



Comisión Nacional de Investigación
Científica y Tecnológica - CONICYT

FONDAP CENTERS OF EXCELLENCE IN RESEARCH PROGRAM

EVALUATION REPORT

I. PROJECT INFORMATION

NAME OF THE CENTER Center for Genome Regulation (CGR)	CODE 15 09 0007
DIRECTOR OF THE CENTER Miguel L. Allende	
SPONSORING INSTITUTION	
PERIOD REPORTED From: July 2015 To: March 2017	

II. EVALUATION PANEL

REVIEWER'S NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE
Reviewer 1			



III. ANNUAL PROGRESS EVALUATION REPORT

A. RESULTS ATTAINED RELATED TO CENTER AIMS OR GOALS

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	x					
Outcomes achieved in relation to the proposal objectives and goals.	x	X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	x	X				
Integration between research lines of the Center.	x					
Development and strengthening of international networks.	x					
Outreach to society.	x					
Dissemination and exploitation of results.	x					
Contribution to policy makers and other targeted groups.	x					
Responsiveness to or incorporation of suggestions by the advisory committee.	x					

B. RESULTS ATTAINED PER RESEARCH LINES (Please fill up as many forms as programs exist within the Center).

Research Line: Extreme Genomes: Animals
Principal Investigator: Miguel Allende, Martin Montecino

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	x	x				
Outcomes achieved in relation to the proposal objectives and goals.	x					
Quality of achieved outcomes in relation to the proposal objectives and goals.	x	x				
Integration between research lines of the Center.	x					
Dissemination and exploitation of results.		x				



Research Line: Extreme Genomes: Plants
Principal Investigator: Rodrigo Guterrez, Ariel Orellana

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		x				
Outcomes achieved in relation to the proposal objectives and goals.		x				
Quality of achieved outcomes in relation to the proposal objectives and goals.		x				
Integration between research lines of the Center.		x				
Dissemination and exploitation of results.		x				

Research Line: Relevant Genomes: Humans
Principal Investigator: Rodrigo Gutierrez, Alejandro Mass, Martin Montecino, Mauricio Gonzalez

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	x					
Outcomes achieved in relation to the proposal objectives and goals.	x					
Quality of achieved outcomes in relation to the proposal objectives and goals.		x				
Integration between research lines of the Center.	x					
Dissemination and exploitation of results.		x				



Research Line: Relevant Genomes: Microbes
Principal Investigator: Mauricio Gnzalez, Alejandro Maass

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		x				
Outcomes achieved in relation to the proposal objectives and goals.		x				
Quality of achieved outcomes in relation to the proposal objectives and goals.		x				
Integration between research lines of the Center.	x					
Dissemination and exploitation of results.		x				

Research Line: Relevant Genomes: Vitis vinifera
Principal Investigator: Ariel Orellana Alejandro Maass

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		x				
Outcomes achieved in relation to the proposal objectives and goals.		x				
Quality of achieved outcomes in relation to the proposal objectives and goals.		x				
Integration between research lines of the Center.	x					
Dissemination and exploitation of results.		x				

Research Line: Relevant Genomes: Salmo Salar
Principal Investigator: Miguel Allende, Alejandro Maass

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
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Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		X				
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.		X				
Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				

Research Line: Relevant Genomes: <i>Piscirickettsia salmonis</i>
Principal Investigator: Alejandro Maass

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		X				
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.		X				
Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				

Research Line: Relevant Genomes: <i>Prunus persica</i>
Principal Investigator: Ariel Orellana

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		X				
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.		X				



Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				

Research Line: Gene expression in cells
Principal Investigator:

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).		X				
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.		X				
Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				

C. GENERAL COMMENTS

Please provide an overall qualitative review of the Annual Progress of the Center goals and outcomes. Include any comments that you consider significant, highlighting the main strengths and/or weaknesses.

As mentioned several times before, I think that CRG is clearly a success story since it has firmly established itself as an excellent interdisciplinary research institute. The centre provides an excellent research environment for its highly qualified scientists and has a mandate to stimulate interdisciplinary research at the interface of genomics, biology, and computational science. With high records of research productivity, funding and collaboration, the center has realized remarkable potential and is surely the jewel in the crown of Chilean research. The past and current projects at the center are yield



results of national and international interest and impact, and the integration of the groups toward an actual center is progressing well. It is the opinion of this evaluator that, in the next 12-18 months, one can expect more publications in journals with an impact factor of >10 and therefore of much international recognition in a second funding period.

The continuous integration of the teams involved in CGR should be an emphasis during the second funding phase. In addition, the educational aspect should be kept at the currently high level or even be improved further, if physically possible.

D. BENCHMARKING

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Performance of the Center in relation to internationally recognized centers in the field.	x	X				

Please elaborate:

FONDAP is doing a great job for the money that has been given to promote benchmarking.

E. COMMENTS TO THE CENTER DIRECTOR

Once again, I'd like to congratulate the Institute Director for the achievements in the past 18 months. Several top-notch papers are expected to be accepted and published this year, therefore I think the CRG is doing a great job.

My only suggestion is to try to recruit one-two visiting foreign professors to CRG (3-6 months sabbatical), who could contribute to increased networking in the field of CRG's research. I'm convinced that



young students and postdocs would benefit from the exposure to such visiting Professors.

F. RECOMMENDATIONS TO THE FONDAP PROGRAM DIRECTOR

I'd like to mention once again that FONDAP's idea to fund and support one such Center for Genome regulation was a very good idea, not only for the benefit of the Chilean science, but also for the Chilean society in general. With high records of research productivity, funding and collaboration, the Centre has realized remarkable potential and is surely the jewel in the crown of the Chilean Scientific Community. However, it is the opinion of this reviewer that the investment in science by the Chilean Government should definitely be higher than 0.5% of the Chilean GDP in order to keep up with other developed countries in the world, and especially with Brazil as your neighbor.

G. ADDITIONAL INFORMATION REQUIRED FOR THE EVALUATION OF THE ANNUAL PROGRESS REPORT

If you decide to leave the evaluation pending and require additional information from the Center, please indicate the documentation or explanations required to complete your evaluation. In case there are additional requirements that the Center's director has to fulfill, please explain them as clearly as possible so s/he can address them.

If you decide to reject this report (or significant portions of it) please indicate as clearly as possible the requirements that should be conveyed to the Center's director.

No additional information required.



IV. EVALUATION CONCEPTS

1. **Approved:** The objectives and goals are fully accomplished and all the relevant issues are properly covered in the report.
2. **Approved with minor observations:** The objectives and goals are accomplished, however, some comments and suggestions need to be addressed.
3. **Pending:** Additional information is required to fully evaluate the report.
4. **Rejected:** The objectives and goals have not been accomplished and/or the outcomes are deficient.

V. RECOMMENDATION

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APPROVED	APPROVED WITH MINOR OBSERVATIONS	PENDING	REJECTED

REVIEWER'S NAME: Reviewer 1

DATE: April 6, 2017





Comisión Nacional de Investigación
Científica y Tecnológica - CONICYT

FONDAP CENTERS OF EXCELLENCE IN RESEARCH PROGRAM

EVALUATION REPORT

I. PROJECT INFORMATION

NAME OF THE CENTER Center for Genome Regulation (CGR)	CODE 15 09 0007
DIRECTOR OF THE CENTER Miguel L. Allende Acting director: Mauricio González C.	
SPONSORING INSTITUTION CONICYT (FONDAP)	
PERIOD REPORTED From: 2015 To: 2016	

II. EVALUATION PANEL

REVIEWER'S NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE
Reviewer 2			



III. ANNUAL PROGRESS EVALUATION REPORT

A. RESULTS ATTAINED RELATED TO CENTER AIMS OR GOALS

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.	X					
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.		X				
Development and strengthening of international networks.		X				
Outreach to society.		X				
Dissemination and exploitation of results.		X				
Contribution to policy makers and other targeted groups.		X				
Responsiveness to or incorporation of suggestions by the advisory committee.	X					

B. RESULTS ATTAINED PER RESEARCH LINES (Please fill up as many forms as programs exist within the Center).

<p>Research Line: A phylogenomic and systems biology approach to identify genes underlying plant survival in marginal soils.</p>
<p>Principal Investigator: Rodrigo Gutiérrez</p>

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				



Research Line: Metagenome of the altiplano soils: plant-microbiome interaction
Principal Investigator: Mauricio González

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.	X					
Dissemination and exploitation of results.		X				

Research Line: Regulatory landscape plasticity as an evolutionary driver in the genomes of Cyprinodontiform fish.
Principal Investigator: Martín Montecino, Miguel Allende

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.		X				
Dissemination and exploitation of results.		X				



Research Line: Identification of genome signatures defining metabolic networks that provide unique features to cope with environmental stresses in plants
Principal Investigator: Ariel Orellana

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.		X				
Dissemination and exploitation of results.		X				

Research Line: Gene expression control and regulatory networking
Principal Investigator: Alejandro Maass

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Responsiveness to or incorporation of suggestions from last evaluation report (If applicable).	X					
Outcomes achieved in relation to the proposal objectives and goals.		X				
Quality of achieved outcomes in relation to the proposal objectives and goals.	X					
Integration between research lines of the Center.		X				
Dissemination and exploitation of results.		X				



C. GENERAL COMMENTS

Please provide an overall qualitative review of the Annual Progress of the Center goals and outcomes. Include any comments that you consider significant, highlighting the main strengths and/or weaknesses.

1. The center is a success at basically every level. The coordinators and responsible scientists should be applauded for their achievements. The center put Chile firmly on the map in a field of science, which is pivotal for many other, related activities. The impact goes well beyond the mere scientific progress. Chile is being recognised as a serious player and thus a serious partner. As a matter of fact, Chilean science is seen in the Southern hemisphere as a leader in the fields covered by CGR. The center – and the government – could take advantage of this positive situation for the better of Chilean science, industry and society.
2. The center's impact is increasing continuously. Next to the overall improvement, there are and will be landmark publications. The focus on not necessarily many publications but papers of high-impact should be continued, although this reviewer is very well aware of the partially inappropriate reviewing process that such high-impact publications require. Sometimes, it really is a waste of time and resources; nevertheless, it is important and the effort should be made.
2. The costs of running the center are minor in comparison to the yield achieved. In an analysis of return, it is money very well spent indeed! This reviewer would encourage the government very strongly indeed to consider an indefinite extension of the center, based on performance of course. Regular evaluations need to be assured. Also, means and processes have to be in place, by which particular parts may be finished and new ones started, if appropriate, including changes in the personnel involved. Still, support to individual research lines, should be long-term – not below 10 years – and not change ever too often.

There are a few points, which would need to be improved:

3. The number of postdocs and PhD students shrunk in 2016 rather than increasing, although their number is impressive nevertheless. No reason was given for this fact. While this could be due to turnover, lacking candidates or inappropriate funding, the issue should be addressed more clearly in the report next time.
4. There was no mentioning of commercial dissemination of the center's results. Patenting of relevant results and/or activities toward off-spinning company activities or interaction with industry should be considered and implemented, while assuring the scientific independence of the center, of course. An effort to identify obstacles to commercialisation is strongly advised.
5. While there is an increase in the number of co-authored publications, the participants should make an even bigger effort to link the projects, where appropriate. This should not be overdone, however, in terms of enforcing collaborations which would not be for the better of science. Still, there is more potential for synergies by even closer interaction within the center.
6. An annual retreat was organised. While being a good start, it should take longer than a single day and may not be located in Santiago-de-Chile. We all know that the informal parts of such a get-together, such as dinner or talks on the corridor, are



frequently the most productive with respect to exchange and starting collaborations. Also, participants should be taken away from their usual environment. While extension by a day and location elsewhere may add some extra cost, this reviewer would see this as a critical part in forming even closer collaboration.

7. The center may consider teaming up with other, similar activities in South-America in order to form an international, South-American network. Apart from the positive aspects of linking and possibly coordinating activities between countries, impact and thus the ability to attract both governmental and private/industry funding could increase from such international cooperation.
8. A minor point: For future evaluations, it would be good, if the publications could be ordered according to the subproject (Aim) from which they originate.

D. BENCHMARKING

Item	Outstanding	Very Good	Good	Regular	Poor	Not Qualify
Performance of the Center in relation to internationally recognized centers in the field.	X	X				

Please elaborate:

The work done at CGR is at a very high level as well as of enormous quality and impact in comparison to research done worldwide. Having picked the topics wisely, the center defined a niche for itself, in which it is world-leading and based on which it can enter other fields close to its core competences in a competitive manner.

E. COMMENTS TO THE CENTER DIRECTOR

Nothing beyond that stated in the GENERAL COMMENTS.

F. RECOMMENDATIONS TO THE FONDAP PROGRAM DIRECTOR

Consideration of permanent funding would be wise in order to take advantage of the enormous developments achieved by CGR. As a matter of course, it must be based on performance.



G. ADDITIONAL INFORMATION REQUIRED FOR THE EVALUATION OF THE ANNUAL PROGRESS REPORT

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If you decide to reject this report (or significant portions of it) please indicate as clearly as possible the requirements that should be conveyed to the Center’s director.

IV. EVALUATION CONCEPTS

- 1. *Approved:*** *The objectives and goals are fully accomplished and all the relevant issues are properly covered in the report.*
- 2. *Approved with minor observations:*** *The objectives and goals are accomplished, however, some comments and suggestions need to be addressed.*
- 3. *Pending:*** *Additional information is required to fully evaluate the report.*
- 4. *Rejected:*** *The objectives and goals have not been accomplished and/or the outcomes are deficient.*

V. RECOMMENDATION

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APPROVED	APPROVED WITH MINOR OBSERVATIONS	PENDING	REJECTED

REVIEWER’S NAME: Reviewer 2

DATE: 4 April 2017

