Fundación
Ciencia & Vida
Science for development

Fundación Ciencia & Vida is a private nonprofit institution aimed at improving the social and economic development of Chile through scientific discovery, entrepreneurship and education in the biological sciences.

Contents:

After having cofounded one of the world's largest biotechnology firms in the United States, Chiron Corporation, Pablo Valenzuela turned to his native Chile and founded Fundación Ciencia & Vida in 1996 together with Bernardita Méndez and Mario Rosemblatt. The idea from the outset was to create a bridge institution connecting academia and industry and encouraging the interaction between scientists, entrepreneurs, students and communicators. Throughout the years, Fundación Ciencia & Vida had become an integrated platform for research, discovery, advanced training, global science, entrepreneurship and outreach, an approach that received the name "Science 360°".

1996

Early research: Vaccines for salmon, red tide genomics and immunology

1999

First 4 patents are obtained for the vaccine against *Piscirickettsia salmonis* in Chile

2001

Pablo Valenzuela receives the National Award in Applied Sciences

2003

First Genetic Engineering Workshop for Opinion Leaders

First student graduates from the PhD Program in Biotechnology

Inauguration of the Science & Business Park

2005

Fundación Ciencia & Vida is awarded funding from CONICYT's Center of Excellence Program

Book "Molecular Biology of the Cell" (5th Ed) launches in Antarctica

2007

Epigenetics & Chromatin Lab is founded

Production of TV documentary series "La Fuerza del Universo"

2009

Documentary TV series "La Travesía de Darwin" launches

Fundación Ciencia & Vida produces first videogame for children "Xentinelas Xelulares"

Gene Immunotherapy Lab is founded

Fundación Ciencia & Vida receives the Avonni Award

National Congress awards Pablo Valenzuela the Bicentenario Medal

2011

Fundación Ciencia & Vida celebrates its 15 year anniversary

Editorial Ciencia & Vida founded and launches its first two books

2013

Mechano-Biology Symposium and Workshop takes place in collaboration with Columbia University

Bernardita Méndez receives the ICARE Award

First international Cell Biology course organized in alliance with Institut Curie

Pablo Valenzuela receives WIPO Gold Medal for Inventors

Lysosome Biology and Autophagy Lab is founded

Biology of Neurodegeneration Lab is founded

Mario Rosemblatt joins the Latin American Academy of Sciences (ACAL)

2015

2017

2018

Fundación receives funding award to establish the Millennium Institute for Fundamental and Applied Biology

Vaccine against *Piscirickettsia salmonis* licensed to Novartis, entering the global market

PhD program in Biotechnology is created in collaboration with Universidad Andrés Bello

First release of Eureka educational product

First Science & Friendship meeting with graduate students and professors from UCSF

Molecular Virology Lab is founded

Microbial Ecophysiology Lab is founded

California-based company Medivation Inc. begins operation at the Science & Business Park

Mario Rosemblatt receives the Science Merit Award from UNAB

Neuroimmunology Lab is founded

Andes Biotechnologies spins off from Fundación Ciencia & Vida and GrupoBios

Bus Conciencia is born: Science-on-the-go

Computational Biology Lab is founded

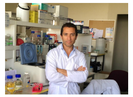
Fundación Ciencia & Vida celebrates 15 years in Chiloé

FDA allows Andes Biotechnologies to start clinical testing in patients

Pablo Rosenblatt receives the VerCiência Special Tribute Award

Editorial Ciencia & Vida launches book "Manifiesto por la Ciencia"

Rodrigo Pacheco is awarded a second Michael J. Fox Foundation grant



First season of TV series "Mentes Brillantes" launches

UCSF Chancellor Susan Desmond-Hellman signs Memorandum of Understanding with Fundación Ciencia & Vida

Fundación Ciencia & Vida releases first animated mini series "Ursi & Magnogeek, exploradores de otro mundo"

Pablo Valenzuela receives the UCSF Medal For Advancing Health Worldwide

Pablo Valenzuela receives the TWAS Regional Prize for Building Scientific Institutions

Luis Burzio is nominated to the Royal Society of Medicine (UK)

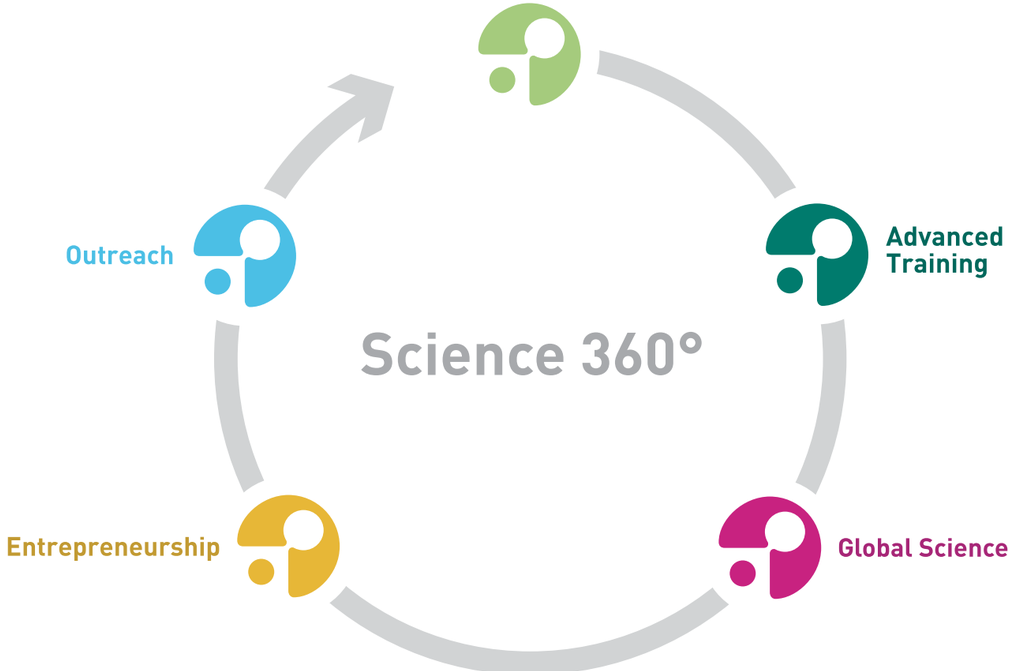
First Springer Nature Workshop takes place at Fundación Ciencia & Vida

Our Vision:
Science for development

We believe that science plays a key role in our social and economic development: science is our entrance door to a knowledge-based economy and a more equitable society.

We have embraced the concept "Science 360°", inspiring us to focus simultaneously on:

- Promoting discovery through scientific research.
- Training scientists for the future.
- Building international networks for the participation of Chile in global science.
- Promoting biology-based entrepreneurship.
- Strengthening science education in schools and stimulating awareness and excitement about science in the community.



Our Mission

Building Knowledge and Capacities,
through scientific research and the training of students and young investigators.

Building Global Networks,
through innovative programs of collaboration with local and foreign scientists and entrepreneurs.

Building Value,
by developing technologies and products that serve the needs of society.

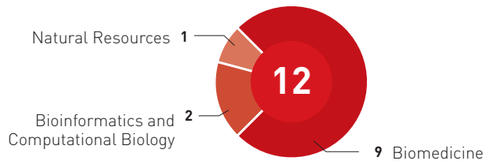
Building a Science Culture,
by stimulating public awareness and understanding of science.

Ciencia & Vida at a Glance

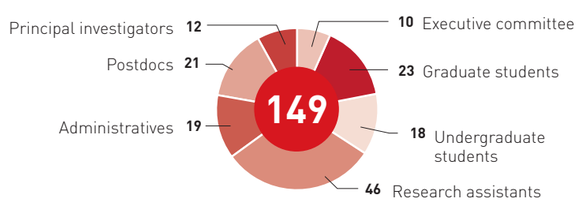
Year Founded

1996

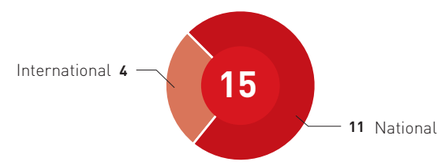
Research Groups



People



In-Campus Companies

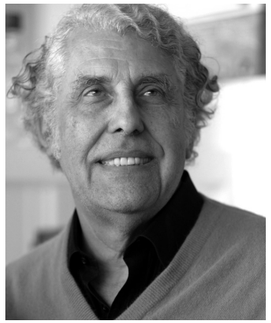


Our Governance

As a small independent center, the structure of Fundación Ciencia & Vida does not have many levels of hierarchical authorities. The organization is rather horizontal and includes individuals with expertise in entrepreneurship, business, intellectual property and technology transfer.

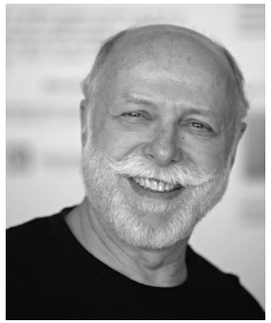
Bernardita Méndez
President & Cofounder.

BSc. in Biology from Universidad de Chile and Ph.D. in Cell Biology from Pontificia Universidad Católica de Chile. ICARE Award 2015 (Special category).



Pablo Valenzuela
Scientific Director & Cofounder.

BSc. in Biochemistry from Universidad de Chile and Ph.D. in Chemistry from Northwestern University, USA. Chilean National Award in Applied Sciences (2002), Life Time Achievement Award from the BayBio Association of California (2012), UCSF Medal For Advancing Health Worldwide (2014), WIPO Gold Medal for Inventors (2015), TWAS Regional Prize (2016). Member of the Chilean Academy of Sciences.



Mario Rosemblatt
Executive Director & Cofounder.

BSc. in Biochemistry from Universidad de Chile and Ph.D. in Immunology from Wayne State University, USA. Academic Excellency Award from Faculty of Sciences - Universidad de Chile (2008), Science Merit Award from Universidad Andrés Bello (2008), Basic Science Mentee/Mentor Award from the Transplantation Society, USA (2010). Member of the Latin American and the Chilean Academies of Sciences.

Sebastián Bernales
Director, International Programs.

BSc. in Biochemistry from Pontificia Universidad Católica de Chile and Ph.D. in Cell Biology from University of California in San Francisco, USA

José Patricio Cáceres
Director, Administration and Finance.

Certified Public Accountant with an MBA from Universidad de Ciencias de la Informática

Cristián Hernández-Cuevas
Director, Business Development.

BSc. in Molecular Biotechnology from Universidad de Chile and Master in Bioscience Enterprise from University of Cambridge, UK

Pablo Rosenblatt
Director, Eureka Program.

BSc. in Biology and Medicine from Pontificia Universidad Católica de Chile and Master of Fine Arts, Films from York University, Canada

Tomás Perez-Acle
Director, Information Technologies.

BSc. in Biology from Universidad de Concepción and Ph.D. in Biotechnology from Universidad Andrés Bello

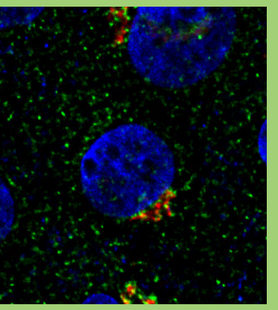
Nicole Halçartégaray
Campus Manager.

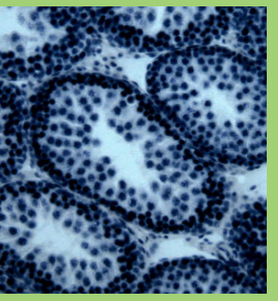
BSc. in Biochemistry from Pontificia Universidad Católica de Chile and Ph.D. in Biotechnology from Universidad Andrés Bello

Álvaro Martínez
Deputy Director, IP and Technology Transfer.

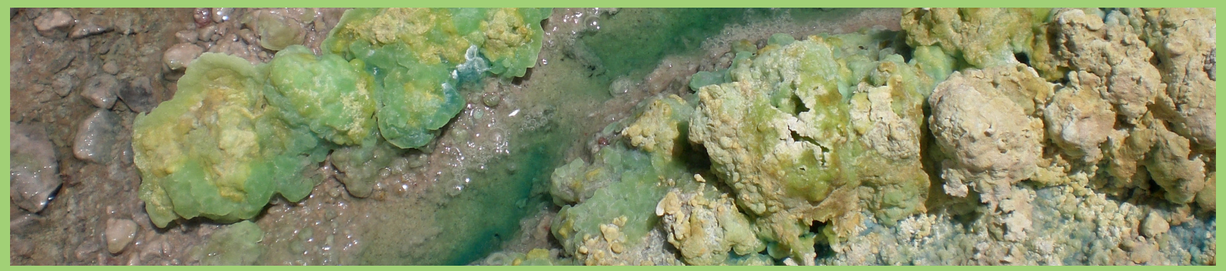
BSc. in Biochemistry from Pontificia Universidad Católica de Chile and Ph.D. in Biochemistry from Université Pierre et Marie Curie, France

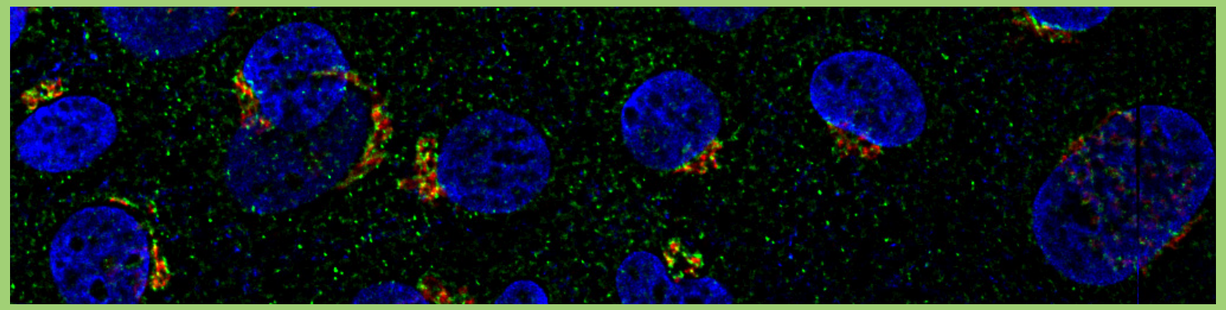
Research & Development:
Building Knowledge

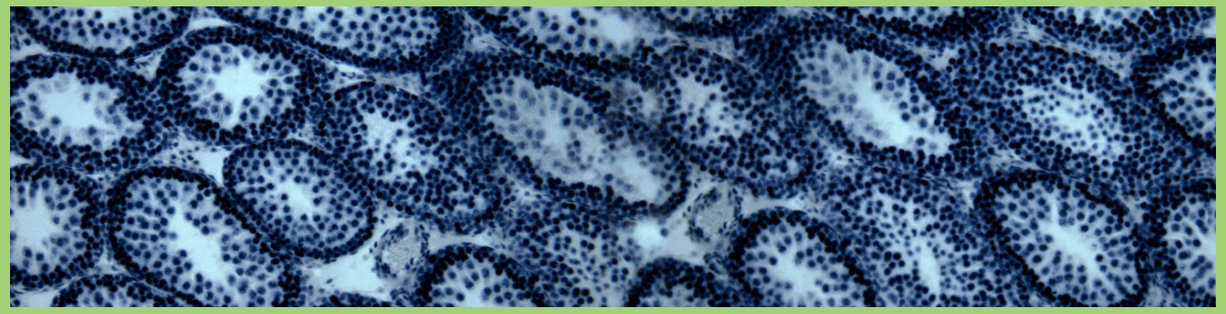




Scientific discovery through intramural R&D is the heart of our Science 360º strategy. Our scientists conduct research at different biological scales: from the genome to the population.







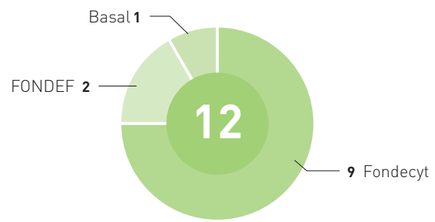
Research & Development:
Building Knowledge

Fundación Ciencia & Vida is a national scientific center of excellence and home to more than 120 scientists working in three main areas: Biomedicine, Computational Biology and Natural Resources.

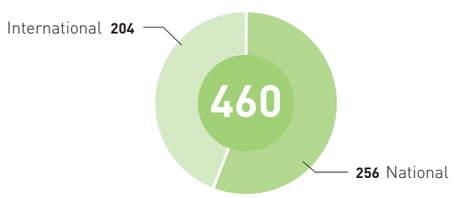
ISI Publications
Last 5 years (Average)

in top 50% journals

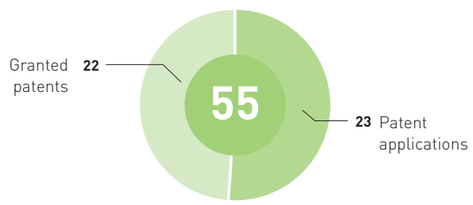
Current Governmental Grants



Communications to scientific meetings
Last 5 years



Intellectual Property
Last 5 years



Cluster I

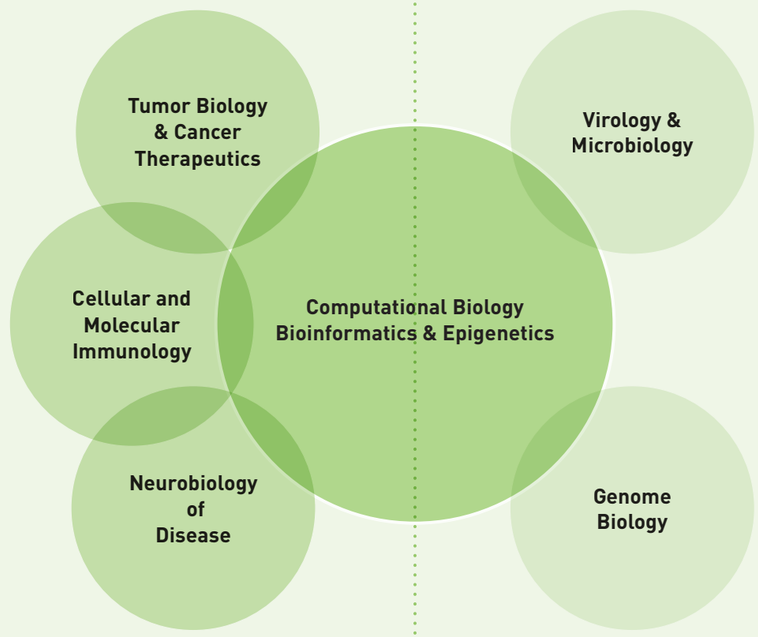
BIOMEDICINE AND TRANSLATIONAL RESEARCH
Seeking answers to fundamental questions in cellular and molecular biology and in the translation of basic research to the clinical setting.

Cluster II

BIOINFORMATICS AND NATURAL RESOURCES
Computational tools to study biological phenomena supporting applications in biotechnology, mining industry and human health.

Cluster I
Biomedicine and Translational Research

Cluster II
Bioinformatics and Natural Resources



Epigenetics and Chromatin

Understanding Gene Behavior

Although all cells of an organism contain the same genetic information, the genes expressed in different cells at a given time are not the same, thus determining their characteristics and function. In eukaryotic cells, the DNA is compacted around small basic proteins called histones that package the DNA in an orderly way in the cell nucleus. We know that histones can undergo several modifications that make DNA more or less compacted, thus regulating the genes that can be expressed at any given time. Our research focuses on understanding the mechanisms by which these modifications regulate cellular processes, such as the differentiation of T lymphocytes and the replication of the hepatitis B virus.

Alejandra Loyola
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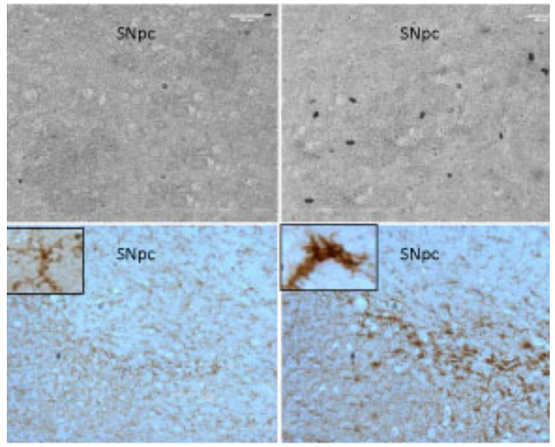
Neuroimmunology



Connecting Immunity with the Brain

There is no doubt that our nervous and immune systems play a key role in our organism but they are known for accomplishing very different tasks and are often thought of as two independent systems. The field of Neuroimmunology explores the complex interactions between both systems and their mutual regulation. Thus, the primary aim of our research is to understand the mechanisms operating in neuro-immune communications and their potential importance in infectious diseases, cancer and autoimmunity. We are also exploring how the activity of specific components of the immune system may regulate some functions of the nervous system or contribute to the development and progression of neurodegenerative disorders, such as Parkinson's disease.

Rodrigo Pacheco
rpacheco@cienciavida.org

Gene Immunotherapy

Harnessing Immunity to fight Cancer

Cancer is a highly prevalent and deadly disease. Conventional oncology treatments have devastating side effects and are not curative in advanced stages of the disease. We investigate Cancer Immunotherapy, a novel approach that aims to activate the patients' own immune system, namely cytotoxic T cells, to attack and ultimately eliminate tumors. In particular, we study long-lived "memory" cytotoxic T cells, which can provide long-lasting protection against primary tumors as well as cancer recurrence, including disseminated metastasis. We investigate how to stimulate memory cytotoxic T cells by using vaccines or by manipulating them in the laboratory to re-inject them back into patients (Adoptive T Cell Therapy).

Alvaro Lladser
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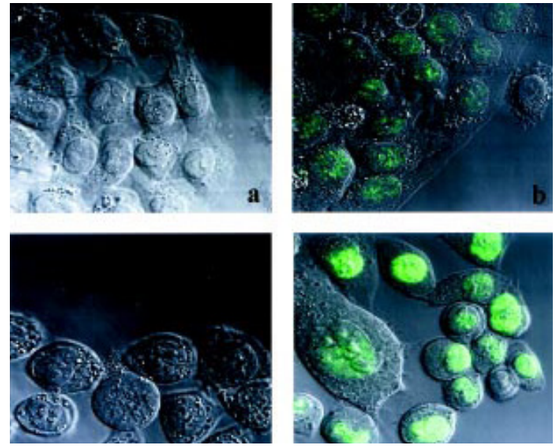
Cellular and Molecular Immunology

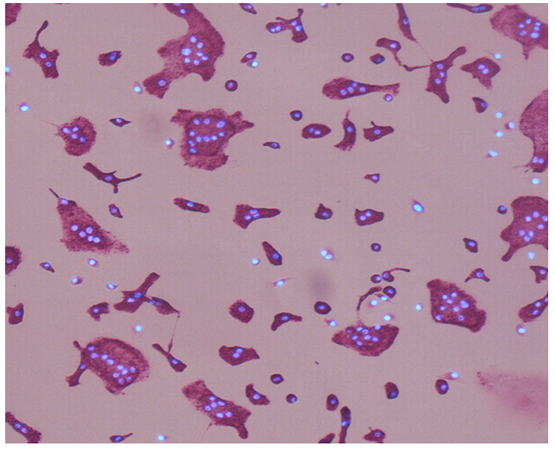


Applying Basic Immunology to Human Health

The immune system is an important actor in protecting the organism from many diseases and pathogen infections. At the center of this activity is the ability of the immune system to distinguish between self (tolerance) and non-self (immunity). However, a fault in the immune system can make it attack our own tissue generating an autoimmune disease. The main aim of our research is to study the immunological mechanisms that regulate the fine balance between immunity and tolerance. We hope to translate the mechanisms discovered in mouse models to improve human health covering several major areas of immunology, such as immunity and tolerance in the gut, organ transplantation, autoimmunity, and immunosurveillance of cancer.

Mario Rosemblatt
mrosemblatt@cienciavida.org

Translational Research



Exploring Therapeutic Targets for Diseases

Our cells sense and respond to internal and external signals by using very sophisticated networks of molecules known as intracellular signaling pathways. These pathways are not only important for normal cells but also for cells that are at the center of disease conditions. Our lab, which is composed of a unique group of cell biologists, biochemists, pharmacologists and chemists, focuses on the validation and modification of known signaling pathways that can be involved in diseases. Our goal is to bring projects from the bench to the clinic and minimize the time to do so. This approach was successfully applied to support the development of Xtandi, a drug for the treatment of prostate cancer, and is now being used to find new potential therapies for brain disorders.

Sebastián Bernales
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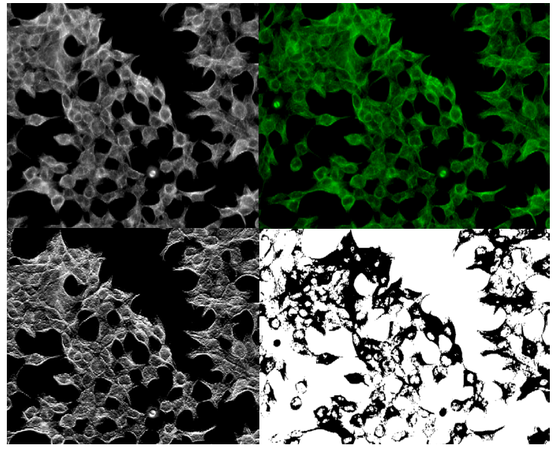
Biology of Neurodegeneration

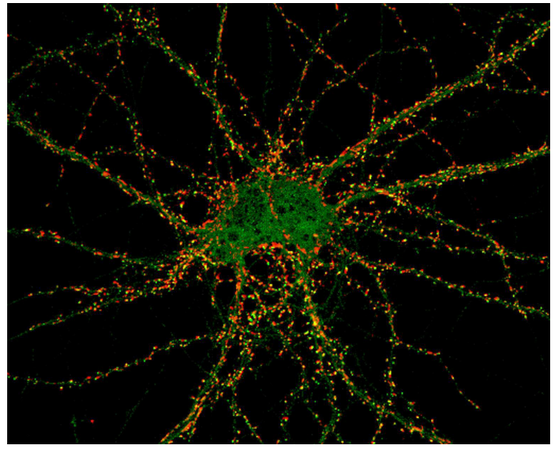


Evaluating Neural Adaptive Responses

The organisms are constantly challenged to face stress conditions such as lack of nutrients or infections. In order to cope with these situations, cells have developed adaptive responses that allow them to adapt to the new conditions. Doing so, cells overcome stress conditions and keep functioning. Our group is focused on understanding the role of these responses in essential functions of the central nervous system. Using genetic and pharmacologic tools, we are also exploring how these adaptive responses contribute to the aging process and neurodegenerative diseases such as amyotrophic lateral sclerosis.

María Soledad Matus
smatus@cienciavida.org

Lysosome Biology and Autophagy

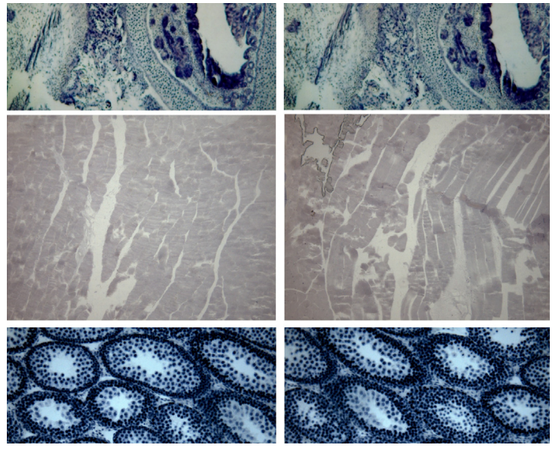


Elucidating Intracellular Communication

Discoveries from recent years have elevated the lysosome from its role as a degradative compartment to a signal integrator for cell growth, functionality and survival. Several developmental and chronic diseases have been associated with lysosome dysfunctions. Our main objective is to elucidate the mechanisms that explain how lysosomes integrate and execute stimuli from other parts of the cell and how they communicate with organelles to contribute to physiological and pathological conditions. The research lines in our lab involve the study of the molecular physiology of lysosomes and autophagy with a focus on neuronal and hepatocyte function in health and disease.

Iván Alfaro
ialfaro@cienciavida.org

Non-coding RNAs and Cancer

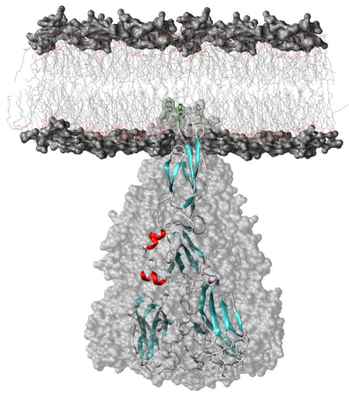


New Therapeutic Agents in Cancer Therapy

Cancer is characterized by an uncontrolled growth of affected cells leading to tumors, metastases and, in many cases, death. Until now, there is no definitive cure for cancer and the available treatments are highly aggressive, with devastating effects on both normal and tumor tissue. Our group has discovered a novel family of RNA molecules, which appear to be universal targets for cancer therapy. We aim to use them for the development of a wide range of drugs specific for cancer cells. Andes 1537, our most advanced drug candidate, is currently in Phase I trials at UCSF Medical Center.

Luis Burzio
lburzio@cienciavida.org

Molecular Virology



Examining the Mechanisms of Viral Infection

Viruses infect all domains of life and have an important role in both public health and evolution. Our aim is to unveil the mechanisms by which they modulate cellular membranes to enter cells. We study Hantaviruses and archaeal viruses to understand these processes in different life domains. Our group has functionally characterized the molecular basis for virus-cell membrane fusion and subsequent cell entry and developed strategies to block viral infection. We have also found that the viral envelope proteins auto-assemble into virus-like particles, thus driving the viral exit from cells. These non-replicative viral particles are of important value to induce and characterize immune responses for vaccine design.

Nicole Tischler
ntischler@cienciavida.org

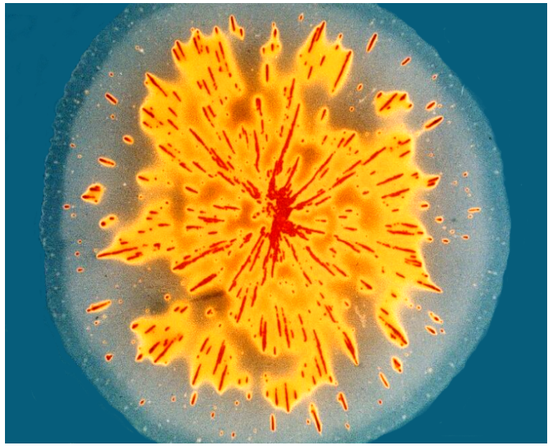
Microbial Ecophysiology

Refining Copper Nature's Way

How can we help mining for copper and other valuable metals become more environmentally sustainable? One promising and clean alternative is bioleaching that uses nature's microbes to catalyze metal recovery. Our group aims to understand the biology and ecology of mineral dissolving. For this purpose, we use a variety of molecular ecology and genomic tools. Through our research we hope to uncover critical control points that may affect mineral recovery and aid in the development of environmentally friendly mining technologies.

Raquel Quatrini
rquatrini@cienciavida.org

Bioinformatics and Genome Biology

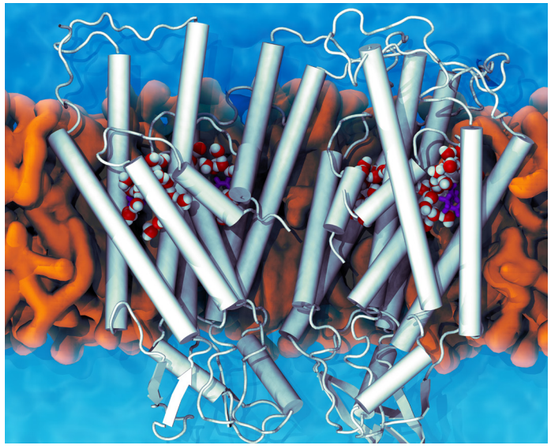


Probing the Deep Evolutionary Roots of Life

We are studying the evolution of microorganisms (extremophiles) that live in extraordinary environments, such as high temperature, acid pH and high salt. Extremophiles exhibit many interesting characteristics that are not only of fundamental interest but also make them useful in many biotechnological applications. For example, understanding their ability to use hydrogen, iron and sulfur as energy sources helps generate models of the emergence of life on earth and provides insight into the potential for life on exoplanets and moons (Astrobiology). Examination of their unusual physiological capacities is also advancing our understanding of how some extremophiles can operate as a consortium to liberate copper in industrial biomining (bioleaching) operations.

David S. Holmes
dholmes@cienciavida.org

Computational Biology



Modeling Life at Multiple Scales

The use of high-performance computing techniques combined with advanced mathematics, physics, chemistry, and biology, allows us to study the structure and dynamics underlying biological processes at different scales.
At the micro-scale (atomic level), we use molecular modeling and simulations to study mechanisms governing communication between cells, ion transport, and the recognition of extracellular signals. At the meso-scale (cell level), we use machine-learning and graph theory to infer and characterize biological networks focusing on cellular signaling, gene regulation and neural processing. At the macro-scale (population level), we use stochastic modeling to study the behavioral adaptation of populations due to the spread of information.

Tomás Perez-Acle
tperezacle@cienciavida.org

Advanced Training:
Building Capacities

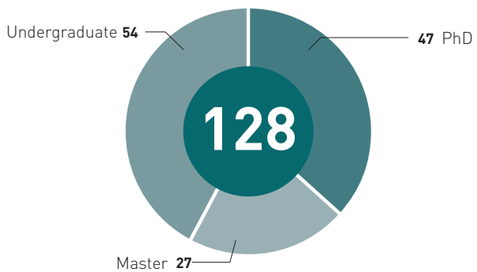
One of the major goals of Fundación Ciencia & Vida is to train future generations of scientists in order to contribute to the development of the biological sciences.

Advanced Training
Ciencia & Vida

Advanced Training:
Building Capacities

Fundación Ciencia & Vida prepares scientists that can carry out independent biological research and capture the business derived from new scientific knowledge.

Graduated students
Last 5 years



153 students enrolled in the PhD Program in Biotechnology since its inception in 2002

6 biotech start-ups created by our students

22 postdoctoral fellows in average in the last 5 years

13 members of the Constellation Program

We participate in the training of undergraduates, graduate students and postdoctoral fellows, in collaboration with academia and biology-based industry.

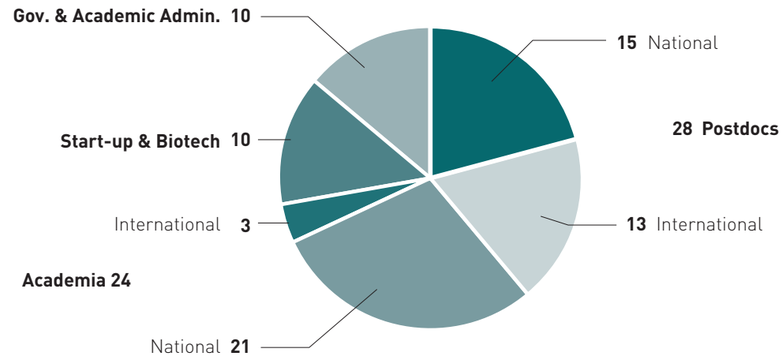
Ph.D. Program in Biotechnology

Through a partnership with Universidad Andrés Bello, Fundación Ciencia & Vida pioneered an unconventional Graduate Program that not only offers training in biotechnology and biomedicine, but also in leadership, entrepreneurship, science communication, business development, intellectual property and technology transfer.

Constellation Program

A network of Chilean young scientists and entrepreneurs living in Chile or abroad, who collaborate with the teaching and research efforts of our institute. This initiative's goal is to enrich the universe of possibilities for our students and encourage them to think globally.

Where are our graduates?



Ph.D. Program in Biotechnology

Special features:

- Strong interdisciplinary training and global approach
- Immersed in a Science & Business Park with biotech companies and basic research laboratories
- Lectures and workshops by scientists, entrepreneurs and businessmen
- Academic and entrepreneurial exchange with the University of California in San Francisco (USA)

Training skills in:

- Biotechnology and Biomedicine
- Entrepreneurship and Business Development
- Intellectual Property and Technology Transfer
- Leadership and Communication

In Their Own Words:

"It was a wonderful experience to join the Doctoral Program in Biotechnology at Fundación. I worked immersed in a fantastic scientific environment with the best biotech researchers in the country and had the opportunity to participate in several collaborative projects"– **Jorge Valdes, Director, Center for Genomics and Bioinformatics, Universidad Mayor, Chile.**

"I chose this graduate program because of my interest in biotechnology and the strong ties of Fundación with California, and my expectations were completely fulfilled. I performed part of my doctoral thesis in collaboration with the University of Berkeley, an experience that opened the way for a postdoctoral position at the University of California, San Francisco" – **Macarena Lolas, Program Manager, Diassess, USA.**

"Fundación Ciencia & Vida is an excellent place to develop professionally surrounded by amazing people. Thanks to their support, during my PhD program in Biotechnology I did an internship at the Karolinska Institute in Sweden where I completed my doctoral thesis"– **Nicole Rojas, Research Director, BFL, Chile.**

"I have fond memories of the nine years I spent at Fundación. I met not only smart and energetic scientists but also great friends and mentors that made a very positive impact on my career. After finishing my Ph.D. studies in Biotechnology, I moved to the US where I currently lead my own laboratory"
– **Esteban Engel, Director, Viral Neuroengineering Laboratory, Princeton University, USA.**

Constellation Program

In an effort to promote border research in basic sciences and their biotechnological applications, Fundación Ciencia & Vida has instituted "CONSTELLATION". This is a special program through which exceptional young researchers, established in Chile or abroad, are integrated into Ciencia & Vida as Adjunct Professors ad-honorem to collaborate with the teaching and research efforts of our organization and to receive our support in their academic and business activities.

In its start-up stage, this program recognizes 13 outstanding Chilean scientists, many of them former Ciencia & Vida's collaborators who have distinguished themselves internationally for their results as researchers or as entrepreneurs. We appreciate their trust in our institution and welcome them with open arms.

Macarena Lolas
Adjunct Professor in Regenerative Medicine.

Bachelor of Medicine and Surgeon (Universidad de Los Andes). Ph.D. in Biotechnology (Universidad Andrés Bello). Visiting Scholar at the Howard Hughes Medical Institute, Janelia Farm, Virginia, USA. Postdoctoral training at the University of California, San Francisco. Program Manager of the Chile-based laboratory of Diassess Inc. (California, USA).

Esteban Engel
Adjunct Professor in Neurovirology.

Biochemist (Universidad de Chile) and Ph.D. in Biotechnology (Universidad Andrés Bello). Postdoctoral training at the Molecular Biology Department, Princeton University, USA. Director of the Viral Neuroengineering Laboratory of the Princeton Neuroscience Institute, Princeton University, USA.

Komal Dadlani
Adjunct Professor in Nanobiotechnology.

Biochemist with a Master's degree from Universidad de Chile. CEO and co-founder of Lab4U. Recipient of the Cartier Award for the Women's Initiative 2015 and the Toyota Mother of Invention Award 2017. Chosen as one of Innovators Under 35 Latin America 2017 winners by the MIT Technology Review, and internationally recognized by The New York Times, Forbes, People Magazine and the BBC.

Fabiola Osorio
Associate Professor in Immunology and Molecular Pathology.

Engineer in Molecular Biotechnology (Universidad de Chile). Assistant Professor and Ph.D. in Immunology and Molecular Pathology (University College London, UCL). Postdoctoral fellow at the Inflammation Research Center, Belgium. Recipient of a Howard Hughes Medical Institute (HHMI) - International Research Scholar Grant.

Alejandro Tocigl
Assistant Professor in Entrepreneurship.

Commercial Engineer (Universidad de Chile, ESSEC Business School in Paris and Singularity University, NASA Ames, California). Former Business Director of Fundación Chile. Co-founder and CEO of Miroculus Inc. in the USA. Chosen as one of the 100 Young Chilean Leaders and Innovator of the year in Chile by the MIT Technology Review. Entrepreneur of the accelerators of Johnson & Johnson (JLabs), Stanford (StartX) and Google (Launchpad).

Hans Pieringer
Adjunct Professor in Entrepreneurship.

Engineer and Master in Biotechnology (Universidad Andrés Bello). Co-founder and CEO of the start-up Phage Technologies S.A. Co-founder and director of Medzyme Inc.

Francisco Herrera
Adjunct Professor in Molecular Neurobiology.

Biochemist (Pontificia Universidad Católica de Chile). Ph.D. (Michigan State University) and Postdoctoral training at University of California, Berkeley. Founder and CEO of the start- up Trancura Biosciences Inc. in the USA with laboratories at Fundación Ciencia & Vida.

Nicolás Cifuentes
Adjunct Professor in Molecular Virology.

Biochemist (Universidad de Santiago) and Ph.D. in Biotechnology (Universidad Andrés Bello). Postdoctoral training and Research Assistant Professor at the University of Kentucky, USA.

Gonzalo Fuenzalida
Assistant Professor in Entrepreneurship.

Commercial Engineer (Pontificia Universidad Católica de Chile). CEO of Austral Biologicals Inc., California, and Founder and CEO of the start-ups Ango and Andes Agriculture.

Eduardo Villablanca
Adjunct Professor in Immunology.

Ph.D. in Molecular Medicine (Universitá Via-Salute, Milan, Italy). Postdoctoral training at Harvard Medical School (Boston, MA, USA) and Broad Institute (Cambridge, MA, USA). Wallenberg Academy Fellow in Medicine. Assistant Professor in Immunology at Karolinska Institute, Sweden.

Simón Vidal
Adjunct Professor in Regenerative Medicine.

Biochemist (Universidad Andrés Bello) and Ph.D. in Biomedicine (New York University). Postdoctoral fellow at Genentech Inc.

Vincenzo Borgna
Adjunct Professor in Urogenital Cancer.

Surgeon and Ph.D. in Biotechnology (Universidad Andrés Bello). Postdoctoral fellow at Fundación Ciencia & Vida.

Sergio Quezada
Adjunct Professor in Immunomodulation and Cancer.

Biochemist (Universidad de Chile) and Ph.D. in Immunology (Dartmouth Medical School, New Hamshire). Postdoctoral training at Memorial Sloan Kettering Cancer Center, New York. Full Professor, University College London.

Global Science:
Building Networks

Scientific language is universal and diverse cultures enrich scientific development with different perspectives and realities.

Global Science:
Building Networks

Fundación Ciencia & Vida engages in fruitful collaboration with international institutions, working together to develop inspiring initiatives that span the globe.

Putting Chile on the map

Since Chile is physically located far away from the centers of excellence of the world, we aim at positioning Chilean science in international research circles.

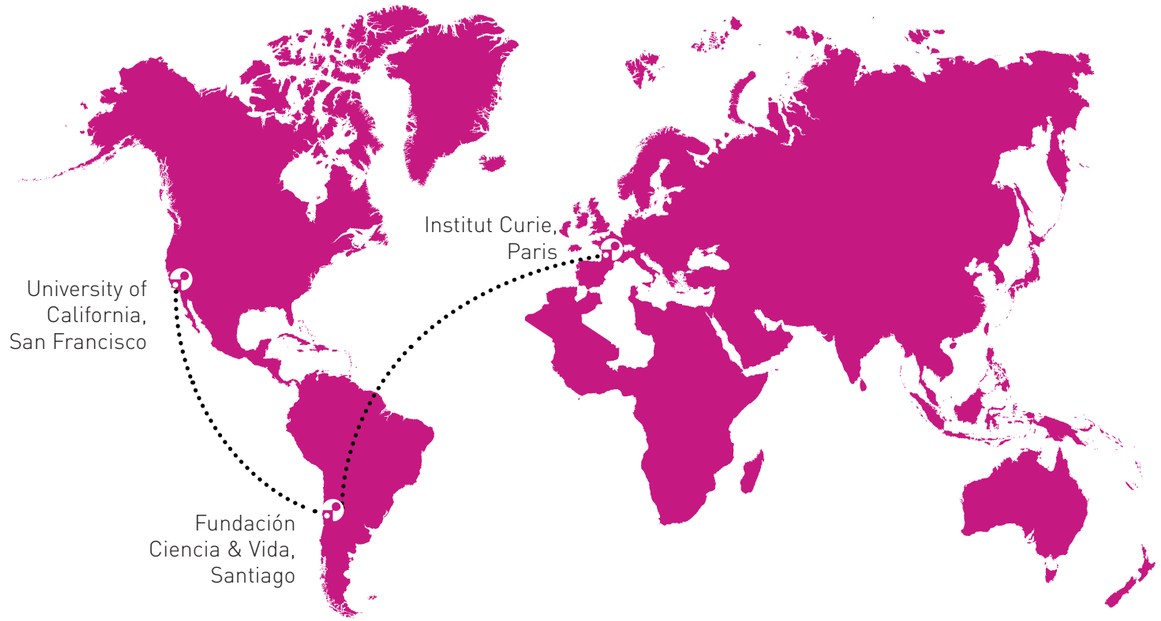
2 International institutional alliances

10 Science & Friendship meetings

5 International scientific courses in the last three years

2 Springer Nature workshops

10 Encuentros Conferences



We have established two strong and multifaceted international alliances, with a special focus on building lasting relationships between local and foreign young scientists.

Ciencia & Vida–California Alliance

Mining the “new gold” of California: research, innovation and entrepreneurship

We have built a strong alliance with the University of California, San Francisco (UCSF) that has provided us with a direct connection to one of the top places for biological research and entrepreneurship in the world. This program has nurtured not only our advanced training programs but also our entrepreneurial and science culture activities.

SCIENCE & FRIENDSHIP MEETINGS

Since 2005, we have invited more than 200 professors and graduate students from UCSF to participate in scientific meetings in Chile. Through this initiative, we foster the development of long-term partnerships between the young scientists that serve as a model for scientific interactions across national boundaries.

6 Companies from California in our Park

4 Companies from our Park in California

1 Clinical trial at UCSF Medical Center

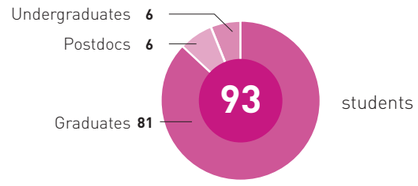
4 Collaborations in science education projects

Ciencia & Vida–Institut Curie Alliance

Building lasting relationships among young French and South American researchers

In 2015, we paired up with Institut Curie in Paris, France, for the co-organization and co-funding of biennial intensive Cell Biology courses with the aim of stimulating high-level discussions about the field and providing networking opportunities among the participants. Eight researchers from Chile and eight from France are invited to give lectures and to train and guide French and South American students in the creation of an interdisciplinary research project. This new modality has resulted in a very valuable scientific and personal experience for all of them.
We are now focused on developing a long-term alliance that can promote and support research collaborative projects among our scientists and influence our entrepreneurial and educational programs as well.

Our Cell Biology courses have trained a total of



Program Coordinators

María Soledad Matus
Fundación Ciencia & Vida

Ana-Maria Lennon
Institut Curie

Ciencia & Vida–California Alliance

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6 Companies from California in our Park

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1 Clinical trial at UCSF Medical Center

4 Collaborations in science education projects

Some highlights of our international alliances

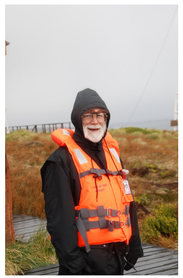
Boarding the military airplane "Hercules" that took us to Antarctica to launch the fifth edition of the book *Molecular Biology of the Cell* – Isla Rey Jorge, Antarctica, January 2008

Bruce Alberts and Martin Raff presenting the fifth edition of the biology text book in Antarctica – Base Presidente Frei, Antarctica, January 2008

Fundación Ciencia & Vida's scientists form a flashmob to surprise their Californian guests and to celebrate Fundación's 15 years of operation – Santiago, Chile, December 2013

Peter Walter, Jodi Nunnari, Jonathan Weissman, Pamela Munster and 20 UCSF graduate students celebrating our tenth annual Science & Friendship meeting – Puerto Varas, Lake District, October 2015

Participants of the first international Cell Biology course co-organized with Institut Curie – Santiago, Chile, January 2016



Michael Bishop, Nobel Prize in Medicine (1989), enjoying Patagonia after his participation in scientific meetings in Santiago – Patagonia, Chile, December 2009

UCSF Chancellor Susan Desmond-Hellman during her visit to Fundación – Santiago, Chile, July 2011

To celebrate Fundación Ciencia & Vida's 15 years, we invited our Californian friends to Chile to discuss the potential outcomes of fostering science in our societies – Santiago, Chile, December 2013
Standing: Agustín Hunneus – Susan Desmond-Hellmann – Carolina Torrealba – Mario Rosemblatt – Pablo Valenzuela – Sebastián Bernales
Sitting: Bruce Alberts – Jody Miner – Marc Shuman – Patricia Caldera – Peter Walter – Regis Kelly – Bill Rutter – Bernardita Méndez

Fabián Bravo, Bernardita Méndez and Marcela Colombres introducing Bruce Alberts and Patricia Caldera to Bus ConCiencia, our mobile laboratory – Santiago, Chile, December 2013

Geneviève Almouzni, Director of Institut Curie, and Sergio Román, Head of the Department of Translational Research at Institut Curie, meeting the team of Phage Technologies at our Science & Business Park – Santiago, Chile, January 2018

Researchers from Institut Curie and Fundación Ciencia & Vida visiting ALMA Observatory during a retreat to San Pedro de Atacama – Antofagasta Region, Chile, January 2018

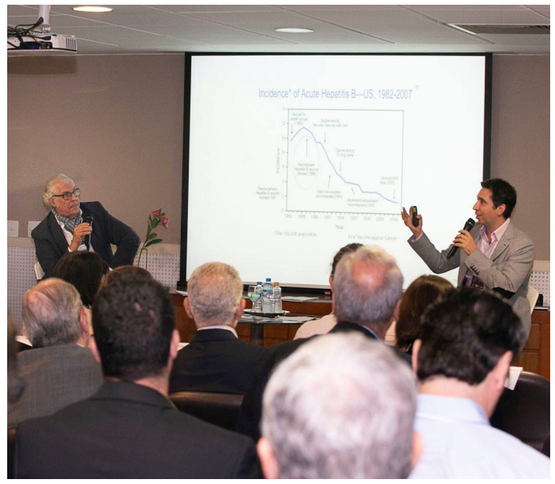
Other International Initiatives

Encuentros Conferences: Connecting Chileans Abroad

This program is 100 percent networking driven, connecting Chilean researchers, postdoctoral fellows and students working abroad, to a culturally diverse group of researchers, entrepreneurs, science-based senior executives and other reputable leaders in science, academia and politics. The first meeting took place in 2006 in Dresden. Since then, nine Encuentros Conferences have been organized and held in prestigious universities, with an increasing number of participants from a wide variety of disciplines. The Encuentros Conferences have evolved as a privileged space for the exchange of knowledge, allowing for discussion among specialists from wide-ranging disciplines in order to generate new ideas, build international networks and contribute to the development of research projects based on academic cooperation with both public and private actors.

2006 Dresden
2007 Milan
2009 Göttingen
2010 Cambridge
2011 Berkeley
2012 Paris
2013 Boston
2014 Santiago
2015 Rotterdam
2016 Barcelona

Redbionova



Redbionova is a web-based network focused on life sciences that promotes global research collaborations and bio-entrepreneurship in Chile. The members of Redbionova have access to valuable resources: public and private research finance opportunities, job offers, resume/CV postings, and a communication line to renowned senior investigators working in the fields of academia, research, government, entrepreneurship and industry in Chile.
Moreover, Redbionova periodically organizes the Biotech Tonics, essential networking events that gather bio-entrepreneurs, researchers and investors around the latest developments in the biotech industry in our country and South America.

www.redbionova.com

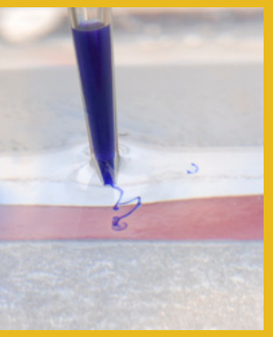
redbionova

Springer Nature Academies

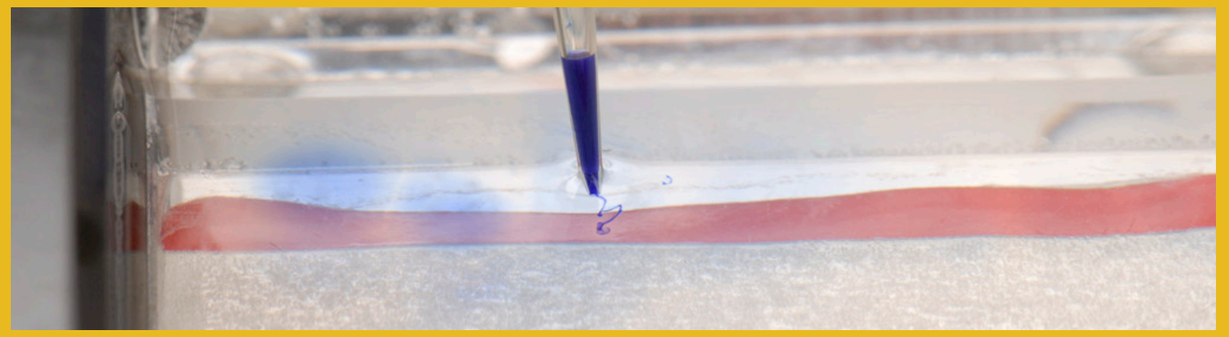
Fundación Ciencia & Vida, in partnership with the Springer Nature Group, organizes author-training workshops for life science researchers and clinicians. These workshops are designed to give participants the foundations to both clearly understand clinical research as well as communicate their data effectively to maximize their impact worldwide. The initiative comprises two half-day training workshops, which are focused on critically assessing clinical research articles and discussing the writing of impactful manuscripts to publish in top international journals. To achieve these objectives, we use a combination of short lectures, open discussion and practical exercises.

SPRINGER NATURE

Entrepreneurship:
Building Value



Fundación Ciencia & Vida is an interphase between academia and science-based companies, providing an appropriate environment to foster innovation and facilitate the development of high technology ventures in the biological area.



Entrepreneurship:
Building Value

Our Science and Business Park bridges academia with industry and combines biological R&D with business.

USD 25M **capital raised** for local start-ups

200+ **jobs** created in high-tech companies

USD 95M **total valuation** of local start-ups

3 **products** in the market

Established in 2006 as a way to attract local and foreign scientific entrepreneurship, the Science and Business Park hosts and supports international companies as well as Chilean start-ups and spin-offs.

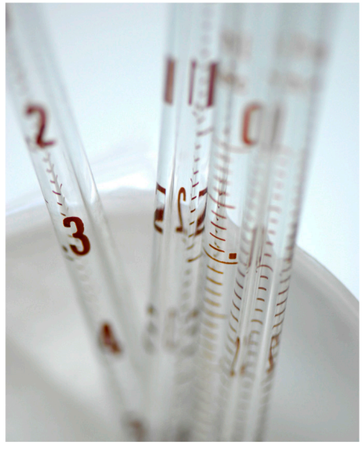
Services and Support provided by Fundación Ciencia & Vida:

- Science and business environment
- R&D collaborations
- Participation in the management and/or Board of Directors
- Assistance and counseling in:
  - Business planning
  - Fundraising
  - Negotiating commercial agreements
  - Intellectual property and technology transfer
  - Corporate strategy
  - Accounting, human resourcing and staffing
- Space, infrastructure and utilities

In this interdisciplinary campus, scientists and entrepreneurs closely interact in a business friendly environment, which facilitates innovation in the biological area. This ecosystem also encourages students at Fundación Ciencia & Vida to undertake their own challenges far and beyond the scope of the lab bench.

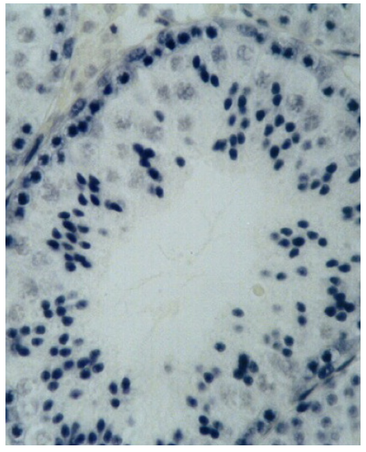
In-Campus Companies:

GrupoBios, Chile



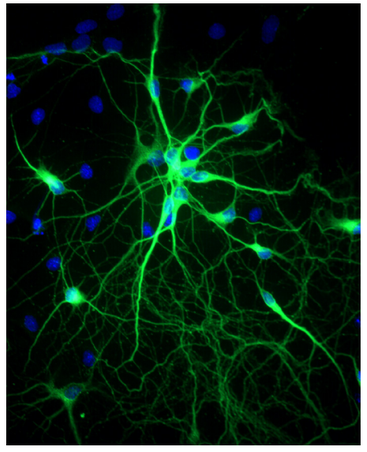
GrupoBios is a fully integrated organization committed to research, development, manufacture and commercialization of products, services, instruments and software, all in the support of biomedical research and human and animal health. Through its Science and Business Park, Fundación Ciencia & Vida provides workspace, R&D collaboration and intellectual property support.

Andes Biotechnologies, Chile



Andes Biotechnologies researches and develops novel proprietary anticancer therapies based on the inactivation of newly discovered non-coding RNA targets by short antisense oligonucleotides. Partially funded by Chilean venture capital, Andes spun off from GrupoBios and Fundación Ciencia & Vida in 2008. The company has a portfolio of nearly 50 granted patents in key pharmaceutical markets worldwide, covering diagnostic and therapeutic use of the technology and operating with a management team heavily experienced in biotechnology research and drug development. Andes is currently carrying out Phase I trials in the United States.

Praxis Biotech, USA



Praxis Biotech is a US-based company focused on the development of innovative small molecule drugs to treat patients with serious diseases such as cancer and neurological disorders. Praxis Biotech blends a unique business model with an expert team in bringing promising medical technologies from the research laboratory to the patient's bedside. Praxis was founded by a group of experienced professionals with a long track record of working as a team in the pharmaceutical and biotechnology industries. Merken Biotech, a Praxis' subsidiary, is a Chile-based laboratory working in preclinical discovery research and development.

Phage Technologies, Chile

Phage Technologies is a biotech startup founded by undergraduate students from Fundación in 2010. The company has discovered and developed a novel application of bacteriophages as feed grade additive to reduce the use of antibiotics in the livestock industry. Its flagship product is FAGOLAC®, a selected cocktail of phages that prevent gastrointestinal infections by pathogenic bacteria, such as *E. coli* and *Salmonella*, thus improving productivity and overall health of the animals. In 2017, the company signed a Global Distribution Agreement with Bayer Animal Health for the delivery of the product overseas.

Nova Mineralis, Chile

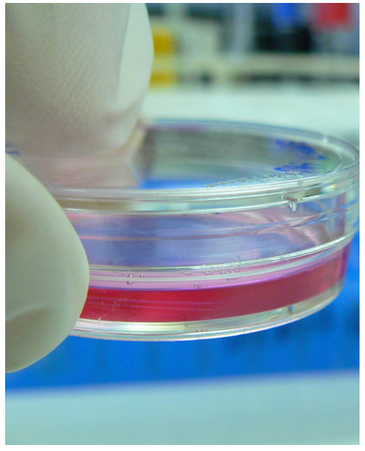
Nova Mineralis, a biotech start-up incubated by Fundación Ciencia & Vida, has developed an innovative bioleaching technology that aims to recover more copper from chalcopyrite than the methods currently employed by the industry. During the last years, Nova Mineralis signed partnerships with three prominent mining companies in Chile to test its technology at a semi-industrial scale.

Medzyme Inc., USA

Medzyme is a US-based biotech company founded by Chilean scientists and entrepreneurs, dedicated to the development of bacteriophage-based products for human health. Currently, Medzyme has joint research projects with Chilean hospitals to diagnose clinically important bacteria and discover new bacteriophages against pathogenic multidrug-resistant bacteria. Medzyme has the technical and commercial support of key partners, such as Phage Technologies, Praxis Biotech, Metagenomi.co and Fundación Ciencia & Vida.

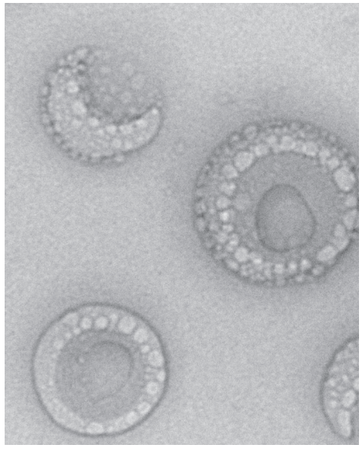
In-Campus Companies:

BFL, Chile



BFL is a company that specializes in the collection, storage and expansion of human mesenchymal stem cells derived from adipose tissue, bone marrow, dental pulp and the umbilical cord. It is the first and only stem cell bank in Chile which includes expansion of cells. It is geared towards treating high-performance athletes and orthopedic/traumatic injuries with excellent results. The company's laboratories and storage facilities are located in Fundación Ciencia & Vida's Science and Business Park.

Ango, Chile



Ango is a Chilean life sciences company that develops and commercializes biological reagents and solutions for several industries. The company's product catalog is focused on four main target markets: Human Toxicology, in which its key products are a set of beta-glucuronidase enzyme formulas that have been designed to quickly hydrolyze conjugated drug metabolites in human samples in real time; aquaculture diagnostic kits; recombinant proteins and antibodies for research; and nanotechnology for transdermal delivery of proteins and molecules. Ango has its production and research facilities in Chile while its distribution and commercial office is in San Ramon, California.

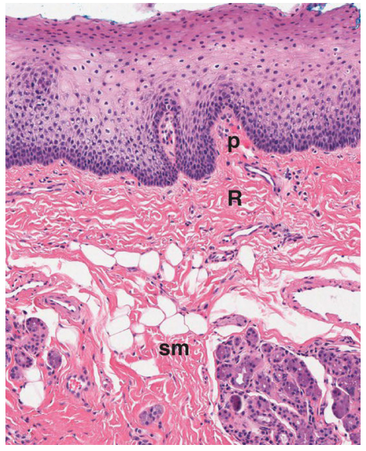
Andes Agriculture, Chile

Andes Agriculture is a biotech company that develops microbial technology for agriculture. The company has a proprietary methodology and microbial formulations for seed treatment, which positively affect plant development under normal and adverse growth conditions. With this technology, growers can achieve higher yields while reducing their input expenditure. The incorporation of microbial technology in fields is poised to be one of the foremost radical changes in agriculture towards a more sustainable, efficient and clean food production.

The Network Factory, Chile

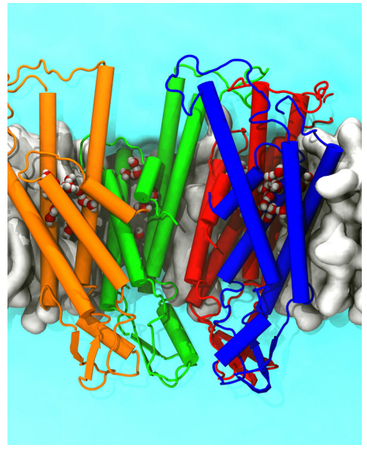
The Network Factory (TNF) spun off from Fundación Ciencia & Vida in 2015 and specializes in designing, developing and managing technical social networks in order to create collaborative communities both online and off. For that purpose, TNF raised its start-up funding from angel investors and is currently developing two high-profile communities: Redbionova (Latin America's best online networking community for bio-entrepreneurs) and RedEncuentros (the largest collaborative network of Chilean students, researchers, professionals and entrepreneurs living overseas).

Ingalfarma, Chile



Ingalfarma is a biomedical company that develops innovative treatments aimed at solving complex oral pathologies. Its flagship product is Dentoxol, which is already available in Chile for purchase in specialty pharmacies. It is a topical solution designed for the prevention and control of oral mucositis, a pathology that generates painful ulcerative lesions in the oral cavity of cancer patients during and after chemo and radiation therapies. The company is currently carrying out Phase II trials and working on obtaining FDA approval for commercialization in the USA.

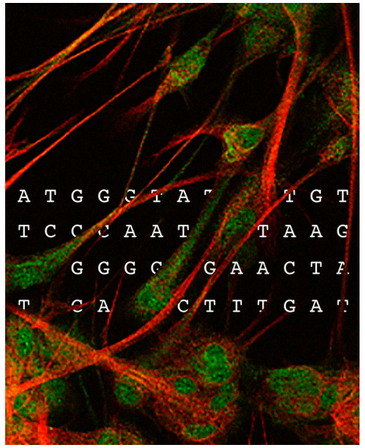
Connectomica, Chile



Connectomica is a Chilean startup pharmaceutical company that focuses on the control of the inflammatory response using the human connexin hemichannel as a target. The company has developed a new drug to treat muscular dystrophy, a devastating and incurable disease, by selectively blocking this channel. Connectomica has shown that chronic use of this drug avoids muscular degeneration in animal models, offering a potential treatment for muscular dystrophy. The technology is also being applied in animal models of epilepsy with encouraging results.

In-Campus Companies:

Trancura Biosciences, USA



Trancura Biosciences is a US-based biotechnology company that uses targeted genomic approaches for the de novo design of monoclonal antibodies. The company develops efficient screenings based on molecular immune profiling to accelerate the discovery of new monoclonal antibodies for biomedical relevant molecular targets. Using this approach, the company focuses on the discovery and characterization of antibodies with the potential to treat neurodegenerative diseases and cancer.

Diassess, USA

Diassess is a US-based in vitro diagnostics company that provides disposable infectious disease tests for use at home. Founded in 2013, the company has developed a platform technology capable of DNA/RNA detection in a non-instrumented format. Through their diagnostic test and companion mobile app, Diassess will enable patients to receive treatment faster than ever before, without a visit to the physician's office. The company has received funding from the NIH, NSF and BARDA to develop their technology and launch assays for influenza and sexually transmitted infections.

Thera Research, Chile

Before a new drug, biotechnological product or medical device gets approval by health authorities for human use and commercialization, they go through highly rigorous and controlled testing studies, known as Clinical Trials, in human volunteers to ensure their safety and efficacy. Thera Research is a Clinical Research Organization (CRO) that supports pharmaceutical and biotechnological companies to perform Clinical Trials by acting as a link between these companies, medical doctors and health authorities. Our main goal is to supervise that good clinical practices are implemented and followed throughout these studies.

In Their Own Words:

"Being immersed in this unique entrepreneurial environment during my undergraduate thesis inspired me to start an alternative scientific career. This decision, in my opinion, has been more rewarding than joining a graduate program. Today, our company is obtaining significant achievements that would not have been possible without the endless support of Fundación Ciencia & Vida"- **Hans Pieringer, CEO of Phage Technologies.**

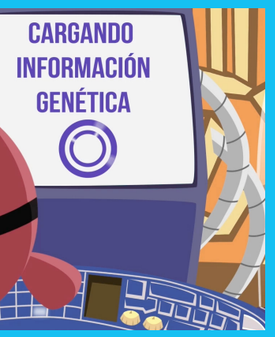
"I cannot stress enough the importance of the support and motivation that Fundación Ciencia & Vida gave me when I started my company. We are currently changing the way in which science is taught in Latin America, the USA and the Middle East, and it is fascinating to think about how this journey began in Chile some years ago. It is not about the location, the number of projects or the funding, it is about the amazing people and the growth mindset we have" - **Komal Dadlani, CEO and Cofounder of Lab4U.**

"After two years receiving the guidance from Fundación Ciencia & Vida, I have come to realize that in Chile there are exceptional scientists that not only connect scientific research and business development but also maintain a remarkable simplicity and a great human quality. I am happy and thankful to have met such a remarkable group whose support has been key to achieving the goals of our company" - **Felipe Galván, Founder and CEO of Ingalfarma.**

"The opportunity to develop our companies and projects at the Science & Business Park of Fundación has been one of my most satisfying experiences both personally and professionally. Collaborating with such extraordinary scientists and entrepreneurs has been an essential catalyst for our business growth" – **Gonzalo Fuenzalida, CEO and Co-founder of Ango and Andes Agriculture.**

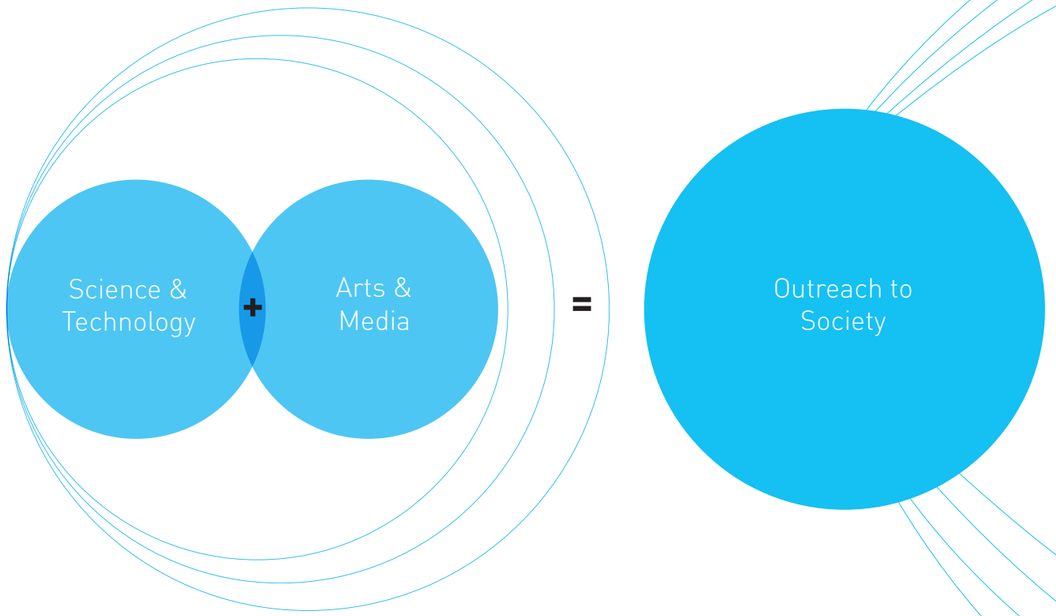
Outreach: Building a Science Culture

We believe science is essential to build a better future. Scientific awareness and science education help individuals to think critically, develop rational decision making skills and create a more tolerant society.



Outreach:
Building a Science Culture

Science education and awareness need to be strengthened and prioritized in our society. Fundación Ciencia & Vida addresses this demand through outreach programs aimed at opinion leaders, students and the community at large.



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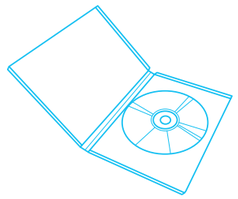
Interactive educational DVDs on science & technology



4

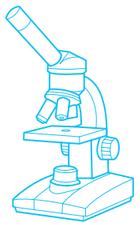
Animated mini-series

13

Workshops for opinion leaders

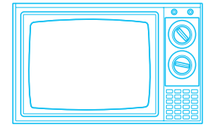
2

Video games



200+

Opinion leaders have attended the Workshop on Genetic Engineering



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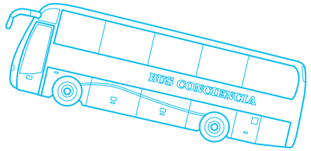
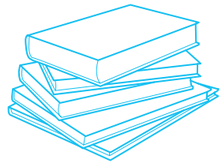
TV Series



150+

Schools visited by Bus Conciencia



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Books published

We have created several initiatives to facilitate public understanding of science and its applications and to encourage conscientious discussion of science's value and place in our society.

Eureka Program

How can we explore Chile's deep ocean territory? How will Chile's 21st-century telescopes help us explore the universe? How can we dial back childhood obesity, an epidemic that affects 40% of Chilean youth? How can we get solar and geothermal energy to supply Chile's population with clean, renewable electricity? These are some of the questions that scientists explore alongside teachers and audiovisual professionals in the **Eureka Program**, created 13 years ago by Fundación Ciencia & Vida.

The Eureka Program's goal is to generate educational material for children, teachers, and the community at large. Because we believe that curiosity about the world and exposure to science must begin in early infancy, lately we have increased our focus on infants, toddlers and preschoolers. With a multimedia approach, our creations include school workshops, video games, animations and TV series, many of which have received national and international recognition.

In the last three years, we have formed strategic alliances with other scientific centers of excellence, which have resulted in the creation of diverse new products. Our materials are available free on TV channels and online educational platforms, as well as on our website:

www.canal-eureka.cl.

School Workshops

In collaboration with the Millennium Institute of Oceanography (IMO) and other centers and institutions, we have organized several school workshops throughout Chile. The activity, known as **Muestra Audiovisual Científica Itinerante**, aims to immerse the school in science for a day, using an innovative three-stage methodology (motivation, experience and meaning), specific to each learning level. This initiative has reached nearly 100 schools in the Metropolitan Region, Biobío, Magallanes, Antofagasta and Valparaíso, benefiting thousands of students and hundreds of educators.

Video Games

Video game production is other of our strategies to give children, students and educators a first-hand look at science in the classroom. We focus on hard-to-learn content like the immune system with **Xentinelas Xelulares**, and human anatomy and physiology with **OUCH!**. Following the success and breadth of our TV series **La Receta Científica de Tony Tonina** and **Las Fantásticas Aventuras de Ruka**, we turned these storylines into video games to facilitate learning and comprehension in natural sciences. Our video games are widely used in Chile and other Latin American countries, and are available free on our platforms (www.xentinelas.cl; www.ouchgame.cl) and on other sites such as www.tvn.cl and www.misenal.tv.

TV for Kids

We are currently working on new seasons for **La Receta Científica de Tony Tonina** (www.tonytonina.cl; co-produced by the IMO) and **Las Fantásticas Aventuras de Ruka** (co-produced by Chilean National Television and Mi Señal, Colombia's public TV channel for children). We have also produced **Lyn & Babas** with the Children's Television Department of the National Television Council and **Experimenta: Ciencia de Niñ@s**, a new documentary series in which a group of children guides viewers in the lab, sparking questions and curiosity.

These and our older animated series such as **Ursi and Magnogeek: Exploradores de Otro Mundo**, **Las Aventuras de Ruka y los Tesoros del Mar** and **Las Aventuras de Ruka y los Tesoros Bajo Tierra** are watched by millions of spectators in Chile, Colombia and Peru on channels dedicated exclusively to children, in which our programs are among their favorites.

TV for Large Audiences

We have produced internationally awarded and distributed series such as **La Travesía de Darwin**, which narrates Charles Darwin's adventures in Chile and how they influenced his ideas and theories, and **Mentes Brillantes**, which introduces us to National Science Award winners and the paths that led them to this distinction. Our most recent creation, **Exploradores: del Átomo al Cosmos**, invites audiences to learn about the scientific research that is carried out today in Chilean centers of excellence in a diversity of fields. The series has already produced three seasons and reached more than 15 million spectators, becoming the most watched science-themed production in Chile.

Awards

A selection of outstanding distinctions and awards received between 2013 and 2018:

- Experimenta: Ciencia de Niñ@s – Best documentary series for kids, Festival Divercine (Uruguay, 2018)
- Lyn & Babas – Official Selection International Prix Jeunesse (Germany, 2018). Finalist Award, Comkids Prix Jeunesse Iberoamericano (Brazil, 2017). First Place, Festival Fan Chile (Chile, 2017)
- Tribute Award to Pablo Rosenblatt, Mostra Internacional VerCiência and Ministry of Science, Technology & Innovation (Brazil, 2016)
- La Fuerza del Mar – Special Jury Prize, 9th International Science Film Festival (Greece, 2015)
- Las Aventuras de Ruka y los Tesoros del Mar – Finalist Award, International Prix Jeunesse (Germany, 2016)
- OUCH! – First place, Comkids Prix Jeunesse Iberoamericano (Brazil, 2015)
- Xentinelas Xelulares – First place, Comkids Prix Jeunesse Iberoamericano (Brazil, 2013)

Genetic Engineering Workshop for Opinion Leaders

This unconventional initiative caters to local opinion leaders and has been running since 2004. More than 200 individuals from both the public and private sectors have passed through its doors, including businesspersons, bankers, investors, artists, lawyers, senators, academics and more.

This 12-hour workshop combines experiments in the laboratory with discussion and analysis of biotechnology's current impacts and future projections. Participation in these workshops is by invitation only and every year we have an extensive list of interested candidates. The experience has shown to be very successful in fostering serious conversations about science as a key player in the social and economic development of Chile.

Sample experiments performed by the participants during the workshop are:

- Isolation and sequencing of a gene.
- Computational analysis of genes.
- Creation of transgenic human cells and microorganism by insertion of a foreign gene.
- Observation of the functionality of the inserted foreign gene in its new context.

Bus Conciencia: Science-on-the-go

Bus ConCiencia, a joint initiative with Fundación EcoScience, is a laboratory inside a bus that takes experimental science and inquiry-based learning to rural and disadvantaged schools throughout Chile. The program was developed through a partnership with the Science Education Program (SEP) of the University of California, San Francisco (UCSF) and offers free workshops to teachers and students from the third to sixth grade. To date, this program has served more than 16,000 children and teachers in more than 150 schools. Bus ConCiencia also participates in science and technology festivals and collaborates with several institutions such as museums and universities.

www.busconciencia.org

Editorial Ciencia & Vida

Editorial Ciencia & Vida, under the umbrella of Fundación Ciencia & Vida, is a platform dedicated to the creation, promotion and distribution of scientific content with the aim of positioning science as a fundamental component of the Chilean culture. We work using an interdisciplinary approach, combining diverse specialties in a dialogue that is present in each one of our projects. To date, we have published four books and an audiobook in collaboration with Radio Beethoven, a local broadcaster. Our creations are being distributed throughout more than 400 public libraries and sold in several bookstores nationwide.

www.editorial.cienciavida.org

Ciencia Joven Academies

Fundación Ciencia & Vida, under the auspices of Merck, is mentoring the program "Science Academies" in our local community of Ñuñoa. This initiative, implemented with great success since 2015 by Fundación Ciencia Joven in numerous educational establishments in Santiago and Valparaíso, aims at improving science education at the basic and high school levels through the development of STEM competencies in both students and teachers. In 2018, the Academies were extended to Ñuñoa, benefiting 7 schools, 7 teachers and more than 120 students. As general coordinator of the program, Ciencia & Vida contributes with scientific supervision and guidance, and supplies its own science educational products.

www.cienciajoven.cl/academia/

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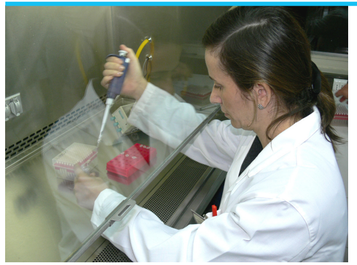
In Their Own Words:



"It has been an amazing, mind-blowing experience because it has opened up a whole new world for me. What they have taught us today is the future. It is incredible that there are no limits and the implications are stunning!" - **Cristina Bitar, economist and political adviser.**

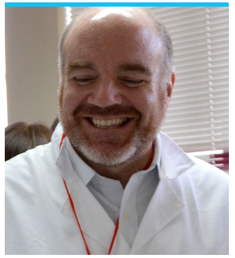
"I think it is a privilege to have been invited to peek into the world of biotechnology, to work in this amazing laboratory, to isolate DNA, to copy it, to recognize genes, and to identify a DNA sequence. It is fascinating!" - **José Luis del Río, entrepreneur.**

"Through this workshop, Fundación showed us the link that exists between science and its applications in the real world. This is a dream come true. I wish this kind of experience could be replicated many times, in many places, and in every field"- **María Olivia Recart, economist and entrepreneur.**

"This is a fascinating experience. For most people who are making public policy decisions, who are opinion leaders, this is a reality check. You can get to know the story behind a relatively simple experiment that can have a powerful implication" - **José Miguel Benavente, economist.**

"It is amazing how this experience can open your mind to a huge world in just a few days and commit yourself to a struggle that is vital for all of us" - **Karla Rubilar, congresswoman.**

"Participating in this workshop was a unique opportunity to know where our future is heading to. Sharing with people from various disciplines in a laboratory allowed us to exchange ideas and knowledge, and enjoy together the pleasure of understanding, even a little, about the exciting world of genetic engineering" - **Chantal Signorio, political scientist.**



"The importance of this workshop is that you learn to appreciate basic science. Current science applications have its origin in basic research and I had not made this connection before. I always said, 'My work is to join dots'. But if no one makes the dots, there is nothing to join!" - **Guillermo Carey, Intellectual Property lawyer.**

"Thanks to this workshop, I was able to learn about the enormous potential of this discipline. The experience was very interesting, not only due to the experiments but also because it encouraged me to think about the little importance we give to science in Chile" - **Giorgio Jackson, congressman.**

Fundación
Ciencia & Vida

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