

CURRICULUM VITAE

(JULY 2023)

1. IDENTIFICATION

Name: [Luis Fernando Larrondo Castro](#)
 Birth: June 30, 1973, Santiago, Chile
 Citizenship: Chilean
 Position: Full Professor
 Departamento de Genética Molecular y Microbiología,
 Facultad de Ciencias Biológicas,
 Pontificia Universidad Católica de Chile, Santiago, Chile
 Phone: (562) 2354 1916 (office phone) or (569) 82275080 (cell phone)
 E-mail: llarrondo@bio.puc.cl
 ORCID: <http://orcid.org/0000-0002-8832-7109>
 G-Scholar: http://scholar.google.com/citations?user=-fng7_sAAAAJ

2. ACADEMIC BACKGROUND

2.1. BRIEF STATEMENT

Luis F. Larrondo completed basic and secondary studies at the British High School (Santiago, Chile) and, at the age of 17, was accepted at the Pontificia Universidad Católica de Chile (PUC), where he obtained a BSc in Biochemistry and then a Master in Biochemistry. In 1998 he entered the Ph.D. program in Cellular and Molecular Biology, at PUC, supported by a Fellowship from the Fundación Andes. His postdoctoral training, as a PEW Latin American Fellow in the Biomedical Sciences, was carried out at Dartmouth Medical School, in the laboratory of Dr. Jay C. Dunlap (member of the National Academy of Sciences, USA). In 2009 Larrondo returned to Chile, where he joined the Department of Molecular Genetics and Microbiology (Faculty of Biological Sciences, PUC) as an assistant professor being, since 2021, Full Professor. In 2017, he was appointed as an HHMI International Research Scholar. The same year he also became director of the Millennium Institute for Integrative Biology, a center that under his leadership was successfully renewed in 2022 for another 5-year period.

2.2. NATIONAL AND INTERNATIONAL RECOGNITION

2021: Grant from the Richard Lounsbery Foundation (NY- EE.UU)
 2020: Elected as a member of the American Academy of Microbiology *4th Chilean scientist in receiving this recognition.
 2019: Elected as a member of the Latin-American Academy of Science (ACAL)
 2017: Recipient of the "Aschoff's Rule" prize, for his contributions to the field of chronobiology *First Latin American scientist in receiving this recognition.
 2017: Howard Hughes Medical Institute International Research Scholar (2017-2023)
 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).
 2011: Elected as Young Affiliated member of the Academy of Science for the Developing World (TWAS)
 2004: PEW Postdoctoral Latin American Fellowship in the Biomedical Science
 2002: Herman Niemeyer Award, given by the SBBCH (Sociedad de Bioquímica y Biología Molecular de Chile) as the 2002 most distinguished Ph.D. student.
 2000: Distinguished alumnus award. Facultad de Ciencias Biológicas. P. Universidad Católica de Chile
 2000: Fundación Andes Graduate Fellowship for 3 years
 1998: Fundación Andes Graduate Fellowship for 2 years
 1998: Pontificia Universidad Católica de Chile Graduate scholarship for 5 years
 1996: Research residence Fellowship. Department of research and Postgraduate Research (DIPUC), Pontificia Universidad Católica de Chile.
 1995: In Vitro Cell Biology and Biotechnology, course Fellowship (1 Semester). Miner Center, SUNY Plattsburgh (State University of New York), NY, USA.
 1994: Honor undergraduate Scholarship. Pontificia Universidad Católica de Chile.

2.3. SCIENTIFIC CONTRIBUTIONS

Research Interests: Dr. Larrondo's research focuses on fungi as biological platforms for the dissection of complex processes, from the effect of the environment on organismal interactions, to the rewiring of genetic circuits to understand oscillatory gene expression patterns. He is interested in understanding the molecular mechanisms underlying circadian rhythms, including how light modulates transcriptional programs of interest. His research has received funding from local (FONDECYT, Milenio, Fundación COPEC) and international agencies (i.e. IFS, HHMI, Richard Lounsbery Foundation). Dr. Larrondo, together with colleagues from various Chilean institutions, established in 2017 the Millennium Institute for Integrative Biology (iBio), which stands out as the only national center focused on molecular and systemic aspects of plant and fungal biology, focusing on these organisms as individuals as well as dynamically interacting entities. With an ambitious scientific program, which incorporates aspects of synthetic biology, the iBio also aspires to position free technologies and open science as a motor for scientific, social and educational development.

Productivity: Since his undergraduate training, Dr. Larrondo has been interested in fungi addressing complex biological processes, from the enzymology underlying lignin degradation, to the genomic analysis of their ability to thrive in diverse environments. Thus, before finishing his undergraduate degree, he began to publish on these and other topics. In the past 15 years, his research interests began to focus on circadian processes, photobiology, and related transcriptional mechanisms (i.e. optogenetics or the development of synthetic circuits). Dr. Larrondo has published 81 papers (53 of them since 2009, when he joined the PUC). [A full list of publications can be found in section 14.](#)

Scientific impact: His publications include papers in internationally recognized journals such as *Science*, *Cell*, *Nature*, *Nature Biotechnology*, *PNAS*, *eLife* and *PLoS Genetics*.

- *H-Index:* 33 (Google Scholar)
- *Citations:* 10011 (Google Scholar)

Line of research 1. Molecular Bases of Circadian Regulation: from genes to interactions between organisms.

Circadian clocks are molecular machineries that allows organisms to function aligned with local time, in order to coordinate their operation with day-night cycles. These clocks make it possible to temporarily compartmentalize a series of cellular events, from gene expression to metabolic processes. Dr. Larrondo's research has contributed to various aspects of the molecular understanding of these clocks. Among them is questioning the relevance of qualitative versus quantitative aspects of the circadian clock components, redefining that the degradation of the circadian Negative element (FRQ in *Neurospora crassa*, PER in mammals), is not a central variable in determining the circadian period, but rather a correlative aspect of it. In this way, he also participated in elucidating that Magnesium, a central element in cell metabolism and regulation, oscillates daily, a transversal phenomenon from fungi to humans. His studies have also questioned the role of cAMP (and cAMP's role in the circadian effect of caffeine) on circadian mechanisms.

- **Larrondo, L.F.**, Olivares-Yañez, C., Baker, C.L., Loros, J.J., Dunlap, J.C. **2015**. Decoupling circadian clock protein turnover from circadian period determination. *Science*. 347(6221):1257277. doi: 10.1126/science.1257277. [143 citations](#)
- Feeney, K. A., Hansen, L. L., Putker, M., Olivares-Yañez, C., Day, J., Eades, L. J., **Larrondo, L. F.**, Hoyle, N. P., O'Neill, J. S., van Ooijen, G. **2016**. Daily magnesium fluxes regulate cellular timekeeping and energy balance. *Nature*.532: 375-379. [232 citations](#)
- Olivares-Yañez, C., Alesandri, M. P., Salas, L., **Larrondo, L. F.** **2023**. Methylxanthines modulate circadian period length independently of the action of phosphodiesterase. *Mycrobiology Spectrum* e0372722. doi: 10.1128/spectrum.03727-22.

His studies have also made it possible to understand the extent of circadian control over a series of physiological processes, such as catabolism (cellulose degradation), where the clock can function stably despite energetically changing conditions (metabolic compensation), and is also resilient to genetic disturbances.

- Olivares-Yañez, C., Emerson, J., Kettenbach, A., Loros, J.J., Dunlap, J.C., **Larrondo, L. F.** 2016. Modulation of circadian gene expression and metabolic compensation by the RCO-1 corepressor of *Neurospora crassa*. *Genetics*. 204(1):163-176. [25 citations](#)
- Diaz, R., **Larrondo, L. F.** 2020. A circadian clock in *Neurospora crassa* functions during plant cell wall deconstruction. *Fungal Biology* 124(5):501-508. doi.org/10.1016/j.funbio.2020.03.003 [9 citations](#)
- Munoz-Guzman, F., Caballero, V., **Larrondo, L. F.** 2021. A Global search for novel transcription factors impacting the *Neurospora crassa* circadian clock. *G3*. 11, 6 doi.org/10.1093/g3journal/jkab100 [9 citations](#)

Dr. Larrondo's studies also allowed to learn, for the first time, the relevance of circadian regulation in virulence processes, exemplifying how the phytopathogenic fungus *Botrytis cinerea* has greater virulence at night than during the day. These pioneering studies also led to circadian analyzes in other fungi, defining the complex daily phenomena that underlie the production of secondary metabolites, either volatile or diffusible, and that are part of the antagonistic interaction between fungal pathogens and biocontrollers.

- Hevia, M. A., Canessa, P., Müller-Esparza, H., **Larrondo, L. F.** 2015. A circadian oscillator in the fungus *Botrytis cinerea* regulates virulence when infecting *Arabidopsis thaliana*. *Proc Natl Acad Sci U S A*. 112: 8744-8749. [132 citations](#)
- Hevia M. A., Canessa, P., **Larrondo, L. F.** 2016. Circadian clocks and the regulation of virulence in fungi: Getting up to speed. *Semin Cell Dev Biol* 57:147-55. [47 citations](#)
- Franco, D. L. Canessa, P., Bellora, N., Risau-Gusman, S., Olivares-Yañez, C., Pérez-Lara, R., Libkind, D., **Larrondo, L. F.** Marpegan, L. 2017. Spontaneous circadian rhythms in a cold-adapted natural isolate of *Aureobasidium pullulans*. *Scientific Reports*. 7: 13837. doi:10.1038/s41598-017-14085-6 [15 citations](#)
- Henriquez-Urrutia, M., Seguel-Avello, A., Olivares-Yañez, C., Guillén-Alonso, H., Winkler, R., Herrera-Estrella, A., Canessa, P., **Larrondo, L. F.** 2022. Circadian oscillations in *Trichoderma atroviride* and the role of core clock components in secondary metabolism, development, and mycoparasitism against the phytopathogen *Botrytis cinerea*. *eLife* 11:e71358. doi: 10.7554/eLife.71358. [3 citations](#)

Line of research 2. Transcriptional mechanisms and response to the environment: photobiology and optogenetics. One of the central characteristics of circadian clocks is their ability to synchronize cellular function with the environment, where light is the main signal that allows this. In the case of *N. crassa*, light is directly perceived by the White Collar-1 (WC-1) protein, which acts as a photoreceptor and transcription factor.

Dr. Larrondo's studies have made it possible to understand the impact of WC-1 on light-mediated processes in fungi other than *Neurospora*, such as the phytopathogen *B. cinerea*. Thus, in this phytopathogen, light negatively affects virulence, where WC-1 plays a preponderant role. In *Botrytis* WC-1 shows important functional differences compared to *N. crassa*, exemplifying the plasticity of regulatory processes in different fungi.

- Canessa, P., Schumacher, J., Hevia, M.A., Tudzynski, P., **Larrondo, L.F.** 2013 Assessing the effects of light on differentiation and virulence of the plant pathogen *Botrytis cinerea*: characterization of the White-Collar complex. *PLoS ONE* 8(12): e84223. doi:10.1371/journal.pone.0084223. [167 citations](#)
- Olivares-Yañez, C., Sánchez, E., Pérez-Lara, G., Seguel, A., Camejo, P., **Larrondo, L. F.**, Vidal, E. A., Canessa, P. 2021 A comprehensive transcription factor and DNA-binding motif resource for the construction of gene regulatory networks in *Botrytis cinerea* and *Trichoderma atroviride*. *Comput. Struct. Biotechnol. J.* 19:6212–6228 doi: 10.1016/j.csbj.2021.11.012 [6 citations](#)
- Rojas, V., Salinas, F., Romero, A., **Larrondo, L. F.**, Canessa, P. 2022. Interactions between core elements of the *Botrytis cinerea* circadian clock are modulated by light and different protein domains. *Journal of Fungi*, 8(5):486. doi: 10.3390/jof8050486. [3 citations](#)

The interest in transcriptional processes mediated by light prompted Dr. Larrondo to dedicate part of his efforts to the development of optogenetics (the use of light to control cellular processes at will). Thus, he has contributed to the design of transcriptional optogenetic switches, which have high biotechnological potential, but at the same time allow for intricate experimental designs. Among the latter, he has been interested in the implementation, in yeast, of intercellular genetic circuits, for the analysis of population dynamics.

- Salinas F., Rojas V., Delgado, V., Agosin, E., **Larrondo, L. F.** 2017. Optogenetic switches for light-controlled gene expression in yeast. *Appl Microbiol Biotechnol*. 101(7):2629-2640. [43 citations](#)

- Salinas, F., Rojas, V., Delgado, V., López, J., Agosin, E., **Larrondo, L. F. 2018.** Fungal Light-Oxygen-Voltage Domains for Optogenetic Control of Gene Expression and Flocculation in Yeast. *mBio*. 9(4). pii: e00626-18 [31 citations](#)
- Rojas V. and **Larrondo, L. F. 2022.** Coupling cell communication and optogenetics: Implementation of a light-inducible intercellular system in yeast. *ACS Synth Biol* 12(1):71-82. doi:10.1021/acssynbio.2c00338.

Other aspects of Dr. Larrondo's research have led him to address other transcriptional/regulatory phenomena, not only in the context of circadian or light responses, but also in the integration of various environmental signals.

- Weirauch, M. T., Yang, A., Albu, M., Cote, A., Montenegro-Montero, A., Drewe, P., Najafabadi, H. S., Lambert, S., Mann, I., Cook, K., Zheng, H., Goity, A., Bakel, H. V., Lozano, J., Galli, M., Lewsey, M., Huang, E., Mukherjee, T., Chen, X., Reece-Hoyes, J., Govindarajan, S., Shaulsky, G., Walhout, A., Bouget, F., Ratsch, G., **Larrondo, L. F., Ecker, J. R., Hughes, J. R. 2014.** Determination and inference of eukaryotic transcription factor sequence specificity. *Cell* 158:1431-1443 [1459 citations](#)
- Johnson, N. R., **Larrondo, L. F., Alvarez, J. M., Vidal, E. A. 2022.** Comprehensive re-analysis of hairpin RNAs in fungi reveals ancestral links. *eLife* 11:e83691. doi: 10.7554/eLife.83691.
- Tabilo-Agurto, Del Rio-Pinilla, V., Eltit-Villaruel, V., Goity, A., Muñoz-Guzmán, F., **Larrondo, L. F. 2023.** Developing a temperature-inducible transcriptional rheostat in *Neurospora crassa*. *mBio*. 14(1): e0329122. doi: 10.1128/mbio.03291-22.
- **Larrondo, L.F. 2023.** Circadian entrainment of *in vitro* reactions, in real time, and around the clock. *Proc Natl Acad Sci U S A*. 120(18):e2303566120. doi: 10.1073/pnas.2303566120. [1 citation](#)

Line of research 3. Enzymatic, genomic and transcriptional aspects of the degradation of plant material. The degradation of lignocellulosic material is a complex process, where fungi stand out for their remarkable potential. Dr. Larrondo has contributed to this field at different levels, describing that the multiplicity of ligninolytic isoenzymes can be partly explained by their post-translational modifications (i.e. glycosylation), which also impacts on kinetic differences.

- 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. [105 citations](#)
- **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. [53 citations](#)
- **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. [95 citations](#)

His contribution in this field is also exemplified by the characterization of the first member of a new branch of the multicopper oxidase (MCO) superfamily. This new branch includes enzymes that present hybrid characteristics between laccases and ferroxidases, but where the latter activity prevails. With this finding it was possible to put an end to more than two decades of controversy about the presence or absence of laccases in *Phanerochaete chrysosporium*, one of the most studied ligninolytic fungi. These findings also led to a reassessment of various aspects of iron homeostasis in white rot fungi.

- **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. [145 citations](#)
- **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. [50 citations](#)
- **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. [29 citations](#)
- Canessa, P. and **Larrondo, L. F. 2013.** Environmental responses and the control of iron homeostasis in fungal systems. *Applied Microbiology and Biotechnology*. 97(3):939-955. [31 citations](#)

Dr. Larrondo participated in the first fungal genome projects, led by the Joint Genome Institute (JGI-DOE). In the early 2000s, and as a result of the sequencing capacity generated in the Human Genome project, the JGI focused on the sequencing of fungi with biotechnological potential. The "data mining" of these genomes could only be possible with the support of experts in these organisms. Thus, it was possible to assemble and annotate the first genome of a basidiomycete (*P. chrysosporium*), being also the second genome of a filamentous fungus to be reported. This work was followed by a series of other genomic analyses, including in 2012 a comparative study of various fungal genomes.

- 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). [1076 citations](#)
- 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. [1284 citations](#)
- 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., Vicuna, 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 analysis of wood decay fungus *Postia placenta* supports unique mechanisms of lignocellulose conversion. *Proc. Nat. Acad. Sci. USA* 106:1954-1959. [648 citations](#)
- Fernandez-Fueyo, E., Ruiz-Duenas, F. J. Ferreira, P., Floudas, D., Hibbett, D., Canessa, P., **Larrondo, L. F.**, James, T., Seelenfreund, D., Lobos, S., Polanco, R., Tello, M., Honda, Y., Watanabe, T., Watanabe, Y., Ryu, J. S., Kubicek, C. P., Schmoll, M., Gaskell, J., Hammel, K. E., St. John, F., Vanden Wymelenberg, A., Sabat, G., Splinter BonDurant, S., Syed, K., Yadav, J., Doddapaneni, H., Subramanian, V., Lavín, J. L., Oguiza, J. A. Perez, G., Pisabarro, A. G., Ramirez, L., Santoyo, F., Master, E., Coutinho, P. M., Henrissat, B., Lombard, V., Magnuson, J. K., Kües, U., Hori, C., Igarashi, K., Samejima, M., Barry, K., Lapidus, A., Lindquist, E., Riley, R., Hoffmeister, D., Schwenk, D., Hadar, Y., Yarden, O., P. de Vries, R., Wiebenga, A., Stenlid, A., Eastwood, D., Grigoriev, I., Berka, R., Blanchette, R. A., Kersten, P., Martinez, A.T., Vicuna, R., Cullen, D. **2012**. Comparative genomics of *Ceriporiopsis subvermispora* and *Phanerochaete chrysosporium* provides insight into mechanisms of selective ligninolysis. *Proc. Nat. Acad. Sci. USA.* 109: 5458-5463. [308 citations](#)
- Floudas, D., Binder, M., Riley, R., Barry, K., Blanchette, R.A., Henrissat, B., Martínez, A. T., Ortillar, R., Spatafora, J. W., Yadav, J. S., Aerts, A., Benoit, I., Boyd, A., Carlson, A., Copeland, A., Coutinho, P. M., P. de Vries, R., Ferreira, P., Findley, K., Forest, B., Gaskell, J., Glotzer, D., Górecki, P., Heitman, J., Hesse, C., Hori, C., Igarashi, K., Jurgens, J. A., Kallen, N., Kersten, P., Khajamohiddin, S., Kohler, A., Kues, U., Arun Kumar, T. K., Kuo, A., LaButti, K., **Larrondo, L. F.**, Lindquist, E., Ling, A., Lucas, S., Lundell, T., Martin, R., McLaughlin, D. J., Morgenstern, I., Morin, E., Murat, C., Nolan, M., Ohm, R. A., Patyshakuliyeva, A., Rokas, A., Ruiz-Dueñas, F. J., Sabat, G., Salamov, A., Samejima, M., Schmutz, J., Slot, J. C., St. John, F., Stenlid, J., Sun, H., Sun, S., Tsang, A., Wiebenga, A., Young, D., Pisabarro, A., Eastwood, D. C., Martin, F., Cullen, C., Grigoriev, I. V., Hibbett, D. S. **2012**. The Paleozoic origin of enzymatic lignin decomposition reconstructed from 31 fungal genomes. *Science.* 336:1715-1719. [1616 citations](#)

In addition, some of Dr. Larrondo's studies have focused on the mechanistic aspects of what happens as a fungus encounters plant material. Thus, it was possible to understand that the correct activation of the Unfolded Protein Response (UPR) is essential to cope with the demands of cellulolytic enzymes secretion and to be able to efficiently degrade plant cell wall material. Work was also done to understand the profiles of the fungal

secretomes, or the changes in phosphorylation of components of signal translation pathways and transcriptional regulators during the wood degradation process.

- Montenegro-Montero, A., Goity, A., **Larrondo, L. F.** 2015. The bZIP transcription factor HAC-1 is involved in the unfolded protein response and is necessary for efficient plant cell wall deconstruction in *Neurospora crassa*. **PLoS One**.10(7):e0131415. doi: 10.1371/journal.pone.0131415 [42 citations](#)
- Crivelente- Horta, M.A., Thieme, N., Gao, Y., Burnum-Johnson, K. E., Nicora, C. D., Gritsenko, M. A., Lipton, M. S., Mohanraj, K., Jose de Assis, L., Lin, L., Tian, C., Braus, G., H., Borkovich, K. A., Schmoll, M., **Larrondo, L. F.**, Samal, A., Goldman, G. H., Benz, P. 2019. Broad substrate-specific phosphorylation events are associated with the initial stage of plant cell wall recognition in *Neurospora crassa*. **Front Microbiol.** 10, 2317 [18 citations](#)
- Hori, C., Ishida, T., Igarashi, K., Samejima, M., Suzuki, H., Master, E., Ferreira, P., Ruiz-Dueñas, F. J., Held, B., Canessa, P., **Larrondo, L. F.**, Schmoll, M., Druzhinina, I. S., Kubicek, C. P., Gaskell, J., Kersten, P., St. John, F., Glasner, J., Sabat, G., BonDurant, S. S., Syed, K., Yadav, J., Mgbeahuruike, A.C., Kovalchuk, A., Asiegbu, F. O., Lackner, G., Hoffmeister, D., Sun, H., Lindquist, E., Barry, K., Riley, Grigoriev, I., Henrissat, B., Kues, U., Berka, M., Martinez, A.T., Covert, S. Blanchette, R.A. Cullen. D. 2014. Analysis of the *Phlebiopsis gigantea* genome, transcriptome and secretome gives insight into its pioneer colonization strategies of wood. **PLoS Genetics** 10(12). e1004759. doi:10.1371/journal.pgen.1004759 [105 citations](#)

2.4. CONTRIBUTION TO THE TRAINING OF A NEW GENERATION OF RESEARCHERS AND PROFESSIONALS

Since his arrival to Chile in 2009, Dr. Larrondo has directed 14 undergraduate dissertations/theses (12 completed, 2 in progress), 14 PhD theses (10 completed, 4 in progress), and has directed 9 postdoctoral researchers. Alumni of his laboratory work as academics in national university institutions, or as professionals in academic and business institutions both in Chile and abroad. [More information available in section 5.](#)

2.5. CONTRIBUTION TO NATIONAL AND INTERNATIONAL SCIENTIFIC AND ACADEMIC ENDEAVOURS

Dr. Larrondo was a member the Superior Council of Sciences of FONDECYT (2018-2019), with the historical burden of being the last council prior the entry into operation of the new agency ANID. He was also director (2015-2016), and member (2012-2014) of the Biology III Study section - FONDECYT, vice-president (2017-2018), president (2019-2020), and past-president (2021- 2022) of the Chilean Society for Biochemistry and Molecular Biology. During 2017-2018 he acted as Director of Research and Innovation of the Faculty of Biological Sciences, P. Universidad Católica de Chile, a position that for personal reasons he declined to resume in 2021. In 2019 he was elected (for a period of 6 years) as one of the 9 members of the Fungal Policy Committee (<https://genetics-gsa.org/fungal-2022/organizers-and-session-chairs/>). It is the first time that a Latin American scientist is part of said committee, which has among its functions to ensure different aspects of research and organization of activities around fungal genetics. He had previously served as a member of the Neurospora Policy Committee (2012-2015), having also been chair and co-organizer of different international meetings. He is and has been part of editorial committees of renowned international journals. [More information available in sections 8 and 9.](#)

2.6. CONTRIBUTION TO SCIENTIFIC OUTREACH

Dr. Larrondo has had an active presence in the press, through newspaper letters (more than 50) and columns, covering aspects related to R&D budget in Chile, and also public policies associated with "daylight saving time". In this last topic, he has had a constant presence on TV and radio, with over 50 interviews and notes. He has participated in various instances of scientific outreach including, Puerto de Ideas, Nerd Nights, and talks at middle schools. Undoubtedly, one of the most unique outreach experiences was when (2018) he elaborated and delivered to Pope Francis, an optogenetic representation (made with *N. crassa*) of the Turin shroud (<http://impresa.lasegunda.com/2018/01/19/V/V-012>). This was a unique opportunity to conjugate science, art and faith into an institutional gift, being able to also position scientific concepts of optogenetics and fungal biology, in a highly publicized televised event. [More information available in section 15.](#)

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. ACADEMIC POSITIONS

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, Millennium Nucleus for Fungal Integrative and Synthetic Biology, Chile
 2018- present Director, Millennium Institute for Integrative Biology (iBio), Chile

5. UNDERGRADUATE, GRADUATE STUDENTS AND POSTDOCS

5.1 Undergraduate (*year of thesis defense*)

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
 2022: Leonardo Guzmán
 2022: Sebastian Denhardt
 Current: Lilian Toro (2023, expected)
 Current: Isabella Bresciani (2024, expected)

5.1 Masters

2021 Andrés Romero

5.2 Doctorate (*year of thesis defense*)

2014: Alejandro Montenegro-Montero
 2015: Montserrat Hevia
 2015: Consuelo Olivares-Yañez
 2016: Rodrigo Diaz
 2019: Felipe Muñoz
 2019: Alejandra Goity
 2020: Verónica Delgado
 2020: Marlene Henriquez
 2022: Verónica del Rio
 2023: Vicente Rojas
 Current: Rodrigo Pérez (2023, expected)
 Current: José Ignacio Costa (2024, expected)
 Current: Gabriel Vera (2025, expected)
 Current: Carlos Corrial (2027, expected)

5.3 Post-Doctorate

2015: Paulo Canessa
 2016: Alejandro Montenegro-Montero

Current Position

(Associate Professor Univ. Andres Bello, Chile)
 (Executive Editor, CSH Protocols, CSHL Press)

2016:	Montserrat Hevia	(Postdoc, Univ. de la Frontera, Chile)
2017:	Francisco Salinas	(Assistant Professor Univ. Austral de Chile)
2017:	Veronique Hill	(Research Assistant, Inst. Curie, France)
2017:	Consuelo Olivares-Yañez	(Young Investigador, iBio, Chile)
2018:	Aldo Seguel	(Senior Scientist Kura Biotech, Chile)
Current:	Wladimir Mardones	
Current:	Verónica del Río	
Current:	Vicente Rojas	

6. TEACHING

List of main courses (does not include courses as invited lecturer)

- 2009- 2012: **Undergrad level** BIO151E Microbiology
- 2013- present: **Undergrad level** BIO288C Molecular Genetics
- 2022- present: **Undergrad level** BIO297C Laboratory of Cell Biology
- 2012- present: **Graduate level** BIO4412 Functional Genomics
- 2015- present: **Graduate level** BIO4026 Synthetic Biology

7. SCIENTIFIC 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

8.1. Editorial Boards

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
2023- present:	Invited Editor Annual Reviews in Microbiology

8.2. Ad-hoc Reviewer

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

8.3. 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 Valparaiso (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 (Rumania)
2017	Ad hoc reviewer for Agence Nationale de la Recherche
2021	Ad hoc reviewer for European Research Council, ERC Starting Grant - 2021
2023	Ad hoc reviewer for Wellcome Trust

9. 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. CONSULTING AND OTHER ACTIVITIES

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

11. GRANTS

11.1 As Principal Investigator

2000-2003	FONDECYT-Chile 2000076: "Heterologous expression of ligninolytic genes in <i>Aspergillus spp.</i> : 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 <i>Neurospora crassa</i> .
2009-2011	IFS AC/20198: Comparative and <i>in vivo</i> studies of the circadian properties of the phytopathogen <i>Botrytis cinerea</i> .
2009-2012	FONDECYT-Chile 1090513: A <i>Neurospora crassa</i> systems-approach: identification of molecular components involved in circadian-controlled gene expression through Forward and Reverse Genetics strategies.

2010-2012 2013	CRP – ICGEB Exploring light and circadian regulation in the plant pathogen <i>Botrytis cinerea</i> 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 <i>Neurospora crassa</i> : 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)- <i>In December 2017 this grant was closed as I obtained another grant to create a Millennium Institute</i>
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
2018-2028	Iniciativa Científica Milenio. Director, Millennium Institute for Integrative Biology (iBIO)
2021-2025	FONDECYT-Chile 1211715. Modular redesign and rewiring of circadian circuits to challenge design principles and dissect fundamental clock properties
2021-2022	Richard Lounsbery Foundation. Transcriptional rewiring and directed evolution of circadian controlled fitness

11.2.2 As Co-Investigator

2012-2014	I+D Fundación Copec-UC 2012.J.18: I+D grant to develop a high-throughput platform to for <i>Botrytis cinerea</i> 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.”

11.3. 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

12. RESEARCH LECTURES

12.1 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.** 29th 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." Niemyer 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**

25. "Developing a detailed map of gene expression and implementing tools to reprogram population-level dynamics utilizing fungal optogenetics", U. California-Riverside, April 1st. **2022**. Riverside, CA, EE.UU.

26. "Reprogramming population-level dynamics utilizing fungal optogenetics and semi-synthetic circadian circuits". December 1st **2022**. Yale University, New Haven. EE.UU.

12.2. 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, July 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 Cinencias Biológicas, PUC, April 10I **2017**. Santiago Chile
 4. “Relojes biológicos y luz como moduladores de la virulencia de *Botrytis cinerea*”. **Larrondo L. F.** Lanzamiento Nuevo Fungicida Frontal, Anasac, June 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, June 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, June 13 **2017**. Monticello, Chile.
 7. “Luz, Camara y visión: la memoria de los Hongos”. **Larrondo L. F.** Encuentros Protagonistas 2030, October 25 **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. August 7 **2019**, Santiago, **Chile**.
 16. “Cronobiología translacional”. XV Latin American Symposium on Chronobiology October 4-8, **2021**. **Argentina**, Virtual Meeting.

12.3. 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**. 31st Fungal Genetics Conference, Pacific Groove, CA, **USA**.

12.4. 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.** 14th 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.** 30th 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**.

13. ORGANIZATION OF CONFERENCES & SYMPOSIA (*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)

14. PUBLICATIONS

14.1. ISI-indexed Publications¹

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. [105 citations](#)
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 [64 citations](#)
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. [76 citations](#)
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. [497 citations](#)
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. [34 citations](#)
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. [53 citations](#)
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. [95 citations](#)
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. [145 citations](#)
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). [1076 citations](#)
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. [50 citations](#)
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. [10 citations](#)
13. **Larrondo, L.**, Gonzalez, A., Perez Aclé, T., Cullen, D., Vicuña, R. **2005**. The *nop* gene from *Phanerochaete chrysosporium* encodes a peroxidase with novel structural features. *Biophys. Chem.* 116: 167-173 [27 citations](#)
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. [84 citations](#)
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. [15 citations](#)
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. [15 citations](#)

¹**h-index = 33, total citations = 10011 (scholar.google.com)**

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. [29 citations](#)
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. [194 citations](#)
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. [31 citations](#)
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. [28 citations](#)
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. [98 citations](#)
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. [13 citations](#)
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). [163 citations](#)
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. [1284 citations](#)
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. [10 citations](#)
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., Vicuna, 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. [648 citations](#)
27. **Larrondo, L. F.**, Colot, H., Baker, C. L., Loros, J. J., Dunlap, J. C. **2009**. Fungal Functional Genomics: Tunable Knockout-Knockin-expression and tagging strategies. *Eukaryotic Cell* 8:800-804. [40 citations](#)
28. Rodríguez-Rincón F., Suarez, A., Lucas, M., **Larrondo, L. F.**, de la Rubia, T., Polaina, J., and Martínez, J. **2010**. Molecular and structural modeling of the *Phanerochaete flavido-alba* extracellular laccase reveals its ferroxidase structure. *Arch Microbiol.* 192: 883-92. [29 citations](#)
29. Fernandez-Fueyo, E., Ruiz-Duenas, F. J. Ferreira, P., Floudas, D., Hibbett, D., Canessa, P., **Larrondo, L. F.**, James, T., Seelenfreund, D., Lobos, S., Polanco, R., Tello, M., Honda, Y., Watanabe, T., Watanabe, Y., Ryu, J. S., Kubicek, C. P., Schmoll, M., Gaskell, J., Hammel, K. E., St. John, F., Vanden Wymelenberg, A., Sabat, G., Splinter BonDurant, S., Syed, K., Yadav, J., Doddapaneni, H., Subramanian, V., Lavín, J. L., Oguiza, J. A. Perez, G., Pisabarro, A. G., Ramirez, L., Santoyo, F., Master, E., Coutinho, P. M., Henrissat, B., Lombard, V., Magnuson, J. K., Kües, U., Hori, C., Igarashi, K., Samejima, M., Barry, K., Lapidus, A., Lindquist, E., Riley, R.,

- Hoffmeister, D., Schwenk, D., Hadar, Y., Yarden, O., P. de Vries, R., Wiebenga, A., Stenlid, A., Eastwood, D., Grigoriev, I., Berka, R., Blanchette, R. A., Kersten, P., Martinez, A.T., Vicuna, R., Cullen, D. **2012**. Comparative genomics of *Ceriporiopsis subvermispورا* and *Phanerochaete chrysosporium* provides insight into mechanisms of selective ligninolysis. *Proc. Nat. Acad. Sci. USA*. 109: 5458-5463. [308 citations](#)
30. Floudas, D., Binder, M., Riley, R., Barry, K., Blanchette, R.A., Henrissat, B., Martínez, A. T., Ortilar, R., Spatafora, J. W., Yadav, J. S., Aerts, A., Benoit, I., Boyd, A., Carlson, A., Copeland, A., Coutinho, P. M., P. de Vries, R., Ferreira, P., Findley, K., Forest, B., Gaskell, J., Glotzer, D., Górecki, P., Heitman, J., Hesse, C., Hori, C., Igarashi, K., Jurgens, J. A., Kallen, N., Kersten, P., Khajamohiddin, S., Kohler, A., Kues, U., Arun Kumar, T. K., Kuo, A., LaButti, K., **Larrondo, L. F.**, Lindquist, E., Ling, A., Lucas, S., Lundell, T., Martin, R., McLaughlin, D. J., Morgenstern, I., Morin, E., Murat, C., Nolan, M., Ohm, R. A., Patyshakuliyeva, A., Rokas, A., Ruiz-Dueñas, F. J., Sabat, G., Salamov, A., Samejima, M., Schmutz, J., Slot, J. C., St. John, F., Stenlid, J., Sun, H., Sun, S., Tsang, A., Wiebenga, A., Young, D., Pisabarro, A., Eastwood, D. C., Martin, F., Cullen, C., Grigoriev, I. V., Hibbett, D. S. **2012**. The Paleozoic origin of enzymatic lignin decomposition reconstructed from 31 fungal genomes. *Science*. 336:1715-1719. [1617 citations](#)
31. Canessa, P., Muñoz-Guzmán, F., Vicuña, R., **Larrondo, L. F.** **2012**. Characterization of PIR1, a GATA family transcription factor involved in iron responses in the white-rot fungus *Phanerochaete chrysosporium*. *Fungal Genetics and Biology*. 49:626-634. [4 citations](#)
32. **Larrondo, L. F.**, Loros, J. J. and Dunlap, J. C. **2012**. High-resolution spatiotemporal analysis of gene expression in real time: *in vivo* analysis of circadian rhythms in *Neurospora crassa* using a FREQUENCY-Luciferase translational reporter. *Fungal Genetics and Biology*. 49:681-683. [56 citations](#)
33. Canessa, P. and **Larrondo, L. F.** **2013**. Environmental responses and the control of iron homeostasis in fungal systems. *Applied Microbiology and Biotechnology*. 97(3):939-955. [31 citations](#)
34. Hurley, J., **Larrondo, L. F.**, Loros, J. J., Dunlap, J. C. **2013**. Conserved RNA helicase FRH acts Nonenzymatically to Support the Intrinsically Disordered *Neurospora* clock protein FRQ. *Mol Cell*. 52(6):832-43. [80 citations](#)
35. Canessa, P., Schumacher, J., Hevia, M.A., Tudzynski, P., **Larrondo, L.F.** **2013** Assessing the effects of light on differentiation and virulence of the plant pathogen *Botrytis cinerea*: characterization of the White-Collar complex. *PLoS ONE* 8(12): e84223. doi:10.1371/journal.pone.0084223. [167 citations](#)
36. Gooch, V. D., Johnson, A. E., **Larrondo, L. F.**, Loros, J.J., Dunlap, J. C. **2014**. Bright to Dim Oscillatory Response of the *Neurospora* Circadian Oscillator. *Journal of Biological Rhythms* 29:49-59. [6 citations](#)
37. Gooch, V. D., Johnson, A. E., Bourne, B. J., Nix, B. T., Maas, J. A., Fox, J., A. Loros, J. J., **Larrondo, L. F.**, Dunlap, J. C. **2014**. A Kinetic Study of the Effects of Light on Circadian Rhythmicity of the *frq* Promoter of *Neurospora crassa*. *Journal of Biological Rhythms* 29:38-48. [18 citations](#)
38. Hong, C.I., Zámboreszky, J., Baek, M., Labiscsak, L., Ju, K., Lee, H., **Larrondo, L.F.**, Goity, A., Chiong, H. S., Belden, W. J. and Csikász-Nagy, A. **2014**. Circadian Rhythms Synchronize Mitosis in *Neurospora crassa*. *Proc Natl Acad Sci U S A*. 111:1397-402. [80 citations](#)
39. Weirauch, M. T., Yang, A., Albu, M., Cote, A., Montenegro-Montero, A., Drewe, P., Najafabadi, H. S., Lambert, S., Mann, I., Cook, K., Zheng, H., Goity, A., Bakel, H. V., Lozano, J., Galli, M., Lewsey, M., Huang, E., Mukherjee, T., Chen, X., Reece-Hoyes, J., Govindarajan, S., Shaulsky, G., Walkout, A., Bouget, F., Ratsch, G., **Larrondo, L. F.**, Ecker, J. R., Hughes, T. R. **2014**. Determination and Inference of Eukaryotic Transcription Factor Sequence Specificity. *Cell* 158:1431-1443 [1462 citations](#)
40. Hori, C., Ishida, T., Igarashi, K., Samejima, M., Suzuki, H., Master, E., Ferreira, P., Ruiz-Dueñas, F. J., Held, B., Canessa, P., **Larrondo, L. F.**, Schmoll, M., Druzhinina, I. S., Kubicek, C. P., Gaskell, J., Kersten, P., St. John, F., Glasner, J., Sabat, G., BonDurant, S. S., Syed, K., Yadav, J., Mgbeahurike, A.C., Kovalchuk, A., Asiegbu, F. O., Lackner, G., Hoffmeister, D., Sun, H., Lindquist, E., Barry, K., Riley, Grigoriev, I., Henrissat, B., Kues, U., Berka, M., Martinez, A.T., Covert, S. Blanchette, R.A. Cullen, D. **2014**. Analysis of the *Phlebiopsis gigantea* genome, transcriptome and secretome gives insight into its pioneer colonization strategies of wood. *PLoS Genetics* 10(12). e1004759. doi:10.1371/journal.pgen.1004759 [105 citations](#)
41. **Larrondo, L.F.**, Olivares-Yañez, C., Baker, C.L., Loros, J.J., Dunlap, J.C. **2015**. Decoupling circadian clock protein turnover from circadian period determination. *Science*. 347(6221):1257277. doi: 10.1126/science.1257277. [143 citations](#)
42. Plaza, V., Lagues, Y., Carvajal, M., Pérez-García, L. A., Mora-Montes, H., de Groot, P., Canessa, P., **Larrondo, L. F.**, Castillo, L. C. **2015**. The *Botrytis cinerea* *bcpmr1* gene encodes for a P-type Ca²⁺/Mn²⁺-

- ATPase that is necessary for proper cell wall glycan composition, cell wall integrity and virulence. *Fungal Genetics and Biology*. 76: 36-46. [22 citations](#)
43. Montenegro-Montero, A., Goity, A., **Larrondo, L. F.** 2015. The bZIP transcription factor HAC-1 is involved in the unfolded protein response and is necessary for efficient plant cell wall deconstruction in *Neurospora crassa*. *PLoS One*.10(7):e0131415. doi: 10.1371/journal.pone.0131415 [42 citations](#)
 44. Hevia, M. A, Canessa, P., Müller-Esparza, H., **Larrondo, L. F.** 2015. A circadian oscillator in the fungus *Botrytis cinerea* regulates virulence when infecting *Arabidopsis thaliana*. *Proc Natl Acad Sci U S A*. 112: 8744-8749. [132 citations](#)
 45. Montenegro-Montero, A., Canessa, P., **Larrondo, L. F.** 2015. Around the Fungal Clock: Recent Advances in the Molecular Study of Circadian Clocks in *Neurospora* and Other Fungi. *Advances in Genetics*. 92: 107-184. [40 citations](#)
 46. Montenegro-Montero, A., **Larrondo, L.F.** 2016. In the Driver's Seat: The Case for Transcriptional Regulation and Coupling as Relevant Determinants of the Circadian Transcriptome and Proteome in Eukaryotes. *J Biol Rhythms*. 31:37-47. [12 citations](#)
 47. Salinas, F., de Boer, C., Abarca, V., Garcia, V., Cuevas, M., Araos-Flores, S., **Larrondo, L. F.**, Martínez, C., Cubillos, F. 2016. Natural Variation in Non-coding Regions Underlying Phenotypic Diversity in Budding Yeast. *Scientific Reports*. 6:21849. doi: 10.1038/srep21849. [48 citations](#)
 48. Hevia M. A., Canessa, P., **Larrondo, L. F.** 2016. Circadian clocks and the regulation of virulence in fungi: Getting up to speed. *Semin Cell Dev Biol* 57:147-55. [47 citations](#)
 49. Feeney, K. A., Hansen, L. L., Putker, M., Olivares-Yañez, C., Day, J., Eades, L. J., **Larrondo, L. F.**, Hoyle, N. P., O'Neill, J. S., van Ooijen, G. 2016. Daily Magnesium Fluxes Regulate Cellular Timekeeping and Energy Balance. *Nature*.532: 375-379. [232 citations](#)
 50. Kessi-Pérez, E. I., Araos, S., García, V., Salinas, F., Abarca, V., **Larrondo, L. F.**, Martínez, C., Cubillos, F. A. 2016. RIM15 antagonistic pleiotropy is responsible for differences in fermentation and stress response kinetics in budding yeast. *FEMS Yeast Res*. 16(3). pii: fow021. doi: 10.1093/femsyr/fow021. [33 citations](#)
 51. Olivares-Yañez, C., Emerson, J., Kettenbach, A., Loros, J.J., Dunlap, JC, **Larrondo, L. F.** 2016. Modulation of Circadian Gene Expression and Metabolic Compensation by the RCO-1 Corepressor of *Neurospora crassa*. *Genetics*. 204(1):163-176. [25 citations](#)
 52. Castillo, L., Plaza, V., **Larrondo, L. F.**, Canessa, P. 2016. Recent advances in the study of the plant pathogenic fungus *Botrytis cinerea* and its interaction with the environment. *Curr Protein Pept Sci*. 18 (10), 976-989 [19 citations](#)
 53. Salinas F., Rojas V., Delgado, V., Agosin, E., **Larrondo, L. F.** 2017. Optogenetic switches for light-controlled gene expression in yeast. *Appl Microbiol Biotechnol*. 101(7):2629-2640. [43 citations](#)
 54. Gaskell, J., Kersten, P., **Larrondo, L. F.**, Canessa, P., Martinez, D., Hibbett, D., Schmoll, M., Kubicek, C. P., Martinez, A. T., Yadav, J., Master, E., Magnuson, J. K., Yaver, D., Berka, R., Lail, K., Chen, C., LaButti, K., Nolan, M., Lipzen, A., Aerts, A., Riley, R., Barry, K., Henrissat, B., Blanchette, R., Grigoriev, IV., Cullen, D. 2017. Draft genome sequence of a monokaryotic model brown-rot fungus *Postia (Rhodonia) placenta* SB12. *Genom Data*. Aug 10;14:21-23. [15 citations](#)
 55. Franco, D. L. Canessa, P., Bellora, N., Risau-Gusman, S., Olivares-Yañez, C., Pérez-Lara, R., Libkind, D., **Larrondo, L. F.** Marpegan, L. 2017. Spontaneous circadian rhythms in a cold-adapted natural isolate of *Aureobasidium pullulans*. *Scientific Reports*. 7: 13837. doi:10.1038/s41598-017-14085-6 [15 citations](#)
 56. Boni, A.C., Ambrósio, D. L., Cupertino, F.B., Montenegro-Montero, A., Virgilio, S., Freitas, F. Z., Corrocher, F.A., Gonçalves, R. D., Yang, A., Weirauch, M.T., Hughes, T. R., **Larrondo, L. F.**, Bertolini, M. C. 2018. *Neurospora crassa* developmental control mediated by the FLB-3 transcription factor. *Fungal Biol*. 122:570-582. [15 citations](#)
 57. Rojas-Aedo, J. F., Gil-Durán, C., Goity, A., Vaca, I., Levicán, G., **Larrondo, L. F.**, Chávez, R. 2018. The developmental regulator Pcz1 affects the production of secondary metabolites in the filamentous fungus *Penicillium roqueforti*. *Microbiol Res*. 212-213:67-74. [13 citations](#)
 58. Tapia, S. M., Cuevas, M., Abarca, V., Delgado, V., Rojas, V., García, V., Brice, C., Martínez, C., Salinas, F., **Larrondo, L. F.**, Cubillos, F.A. 2018. GPD1 and ADH3 Natural Variants Underlie Glycerol Yield Differences in Wine Fermentation. *Front Microbiol*. 3;9:1460. [8 citations](#)

59. Kessi-Pérez, E.I., Salinas, F., Molinet, J., González, A., Muñiz, S., Guillamón, J.M., Hall, M.N., **Larrondo, L. F.**, Martínez, C. **2018**. Indirect monitoring of TORC1 signalling pathway reveals molecular diversity among different yeast strains. *Yeast*. doi: 10.1002/yea.3351. [11 citations](#)
60. Salinas, F., Rojas, V., Delgado, V., López, J., Agosin, E., **Larrondo, L. F.** **2018**. Fungal Light-Oxygen-Voltage Domains for Optogenetic Control of Gene Expression and Flocculation in Yeast. *MBio*. 9(4). pii: e00626-18 [31 citations](#)
61. **Larrondo, L. F.**, Canessa, P. **2018**. The clock keeps on ticking: emerging roles for circadian regulation on the control of fungal physiology and pathogenesis. *Current Topics in Microbiology and Immunology*. doi: 10.1007/82_2018_143. [18 citations](#)
62. Kessi-Pérez, E. I., Salinas, F., González, A., Su, Y., Guillamón, J. M., Hall, M. N., **Larrondo, L. F.**, Martínez, C. **2019**. KAE1 Allelic Variants Affect TORC1 Activation and Fermentation Kinetics in *Saccharomyces cerevisiae*. *Front Microbiol*. 10:1686. doi: 10.3389/fmicb.2019.01686. eCollection 2019. [7 citations](#)
63. Crivelente- Horta, M.A., Thieme, N., Gao, Y., Burnum-Johnson, K. E., Nicora, C. D., Gritsenko, M. A., Lipton, M. S., Mohanraj, K., Jose de Assis, L., Lin, L., Tian, C., Braus, G., H., Borkovich, K. A., Schmoll, M., **Larrondo, L. F.**, Samal, A., Goldman, G. H., Benz, P. **2019**. Broad substrate-specific phosphorylation events are associated with the initial stage of plant cell wall recognition in *Neurospora crassa*. *Front Microbiol*. 10, 2317 [18 citations](#)
64. Diaz, R., **Larrondo, L. F.** **2020**. A circadian clock in *Neurospora crassa* functions during plant cell wall deconstruction. *Fungal Biology* 124(5):501-508. doi.org/10.1016/j.funbio.2020.03.003 [9 citations](#)
65. Nespolo, R. F., Villarroel, C. A., Oporto, C. I., Tapia, S. M., Vega-Macaya, F., Urbina, K., De Chiara, M., Mozzachiodi, S., Mikhalev, E., Thompson, D., **Larrondo, L. F.**, Saenz-Agudelo, P., Liti, G., Cubillos, F. A. **2020**. An Out-of-Patagonia migration explains the worldwide diversity and distribution of *Saccharomyces eubayanus* lineages. *PLoS Genet*. May 1;16(5): e1008777. [31 citations](#)
66. Ramos, P., Barrera, A. K., Hereme, RA, Ruiz-Lara, S., **Larrondo, L. F.**, Gundel, P.E., Pollmann, S., Molina-Montenegro, M.A. **2020**. Fungal Endophytes Exert Positive Effects on *Colobanthus quitensis* Under Water Stress but Neutral Under a Projected Climate Change Scenario in Antarctica. *Frontiers in Ecology and Evolution*, 8. 122 doi.org/10.3389/fmicb.2020.00264 [21 citations](#)
67. Figueroa, D., Rojas, V., Romero, A., **Larrondo, L. F.**, Salinas, F. **2021**. The rise and shine of yeast optogenetics. *Yeast*. 38 :131-146. [23 citations](#)
68. Zárata R.V., Arancibia, D., Fernández, A., Signorelli, J. R., **Larrondo, L. F.**, Andrés, M. E., Zamorano, P. **2021**. Optimization of the Light-On system in a lentiviral platform to a light-controlled expression of genes in neurons. *E. J. Biotech*. 51, 50-57 [1 citations](#)
69. Munoz-Guzman, F., Caballero, V., **Larrondo, L. F.** **2021**. A Global Search for novel Transcription Factors impacting the *Neurospora crassa* Circadian Clock. *G3*. 11, 6 doi.org/10.1093/g3journal/jkab100 [9 citations](#)
70. Romero, A., Rojas, V., Salinas, F., **Larrondo, L. F.** **2021**. Modular and Molecular Optimization of a LOV (Light–Oxygen–Voltage)-Based Optogenetic Switch in Yeast. *Int J Mol Sci.*, 22(16), 8538; doi.org/10.3390/ijms22168538 [6 citations](#)
71. Olivares-Yañez, C., Sánchez, E., Pérez-Lara, G., Seguel, A., Camejo, P., **Larrondo, L. F.**, Vidal, E. A., Canessa, P. **2021** A comprehensive transcription factor and DNA-binding motif resource for the construction of gene regulatory networks in *Botrytis cinerea* and *Trichoderma atroviride*. *Comput. Struct. Biotechnol. J.* 19:6212–6228 doi: 10.1016/j.csbj.2021.11.012 [6 citations](#)
72. Henriquez-Urrutia, M., Seguel-Avello, A., Olivares-Yanez, C., Guillén-Alonso, H., Winkler, R., Herrera-Estrella, A., Canessa, P., **Larrondo, L. F.** **2022**. Circadian oscillations in *Trichoderma atroviride* and the role of core clock components in secondary metabolism, development, and mycoparasitism against the phytopathogen *Botrytis cinerea*. *eLife* 11:e71358. doi: 10.7554/eLife.71358. [3 citations](#)
73. Rojas, V., Salinas, F., Romero, A., **Larrondo, L. F.**, Canessa, P. **2022**. Interactions between core elements of the *Botrytis cinerea* circadian clock are modulated by light and different protein domains. *Journal of Fungi*, 8(5):486. doi: 10.3390/jof8050486. [3 citations](#)
74. Rojas V. and **Larrondo, L. F.** **2022**. Coupling cell communication and optogenetics: Implementation of a light-inducible intercellular system in yeast. *ACS Synth Biol* 12(1):71-82. doi:10.1021/acssynbio.2c00338.
75. Johnson, N. R., **Larrondo, L. F.**, Alvarez, J. M., Vidal, E. A. **2022**. Comprehensive re-analysis of hairpin RNAs in fungi reveals ancestral links. *eLife* 11:e83691. doi: 10.7554/eLife.83691.

76. Tabilo-Agurto, Del Rio-Pinilla, V., Eltit-Villaruel, V., Goity, A., Muñoz-Guzmán, F., **Larrondo, L. F. 2023.** Developing a temperature-inducible transcriptional rheostat in *Neurospora crassa*. *mBio*. 14(1): e0329122. doi: 10.1128/mbio.03291-22.
77. **Larrondo, L.F. 2023.** Circadian entrainment of in vitro reactions, in real time, and around the clock. *Proc Natl Acad Sci U S A*. 120(18):e2303566120. doi: 10.1073/pnas.2303566120. [1 citations](#)
78. Pérez-Lara, G., Moyano, T.C., Vega, A., **Larrondo, L. F.**, Polanco, R., Álvarez, J. M., Aguayo, D., Canessa, P. **2023.** The *Botrytis cinerea* Gene Expression Browser. *J Fungi* (Basel).9(1):84. doi: 10.3390/jof9010084.
79. Pérez-Lara, G., Olivares-Yañez, C., Van Bakel, H., **Larrondo, L. F.**, Canessa, P. **2023.** Genome-wide characterization of light-regulated gene expression in *Botrytis cinerea* reveals underlying complex photobiology. *Int J Mol Sci*. **24(10)**, 8705; <https://doi.org/10.3390/ijms24108705>
80. Olivares-Yañez, C., Alesandri, M. P., Salas, L., **Larrondo, L. F. 2023.** Methylxanthines modulate circadian period length independently of the action of phosphodiesterase. *Mycobiology Spectrum* e0372722. doi: 10.1128/spectrum.03727-22.
81. Montenegro-Montero, A., Goity, A., Canessa, P. F., **Larrondo, L. F. 2023.** Identification of a common secondary mutation in the *Neurospora crassa* knockout collection conferring a cell fusion-defective phenotype. *Mycobiology Spectrum* *accepted*

14.2. 2 Book Chapters

1. Inestrosa N. C and **Larrondo L. F. 2000.** Estrés oxidativo en la enfermedad de Alzheimer. En Alimentación Antioxidantes y Envejecimiento. Programa para el adulto mayor Pontificia Universidad Católica de Chile. Eds F. Leighton e I. Urquiaga. Stgo, Chile. pgs. 65-81.
2. **Larrondo, L. F.**, Vicuña R. and Cullen. D. **2005.** *Phanerochaete chrysosporium* genomics. *Applied Mycology and Biotechnology*. V5. 14: 315-352
3. Montenegro-Montero, A., and **Larrondo, L. F. 2013.** Circadian rhythms: from genes to proteins and back, in less than 24-hours. In: McCluskey K, Kasbekar DP (ed) *Neurospora: genomics and molecular biology*, 1st edn. Caister Academic, Norfolk, pp 243–271. (Cover)
4. Rojas, V., Salinas, F., Guzman-Zamora, L., Romero, A.,; Delgado, V., **Larrondo, L. F. 2020.** Exploiting Fungal Photobiology as a Source of Novel Bio-blocks for Optogenetic Systems. In *Mycota Vol. II: Genetics and Biotechnology*, 3rd ed., ed. by J. Philipp Benz and Kerstin Schipper. Springer.

15. Non ISI-indexed Publications, Outreach and Education

During 2019-2023, 12 new letters and 30 appearances in the media (TV/Radio), which are not detailed in the list took place.

Letters to the Editor El Mercurio

- | | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1. | http://www.elmercurio.com/blogs/2015/11/14/36930/Delantales-blancos-Grito-y-plata.aspx | Nov 14 2015 |
| 2. | http://www.elmercurio.com/blogs/2016/11/16/46623/Inversion-en-conocimiento.aspx | Nov 16 2016 |
| 3. | http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-05-31&dtB=31-05-2017%200:00:00&PaginaId=2&bodyId=1 | May 31 2017 |
| 4. | http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-06-22&dtB=22-06-2017%200:00:00&PaginaId=2&bodyId=1 | June 22 2017 |
| 5. | https://digital.elmercurio.com/2018/12/18/A/VE3GOCDE#zoom=page-width | Dec 18 2018 |
| 6. | | |

Letters to the Editor La Segunda

- | | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------|-------------|
| 7. | http://impresa.lasegunda.com/2015/11/09/A/9L2QAkTT | Nov 09 2015 |
| 8. | http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP | Nov 12 2015 |
| 9. | http://impresa.lasegunda.com:8080/2015/11/12/A/AI2QDPFP | Nov 12 2015 |
| 10. | http://impresa.lasegunda.com/2015/11/14/A/S22QF4D1 | Nov 14 2015 |
| 11. | http://impresa.lasegunda.com/2015/11/20/A/D12QJB8K | Nov 20 2015 |
| 12. | http://impresa.lasegunda.com/2015/11/25/A/N82QMMIB | Nov 25 2015 |
| 13. | http://impresa.lasegunda.com/2015/12/28/A/122RB70M | Dec 28 2015 |
| 14. | http://impresa.lasegunda.com/2016/02/05/A/DV2SAOGQ | Feb 05 2016 |
| 15. | http://impresa.lasegunda.com/2016/01/07/A/G22RIQ4V | Jan 07 2016 |

16.	http://impresa.lasegunda.com/2016/05/26/A/OP2UHCUS	May 26 2016
17.	http://impresa.lasegunda.com/2016/08/12/A/OP301RIM	Aug 12 2016
18.	http://impresa.lasegunda.com/2016/08/17/A/9C304NGT	Aug 17 2016
19.	http://impresa.lasegunda.com/2016/09/16/A/EN30NDU3	Sept 16 2016
20.	http://impresa.lasegunda.com/2016/10/19/A/R831BHE7	Oct 19 2016
21.	http://impresa.lasegunda.com/2016/11/02/A/B831IFB8	Nov 02 2016
22.	http://impresa.lasegunda.com/2016/11/03/A/QR31KGBA	Nov 03 2016
23.	http://impresa.lasegunda.com/2016/11/05/A/4N31L8I9	Nov 04 2016
24.	http://impresa.lasegunda.com/2016/11/16/A/OA31T65P	Nov 16 2016
25.	http://impresa.lasegunda.com/2016/11/24/A/P9322I91	Nov 24 2016
26.	http://impresa.lasegunda.com/2017/01/11/A/8C330MMK	Jan 11 2017
27.	http://impresa.lasegunda.com/2017/04/25/A/L8357ETH	April 25 2017
28.	http://impresa.lasegunda.com/2017/05/02/A/TB35A9TS	May 02 2017
29.	http://impresa.lasegunda.com/2017/08/16/A/RO37DSBM	Aug 16 2017
30.	http://impresa.lasegunda.com/2017/09/01/A/DG37OQ81	Sept 01 2017
31.	http://impresa.lasegunda.com/2017/10/03/A/U138D8OT	Oct 03 2017
32.	http://impresa.lasegunda.com/2017/10/19/A/BQ38N9A7	Oct 19 2017
33.	http://impresa.lasegunda.com/2017/10/16/A/9V38KNS6	Oct 16 2017
34.	http://impresa.lasegunda.com/2017/10/25/A/OG38QMFL	Oct 25 2017
35.	http://impresa.lasegunda.com/2018/04/10/A/US3C36SA/5R3C3KNJ	April 10 2018
36.	http://impresa.lasegunda.com/2018/04/16/A/I03C6RN5/T73C80IO	April 16 2018
37.	https://digital.lasegunda.com/2019/08/13/A/2K3LJS45#zoom=page-width	Aug 13 2019
38.	https://digital.lasegunda.com/2019/10/08/A/MG3MLSP4#zoom=page-width	Oct 08 2019

Letters to the Editor La Tercera

39.	http://www.latercera.com/noticia/chile-necesita-invertir-en-ciencia/	Nov 08 2015
40.	http://diario.latercera.com/edicionimpresa/chile-y-la-ciencia/	Nov 22 2015
41.	http://diario.latercera.com/edicionimpresa/ciencia-chilena/	Dec 10 2015
42.	http://www.latercera.com/noticia/lo-minimo-don-maximo/	Aug 17 2016
43.	http://www.latercera.com/noticia/ministerio-para-las-ciencias/	Sept 29 2016
44.	http://www.latercera.com/noticia/votar-o-botar/	Nov 02 2016
45.	http://www.latercera.com/noticia/presupuesto-las-ciencias/	Dec 07 2016
46.	http://www.latercera.com/noticia/misterio-ciencia-tecnologia/	Dec 13 2016
47.	http://www.latercera.com/noticia/cientificos-chilenos/	May 23 2017
48.	http://www.latercera.com/noticia/candidatos-2/	Aug 25 2017
49.	http://www.latercera.com/noticia/eyzaguirre-palabras-hechos/	Sept 05 2017
50.	https://www.latercera.com/opinion/noticia/chile-la-inversion-ciencia/380183/	Oct 29 2018

Columns

51.	http://www.quepasa.cl/articulo/opinion-posteos/2015/11/la-hora-de-terminar-con-la-lesera.shtml/	
52.	https://www.capital.cl/des-conecta/	Oct 23 2018

TV Appearances

53.	-Entrevista acerca de Sueño y Salud Humana	T13	May 17 2016
54.	-Comentario acerca del Cambio de Hora	T13,	Aug 08 2016
55.	-Entrevista acerca de Biología Sintética	TVN,	Jan 15 2017
56.	-Entrevista acerca del cambio de hora	T13 online,	Aug 11 2017
57.	-Entrevista acerca de relojes circadianos	TVN,	Aug 11 2017
58.	-Entrevista acerca de lo que sucede con el cambio de hora	TVN,	Aug 13 2017
59.	-Entrevista acerca del premio Nobel 2017 en Relojes Biológicos	ChVision	Oct 02 2017
60.	-Entrevista acerca de la importancia de los relojes circadianos	TVN,	Oct 03 2017
61.	-Nota acerca de la entrega de carta presupuesto para ciencias	CNN,	Oct 20 2017
62.	-Entrevista acerca de Encuentros Protagonistas 2030	Emol TV,	Oct 23 2017
63.	-Entrevista acerca de Encuentros Protagonistas 2030	Emol TV,	

- Oct 25 2017 <http://tv.emol.com/#/detalle/20171023192921631/desafios-de-futuro-en-protagonistas-2030>
64. -Entrevista acerca premio Nobel 2017 en Fisiología a Chile TVN,
Nov 30 2017 www.24horas.cl/tendencias/salud-bienestar/el-reloj-interno-que-regula-nuestras-vidas-2577804
65. -TVN Entrevista Puerto de Ideas
April 13 2018 <http://www.ibio.cl/2018/10/10/luis-larrondo-en-festival-puerto-ideas-2018-la-ciencia-se-toma-antofagasta/>
66. -TVN Entrevista Cambio horario
May 08 2018 www.24horas.cl/nacional/polemico-cambio-de-hora-impactos-del-deficit-de-sueno-en-la-salud-2707146
67. -No Somos Nada, Entrevista acerca de Ciencia
May 10 2018 <https://www.youtube.com/watch?v=DbQ4nA8dcLg>
68. -TVN, Cambio horario
Aug 13 2018 <https://www.24horas.cl/programas/entrevistas/experto-sobre-nuevo-regimen-horario-a-partir-de-2019-lo-ideal-es-priorizar-que-haya-luz-en-la-manana-2790450>

Radio

69. -Entrevista en el programa a Manzana de Newton, Radio Universidad Católica. Sept 09 2009
70. -Entrevista "Milenio, en Sintonía con la Ciencia" de la Radio U. de Chile. April 21 2014
71. -Entrevista "Milenio, en Sintonía con la Ciencia" de la Radio U. de Chile. Sept 07 2015
72. -Entrevista en T13 Radio March 17 2016
73. -Entrevista en Mesa Central, T13 radio, Oct 06 2017
74. -Entrevista en Concierto. Mañana Será Otro día Oct 05 2017 <https://www.litoralpress.cl/deposito/audios/7662143.mp3>
75. -Entrevista en T13 Radio, Oct 03 2017 www.litoralpress.cl/deposito/audios/7651850.mp3
76. -ADNRadio Aug 10 2018 <http://www.adnradio.cl/noticias/sociedad/luis-larrondo-todas-esas-moleculas-que-nos-hacen-estar-alertas-tambien-nos-hacen-estar-estresados/20180806/nota/3783280.aspx>
77. -Hoy x Hoy https://www.pictame.com/media/2114189005135162925_8675110372
78. -Entrevista La Tercera TV Sept 05 2019 <https://www.latercera.com/la-tercera-tv/noticia/debatelt-debieramos-dejar-cambiar-la-hora/810773/>

Interviews

79. -Entrevista de Opinión acerca de la Ciencia en Chile *La Tercera*, 28 de Julio 2016 www.latercera.com/noticia/mi-mejor-descubrimiento/
80. -Semana de la Ciencia y Arte optogenético. *El Mercurio*, 10 de Octubre 2016
<http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2016-10-06&dtB=06-10%202016+0%3A00%3A00&PaginaId=12&bodyId=1>
81. -Opinión, nuevas herramientas para manipular DNA. *El Mercurio*, 8 de Enero 2017.
<http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-01-08&dtB=10-01-2017%2000-00&PaginaId=6&SupplementId=19&bodyId=17>
82. -Alternativas para el control del fitopatógeno *Botrytis cinerea*. *El Mercurio* 8 de Marzo 2017.
www.elmercurio.com/Campo/Noticias/Noticias/2017/03/08/Alternativas-biologicas-para-enfrentar-la-Botrytis-en-frutales.aspx
83. -Entrevista acerca del premio otorgado por HHMI. *El Mercurio*, 10 de Mayo 2017.
<http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-05-10&dtB=10-05-2017%2000-00&PaginaId=9&bodyId=1>
84. -Entrevista in extenso acerca del premio entregado por HHMI. *Las Ultimas Noticias*, 11 de Mayo 2017
<http://www.lun.com/Pages/NewsDetail.aspx?dt=2017-05-11&NewsID=372730&BodyID=0&PaginaId=2>
85. -Entrevista acerca del desarrollo del arte optogenético. *Las Ultimas Noticias*, 22 de mayo 2017
<http://www.lun.com/Pages/NewsDetail.aspx?dt=2017-05-22&NewsID=373520&BodyID=0&PaginaId=24>
86. -Nota acerca de proyectos FONDECYT exitosos. *El Mercurio*, 22 de Mayo 2017
<http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=22-05-2017%2000-00&NewsID=69500&dtB=22-05-2017%2000-00&BodyID=17&PaginaId=9&SupplementId=19>
87. -Nota de opinión acerca del financiamiento de la ciencia. *La Tercera*, Entrevista, 18 de Octubre 2017
www.latercera.com/noticia/investigadores-molestos-baja-presupuesto-ciencia-2018/
88. -Nota acerca de la actividad Encuentros Protagonista 2030-Ideas de Futuro. *El Mercurio*, Entrevista, 22 de Octubre 2017
<http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=2017-10-22&dtB=22-10-2017+0%3A00%3A00&PaginaId=8&bodyId=1>
- Highlights acerca de las charlas en Encuentros Protagonista 2030-Ideas de Futuro:
89. -El Mercurio Antofagasta, 7 de Noviembre 2017 <http://www.mercurioantofagasta.cl/impresa/2017/11/07/full/cuerpo-principal/25/>
90. -El Mercurio Calama, 7 de Noviembre 2017 <http://www.mercuriocalama.cl/impresa/2017/11/07/full/cuerpo-principal/14/>
91. -Austral Valdivia, 7 de Noviembre 2017 <http://www.australvaldivia.cl/impresa/2017/11/07/full/cuerpo-principal/14/>
92. -El Llanquihue, 7 de Noviembre 2017 <http://www.ellanquihue.cl/impresa/2017/11/07/full/cuerpo-principal/10/>
93. -El Mercurio, 12 de Enero 2018 <http://impresa.elmercurio.com/Pages/NewsDetail.aspx?dt=12-01-2018%2000-00&dtB=12-01-2018%2000-00&BodyID=3&PaginaId=7>
94. -La Segunda, 19 de Enero 2018 <http://impresa.lasegunda.com/2018/01/19/V/V-012>
95. -Revista Caras, 20 de Abril 2018, <https://www.pressreader.com/chile/caras-chile/20180420/282518659097747>
96. -La Cuarta, 13 de mayo 2018 <https://www.pressreader.com/chile/la-cuarta/20180513/282007558035167>
97. -Diario El Centro 11 de Agosto 2018 <http://www.diarioelcentro.cl/noticias/cronica/este-sabado-comienza-el-horario-de-verano-a-partir-de-las-2400-horas>
98. -La Tercera, Agosto 2019 <https://www.latercera.com/que-pasa/noticia/fragil-amazonia-esta-en-llamas/792420/>