

<p style="text-align: center;">ESTADO FINAL RESOLUCION DEL CONSEJO</p> <p>Observaciones: _____</p> <p>_____</p>	<p>FECHA</p> <table border="1" style="width: 100%; height: 20px;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%;"></td> <td style="width: 33%;"></td> </tr> </table>				<table border="1" style="width: 100%; height: 40px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%;"></td> </tr> </table> <p>1. APROBADO 2. PENDIENTE 3. RECHAZADO 4. A FISCALIA</p>		

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EVALUATION REPORT CENTERS FOR ADVANCED RESEARCH

I. PROJECT INFORMATION	
CENTER'S NAME	
Center for Cell Regulation and Pathology "Joaquin V. Luco"	
DIRECTOR	
Dr. Nivaldo Inestrosa Cantin	

II. EVALUATION PANEL			
NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE
Mark Bothwell	University of Washington	mab@u.washington.edu	

III. PROGRAMS EVALUATION (please fill up as many forms as programs exist within the Center)

PROGRAM'S NAME <i>INTRACELLULAR PROTEIN TRAFFIC: MOLECULAR MECHANISMS, FUNCTIONAL IMPLICATIONS AND DISEASE</i>
PRINCIPAL INVESTIGATOR <i>Dr. Alfonso González</i>

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center	x			
Diffusion of the results	x			

PROGRAM'S NAME <i>FUNCTION OF PROTEOGLYCANS IN MYOGENESIS AND FIBROSIS</i>				
PRINCIPAL INVESTIGATOR <i>Dr. Enrique Brandan</i>				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of reached outcomes related to proposal objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center	x			
Diffusion of the results	x			

* If there had been none, please disregard this question

PROGRAM'S NAME ROLE OF PLASMA MEMBRANE NUCLEOTIDE RECEPTORS
PRINCIPAL INVESTIGATOR Dr. J. Pablo Huidobro-Toro

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center		x		
Diffusion of the results		x		

PROGRAM'S NAME <i>ROLE OF PPARS IN NEURAL FUNCTION</i>
PRINCIPAL INVESTIGATOR <i>Dr. Miguel Bronfman</i>

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center		x		
Diffusion of the results		x		

PROGRAM'S NAME <i>ROLE OF THE WNT SIGNALING PATHWAY IN SYNAPTIC FUNCTION AND NEURODEGENERATIVE DISEASES</i>
PRINCIPAL INVESTIGATOR <i>Dr. Nivaldo C. Inestrosa</i>

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center	x			
Diffusion of the results	x			

PROGRAM'S NAME <i>TRAFFICKING, FUNCTION AND REGULATION OF THE LOW-DENSITY-LIPOPROTEIN (LDL) RECEPTOR-FAMILY MEMBERS</i>
PRINCIPAL INVESTIGATOR <i>Dr. María Paz Marzolo</i>

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center	x			
Diffusion of the results	x			

PROGRAM'S NAME <i>EARLY DEVELOPMENT OF THE VERTEBRATE EMBRYO</i>
PRINCIPAL INVESTIGATOR <i>Dr. Juan Larraín</i>

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center		x		
Diffusion of the results		x		

PROGRAM'S NAME NEUROTROPHIN SIGNALING: CELL BIOLOGY, PROTEOLYTIC PROCESSING, AND ROLE IN CENTRAL NERVOUS SYSTEM REPAIR AND DISEASE
PRINCIPAL INVESTIGATOR Dr. Francisca Bronfman

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	x			
Quantity of the results reached regarding the objectives and goals	x			
Quality of reached outcomes related to proposal objectives and goals	x			
Degree of integration with other ongoing programs of the Center		x		
Diffusion of the results		x		

IV. CENTER EVALUATION

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Uso Interno
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the Center	X			
Quantity of reached outcomes related to proposal objectives and goals	X			
Quality of reached outcomes related to proposal objectives and goals	X			
Degree of integration between the programs of the Center	X			
Creation and reinforcement of international networks	X			
Outreach		X		
Diffusion of results	X			
Establishment and tasks of the Advisory Committee		X		

RECOMMENDATIONS (see following concepts)

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APPROVE	APPROVAL WITH SUGGESTIONS	ADDITIONAL INFO.	PENDING	REJECT	FONDECYT USE

1 March 2009

Evaluation Date Signature reviewer

EVALUATION CONCEPTS ANNUAL REPORT

1. **Approve:** The reviewer recommends to accept the report in its present form since he/she considers objectives and goals fully accomplished and all relevant issues covered by the report.

2. **Approval with suggestions or minor observations**
 - 2.1 **Minor observations:** The reviewer recommends the approval of the report despite the justified incompleteness of some aspects that does not constitute an obstacle for the continuity of the Center activities.
 - 2.2 **Suggestions:** The reviewer recommends minor changes in order to improve the future performance of the Center.

3. **Additional information:** The reviewer requires additional documentation or specific explanations to fully evaluate the report.

4. **Pending:** The reviewer makes significant observations to the report and conditions its approval to the accomplishment of specific demands.

5. **Reject:** The reviewer has strong objections to the contents of the report.

EVALUATION COMMENTS:

Overall, I find the performance of the Center for Cell Regulation and Pathology “Joaquin V. Luco” to be simply outstanding. I do have one minor criticism of the annual report, and that is that it does not provide any information about whether there are any on-going communications with the advisory committee, or whether present operations continue to be influenced by suggestions of the advisory committee resulting from its last visit to Santiago in 2007.

The most salient feature of the performance of the Center over the last 12 months is that the number of publications in peer reviewed journals is outstanding, and the average quality of the journals in which the investigators are publishing (in terms of impact factor and other measures of importance) is very impressive, and shows substantial improvement over previous years. This productivity compares favorably with investigators at the finest research institutions internationally. It may be noted that the outstanding performance by the senior investigators in the Center is reflected in the several important national and international honors awarded to them during the last year, including the award of the Chilean National Prize in Natural Sciences to Dr. Inestrosa, and his appointment to the review board of the Journal of Biological Sciences, the election of Dr. Brandan to the Chilean Academy of Sciences, and the award of the Pil XI Medal in Science from the Pontifical Academy of Sciences to Dr. Larrain.

Another measure by which the Center shows tremendous success is the extensive collaboration that occurs between the project leaders. It is quite clear that the Center is meeting the important objective of achieving creative synergy among the project leaders.

It may be noted that the production of publications in peer-reviewed journals by Dr. J. Larrain and Dr. F. Bronfman over the last year has not been up to the high standard of the other project leaders. However, both are making excellent progress on important scientific questions and their limited publication record mainly reflects the fact that their research programs were only recently, initiated. I am quite confident that their publication record will improve in later years.

From its outset, an outstanding characteristic of this Center has been the extensive collaboration between the project leaders and outstanding scientists in other countries. This continues to be an exceptional strength of the Center.

The Center continues to engage in significant outreach activities. The level of outreach activity of the Center is presently quite adequate. However, I would encourage the project leaders to explore additional opportunities for outreach. As these individuals are clearly among the finest and most honored scientists in Chile, they have the opportunity to provide leadership in science education in Chile.

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EVALUATION REPORT CENTERS FOR ADVANCED RESEARCH

I. PROJECT INFORMATION

CENTER'S NAME

Center for Cell Regulation and Pathology "Joaquin V. Luco"

DIRECTOR

Dr. Nivaldo Inestrosa Cantin

II. EVALUATION PANEL

NAME	ORGANIZATION/ INSTITUTION	E-MAIL	SIGNATURE
ROUGON Geneviève	IBDML	rougon@ibdml.univ-mrs.fr	

III. PROGRAMS EVALUATION (please fill up as many forms as programs exist within the Center)

PROGRAM'S NAME

PROGRAM PROJECT 1: INTRACELLULAR PROTEIN TRAFFIC: MOLECULAR MECHANISMS, FUNCTIONAL IMPLICATIONS AND DISEASE

PRINCIPAL INVESTIGATOR

Dr. Alfonso González

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	yes			
Quantity of the results reached regarding the objectives and goals		yes		
Quality of reached outcomes related to proposal objectives and goals	yes			
Degree of integration with other ongoing programs of the Center	yes			
Diffusion of the results	yes			

PROGRAM'S NAME

PROGRAM PROJECT 2: FUNCTION OF PROTEOGLYCANS IN MYOGENESIS AND FIBROSIS

PRINCIPAL INVESTIGATOR

Dr. Enrique Brandan

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	yes			
Quantity of reached outcomes related to proposal objectives and goals	yes			
Quality of reached outcomes related to proposal objectives and goals		yes		
Degree of integration with other ongoing programs of the Center		yes		
Diffusion of the results	yes			

PROGRAM'S NAME				
PROGRAM PROJECT 3: ROLE OF PLASMA MEMBRANE NUCLEOTIDE RECEPTORS				
PRINCIPAL INVESTIGATOR				
Dr. J. Pablo Huidobro-Toro				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	yes			
Quantity of reached outcomes related to proposal objectives and goals	yes			
Quality of reached outcomes related to proposal objectives and goals		yes		
Degree of integration with other ongoing programs of the Center	yes			
Diffusion of the results	yes			

PROGRAM'S NAME				
PROGRAM PROJECT 4: ROLE OF PPARS IN NEURAL FUNCTION				
PRINCIPAL INVESTIGATOR				
Dr. Miguel Bronfman				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program		yes		
Quantity of reached outcomes related to proposal objectives and goals		yes		
Quality of reached outcomes related to proposal objectives and goals	yes			
Degree of integration with other ongoing programs of the Center		yes		
Diffusion of the results		yes		

PROGRAM'S NAME				
PROGRAM PROJECT 5: ROLE OF THE WNT SIGNALING PATHWAY IN SYNAPTIC FUNCTION AND NEURODEGENERATIVE DISEASES				
PRINCIPAL INVESTIGATOR				
Dr. Nibaldo C. Inestrosa				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program	yes			
Quantity of reached outcomes related to proposal objectives and goals	yes			
Quality of reached outcomes related to proposal objectives and goals	yes			
Degree of integration with other ongoing programs of the Center	yes			
Diffusion of the results	yes			

PROGRAM'S NAME				
PROGRAM PROJECT 6: TRAFFICKING, FUNCTION AND REGULATION OF THE LOW-DENSITY-LIPOPROTEIN (LDL) RECEPTOR-FAMILY MEMBERS				
PRINCIPAL INVESTIGATOR				
Dr. María Paz Marzolo				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program		yes		
Quantity of reached outcomes related to proposal objectives and goals		yes		
Degree of integration with other ongoing programs of the Center	yes			
Diffusion of the results		yes		
		yes		

* If there had been none, please disregard this question

PROGRAM'S NAME PROGRAM PROJECT 7: EARLY DEVELOPMENT OF THE VERTEBRATE EMBRYO .				
PRINCIPAL INVESTIGATOR Dr. Juan Larraín				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program		yes		
Quantity of reached outcomes related to proposal objectives and goals		yes		
Quality of reached outcomes related to proposal objectives and goals		yes		
Degree of integration with other ongoing programs of the Center			yes	
Diffusion of the results	yes			

PROGRAM'S NAME				
PROGRAM PROJECT 8: NEUROTROPHIN SIGNALING: CELL BIOLOGY, PROTEOLYTIC PROCESSING, AND ROLE IN CENTRAL NERVOUS SYSTEM REPAIR AND DISEASE.				
PRINCIPAL INVESTIGATOR				
Dr. Francisca Bronfman				
ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Internal use
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the reported program		yes		
Quantity of reached outcomes related to proposal objectives and goals			yes	
Quality of reached outcomes related to proposal objectives and goals			yes	
Degree of integration with other ongoing programs of the Center		yes		
Diffusion of the results	yes			

IV. CENTER EVALUATION

ITEM	Total/ Good	Partial/ Regular	Insufficient/ Deficient	Uso Interno
Degree of adoption of suggestions from the last report *				
Accomplishment of objectives and goals of the Center	yes			
Quantity of reached outcomes related to proposal objectives and goals	yes			
Quality of reached outcomes related to proposal objectives and goals	yes			
Degree of integration between the programs of the Center	yes			
Creation and reinforcement of international networks	yes			
Outreach		yes		
Diffusion of results	yes			
Establishment and tasks of the Advisory Committee		yes		

RECOMMENDATIONS (see following concepts)

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APPROVE	APPROVAL WITH SUGGESTIONS	ADDITIONAL INFO.	PENDING	REJECT	FONDECYT USE

02	23	2009
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Evaluation Date Signature reviewer

EVALUATION CONCEPTS ANNUAL REPORT

2. **Approve:** The reviewer recommends to accept the report in its present form since he/she considers objectives and goals fully accomplished and all relevant issues covered by the report.

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4. **Pending:** The reviewer makes significant observations to the report and conditions its approval to the accomplishment of specific demands.

5. **Reject:** The reviewer has strong objections to the contents of the report.

EVALUATION COMMENTS:

This Center had been created 9 years ago. According to its running plan the scientific interests cover complementary areas dealing with protein trafficking, signaling, differentiation, muscle diseases, neurobiology, Alzheimer, and development, with some recent interest in spinal cord regeneration. By associating into the same framework biologists and physicians, the aim is to bring fundamental research closer to patients' bed. Among the most successful achievements of the year, (i) a collaboration with rheumatologists led to the finding that anti-Gal-8 autoantibodies associate with leucopenia and that these antibodies in lupus patients block apoptosis in T cells. (ii) Other autoantibodies from lupus patients which had been recently found to target NSPA (*Neuronal Surface P Antigen*) in the cell surface of neurons, were demonstrated this year to open blood brain barrier and to impair memory impairment after intravenous injection together with LPS. (iii) Various promising fundamental findings related to Alzheimer or gliomas might also translate into biomedical applications in a near future.

The solid record of publications from the Center has further increased over the 2008 year (28 ISI publications). This is excellent considering that several manuscripts are under minor revision or to be published soon, whereas future publications can be expected from the 33 communications at international meetings. Among these publications original data or lines of research are of note such as for example, (i) the role of Wnt signaling in cell differentiation, synaptic functions and Alzheimer disease, (ii) the sorting motifs in relation with polarized traffic of LRP1, (iii) the role of PPARs in neural cells.

FONDAP fundings have stimulated recent overseas collaborations which will contribute to promote the international impact of the Center. Today all teams, but Dr Miguel Bronfman's team, have developed scientific exchanges with labs all over the world. Dr. J. Pablo Huidobro-Toro has also organized a successful international workshop on "Purinergic Signaling" in Santiago with speakers from Europe and USA to further reinforce this international exchange. The center's english webpage is now weekly up-dated, and a Spanish translation has been prepared to position the Center into local scientific policy.

All these efforts have contributed to make the centre attractive to post-docs with a total of 17 Postdoctoral fellows to date and an increasing number of PhD students reaching 35 PhD Thesis in progress. These numbers attest a good balance between experienced and young researchers/students under training. It should be noted however that this balance is not respected in all teams (see section "Recommendations").

Senior researchers have accumulated extensive experience in working together over the

years. Therefore they have successfully increased the number of fruitful inter-program collaborations resulting for example in 3 co-authored publications this year, 11 co-authored abstracts and several ongoing projects plus 5 co-tutored PhD thesis. Improvement of intra-center collaborations seems correlated with the relocation of teams in closer geographical proximity; it can be extrapolated that the moving to come will further reinforce these interactions.

It is therefore good timing to incorporate a new young investigator in this matrix of interacting senior scientists. Dr. Alejandro Erices's interest for molecular neurobiology of stem cells fits with the Centre's biomedical objectives while his international connections with Sweden will probably serve the international development of the Center.

Finally, the use of heavy equipments such as fluorescent stereoscope or Spectrofluorimeter has obviously been intense and carefully justified. A new Equipment Power lab 4/30, electrode stimulator has been received and installed with 10 months delay but has been intensively used since then. The arrival of a new young investigator would probably benefit from extra investment to extend equipments.