# Alejandro A Colman-Lerner

List of Publications by Year
in descending order



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|---|---|---|---|
| 43 papers | 2,441 citations | 304743 22 h-index | 265206 42 g-index |
| 48 all docs | 48 docs citations | 48 times ranked | 3148 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Regulated cell-to-cell variation in a cell-fate decision system. Nature, 2005, 437, 699-706. | 27.8 | 419 |
| 2 | Yeast Cbk1 and Mob2 Activate Daughter-Specific Genetic Programs to Induce Asymmetric Cell Fates. Cell, 2001, 107, 739-750. | 28.9 | 315 |
| 3 | Phosphoproteomic Analysis Reveals Interconnected System-Wide Responses to Perturbations of Kinases and Phosphatases in Yeast. Science Signaling, 2010, 3, rs4. | 3.6 | 277 |
| 4 | Negative feedback that improves information transmission in yeast signalling. Nature, 2008, 456, 755-761. | 27.8 | 208 |
| 5 | Single-cell quantification of molecules and rates using open-source microscope-based cytometry. Nature Methods, 2007, 4, 175-181. | 19.0 | 203 |
| 6 | "Mutagenesis" by peptide aptamers identifies genetic network members and pathway connections. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8567-8572. | 7.1 | 99 |
| 7 | Scaffold number in yeast signaling system sets tradeoff between system output and dynamic range. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20265-20270. | 7.1 | 57 |
| 8 | Modelling reveals novel roles of two parallel signalling pathways and homeostatic feedbacks in yeast. Molecular Systems Biology, 2012, 8, 622. | 7.2 | 56 |
| 9 | Regulation of metalloproteinases by nitric oxide in human trophoblast cells in culture. Reproduction, Fertility and Development, 2001, 13, 411. | 0.4 | 51 |
| 10 | PI3K/AKT pathway regulates phosphorylation of steroid receptors, hormone independence and tumor differentiation in breast cancer. Carcinogenesis, 2012, 33, 509-518. | 2.8 | 47 |
| 11 | Heat-stress triggers MAPK crosstalk to turn on the hyperosmotic response pathway. Scientific Reports, 2018, 8, 15168. | 3.3 | 46 |
| 12 | In vivo evidences of early neurosteroid synthesis in the developing rat central nervous system and placenta. Developmental Brain Research, 2000, 120, 83-86. | 1.7 | 45 |
| 13 | Compartmentalization of a Bistable Switch Enables Memory to Cross a Feedback-Driven Transition. Cell, 2015, 160, 1182-1195. | 28.9 | 45 |
| 14 | Pheromone-Induced Morphogenesis Improves Osmoadaptation Capacity by Activating the HOG MAPK Pathway. Science Signaling, 2013, 6, ra26. | 3.6 | 44 |
| 15 | Nonlinear mixed-effects modelling for single cell estimation: when, why, and how to use it. BMC Systems Biology, 2015, 9, 52. | 3.0 | 40 |
| 16 | CDK and MAPK Synergistically Regulate Signaling Dynamics via a Shared Multi-site Phosphorylation Region on the Scaffold Protein Ste5. Molecular Cell, 2018, 69, 938-952.e6. | 9.7 | 39 |
| 17 | Nitric oxide induces gelatinase A (matrix metalloproteinase 2) during rat embryo implantation. Fertility and Sterility, 2002, 78, 1278-1287. | 1.0 | 38 |
| 18 | Yeast <scp>GPCR</scp> signaling reflects the fraction of occupied receptors, not the number. Molecular Systems Biology, 2016, 12, 898. | 7.2 | 36 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Modification of Akt by SUMO conjugation regulates alternative splicing and cell cycle. Cell Cycle, 2013, 12, 3354-3363. | 2.6 | 32 |
| 20 | Utilization of extracellular information before ligand-receptor binding reaches equilibrium expands and shifts the input dynamic range. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E3860-9. | 7.1 | 32 |
| 21 | Messages Do Diffuse Faster than Messengers: Reconciling Disparate Estimates of the Morphogen Bicoid Diffusion Coefficient. PLoS Computational Biology, 2014, 10, e1003629. | 3.2 | 31 |
| 22 | Modulation of the Akt Pathway Reveals a Novel Link with PERK/eIF2Î±, which Is Relevant during Hypoxia. PLoS ONE, 2013, 8, e69668. | 2.5 | 30 |
| 23 | Comparative studies between freshly isolated and spontaneously immortalized bovine granulosa cells: Protein secretion, steroid metabolism, and responsiveness to growth factors. Journal of Cellular Physiology, 1995, 164, 395-403. | 4.1 | 28 |
| 24 | Push-Pull and Feedback Mechanisms Can Align Signaling System Outputs with Inputs. Cell Systems, 2016, 3, 444-455.e2. | 6.2 | 26 |
| 25 | Ultrasensitivity in signaling cascades revisited: Linking local and global ultrasensitivity estimations. PLoS ONE, 2017, 12, e0180083. | 2.5 | 20 |
| 26 | Akt Is S-Palmitoylated: A New Layer of Regulation for Akt. Frontiers in Cell and Developmental Biology, 2021, 9, 626404. | 3.7 | 20 |
| 27 | Quantitative Measurement of Protein Relocalization in Live Cells. Biophysical Journal, 2013, 104, 727-736. | 0.5 | 17 |
| 28 | Using Cellâ€ID 1.4 with R for Microscopeâ€Based Cytometry. Current Protocols in Molecular Biology, 2008, 84, Unit 14.18. | 2.9 | 16 |
| 29 | Evidence for a Role of the Alternatively Spliced ED-I Sequence of Fibronectin during Ovarian Follicular Development1. Endocrinology, 1999, 140, 2541-2548. | 2.8 | 15 |
| 30 | Using Cellâ€ID 1.4 with R for Microscopeâ€Based Cytometry. Current Protocols in Molecular Biology, 2012, 100, Unit 14.18. | 2.9 | 15 |
| 31 | Biosynthesis of progesterone derived neurosteroids by developing avian CNS : in vitro effects on the gabaa receptor complex. International Journal of Developmental Neuroscience, 1998, 16, 433-442. | 1.6 | 14 |
| 32 | Optical techniques provide information on various effective diffusion coefficients in the presence of traps. Physical Review E, 2010, 82, 051912. | 2.1 | 14 |
| 33 | Transforming growth factor Î²1 regulates follistatin mrna expression during in vitro bovine granulosa cell differentiation. Journal of Cellular Physiology, 2006, 207, 40-48. | 4.1 | 13 |
| 34 | The Alpha Project: a model system for systems biology research. IET Systems Biology, 2008, 2, 222-233. | 1.5 | 11 |
| 35 | Mitotic and pheromone-specific intrinsic polarization cues interfere with gradient sensing in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6580-6589. | 7.1 | 10 |
| 36 | Expression of 3Î²-hydroxysteroid dehydrogenase in early bovine embryo development. Molecular Reproduction and Development, 2002, 61, 135-141. | 2.0 | 8 |

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|---|---|---|---|
| 37 | Properties of cell signaling pathways and gene expression systems operating far from steady-state. Scientific Reports, 2018, 8, 17035. | 3.3 | 7 |
| 38 | Singleâ€cell profiling screen identifies microtubuleâ€dependent reduction of variability in signaling. Molecular Systems Biology, 2018, 14, e7390. | 7.2 | 5 |
| 39 | Evidence for a Role of the Alternatively Spliced ED-I Sequence of Fibronectin during Ovarian Follicular Development. Endocrinology, 1999, 140, 2541-2548. | 2.8 | 5 |
| 40 | Impact of upstream and downstream constraints on a signaling moduleâ€™s ultrasensitivity. Physical Biology, 2014, 11, 066003. | 1.8 | 4 |
| 41 | GPCR receptor phosphorylation and endocytosis are not necessary to switch polarized growth between internal cues during pheromone response in S. cerevisiae. Communicative and Integrative Biology, 2020, 13, 128-139. | 1.4 | 1 |
| 42 | Synthetic Crossfeeding Cocultures in Yeast: Computational Model of Autoregulation and Design of a Tryptophan Export Device. Journal of Synthetic Biology, 2015, 2015, 1-10. | 0.0 | 0 |
| 43 | Abstract 1316: Overactivation of AKT promotes hormone-independent mammary tumors. , 2011, , . | | 0 |