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## Welcome by the Organizers

Welcome to Encuentros 2013! The largest gathering of Chilean students, researchers, professionals and entrepreneurs abroad.

The word Encuentros means to connect, to come together. It implies the collaborative convergence of active spirits to design and implement projects together. And this is our vision: to help Chileans living abroad to come together and connect around science and entrepreneurship. We want to facilitate the building of networks, scientific collaborations, and friendships. In this space, we aim to find (encontrar) nothing less than new ideas.

New ideas will carry us into the future. They will help Chile (and the World!) solve current and new problems. New ideas will emerge from all scientific knowledge, natural and social, as an inspiration to make a better world.

But we want to transgress disciplinary limits. We seek to focus on problems that are broad and complex and require interdisciplinary (why not antidisciplinary!) perspectives. We seek to identify a space of productive interaction, of creativity, and of inspiration. We treasure the old ideas, but we look for new ways of approaching perennial as

well as emergent human issues— we look for innovation!

In planning the Encuentros 2013 Boston Conference -to be held on the 27, 28, and 29 of June at the MIT Media Lab, we have set out to fulfill a very ambitious task: we want nothing less than to inspire innovation! We invite you to be a part of this experience, to contribute with your creativity and your knowledge.

Yuly, Alex, and Mayra



It was an easy decision to commit my family to the support of the 2013 "Encuentros" Conference. Celebrating seven years of excellence and innovation, Encuentros brings together an assemblage of Chile's greatest riches, her people, into a forum that provokes thought, collaboration, innovation and friendship. It is a model for any country that truly values her human capital.

In the past half century my father, the late Thomas Holt, celebrated his friendships with Chile and the important support they gave to us as we grew our family's commercial and cultural interests.

Over many decades which witnessed explosive growth and not a few crises, We have been proud to stand beside and behind Chile and her evolution. He and I were both humbled in our time to be named Friends of Chile and supporting "Encuentros" is a natural extension of the many encuentros that have meant so much to us.

The world of collaboration, connectedness and interdependence is

not a miracle of the Internet age. Chile is and was the first beachhead as the explorers of the New World turned the corner into terra incognita. She is now again a beachhead of common sense, innovation, transparency and optimism. "Encuentros" brings that forward in the world and for this we celebrate you all and welcome you to Boston. On behalf of Holt Logistics Corp, the Holt family and the world of people who celebrate and marvel at the power of the Chileno, bienvenidos!



Leo Holt

President Holt Logistic













The progress of globalization has highlighted the need for a new model of development that is focused on people and based on the concept of sustainable human development. As a result, knowledge, in the form of education and scientific or technological research, has become a key factor in overcoming poverty and improving quality of life. An important component of globalization is the growing mobility of people among countries, and particularly the migration of highly qualified professionals from developing countries to developed countries. In this context, in recent years the public policy agenda has begun to address the enormous potential that qualified migrants represent for their countries of origin.

The discussion has traditionally focused on whether the impact of this

phenomenon is positive or negative, both for the countries of residence and the countries of origin. Conventional thinking has viewed this mobility from developing countries to more advanced countries as a benefit to the countries of destination and a net cost for the countries from which these people have migrated, where only the impact of financial remittances has served as partial compensation for the cost of "brain drain."

Today, this focus has changed. The emphasis is now on the transfer of knowledge, experiences, skills and contacts, all components of the concept of human capital that has permeated the culture and state of the art of science in the countries of reception. These people have thus become a decisive factor for development and innovation in their

countries of origin, in what is known as "knowledge circulation."

For all of these reasons, the Encuentros conference, like others that bring together Chilean students and professionals living abroad, is an extremely valuable event in terms of sharing knowledge and building the social capital that Chile needs to take a leap forward in its development.

Fundación Imagen de Chile, through its ChileGlobal talent network, promotes and incentivizes the formation of networks of Chilean professionals in other countries so they can contribute to Chile's integration with the rest of the world. For us, the Encuentros conference is a model that is worthy of being replicated, and therefore I would like to congratulate the organizers and all participants.



Blas Tomic Executive Director Fundación Imagen de Chile













Congratulations to the organizers of the 2013 Encuentros conference, marking seven years of bringing together Chileans living abroad to connect around science and entrepreneurship.

The world-famous MIT Media Lab is an ideal setting to encourage creativity, collaboration and innovation.

When the chair of The Jackson Laboratory's Board of Trustees, Leo Holt, told me his company, Holt Logistics Corp., would be sponsoring this event, I was pleased to write this introduction. Leo works tirelessly to strengthen commercial and trade relations between the Republic of Chile and the United States. In 2009, the Chilean American Chamber of Commerce honored Leo with the "Friend of Chile" Award, recognizing his strong commitment.

There has never been a more important time for these Encuentros gatherings, as the scientific world becomes increasingly international and interconnected. A new report from the National Science Foundation indicates that internationally

coauthored science and engineering articles grew from 40 percent of the world's total in 1988 to 67 percent in 2010.

The NSF also notes the increased impact of Chilean scientists on international research: In the decade from 2000 to 2010, the percentage of Chilean scientists and engineers listed as coauthors on published research by multinational teams grew by 38 percent.

President Obama recently hosted a visit from Chilean President Sebastián Piñera, congratulating him on the work that Chile is doing in the Pacific Partnership. Chile, Colombia, Mexico and Peru are joining together to create economic integration, educational and scientific exchanges, and a model of economic development and growth throughout the region.

The Jackson Laboratory's headquarters in Bar Harbor, Maine, has much in common with Chile: It's full of talented people working at a distance from the world's large population centers. But regardless

of geography, we're both reaching out to the world and making our mark. As Encuentros participants, you are gathered in the United States to learn, collaborate and innovate. The Jackson Laboratory, a nonprofit genetics and genomics research institution, is reaching out to the world with its science, resources and education. Its research staff includes people from 30 nations, and they collaborate with scientists around the globe.

The Laboratory also has a unique role in distributing genetically defined laboratory mouse models to the worldwide scientific community, including researchers in Chile. Last year we conducted a workshop on managing mouse colonies in Santiago at the Fundación Ciencia & Vida, where our staff were most hospitably received, and it was an opportunity for them to connect with Chilean scientists.

Science is moving to a much more international, inter-institutional, interdisciplinary model. Here at the Encuentros conference, you are coming together to create new ideas and build new relationships that will be so critical to the great scientific discoveries and applications awaiting us in the 21st century.



**Thomas S. Litwin**Vice President for Education
Jackson Laboratoiry



#### **MIT Sloan Latin America**

Located in Santiago, Chile, the mission of the MIT Sloan Latin America office is to develop and nurture meaningful activities throughout Latin America that benefits the region, the School and the Institute, and supports the advancement of management education and practice. This will be accomplished by enhancing admissions activities, providing new opportunities for Action Learning for MIT students, support increased research for faculty and students, and prompt the activities of MIT throughout the region. For additional information, please contact Julie Strong, Director, MIT Sloan Latin America Office at jstrong@mit.edu















#### Monsanto Chile

Monsanto is proud to be part of the Encuentros 2013 conference in its eight version, which brings Chilean young people, academics and professionals together in Boston, United States. Undoubtedly, an inspiration that acts as a link for Chileans who continue expanding their knowledge beyond their national borders, and whose number of participants is increasing year after year.

When we were invited to participate, we did not hesitate to be part of this event for the first time, mainly because we feel identified with the spirit promoting this year- inspire innovation. An idea that is deeply rooted both in Monsanto and young talents, i.e., young professionals, academics, researchers, etc. who are part

of our company and have contributed their ideas to support the growth of our business in Chile and around the world.

We are a company based in United States and with over 100 years of history, traditionally characterized for promoting technological development. In this field, throughout these past 13 years, we have specifically contributed to the growth of agriculture and farmers. Thanks to innovation and the quality of our products, we have become global leaders in the production of seeds and biotechnological development, helping farmers to achieve higher performance in their crops in more than 71 countries around the world.

Today, we are confronted to coexist with a number of significant challenges, mainly generated by an increasing world population, a deficit of resources and a deterioration of the environment. Then it is everyone's task to find solutions to these issues besetting the humanity as a whole. Encuentros 2013 is also a forum to gain new ideas while stimulating creativity, and to address complex issues requiring inter-disciplinary perspectives. Thus we will jointly find solutions to these challenges from the experiences that each of us has gained.

Daring to innovate is everyone's challenge to do our part in Chile and the world. Let us wish much success to all of you in Encuentros 2013, and let's have a nurturing experience.



# Program Overview

Time	Thursday - June 27	
14:00 -19:00	Conference Registration at the Media Lab	
16.00-18.30	Arrival at Harvard Square for the Innovation Tour	
19:00-19:30	Official Welcome: Cesar Hidalgo, Creative Director and Yuly Fuentes, President Encuentros 2013	
19:30-21:00	Round Table "The Origin of Ideas" Lise Eliot, Amaranth Borsuk, Veronica Cabezas and Albert Gardula	
22:00-01.30	Free time "Night life in Boston"	
Time	Friday - June 28	
8.00-9.00	On-Site Registration. Working Session Wolf Greenfield.	
9.00-10.30	We are all Artists. George Stiny, Edith Ackermann and Saeed Arida.	
10:30-11:30	Networking (Coffee break)	
11:30-13:00	Meaningful Social Development. Humberto Maturana and Ximena Davila	
13.00-15.00	Networking (Lunch)	
15:00-16.30	Big Data. Luis Orozco, Nathan Eagle and Rachel Schutt.	
16.30-17.30	Networking (Coffee break)	
17:30-19:00	Bioinnovation. Ricardo Uauy, Tomás Egaña, Lauren Celano.	
19:00-21:00	DEMOS and POSTER session	
Time	Saturday - June 29	
	On-Site Registration	
9:00-10.00	Conference Conversations with Humberto Maturana and Ximena Davila	
10.00-11.30	Aji Challenge. Conrad von Igel, Fiona Murray and Cristian Shea.	
11:30- 12:30	Networking (Coffee break)	
12:30- 13:30	Unconference	
13:30- 14:00	Networking (Lunch)	
14:00 - 16:00	Talent Fair	
16:00-16:30	Networking (Coffee break)	
16:30-17.30	Round Table: INNOVO. Francisca Valenzuela, Alfredo Zolezzi and Alberto Rodriguez-Navarro.	
17:30-19:30	Closing address. Felipe Bulnes, Yuly Fuentes, Cristian Hernandez.	
21:00-2.00	Conference Dinner, and Conference Party	

## The innovation tour

During the conference we have prepared some amazing social activities, so that you will be able to meet and get together with other participants in a relaxed and entertaining atmosphere. First, we will start the conference discovering Boston past and present in the Innovation Tour. Be involved in a trip across time, moving from Harvard's past to the Age of Technology at MIT. We will be stopping at key historical places, for example:

**Harvard Yard**--Site of the oldest Institution of Higher Learning in the USA.

Harvard Science Center--Home to Harvard's undergraduate sciences, and the museum of Scientific Instruments, including Harvard Mark I, the world's first computer.

Holden Chapel/Harvard Medical School--The Site of Harvard's first medical school from 1782.

The T--The oldest underground system in the United States, and the longest continuously operated Subway in the world.

Kendall Square--The highest concentration of Tech and Biotech companies per square mile give Kendall the honor of "Most Innovative Square Mile" in the world.



**Broad Institute**--A collaboration between Harvard and MIT to solve the riddles of genetics.

**Technology Square**--With between 35 and 40 companies in its facilities, Technology Square is the heart of Kendall's business district. Novartis, Draper Labs, Microsoft, and Google all have space inside this mega-complex of innovation.

**Koch Center**--With an average of one Nobel Prize a decade, MIT's Center for Cancer Research got a makeover in 2007, reopening as the Koch Center, and daily making huge strides to eradicate the blight of Cancer.

**Stata Center/Great Dome**--The two most distinctive buildings at MIT also carry some of the best stories of intelligent mischief.

**The Media Lab**--The mission of the MIT media lab is to Invent the Future. Come see where history might lead us next at the final stop.

DISEMBARK at the Media Lab, where your journey through the centuries of Discovery will end with whatever you make next!



## Organizers

## Organizing Comittee



#### Yuly Fuentes-Medel

President

Born in Talcahuano. Yuly Fuentes-Medel is a biochemist from University of Concepcion, and holds a PhD in biomedical sciences from the University of Massachusetts Medical School, USA, and began a postdoctoral fellowship in March 2012 at the MIT Sloan School. She is an active member of women entrepreneurs in science and technology (WEST). During her time as a Ph.D. student, she pioneered the co-organization of the International workshop called "Small Brains Big Ideas"



#### **Alex Behn**

Vice-President

Born in Santiago, Alex is a psychologist from Universidad Diego Portales in Chile. He is currently a Ph.D. candidate in Clinical Psychology at Columbia University where his research focuses on patient change in psychoanalytic psychotherapy. He is also a Fellow at the Columbia University Center for Psychoanalytic Training and Research. Alex has been participating in the Encuentros conferences since 2010.



#### **Mayra Feddersen**

Program Director

Born in Chuquicamata, Chile, Mayra earned her Law degree from Diego Portales University. Between 2006 and 2009, Mayra was a researcher at the Human Rights Center. During those years, Mayra was an active litigator in favor of disenfranchised minorities in national and international tribunals. In 2011 Mayra earned an L.L.M. from Berkeley Law, and in 2012 she started her doctoral studies at the Jurisprudence and Policy Program at the University of Berkeley California.



#### **Carmen Landa**

**Chief Logistics** 

Born in Chillan, Carmen earned her Advertising degree from Duoc UC. She holds a certificate in Corporate Communication from PUC Chile and a certificate in Event and Meeting Planning from SFSU. In 2008 Carmen was a Marketing Associate at Pre-Universitario Pedro de Valdivia. Between 2009 and 2010 she assisted in logistic and catering activities at the UC Berkeley Chile Seminars. In 2011 Carmen actively participated in the organization of Encuentros 2011.



#### **Cesar Hidalgo**

Creative Director

Born in Santiago de Chile, César A. Hidalgo holds a PhD in Physics from the University of Notre Dame and a bachelor's degree in Physics from the Pontificia Universidad Catolica de Chile. César is an assistant professor at the MIT Media Lab, and faculty associate at Harvard University's Center for International Development. Before he was an adjunct lecturer at Harvard's John F. Kennedy School of Government.



#### **Eduardo Villablanca**

Creative Director and Founder Eduardo studied Molecular Biotechnology Engineering at the Universidad de Chile and earned a doctorate in Molecular Medicine from the University of Vita-Salute, Italy. Now he lives in Boston, and is currently Instructor of Medicine in Harvard Medical School, Assistant Immunologist at Massachusetts General Hospital and Research Assistant at the Broad Institute. Eduardo has been one of the pioneers of Encuentros, organizing the first meeting in Dresden, Germany.

### **Assistant Directors**



#### **Amaranta Alfaro**

Communications Director
Born in Santiago. Amaranta is a PhD
student in the Graduate School for Media & Communication at Hamburg University.
She received an Erasmus Mundus Master of Arts in Media, Communication and Cultural Studies from the universities of Roskilde (Denmark) and Kassel (Germany). She also holds a BA in Communication and Journalism from the Universidad Diego Portales. Her current research interest is the integration and participation possibilities of social media in Chile.



#### **Isidora Valdes**

Webmaster/Social Coordinator Integral Designer from Universidad Católica with a degree in Business Management from the Business School of Universidad de Chile. Her main interests are in the area of entrepreneurship, branding, design thinking, marketing and strategy. In 2010 she founded GOOSE, a consultancy firm/design studio based in Santiago, Chile. Now she lives in Boston. Currently she manages GOOSE Chile, founded GOOSE Boston and performs consulting and advisory services.



#### **Martin Alonso**

Assistant Director
Martín Alonso is an architect and product
designer. He has a degree in Architecture from
the Catholic University of Chile and an MFA in
design from Stanford University. He currently
lives and works in NYC.



#### **Daniel Rosenberg**

Assistant Director
Daniel is a trained architect, designer and researcher currently investigating how to address sensations, feelings and emotions within the design process in order to be able to shape engaging, meaningful and enjoyable human experiences.



#### **Consuelo Del Canto**

Assistant Director

Consuelo del Canto got her B.A. in Sociology at Universidad Católica de Chile. Her work experience has been mainly in conducting education research projects and designing and evaluating education policy. In 2010 she was awarded a Fulbright scholarship to study a Master of Education at Teachers College, Columbia University and now she is pursuing a PhD at the same institution. Her fields of interest include issues of equity and quality in higher education.



#### **Andres Feddersen**

**Assistant Director** 

Born in Rancagua, Chile, Andrés is a writer. He has a Bachelor's degree in Compared Literature and a Master's degree in North-American poetry. Both diplomas were granted by Paris III – Sorbonne Nouvelle. Andrés has studied the relations between the written and the oral in Allen Ginsberg's work. He also wrote articles for the Chilean art magazine La Panera. He is the author of two books (poetry and theater) and is now preparing his third.



#### **Paula Pacheco**

Assistant Director
Paula Pacheco Flanagan holds a B.A. in
Sociology from PUC and a M.A.in Public
Administration from Columbia University.
Between 2004 and 2006 she worked in
educational policies -conducting research
projects and evaluations. In 2006 she worked
as an advisor to the Under Minister of Regional
Development and in 2008 was appointed Chief
of Staff of the Minister of Labor. Currently she
works at the Columbia Global Center/Latin
America(Chile).



### **Rodrigo Noseda**

Assistant Director
Born in Santiago, Chile, Rodrigo Noseda
is Doctor of Veterinary Medicine from
Universidad de Chile and PhD in Neuroscience
from Université d'Auvergne, France. Currently,
Rodrigo is Instructor in Anaesthesia at Harvard
Medical School and Beth Israel Deaconess
Medical Center. During the last 3 years, he
has been an active member of Nexos ChileUSA, organizing the Boston version of Nexos
and a regional Symposium of Young Chilean
Investigators.



#### **Eduardo Undurraga**

Assistant Director
Eduardo is a PhD student in Social Policy
at the Heller School of Social Policy and
Management at Brandeis University. His
area of research specialization is on poverty,
inequality, and international health. Eduardo
also has considerable experience working in
shanty towns in Chile. He holds an Hydraulic
Engineering degree from Universidad Católica
de Chile and a Master in Latin-American Social
and Political Studies from Universidad Alberto
Hurtado.



#### Paula Lekanda

**Assistant Director** 

Paula is pursuing a MA in Law and Diplomacy at the Fletcher School of Law and Diplomacy, Tufts University. She specializes in human security, international organizations and migration. She holds a BA in Political Science and a BA in History, both from PUC. She has experience working at Human Rights Watch, at the Centre for International Studies at PUC, and in a joint project between the Political Science Institute at PUC and the UN High Commission on Refugees.



Sebastián Bustos

Assistant Director

Sebastian Bustos is a PhD student in Public Policy at the Harvard Kennedy School and a Research Fellow at the Center for International Development's Growth Lab. He worked several years in the financial sector and as advisor to Minister of Finance of Chile. His focus of research is on the economics of entrepreneurship and private sector development. Sebastian is one of the coauthors of the Atlas of Economic Complexity.



José Manuel Brito

**Assistant Director** 

Physicist from University of Concepción, he is currently pursuing a Phd at the University of Saarland, Germany. He has worked on the development of an optical trapping device for laser manipulation of micrometrical particles, including organic tissue and bacteria. Currently, he works on quantum interfaces with single photons and atoms. José Manuel is also founding member and coordinator of the network of chilean researchers in Germany, Red Inveca.



Jose Zubizarreta

**Assistant Director** 

Born in Santiago. José Zubizarreta is an engineer from Universidad Católica, and holds a master in economics from Universidad de Chile. At the present he is a PhD student in statistics at The Wharton School of the University of Pennsylvania. His research focuses on causal inference in observational studies, with applications to the medical and social sciences.



**Tomas Buttazzoni** 

Ají Challenge Coordinator

the Ají Challenge.

Attorney from Universidad Católica. He came to Boston in 2010 to start his MBA at Babson College, where he concentrated his studies in Corporate Finance and his business focus in the energy industry. Additionally, he was advocate for Start-Up Chile at Babson. Today he runs the

energy industry. Additionally, he was advocate for Start-Up Chile at Babson. Today he runs the Natural Gas/LNG Division at Citizen Energy Corporation, in Boston. He is passionate about innovation to solve energy constraints, and is the head of Encuentros' business competition,



Jennifer Griffin

Aji Challenge Coordinator
Jennifer holds a B.S. in microbiology from
UMass and a Ph.D. in molecular genetics
and microbiology from the same University.
Today she holds a position in the Technology
Licensing Office at MIT, where she works
on the IP portfolios of MIT professors and
entrepreneurs and helps them evaluate their
ideas with respect to both patentability and
commercial value. She works closely with
inventors, entrepreneurs, and patent attorneys.



Diego Rigo-Righi

Aji Challenge Coordinator
Babson MBA and Master in Finance from U.
Adolfo Ibanez. Recently he structured and
participated in the sale of a medium size
company in Chile and worked for a start--up
company in USA shaping its financial strategy.
He worked for 5 years in corporate finance
for Chile's biggest public company structuring
debt and derivatives and executing the related
capital market transaction. He has also worked
in New Zealand for AC Nielsen and "Save the
Children".



**Felipe Silberstein** 

Aji Challenge Coordinator
Industrial Engineer with profesional experience
in Procurement, Sales and Marketing by
working for the Public Transportation
department of Mercedes Benz Chile. After
getting his MBA from Babson College,
which was focused on Innovation and IT
Management, he founded Rayalab; a company
that is developing an Internal Social Media to
enhance innovation within companies and to
make both communication and collaboration
a key element of the company client's
environment.

## Senior Advisory Board



#### **Cristian Hernandez**

#### Chairman

Molecular Biotechnology Engineer from Universidad de Chile with a Master in Bioscience Enterprise from the University of Cambridge. He has been a successful bioentrepreneur, business consultant both in Chile and in England and Business Development Manager at Summit plc UK. He joined Fundación Ciencia para la Vida as Director of Business Development in 2007 and currently heads the Chilean biotech start-up Andes Biotechnologies.



#### **Daniel Almonacid**

#### Financial Advisor

Clinical Biochemist from Universidad de Concepción in Chile, and Doctor in Molecular Informatics from the University of Cambridge in the UK. Daniel is currently a postdoctoral scholar at the department of Bioengineering and Therapeutic Sciences at the University of California, San Francisco (UCSF). Daniel has also served as treasurer and is the current vice president of the Postdoctoral Scholars Association at UCSF.



#### **Maria Jose Navarrete**

#### Program Advisor

Veterinarian from Universidad de Chile with a Masters Degree in Preventive Veterinary Medicine from the University of California, Davis and a PhD in Veterinary Pathology from the University of Veterinary Medicine of Hannover, Germany. Currently, María José is a junior Professor at Universidad Austral de Chile in Valdivia, at the Anatomy Pathology Lab, in the Institute of Animal Pathology. María José participated actively in Encuentros 2010, 2011 and 2012.



#### Juan Pablo Hontavilla

#### Media Advisor

Historian and journalist from the Catholic University of Chile, with postgraduate studies in war correspondence from the War Academy of the Chilean Army. Juan Pablo has experience in Chilean media including El Mercurio newspaper, and Canal 13 (open signal) and Canal 13C (cultural signal) TV Channels. Juan Pablo participated in the organizing committee of Encuentros 2010 as General Coordinator and in Encuentros 2010, 2011 and 2012 as Media Liaison.



#### **Luis Pablo Herve**

#### Coordination Advisor

Veterinarian from Universidad de Chile with a Masters Degree in Preventive Veterinary Medicine from UC Davis and PhD in Veterinary Epidemiology from the University of Veterinary Medicine of Hannover, Germany. Currently Luis Pablo is an entrepreneur in Valdivia, Chile where he is attempting to combine Veterinary & Computer Science, Epidemiology and Food Safety in a IT Company with joint Chilean and German Capital. Participated actively in Encuentros 2010, 2011 and 2012.

## Platinum Sponsors









## Sponsors

















COLUMBIA GLOBAL CENTERS | LATIN AMERICA

## Media Partners





# Strategic Partners



## Lectures and special sessions

This year's program is the result of a careful and thoughtful blending of the conference's goals (to present state of the art research and entrepreneurship) and the philosophy represented by our venue, the MIT Media Lab. At the very least, this signifies that in order to inspire innovation it is necessary to move beyond disciplinary boundaries. As a result, the program is organized around themes or even broad but crucial questions that can be answered from a plurality of discourses.

## Round Table "The Origin of Ideas"





Verónica Cabezas

Amaranth Borsuk





Lise Eliot

Albert Galaburda

The conference begins with a roundtable about the origin of ideas. This is not a new question for the humanities and attempts to understand how ideas emerge in our minds or in our interactions have been produced from within many different domains. Are ideas put into our minds by the old Gods? Are they the result of romantic inspiration? Are they an emergent product of brain synapses? Are new ideas produced, fostered, or impeded by education? The question about the origin of ideas is thus at the center of human activity and inaugurates the Encuentros 2013 Conference. Our first speaker is Lise Eliot, PhD in Neuroscience from Columbia University. Eliot challenges the notion that sex differences are hard-wired by showing that neuroplasticity also shapes children gender development. Amaranth Borsuk, PhD from the University of Southern California, continues the reflection by suggesting the flexible texture of language and its fluid relationship to innovation.

Amaranth suggests that literature should not shut itself to the new technological means of communication. A writer has much to learn from the creative process when he or she fathoms the possibilities of both page and screen. Veronica Cabezas, PhD from Columbia University, wraps up this panel by alerting us to the challenges of the educational system for encouraging or discouraging innovation. The panel will be moderated by Albert Galaburda, MD is Emily Fisher Landau Professor of Neurology and Neuroscience at Harvard Medical School and Professor, External Faculty at the Instituto de Ciencias Biomédicas at Universidad de Chile. Dr. Galaburda directs a laboratory at Harvard where his research focuses on the effects of gene manipulations on cortical anatomy, with special focus on developmental learning disorders tested in animal models, using tools of contemporary developmental neuroanatomy.

### Panel: WE ARE ALL ARTISTS







George Stiny



Edith K. Ackermann

This panel interrogates the myth of art as a kind of innate talent that is present from birth -a sort of magical ability that some people have and others don't. Instead we claim "We are All Artists: The Myth of the Innate Talent" because art is a skill that everyone can learn. George Stiny, PhD in Engineering, Edith Ackermann, PhD in Psychology, and Saeed Arida, PhD in Design and Computation, will unveil the inner-works of art. They will examine explicit ways to teach, learn and foster our artistic skills, showing how to bring forth new and unexpected projects, solutions, products, and theories in any field and practice. We are all artists' means that we are all born with the capacity to discover unexpected possibilities by reflecting on our actions, and with the ability to look critically at what we have created and change our mind freely about what we see.

George Stiny is a theoretician of design and computation who has developed explicit procedures to practice and teach art and design. His work stands as a critique of the vast majority of existing computer-aided design systems. Edith Ackermann is a developmental psychologist who has studied the intersections between learning, teaching, design, and digital technologies. She has been a consultant in several institutions around the world, ranging from the LEGO group to the Ministry of Education of Brazil. Saeed Arida is an entrepreneur and designer, whose work interest is teaching creativity. His research developed into NuVu, a magnet innovation center for kids in middle and high school.

### Démosle



Andrea Wolf



Tomas Folch



Daniel Rosenberg



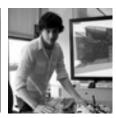
Cesar Hidalgo



Edwina Portocarrero



Brian Mayton



Gershon Dublon

We have invited artists, designers, and scientists to show their prototypes, art works, implementations, products, technologies. *Démosle* will be an informal and exploratory space where participants will get first-hand tangible experiences, and will continue the conversation and discussion of ideas proposed on the *We are all artists* panel. We are interested in discussing the process and not the final products, therefore the demos will be presented by their creators as rough prototypes in the making.

The creators showcasing their work are: Andrea Wolf (NYU, ITP), Tomas Folch (Harvard, GSD), Daniel Rosenberg (MIT, DCG), Cesar Hidalgo (MIT, MediaLab), Edwina Portocarrero, Gershon Dublon and Brian Mayton (MIT, MediaLab).

## Panel: MEANINGFUL SOCIAL DEVELOPMENT







Humberto Maturana

The second panel of the day features the work of Humberto Maturana, PhD, and Ximena Davila, co-founders of the Matriztica School of Santiago, Chile, and John Hammock, PhD, a Professor at Tufts University and Oxford University. The objective of this panel is to think about innovation in the form of transformative ways of thinking and understanding society, justice, and human interactions. We focus on innovations that trigger paradigm shifts, modifying the worldview of a (scientific) community with previouslyunthinkable ideas, new questions, and fresh methodological approaches to advance the understanding of human development. Humberto Maturana is the recipient of several national and international awards including the Chilean National Science Award for his research on perception and his approach to the biology of cognition. Together with Ximena Dávila, they have developed recently the biological-cultural Matrix of Human Living, which aims to unravel our operation as cultural-biological beings that can live ethically and lovingly, but have the capacity of generating the exact opposite. Their recent work invites us to transcend notions of control, domination, and logical-sequential order, and embrace our cooperative and loving nature as the ultimate source of human development.

In addition to the panel, we have organized a space for reflexive conversations with Humberto Maturana and Ximena Dávila. It will be a unique opportunity to share ideas and thoughts about the transformations and learning processes that are taking place at Encuentros2013 in an informal setting, while having a cup of coffee right before the last day of the conference resumes. This panel will be held in Spanish. Encuentros will provide simultaneous translation from Spanish to English.

## Panel: CRYSTALLIZING SCIENTIFIC DISCOVERY



Ricardo Uauy



Tomás Egaña



Lauren Celano

In the late afternoon, participants will enter into the world of bioinnovation: crystallizing scientific discovery. This panel addresses the process of innovation in the life sciences from the generation of original scientific knowledge to the crystallization of significant applications. Through the outstanding work of Dr. Ricardo Uauy, Dr. Tomás Egaña, and with the moderation of Lauren Celano the panel guides us from scientific discovery to public health.

Dr. Ricardo Uauy, Chilean National Award of Applied and Technological Sciences 2012, will inspire us with his leadership and dedication to nutritional sciences and population-based interventions to

prevent obesity, diabetes and cancer, as well as with his contribution to public health and policies for human development. A fresh perspective from the bottom of the innovation pyramid will be delivered by the junior scientist Dr. Tomás Egaña. His innovative research aiming to improve tissue regeneration with stem cells and gene-activated biomaterials will undoubtedly astonish the audience. Finally, the crystallization of such fundamental scientific knowledge into new drugs, biotechnological applications and medical devices will be addressed by Lauren Celano, Founder and CEO of Propel Careers.

### Panel: BIG DATA





Rachel Schutt

Luis Orozco



Nathan Eagle

The modern world generates a staggering quantity of data. Abundance of data and computing power has given researchers new ways to organize, learn and innovate. The term big data has come to refer to these very large datasets, and big data analytics to the process of seeking insights by combining and examining them. Whether the task is recommending books, putting targeted ads onto web sites or predicting health care outcomes or stock prices, big data is promising to change the way research will be conducted. The panel features the eminent work of Edoardo Airoldi, Ph.D. in Statistics from Carnegie Mellon, Luis Orozco, PhD in Physics from the University of Austin Texas, and Rachel Schutt, PhD in Statistics from Columbia University.

The panel is intended to provide an overview of the challenges and opportunities of big data from three different perspectives. Edoardo Airoldi's work has focused on statistical theory to analyze complex systems and their evolution. The computational techniques developed by Edoardo have provided new insights for molecular and cellular biology and therefore are extremely important for the research on cancer. Luis Orozco's research has focused on new technologies needed for super fast computers based on quantum physics. This increase in computer power will allow processing large data sets that are not possible yet. Rachel Schutt is a leading expert on methods for big data. She is a founding member of the Education Committee for the Institute of Data Sciences and Engineering at Columbia University. and her work includes statistical modeling, exploratory data analysis, machine learning algorithms and she is also interested on the ethical dimensions of data science.

### POSTER SESSION



In addition to the keynote speakers, at the end of the day participants will be able to engage in cross-disciplinary interactions with their colleagues. In an arranged and cozy environment, participants and speakers will get involved with ongoing research projects in the poster and demo session. Thirty students will be presenting their cutting edge research in the poster session. In addition to the poster session, two new activities are going to take place:

Chilean networks around the world

With the increasing number of Chilean studying and working abroad, the concern arose to build connections and networks to promote a more fluid exchange of knowledge, experiences, and research. To promote these student's initiatives, Encuentros 2013 has organized a poster conversation to learn more about what it means to participate in a research network. Representatives of Nexos, ChileGlobal, REICH, INVECA, Red Ciencia, and Red ICEC have already confirmed their participation. We expect to have some virtual visitors as well (Red ICE, UCL CHILEAN SOCIETY, ECH FranciaRed).

### AJI CHALLENGE





Fiona Muray

Cristian Shea



Conrad von Igel

The third day initiates with the grand final of the Aji Challenge business competition, where the three finalists -selected from 55 submitted projectswill compete to become the winner. In this session, a group of three highly qualified juries will assess the work of these young entrepreneurs, selecting the winner. Through the interaction between contestants and jury, participants and asistants will learn first-hand what investors are looking for when investing in start ups, how to find funding, and how to present scientific discoveries from the perspective of their practical application for commercial and social purposes. The jury is composed by Conrad von Igel, Executive Director of InnovaChile at CORFO (The Chilean Economic Development Agency); Fiona Murray, PhD in Applied Sciences from Harvard University, recognized for her study of science commercialization, the organization of scientific research and the role of science in national

competitiveness; and Cristián Shea, founding partner of Equitas Capital, an alternative asset manager for emerging markets in South America, member of the Advisory Committee of the David Rockefeller Center for Latin American Studies, a Harvard University affiliate organization, Cristián was an entrepreneur-in-residence (2012) at Harvard Business School and is an Advanced Leadership Fellow (2013) at Harvard University.

The finalists are BABYBE, a technology that aims to contribute to mother-infant multisensory bond when the infant has to stay in an incubator during the first moments of life; APIX, a new beehive design that increases honey production by 50% while reducing its size significantly when is in disuse, and finally, Kura Biotech, a technology for extracting enzymes from crop waste from abalone, produced in Chile, for use in toxicological analysis.

### THE UN-CONFERENCE



Next, participants, entrepreneurs, and academics will continue their day leading the formation of their own-interests working groups. The un-conference is a participant-driven meeting. The term "unconference" has been applied, or self-applied, to a wide range of gatherings that try to avoid one or more aspects of

a conventional conference. This term is derived from variations on the open space technology format/method developed by Harrison Owen in the mid 1980's. The idea is to use the space of Encuentros to empower assistants to organize their own initiatives. Anything is possible in this spontaneous format!

### TALENT FAIR





A logical step in the progression of participants' empowerment is the talent fair. Encuentros has consolidated over the years a rich networking experience. In its 7th version, Encuentros 2013 wants to put that experience into the benefit of its attendees. For the first time in the Encuentros Conference, we are organizing a professional and talent recruitment fair, where Chilean graduate students and professionals can meet with entrepreneurs, business owners, and public institutions to find concrete ways to collaborate together.

In this activity Encuentros' assistants will have the chance to meet with different institutions and companies in order to discuss the possibility of becoming part of their current or future staff.

Fundacion Imagen Chile, through her Chile Global initiative, is support this activity. Among its participants, this year we have: the Jackson Laboratory, a leading U.S. research genetics laboratory that is looking to meet prospective students; Pegas con Sentido, a Chilean non-profit organization that promotes jobs with a social content; FaroGlobal Investment a small Chilean entrepreneurial company that offers research opportunities for PhD students in the area of finance and investment; and Diego Portales University, a Chilean private university that is seeking to increase her Education, Engineer, Astronomy, and Neuroscience department.

### Round Table INNOVO



Alberto Rodriguez-Navarro



Alfredo Zolezzi



Francisca Valenzuela

Finally, the day ends with an interactive session that presents the stories of four Chilean innovators. These innovators will share their experiences in innovation, including successes, failures, limitations, and valuable lessons learned on the road to original ideas and projects. Through their personal stories, our guest will construct a perspective about the space of innovation in Chile and outside. Francisca Valenzuela, a Chilean-American singer, internationally awarded songwriter and composer, will be presenting her vision about innovation in the artistic and music field. On the other hand, Alfredo

Zolezzi will be talking about his model of "Objetivos Integrados" based on his belief that technological innovation is a tool to generate great economic and commercial profit, while at the same time being able to produce great impact on social development. Finally, Alberto Rodriguez-Navarro is a General Surgeon and GI Endoscopist with more than 10 years of clinical experience, who founded and runs Levita Magnetics, a company that develops new medical devices that diminish the need for incisions.

## **CLOSING ADDRESS**



The conference closes with the words of the Chilean Ambassador, Felipe Bulnes, and a reflection of the future of the Encuentros movement organized by Cristian Hernandez, Daniel Almonacid, Juan Pablo Hontavilla, Luis Pablo Herve and Maria Jose Navarrete (Senior Advisory Board of Encuentros)

### CONFERENCE DINNER AND PARTY



The Encuentros Conference will take place in one of New England's most historic cities. As such, Boston, and New England have a rich culinary tradition. The final dinner will be a true New England experience as we enjoy a Lobster Bake and Clam Chowder by the Charles River. Throughout the conference, participants will also typical Chilean dishes such as empanadas, pastelera, and, of course wonderful wines from Chile.

# List of Participants



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# Program Overview

Time	Thursday - June 27
14:00 -19:00	Conference Registration at the Media Lab
16.00-18.30	Arrival at Harvard Square for the <b>Innovation Tour</b>
19:00-19:30	Official Welcome: Cesar Hidalgo, Creative Director and Yuly Fuentes, President Encuentros 2013
19:30-21:00	Round Table "The Origin of Ideas" Lise Eliot, Amaranth Borsuk, Veronica Cabezas and Albert Gardula.
22:00-01.30	Free time "Night life in Boston"

Time	Friday - June 28
8.00-9.00	On-Site Registration. Working Session Wolf Greenfield.
9.00-10.30	We are all Artists. George Stiny, Edith Ackermann and Saeed Arida.
10:30-11:30	Networking (Coffee break)
11:30-13:00	Meaningful Social Development. Humberto Maturana and Ximena Davila
13.00-15.00	Networking (Lunch)
15:00-16.30	Big Data. Luis Orozco, Nathan Eagle and Rachel Schutt.
16.30-17.30	Networking (Coffee break)
17:30-19:00	Bioinnovation. Ricardo Uauy, Tomás Egaña, Lauren Celano.
19:00-21:00	DEMOS and POSTER session

Time	Saturday - June 29
	On-Site Registration
9:00-10.00	Conference Conversations with Humberto Maturana and Ximena Davila
10.00-11.30	Aji Challenge. Conrad von Igel, Fiona Murray and Cristian Shea.
11:30- 12:30	Networking (Coffee break)
12:30- 13:30	Unconference
13:30- 14:00	Networking (Lunch)
14:00 - 16:00	Talent Fair
16:00-16:30	Networking (Coffee break)
16:30-17.30	Round Table: INNOVO. Francisca Valenzuela, Alfredo Zolezzi and Alberto Rodriguez-Navarro.
17:30-19:30	Closing address. Felipe Bulnes, Yuly Fuentes, Cristian Hernandez.
21:00-2.00	Conference Dinner, and Conference Party

























