
CV Colman Lerner

NAME: Alejandro Colman-Lerner

POSITION TITLE: Professor at the University of Buenos Aires and Principal Investigator at the National Research Council

EDUCATION/TRAINING

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INSTITUTION AND LOCATION	DEGREE	Completion	FIELD OF STUDY
University of Buenos Aires, Buenos Aires	Baccal	1987-1992	Molecular Biology
University of Buenos Aires, Buenos Aires	PhD	1993-1997	Mol. and Cell Biology
Molecular Sciences Institute, Berkeley, CA, USA	Postdoc	1998-2001	Mol. and Cell Biology
Molecular Sciences Institute, Berkeley, CA, USA	Senior Res	2001-2005	Mol. and Cell Biology/

A. Positions

1998-2001 Research Fellow. Molecular Sciences Institute, Berkeley, CA, USA. Field: Mol Cell Biology

2001-2005 Senior Researcher. Molecular Sciences Institute, Berkeley, CA, USA. Field: Sys biology / Mol Biology

2006- 2011 Adjunct Investigator (category 4 of 5). CONICET, Buenos Aires. Field: Sys biology / Mol Biology.

2011- 2016 Independent Investigator (category 3 of 5). CONICET, Buenos Aires. Field: Sys biology / Mol Biology.

2012- 2024 Assistant Professor at the University of Buenos Aires, School of Sciences, Department of Physiology, Molecular and Cell Biology. Assistant Professor. Field: Systems biology / Mol Biology.

2016- present Principal Investigator (category 4 of 5). CONICET, Buenos Aires. Field: Systems biology / Mol Biology.

2024- present Associate Professor at the University of Buenos Aires, School of Sciences, Department of Physiology, Molecular and Cell Biology. Assistant Professor. Field: Systems biology / Mol Biology.

2021- present Director of the Physiology, Molecular and Cell Biology Department, School of Exact and Natural Sciences, University of Buenos Aires

Laboratory webpage: <http://www.ifibyne.fcen.uba.ar/new/colman-lerner>

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B. Personal Statement

The through-line of my career has been the unraveling of the intricate mechanisms governing cell fate decisions and characterization of the sources and regulatory mechanisms responsible for the control of variability within genetically identical cell populations.

As a postdoctoral fellow at the Molecular Sciences Institute, I developed a combined approach using single cell fluorescence microscopy and genetics of *S. cerevisiae* to understand fate decisions and variability. My work discovered the daughter-cell specific gene expression program orchestrated by the Hippo kinase Cbk1 and transcription factor Ace2. Later, as a senior fellow there, I helped lead a project that combined mathematical modeling with experimental approaches. This work defined and quantified the sources of variability in cell fate decisions dependent on the yeast pheromone response pathway.

As a Professor of Systems Biology at the University of Buenos Aires and PI at the Argentine National Research Council (CONICET), I established a multidisciplinary team in my own lab. Here, we conceptualized and continued to develop groundbreaking methodologies and analytical tools to understand how cell signaling pathways transmit and make decisions on information.

Among our important contributions has been the understanding of "system-level behaviors," including DoRA (Dose Response Alignment), a mechanism that optimizes information transmission in numerous signaling pathways. Additionally, we defined and explored PRESS (PRe Equilibrium Signaling and Sensing), a dynamic signaling mode that amplifies cells' capability to perceive external stimuli. This and other work has been significant for understanding signal transduction in yeast mating response and other systems, and synaptic transmission for some neurotransmitter receptors. It required us to develop microfluidic devices for precise quantification of cellular responses to chemical gradients. Recently, we introduced and began to characterize "Ratiometric Control," a general approach by which systems calculate mathematical ratios to gain robustness against natural component

variation. This work demanded (and still does) novel mathematical modeling approaches for implementation and continued development of experimental designs to understand its operation.

We have published these discoveries in top journals including Cell, Nature, Molecular Cell, PNAS, and Molecular Systems Biology. More recently, to aid this work and to complement long-standing interests, I incorporated artificial intelligence approaches into site directed mutagenesis and other protein design, using AlphaFold structure prediction and other AI tools.

C. Invited Presentations since 2014

Date	Description
11/19	"Héctor Torres Conference" invited speaker at the joint SAIB (Argentine Society for Molecular Biology and Biochemistry) and PABMB (Pan American Biochemistry and Molecular Biology Society), Salta, Argentina.
10/18	"The fourth South American Spring Symposium in Signal Transduction and Molecular Medicine", Bariloche, Argentina
9/17	"Molecular biosystems conference on eukaryotic gene regulation & functional genomics", Puerto Varas, Chile.
4/17	"A multidisciplinary view of biomedical science", Córdoba, Argentina.
11/16	Frontiers in Biosciences Symposium. Max-Planck Society, Buenos Aires, Argentina.
10/16	Argentine Physiology Society annual meeting.
8/15	Q-bio 2015, Virginia Tech, Virginia, USA
9/14	Chilean Society for Molecular Biology and Biochemistry

D. Publications

Total citations: 3671, H index: 28 i10 index: 38 (source: Google Scholar)

citations current as of September 2026

a. Non peer-reviewed

1. Adeline E. Williams, Barbara Del Castello, Jeffrey Lee, Derek Roberts, John P. Tarangelo, Jay Atanda, Alejandro Colman-Lerner, Jeff Gerold, Roger Brent (2026). *Developing a Risk-Scoring Tool for Artificial Intelligence-Enabled Biological Design*. **RAND**. https://www.rand.org/pubs/research_reports/RRA4490-1.html (cited 4 times).

b. Peer-reviewed Publications (a total of 49):

Total citations: 3671, H index: 28 i10 index: 38 (source: Google Scholar)

citations current as of September 2026

1. Helena Braunstein, Alejandra Ventura, Alejandro Colman-Lerner (2025). *Modeling the use of transient ligand binding information by AMPA receptors*. **NPJ Systems Biology and Applications** 11:68. doi [10.1038/s41540-025-00546-6](https://doi.org/10.1038/s41540-025-00546-6).
2. Alan Givré, Alejandro Colman Lerner, Silvina Ponce Dawson (2025). *Amplitude and frequency encoding result in qualitatively distinct informational landscapes in cell signaling*. **Scientific Reports** 15: 8075 (2025) doi: [10.1038/s41598-025-92424-8](https://doi.org/10.1038/s41598-025-92424-8) (1 cita)
1. Lucía Durrieu, Alan Bush and Alejandro Colman-Lerner (2024). *Protocol for FRAP-based estimation of nuclear import and export rates in single yeast cells*. **STAR protocols** 5 (1), 102876. doi: <https://doi.org/10.1016/j.xpro.2024.102876>
2. Nicolás Méndez, German Beldorati, Andreas Constantinou, and Alejandro Colman-Lerner (2023) *rcell2: Microscopy-Based Cytometry in R*. **Current Protocols**, 3, e726. doi: 10.1002/cpz1.726.
3. Alan Givré, Alejandro Colman-Lerner, and Silvina Ponce-Dawson (2023) *Modulation of transcription factor dynamics allows versatile information transmission*. **Scientific Reports**, Vol 13:2652. doi: [10.1038/s41598-023-](https://doi.org/10.1038/s41598-023-)

[29539-3](#). (IF: 4.11). (citations: 2).

4. Lucía Durrieu, Alan Bush, Alicia Grande, Rikard Johansson, David Janzén, Andrea Katz, Gunnar Cedersund, and Alejandro Colman-Lerner. (2023) *Characterization of cell-to-cell variation in nuclear transport rates and identification of its sources*. **iScience** 26, [doi: 10.1016/j.isci.2022.105906](#) (IF: 6.107). (citations: 4).
5. Matías Blaustein, Estefanía Piegari, Camila Martínez Calejman, Antonella Vila, Analía Amante, María Victoria Manese, Ari Zeida, Laurence Abrami, Mariela Veggetti, David A. Guertin, F. Gisou van der Goot, María Martha Corvi and Alejandro Colman-Lerner. (2021) *Akt Is S-Palmitoylated: A New Layer of Regulation for Akt*. **Frontiers in Developmental and Cell Biology** Vol 9 [10.3389/fcell.2021.626404](#) (IF: 5.186). (citations: 22)
6. Gustavo Vasen, Paula Dunayevich, Andreas Constantinou and Alejandro Colman-Lerner. (2020) *GPCR receptor phosphorylation and endocytosis are not necessary to switch polarized growth between internal cues during pheromone response in S. cerevisiae*. **Communicative & Integrative Biology** Vol 13, Issue 1, 128-139 [doi.org/10.1080/19420889.2020.1806667](#) (IF: 2.31) (citations: 3).
7. Matías Blaustein, Sonia Wirth, Gustavo Saldaña, Ana Paula Piantanida, María Eugenia Bogetti, María Eugenia Martin, Alejandro Colman-Lerner, Osvaldo Uchitel. (2020) *A new tool to sense pH changes at the neuromuscular junction synaptic cleft*. **Scientific Reports** Vol10, 20480 [doi.org/10.1038/s41598-020-77154-3](#) (IF: 4.11). (citations: 6)
8. *** Gustavo Vasen, Paula Dunayevich and Alejandro Colman-Lerner. (2020) *Mitotic and pheromone-specific intrinsic polarization cues interfere with gradient sensing in Saccharomyces cerevisiae*. **Proc.Natl.Acad.Sci.U.S.A.**, epub Mar 9 [doi.org/10.1073/pnas.1912505117](#) (IF: 9.35). (citations: 12)
9. Juan Pablo Di Bella, Alejandro Colman-Lerner*, Alejandra Ventura*. (2018) *Properties of cell signaling pathways and gene expression systems operating far from steady-state*. **Scientific Reports** Vol 8, Issue 1, e17035. [doi.org/10.1038/s41598-018-34766-0](#). *: co-corresponding authors. (IF: 4.11) (citations: 10)
10. Paula Dunayevich*, Rodrigo Baltanás*, José Clemente, Alicia Couto, Daiana Sapochnik, Gustavo Vasen and Alejandro Colman-Lerner. (2018) *Heat-stress triggers MAPK crosstalk to turn on the hyper-osmotic response pathway*. **Scientific Reports** Vol 8, Issue 1, e15168. [doi.org/10.1038/s41598-018-33203-6](#). *: equally contributing authors. (IF: 4.11). (citations: 60)
11. *** C. Gustavo Pesce, Stefan Zdraljevic, William J. Peria, Alan Bush, María Victoria Repetto, Daniel Rockwell, Richard Yu, Alejandro Colman-Lerner* and Roger Brent*. (2018) *Single-cell profiling screen identifies microtubule-dependent reduction of variability in cell signaling*. **Molecular Systems Biology** 14(4):e7390. [doi.org/10.15252/msb.20167390](#). *: co-corresponding authors. (IF: 9.6) (citations: 4)
12. *** María Victoria Repetto, Matthew J. Winters, Alan Bush, Wolfgang Reiter, David Maria Hollenstein, Gustav Ammerer, Peter M. Pryciak*, and Alejandro Colman-Lerner*. (2018) *CDK and MAPK Synergistically Regulate Signaling Dynamics via a Shared Multi-site Phosphorylation Region on the Scaffold Protein Ste5*. **Molecular Cell** Vol 69, Issue 6, 15 March 2018, Pages 938–952.e6. [doi.org/10.1016/j.molcel.2018.02.018](#). *: co-corresponding authors. (IF: 11.9) (citations: 44)
13. Edgar Altszyler, Alejandra C. Ventura, Alejandro Colman-Lerner, and Ariel Chernomoretz. (2017). *Ultrasensitivity in signaling cascades revisited: Linking local and global ultrasensitivity estimations*. **Plos One** 12(6):e0180083. [doi.org/10.1371/journal.pone.0180083](#). (IF: 3.2) (citations: 26)
14. *** Alan Bush*, Gustavo Vasen*, Andreas Constantinou#, Paula Dunayevich#, Inés Patop, Matías Blaustein, and Alejandro Colman-Lerner. (2016) *Yeast GPCR signaling reflects the fraction of occupied receptors, not the number*. **Molecular Systems Biology** 12(12):898. [doi.org/10.15252/msb.20166910](#). * o #: equally contributing authors. (IF: 8.9) (citations: 38)
15. *** Steven S. Andrews, William J. Peria, Richard C. Yu, Alejandro Colman-Lerner, Roger Brent. (2016) *Push-Pull and Feedback Mechanisms Can Align Signaling System Outputs with Inputs*. **Cell Systems** 3, 1-12 dx. [doi.org/10.2016/j.cels.2016.10.002](#). (IF: 10.3) (citations: 24)
16. Markus Karlsson, David L.I. Janzén, Lucia Durrieu, Alejandro Colman-Lerner, Maria C. Kjellsson and Gunnar Cedersund. (2015) *Nonlinear mixed-effects modelling for single cell estimation: when, why, and how to use it*. **BMC Systems Biology** 9:52 1-15. [doi.org/10.1186/s12918-015-0203-x](#). (IF: 2.05) (citations: 80)
17. Andreas Doncic, Oguzhan Atay, Ervin Valk, Alicia Grande, Alan Bush, Gustavo Vasen, Alejandro Colman-Lerner, Mart Loog, and Jan M. Skotheim. (2015) *Compartmentalization of a Bistable Switch Enables Memory to*

Cross a Feedback-Driven Transition. Cell 160, 1182–1195. doi.org/10.1016/j.cell.2015.02.032 (IF: 40.6) (citations: 46)

18. Altszyler, E; Ventura, A; Colman-Lerner, A; and Chernomoretz, A. (2014) Impact of upstream and downstream constraints on a signaling module's ultrasensitivity. **Phys. Biol.** 11 066003. doi.org/10.1088/1478-3975/11/6/066003. (IF: 2.56) (citations: 7)
19. *** Ventura, A. C. Bush, A. Vasen, G. Goldin, M. Burkinshaw, B. Bhattacharjee, N., Folch, A. Brent, R. Chernomoretz, A and Colman-Lerner, A. (2014) Utilization of extracellular information before equilibrium receptor binding expands and shifts the input dynamic range. **Proc.Natl.Acad.Sci.U.S.A**, Sep 16;111(37):E3860-9. Epub Aug 29. [doi: 10.1073/pnas.1322761111](https://doi.org/10.1073/pnas.1322761111). (IF: 11.2) (citations: 46)
20. Sigaut L, Pearson JE, Colman-Lerner A, and Ponce Dawson S (2014). *Messages do diffuse faster than messengers: reconciling disparate estimates of the morphogen bicoid diffusion coefficient*. **PLoS Comput Biol** 10(6):e1003629. doi.org/10.1371/journal.pcbi.1003629. (IF: 4.4) (citations: 26)
21. Guillermo Risso, Federico Pelish, Berta Pozzi, Pablo Mammi, Matías Blaustein, Alejandro Colman-Lerner, and Anabella Srebrow. (2013) *Modification of Akt by SUMO conjugation regulates alternative splicing and cell cycle*. **Cell Cycle**, 12:19. doi.org/10.4161/cc.26183 (IF: 3.3) (citations: 35)
22. Matías Blaustein, Daniela Pérez-Munizaga, Manuel Alejandro Sánchez, Carolina Urrutia, Alicia Grande, Guillermo Risso, Anabella Srebrow, Jennifer Alfaro and Alejandro Colman-Lerner. (2013) *Modulation of the Akt Pathway Reveals a Novel Link with PERK/eIF2alpha, which Is Relevant During Hypoxia*. **PlosONE**, Jul 29;8(7):e69668. doi.org/10.1371/journal.pone.0069668 (IF: 3.2) (citations: 31)
23. *** Rodrigo Baltanás, Alan Bush, Alicia Couto, Lucía Durrieu, Stefan Hohmann, and Alejandro Colman-Lerner. (2013). *Pheromone-induced morphogenesis improves osmoadaptation capacity by activating the HOG MAPK pathway*. **Science Signaling**, Apr 23;6(272):ra26. doi: 10.1126/scisignal.2003312. doi.org/10.1126/scisignal.2003312 (IF: 8.1) (citations: 59)
24. *** Alan Bush and Alejandro Colman-Lerner. (2013) *Quantitative measurement of protein relocation in live cells*. **Biophysical Journal** 104:727. doi.org/10.1016/j.bpj.2012.12.030 (IF: 4.03) (citations: 23)
25. Jörg Schaber, Rodrigo Baltanas, Alan Bush, Edda Klipp, and Alejandro Colman-Lerner. (2012) *Modelling reveals novel roles of two parallel signalling pathways and homeostatic feedbacks in yeast*. **Molecular Systems Biology** 8:622. doi.org/10.1038/msb2012.53. (IF: 11.4) (citations: 76)
26. Alan Bush, Ariel Chernomoretz, Richard Yu, Andrew Gordon, and Alejandro Colman-Lerner. (2012). *Using Cell-ID 1.4 with R for Microscope-Based Cytometry*. **Current protocols in molecular biology**, capítulo 14, unidad 14.18. doi.org/10.1002/0471142727.mb1418s100.
27. Marina Riggio, María Laura Polo, Matías Blaustein, Alejandro Colman-Lerner, Isabel Lüthy, Claudia Lanari and Virginia Novaro. (2012). *PI3K/AKT pathway regulates ligand-independent activation of steroid receptors, hormone independence and tumor differentiation in breast cancer*. **Carcinogenesis**, 33(3):509-18. doi.org/10.1093/carcin/bgr303. (IF: 5.3) (citations: 58)
28. *** Ty M. Thomson, Ty M, Benjamin, Kirsten R., Bush, Alan , Love, Tonya, Pincus, David, Resnekov, Orna, Yu, Richard C., Gordon, Andrew, Colman-Lerner, Alejandro, Endy, Drew, and Brent, Roger. (2011). *Scaffold number in yeast signaling system sets tradeoff between system output and dynamic range*. **Proc.Natl.Acad.Sci.U.S.A**, 108(50):20265-70. doi.org/10.1073/pnas.1004042108 (IF: 11.2) (citations: 92)
29. Bodenmiller, Bernd; Wanka, Stefanie; Kraft, Claudine; Urban, Jörg; Campbell, David; Pedrioli, Patrick; Gerrits, Bertran; Picotti, Paola; Lam, Henry; Vitek, Olga; Brusniak, Mi-Youn; Roschitzki, Bernd; Zhang, Chao; Schlapbach, Ralph; Shokat, Kevan; Colman-Lerner, Alejandro; Nesvizhskii, Alexey; Peter, Matthias; Loewith, Robbie; von Mering, Christian, and Aebersold, Ruedi. (2010). *Phosphoproteomic Analysis Reveals Interconnected System-Wide Responses to Perturbations of Kinases and Phosphatases in Yeast*. **Science Signaling** 3, 153. doi.org/10.1126/scisignal.2001182. (IF: 8.1) (citations: 372)
30. Sigaut, L., Ponce, M.L., Colman-Lerner, A., and Ponce Dawson, S. (2010). *Optical techniques provide information on various effective diffusion coefficients in the presence of traps*. **Physical Review E** 82(5), 051912. doi.org/10.1103/PhysRevE.82.051912. (IF: 2.5) (citations: 12)
31. *** Yu, R., C., Pesce, C. G., Colman-Lerner, A., Lok, L., Pincus, D., Serra, E., Holl, M., Benjamin, K., Gordon, A. and Brent, R. (2008). *Negative feedback that improves information transmission in yeast signalling*. **Nature** 465,

755-761. doi.org/10.1038/nature07513. (IF: 49.9) (citations: 262)

32. Yu, R.C., Resnekov, O., Abola, P., Andrews, A., Benjamin, K., Bruck, J., Burbulis, I., Colman-Lerner, A., Endy, D., Gordon, A., Holl, M., Lok, L., Maxwell, R., Pesce, C.G., Serra, E., Smith, R.D., Thomson, T., Tsong, A., and Brent, R. (2008). *The Alpha Project, a model system for systems biology research*. **IET Systems Biology**, 2, 222-233. doi.org/10.1049/iet-syb:20080127. (IF: 1.76) (citations: 8)
33. Chernomoretz, A., Bush, A., Yu, R., Gordon, A., and Colman-Lerner, A. (2008). *Using Cell-ID-1.4 with R for microscope-based cytometry*. **Current protocols in molecular biology**. Capítulo 14, unidad 18. Edited by Frederick M. Ausubel et al. doi.org/10.1002/0471142727.mb1418s84. (citations: 14)
34. *** Gordon, A. #, Colman-Lerner, A.#, Chin, T.E., Benjamin, K.R., Yu, R.C., and Brent, R. (2007). *Single-cell quantification of molecules and rates using open-source microscope-based cytometry*. **Nat Methods** 4, 175-181. *: equally contributing authors. #: corresponding author. doi.org/10.1038/nmeth1008. (IF: 28.5) (citations: 292)
35. Fazzini, M., Vallejo, G., Colman-Lerner, A., Trigo, R., Campo, S., Baranao, J. L. & Saragueta, P. (2006). *Transforming growth factor- β 1 regulates follistatin mRNA expression during in vitro bovine granulosa cell differentiation*. **J Cell Physiol** 207(1): 40-48. doi.org/10.1002/jcp.20533 (IF: 6.3) (citations: 11)
36. *** Colman-Lerner, A.#, Gordon, A.#, Serra, E., Chin, T., Resnekov, O., Endy, D., Pesce, C.G., and Brent, R.#. (2005). *Regulated cell-to-cell variation in a cell-fate decision system*. **Nature** 437, 699-706. *: equally contributing authors. # corresponding authors). doi.org/10.1038/nature03998. (IF: 49.9) (citations: 550)
37. Novaro, V., Pustovrh, C., Colman-Lerner, A., Radisky, D., Lo Nostro, F., Paz, D., Jawerbaum, A. and Gonzalez, E. (2002). *"Nitric oxide induces gelatinase A (matrix metalloproteinase 2) during rat embryo implantation."* **Fertility and Sterility** 78(6): 1278-87. [doi.org/10.1016/s0015-0282\(02\)04240-1](https://doi.org/10.1016/s0015-0282(02)04240-1) (IF: 3.7) (citations: 51)
38. Chiappe, M. E., Lattanzi, M. L., Colman-Lerner, A. A., Baranao, J. L. and Saragueta, P. (2002). *"Expression of 3 beta-hydroxysteroid dehydrogenase in early bovine embryo development."* **Molecular Reproduction and Development** 61(2): 135-41. doi.org/10.1002/mrd.1140 (IF: 2.1) (citations: 6)
39. Novaro, V., Colman-Lerner, A., Ortega, F. V., Jawerbaum, A., Paz, D., Lo Nostro, F., Pustovrh, C., Gimeno, M. F. and Gonzalez, E. (2001). *"Regulation of metalloproteinases by nitric oxide in human trophoblast cells in culture."* **Reproduction Fertility and Development** 13(5-6): 411-20. doi.org/10.1071/rd01036 (IF: 1.7) (citations: 73)
40. *** Colman-Lerner, A.*, Chin, T.E., and Brent, R. (2001). *Yeast Cbk1 and Mob2 activate daughter-specific genetic programs to induce asymmetric cell fates*. **Cell** 107, 739-750. [doi.org/10.1016/s0092-8674\(01\)00596-7](https://doi.org/10.1016/s0092-8674(01)00596-7). * corresponding author. (IF: 41.6) (citations: 407)
41. Colman-Lerner, A., and Brent, R. (2000). *Using Peptide Aptamers to Analyse the Proteome*. New Technologies for Life Sciences: **A Trends Guide Special Issue**, 56-60.
42. Pomata, P. E., Colman-Lerner, A. A., Baranao, J. L. and Fiszman, M. L. (2000). *"In vivo evidences of early neurosteroid synthesis in the developing rat central nervous system and placenta."* **Brain Research, Developmental Brain Research** 120(1): 83-6. [doi.org/10.1016/s0165-3806\(99\)00181-9](https://doi.org/10.1016/s0165-3806(99)00181-9) (IF: 2.95) (citations: 49)
43. *** Geyer, C.R., Colman-Lerner, A.*, and Brent, R. (1999). *"Mutagenesis" by peptide aptamers identifies genetic network members and pathway connections*. **Proc.Natl.Acad.Sci.U.S.A** 96, 8567-8572. *: corresponding author". doi.org/10.1073/pnas.96.15.8567. (IF: 11.2) (citations: 127)
44. *** Colman-Lerner, A., Fischman, M.L., Lanuza, G.M., Bissell, D.M., Kornblihtt, A.R., and Baranao, J.L. (1999). *Evidence for a role of the alternatively spliced ED-I sequence of fibronectin during ovarian follicular development*. **Endocrinology** 140, 2541-2548. doi.org/10.1210/en.140.6.2541 (IF: 4.7) (citations: 31)
45. Pignataro, L., Colman-Lerner, A. A., Baranao, J. L. and de Plazas, S. F. (1998). *"Biosynthesis of progesterone derived neurosteroids by developing avian CNS: in vitro effects on the GABAA receptor complex."* **International Journal of Developmental Neuroscience** 16(5): 433-41. [doi.org/10.1016/s0736-5748\(98\)00015-x](https://doi.org/10.1016/s0736-5748(98)00015-x) (IF: 2.45) (citations: 14)

46. Colman-Lerner, A. A., Fischman, M. L., Lanuza, G., Cramer, P., Kornblihtt, A. and Baranao, J. L. (1997). "[Role of different forms of fibronectin in vitro bovine follicular development]." **Medicina (B Aires)** 57(3): 332-6. [pmid: 9640769](#) (IF: 0.5)
47. Colman-Lerner, A. A., Salamone, D. F., Chiappe, M. E. and Baranao, J. L. (1995). "Comparative studies between freshly isolated and spontaneously immortalized bovine granulosa cells: protein secretion, steroid metabolism, and responsiveness to growth factors." **Journal of Cellular Physiology** 164(2): 395-403. [doi.org/10.1002/jcp.1041640220](#) (IF: 6.4) (citations: 47)

E. Selected Research Support

2022-2025. National Agency for the Promotion of Science and Technology ANPCyT (PICT2021-0724). "Ratiometric control as a ubiquitous regulatory architecture in *S.cerevisiae*. Principal Investigator. Dr. Alejandro Colman-Lerner. ONGOING

2021-2024. ANPCyT (PICT2019-1455). Grant for Established Groups. "Systems Biology of Signal Transduction Pathways: Transient Memory and Irreversible Cell Fate Decisions. Principal Investigator: Dr. Alejandro Colman-Lerner. ONGOING

2018-2022. ANPCyT (PICT2016-0949). Mechanisms that generate robustness and cellular memory in the activation of the mating response in *S. cerevisiae*. Principal Investigator: Dr. Alejandro Colman-Lerner.

2017-2022. ANPCyT (PICT2015-3824). Grant for Internationally established groups. Information transmission in signaling pathways: the temporal dimension. Principal Investigator Principal: Dr. Alejandro Colman-Lerner.

2011-2016. National Institutes of Health. RO1 GM07479-01: "Dynamics of gradient sensing in single cells". Principal Investigator: Roger Brent (Fred Hutchinson Cancer Research Center, Seattle, WA USA). Co-PI: Alejandro Colman-Lerner.

F. Human Resources

1. Mentored 3 young researchers within the National Research Council: Alejandra Ventura, Matías Blaustein and Lucía Durrieu
2. PhD advisor of 12 students at the School of Natural and Exact Sciences at the University of Buenos Aires
3. Graduating thesis advisor of 10 undergrad students at the School of Natural and Exact Sciences at the University of Buenos Aires.
4. Had 10 postdoctoral students.