

RESEARCH CENTERS IN CHILEAN REGIONAL UNIVERSITIES.

UNIVERSIDAD CATÓLICA DEL NORTE

 Instituto de Investigaciones Arqueológicas y Museo (San Pedro de Atacama)
<http://www.ucn.cl/>

CONTACTS:

Gilles Rahier, gmichel@ucn.cl

Administrador Académico, Instituto de Investigaciones Arqueológicas y Museo R.P. Gustavo Le Paige, San Pedro de Atacama.

Karol Trautmann, karol.trautmann@ucn.cl

Directora Relaciones Institucionales, Universidad Católica del Norte.

Teléfono: 56-2 222-2324

RESEARCH AREAS:

1. Bio archeology
2. Building process in modernity
3. Cultural history
4. Urban Anthropology
5. Ethnic processes
6. Pre-Hispanic iconography
7. Semiotics
8. Philology
9. Archeological settlements
10. First settlements
11. Chaco Boreal
12. Anthropology
13. Andean rituals
14. Hunter-gatherer societies
15. Hunter-gatherer Archaeology
16. Intercultural studies.

PONTIFICIA UNIVERSIDAD CATÓLICA DE VALPARAISO

Núcleo Biotecnología Curauma.

<http://www.nbcpucv.cl/>

CONTACTS:

María Espinal Amarante, mespinal@nbcpucv.cl

Tel. +56 32 227 4829, +56 9 71252660

Fraunhofer Chile Research, Núcleo Biotecnología Curauma, NBC,
Av. Universidad 330, Curauma Valparaíso.

RESEARCH AREAS:

1. Waste re-evaluation
2. Waste Management (liquids and solids)
3. Bioenergy
4. Sustainable Aquaculture
5. Clean technologies
6. Anaerobic digestion
7. I+D+i projects generation
8. Innovation management
9. Water and carbon footprint
10. Clean Development Mechanism

UNIVERSIDAD TÉCNICA FEDERICO SANTA MARÍA

<http://www.utfsm.cl/>

CIE: Centro de Innovación Energética

CONTACT: Prof. Jaime Espinoza, jaime.espinoza@usm.cl

RESEARCH AREAS: Deshidratado solar de productos agrícolas,
Geotermia de baja entalpia para aporte de calor a invernaderos,
Mihidro para electrificación rural y lodges, Energia de la Biomasa como aporte de
calor en la agricultura, Invernaderos Zero Energy.

Departamento de Electrónica

CONTACT: Prof. Samir Kouro, samir.kouro@usm.cl

RESEARCH AREAS: Solar energy research center (SERC-Chile), proyecto Fondap
centro de excelencia de energía solar.

"Multilevel converter configurations for multiphase and open-end winding PMSG
Wind Energy Conversion Systems"

✚ **Wireless Communications "Area de Actuacion": Telecomunicaciones Inalámbricas.**

CONTACT: Prof. Rodolfo Feick, rodolfo.feick@usm.cl

RESEARCH AREAS:

1. "Modelado, Optimización y Control con Aplicaciones a Sistemas que Operan en Red Utilizando Comunicación Inalámbrica". Proyecto Anillo ACT-53.
2. "Empirical characterization of 60 GHz wireless links for future multi-gigabit wireless technologies".
3. "Optimization of Wireless Service Through Efficient Channel Characterization of Small Urban Cells".

✚ **Control systems and automation, networked control system design.**

CONTACT: Prof. Eduardo Silva, eduardo.silva@usm.cl

Specific goals:

1. To show that NCSs closed over multiple fading channels can be analyzed and designed by focusing on an equivalent LTI system subject to multiple SNR constraints.
2. To address stabilization problems over fading channels. Our study includes cases where individually constrained channels are in place, and where (partial) channel state information is available at either side of the channels.
3. To address optimal control problems over fading channels with (partial) channel state information, both in the finite and infinite horizon cases.
4. To explore performance limitations in the control of LTI plants over fading channels, putting emphasis on the explicit effects of channel state information availability at either side of the channel.

✚ **Physics.**

CONTACT: Prof. Patricio Vargas, patricio.vargas@usm.cl

RESEARCH AREAS:

1. Magnetism at the nanoscale.
2. Numerical simulations for the Design of nanostructures using the fast Monte Carlo Method. After the 9 months the student will be able to use their own or existing Monte Carlo program and explain the majority of the known magnetic configurations in nano sized materials, as well as the design of new systems.
Prerequisites: Basic Electromagnetism and Mathematics, and some skills in computing programming.

✚ **Centro Internacional para el Emprendimiento y la Innovación**

CONTACT: Prof. Patricio Vargas, patricio.vargas@usm.cl

1. Innovation and Entrepreneurship in high tech Chile.
After this period the student will be able to build their own company using the methodology learned at the International Institute for Innovation and entrepreneurship (3IE) of UTFSM.
Prerequisites: Basic management and financing courses.

UNIVERSIDAD DE TALCA

<http://www.otalca.cl/link.cgi//CentrosTecnologicos/>

CONTACT: Mauricio Lolas C., Ph.D.
Director de Relaciones Internacionales
Universidad de Talca, Talca Chile.
Tel. +56-71-201584 – 201633

CENTERS:

Centro Pomáceas

CONTACT: Dr. José Antonio Yuri (ayuri@otalca.cl) y Dr. Carolina Torres (cartorres@otalca.cl)

RESEARCH AREAS: fruit metabolomics; oxidative stress and its effect on quality and development of physiological disorders in pomme fruits; development of new technologies for postharvest of pomme fruits; fruit physiology and biochemistry.

Centro de Investigación y Transferencia en Riego y Agro climatología.

Centro Tecnológico de la Vid y el Vino

CONTACT: Dr. Yerko Moreno (ymoreno@otalca.cl)

RESEARCH AREAS: Research Lines: grapevine clonal selection and evaluation (rootstocks and cultivars); grapevine ecophysiology; vineyard sustainability

Centro de Investigación y Transferencia en Riego y Agroclimatología:

CONTACT: Dr. Samuel Ortega (sortega@otalca.cl).

RESEARCH AREAS: Irrigation; precision agriculture; bio mathematical modeling; climate change.

UNIVERSIDAD DE CONCEPCIÓN

1. Center for Oceanographic Research in the Eastern South Pacific (COPAS)

<http://copas.udec.cl/esp/>

RESEARCH AREAS:

Our Center for Oceanographic Research in the eastern South Pacific (COPAS) at the University of Concepcion (UdeC) has several research lines including a large program named COPAS Sur-Austral which develops research in Patagonian fjords.

Information on COPAS and its associated program Sur-Austral can also be found at:

copas.udec.cl and <http://sur-austral.udec.cl/>, respectively.

The COPAS Center was created under the FONDAP initiative of our national science foundation called CONICYT, and is devoted to basic scientific research on the circulation, biogeochemical cycling, ecology and paleoceanography of the eastern South Pacific. Most of the research focuses on 2 strategic areas: a time-series initiated in 2002 in the upwelling region off Concepcion at 36 deg S, and the Oxygen Minimum

Zone (OMZ) off northern and central Chile.

The Sur-Austral program, on the other hand, is funded through the Associative Research Program PIA also of CONICYT, and is devoted to Oceanographic Applications for the Sustainable Economic Development of the Southern region of Chile with 3 strategic areas: **oceanographic observation, fisheries, and Aquaculture.**

The following research lines are covered within the strategic areas of time-series and OMZ:

1) Physical Oceanography:

Large-scale phenomena like ENSO, recent climate changes and their impact on the circulation and heat content, and on the intermediate waters (oxygen-poor ESSW and the AAIW.)

2) Biological oceanography and biogeochemistry:

a) Plankton Dynamics and its Role in Carbon Cycling: pelagic community structure, trophic inter-relationships, and metabolic processes on the transformations of carbon (C) and nitrogen (N) in the water column.

b) Microbial ecology and water-column Biogeochemical Cycling: carbon and nitrogen transformations in the water column and their degree of coupling, the genetic diversity and ecophysiology of the microorganisms involved, and the mechanisms controlling the magnitude and variability of the sources and sinks of CO₂ and N₂O.

c) Pelagic-Benthic Coupling: vertical fluxes of dissolved and particulate organic materials; main functional groups linked to the downward export of calcium carbonate with emphasis on key functional groups that may be impacted by acidification of the ocean.

3) Benthos and Sediment studies

a) Benthic realm: Community Structure, Metabolism and Biogeochemistry: structure and function of the benthic and microbial benthic boundary layer communities; incorporates ecological, oceanographic and biogeochemical conceptual and methodological approaches

b) Geochemistry and paleoceanography: includes the themes of how upwelling, ocean circulation and ventilation, and productivity off Chile vary through time (during the late

Quaternary and the Holocene) and space (N to S, coast-offshore) in response to climate forcing, from seasons to thousands of years.

The following research lines in Patagonia are covered within the strategic areas of oceanographic observation, fisheries, and aquaculture:

1) Oceanographic observation for the sustainable development of aquaculture:

studies main forcing factors that define the structure and functioning of pelagic fjord ecosystems, and the main fluxes of potential state variables susceptible to anthropogenic modifications; evaluates the impact of aquaculture on the main state variables associated with productive processes: dissolved oxygen, pathogen load, algal blooms, cage size, distance between cages, cultivated fish density etc.; incorporates oceanographic modelling tools to current productive practices within the salmon farming industry.

2) Patagonian ecosystems and environmental variability

a) Environmental variability and ecosystem patterns associated with changing freshwater inputs in Patagonian fjords: focuses on the ecosystem-level responses to past and present fluctuations in the volume and composition of freshwater discharged into Patagonian fjords; develops observational platforms and time series of physical-chemical conditions and productivity; describes the horizontal and vertical gradients in nutrient, organic matter, microbes, and light conditions resulting from the interaction of freshwater and oceanic forcing; evaluates the role of macronutrients and Fe-Dissolved Organic Matter complexes for the productivity and composition of phytoplankton assemblage.

b) Ecosystem Variability and Demersal and Pelagic Fisheries: studies potential effects of environmental variability on fisheries resources in Patagonia, on aspects associated with productivity, spatial distribution, connectivity and phenology; evaluates management strategies for the main current and potential fisheries resources in a changing environment including ecosystem-based stock recovery strategies for depleted stocks; develops models of food webs supporting the main fisheries including assessments on the role of the trophic structure on determining the timing and locations of reproductive and nursery areas.

3) An ecosystem approach to Patagonian Fisheries: provides an ecosystem analysis of the main Patagonian fisheries as a tool for public and private decision making processes; explores possible fisheries diversification alternatives to improve the well-being of the fishermen and their families; develops an ecosystem model for Patagonian Areas for Benthic Resources Management and Exploitation; analyzes interactions between artisanal and industrial fisheries.

4) Marine Biosafety and Biotechnology: includes molecular biogeography based in the genetic variability of species of toxic plankton that inhabit the marine ecosystems of the southern Chile; molecular epidemiology in the water column, sediments and organisms based on the genetic variability of three pathogens (*ISAV*, *Piscirickettsia*

salmonis and *Caligus* spp.) responsible for the major economic losses in aquaculture in Patagonia; marine microorganisms as producers of substances of economic interest.

Transversal to all research lines is **Technological and Knowledge Transfer**, responsible for transferring oceanographic information and knowledge, products and services for public and private stakeholders involved in the sustainable development of the marine sector in the Chilean Patagonia; coordinates outreach activities for the educational community (teachers and students). especially in remote areas of Patagonia.

Additionally, the Department of Oceanography at UdeC (<http://oceanografia.udec.cl/>) also offers other themes not covered directly by COPAS and its Sur-Austral program (macroalgae taxonomy, ecology and cultures; applied genetics; marine pollution; radioisotopes, etc).

Recently, two new Centers were created with funding from the FONDAP initiative of CONICYT:

- 1) "Interdisciplinary Research for Sustainable Aquaculture", belongs to the UdeC and will open more doors of opportunity for students interested in research related to the sustainability of cultured salmonids and mussels; and
- 2) "Center for Climate and Resilience Research - CR2" belongs to the University of Chile in Santiago and UdeC as associated university, will open more doors of opportunity for students interested in climate change, natural variability of climate, economic issues, human dimensions, etc.

CONTACT: To be confirmed

The main contact person would be Carina Lange, and alternative person is Silvio Pantoja, both at:

Departamento de Oceanografía,
Casilla 160-C, Barrio Universitario s/n, 4030000 Concepcion, Chile

Lange's mail and phone:

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[+56-\(0\)41-2207252](tel:+56-041-2207252)

Pantoja's mail and phone:

spantoja@udec.cl

[+56-\(0\)41-2207251](tel:+56-041-2207251)

2. Centro de Ciencias Ambientales EULA-CHILE

<http://www.eula.cl/>

RESEARCH AREAS:

Evaluación de Riesgos de Contaminantes de interés emergente

CONTACT: Dr. Ricardo Barra e-mail de Contacto: ricbarra@udec.cl

RESEARCH AREAS:

Biología y ecología marina (area biogeoquímica), estresores múltiples en ecosistemas acuáticos marinos, acidificación del océano, etc.

CONTACT: Dr. Ricardo Barra e-mail de Contacto: ricbarra@udec.cl

Dr. Cristian Vargas, e-mail de contacto: crvargas@udec.cl)

RESEARCH AREAS: Ingeniería ambiental, Tecnologías de tratamiento de residuos líquidos y sólidos.

CONTACT: Dra. Gladys Vidal, email de contacto: glvidal@udec.cl)

UNIVERSIDAD DE LA FRONTERA

CONTACT:

Hugo Marcelo Zunino, Ph.D. hugo.zunino@ufrontera.cl

Director de Cooperación Internacional

Delegado FULBRIGHT zona Sur Temuco-Pucón

3. Centro de Investigación en Psicología Económica y del Consumo

<http://www.psicologiaeconomica.com/>

4. International Center for Studies on Patagonia.

<http://www.researchpatagonia.com/index.php/english-version->

RESEARCH AREAS:

- ✓ Territorial resources
- ✓ Social and cultural transformations
- ✓ Binational economy.

5. Bioren Centers, Scientific and Technological Bioresource Nucleus

<http://bioren.ufro.cl/>

1. Center of Chemical Ecology of Terrestrial and Aquatic Systems (CETAS)

RESEARCH AREAS:

- ✓ Agricultural Entomology
- ✓ Chemical Ecology in Terrestrial and Aquatic Systems
- ✓ Population genetics
- ✓ Ecological and evolutionary genomics of herbivorous insects

2. Center of Waste Management and Bioenergy

RESEARCH AREAS:

- ✓ Waste to energy and resource technology
- ✓ Renewable energy, bioenergy and biofuels
- ✓ Process technology for waste recycling and biofuel development (Biotechnological, chemical, physical & thermal)
- ✓ Fluid dynamics & combustion theory

3. Center of Molecular Pathology Laboratory/ Department of Pathology

RESEARCH AREAS:

- ✓ Gallbladder, Gastric, Breast and Uterine Cervix Carcinogenesis.
- ✓ Proteomics of preneoplastic and neoplastic lesions.
- ✓ Epigenetics of preneoplastic and neoplastic lesions.
- ✓ Human Papilloma Virus and Carcinogenesis.
- ✓ Discovery and Validation of prevalent gastrointestinal and gynecological cancers.

4. Center of Environmental Biotechnology

RESEARCH AREAS:

- ✓ Biological and Physicochemical processes for wastewater treatment
- ✓ Degradation of organic pollutants in wastewater and contaminated soil by white-rot fungi
- ✓ Pesticide degradation in contaminated soil through the use of biobed technology.
- ✓ Industrial Solid Waste Management
- ✓ Modeling biological processes for Nitrogen removal in a biofilm reactor

5. Center of Plant, Soil Interaction and Natural Resources Biotechnology

RESEARCH AREAS:

- ✓ Soil Physical Chemistry and Clay Mineral Nanotechnology
- ✓ Plant-soil Interactions and Plant Biochemistry
- ✓ Physiological and biochemical responses of plants to environmental stresses
- ✓ Pesticide management and crop production
- ✓ Soil Microbial Ecology and Biotechnology

6. Center of Molecular Biology and Pharmacogenetics

RESEARCH AREAS:

- ✓ Genetic Basis of Priority Diseases: the objective is to identify genetic variants related to the development of major vascular and metabolic diseases that affect our country, such as venous thrombosis, coronary artery disease, diabetes mellitus, obesity and polycystic ovary syndrome.
- ✓ Cardiovascular Pharmacogenetics: investigates the effect of genetic variants on the therapeutic response to anticoagulant, hypoglycemic and hypolipidemic drugs with the aim of identifying molecular markers to predict response to treatment or susceptibility to adverse drug reactions, and identification of new therapeutic targets.
- ✓ Identification of Active Principles of Native Plants with Therapeutic Action: the main aim is the detection and identification of active ingredients with antibacterial and antifungal action on pathogens that affect the oral cavity. It also investigates the potential anti-inflammatory and antioxidant action of active principles isolated from bee products, like honey and propolis, on the development of the atherosclerotic process.

7. Center of Amelioration and Sustainability of Volcanic Soils (AMESUVOS)

RESEARCH AREAS:

- ✓ Soil conservation and dynamic processes of carbon in the volcanic soils of Chile
- ✓ Bio-fertilizers in agricultural systems with reduced tillage
- ✓ Restoration of degraded ecosystems using industrial wastes
- ✓ Phytoremediation of polluted soils
- ✓ Decision support system for crop rotation based on Simulation Models-Remote Weather Stations
- ✓ Biotechnological application of arbuscular mycorrhizal fungi

8. Center of Food Biotechnology and Bioseparations

RESEARCH AREAS:

- ✓ Industrial microbiology and fermentation
- ✓ Physical and biological properties of food and food components
- ✓ Supercritical extraction of biologically active compounds
- ✓ Processing and minimal processing of vegetables
- ✓ Edible films and coating for food applications
- ✓ Food and feed development

UNIVERSIDAD DE MAGALLANES.

Dirección de programas Antárticos:

CONTACT: Dr. Carlos Cardenas (carlos.cardenas@umag.cl)

RESEARCH AREAS:

1. Radioglaciología y Teledetección (con actividades realizadas en Estación Patagonia Subantártica universitario en el Parque Nacional Torres del Paine)
2. Eco-Química (Estudio del impacto de los contaminantes en la criósfera y en sistemas asociados, y generación de biocombustibles)
3. Radioglaciología.
4. Establecimiento de las Bases de un Programa de Trabajo para el Desarrollo de Turismo Científico en la Región
5. Determinación geodésica de la deformación de la corteza terrestre en Tierra Del Fuego” (Chile Argentina)

 **Instituto de la Patagónia**

CONTACT: Dr. Carlos Rios carlos.rios@umag.cl

RESEARCH AREAS:

1. Biodiversidad en ecosistemas marinos de altas latitudes (ecosistemas de fiordos y canales australes)
2. Ecología y botánica en sistemas terrestres patagónicos
3. Biodiversidad de la entomofauna de Magallanes
4. Ecología y conducta de ballenas y otros mamíferos marinos australes
5. Desarrollo de proyectos como: Establecimiento de un jardín de especies de frutos nativos con potencial productivo.
6. Establecimiento de la Primera Plantinera Hortícola de la Región de Magallanes.

 **Parque Etnobotánico Omora**

CONTACT: Dra. Francisca Massardo; Dr. Ricardo Rozzi massardorozzi@yahoo.com

RESEARCH AREAS:

1. Conservación biocultural subantártica, turismo de intereses especiales y ética ambiental.
2. Ornitología.
3. Desarrollo de proyectos como: Sub-Antarctic Biocultural Conservation Program
4. Eco-Turismo con Lupa en la Región Subantártica y Antártica Chilena.
5. Centro de Turismo de Intereses Especiales: Foro Internacional de Transferencia Tecnológica para las Empresas Regionales de Turismo de Intereses Especiales en Promoción Turística, Marketing y TICs
6. Fortalecimiento del Observatorio Omora de Aves Subantárticas en la Reserva de Biosfera Cabo de Hornos
7. IEB Línea - Ecotourism & Biocultural Conservation
8. Nuevas Metodologías para Integrar la Investigación, Educación y Conservación Ecológica en la Reserva de Biosfera Cabo de Hornos (Chile) y Latinoamérica


 **Centro de Estudios Energéticos**

CONTACT: Dr. Humberto Vidal (humberto.vidal@umag.cl)

RESEARCH AREAS:

1. Energías renovables no convencionales (Biomasa, energía eólica)
2. Eficiencia Energética
3. Desarrollo de proyectos como:
 - ✓ Construcción, Instalación y Puesta en marcha de Gasificadores de Biomasa para Comunidades Aisladas.
 - ✓ Aprovechamiento de la Energía Solar, del Viento y Marinas, para mejorar la Competitividad de la Acuicultura y Turismo.
 - ✓ Evaluación de Energías Renovables para su Utilización a Nivel Productivo en la Provincia de Tierra del Fuego.

- ✓ Desarrollo de bioceldas solares fotovoltaicas de amplio espectro basadas en antocianinas extraídas de berries.
- ✓ Ahorro Térmico en la XII Región mediante Reacondicionamiento Térmico de Viviendas
- ✓ Proyecto de Investigación y Desarrollo en Eficiencia Energética en la Región de Magallanes
- ✓ Evaluación de la calidad Higrotérmica de las Viviendas Reacondicionadas para la Comuna de Punta Arenas
- ✓ Evaluación de Potencial Eólico y Fotovoltaico en sectores de la XII Región

 **Centro de Sustentabilidad Ambiental, seguridad alimentaria y metales pesados.**

CONTACT: Dra. María Soledad Astorga (msoledad.astorga@umag.cl)

RESEARCH AREAS:

1. Línea de investigación en contaminación marina y alimentos provenientes de mar utilizados como bioindicadores en los cuales se realizan análisis de Hg, As, Cd, Pb y minerales esenciales.
2. Desarrollo de proyectos como:
 - ✓ Desarrollo de Herramientas y Estándares de Calidad Ambiental para la Identificación, Confirmación y Control de Sitios Contaminados: Aplicación Piloto en Región de Magallanes, Sector Hidrocarburos.
 - ✓ Centro de sustentabilidad ambiental Magallanes (SAM)
 - ✓ Biodiversidad, distribución y ciclo de vida de macroalgas y hongos algícolas asociados al monitoreo de indicadores abióticos, bioquímicos y microbiológicos en la Península Antártica y archipiélagos adyacentes
 - ✓ Diagnóstico de metales pesados en Productos Marinos (choritos y cholgas) consumidos en la Región de Magallanes
 - ✓ Sustancias tóxicas persistentes durante el embarazo y el período de lactancia: Fuentes y niveles de sustancias tóxicas persistentes (PTS), desarrollo fetal y resultado del embarazo en Magallanes, Chile (Basado en un estudio de cohorte)

 **Laboratorio de Macroalgas Antárticas y Subantárticas – LMAS:**

CONTACT: Dr. Andres Mansilla (andres.mansilla@umag.cl)

RESEARCH AREAS:

1. Cultivo, escalamiento productivo, taxonomía y ecofisiología de macroalgas Antárticas y Subantárticas.
Desarrollo de proyectos como:
 - ✓ Cultivo y biotecnología de *Ahnfeltiapplicata*, nueva alternativa en la producción de ficocoloides para la Región de Magallanes.
 - ✓ Cultivo de *Gigartina skottsbergii* en condiciones de laboratorio, hatchery y mar abierto, para la restauración de praderas sobreexplotadas en la Región de Magallanes.

- ✓ Biotecnología de algas rojas de interés comercial para la Región de Magallanes y Antártica Chilena
 - ✓ Abordar los escenarios biogeográficos y filo geografía en materia de origen y la persistencia de la diversidad de macroalgas en regiones antárticas y subantárticas mediante enfoques moleculares taxonómicos y eco fisiológicos.
2. Macroalgas Subantárticas: oportunidades para el turismo gastronómico y la pesca artesanal en la comuna de Cabo de Hornos
 3. Innovación y promoción de la alimentación saludable a base de macroalgas para poblaciones en riesgo de obesidad en la Región de Magallanes.

 **Centro de Estudios del Hombre Austral**

CONTACT: Magister Flavia Morello (flavia.morello@umag.cl)

RESEARCH AREAS:

1. Historia, Antropología y Arqueología de Pueblos Originarios
2. Desarrollo de proyectos como:
 - ✓ Reevaluación tafonómica de la interacción entre cazadores recolectores y fauna extinta a fines del Pleistoceno en Patagonia Meridional.
 - ✓ Difusión arqueología de Torres del Paine: Un aporte al TIE
 - ✓ Historia de un puente roto: las islas orientales del Estrecho de Magallanes.

 **Escuela de Ciencias Agrícolas:**

CONTACT: Dr. Sergio Radic (sergio.radic@umag.cl)

RESEARCH AREAS:

1. Relación suelo-planta.
2. Manejo de pastizales.
3. Desarrollo de proyectos como:
 - ✓ Sistema Dinámico de Monitoreo de Pastizales en Magallanes
 - ✓ Estudio para definir un programa que permita mejorar la oferta de forraje en la ganadería ovina de Magallanes.


 **Laboratorio de Biotecnología. Biotecnología en plantas nativas de valor comercial**

CONTACT: Dra. Valeria Latorre (valeria.latorre@umag.cl)

RESEARCH AREAS:

1. Desarrollo de proyectos como: Habilitación del Primer Laboratorio de Biotecnología en la Región de Magallanes.
2. Características funcionales de frutos nativos, orientado a la diversificación productiva y alimentaria de la Región de Magallanes.

3. Aplicación de un sistema de inmersión temporal en biorreactores para la propagación in vitro de plantas: Tecnología de Innovación en la Región de Magallanes

 **Genética de Poblaciones aplicada a la domesticación de plantas nativas y mejoramiento genético en ovinos**

CONTACT: Dra. Ingrid Hebel ingrid.hebel@umag.cl

RESEARCH AREAS:

1. Variabilidad genética y nutricional de tres especies vegetales como base competitiva para el sector hortofrutícola.
2. Estrategias para el fortalecimiento de la producción de queso de oveja en la Región de Magallanes y Antártica Chilena