

**CURRICULUM VITAE**

(MARCH 2022)

**1. IDENTIFICATION**

Name: Luis Fernando Larrondo Castro  
 Birth: June 30, 1973, Santiago, Chile  
 Citizenship: Chilean  
 Position: Full Professor  
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**2. BRIEF STATEMENT OF RESEARCH INTERESTS**

I received my Ph.D. in Cellular and Molecular Biology at the P. Universidad Católica de Chile, studying the enzymology and genomics of lignin degradation by white rot fungi with Dr. Rafael Vicuña. Then, as a PEW Latin American Fellow, I went to the lab of Jay C. Dunlap (Dartmouth Medical School), where as a postdoc I became interested in fungal functional genomics, photobiology, and circadian regulation, developing different tools such as a high-throughput platform for *in vivo* circadian studies in *Neurospora crassa*. In 2009, I joined the P. Universidad Católica de Chile, where currently I am Full Professor and since 2018 the director of the Millennium Institute for Integrative Biology (iBio) (previously Millennium Nucleus for Fungal Integrative and Synthetic Biology, 2014-2017) and a HHMI International Research Scholar. Work conducted in my lab, has contributed to advance the understanding of circadian timing, the role of clock-regulation on plant-pathogen interactions, general transcriptional mechanisms, and the effect of light on fungal transcriptional programs. Through optogenetics and synthetic biology-based approaches, my lab is also exploring the design of new oscillatory circuits capable of starting and sustaining circadian rhythms, and implementing synthetic genetic circuits to reprogram gene expression. In addition, we have begun to explore evolutionary and ecological implications of circadian clocks, by a combination of transcriptional rewiring, directed evolution and population genomics.

**3. EDUCATION**

1991-1995: B.Sc (Licenciado) in Biochemistry, Pontificia Universidad Católica de Chile.  
 1996-1999: M.Sc. (Magister) in Biochemistry, Pontificia Universidad Católica de Chile.  
 1998-2003: Ph.D. in Cellular and Molecular Biology, Pontificia Universidad Católica de Chile.  
 2004-2009: Postdoc in Fungal genetics/Circadian biology, Laboratory Jay C. Dunlap, Dartmouth Medical School (NH), USA.

**4. HONORS**

1994: Honor undergraduate Scholarship.  
 1995: In Vitro Cell Biology and Biotechnology, course Fellowship (1 Semester). Miner Center, SUNY Plattsburgh (State University of New York), NY, USA.  
 1996: Research residence Fellowship. Department of research and Postgraduate Research (DIPUC), Pontificia Universidad Católica de Chile.  
 1998: Pontificia Universidad Católica de Chile Graduate scholarship for 5 years  
 1998: Fundación Andes Graduate Fellowship for 2 years  
 2000: Fundación Andes Graduate Fellowship for 3 years  
 2000: Distinguished alumnus award. Facultad de Ciencias Biológicas. P. Universidad Católica de Chile.  
 2001: Fellowship from the Genetics Society of America (GSA) to assist to the 21st Fungal Genetics Conference at Asilomar, CA.  
 2000: Travel fellowship (5 months) from the Department of research and Postgraduate Research (DIPUC) at the Pontificia Universidad Católica de Chile, to develop part of the thesis work in the USA.

- 2002: Herman Niemeyer Award, given by the SBBCH (Sociedad de Bioquímica y Biología Molecular de Chile) as the 2002 most distinguished Ph.D. student.
- 2003: Fellowship from the Genetics Society of America (GSA) to assist to the 22nd Fungal Genetics Conference at Asilomar, CA
- 2004: PEW Postdoctoral Latin American Fellowship in the Biomedical Science (2 years)
- 2011: Nature Genetics Travel Award to assist to the 2011 Gordon Research Conference on Chronobiology (Lucca, Italy)
- 2011: Elected as Young Affiliated member of the Academy of Science for the Developing World (TWAS)
- 2012: Travel Grant from the Japan Society for the Promotion of Science to assist to the 9th Annual Science and Technology Forum (Kyoto, Japan).
- 2012: Selected, by the New York Academy of Science to participate as a “Future Leader” in the 9th Annual Science and Technology Forum (Kyoto, Japan).
- 2013: Highest Score (Percentile 1) in the 2013 FONDECYT-Regular (Biology 3 section) grant competition.
- 2017: Howard Hughes Medical Institute International-Research-Scholar (2017-2022)
- 2017: Recipient of the “Aschoff’s Rule” prize, for his contributions to the field of chronobiology
- 2018: Generated a Biological-based representation of the Turin shroud, which was presented as a gift to Pope Francis, Santiago, Chile
- 2019: Elected as a member of the Latin-American Academy of Science (ACAL)
- 2020: Elected as a member of the American Academy of Microbiology

## 5. UNDERGRADUATE, GRADUATE STUDENTS AND POSTDOCS

### 5.1 Undergraduate (*year obtained*)

- 2010: Felipe Muñoz
- 2012: Alejandra Goity
- 2012: Alejandro Stevens-Lagos
- 2015: Hanna Muller
- 2015: Pilar Alessandri
- 2015: Claudia Villegas
- 2016: Vicente Rojas
- 2019: Andrés Romero
- 2021: Cyndi Tabilo
- 2021: Valeria Eltit
- Current: Leonardo Guzmán (2022, expected)
- Current: Sebastian Denhardt (2022, expected)

### 5.1 Master

- 2021 Andrés Romero

### 5.2 Doctorate (*year obtained*)

- 2014: Alejandro Montenegro-Montero
- 2015: Montserrat Hevia
- 2015: Consuelo Olivares-Yañez
- 2016: Rodrigo Díaz
- 2019: Felipe Muñoz
- 2019: Alejandra Goity
- 2020: Verónica Delgado
- 2020: Marlene Henriquez
- 2022: Verónica del Rio
- Current: Rodrigo Pérez (2023, expected)
- Current: Vicente Rojas (2023, expected)
- Current: José Ignacio Costa (2024, expected)
- Current: Gabriel Vera (2025, expected)

**5.3 Post-Doctorate**

2015:	Paulo Canessa	(Now Assistant Professor at Univ. Andres Bello, Chile)
2016:	Alejandro Montenegro-Montero	(Now Editor at John Wiley & Sons, Inc.)
2016:	Montserrat Hevia	(Now Research Assistant, Univ. de la Frontera, Chile)
2017:	Francisco Salinas	(Now Assistant Professor at Univ Austral de Chile)
2017:	Veronique Hill	(Now Research Assistant, Inst. Curie, France)
2017:	Consuelo Olivares-Yañez	(Now Postdoc at Univ. Andres Bello, Chile)
2018:	Aldo Seguel	(Now Scientist at Kura Biotech, Chile)
2021:	Rebecca Spanner	
2022:	Wladimir Mardones	

**6. TEACHING**

Each course taught once per year:

- 2009- 2012: BIO151E, *Microbiology*; an intensive undergraduate course covering different aspects of basic microbiology
- 2009- *now*: BIO4402, *Molecular Microbiology*; Ph.D course. Collaborator with classes of fungal molecular genetics
- 2012-*now*: BIO4412, *Functional Genomics*; Ph.D. course covering advances concepts of high-throughput analyses and molecular genetics
- 2013- *now*: BIO288C, *Molecular Genetics*; an intensive undergraduate course analyzing the molecular bases of gene expression and function.
- 2015- *now*: BIO4026, *Synthetic Biology*; Ph.D. course levels that analyzes SynBio and Optogenetic concepts

**7. PROFESSIONAL SOCIETIES**

2002-present:	Sociedad de Bioquímica y Biología Molecular de Chile (SBBMCh)
2008-present:	Society for Research on Biological Rhythms (SRBR)
2012-present:	Genetics Society of America (GSA)
2013-present:	Sociedad de Microbiología de Chile (SOMICH)
2018-present:	American Society for Microbiology (ASM)

**8. EDITORIAL APPOINTMENTS**

2009- 2017:	Member of the editorial board. Applied and Environmental Microbiology (ASM)
2014- present:	Member of the editorial board. Scientific Reports (Nature Publishing Group)
2014- present:	Member of the editorial board. Fungal Biology and Biotechnology (BMC)
2015- present:	Member of the editorial board. Biological Research (BMC)
2018- present:	Member of the editorial board. Frontiers in Microbiology
2019- present:	Member of the advisory editorial board. Genetics & Genomics Next (Wiley)
2019- present:	Member of the editorial board. Infection & Immunity (ASM)
2019- present:	Member of the board of reviewing editors. eLife

**9. EMPLOYMENT (Teaching, Research, Service & Administration)****Teaching and Research**

2009-2014	Assistant Professor, Departamento de Genética Molecular y Microbiología. Pontificia Universidad Católica de Chile.
2014-2021	Associate Professor, Departamento de Genética Molecular y Microbiología. Pontificia Universidad Católica de Chile.
2021-present	Full Professor, Departamento de Genética Molecular y Microbiología. Pontificia Universidad Católica de Chile.
2014- 2017	Director of the Millennium Nucleus for Fungal Integrative and Synthetic Biology
2018-present	Director Millennium Institute for Integrative Biology (iBio)

**Service & Administration**

2010- 2015	Member of the CONICYT Programa Formación Capital Humano Avanzado. Biology III
2012-2014	Member of the Neurospora Policy Committee
2012-2014	Member of the Biology III Study Section (FONDECYT Chile)
2013-2015	Member of the Neurospora Policy Committee
2013-2015	Member of Regional Nominating Committee for the Pew Latin American Fellows Program
2015-2016	Secretary, SBBMCh (Chilean Society for Biochemistry and Molecular Biology)
2015-2017	Member of the institutional Biosafety committee, P. Universidad Católica de Chile
2015-2017	Deputy Chair, Depto. Genética Molecular y Microbiología, FCB, P. Universidad Católica de Chile
2015-2016	Chair of the Biology III Study Section (FONDECYT Chile)
2016-2019	Chair of the Regional Nominating Committee for the Pew Latin American Fellows Program
2017-2018	Director (s) for Research and Innovation, Fac C. Biológicas, P. Universidad Católica de Chile
2017-2018	Vice-President, SBBMCh (Chilean Society for Biochemistry and Molecular Biology)
2018-2019	Councilor, Superior Council of Science, FONDECYT-Chile
2019-2021	President, SBBMCh (Chilean Society for Biochemistry and Molecular Biology)
2021-2022	Past-President, SBBMCh (Chilean Society for Biochemistry and Molecular Biology)
2019-2025	Member of the Fungal Policy Committee

**10. EMPLOYMENT (Consulting and Others)**

2017:	ANASAC-Chile	Expert in <i>Botrytis cinerea</i> biology
2018-present:	Trancura Biosciences (USA-Chile),	co-founder
2020-present:	Kreas Inc. (USA)	consultant
2021:	Humboldt Fund (USA-Chile)	consultant

**11. REVIEW SERVICE****11.1 Journals (numbers of reviewed MS indicated)**

Applied & Environmental Microbiology (98)	<i>Scientific Reports</i> (8)	Fungal Genetics and Biology (8)
mBio (5)	PLoS Genetics (6)	Eukaryotic Cell (4)
PLoS ONE (4)	PNAS (5)	Marine Biotechnology (3)
Applied Microbiology & Biotechnology (3)	BMC Biology (3)	Journal Biological Rhythms (3)
Microbial Biotechnology (2)	Current Genetics (2)	Journal of Applied Microbiology (2)
Free Radical Biology & Medicine (2)	BMC Genomics (2)	Plant Cell & Environment (1)
G3 (1)	ACS Syn Bio (4)	Fungal Biology (1)
Environmental Microbiology (1)	Nucleic Acid Research (4)	New Phytologist (1)
Nature (2)	Nature Protocols (1)	ISME J (1)
Current Biology (2)	Mol Plant Pathology (2)	Trends in Plant Science (1)
JOVE (1)	nSpectrum (2)	Nature Communications (2)
Comm Biology (1)		

**11.2 Grant review**

2009-2012	Ad-hoc reviewer for FONDECYT- Grants. Biology II and III study groups
2009	Ad-hoc reviewer for internal grants of the Universidad de Chile
2009-2012:	Ad-hoc reviewer for internal grants Universidad de la República (Uruguay).
2010	Ad-hoc reviewer grants Instituto Antártico Chileno (INIACH, Chile),
2010	Ad-hoc reviewer for internal grants Universidad de Valparaíso (Chile),
2011	Ad-hoc reviewer for internal grants Universidad Santo Tomás (Chile)
2012	Ad-hoc reviewer for grants, Consorcio de la Fruta
2013	External Jury, Search Committee for an Assistant Professor position, UBA. Argentina
2012	Ad hoc reviewer for CONICET (Argentina)
2013-present	Ad hoc reviewer for TWAS
2014-2015:	Ad-hoc reviewer for internal grants Universidad Santo Tomás (Chile)
2016	Ad hoc reviewer for Frontier Complex Research Projects (Romania)

2017 Ad hoc reviewer for Agence Nationale de la Recherche  
 2021 Ad hoc reviewer for European Research Council, ERC Starting Grant - 2021

## 12. INTRAMURAL GRANTS

2015-2017: P.U.C VRI CONCURSO DE INVESTIGACIÓN INTERDISCIPLINARIA 2015  
 2013: P.U.C VRI APOYO A LA REALIZACION DE EVENTOS INTERNACIONALES  
 2017: P.U.C VRI APOYO A LA REALIZACION DE EVENTOS INTERNACIONALES

## 13. EXTRAMURAL GRANTS

### 13.1 Principal Investigator

2000-2003 **FONDECYT-Chile 2000076:** “Heterologous expression of ligninolytic genes in *Aspergillus spp.*: Site directed mutagenesis of MnP and evaluation of the ligninolytic capabilities of recombinant strains”. (Doctoral grant).  
 2009-2011 **TWAS:** Exploring the interplay between circadian and copper-controlled gene expression in *Neurospora crassa*.  
 2009-2011 **IFS AC/20198:** Comparative and *in vivo* studies of the circadian properties of the phytopathogen *Botrytis cinerea*.  
 2009-2012 **FONDECYT-Chile 1090513:** A *Neurospora crassa* systems-approach: identification of molecular components involved in circadian-controlled gene expression through Forward and Reverse Genetics strategies.  
 2010-2012 **CRP – ICGEB** Exploring light and circadian regulation in the plant pathogen *Botrytis cinerea*  
 2013 **FONDEQUIP-Chile EQM-130158:** Acquisition of a Cytation3 Cell Imaging Multi-Mode Reader: A platform for the development of Synthetic Biology.  
 2013-2017 **FONDECYT-Chile 1131030:** Environmental signals and gene expression in *Neurospora crassa*: rational approach for the mapping of transcriptional networks and rewiring of key components in order to assess basic circadian principles.  
 2014-2016 **Iniciativa Científica Milenio (NC120043),** Director Millennium Nucleus for Fungal Integrative and Synthetic Biology (FISB)  
 2017-2020 **Iniciativa Científica Milenio (NC120043-competitive Renewal),** Director Millennium Nucleus for Fungal Integrative and Synthetic Biology (FISB)- *In December 2017 this grant was closed as I obtained another grant to create a Millennium Institute*  
 2017-2021 **FONDECYT-Chile 1171151:** A synthetic biology strategy to delve into the properties and plasticity of circadian oscillators and other transcriptional regulatory circuits  
 2017-2018 **COPEC-UC** “Industrial Control of yeast properties through Optogenetic devices”  
 2017-2022 **Howard Hughes Medical Institute International Grant** A SynBio Approach to study Clock-based Mechanisms and Hybrid Oscillators (*USD 100,000/year*)  
 2018-2028 **Iniciativa Científica Milenio.** Director, Millennium Institute for Integrative Biology (iBIO) (*USD 1,000,000/year, ~USD 140,000/year allocated to the lab*)  
 2021-2025 **FONDECYT-Chile 1211715.** Modular redesign and rewiring of circadian circuits to challenge design principles and dissect fundamental clock properties (*USD 78,000/year*)  
 2021-2022 **Richard Lounsbery Foundation.** Transcriptional rewiring and directed evolution of circadian controlled fitness (*USD 60,000/year*)

### 13.2 Co-Investigator

2012-2014 **I+D Fundación Copec-UC 2012.J.18:** I+D grant to develop a high-throughput platform to for *Botrytis cinerea* drug development  
 2013-2017 **FONDECYT-Chile 1130822:** Yeast Platforms For The Production Of Natural Flavor Compounds.  
 2017-2021 **FONDECYT-Chile 1170745:** “Yeast platforms for the biotechnological synthesis of apocarotenoid bioactive compounds.”

## 14. RESEARCH LECTURES

### 14.1 Research Lectures (*List since 2015*)

1. "A fungal perspective on the effect of circadian modulation on plant-pathogen interactions: the *Arabidopsis thaliana*-*Botrytis cinerea* model system as a case study". **Larrondo, L. F.** 6th Annual Center for Circadian Biology Symposium. Center for Circadian Biology (CCB). 25-27 February **2015**. San Diego, **USA**.
2. "When two clocks collide: a circadian oscillator in the fungus *Botrytis cinerea* regulates pathogenicity when infecting *Arabidopsis thaliana*". **Larrondo, L. F.** Laboratory of Genetics, Rockefeller University, March 12, **2015**. New York, **USA**.
3. "Circadian clocks in fungi: dissecting basic molecular mechanisms and exploring their impact on plant pathogenesis". **Larrondo, L. F.** Joint Medical Psychology and Cell and Developmental Biology Seminar and Cell and Developmental Biology Seminar. Ludwig-Maximilians University (LMU). June 19, **2015**. Munich, **Germany**.
4. "Molecular mechanisms and physiological impact of circadian oscillators: a fungal perspective". **Larrondo, L. F.** Seminars on Frontiers in Genomics. October 22, **2015**. UNAM, Cuernavaca, **Mexico**.
5. "Fungal Synthetic Biology". **Larrondo, L.F.** 16th IUBMB Conference, July 17-21, **2016**, Vancouver, **Canada**
6. "When two clocks collide: a circadian oscillator in the fungus *Botrytis cinerea* regulates pathogenicity when infecting *Arabidopsis thaliana*". Canessa, P., Hevia, M. A., Muller-Esparza, H., Larrondo, L. F. XVII International Botrytis Symposium. 23-28 October **2016**, Santa Cruz, **Chile**.
7. "A Fungal-based Optogenetic Switch for Synthetic Biology, Biotechnology and Art". **Larrondo L. F.** MRC Laboratory of Molecular Biology. March 3 **2017**. Cambridge, **UK**.
8. "Synthetic biology and optogenetics: developing biotechnological solutions and pushing the boundaries between science and art". **Larrondo L. F.** 29<sup>th</sup> Fungal Genetics Conference, March 14-19 **2017**. Asilomar, **USA**.
9. "Fungal Synthetic Biology: Tools for the Control of Gene Expression". **Larrondo, L. F.** Colorado College, June 02, **2017**. Colorado, **USA**
10. "FUN-LOV: Fungal LOV domains for the optogenetic control of transcription". **Larrondo L. F.** OSU/UC First Interdisciplinary Meeting, 11 de Octubre **2017**, PUC, Santiago, Chile.
11. "Gene expression through time and space". **Larrondo L. F.** Eukaryotic Gene Regulation and Functional Genomics Seminar Series, September 22 **2017**, PUC, Santiago, Chile.
12. "Ciencia que vale hongo o el valor de los organismos modelos en la era de la biología sintética: una visión desde un Núcleo milenio". **Larrondo L. F.** Universidad de Talca, 07 de Agosto **2017**. Talca, Chile
13. "Fungal Synthetic Biology: Transcriptional rewiring and The Emergence of a Primordial Visual System capable of Eidetic Memory". **Larrondo, L.F.** 12th Annual *Salk* Institute, Fondation *IPSEN*, and Science Symposium on Biological Complexity. January 22-24, **2018**, La Jolla, CA, **USA**.
14. "Light and Time: Circadian control of virulence in the phytopathogenic fungus *Botrytis cinerea*, and the development of optogenetic switches for yeast biotechnology". **Larrondo, L.F.** Centro de Investigación en Biotecnología y Genómica de Plantas (CBGP), February 23 **2018**, Madrid, **Spain**.
15. "Synthetic Biology, Optogenetics and Eidetic Memory: Developing Biotechnological Solutions and Pushing the Boundaries between Science and Art." Niemeyer Plenary Lecture. **Larrondo, L.F.** 41 Congreso de la Sociedad Española de Bioquímica y Biología Molecular. September 10-13, **2018** Santander, **Spain**.
16. "Optogenética y memoria eidética: manipulando circuitos transcripcionales y visualizando expresión génica en hongos". **Larrondo, L.F.** Facultad de Ciencias, Universidad de Chile. August 8, **2018**. Santiago, **Chile**.
17. "Optogenetic Control of Gene Expression: Putting Some LOV and Red-Light Action into Yeast Biotechnology". **Larrondo, L.F.** International Specialized Symposium on Yeast, ISSY34. October 1-4 **2018**, Bariloche, **Argentina**.
18. "Fungal Synthetic Biology, Optogenetics and Circadian Circuits: Reprogramming Gene Expression Through Time and Space" **Larrondo, L. F.** March 18 **2019**. Dpt. Plant and Microbial Biology. U. California Berkeley, CA, **USA**.
19. "Optogenetic control of gene expression". **Larrondo, L.F.** March 20 **2019**, Novozymes, Davis, Ca, **USA**.

20. “Fungal Synthetic Biology: Optogenetics, Circuitry and Transcriptional Memory”. Larrondo, L. F. April 2-5 **2019**. JGI User Meeting, San Francisco, CA, **USA**.
21. “Light and Time, two determinants affecting plant and fungal biology and interactions: from basic science to applied optogenetic tools”. **Larrondo, L.F.** August 31, **2019**. NRA, University of Bordeaux, Bordeaux, **France**.
22. “Synthetic Biology: Understanding the Evolution of Circadian Circuits”. **Larrondo, L.F.** Molecular Biology of Fungi “MBF2019”, September 19-21, **2019**, Gottingen, **Germany**.
23. “Revisiting circadian circuit topology and period determination in natural and synthetic clocks”. Ludwig-Maximilians University (LMU). **Larrondo, L.F.** September 23, **2019**. Munich, **Germany**.
24. “Biología Sintética: explorando la plasticidad topológica de circuitos circadianos mediante la creación de osciladores híbridos” Seminars on Frontiers in Genomics. April 13, **2021 (virtual)**. UNAM, Cuernavaca, **Mexico**

#### 14.1 Outreach Research Talks ([List since 2015](#))

1. “Relojes circadianos y optogenética: reflexiones acerca del tiempo y la luz”. **Larrondo, L. F.** III Conferencia Internacional de Cultura Científica. October 18, **2015**. Santiago, **Chile**
2. “Fungal Circadian clocks: basic molecular mechanisms, impact on plant pathogenesis and development of optogenetic systems”. **Larrondo, L. F.** XXXII Congreso ANEB, Julio 21, **2015**. Santiago, **Chile**.
3. “Dando la hora: estudios acerca del efecto del tiempo y la luz en la interacción planta-patógeno”. **Larrondo L. F.** Facultad Cinecias Biológicas, PUC, 10 de Abril **2017**. Santiago Chile
4. “Relojes biológicos y luz como moduladores de la virulencia de *Botrytis cinerea*”. **Larrondo L. F.** Lanzamiento Nuevo Fungicida Frontal, Anasac, Junio 13 **2017**, Hotel Enjoy La Serena, Chile.
5. “Relojes biológicos y luz como moduladores de la virulencia de *Botrytis cinerea*”. **Larrondo L. F.** Lanzamiento Nuevo Fungicida Frontal, Anasac, Junio 14 **2017**. Hotel Enjoy Los Andes, Chile.
6. “Relojes biológicos y luz como moduladores de la virulencia de *Botrytis cinerea*”. **Larrondo L. F.** Lanzamiento Nuevo Fungicida Frontal, Anasac, Junio 13 **2017**. Monticello, Chile.
7. “Luz, Camara y visión: la memoria de los Hongos”. **Larrondo L. F.** Encuentros Protagonistas 2030, 25 de Octubre **2017**. CentroParque, Santiago, Chile.
8. “¿Como nos coordinamos con el ambiente? Estrategias desarrolladas por los hongos y sus implicaciones”. Olivares-Yañez,C., **Larrondo, L. F.** Ciclo de Charlas ANEB. Cronobiología March 19, **2018**, Santiago, **Chile**.
9. “Bienvenida Para Alumnos De Doctorado Admisión 2018”. **Larrondo, L.F.** Pontificia Universidad Catolica de Chile. April 1 **2018**, Santiago, **Chile**.
10. “Relojes Biológicos: ritmos que regulan nuestra vida”. **Larrondo, L.F.** V Festival de Ciencias y Puerto de Ideas Antofagasta. April 13-15 **2018**, Antofagasta, **Chile**.
11. “Relojes Circadianos: ¡Es de noche y tu cuerpo lo sabe!”. **Larrondo, L.F.** Noches Nerd. May 8 **2018**, Santiago, **Chile**.
12. “Outreach and Communicating Science: Novel Outreach Strategies with Art”. **Larrondo, L.F.** Society for Research on Biological Rhythms, Trainee Professional Development Day. May 12-16 **2018**, Amelia Island, FL, **USA**
13. “Juggling Research, Teaching, and Service Responsibilities in Academia: Can You Really Do It All?”. **Larrondo, L.F.** Society for Research on Biological Rhythms, Trainee Professional Development Day. May 12-16 **2018**, Amelia Island, FL, **USA**
14. “Relojes circadianos, ritmos biológicos que regulan nuestra vida: tiempo, luz y arte”. **Larrondo, L.F.** Ciclo de Charlas Caja Los Andes. June 5 **2018**, Santiago, **Chile**.
15. “Relojes circadianos, ritmos biológicos que regulan nuestra vida: tiempo, luz y arte”. **Larrondo, L.F.** Ciclo de Charlas Vocacionales. Agosto 7 **2019**, Santiago, **Chile**.
16. “Cronobiología translacional”. XV Latin American Symposium on Chronobiology October 4-8, **2021**. **Argentina**, Virtual Meeting.

## 15. CONGRESSES & SYMPOSIA

### 15.1 Congresses (Posters) ([List since 2015](#))

1. “Re-Evaluating the Roles of Protein Kinase A (PKA) and Camp Signaling in Circadian Core-Clock

- Mechanisms". Olivares-Yañez, C., Salas, L., Alessandri, M.P., **Larrondo, L.F.** Society for Research on Biological Rhythms. May 21-25 **2016**, Palm Harbor, FL, **USA**
2. "A Functional Synthetic Hybrid Circadian Oscillator Generated through Transcriptional Rewiring". Goity, A; Loros, J.J., Dunlap, J.C., Larrondo L.F. **Larrondo, L.F.** Society for Research on Biological Rhythms. May 21-25 **2016**, Palm Harbor, FL, **USA**
  3. "Clock-Modulation of Virulence in the Phytopathogenic Fungus *Botrytis cinerea* and the Evolution of Clock Negative Elements in Fungi". Canessa, P., Hevia, M., Muller, H., **Larrondo, L.F.** Society for Research on Biological Rhythms. May 21-25 **2016**, Palm Harbor, FL, **USA**
  4. "A synthetic blue-light switch to control gene expression in yeast". Salinas F., Rojas, V., Delgado, V., Agosin, E., **Larrondo, L.** XXXIX Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, Septiembre 27-30, **2016**, Pto. Varas, **Chile**.
  5. "Insights into glucose sensing and its role in circadian clocks mechanisms in *Neurospora*". Diaz, R., **Larrondo, L.F.** XXXIX Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, Septiembre 27-30, **2016**, Pto. Varas, Chile.
  6. "Flocculation Mediated By Light: Optogenetic Control Of Gene Expression In Yeast". Rojas, Salinas F., V., Delgado, V., Agosin, E., **Larrondo, L.** XXXIX Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, Septiembre 27-30, **2016**, Pto. Varas, Chile.
  7. "Deconstructing the transcriptional compensatory system of the *Neurospora crassa* circadian clock". Muñoz-Guzman, F., Caballero, V., **Larrondo, L. F.** Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**.
  8. "*Botrytis cinerea*, more than just a pathogen: a new platform to dissect integration of environmental signals and circadian mechanisms". Canessa, P., Hevia, M., Muller, H., **Larrondo, L.F.** XVII International Botrytis Symposium. 23-28 October **2016**, Santa Cruz, **Chile**.
  9. "Synthetic Biology: From a Hybrid Circadian Oscillator to the Generation of Live Images and Clock-based Eidetic Memory". Goity, A., Loros, J., Dunlap, J.C. Evans, J., **Larrondo, L. F.** Chronobiology GRC, July 16-21 **2017**. Stowe, **USA**
  10. "Design, implementation, and characterization of an optogenetic TTFL synthetic system in *Saccharomyces cerevisiae*". Delgado, V, Salinas, F., Rojas, V., **Larrondo, L. F.** The Seventh International Meeting on Synthetic Biology, June 13-16 **2017**, **Singapore**
  11. "FUN-LOV: Fungal LOV domains for optogenetic control of heterologous protein expression and flocculation". Salinas, F., Rojas, V., Delgado, V., Agosin, E., **Larrondo, L. F.**, XL Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, September 26- 29 **2017**. Pto Varas. **Chile**.
  12. "Fungal Optogenetics: Biotechnological Solutions and The Emergence of a Primordial Visual System capable of Eidetic Memory". **Larrondo, L. F.**, Salinas F., Rojas, V., Delgado, V., Canessa, P., Olivares-Yañez, C. Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**
  13. "Design, implementation, and characterization of an optogenetic TTFL synthetic system in *Saccharomyces cerevisiae*". Delgado, V., Salinas, F., Rojas, V., Agosin, E., **Larrondo, L. F.** Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**
  14. "Generating a synthetic hybrid circadian oscillator through transcriptional rewiring". Goity, A., Loros, J., Dunlap, J.C., **Larrondo, L. F.** Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**
  15. "A novel pathway necessary for osmotic stress resistance requires the ortholog of the yeast PHO4 transcription factor in *Neurospora crassa*". Olivares-Yañez, C., Montenegro-Montero, A., **Larrondo, L. F.** Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**
  16. "Timing in the *Botrytis cinerea*-*Arabidopsis thaliana* interaction: the fungal circadian clock modulates virulence generating its maximal potential at dusk". Hevia, M., Canessa, P., Mueller-Esparza H., **Larrondo, L. F.** Molecular Biosystems Conference. September 23-26 **2017**, Puerto Varas, **Chile**
  17. "Mapping the regulatory networks governing global responses to light and time in *Neurospora*". Dunlap, J. C., **Larrondo, L.**, Crowell, A., Hurley, J., Emerson, J., Loros, J. XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
  18. "Intrinsically disordered proteins in the circadian clock". Loros, J., Crowell, A., Emerson, J., Dunlap, J., **Larrondo, L.** Hurley, J., Crane, B. XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
  19. "Transcriptional Attenuation versus Rhythmic repression: lessons from an optogenetic TTFL synthetic

- system in *Saccharomyces cerevisiae*". Delgado, V., Salinas, F., Rojas, V., Agosin, E., **Larrondo, L. F.** XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
20. "Spontaneous circadian rhythms in a cold-adapted natural isolate of *Aureobasidium pullulans*". Franco L., Canesa P., Bellora N., Risau Gusman S., Olivares-Yanez C., Pérez-Lara R., Libkind D., **Larrondo L.**, Marpegan L. XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
21. "Generating a synthetic hybrid circadian oscillator through transcriptional rewiring". Goity, A., Loros, J., Dunlap, J., **Larrondo, L.** XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
22. "Deconstructing the transcriptional compensatory system of the *Neurospora crassa* circadian Clock". Muñoz-Guzmán, F., **Larrondo, L.**, Caballero, V. XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
23. "Re-evaluating the roles of Protein Kinase A (PKA) and cAMP signaling in circadian core-clock mechanisms". Olivares-Yañez, C., Alessandri, P., Salas, L., **Larrondo, L.** XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
24. "New functions for a core clock protein: examining the role of frequency in circadian regulation, nutritional sensing and stress responses in the plant pathogen *Botrytis cinerea*". Seguel, A., Canessa, P., Hevia, M., Muller-Esparza, H., **Larrondo, L.** XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
25. "Timing in the *Botrytis cinerea*-*Arabidopsis thaliana* interaction: a fungal circadian clock modulates virulence providing maximal pathogenic potential at dusk". Hevia, M., Canessa, P., Mueller-Esparza H., **Larrondo, L. F.** XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
26. "A High-Throughput Genetic Screen Reveals a New Player Involved in Temperature Compensation and a new CK1 allele impacting period". Muñoz-Guzmán F, **Larrondo, L. F.** GRC on Chronobiology, June 23- 28, **2019**, Castelldefels, Spain.
27. "Coupling cell communication and optogenetics: implementation of a synthetic light-inducible intercellular system in yeast". Rojas, V., **Larrondo L. F.** September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
28. "Transcriptional Attenuation versus Rhythmic repression: lessons from an optogenetic TTFL synthetic system in *Saccharomyces cerevisiae*". Delgado V., Salinas, F., Rojas, V., Nieto, P., **Larrondo, L.F.** September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
29. "Engineering a tunable circadian hybrid oscillator through the integration of transcriptional cis-elements and inputs". Del Rio-Pinilla, V., **Larrondo, L. F.** September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
30. "Generating an accurate map of temperature responses mediated by Heat Shock Protein Promoter elements". Tabilo C., Del Rio-Pinilla, V., **Larrondo, L. F.** September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
31. "A link between light perception and nitrogen assimilation: extracircadian roles for FREQUENCY in the plant-pathogen fungus *Botrytis cinerea*". Seguel, A., Canales, J., Mueller, H., **Larrondo, L. F.** September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
32. "Coupling cell communication and optogenetics: Implementation of a synthetic light-inducible intercellular system in yeast. Rojas, V., **Larrondo L. F.** February 17-20 **2020**. ECFG15, Rome **Italy**.
33. "Circadian regulation of a mycoparasitic interaction between *Botrytis cinerea* and *Trichoderma atroviride*". Henriquez, M., **Larrondo L. F.** February 17-20 **2020**. ECFG15, Rome **Italy**.
34. "Exploring the topological plasticity of circadian oscillators and assessing conserved and new clock properties, such as the appearance of a "lights on timer" behavior". Goity, A., Larrondo, L. F. June 1-3 **2020**. Society for Research on Biological Rhythms **Virtual Meeting**.
35. "Circadian oscillations in the biocontrol agent *Trichoderma atroviride* and the role of core clock components in secondary metabolism, development, and mycoparasitism against the phytopathogen *Botrytis cinerea*". June 1–June 5, **2021**. LXXXV Cold Spring Harbor Symposium on Quantitative Biology (virtual) BIOLOGICAL TIME KEEPING. **Virtual Meeting**
36. "Circadian oscillations in the biocontrol agent *Trichoderma atroviride* and the role of core clock components in secondary metabolism, development, and mycoparasitism against the phytopathogen *Botrytis cinerea*". March 15-20, **2022**. 31<sup>st</sup> Fungal Genetics Conference, Pacific Grove, CA, **USA**.

**15.2 Symposia and Congresses Talks ([List since 2015](#))**

1. “Characterization of light and circadian regulation in the necrotrophic fungus *Botrytis cinerea* and its role in pathogenesis using *Arabidopsis thaliana* as a plant model”. Hevia, M., Canessa, P., Muller, H., **Larrondo, L. F.** 28th Fungal Genetics Conference, March 17-22, **2015**. Asilomar, Pacific Groove, CA, **USA**
2. “Evaluating the role of light and of a circadian clock in the virulence of the necrotrophic fungus *Botrytis cinerea* using *Arabidopsis thaliana* as a host model”. **Larrondo, L. F.** XI Mexican Congress of Molecular and Cell Biology of Fungi. October 25-29 **2015**. Puebla, **Mexico**.
3. “Circadian clock in fungi: new lessons and unexpected insights”. **Larrondo, L. F.** XIII Latin American Symposium on Chronobiology, November 3-8, **2015**. Sao Paulo, **Brazil**.
4. “Reassessing the *Neurospora crassa* circadian clock dynamics by in vivo monitoring core-clock function”. **Larrondo, L. F.** XIII Latin American Symposium on Chronobiology, November 3-8, **2015**. Sao Paulo, **Brazil**.
5. “Neurospora meets Synthetic Biology: optogenetic tools to manipulate gene expression for scientific and artistic purposes”. Canessa, P., Hevia, M., Hevia, C., Gallegos, A., Salinas, F., Rojas, V., Delgado, V., **Larrondo, L.F.** Neurospora Meeting, March 10-13, **2016**. Asilomar, **USA**
6. “Synthetic Biology of Fungal Systems: optogenetic tools to manipulate gene expression for scientific and artistic purposes”. **Larrondo, L. F.**, Hevia, M., Hevia, C., Gallegos, A., Salinas, F., Rojas, V., Delgado, V., Canessa, P. XIII European Conference on Fungal Genetics, April 3-6, **2016**. Paris, **France**
7. “Lessons from microbial circadian systems: regulation of virulence, synthetic oscillators and clock-based eidetic memory”. **Larrondo, L.F.** Society for Research on Biological Rhythms. May 21-25 **2016**, Palm Harbor, FL, **USA**.
8. “Optogenetics switches: tunable tools to control gene expression and biotechnologically relevant phenotypes in *Saccharomyces cerevisiae*”. **Larrondo, L.**, Salinas F., Rojas, V., Delgado V., Agosin, E. Society for Industrial Microbiology and Biotechnology Annual Meeting, July 24-28, **2016**, New Orleans, **USA**
9. “A Fungal-based Optogenetic Switch for Synthetic Biology and Art”. **Larrondo, L. F.** XXXIX Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, Septiembre 27-30, **2016**, Pto. Varas, Chile.
10. “Circadian clocks, optogenetics and eidetic memory”. Larrondo, L.F. Chile-Japan Academic Forum. November 7-11 **2016**. Pto. Natales, **Chile**
11. “New functions for an old protein: examining the role of FREQUENCY in clock regulation, nutritional sensing and stress responses in the phytopathogen *Botrytis cinerea*”. **Larrondo L. F.** International Symposium on Fungal Stress – ISFUS. May 8-12 **2017**, Goiania **Brazil**.
12. “Synthetic Oscillators, Live Images and Clock-Based Eidetic Memory”. **Larrondo L. F.** Chronobiology GRC, July 16-21 **2017**. Stowe, **USA**.
13. “Synthetic biology: transcriptional rewiring and the emergence of a primordial visual system capable of eidetic memory”. Larrondo, L. F. XIV Latin American Symposium on Chronobiology November 14 – 18 **2017**. Valparaiso, **Chile**.
14. “Synthetic biology and optogenetics: developing biotechnological solutions and pushing the boundaries between science and art”. **Larrondo, L.F.** HHMI International Research Scholars Inaugural Meeting. February 18 - 21, **2018**, Lisbon, **Portugal**.
15. “Building a semi-synthetic circadian oscillator by transcriptional rewiring in *Neurospora*”. Goity, A., Loros, J., Dunlap, J. C., **Larrondo, L. F.** Neurospora workshop and opening of ECFG14, February 25 **2018**, Haifa, **Israel**.
16. “Fungal optogenetics: imagining biotechnological applications and imaging gene expression”. **Larrondo, L.F.** 14<sup>th</sup> European Conference on Fungal Genetics. February 25-28 **2018**, Haifa, **Israel**
17. “High-Resolution Analysis of Phase Responses and Clock Dynamics Utilizing a Live Canvas and Eidetic Memory”. Olivarez-Yañez, C., Canessa, P., Evans, J., **Larrondo, L. F.** Society for Research on Biological Rhythms. May 12-16 **2018**, Amelia Island, FL, **USA**
18. “Synthetic Oscillators: Design Principles Underlying Molecular Clocks. Symposium Chair. Society for Research on Biological Rhythms”. **Larrondo, L.F.** May 12-16 2018, Amelia Island, FL, **USA**
19. “Gene expression through time and space: the memory of a fungus”. **Larrondo, L.F.** GRC on Cellular and Molecular Fungal Biology. June 17-22, **2018**, Holderness, NH, **USA**.

20. “Light-Sensing, Optogenetics and Photographic Memory: Developing Biotechnological Solutions and Pushing the Boundaries between Science and Art.”. Larrondo, L. F., Salinas, F., Rojas, V., Delgado, V., Canessa, P., Olivares-Yañez, C. 11th International Mycological Congress. July 15-21, **2018**, San Juan, **Puerto Rico**.
21. “Optogenetics: Developing Biotechnological Solutions and obtaining an accurate picture of light-sensing dynamics in fungi, literally”. **Larrondo, L.F.** IV GRAFOB. October 8-10 **2018**, Bariloche, **Argentina**.
22. “Generating an accurate picture, literally, of light-sensing dynamics in Neurospora”. **Larrondo, L.F.** 30<sup>th</sup> Fungal Genetics Conference. March 12-17, **2019** Asilomar, Pacific Grove, CA, **USA**.
23. “High-Resolution Analysis of Phase Responses and Clock Dynamics Utilizing a Live Canvas and Eidetic Memory”. Larrondo, L.F. April 24-28 **2019**. V World Congress of Chronobiology, Suzhou, **China**.
24. “Fungal Optogenetics: obtaining an accurate picture of light-sensing and generating tools to reprogram cellular function” Larrondo, L. F. May 20 – 23, **2019**. III International Symposium on Fungal Stress. São José dos Campos, SP, **Brazil**.
25. “Challenging the Topological Plasticity of a Core-Oscillator”. Larrondo, L. F. August 25 - 29 **2019**. XVI Congress of the European Biological Rhythms Society Lyon, **France**.
26. “Challenging the plasticity of circadian oscillators and other transcriptional regulatory circuits”. Larrondo, L.F. September 30- October 04 **2019**. Molecular Biosystems, Pto. Varas, **Chile**.
27. “Methylxanthines modulate the circadian period length independently of the action of phosphodiesterase”. Olivares-Yañez, C., Salas, L., Alessandri, P., **Larrondo L. F.** February 17 **2020**. Neurospora Satellite Meeting, Rome **Italy**.
28. “Bases moleculares y genéticas de los relojes circadianos, o acerca de como adaptamos nuestra biología al día y la noche: lecciones desde un organismo modelo”. 14-16 October **2021**. XVI Congreso Colombiano y X Congreso Internacional de Genética Humana, **Colombia, Virtual Meeting**.
29. “Developing a detailed map of gene expression and implementing tools to reprogram population-level dynamics utilizing fungal optogenetics”. November 1-5 **2021**, CONGRESO CONJUNTO SAIB-SAMIGE 2021. **Argentina, Virtual Meeting**.
30. “Fungal Optogenetics: implementing an accurate map of gene expression and developing tools to reprogram autonomous and population-level cellular functions”. October 22-24 **2021**. 31st Brazilian Congress of Microbiology, **Brazil, Virtual Meeting**
31. “A semi-synthetic circadian oscillator revealing the emergence of a “lights on timer” behavior”. October 17-20, **2021**, Neurospora Meeting, USA, **Virtual Meeting**
32. “A Semi-Synthetic Circadian Oscillator Reveals the Emergence of a “Lights on Timer” Behavior”. **Larrondo, L. F.** GRC Photosensory Receptors and Signal Transduction, March 27-April 1 **2022**. Ventura, Ca, **USA**.

#### 16. CONFERENCES & SYMPOSIA (Organization of [List since 2013](#))

1. Scientific Organizing Committee, XII Pan American Association for Biochemistry & Molecular Biology (PABMB) Congress, **2013**. Pto Varas, Chile (~800 attendants)
2. Scientific Organizer (with Dr. Louise Glass, UC-Berkeley.) Neurospora Meeting. **2014**. Pacific Grove, CA, USA (~100 attendants)
3. Organizer, First Summer International Fungal Symposium: “Signaling and pathogenesis in Fungi”. **2014**. Santiago, Chile (~50 attendants), 2014
4. Scientific Organizing Committee, XXXVII Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile. **2014**. Pto Varas. **Chile**. (~360 attendants)
5. Scientific Organizing Committee, XXXVIII Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile. **2015**. Pto Varas **Chile**. (~360 attendants)
6. Organizer, Second Summer International Fungal Symposium: “Fungi in Biotechnology, human health and agriculture”. **2015**. Santiago, Chile. (~120 attendants),
7. Scientific Organizing Committee, XXXIX Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, **2016**, Pto. Varas, **Chile**. (~360 attendants)
8. Scientific Organizing Committee, XL Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile. **2017**. Pto Varas. **Chile**. (~360 attendants)
9. Advisor, "Molecular Biosystems" Conference on Eukaryotic Gene Regulation and Functional Genomics, **2017** Puerto Varas, Chile, (~170 attendants)

10. Co-organizer, XIV Latin American Symposium on Chronobiology, **2017**, Valparaiso, **Chile**. (~170 attendants)
11. Scientific Organizing Committee, XLI Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, **2018**. Iquique. **Chile**. (~350 attendants)
12. Scientific Organizing Committee, Society for Research on Biological Rhythms, Trainee Professional Development Day. **2018**, Amelia Island, FL, **USA**. (~200 attendants)
13. Scientific Organizing Committee, Molecular Biosystems, **2019**. Pto. Varas, **Chile**. (~100 attendants)
14. Scientific Organizing Committee XLII Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile., **2019**. Iquique. **Chile**. (~350 attendants)
15. Scientific Organizing Committee, XLIII Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile, **2020 Chile. Virtual Meeting**. (~260 attendants)
16. Scientific Organizing Committee, XLIV Reunión Anual Sociedad de Bioquímica y Biología Molecular de Chile. **2021, Chile. Virtual Meeting**. (~260 attendants)
17. Scientific Organizing Committee, 31st Fungal Genetics Conference, Scientific Organizing Committee. **2022**, Pacific Grove, CA, **USA** (~800 attendants)

## 17. PUBLICATIONS

### 17.1 ISI-indexed Publications<sup>1</sup>

1. Silva E., Almarza C., Berndt D., **Larrondo L.**, Lissi E. **1993**. Photoreactions of riboflavin with spermin and their role in tryptophan photoconsumption induced by riboflavin. *J. Photochem. B. Biol.* 21: 197-201.
2. Urzúa U., **Larrondo L. F.**, Lobos S., Larraín J., Vicuña R. **1995**. Oxidation reactions catalized by manganese peroxidase isoenzymes from *Ceriporiopsis subvermispora*. *FEBS Letters*. 371: 132-136.
3. Lobos S., **Larrondo L.**, Salas L., Karahanian E., Vicuña R. **1998**. Cloning and molecular analysis of a cDNA and the *Cs-mnp1* gene encoding a manganese peroxidase isoenzyme from the basidiomycete *Ceriporiopsis subvermispora*. *Gene* 206:185-193
4. Tello, M., Corsini G., **Larrondo, L.F.**, Salas, L., Lobos, S., Vicuña, R. **2000**. Characterization of three new manganese peroxidase genes from the ligninolytic basidiomycete *Ceriporiopsis subvermispora*. *Biochim. Biophys. Acta* 1490:137-144.
5. Miranda S., Opazo C., **Larrondo L. F.**, Muñoz F. J., Ruiz F., Leighton F., Inestrosa N. C. **2000**. The role of oxidative stress in the toxicity induced by amyloid-B peptide in Alzheimer`s disease. *Prog Neurobiol.* 62:633-648.
6. Lobos S., Tello M., Polanco R., **Larrondo L. F.**, Manubens A., Salas L., Vicuña, R. **2001**. Enzymology and molecular genetics of the ligninolytic system of the basidiomycete *Ceriporiopsis subvermispora*. *Current Science* 81:992-997.
7. **Larrondo L. F.**, Lobos S., Stewart P., Cullen D., Vicuña R. **2001**. Isoenzyme multiplicity and characterization of recombinant manganese peroxidases (rMnPs) from *Ceriporiopsis subvermispora* and *Phanerochaete chrysosporium*. *Appl. Environ. Microbiol.* 67:2070-2075.
8. **Larrondo L. F.**, Avila, M., Salas L., Cullen D., Vicuña R. **2003**. Heterologous expression of laccase cDNA from *Ceriporiopsis subvermispora* Yields Copper Activated Apoprotein and Complex Isoform Patterns. *Microbiology* 149:1177-1182.
9. **Larrondo L. F.**, Salas L., Melo F., Cullen D. and Vicuña R. **2003**. A novel extracellular multicopper oxidase from *Phanerochaete chrysosporium* with ferroxidase activity. *Appl. Environ. Microbiol.* 69: 6257-6263.
10. Martinez, D., **Larrondo, L. F.**, Putnam, N., Sollewijn Gelpke, M. D., Huang, K., Chapman, J., Helfenbein, K. G., Ramaiya, P., Detter, J. C., Larimer, F., Henrissat, B., Berka, R., Cullen, D., Rokhsar, D. **2004**. Genome sequence of the lignocellulose degrading fungus *Phanerochaete chrysosporium*. *Nature Biotech.* 22: 695-700 (Cover article).
11. **Larrondo, L. F.**, González, B., Cullen, D., Vicuña, R. **2004**. Characterization of a multicopper oxidase gene cluster in *Phanerochaete chrysosporium* and evidence of altered splicing of the *mco* transcripts. *Microbiology* 150: 2775-2783.

<sup>1</sup>h-index = 31, total citations = 8839 (scholar.google.com)

12. Stuardo, M., **Larrondo, L.F.**, Vásquez, M., Vicuña, R., González, B. **2005**. Incomplete processing of peroxidase transcripts in the lignin degrading fungus *Phanerochaete chrysosporium*. *FEMS Microbiol. Lett.* 242:37-44.
13. **Larrondo, L.**, Gonzalez, A., Perez Acle, T., Cullen, D., Vicuña, R. **2005**. The *nop* gene from *Phanerochaete chrysosporium* encodes a peroxidase with novel structural features. *Biophys. Chem.* 116: 167-173
14. Varela-Nallar, Toledo, E.M., **Larrondo, L. F.**, Cabral, A. L., Martins, V.R. and Inestrosa, N. C. **2006**. Induction of cellular prion protein gene expression by copper in neurons. *Am. J. Physiol. Cell Physiol.* 290: C271-281.
15. Polanco, R., Canessa, P., Rivas, A., **Larrondo, L. F.**, Lobos, S., Vicuña, R. **2006**. Cloning and characterization of the gene encoding the transcription factor ACE1 in the basidiomycete *Phanerochaete chrysosporium*. *Biol. Res.* 39: 71-82.
16. **Larrondo, L. F.**, Canessa, P., Vicuña, R. Stewart, P., Vanden Wymelenberg, A., Cullen, D. **2007**. Structure and transcriptional impact of divergent elements inserted within *Phanerochaete chrysosporium* strain RP-78 genes. *Molecular Genet. Genom.* 277: 43-55.
17. **Larrondo, L. F.**, Canessa, P., Melo, F., Polanco, R., Vicuña, R. **2007**. Cloning and characterization of the genes encoding the high affinity iron uptake protein complex Fet3/Ftr1 in the basidiomycete *Phanerochaete chrysosporium*. *Microbiology* 153: 1772-1780.
18. Belden, W. J\*., **Larrondo, L. F\***., Froehlich, A. C\*., Shi, M., Chen, C., Loros, J. J., Dunlap, J. C. **2007**. The *band* mutation in *Neurospora crassa* is a dominant allele of *ras-1* implicating RAS signaling in circadian output. *Genes & Dev.* 21: 1494-1505. \* These authors contributed equally to this work.
19. Shi, M., **Larrondo, L. F.**, Loros, J. J and Dunlap J. C. **2007**. A Developmental Cycle Masks Output from the Circadian Oscillator under Conditions of Choline Deficiency in *Neurospora*. *Proc. Nat. Acad. Sci. USA.* 104: 20102-20107.
20. Loros, J. J., Dunlap, J. C., **Larrondo, L. F.**, Shi, M., Mehra, A., Colot, H. V., Belden, W., Chen, C., Gooch, V. D., Baker, C. L., Schwerdtfeger, C., Lambreghts, R., Collopy, P. D., Gamsby, J. J., Hong, C. I. **2007**. Circadian Output, Input & Intracellular Oscillators - Insights into the Circadian Systems of Single Cells. *Cold Spring Harb Symp Quant Biol.* 72: 201-214.
21. Dunlap, J. C., Loros, J. J., Colot, H., Mehra, A., Belden, W. J., Shi, M., Hong, C. I., **Larrondo, L. F.**, Baker, C. L., Chen, C., Schwerdtfeger, C., Collopy, P. D., Gamsby, J. J., Lambreghts R. A. **2007**. A Circadian Clock in *Neurospora*: How genes and proteins cooperate to produce a sustained, entrainable, and compensated biological oscillator with a period of about a day. *Cold Spring Harb Symp Quant Biol.* 72:57-68.
22. Colombres, M., Garate, J. A., Lagos, C. F., Araya-Secchi, R., Norambuena, P., Quiroz, S., **Larrondo, L.**, Pérez-Acle, T., Eyzaguirre, J. **2008**. An eleven amino acid residue deletion expands the substrate specificity of acetyl xylan esterase II (AXE II) from *Penicillium purpurogenum*. *J. Comput. Aided. Mol. Des.* 22: 19-28.
23. Gooch, V\*., Mehra, A\*., **Larrondo, L. F.**, Fox, J., Touroutoudis, M., Loros, J. J., Dunlap, J. C. **2008**. Fully codon-optimized luciferase uncovers novel temperature characteristics of the *Neurospora* clock. *Eukaryotic Cell.* 7: 28-37. \* These authors contributed equally to this work. (Cover article).
24. Martinez, D., Berka, R. M., Henrissat, B., Saloheimo, M., Arvas, M., Baker, S., Chapman, J., Chertkov, O., Coutinho, P., Cullen, D., Grigoriev, I. V., Harris, P., Jackson, M., Kubicek, C. P., Han, C. F., **Larrondo, L. F.**, Lopez de Leon, A., Magnuson, J., Merino, S., Nelson, B., Putnam, N., Robbertse, B., Salamov, A. A., Schmoll, M., Terry, A., Thayer, N., Westerholm-Parvinen, A., Yao, J., Xie, G., Richardson, P., Rokhsar, D. S. Lucas, S., Rubin, E. M., Ward, M., Brettin, T. S. **2008**. Genome Sequence Analysis of the Cellulolytic Fungus *Trichoderma reesei* (syn. *Hypocrea jecorina*) Reveals a Surprisingly Limited Inventory of Carbohydrate Active Enzymes. *Nature Biotech.* 26: 553-560.
25. Díaz J., Chávez R., **Larrondo, L. F.**, Eyzaguirre, J., Bull, P. **2008**. Functional analysis of the endoxylanase B (*xynB*) promoter from *Penicillium purpurogenum*. *Curr Genet.* 54:133-141.
26. Martinez, D., Challacombe, J., Morgenstern, I., Hibbett, D., Schmoll, M., Kubicek, C., Ferreira, P., Ruiz-Duenas, F., Martinez, A., Kersten, P., Hammel, K., Vanden Wymelenberg, A., Gaskell, J., Lindquist, E., Sabat, G., Splinter BonDurant, S., **Larrondo, L. F.**, Canessa, P., Vicuña, R., Yadav, J., Doddapaneni, H., Subramanian, V., Pisabarro, A., Lavin, J., Oguiza, J., Master, E., Henrissat, B., Coutinho, P., Harris, P., Magnuson, J., Baker, S., Bruno, K., Kenealy, W., Hoegger, P., Kues, U., Ramaiya, P., Lucas, S., Salamov, A., Shapiro, H., Tu, H., Chee, C., Misra, M., Xie, G., Teter, S., Yaver, D., James, Mokrejs, M., Pospisek, M., Grigoriev, I., Brettin, T., Rokhsar, D., Berka, R., Cullen, D. **2009**. Genome, transcriptome, and secretome of

- wood decay fungus *Postia placenta* supports unique mechanisms of lignocellulose conversion. *Proc. Nat. Acad. Sci. USA* 106:1954-1959.
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### 17.2 Book Chapters, Special Issues and Proceedings

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### 17.3 Books

### 17.4 Non ISI-indexed Publications, Outreach and Education

#### Outreach, Letters in Newspapers

##### Cartas a El Mercurio

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| 1. | <a href="http://www.elmercurio.com/blogs/2015/11/14/36930/Delantales-blancos-Grito-y-plata.aspx">http://www.elmercurio.com/blogs/2015/11/14/36930/Delantales-blancos-Grito-y-plata.aspx</a>                                                                         | 14 de Noviembre 2015 |
| 2. | <a href="http://www.elmercurio.com/blogs/2016/11/16/46623/Inversion-en-conocimiento.aspx">http://www.elmercurio.com/blogs/2016/11/16/46623/Inversion-en-conocimiento.aspx</a>                                                                                       | 16 de Noviembre 2016 |
| 3. | <a href="http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-05-31&amp;dtB=31-05-2017%200:00:00&amp;Paginald=2&amp;bodyid=1">http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-05-31&amp;dtB=31-05-2017%200:00:00&amp;Paginald=2&amp;bodyid=1</a> | 31 de Mayo 2017      |
| 4. | <a href="http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-06-22&amp;dtB=22-06-2017%200:00:00&amp;Paginald=2&amp;bodyid=1">http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-06-22&amp;dtB=22-06-2017%200:00:00&amp;Paginald=2&amp;bodyid=1</a> | 22 de Junio 2017     |
| 5. | <a href="https://digital.elmercurio.com/2018/12/18/A/VE3GOCDE#zoom=page-width">https://digital.elmercurio.com/2018/12/18/A/VE3GOCDE#zoom=page-width</a>                                                                                                             | 18 de Diciembre 2018 |
| 6. |                                                                                                                                                                                                                                                                     |                      |

##### Cartas a La Segunda

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| 7.  | <a href="http://impresa.lasegunda.com/2015/11/09/A/9L2QAKTT">http://impresa.lasegunda.com/2015/11/09/A/9L2QAKTT</a>           | 09 de Noviembre 2015 |
| 8.  | <a href="http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP">http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP</a> | 12 de Noviembre 2015 |
| 9.  | <a href="http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP">http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP</a> | 12 de Noviembre 2015 |
| 10. | <a href="http://impresa.lasegunda.com/2015/11/14/A/S22QF4D1">http://impresa.lasegunda.com/2015/11/14/A/S22QF4D1</a>           | 14 de Noviembre 2015 |
| 11. | <a href="http://impresa.lasegunda.com/2015/11/20/A/D12QJB8K">http://impresa.lasegunda.com/2015/11/20/A/D12QJB8K</a>           | 20 de Noviembre 2015 |
| 12. | <a href="http://impresa.lasegunda.com/2015/11/25/A/N82QMMIB">http://impresa.lasegunda.com/2015/11/25/A/N82QMMIB</a>           | 25 de Noviembre 2015 |
| 13. | <a href="http://impresa.lasegunda.com/2015/12/28/A/122RB70M">http://impresa.lasegunda.com/2015/12/28/A/122RB70M</a>           | 28 de Diciembre 2015 |
| 14. | <a href="http://impresa.lasegunda.com/2016/02/05/A/DV2SAOQG">http://impresa.lasegunda.com/2016/02/05/A/DV2SAOQG</a>           | 05 de Febrero 2016   |

15. <http://impresa.lasegunda.com/2016/01/07/A/G22RIQ4V> 07 de Enero 2016
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20. <http://impresa.lasegunda.com/2016/10/19/A/R831BHE7> 19 de Octubre 2016
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23. <http://impresa.lasegunda.com/2016/11/05/A/4N31L8I9> 04 de Noviembre 2016
24. <http://impresa.lasegunda.com/2016/11/16/A/OA31T65P> 16 de Noviembre 2016
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**17.5 Science and Art.**

- Development of a biological method that allows reproducing images with exquisite resolution: the *Live Canvas*. <https://vimeo.com/147287782> password: LUX
- Utilizing the Live Canvas to create an institutional gift fusing science (manipulation of transcriptional dynamics), art and faith, in which an image of the Turin shroud was reproduced by a fungal culture in the form of a bioluminescent pattern. A photograph of this image was presented to Pope Francis, January 2018. More info <http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=12-01-2018%20:00:00&dtB=12-01-2018%20:00:00&BodyID=3&Paginald=7> and <http://impresa.lasequnda.com/2018/01/19/V/V-012>