation management. Head of Intellectual Property at Hypera from 2017 to 2018. Head of Trademarks and Patents Department from 2009 to 2017 at EMS pharmaceutical company. Nominated for the 2015 Latin American Counsel Awards, in the category “Intellectual Property Individual” and for the 2017 and 2018 Latin American Counsel Awards, in the category “Intellectual Property Team” by the International Law Office. She was IP Director at ABIFINA from 2016 to 2018 and Innovation Director in 2018.

## **ALESSANDRO RIZATTO**

Rhodia/Solvey

Manager of External Relations and Fundraising at Rhodia / Solvay. Coordinator of the ICT-Enterprise Interaction committee of the National Association of Research and Development of Innovative Companies (Anpei). This committee has been a discussion forum to bring academia and the business sector closer together to promote innovation

## **DR NATHAN JACOB BERKOVITS**

ICTP-SAIFR / IFT-UNESP

Nathan Berkovits obtained his Bachelor and Master degrees in Physics at Harvard Univ. in 1983, and his PhD in Physics at the Univ. of California at Berkeley in 1988. He is a professor at the Instituto de Física Teórica of São Paulo State University (UNESP) since 1996 and Director of the ICTP South American

Institute for Fundamental Research (ICTP-SAIFR) in São Paulo since 2011. He was awarded the 2009 TWAS Physics prize for his significant contributions to superstring theory and its covariant quantization, and was a Clay Mathematics Prize Fellow from 2000-02. He is a fellow of The World Academy of Sciences (TWAS) and a member of the Brazilian Academy of Sciences and the São Paulo State Academy of Sciences.

## **DR RODRIGO FERNANDO COSTA MARQUES**

Rodrigo Marques has Degree in chemistry from Universidade Estadual Paulista Julio de Mesquita Filho (1995); Master in Physical Chemistry (Institute of Chemistry, UNESP); PhD in Physical Chemistry from the University of York (UK) and the Institute of Chemistry (UNESP); Post-doctorate in Inorganic Chemistry at Centre d'Elaboration de Matériaux et d'Etudes Structurales, CEMES (France); Postdoctoral (FAPESP) in Physical Chemistry in IQ (UNESP). He has experience in the area of Biomedical Engineering, with emphasis on Biomaterials and Biocompatible Materials, mainly in synthesis of magnetic nanoparticles and surface functionalization for modification with drugs and antibodies targeting applications in biomedicine; controlled release of drugs; synthesis of membranes for tissue regeneration. His earlier affiliations were with University Federal of Alfenas (UNIFAL), where he was the Campus Director until 2012, participating as interlocutor in several cooperation agreements between university and companies. In 2010 he organized a workshop named "Entrepreneurial University: strategic partnership for innovation in business". It was held in Palace Cassino Hotel, Poços de Caldas (MG), for more than 200 participants. In 2006 he and colleagues founded the Criteria Biomaterials Company, a spin off from Chemistry Institute PhD students. In 2007 he left Criteria to founded Procell Biologics, which is a leader in Brazilian bone graft biomaterials market. He is currently professor of the Department of Physical Chemistry of the Chemistry Institute of UNESP, Araraquara Campus. He is in the supervision of the auxiliary unit Araraquara Science Center (CCA), IQ / UNESP. He is coordinator of the Nucleus Alchemy of Scientific Divulcation. He acts as deputy coordinator of Cempeqc - Multidisciplinary Research Center on Fuels, Biofuels, Petroleum and Derivatives.

## **MISS LINSEY CLARK**

Linsey Clark is currently the international officer at the Institute of Physics (IOP) where she manages the organisations international capacity building projects. These include entrepreneurial workshops such as in Tanzania and the IOP for Africa project which delivers practical physics teacher training in Ethiopia, Tanzania, Ghana and South Africa.

Prior to this Linsey attended university where she gained a BA (Hons) in Sociology and Politics and an MA in Development studies. She has previously worked at the Royal College of Physicians (RCP) where she provided support to their educational programmes in West Africa and administrative support to a wide range of other projects in Africa and Asia.

## Entrepreneurship workshop for scientists and engineers

International Centre of Theoretical Physics – South American Institute of Fundamental Research

15 – 19 October 2018

### Day one

15 October 2018

Chair: Morning – Richard Brooks

Afternoon – Rodrigo Marques

Time	Session	Speaker
08:00 – 09:00	<b>REGISTRATION</b>	
09:00 – 09:30	Welcome remarks Including an introduction to speakers, organisers, participants and workshop expectations.	Nathan Berkovits Rodrigo Marques Richard Brooks
09:30 – 10:00	Speed networking	Richard Brooks /Rodrigo Marques
10:00 – 10:45	What is your entrepreneurial profile?	Luciano Avallone Bueno UFABC
10:45 – 11:00	Coffee break	
11:00 – 13:00	Round table: Opportunities in Agro-tech, Health-tech and Edu-tech in Brazil <i>The sessions will introduce the specific sector, what is currently happening with that sector and relevant opportunities. 20 min for each speaker + 20 minute panel discussion</i>	Paulo Camargo (Edu-tech) Guilherme Dal Lago (Agro-tech) Alexandre Fraga (Health- tech) Alessandro Rizzato (Solvay/Rhodia – ANPEI) Ricardo Yogui (Tech) Moderator: Rodrigo Marques
13:00 – 14:00	Lunch break	
14:00 – 15:30	A 10-minute sample pitch and creating a wish list of inventions from previous session Exchanging your Knowledge, Skills and Abilities (KSA) with colleagues to form project teams based on the Round Table Discussion in the previous session	Surya Raghu Richard Brooks
15:30 – 16:30	Opportunity assessment and business model development	Surya Raghu
16:30 – 17:00	Coffee break	
17:00 – 18:30	Protagonist entrepreneur: understanding your customers <i>This session will focus on design thinking, value propositions, prototyping, critical designs, customer personas and journey mapping for customers.</i>	Luciano Avallone Bueno UFABC
18:30 – 18:45	End of day: closing remarks	Rodrigo Marques Surya Raghu

**Day two****16 October 2018**

Chair: Morning – Richard Brooks

Afternoon – Surya Raghu

<b>Time</b>	<b>Session</b>	<b>Speaker</b>
09:30 – 11:00	Finalise Project selection and teams <i>During this session participants will start to think about their group projects and focus on team formations. Further instructions will be given at the beginning of the session.</i>	Richard Brooks Surya Raghu
11:00 – 11:15	Announcement of project teams	
11:15 – 11:30	Coffee break	
11:30 – 13:00	Intellectual property workshop <i>Innovation, patents and information technology: what everyone should know, legal contracts and documents for start-ups</i>	Thalita Paes (Patentabilit) Leticia Khater (I9PI)
13:00 – 14:00	Lunch break	
14:00 – 15:15	An introduction to business financials: financial terminology and group exercise	Richard Brooks
15:15 – 16:30	Market survey and evaluating customer feedback for your product <i>Focus on determining price point, first customer, decision makers, user feedback and endorsement for your product.</i>	Luciano Avallone Bueno Surya Raghu
16:30 – 16:45	Coffee break	
16:45 – 17:45	Taking an idea or invention to Market <i>This session will explore Technology Readiness Levels, the processes involved and estimates of time required to develop a product from an idea or an invention.</i>	Surya Raghu
17:45 – 19:00	Group project exercise <i>Working out a quick run of tasks for the final business pitch – developing a one-pager</i>	All speakers
19:00 – 19:15	End of day: closing remarks	Rodrigo Marques Surya Raghu
<b>19:30</b>	<b>Workshop Dinner</b>	



**Day three****17 October 2018**

Chair: Morning – Richard Brooks

Afternoon – Surya Raghu

<b>Time</b>	<b>Session</b>	<b>Speaker</b>
09:30 – 11:00	Estimating finances for running a start-up <i>The session will including a corporate cash flow exercise and focus on pitching for cash, equity issues, share dilution, valuation and funding needs at different stages within business. In preparation for this session it is advised that participants download the free app that will be used to conduct the exercise. It is available via <a href="#">itunes</a> or <a href="#">googleplay</a>.</i>	Richard Brooks
11:00 – 11:15	Coffee break	
11:15 – 12:00	<b>Success Stories from Brazil</b> <ol style="list-style-type: none"> <li>1. ProbioFull: a case of success (15 min)</li> <li>2. Procell (15 min)</li> <li>3. Clinical Nutrition Science (15 min)</li> </ol>	Paulo Afonso Granjeiro Rodrigo Marques Luciane Bueno
12:00 – 13:00	Communication and presentation skills <i>The session will explore presentation skills, soft skills such as interpersonal skills and cultural sensitivities, and information on what the judges will be looking for in the team pitches.</i>	Surya Raghu Richard Brooks Rodrigo Marques
13:00 – 14:00	Lunch break	
14:00 – 16:00	Group project work <i>Participants will begin working in their teams, set timelines and tasks needed to accomplish market analysis, business financials, IP for their idea and develop business model including business financials for their pitch.</i>	All speakers Facilitated by Surya Raghu
16:00 – 16:30	Coffee break	
16:30 – 19:00	Group project work (continued)	All speakers
19:00 – 19:15	End of day: closing remarks	Rodrigo Marques Surya Raghu

**Day four: Conference on Industry-University Interactions in Brazilian Physics****18 October 2018**

Chair: Nathan Berkovits

<b>Time</b>	<b>Session</b>
09:30 – 10:10	Carlos Graeff and Wagner Valenti (research dean and director of innovation agency, UNESP)
10:10 – 10:50	Carlos Brito Cruz (scientific director, FAPESP)
10:50 – 11:30	Newton Frateschi (director of innovation agency, UNICAMP)
11:30 – 11:40	Coffee break
11:45 – 12:45	Roundtable discussion with morning speakers
12:45 – 14:15	Lunch break
14:15 – 14:30	Arnaldo Betto (COO, Braincare)
14:30 – 14:45	Gustavo Frigieri (scientific director, Braincare)
14:45 – 15:05	Jarbas Castro (president OPTO, IFUSP São Carlos)
15:05 – 15:25	Isa Oliveira (COO, Optimum soluções)
15:25 – 15:35	Hilda Cerdeira (Epistemic co-founder, IFT-UNESP)
15:35 – 15:45	Sergio Novaes and Raphael Cóbe (AI2/NCC, IFT-UNESP)
15:45 – 16:00	Coffee break
16:00 – 17:00	Roundtable discussion with afternoon speakers

**Day five****19 October 2018**

Chair: Morning – Richard Brooks

Afternoon – Surya Raghu

<b>Time</b>	<b>Session</b>	<b>Speaker</b>
09:00 – 10:00	Final preparation	All Speakers
10:00 – 10:30	Briefing for the business pitch competition <i>Please note that all business pitch presentations must be submitted by 09:45. This session will also include an introduction to the rules, judges and determine the order of presentations.</i>	All speakers
10:30 – 11:30	Group presentations: session one	Time keeper: ICTP secretary
11:30 – 11:45	Coffee break	
11:45 – 12:45	Group presentations: session two	Time keeper: ICTP secretary
12:45 – 14:30	Lunch break <i>Judges deliberation</i>	
14:30 – 15:00	Business pitches: feedback from judges	All judges Moderator: Richard Brooks
15:00 – 15:30	Participant feedback	Surya Raghu
15:30 – 15:40	Follow-up support from IOP	Natasha Diez
15:40 – 16:00	Announcement of winning team, distribution of certificates, concluding remarks	Natasha Diez Surya Raghu Nathan Berkovits Rodrigo Marques