



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DE CHILE

# INDEX

1. About Chile
2. About Catholic University of Chile
3. UC Field Stations and the collaboration with CNRS



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ABOUT  
CHILE





## Chile at a glance

**AREA/** 756.102 km<sup>2</sup> divided into 16 Regions: **longest country in the world** and one of the narrowest (4.300 km long and 177 km wide). 83.500 km of coastal length, **twice the circumference of our planet.**

**CLIMATE/** temperate; desert in north; mediterranean in central region; cool and damp in south

**POPULATION/** 17.789.267    **CAPITAL CITY/** Santiago

**MAIN EXPORT PRODUCT GROUPS/** copper, fruits, nuts, fish, wood and inorganic chemicals

**GDP/** ~USD 300 billion

**OECD MEMBER/** First in South America

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ABOUT  
CHILE

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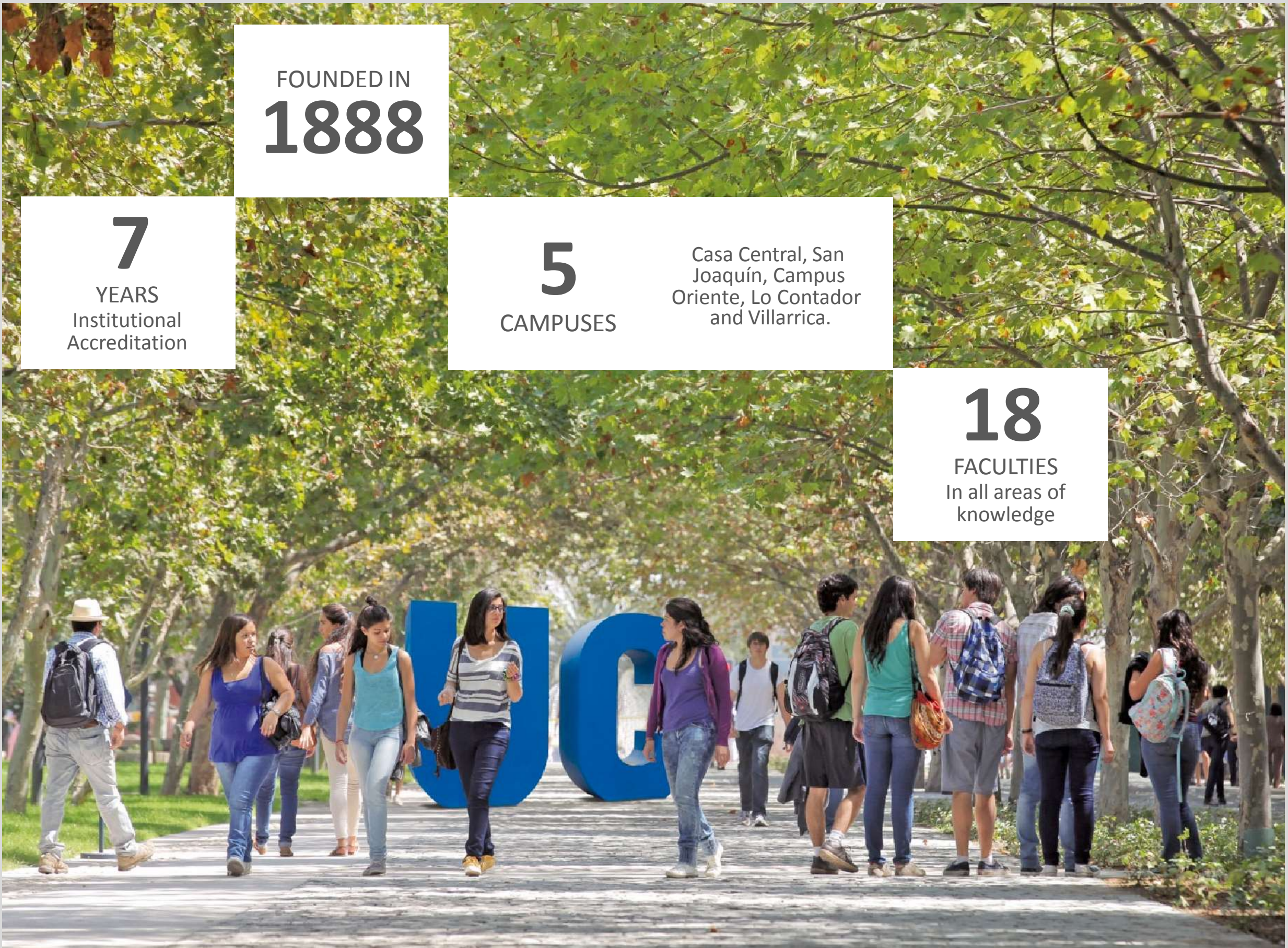
FOUNDED IN  
**1888**

**7**  
YEARS  
Institutional  
Accreditation

**5**  
CAMPUSES

Casa Central, San  
Joaquín, Campus  
Oriente, Lo Contador  
and Villarrica.

**18**  
FACULTIES  
In all areas of  
knowledge







**Nº1**

IN EMPLOYABILITY  
In Latin America  
QS Graduate Employability  
Ranking 2018

**Nº137**

IN THE WORLD  
2018 QS Global  
World Rankings

**Nº1**

UNIVERSITY IN  
CHILE AND  
LATIN AMERICA

2018 QS Latin  
America University  
Rankings

**20 UC CAREERS  
AMONG THE**

**100**

**BEST IN THE  
WORLD**

Architecture, Law,  
Agriculture and  
Forestry, Political  
Sciences,  
Communications,  
Physics and  
Astronomy,  
Geography, Civil  
and Structural  
Engineering,  
among others (QS  
World Univ.  
Ranking, 2018).





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# UC HIGHLIGHTS

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**22**

RESEARCH  
SCIENTIFIC  
CENTERS

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**102**

UNDERGRADUATE  
PROGRAMS

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**92**

MASTERS  
PROGRAMS

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**35**

PhD  
PROGRAMS

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**+1.000**

PhD  
STUDENTS

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**+23.000**

UNDERGRADUATE  
STUDENTS

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**+3.000**

MASTERS  
STUDENTS

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**+3.500**

PROFESSORS

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**2.400**

SCOPUS ARTICLES  
PUBLISHED  
PER YEAR

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**~USD57.400**

MILLION  
NATIONAL RESEARCH  
GRANTS

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**+700**

ONGOING RESEARCH  
PROJECTS  
WITH EXTERNAL  
FUNDING

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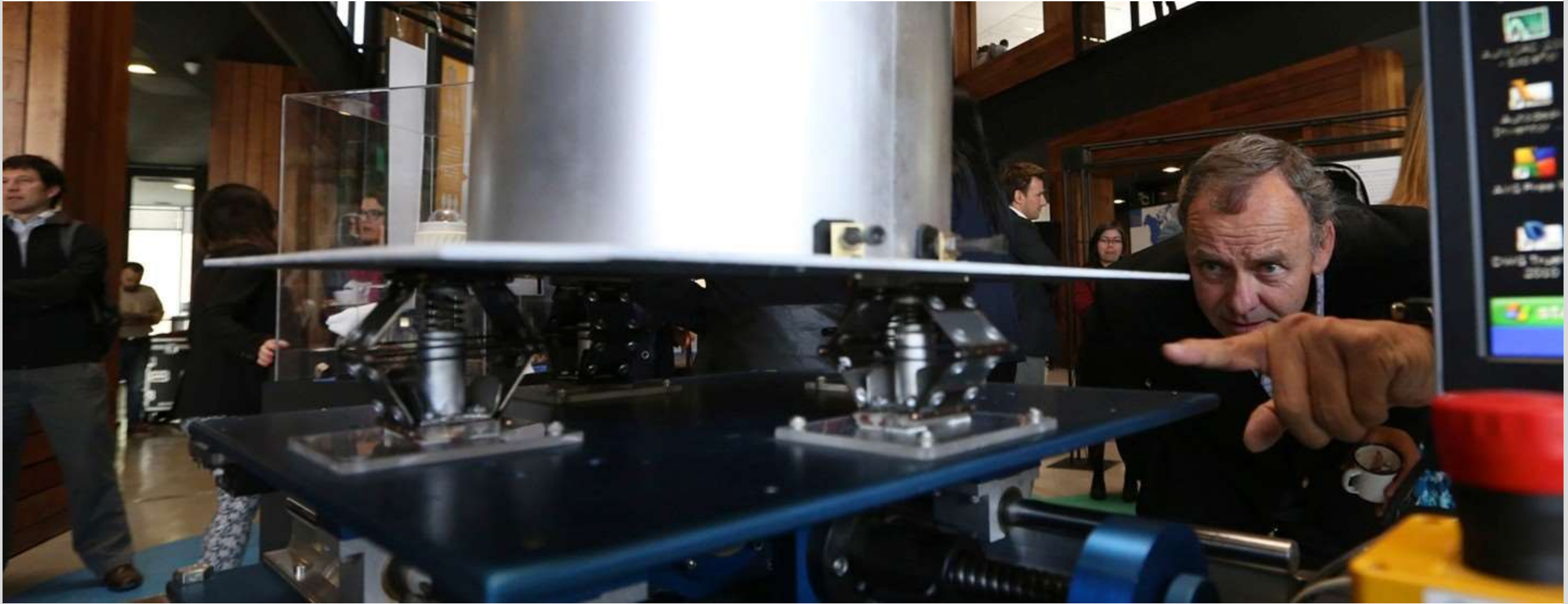


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UC HIGHLIGHTS

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- **Encourage** and support research activities in all areas of knowledge.
- **Ensure** the compliance in ethical, bioethical and security aspects and the correct execution of research projects
- **Maximize** the national and international funding to develop research inside the university through internal programs and support the application of external projects.
- **Support** our Senior Leadership in all matters related to research.
- **Promote** interdisciplinary research, internationalization and support early career researchers.



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# Natural Laboratories/ Our Endowment





# nature

## [ **inside**view ]

CHILE SPOTLIGHT



### Bright future

Chile excels at stargazing, but it must boost its expertise to find its place in a globalized world and develop a twenty-first-century economy.

BY ALEJO BAJAK

[ **inside**view ] SPOTLIGHT ON CHILE

ADVERTISEMENT FEATURE

## PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE (PUC) TAPS INTO CHILE'S DIVERSE GEOGRAPHY

A conversation with **IGNACIO SÁNCHEZ**, president of Pontificia Universidad Católica de Chile (PUC)



Pontificia Universidad Católica de Chile (PUC) is the nation's research powerhouse. Publishing more than 2,400 Scopus articles per year, the Santiago-based university is both a Latin American gateway for collaboration and a player in several international collaborations, its president, Ignacio Sánchez, explains.



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Profile Feature as seen in *Nature* 14th December 2017



# UC Field Stations:

# Scientific Research from North to South



**ALTO PATACHE**  
ATACAMA DESERT  
RESEARCH STATION:  
FOG OASIS ALTO  
PATACHE

**LAS CRUCES**  
COASTAL MARINE  
RESEARCH STATION

**VILLARRICA**  
PUC CENTER FOR  
LOCAL  
DEVELOPMENT  
(CEDEL)

**CHILOÉ**  
SENDA DARWIN  
BIOLOGICAL STATION

**BAHÍA EXPLORADORES**  
PATAGONIA STATION  
FOR  
INTERDISCIPLINARY  
RESEARCH:  
BAHÍA EXPLORADORES

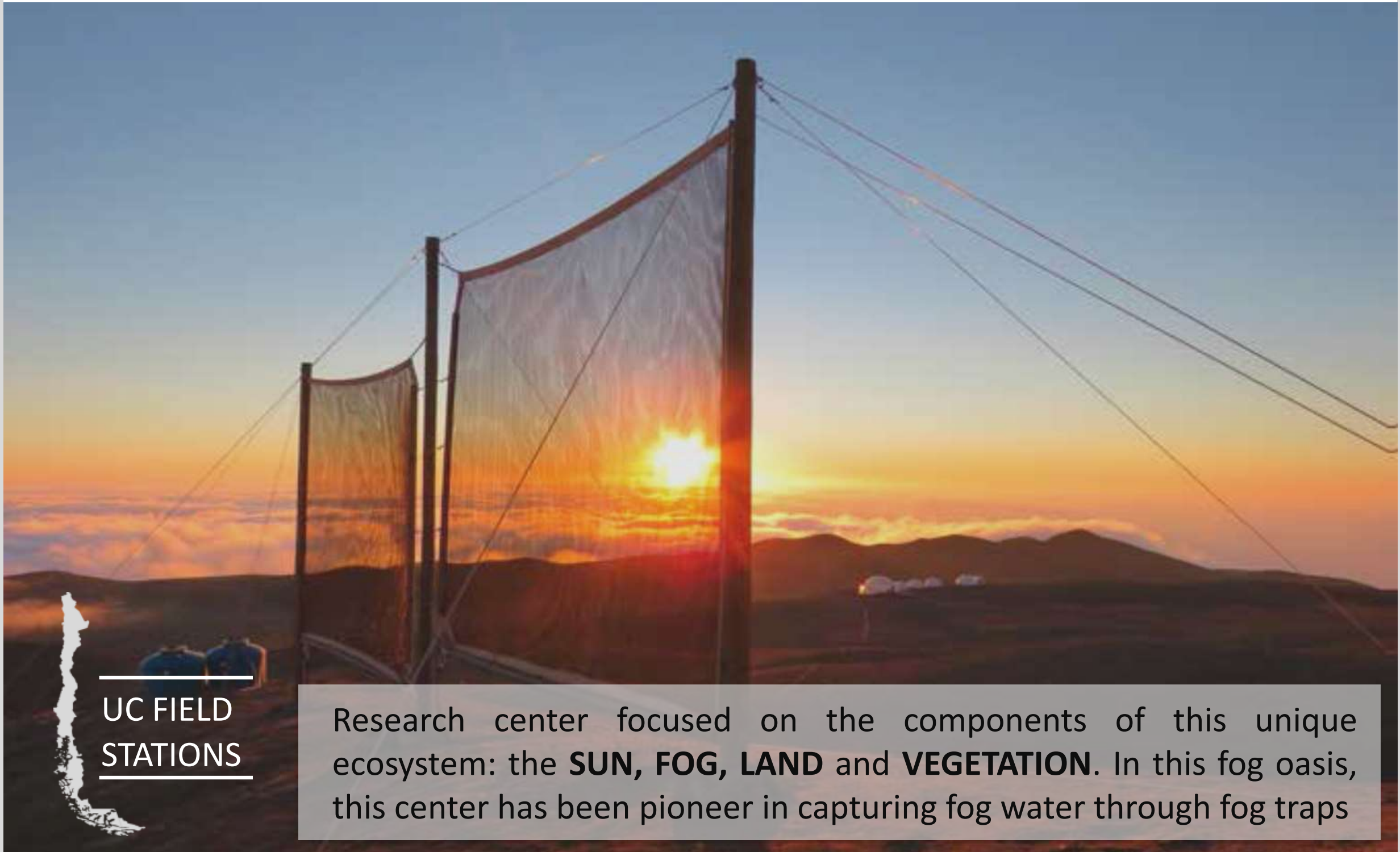
**PUNTA ARENAS**  
CENTER OF  
EXCELLENCE IN  
BIOMEDICINE OF  
MAGALLANES  
(CEBIMA)



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# Atacama Desert Research Station: A Desert Full of Discoveries



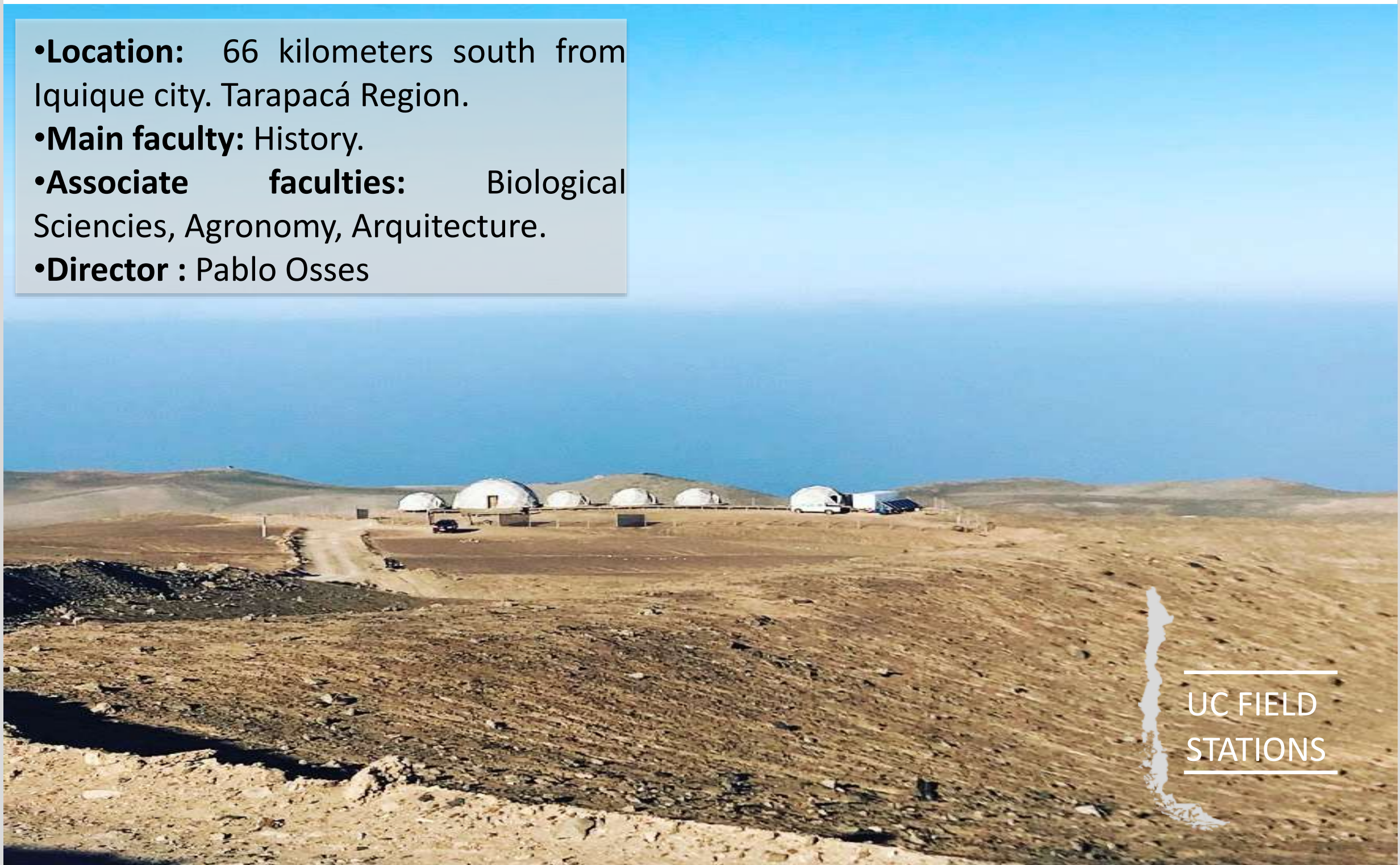
UC FIELD  
STATIONS

Research center focused on the components of this unique ecosystem: the **SUN, FOG, LAND** and **VEGETATION**. In this fog oasis, this center has been pioneer in capturing fog water through fog traps



# Atacama Desert Research Station: A Desert Full of Discoveries

- **Location:** 66 kilometers south from Iquique city. Tarapacá Region.
- **Main faculty:** History.
- **Associate faculties:** Biological Sciences, Agronomy, Architecture.
- **Director :** Pablo Osses



UC FIELD  
STATIONS



# Coastal Marine Research Station: The Ocean Under the Microscope

Research center focus on studies of the Pacific Ocean, from its **NATURAL RESOURCES** to **ECOSYSTEM CONSERVATION**, to the possibilities the ocean offers as a potential source of **ENERGY**.

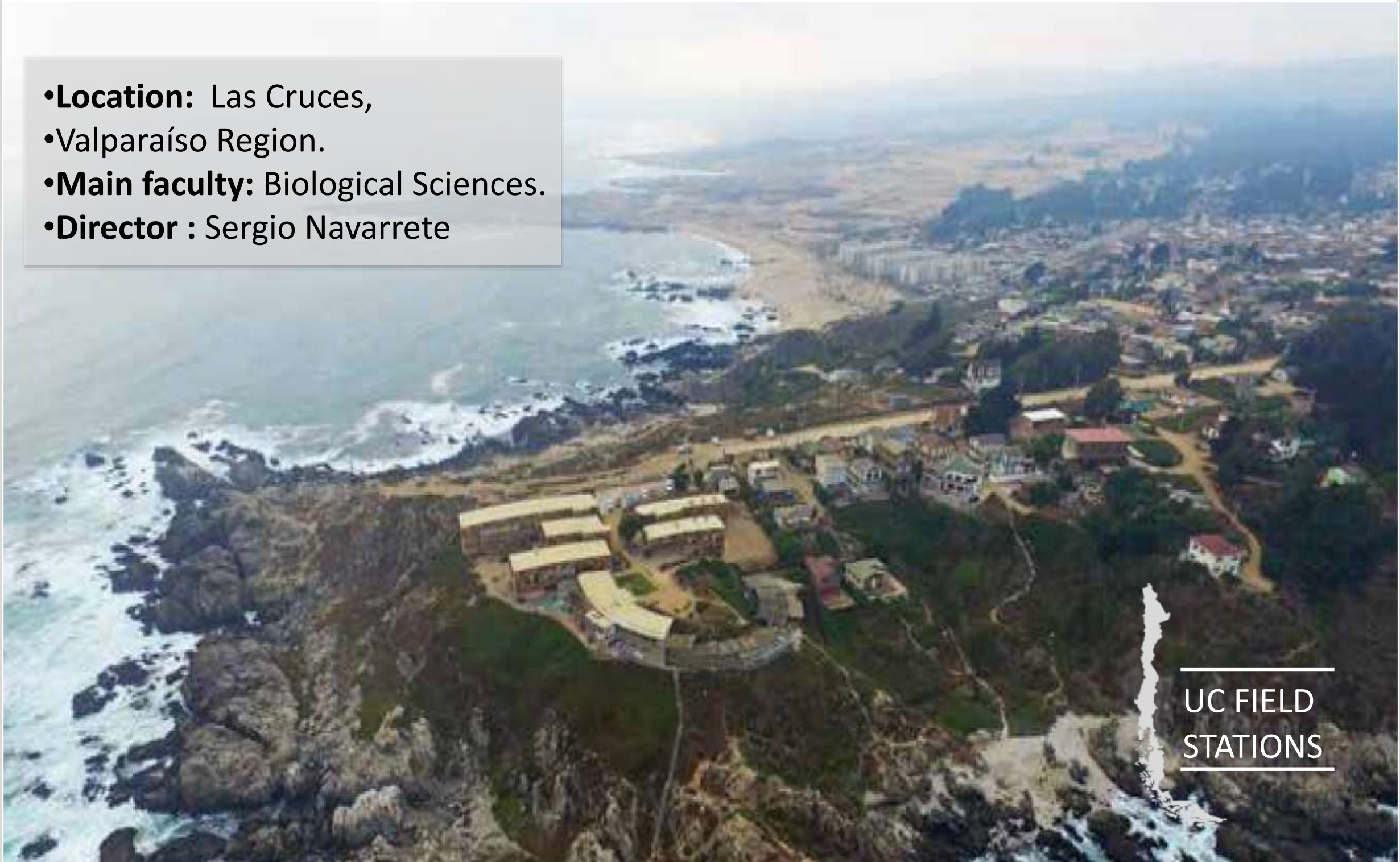


UC FIELD  
STATIONS



# Coastal Marine Research Station: The Ocean Under the Microscope

- **Location:** Las Cruces,
- Valparaíso Region.
- **Main faculty:** Biological Sciences.
- **Director :** Sergio Navarrete



UC FIELD  
STATIONS



# Evolutionary Biology and Ecology of Algae (UMI-EBEA)

- **Created in** : January 2014
- **Partners** : Université Pierre et Marie Curie UPMC - Institut Ecologie et Environnement (INEE), UC, Universidad Austral de Chile.
- **Location** : *Roscoff Marine Biological Station SBR (CNRS) and UC Faculty of Biological Sciences.*
- **Director** : Myriam Valero (CNRS), Co-Director Sylvain Faugeron (UC).
- **CNRS funding** : 70.000€ /year.





# Evolutionary Biology and Ecology of Algae (UMI-EBEA)

The relationship among researchers dates from almost **20 years ago**, collaboration with CNRS is strengthened in 2003 with the creation of the International Associated Laboratory (LIA) between SBR and UC. UMI 3614 focuses on research in basic precepts of ecology, evolution and genomics in marine algae and develops links with resource management and seaweed farming.

## **The main research objectives are:**


1. To study the causes and consequences of the evolution of seaweed mating systems.
2. To understand speciation processes of seaweeds and the evolutionary and ecological limits of adaptation.
3. To explore the domestication process of seaweeds, the management of genetic resources and the environmental impact.



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# Center For Local Development: Interdisciplinary Sustainability

A scenic landscape photograph of a mountain valley. In the foreground, a calm lake reflects the surrounding environment. The middle ground is dominated by a dense forest of trees with vibrant autumn foliage in shades of orange, red, and yellow. In the background, several mountain peaks are visible, some with a light mist or fog. The sky is overcast and grey.

In La Araucanía Region, this Research Center focuses on two elements, **COMMUNITY** and **TERRITORY**. Its areas of work include: Sustainability of socio-ecological systems, sustainable tourism and local economy, planning and governance of the territory, and education for sustainability.

UC FIELD  
STATIONS



# Center For Local Development: Interdisciplinary Sustainability

- **Location:** Villarrica UC Campus
- **Main faculty:** Villarrica UC Campus
- **Associate faculties:** Medicine, Biological Sciences, Agronomy, Architecture and History.
- **Director:** Gonzalo Salazar



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STATIONS



# Senda Darwin Biological Station: The Biological Wealth of the Chilean Forest

The object of study of this station, are **FORESTS**. Here, future researchers learn about **ENDEMIC SPECIES**; some **BIRDS**; and **VEGETATION**, to achieve a better understanding of the ecosystem.



UC FIELD  
STATIONS



# Senda Darwin Biological Station: The Biological Wealth of the Chilean Forest

- **Location:** Ancud, Chiloé Island, Los Lagos Region.
- **Main faculty:** Biological Sciences.
- **Associate faculties:** Agronomy, Forest Engineering, History and Political Sciences.
- **Director:** Juan Armesto



UC FIELD  
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# Patagonia Station for Interdisciplinary Research: Studying at the Southernmost Frontier

Between fjords, rivers and lagoons in southern Chile, UC is developing an exceptional scientific center in an area essential for the study of **GLOBAL CHANGE AND LOCAL BIODIVERSITY**.





# Patagonia Station for Interdisciplinary Research: Studying at the Southernmost Frontier

- **Location:** Bahía Exploradores, Aysén Region.
- **Main faculty:** History.
- **Associate faculties:** Agronomy, Architecture, Biological Sciences.
- **Director:** Alejandro Salazar

UC FIELD  
STATIONS





# Patagonia Station for Interdisciplinary Research: Studying at the Southernmost Frontier





# Observatoire Hommes – Milieux International OHM.I Patagonia – Bahía Exploradores

- **Created in** : January 2018
- **Partners** : LabEx DRIIHM, INEE, CNRS; GEODE UMR 5602 – Géographie de l'environnement (Toulouse); Institute of Geography - Heidelberg University of Education; Estación Patagonia UC (EPII-UC).
- **Location** : *Aysen Region (Chile)*.
- **Director** : Alejandro Salazar (UC), Co-Director Didier Galop (CNRS).
- **CNRS funding** : 35.000 € /year app..



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# Observatoire Hommes – Milieux International OHM.I Patagonia – Bahía Exploradores

The relationship with CNRS starts in 2016 with preliminary collaboration at Exploradores Valley. This OHM.I focuses on the value and transmission of studies performed in Patagonian environments, interdisciplinary research, and environmental and land monitoring of the Exploradores Valley.

## The main research objectives are:

- To understand how environmental conditions and colonization history drive phenotypic variability of invasive species.
- To map the advancing fronts of forest edge and areas occupied by invasive plants using complementary space technologies.
- To evaluate the biogeochemical processes that originate the formation of soils and succession of vegetation in the Exploradores Valley.
- To understand the evolution and geographic environmental adaptation of the Valley via socio-environmental dynamics .



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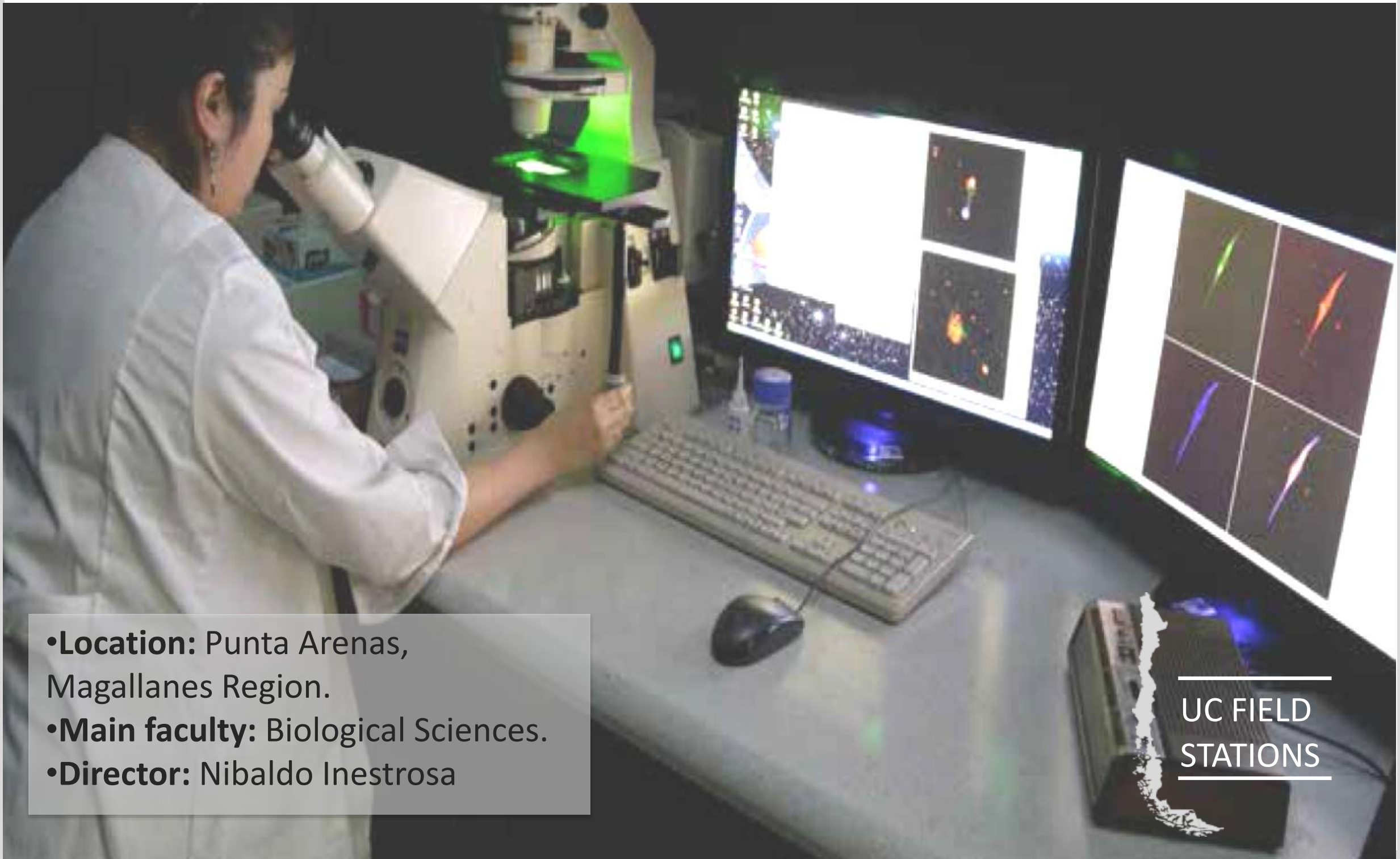
# Center of Excellence of Biomedicine in Magallanes: Patagonia, Medicinal Land

Using the properties of lichens and algae in the sub-Antarctic region to fight **NEURODEGENERATIVE DISEASES**, such as Alzheimer's, is the objective of this center in a latest generation laboratory in Punta Arenas, thanks to the advances already achieved by CARE Chile UC and the Universidad de Magallanes.

UC FIELD  
STATIONS



# Center of Excellence of Biomedicine in Magallanes: Patagonia, Medicinal Land



- **Location:** Punta Arenas, Magallanes Region.
- **Main faculty:** Biological Sciences.
- **Director:** Nibaldo Inestrosa

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# Cape Horn Subantarctic Center



At the end of 2016, the UC became part of the Omora Foundation. The Subantarctic center is part of an initiative of the extreme zone plan of the regional government of Magallanes. It has an investment of USD 21MM (app) to install a research center, special interest tourism and technical training center. Currently its construction has begun.

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STATIONS





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SCIENTIFIC RESEARCH  
FROM NORTH TO SOUTH  
**FIELD  
SCIENCE IN  
CHILE**



"THE OPPORTUNITY WAS THE OPPORTUNITY TO FIND A JOCKEY FOR YOUR RESEARCH THAT ISN'T NECESSARILY RELATED TO THE RESEARCH TOPIC, BUT TO A COMBINATION OF SEVERAL DIFFERENT AND INTERESTING ONES. THIS IS VERY FERTILE IN ACADEMIC TERMS!"  
SARAH GARCÍA, Professor from the Department of Geography



"THE TEACHING ACTIVITIES OFFERED TO THE UNDERGRADUATE THROUGH THE RESEARCH FRAME AS A TEACHER, IT'S BEEN A GREAT WORK TOOL BECAUSE I WANT TO SHARE IN THE CURRICULUM TO THE MOST UNDERGRADUATE OF THE QUALITY EDUCATION!"  
RODOLFO CARRERA, Professor at the Geology Primary School



"I WOULD LIKE TO HIGHLIGHT THE STUDENT'S GREAT POTENTIAL FOR EDUCATION IN SUSTAINABLE DEVELOPMENT, FOR THEIR RESEARCH METHODOLOGY AND METHODOLOGY AND FOR BEING THE ONLY SOURCE AVAILABLE AT BACCALAUREATE."  
MARTHA FERRER, Geographical and Environmental Education from 2012



"THIS IS A WONDERFUL PLACE TO LEARN AND WORK IN THE FIELD WHERE YOU CAN SEE THE CHANGES AND THE DYNAMICS OF ENVIRONMENTAL VARIABILITY AT CITY."  
SARAH GARCÍA, Professor at the Institute of Geography





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