

APPLIED RESEARCH THAT MEETS THE NEEDS OF THE INDUSTRY



Fraunhofer-Gesellschaft

The Fraunhofer-Gesellschaft is the leading organization for applied research in Europe. Its research activities are conducted by 66 institutes and research units at locations throughout Germany.

The Fraunhofer-Gesellschaft employs over 24,000 scientists and engineers, who work with an annual research budget totaling more than 2 billion euros. Of this sum, around 1.7 billion euros is generated through contract research.

International collaborations with excellent research partners and innovative companies ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

Fraunhofer Chile Research

The Fraunhofer Chile Research Foundation (FCR) is a wholly owned subsidiary of the Fraunhofer-Gesellschaft in Germany. Its aim is to improve industrial competitiveness through applied research in Chile and Latin America.

FCR was established as an umbrella organization under which different Fraunhofer Institutes can operate.

We develop new products and services for different industries, including Food and Food Ingredients, Aquaculture and Medicine.

Additionally, we offer consultancy services in technology transfer, intellectual property, technology commercialization, and innovation management.



Fraunhofer Chile Research - Center for Systems Biotechnology (FCR-CSB)

FCR-CSB was the first research center established by the Fraunhofer Chile Research Foundation. We offer innovative solutions for various industries using biotechnological platforms.

As of October 2015, FCR-CSB has:

- Over 125 researchers working in 8 Divisions.
- Generated over 49 new research projects from competitive public sources and over 74 industry contracts.
- 13 patent applications and 3 granted patents.
- More than 60 articles in peer-reviewed journals.

Director of the Center

Prof. Dr. Wolfgang Schuch

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The research we carry out at FCR-CSB will make an impact in the local economy as we develop novel products and services for companies working in the Chilean, Latin American and global markets.



Strategic Collaborators

Most projects in the Center are carried out by three collaborating organizations: FCR-CSB, Fraunhofer IME and local research partners.

Fraunhofer IME conducts applied life science research from molecules to ecosystems. Its research areas cover three business fields: Drugs and Biopharmaceuticals, Agro-sciences for Food and Feed, and Bio-production and industrial sustainability.

Our local strategic partners are Fundación Chile, Pontificia Universidad Católica de Valparaíso, Universidad de Talca and Universidad Andrés Bello. In addition, we have established collaborations with 10 other local Universities.

FCR-CSB is supported by the Program for the Attraction of International Excellence Centers in R&D of CORFO.





Biomedicine

We discover and validate diagnostic and therapeutic tools for neurological diseases through preclinical assays *in vivo* and *in vitro*.

Patricia Cogram, Ph.D.

Leader Biomedicine

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Biocomputing and Applied Genetics

We develop and apply high-throughput technologies in structural bioinformatics, data mining, and apply these to disease monitoring and the development of new varieties.

Jorge Valdés, Ph.D.

Leader Biocomputing and Applied Genetics

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Nanomedicine

We search for new drugs, design and synthesize nanostructures to optimize drug delivery and develop new diagnostic tools.

Danilo González-Nilo, Ph.D.

Leader Nanomedicine

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Nanobiotechnology

We design and synthesize highly specific nanostructures for the capture and controlled release of small molecules in industrial processes and purification from aqueous solutions.

Leonardo S. Santos, Ph.D.

Leader Nanobiotechnology

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Therapeutic Peptides

We design and synthesize bioactive peptides as therapeutic and diagnostic agents against pathogens for aquaculture, livestock, agriculture and human applications.

Sergio Marshall, Ph.D.

Leader Therapeutic Peptides

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Renewable Resources

We develop bio-refinery concepts and optimized process for the extraction of value-added byproducts from biological feedstocks and waste materials for sustainable development and value-added creation.

Rolando Chamy, Ph.D.

Leader Renewable Resources

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Lothar Driller, MBA.

Renewable Resources - Santiago

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Aquaculture

We develop novel vaccines for major salmon diseases and optimize technologies for efficient cultive operations, add value to industrial residues and certify that companies follow sustainability procedures.

Mauricio Ríos, Ph.D.

Leader Aquaculture

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Alex Brown, Dr. rer. nat.

Leader Sustainable Aquaculture

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Agriculture

We generate highly specific byproducts from active ingredients from *Apis mellifera* and we develop projects in sustainable management of the pollination process.

Marnix Doorn, MSc.

Leader Agriculture

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Industries Served

Meeting the needs of our customers requires multidisciplinary approaches in most cases. Therefore, we maintain a flexible structure that facilitates the integration of the skills of our teams, creating appropriate solutions to complex problems.

The versatility of our research allows us to serve a wide range of industries. We invite you to contact our divisions according to your industry to let you know how we can help you.

| | Biomedicine | Biocomputing and Applied Genetics | Nanomedicine | Nanobiotechnology | Therapeutic Peptides | Renewable Resources | Aquaculture | Agriculture |
|-------------|-------------|-----------------------------------|--------------|-------------------|----------------------|---------------------|-------------|-------------|
| Medical | | | | | | | | |
| Pharma | | | | | | | | |
| Chemical | | | | | | | | |
| Aquaculture | | | | | | | | |
| Agriculture | | | | | | | | |
| Forestry | | | | | | | | |
| Mining | | | | | | | | |

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